ANNUAL REPORT 2020

ONE
CIRCULAR
VISION

covestro

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FORWARD-LOOKING STATEMENTS

This Annual Report may contain certain forward-looking statements based on current assumptions and forecasts made by the management of Covestro AG. Various known and unknown risks, uncertainties, and other factors could lead to material differences between the actual future results, financial situation, development, or performance of the Group and the estimates given here. These factors include those discussed in Covestro's public reports, which are available on our website **www.covestro.com**. The Group assumes no liability whatsoever to update such forward-looking statements or to conform them to future events or developments.

NONFINANCIAL REPORTING

Covestro reports comprehensively and transparently about topics important from the Company's perspective and for our stakeholders. We measure our sustainability performance using financial indicators as well as key nonfinancial indicators published in the Group Management Report. Our objective here is to underscore how closely linked environmental and societal factors are with the long-term success of our business.

The Group Management Report and the supplementary sustainability information together comprise our annual sustainability reporting. This report covers the period from January 1 to December 31, 2020. The Covestro Group's nonfinancial statement in accordance with Sections 315b and 315c in conjunction with Sections 289c through 289e of the German Commercial Code (HGB) is integrated into 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, the due diligence processes followed, as well as the outcomes of these strategies. Nonfinancial performance indicators are reported only when these are important to the Covestro Group.

As an integral part of the Group Management Report, the nonfinancial statement was audited with reasonable assurance by our auditor, KPMG AG Wirtschaftsprüfungsgesellschaft. The supplementary sustainability information specifically identified as such additionally contributes to the transparency of our reporting, which meets the requirements of the "Core" option of the Global Reporting Initiative's (GRI) Sustainability Reporting Standards (SRS).

This reporting year, we have once again highlighted content aligned with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). An overview of this information immediately precedes the GRI Index.

ROUNDING

As the indicators in this Report are stated in accordance with commercial rounding principles, totals and percentages may not always be exact.

PERCENTAGE DEVIATIONS

Percentage deviations are only calculated and reported if they are no more than 100%. Larger deviations are reported as >100%, >200%, etc. If a deviation changes from positive to negative or vice versa, or if it is greater than 1,000%, this is shown by a period.

EQUAL TREATMENT

We consider equal treatment to be important. To ensure better readability, this Report avoids gender-specific wordings. All terms should be taken to apply equally to all genders.

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). These non-IFRS indicators should be considered a supplement to, not a replacement for, the performance measures determined in accordance with IFRSs. The alternative performance measures of relevance to the Covestro Group include EBITDA, return on capital employed (ROCE), free operating cash flow (FOCF), and net financial debt. 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.

Explanations of the definition and calculation of these alternative performance measures can be found in the "Management" section.

PUBLICATION

The publication of this Annual Report does not comply with the legally required uniform electronic reporting format pursuant to Section 328, Paragraph 1, Sentence 4 HGB. A report in this format has been submitted to the operator of the electronic Federal Gazette in Germany and is accessible via the website www.unternehmensregister.de.

This Annual Report was published on February 23, 2021. It is available in German and English. Only the German version is binding.

KEY DATA

COVESTRO GROUP

	2019	2020	Change
	€ million	€ million	%
Core volume growth[1, 2]	**+2.0%**	**–5.6%**	
Sales	12,412	10,706	–13.7
Change in sales			
Volume	+0.8%	–5.1%	
Price	–17.3%	–5.7%	
Currency	+1.9%	–1.6%	
Portfolio	–0.5%	–1.3%	
Sales by region			
EMLA[3]	5,289	4,600	–13.0
NAFTA[4]	3,141	2,554	–18.7
APAC[5]	3,982	3,552	–10.8
EBITDA[6]	**1,604**	**1,472**	**–8.2**
Changes in EBITDA			
of which volume	+2.3%	–24.9%	
of which price	–79.2%	–44.2%	
of which raw material price effect	+15.1%	+52.4%	
of which currency	+1.3%	–1.6%	
EBIT[7]	852	696	–18.3
Financial result	(91)	(91)	0.0
Net income[8]	552	459	–16.8
Earnings per share (€)[9]	3.02	2.48	–17.9
Operating cash flows[10]	1,383	1,234	–10.8
Cash outflows for additions to property, plant, equipment and intangible assets	910	704	–22.6
Free operating cash flow[11]	**473**	**530**	**+12.1**
Net financial debt[12, 13]	989	356	–64.0
ROCE[14]	**+8.4%**	**+7.0%**	
Employees (in FTE)[13, 15]	17,201	16,501	–4.1

1 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 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.
2 Reference values calculated on the basis of the definition of the core business effective March 31, 2020.
3 EMLA: Europe, Middle East, Africa, and Latin America (excluding Mexico) region
4 NAFTA: United States, Canada, and Mexico region
5 APAC: Asia and Pacific region
6 EBITDA: EBIT plus depreciation, amortization, and impairment losses; less impairment loss reversals
7 EBIT: income after income taxes plus financial result and income tax expense
8 Net income: income after income taxes attributable to the shareholders of Covestro AG
9 Earnings per share: according to IAS 33, net income divided by the weighted average number of outstanding no-par value voting shares of Covestro AG. The calculation was based on 184,912,207 no-par value shares (previous year: 182,704,602 no-par value shares).
10 Operating cash flows: cash flows from operating activities according to IAS 7
11 Free operating cash flow: operating cash flows less cash outflows for additions to property, plant, equipment, and intangible assets
12 Excluding provisions for pensions and other post-employment benefits
13 As of December 31, 2020 compared with December 31, 2019
14 ROCE: The return on capital employed is calculated as the ratio of EBIT after taxes to capital employed. Capital employed is the capital used by the company. It is the sum of noncurrent and current assets less noninterest-bearing liabilities such as trade accounts payable.
15 Employees calculated as full-time equivalents (FTE)

FOREWORD

Markus Steilemann: Dear Readers, the year 2020 has shown us how quickly the world can change. Yet, despite unforeseen challenges, Covestro has set its sights firmly on the future: With our focus on the circular economy, sustainability is now even more strongly rooted in the center of our activities. We are concentrating fully on our customers, we are growing, and we feel the solidarity of our employees more than ever. We have demonstrated that we have what it takes to succeed, even under difficult conditions.

Klaus Schäfer: We reacted quickly to the coronavirus pandemic and took decisive measures. It was particularly important to protect our entire workforce and to maintain production for our customers. Safety has the highest priority for us, and it is precisely this culture that helped us to protect our employees and to get safely through the coronavirus pandemic last year.

Thomas Toepfer: Yes, we took the right measures early on and then, in the second half of the year, benefited from our focus on efficiency and cost savings. When the markets began to recover from mid-year onwards, we were also able to significantly increase the volumes sold in our core business. Due to our very good second half of the year, we were able to partly compensate for the cutbacks in the first half. This development confirms that we are on the right course – we remain cost-conscious and continue to focus on our customers in order to co-create value in the market.

Sucheta Govil: It is precisely this customer orientation that is key, especially in challenging times. I am therefore particularly proud that we have been such a reliable partner for our customers during this eventful year. This was possible thanks to our dedicated employees and our global set-up. We were in contact with our customers via digital channels around the clock. This enabled us to meet their needs in optimal fashion and to deliver quickly and in high quality, as well as to support them with technical expertise in the development of special products.

»The transition to a circular economy now also charts the direction of our new group strategy.«

Dr. Markus Steilemann
Chief Executive Officer

Videostatement Dr. Markus Steilemann:
report.covestro.com/short/ms20

»Customer orientation is key. I am proud that we have been such a reliable partner for our customers during this eventful year.«

Sucheta Govil, Chief Commercial Officer

Videostatement Sucheta Govil:
report.covestro.com/short/sg20

»We are consistently pursuing the goal of climate-neutral production.«

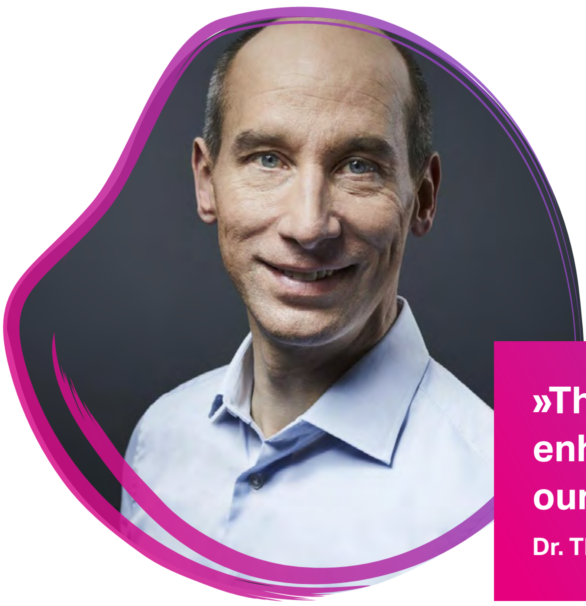
Dr. Klaus Schäfer, Chief Technology Officer

Videostatement Dr. Klaus Schäfer:
report.covestro.com/short/ks20

Klaus Schäfer: And this knowledge about our customers is important for new developments, too. For example, we are consistently pursuing the goal of climate-neutral production: In Spain, we are now constructing the first world-scale facility for chlorine production based on our energy-saving membrane technology. And in Germany, a new pilot plant is demonstrating how we can massively reduce our CO_2 emissions in MDI production. At the same time, we are also supporting our customers' growth and have expanded both our global film production and our polycarbonate production in the year 2020.

Sucheta Govil: Indeed, we put the customer at the center of all we do and operate successfully – but we also go beyond that and want to contribute to solving the problems of the world. This is why we are steadily orienting our product portfolio toward sustainable solutions, as demonstrated by the announced acquisition of DSM's Resins & Functional Materials business (RFM): We are combining innovation capabilities and sustainable product portfolios with complementary technologies and customer industries. As a result, we are becoming one of the leading suppliers of sustainable coating resins.

Thomas Toepfer: Yes, this announced acquisition is an important step on our path toward a circular economy and enhances the growth trajectory of our business. We are expanding our portfolio by adding sustainable and innovation-driven businesses, and thus creating significant value. Yet the topic of sustainability has also been important for us in other areas in 2020. For the first time, we have linked a credit facility with an environmental, social and governance (ESG) rating. The more sustainable we become, the lower the interest component will be.



»The announced RFM-acquisition enhances the growth trajectory of our business.«

Dr. Thomas Toepfer, Chief Financial Officer

Videostatement Dr. Thomas Toepfer:
report.covestro.com/short/tt20

Markus Steilemann: Speaking of sustainability: Fortunately, building a climate-neutral future now ranks much higher on the world's agenda. And we at Covestro are forging ahead with this issue: We will be fully circular – as set out in our vision in the year 2020. I am convinced that circularity will and must become the global guiding principle for us all. It is the key to protecting the climate and the environment. And our plastics also have a role to play here, because they are ultimately indispensable to a sustainable future.

Sucheta Govil: By saying that we want to accelerate the change to a circular economy, we are talking about more than just the development of particularly sustainable products. We want to move completely away from fossil raw materials and toward fossil-free production. We want to make increasing use of renewable energy and establish new recycling technologies. Overall, we want to push boundaries – in collaborative partnerships too, because new solutions will not emerge in isolation.

Klaus Schäfer: And we passed a milestone last year in this regard: We received the first delivery of renewable phenol from our partners Borealis and Neste – produced from renewable hydrocarbons. We now use this phenol to manufacture our polycarbonate. In addition, we were able to certify our first sites for the use of biobased raw materials. This is how sustainable value chains work.

Markus Steilemann: The transition to a circular economy now also charts the direction of our new group strategy. First, we want to ensure that Covestro is in an ideal position to offer our customers what is best for their business. So we are consequently aligning our processes and products with customer needs. In addition, we want to address sustainability in a profitable way. To ensure sustainable growth and a future-proof portfolio, we want to invest in market segments that are attractive and sustainable over the long term and expand the share of circular products. The goal is clear: We will be fully circular. Our innovation capabilities and digitalization initiatives, together with our unique "We are 1" corporate culture, provide the strong foundation for future implementation.

Thomas Toepfer: To me it is precisely this team spirit that was key to sustaining us through this exceptional year. Every single employee has made a valuable contribution and supported the company with solidarity measures. Together they have ensured business continuity and customer supply. They have all worked closely together, even without direct personal contact. We have all demonstrated great resolve in driving Covestro forward – and we can be very proud of this team effort.

Markus Steilemann: Yes – and for this we would like to express our thanks! The past months have placed great demands on everyone at Covestro. But the dedication shown daily by all our employees and their commitment to our shared values is what makes us successful. On top of that, we are heading in the right strategic direction. Although the circumstances may remain challenging, our intense focus on sustainability and our orientation toward the circular economy are paving the way toward a bright future for Covestro.

Sincerely

Dr. Markus Steilemann　　Sucheta Govil　　Dr. Klaus Schäfer　　Dr. Thomas Toepfer

COLLABORATE

ACCELERATE

ONE CIRCULAR VISION

INNOVATE

The circular economy is becoming a global guiding principle. There is plenty still to be done if it is to be achieved: from recycling all waste to abandoning fossil raw materials and energy sources. Plastics play a key role in this endeavor. Covestro wants to drive the industry forward. We will become fully circular.

This is our vision.

ACCELERATE

GAINING TRACTION TOWARDS BECOMING FULLY CIRCULAR

Humanity is pushing the planet to its tipping point. Unsustainable production and consumption patterns must become a thing of the past. It is essential that businesses and society become climate neutral and resource conserving – and fast. For Covestro, this means rethinking waste. It means switching to renewable energy. And it means a profound culture change.

PARADIGM SHIFT

Plastics are indispensable in modern life. Many advances in medical technology and sustainable construction, and many products, from renewable energy to electronics, would not be possible without them. It is therefore hardly surprising that 8.3 billion metric tons of plastics were produced worldwide between 1950 and 2015. At the same time, today's consumer behavior and throwaway society are placing a massive burden on the planet. More than 40 percent of the plastics currently produced are used just once and then thrown away, ending up in landfills or in the environment. Fewer than 20 percent of all waste is recycled. One of the benefits of plastic, its durability, also makes it a long-term problem when discarded inappropriately.

"Plastic waste in the environment has become a global challenge. Solving it is both extremely complex and urgently needed," says Prof. Volker Sick from the University of Michigan, who specializes in the use of CO_2 as a raw material. "In order to address this challenge and make a circular economy become reality, companies and every single one of us must completely rethink waste. Generating and dumping waste can no longer be considered appropriate."

WASTE AS A RESOURCE

This ties in with the concepts of value and prosperity. On the one hand, waste must be seen as an asset, a valuable resource. On the other hand, the most profitable production methods and products currently used are not always the most sustainable. In short: A paradigm shift is needed.

The world must make a circular economy the guiding principle. This can only work if the economy acts in close cooperation across all sectors, with a tailwind from politics, as well as the awareness and conscious support of each individual. As the basis of modern life, plastics play a key role in this endeavor. And Covestro is a driving force.

Video on the circular economy:
report.covestro.com/short/acc1

What do you think?

By what percentage could environmental pollution with plastic waste be reduced by 2040 through consistent circularity?

50% 70% 80%

Answer: 80%

Martin Neubert, CEO of Ørsted Offshore-Wind, discusses renewable energy with Covestro's Chief Technology Officer (CTO) Dr. Klaus Schäfer: **report.covestro.com/short/acc2**

ALL SIGNALS SET TO GREEN

The circular economy is only really sustainable if green electricity is used in production processes and in the supply of energy in general. For this reason, Covestro is investing in alternative energies and optimizing its infrastructure with a view to making production as environmentally compatible as possible.

We are gradually integrating green electricity into our production mix. The first milestone: Starting in 2025, Danish electricity supplier Ørsted will cover part of our German electricity requirement with North Sea wind power for a ten-year period. The agreement for a capacity of 100 megawatts – sufficient to meet the electricity needs of 300,000 people – is one of the world's biggest industrial green power purchase agreements for offshore wind energy.

CONSUME LESS, SWITCH SUPPLY

To support and accelerate this process, we are also steadily making our production processes more energy-efficient. New technologies and artificial intelligence are helping us here. For instance, the energy efficiency system STRUCTese® developed by Covestro uses data from our plants to optimize their energy usage. And at our Spanish site in Tarragona, we will soon produce basic chemicals via a process that can reduce energy usage by one quarter. In Brunsbüttel, Germany, we are manufacturing the rigid foam component MDI via a new technology that also uses up to 25 percent less electricity than before.

Thus, step by step, we are coming closer to achieving both our short-term and long-term goals: to halve the 2005 level of greenhouse gas emissions per metric ton of product by 2025, and to gear all our operations to the circular economy – with the increasing use of green electricity.

What do you think?

By when does the European Union aim to become climate-neutral?

2035

2050

2075

Answer: 2050

THE STRENGTH WITHIN

Becoming fully circular is the challenge of a century. The challenge and responsibility, for us as company and as individuals, is to leave the planet inhabitable for our children and future generations. It is a challenge that we can only meet together. A responsibility that we can only live up to if we act as one, and if we all contribute. It is in pursuit of this vision that Covestro is re-aligning its strategy and its corporate culture.

CULTURE AS THE BASIS FOR OUR VISION

To develop our new strategy, we asked ourselves who we want to be and how we can achieve our vision, while remaining a reliable supplier, an appreciated partner in the value chain and a respected employer. We want to become the best version of ourselves that we can possibly be – and to do so as one. We understand that this journey starts with us – with strength from within and with a powerful culture.

We have weathered the challenges of 2020 under the flag of our "We are 1" culture. We will further incorporate this culture into our recruitment and personnel development processes and our daily corporate practices. We will be supported by a model based on the pillars of "acting responsibly", "wanting better", "winning together" and "leading forward". With our common understanding, and our diverse and engaged 16,500-strong workforce acting as one, Covestro can become circular. We can then leverage our potential, be a motor for innovation, combine sustainability and profitability, and ensure our place in a world without fossil energy and resources. This is our goal.

»Our corporate culture will be key in our efforts to become fully circular.«

Dr. Markus Steilemann, CEO of Covestro

COLLABORATE

TO PROTECT THE PLANET, THE WORLD MUST ACT AS ONE

No single entity can become fully circular alone. For this challenge of the century, stakeholders must unite to fight waste in the Alliance to End Plastic Waste. They must establish new value chains to recycle water barrels in China, and add blockchain technology to plastic waste to make it traceable and reusable. And this is only the start.

FROM WASTE TO WORTH

No single entity can become fully circular alone; the challenges to be solved and the tasks involved are simply too complex. These include building awareness of the value and correct end of life treatment of plastics, establishing infrastructures to enable the collection and recycling of plastic waste, and identifying and nurturing promising ideas. Whatever the endeavor, the collective action and leadership of stakeholders across the plastics value chain is required. The Alliance to End Plastic Waste (AEPW), of which Covestro is a founding member, serves precisely this purpose.

STAKEHOLDERS NEED TO UNITE

Numerous success stories can be found across the globe less than two years after its launch. In Ghana, for example, where women are being empowered to start their own plastics recycling businesses. Or in India, where the Alliance has joined forces with German partner 'Deutsche Gesellschaft für Internationale Zusammenarbeit' (GIZ) to test approaches for various solutions that prevent plastic waste from leaking into the Ganges river.

Wherever it gets involved, the AEPW and its members seek support from leading global organizations as well as collaboration with local governments, companies and communities. Member companies of the Alliance, including Covestro, have a collective target of USD 1.5 billion of investment over the next five years. By enabling local solutions and helping them to become "investment-ready", the aim is to attract independent capital investments, thereby making the initiatives capable of sustaining and scaling themselves. Step by step, the Alliance and its members are bridging the gap between private sector financial commitment and concrete, scalable actions on the ground – in order to end plastic waste and foster a circular economy.

»The plastic waste challenge is solvable. Our member companies are deeply committed to this vision. As one of our founding members, Covestro is helping to make it possible.«

Jacob Duer, President & CEO,
Alliance to End Plastic Waste

FROM SPRING TO SOUND

"Innovative recycling" and "joint solutions" are two of the four pillars of Covestro's circular economy approach. A prime example of what they entail can be found in China, where we integrate recycled 19-liter water barrels, such as those used in water dispensers, into our polycarbonate blends. Our cooperation with Chinese bottled water manufacturer Nongfu Spring and plastics recycling company Ausell marks the first of its kind in the industry.

"As the inventor of polycarbonate, Covestro has been focusing on developing recycling solutions for polycarbonate that has reached the end of its life cycle. This waste material is extremely valuable, so we are committed to working with our partners in the value chain to enable its upcycling and prevent it from going to waste, thereby fostering a circular economy," says Holly Lei, President of Covestro China.

Video about the recycling process:
report.covestro.com/short/col1

NEW PRODUCTS WITH RECYCLED MATERIAL

Every year, Nongfu collects over one million discarded barrels, weighing around 1,000 metric tons in total. These are made of transparent polycarbonate and, as such, are both a prime source of waste and easy to recycle. The barrels disposed of to date are now sent by Nongfu to Ausell, where they are washed and re-pelletized into granules before being transported to Covestro's site in Shanghai, China.

There they are mixed with virgin polycarbonate to tweak the material's properties to customer requirements. Some blends contain up to 70 percent recycled material. They are used in automotive applications, home appliances and electronic devices, such as smart loudspeakers. Another step towards a circular economy taken. Thousands more to go.

of certain polycarbonate blends already consist of recycled material

»This collaboration promotes the sustainable use of polycarbonate.«

Zhou Li, Secretary of the Board of Directors, Nongfu Spring

TRACING THE ORIGINS OF RAW MATERIALS

The recycling of plastics is a key pillar of a future circular economy. But there is a major challenge to be overcome: Recyclers generally have to process waste that consists of a mix of plastics, and these plastics may also be contaminated or difficult to identify. Separating and recycling them is a highly complex task.

But what if plastics could be traced back to their raw materials? Recycling companies could always use the appropriate methods and get the most out of the recycling process. Dutch start-up Circularise has joined forces with us and material manufacturer Domo Chemicals to create this transparency – with the aid of blockchain technology.

1.5
million Euro

in funding did Circularise receive from the European Union's "Horizon 2020" programme

TRANSPARENCY THROUGH BLOCKCHAIN TECHNOLOGY

Put simply, Circularise is building a platform for the exchange of detailed and confidential data. Information from every process step in the value chain is collated and linked in a blockchain, with each partner supplying a separate information block from its process area. Such a block contains information on materials used, precursors, processing steps and the like. Digitalizing this information enables the entire, often severely fragmented supply chain to be bound together with a "digital thread." At the end of this chain, recycling companies are provided with an overview of the origin and composition of plastic waste, giving them important information on what can be recycled and how. It's an entirely new approach – and Covestro is leading the way.

INNOVATE

DEVELOPING A CIRCULAR FUTURE

To become fully circular, it needs developments and advances in various areas. We need the ability to recycle any given material, for example. Raw materials must be based on renewable feedstock so as not to deplete the planet's resources. And existing energy- and resource-intensive plants must be further optimized.

MORE THAN ONE LIFE

The figures are shocking: Between 1950 and 2015, around 4.9 billion metric tons of plastic waste ended up in landfills and in the environment. And this problem will only get worse unless the world changes its approach radically. The solutions are obvious: We must make every effort to prevent waste by reusing it repeatedly over a long period. Unavoidable waste should not be carelessly discarded, but disposed of sensibly – and recycled wherever possible.

RETHINK RECYCLING

What sounds simple is, in fact, anything but: Only a tiny proportion of plastic waste can be easily recycled in the usual way – by mechanical means, which involves crushing, melting down and reforming the material. What's more, some plastics can no longer be used for their original purpose following mechanical recycling. And mechanical recycling may not even be possible, for instance in the case of mixed plastic waste.

An alternative is available in these instances: reducing old materials to their chemical components, from which new raw materials can be obtained. Covestro intends to pursue both options in a bid to give plastics more than one life: "We are researching new technologies for the chemical recycling of our materials in several projects, and are expanding established mechanical recycling in various markets," says Covestro expert Dr. Catherine Lövenich.

The chemical approach is being explored by the PUReSmart European research project, among others. This involves six countries, three universities and six companies, including Covestro, and focuses on the recycling of flexible polyurethane foam, commonly used in mattresses and the like. The ambitious target: to recycle 90 percent of this material.

Only

14%

of the 300 million metric tons of plastic waste are recycled each year.

»We are researching new technologies for the chemical recycling of our materials in several projects.«

Dr. Catherine Lövenich, Covestro expert

Video about waste and recycling:
report.covestro.com/short/inn1

THREE CLEAN ALTERNATIVES

Ideally, cars should no longer emit any CO_2 whatsoever. On the contrary: They should be able to incorporate some instead – as an element of numerous automotive components. This is possible thanks to an innovative Covestro technology. We are now using CO_2 to manufacture a key chemical in the production of foams, from which the Swiss company FoamPartner has recently started making components for automotive interiors, including arm rests and seat covers.

CO_2, BIOMASS AND WASTE AS RAW MATERIALS

After mattresses and sports floors, the car is the latest field to be tapped for our CO_2-based materials. Textiles and building insulation will follow. “With CO_2 as a new raw material, we can save on crude oil in production, which benefits the climate,” says Covestro researcher Dr. Christoph Gürtler. “We are also circulating carbon – a significant contribution to the circular economy.”

Covestro is also committed to the use of plants as another environmentally friendly source of carbon and a substitute for crude oil. Films and coating components produced in this way are already on the market. At the same time, the company has joined forces with partners to research further applications and sources for biomass, including municipal waste and wood waste. This trio of alternative raw materials is rounded out by end-of-life product waste. Because plastics are far too valuable to be simply discarded.

1%

of all the world’s plastics were based on biomass in 2019

Video on biomass as raw material:
report.covestro.com/short/inn2

What do you think?

By what percentage is the global share of bio-based plastics set to increase annually by 2024?

1% 3% 6%

Answer: 3%

LESS IS MORE

The rigid foam component MDI ensures that refrigerators and buildings worldwide are insulated in an energy-efficient manner. Accordingly, worldwide demand for MDI is growing steadily – and with it the requirements for energy-efficient and environmentally friendly production.

In 2020, Covestro reached an important milestone in this regard: The first industrial pilot plant for the production of MDI based on the novel AdiP technology opened in Brunsbüttel, Germany. AdiP stands for adiabatic-isothermal phosgenation and describes the technology's main advantage: It uses process heat generated during the reaction, eliminating the need for external energy input.

ENGINEERED SUSTAINABILITY

As a result, the production process significantly reduces energy consumption and CO_2 emissions in MDI production. Thanks to the AdiP technology, up to 40 percent steam and 25 percent electricity can be saved per metric ton of MDI produced. CO_2 emissions are thus reduced by up to 35 percent. At the same time, the production output of the plant increases by up to 50 percent. Thus, production plants can be built smaller to achieve the same output in future.

Teamwork made the dream work: "Innovations, especially in the field of process technology, are an important pillar in Covestro's strategy to become fully circular. We worked intensively across sites on the development of AdiP," says Dr. Klaus Schäfer, CTO at Covestro. "And I am convinced that together we will also successfully complete the pilot phase to enable the technology to be used in our global production network."

Video about the AdiP technology:
report.covestro.com/short/inn3

Up to 35%

of CO_2 emissions can be saved by Covestro's new MDI production technology

TO OUR SHAREHOLDERS

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Report of the Supervisory Board

Dr. Richard Pott, Chairman of the Supervisory Board

Dear Shareholders,

The coronavirus pandemic cast a shadow over the year 2020 across the globe. Covestro also faced numerous challenges as a result. Fortunately, our company's management was able to react quickly, decisively, and judiciously. With hindsight, we can see that the Board of Management made the right decisions to protect our employees, keep production operations and other business activities running, and therefore optimally guide the company through the pandemic. The Supervisory Board regularly exchanged information with the Board of Management and reviewed the effectiveness of the measures implemented. Covestro also took a major step in the future direction of the Group by making the decision to focus completely on the circular economy and embed this approach in the strategy. The planned acquisition of the Resins & Functional Materials (RFM) business from Netherlands-based Koninklijke DSM N.V. (DSM) additionally set the stage for the further sustainable growth of the Covestro Group. The Supervisory Board advised the Board of Management in all of these matters and therefore actively participated in securing Covestro's future.

The fiscal year 2020 was an unusual one for the work and activities of the Supervisory Board as well. For instance, we initially had to delay the Annual General Meeting due to the pandemic but were later able to successfully run it virtually. At this Annual General Meeting, the six shareholder representatives to the Supervisory Board were elected. And although only one Supervisory Board meeting could be held in-person as usual due to the extraordinary situation, the Board worked together very closely on a virtual platform.

During the reporting period, the Supervisory Board of Covestro AG performed its duties with due care in accordance with the law, the Articles of Incorporation, and the rules of procedure. During fiscal 2020, it monitored the conduct of the company’s business by the Board of Management with regular frequency based on detailed written and oral reports received from the Board of Management, and also acted in an advisory capacity. The discussions between the Supervisory Board and Board of Management were always constructive and were conducted in the spirit of openness and trust.

The Supervisory Board Chair was in regular contact with the Board of Management outside of Supervisory Board meetings and remained informed about current developments in the company’s business performance and material transactions. In addition, the Chair was in close contact with the Board of Management Chair to discuss important questions and decisions one on one. The full Supervisory Board was informed in detail about the content of these discussions no later than during the next meeting.

In this way, the Supervisory Board was kept regularly and fully informed in the respective meetings about the company's intended business strategy, corporate planning (including financial, investment, and human resources planning), the company's profitability, the state of the business, and the situation of the company and the Group (including the risk situation, risk management, and the compliance situation). Where Board of Management decisions or actions required the approval of the Supervisory Board during the reporting period, whether by law, or under the Articles of Incorporation or the rules of procedure, the draft resolutions were inspected and thoroughly discussed by the members of the Supervisory Board at its meetings, sometimes after preparatory work by the responsible committees, or approved in writing on the basis of documents circulated to the members. The Supervisory Board was always directly involved in decisions of material importance to the company. It thoroughly discussed the business trends described in the reports from the Board of Management and the prospects for the development of the Covestro Group as a whole, the individual segments, and the regions. The Supervisory Board continually ensured that the actions of the Board of Management were lawful, due and proper, and appropriate.

Meetings of the full Supervisory Board and Member Attendance

In fiscal year 2020, the Supervisory Board held a total of seven meetings, all of which were also attended by at least one member of the Board of Management, except where issues were discussed that required them to be absent. From April 2020 onward, the meetings were held virtually as a rule due to the coronavirus pandemic.

The average attendance rate at the meetings of the full Supervisory Board and of its committees was over 95% in fiscal 2020. No member of the Supervisory Board attended fewer than half of the meetings of the full Supervisory Board and of the committees to which he or she belonged.

Specifically, the members of the Supervisory Board attended the meetings of the Supervisory Board and its committees, as follows:

Member of the Supervisory Board	Meeting attendance (including committee meetings)[1]	Attendance rate (%)
Dr. Richard Pott (Chair)	20 / 20	100.0
Ferdinando Falco Beccalli	9 / 10	90.0
Dr. Christine Bortenlänger	6 / 8	75.0
Johannes Dietsch (until July 2020)	8 / 8	100.0
Petra Kronen (Vice Chair)	17 / 17	100.0
Irena Küstner	12 / 12	100.0
Dr. Ulrich Liman	10 / 10	100.0
Prof. Dr. Rolf Nonnenmacher	13 / 14	92.9
Petra Reinbold-Knape (since January 2020)	14 / 14	100.0
Regine Stachelhaus	12 / 12	100.0
Marc Stothfang	6 / 7	85.7
Patrick W. Thomas (since July 2020)	5 / 6	83.3
Frank Werth	7 / 7	100.0
Average attendance rate		**95.9**

[1] Six Supervisory Board and twelve committee meetings were held virtually.

Based on its composition and experience, the Supervisory Board as a whole has in-depth industry expertise in the polymer sector in which Covestro operates.

Despite the challenges posed by the coronavirus pandemic and the associated restrictions on physical events and travel, members of the Supervisory Board once again participated in continuing education in the 2020 reporting year. A particular highlight was a multi-hour virtual workshop on the topic of project management in chemical plant construction.

Principal Topics Discussed by the Supervisory Board

The deliberations of the Supervisory Board focused on the Board of Management's regular reports on business activities, which contained detailed information on the development of the sales and earnings for the Group and the segments as well as on the strategy, opportunities and risks situation, and personnel matters at Covestro. The Supervisory Board also concentrated on the following topics in its individual meetings:

In its meeting on February 18, 2020, the Supervisory Board had an in-depth discussion about the annual and consolidated financial statements for fiscal 2019, the Group Management Report including the Group's nonfinancial statement, and the proposal for the use of the distributable profit. The Supervisory Board also thoroughly reviewed the audit report and the auditor's oral report concerning the material results of the audit. In addition, the Supervisory Board examined internal risk reporting, which sets out the material risks for the Group and current developments in this regard, as well as the relevant countermeasures. Furthermore, the organization, statistics, training efforts, processes, and effectiveness of the Group's compliance management system were reviewed in depth. The Supervisory Board also talked at length about the results of its effectiveness and efficiency review performed as a self-evaluation based on a written questionnaire answered by Supervisory Board members. The main topics covered were the Supervisory Board meeting process; cooperation with the Board of Management; the provision of information to the Supervisory Board, composition and work of the committees; and cooperation with the shareholder and employee representatives. On the whole, the Supervisory Board's activity was evaluated and found to be appropriate and effective by its members. The Supervisory Board also discussed the agenda as well as the proposed resolutions for the Annual General Meeting initially planned for April and the election of the shareholder representatives to be held at the Annual General Meeting, along with human resources issues and compensation matters. The meeting additionally focused on modifying the financing framework for fiscal 2020 during the process of renewing the revolving credit facility. Finally, the Supervisory Board also held in-depth consultations on the planned introduction of the new vision for the company fully focused on the circular economy.

On April 28, 2020, the Supervisory Board took a vote in writing and approved the resolution passed by the Board of Management to hold Covestro AG's Annual General Meeting virtually on July 30, 2020.

Another resolution was passed in writing by the Supervisory Board on May 19, 2020, subject to future amendments, to take a 15-percent pay cut from the fixed compensation of Supervisory Board members for the period from June 1 to November 30, 2020, as a contribution to Covestro's solidarity initiative.

On May 25, 2020, the Board approved the issue of EUR 1 billion in bonds and the associated increase in the planned debt limit, also by way of a written vote.

At the Supervisory Board meeting on June 9, 2020, the main agenda item was preparing for the virtual Annual General Meeting on July 30, 2020. In addition, the Board considered the reappointment and extension of the contract with Dr. Thomas Toepfer as CFO.

Subsequent to the Annual General Meeting on July 30, 2020, at which all six shareholder representative candidates were elected, the Supervisory Board held its constituent meeting to elect its Chair and assign the shareholder representatives to committees. Dr. Richard Pott was again elected Chair of the Supervisory Board.

In its meeting on August 20, 2020, the Board thoroughly discussed the possible acquisition of the RFM business from DSM, including the potential financing options for the planned acquisition. Moreover, the Supervisory Board deliberated on the LEAP global transformation program intended to be implemented at Covestro to reorganize the company's structures, processes, and control mechanisms.

On September 29, 2020, the Supervisory Board held a special session to pass a resolution on the planned acquisition of the RFM business from DSM after lengthy discussions on the strategic aspects of this deal. The Supervisory Board also approved the planned financing structure for the acquisition along with the associated potential capital increase and the modified financing framework proposed by the Board of Management for obtaining outside funding.

In its meeting on October 8, 2020, the Supervisory Board discussed the Covestro Group's new strategy in depth. This strategy includes three components ("Become the best of who we are," "Drive sustainable growth," and "Become fully circular"), which are boosted by the acceleration of our digital transformation and the reinforcement of our We are 1 culture.

In its last meeting on December 10, 2020, the Supervisory Board deliberated at length on the compensation systems for its members and the review of the appropriateness of its compensation. Considering the significantly improved economic situation of the company and planned one-time compensation payment to the Board of Management and employees at the end of the year, the Supervisory Board resolved to set aside its proportional pay cut of May 19, 2020. In addition, it considered the compensation system for the Board of Management, including the long-term compensation components for the period from 2021 to 2024, which include a nonfinancial performance criterion for the first time. The Supervisory Board reviewed the Board of Management's fixed compensation on a regular basis. The Board additionally discussed in detail the financial planning for fiscal 2021 proposed by the Board of Management and the medium-term outlook also presented. The Supervisory Board approved the proposed financing framework for fiscal 2021. In this meeting, the Supervisory Board also voted to issue an unqualified declaration of conformity with the German Corporate Governance Code.

Supervisory Board (from left to right):
Top row: Dr. Richard Pott, Petra Kronen, Ferdinando Falco Beccalli, Dr. Christine Bortenlänger
Middle row: Irena Küstner, Dr. Ulrich Liman, Prof. Dr. Rolf Nonnenmacher, Petra Reinbold-Knape
Bottom row: Regine Stachelhaus, Marc Stothfang, Patrick W. Thomas, Frank Werth

Committees of the Supervisory Board

In the past fiscal year, the Supervisory Board again had four permanent committees set up for the purpose of exercising its duties efficiently. In addition, a special committee was formed temporarily to monitor and approve preparations for and performance of the capital increase for the announced acquisition of the RFM business from DSM. The members of this special committee were Dr. Richard Pott (Chair), Petra Kronen, Prof. Dr. Rolf Nonnenmacher, and Petra Reinbold-Knape, and it met twice on October 13, 2020.

The committees prepared resolutions by the full Supervisory Board and provided information on other topics to be discussed by this body. Moreover, certain decision-making powers of the Supervisory Board were assigned to the committees to the extent legally permissible. The Supervisory Board currently has the following permanent committees: Presidial Committee, Audit Committee, Human Resources Committee, and Nominations Committee.

The tasks and responsibilities of the standing committees and their current composition are described in greater detail in “Declaration on Corporate Governance” under “Committees of the Supervisory Board” in the Combined Management Report.

The meetings and decisions of all committees, and especially the meetings of the Audit Committee, were prepared on the basis of reports and explanations provided by the Board of Management. The committee chairs regularly provided comprehensive reports on the work of the committees to the full Supervisory Board.

In fiscal 2020, the Presidial Committee was not required to convene in its capacity as the mediation committee.

The Audit Committee met a total of five times on February 17, April 27, June 4, July 22, and October 26, 2020, in the presence of the CFO. Two of these meetings were also attended by the auditor. The committee conducted a preparatory review of the financial statements of Covestro AG, the consolidated financial statements of the Covestro Group, the Combined Management Report, and the proposal for the use of the distributable profit for the Supervisory Board and provided a detailed explanation of the audit report in each case. The auditor also presented an oral report on the material findings of the audit. The Combined Management Report also included the Group’s nonfinancial statement. In conducting its review, the Audit Committee found no grounds for objections. In addition, the Audit Committee discussed with the Board of Management the half-year financial report in light of the results of the review by the auditor, and the Q1 and Q3 2020 interim statements prior to their publication.

The Audit Committee monitored the accounting and financial reporting process and the effectiveness of the internal control system, the risk management system, and the internal audit system and deliberated on the audit of the financial statements and compliance. In doing so, the Committee received reports from the head of Internal Audit and the financial statement auditor. No material weaknesses were identified in the internal control system for financial reporting purposes or the risk early warning system. Against the backdrop of the coronavirus pandemic, the Audit Committee held in-depth discussions on the current business performance and steps taken by the Board of Management, such as those to secure Covestro's liquidity, and ensured that the enhanced risk management and reporting requirements were fulfilled.

The Audit Committee additionally undertook preparations for the Supervisory Board’s proposal for the appointment of the financial statement auditor by the Annual General Meeting, the engagement of the auditor and agreement on the auditor’s fee. It monitored the effectiveness of the audit and the independence of the auditor as well as the supplementary non-audit services provided in addition to the financial statement audit. In this context, the committee had the auditor confirm their independence.

The Audit Committee continually exchanged information with the auditor about the material audit risks and the necessary direction of the audit, as well as discussing the areas of focus for the audit proposed by the auditor.

Furthermore, the Audit Committee obtained information on an ongoing basis on enhancements to the compliance management system (particularly regarding anti-corruption measures), on the handling of suspected compliance violations, progress in significant litigation, new legal and regulatory risks, and on the risk situation, risk tracking, and risk monitoring in the Group. The internal audit department provided regular reports about risk assessments.

The heads of the relevant departments also participated in meetings of the Audit Committee on selected agenda items, reported on these and answered questions. In addition, the Chair of the Audit Committee discussed important matters between meetings, particularly with the Supervisory Board Chair, the CFO and the auditor. The key results of these discussions were reported regularly to the Audit Committee and the Supervisory Board.

In the reporting period, the Human Resources Committee met for a total of three meetings held on February 18, June 9, and December 10, 2020. In its first meeting, the Committee primarily reviewed target attainment by the Board of Management members. At the meeting on June 9, the Human Resources Committee concentrated mainly on reappointing CFO Dr. Thomas Toepfer and extending his contract. In its third meeting on December 10, the Board held preparatory discussions regarding the subsequent Supervisory Board meeting on the Board of Management's compensation system. Moreover, the Board talked about lifting the proportional pay cut taken as a show of solidarity for the period from June to November 2020.

In the reporting period, the Nominations Committee met for a total of four meetings held on February 5, July 30, September 24, and November 5, 2020. The subject of the meetings was a review of the skills profile and diversity plan for the Supervisory Board and the subsequent preparations for nominating candidates for election to the Board as shareholder representatives.

Financial Statements/Audit

The financial statements of Covestro AG were prepared according to the requirements of the German Commercial Code (HGB) and German Stock Corporation Act (AktG). The consolidated financial statements of the Covestro Group were prepared according to the German Commercial Code and the International Financial Reporting Standards (IFRSs) as adopted by the European Union (EU). The Combined Management Report including the Group's nonfinancial statement was prepared according to the German Commercial Code. The auditor, KPMG AG Wirtschaftsprüfungsgesellschaft, Düsseldorf, audited the financial statements of Covestro AG, the consolidated financial statements of the Covestro Group, and the Combined Management Report including the Group's nonfinancial statement. KPMG AG Wirtschaftsprüfungsgesellschaft has audited Covestro's financial statements since fiscal 2018. Dr. Markus Zeimes and Oliver Geier signed the Independent Auditor's Report for fiscal year 2020. Both first signed the Independent Auditor's Report as of December 31, 2018. The conduct and results of the audit are explained in the auditor's reports. According to the auditor's results, Covestro has complied with the German Commercial Code, the German Stock Corporation Act and/or the IFRS regulations as adopted by the EU, and issues unqualified opinions on the financial statements of Covestro AG and the consolidated financial statements of the Covestro Group. The financial statements of Covestro AG, the consolidated financial statements of the Covestro Group, the Combined Management Report including the Group's nonfinancial statement, and the audit reports were submitted to all members of the Supervisory Board. At meetings to discuss the financial statements, the Audit Committee and the Supervisory Board reviewed the financial statement documentation in depth after the auditor's report was presented. The auditor attended both meetings.

The Supervisory Board examined the financial statements of Covestro AG, the proposal for the use of the distributable profit, the consolidated financial statements of the Covestro Group, and the Combined Management Report including the Group's nonfinancial statement. It had no objections and thus concurred with the result of the audit.

The Supervisory Board approved the financial statements of Covestro AG and the consolidated financial statements of the Covestro Group prepared by the Board of Management. The financial statements of Covestro AG are thus confirmed. The Supervisory Board is in agreement with the Combined Management Report and, in particular, with the assessment of the future development of the enterprise. It also concurs with the dividend policy and the decision to add to the company's reserves. The Supervisory Board agreed with the proposal for the use of the distributable profit, which proposes a dividend of EUR 1.30 per share.

Corporate Governance and Declaration of Conformity

During the reporting year, the Supervisory Board again extensively addressed Covestro's corporate governance, taking into account the German Corporate Governance Code and, together with the Board of Management, submitted an unqualified declaration of conformity in accordance with Section 161 of the German Stock Corporation Act in December 2020 based on the Code in the December 16, 2019, version.

Change in the Composition of the Supervisory Board

On July 30, 2020, the Annual General Meeting reelected all shareholder representatives with one exception. Former Chair of the Board of Management of Covestro AG Patrick W. Thomas was newly elected to the Supervisory Board in the place of Johannes Dietsch, who stepped down. The Supervisory Board would like to thank Johannes Dietsch for his efforts on behalf of the company and for a good working relationship over the past five years.

Expression of Appreciation from the Supervisory Board

The Supervisory Board would like to thank the Board of Management and all of Covestro's employees for their unwavering dedication and solidarity with the company in the challenging 2020 fiscal year. We wish you all success in implementing the company's new strategic direction.

The Supervisory Board would also like to thank Covestro's shareholders for the trust they have placed in the company.

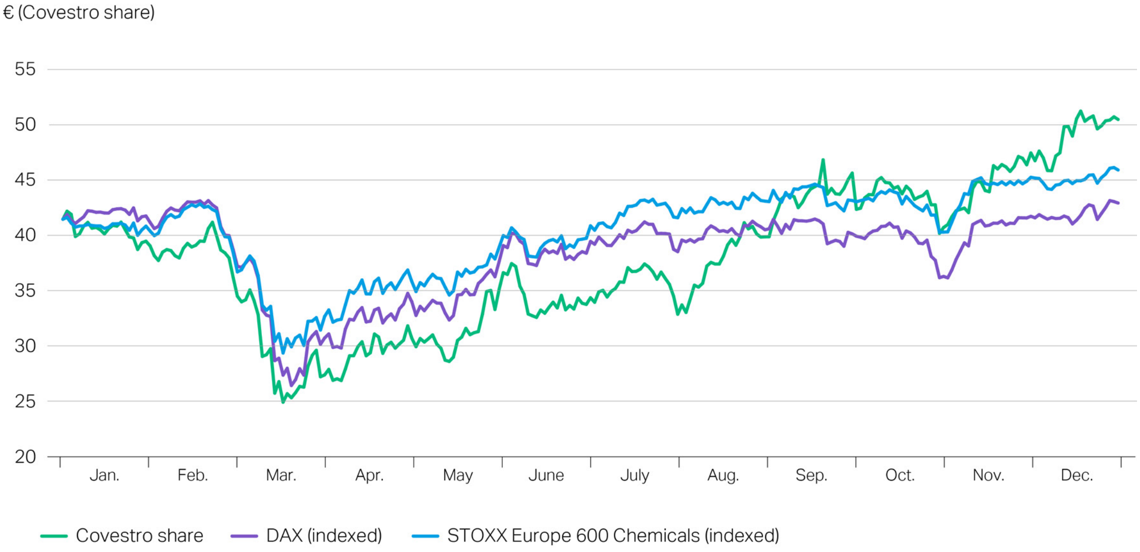
Leverkusen, February 22, 2021

For the Supervisory Board

Dr. Richard Pott
Chairman

Covestro on the Capital Market

Performance of Covestro stock versus market in fiscal year 2020



Covestro closing prices Xetra; source: Deutsche Börse

Volatile stock market influenced by the pandemic

Much like the global economy, the stock markets felt the effects of the worldwide coronavirus pandemic in fiscal 2020. During the initial weeks of the year 2020, European equity markets continued the upward trajectory they began in the year 2019. Mid-February 2020 brought a steep drop in share prices in reaction to the global spread of the coronavirus: The EURO STOXX 50* index lost around 40% of its value by its low point on March 18, 2020, and a comparable crash took place on the DAX, the leading German index relevant for Covestro. By the end of the year, the stock markets had largely recovered from their low points, and they closed the year at the prior-year level. The EURO STOXX 50 ended fiscal year 2020 at 3,572 points, 4.7% lower than in the previous year, whereas the DAX finished the year at 13,719 points, a slight increase of 3.5% year over year.

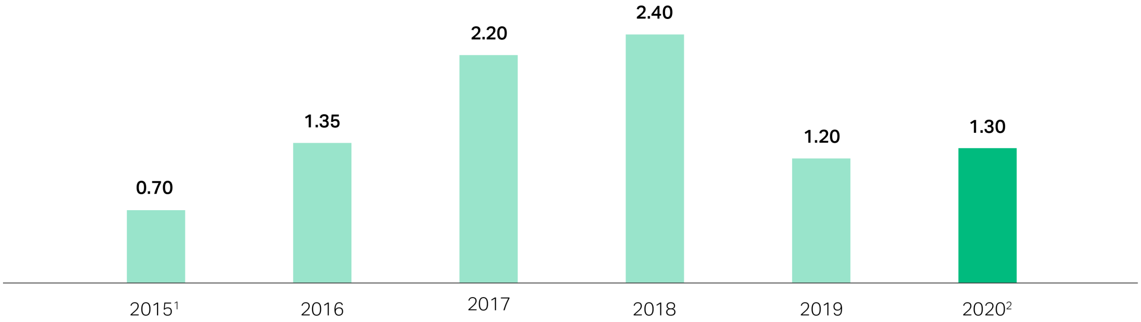
European chemical stocks essentially followed the same trajectory, but recovered at a faster pace in the second half of the year. As of December 31, 2020, the STOXX Europe 600 Chemicals index was up 10.8% from its level at the beginning of the year. At a Xetra closing price of €50.48, Covestro's share price also finished the volatile stock market year up significantly, by 21.8% over December 31, 2019. Covestro's stock marked its low for the year on March 16, 2020, closing at €24.90. The high for the year was €51.24 on December 15, 2020.

Including the dividend for the 2019 fiscal year of €1.20 per share paid out on August 4, 2020, Covestro’s stock performance (with dividend reinvestment) was 26.2% compared with the 2019 year-end closing price of €41.45.

* EURO STOXX 50: European stock index that reflects the share price performance of the 50 most important and highest revenue companies in Europe.

Dividend performance

Dividend per share carrying dividend rights (€)



[1] Short fiscal year of Covestro AG.
[2] Proposed dividend.

At the end of the reporting period, Covestro's market capitalization stood at around €9.8 billion based on the capital stock of 193.2 million shares. The average daily Xetra trading volume was approximately 1.5 million shares.

Covestro share at a glance

		2019	2020
Average daily turnover	million shares	1.3	1.5
Year-end closing price	€	41.45	50.48
High	€	55.32	51.24
Low	€	37.95	24.90
Outstanding shares (closing date)	million shares	182.9	193.2
Market capitalization (closing date)	€ billion	7.6	9.8
Stock price development	%	–4.0	21.8
Stock price performance (with dividend reinvestment)	%	0.3	26.2

Covestro closing prices Xetra; source: Deutsche Börse

ADR program successful for fourth year

Since December 1, 2016, the American Depositary Receipt (ADR) program has granted global investors simplified access to Covestro stock. Covestro ADRs are traded over the counter in the United States under the COVTY ticker symbol. The total number of outstanding ADRs reached some 2.2 million at the end of fiscal 2020 (previous year: around 1.9 million).

Virtual Annual General Meeting (AGM)

The Covestro AG 2020 Annual General Meeting was originally planned for April 17, 2020, in Bonn, but had to be postponed to a later date due to the rapid spread of the coronavirus at that time. Ultimately, a virtual AGM was held for the first time on July 30, 2020.

Due to the ongoing coronavirus pandemic and the resulting lack of certainty in planning physical events, Covestro AG also intends to hold the 2021 Annual General Meeting scheduled for April 16, 2021, in a virtual format.

Moody's downgrades Covestro's rating

On October 7, 2015, one day after Covestro stock was listed on the Frankfurt Stock Exchange, Covestro AG received an investment-grade rating of Baa2 from London-based Moody's Investors Service. Moody's raised the company's credit rating from Baa2 to Baa1 with stable outlook on July 30, 2018. On June 2, 2020, Moody's revised the rating downward again from Baa1 to Baa2 with a negative outlook. Covestro's credit rating therefore remains firmly in the investment-grade range. In the future, Covestro intends to continue to maintain financing structures and financial ratios that support a solid investment-grade rating.

Successful placement of euro bonds

On June 5, 2020, Covestro successfully placed €1.0 billion in euro bonds on debt markets. The bonds mature in February 2026 and June 2030 and carry coupon rates of 0.875% and 1.375%, respectively. Robust investor demand led to the placement volume being oversubscribed by more than ten times. The transactions enable Covestro to significantly extend the average maturity of the bond portfolio. The proceeds of the bond placement will be used to further reinforce Covestro's liquidity in view of the economic effects of the coronavirus pandemic and to provide funds to repay the existing bond maturing in fiscal 2021.

Successful capital increase for acquisition financing

In the course of acquiring the Resins & Functional Materials (RFM) business from Koninklijke DSM N.V., Heerlen (Netherlands), Covestro completed a capital increase partially utilizing Authorized Capital 2020. As part of the capital increase on October 13, 2020, an accelerated bookbuilding process was used to place 10,200,000 new, no-par value bearer shares with institutional investors. The new shares carry full dividend rights for fiscal year 2020. The placement price of €43.85 per share represents a discount of 0.9% from the Xetra closing price of €44.25 on October 13, 2020. The gross issuing proceeds before commission and costs of €447 million will be used to partly finance the announced RFM acquisition, which totals €1.6 billion. Covestro's capital stock of €183 million increased by 5.6% to €193 million as a result of this capital measure.

Majority of analysts issue buy recommendation for Covestro stock

At the end of the year 2020, Covestro was covered by 24 securities brokers. Of these, 17 analysts issued buy recommendations, and five were neutral. Two analysts recommended selling Covestro stock. The average share price target was approximately €55 at year-end.

Basic Covestro share information

Capital stock	€193,200,000
Outstanding shares (year-end)	193,160,544
Share class	No-par ordinary bearer shares
ISIN	DE0006062144
WKN	606214
Ticker symbol	1COV
Reuters symbol	1COV.DE
Bloomberg symbol	1COV GY
Market segment	Regulated market
Transparency level	Prime standard
Sector	Chemicals
Index	DAX

COMBINED MANAGEMENT REPORT

COMBINED MANAGEMENT REPORT OF THE COVESTRO GROUP AND COVESTRO AG AS OF DECEMBER 31, 2020

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The combined management report for 2019 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.

Reference to content in the Group Management Report or Consolidated Financial Statements

Reference to content in the supplementary sustainability information. The supplementary sustainability information that is not part of the statutory audit of the consolidated financial statements was subjected to a separate review with limited assurance pursuant to the International Standard on Assurance Engagements (ISAE) 3000 by KPMG AG Wirtschaftsprüfungsgesellschaft and is identified as follows in this document:

Supplementary information >

< Supplementary information

Refers to content not contained in the Group Management Report, supplementary sustainability information and Notes to the Consolidated Financial Statements. KPMG AG Wirtschaftsprüfungsgesellschaft did not substantively audit or review the information referenced.

COVESTRO GROUP AT A GLANCE

Company Profile

Organization and Business Model

Organization

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 is included in the DAX, Germany's leading index. In line with the product portfolio, Covestro is divided into three reportable segments: Polyurethanes (PUR), Polycarbonates (PCS), and Coatings, Adhesives, Specialties (CAS). The administrative functions are consolidated centrally. As of December 31, 2020, the Covestro Group comprised 47 consolidated companies in 22 countries in addition to Covestro AG, and employed 16,501 people*.

See note 7.1 "Scope of consolidation and investments" in the Notes to the Consolidated Financial Statements.

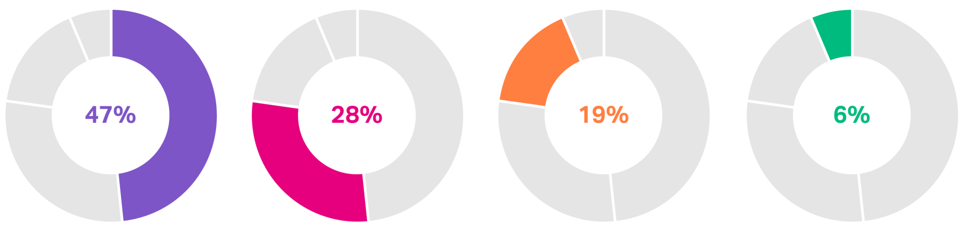
Group structure

COVESTRO
Board of Management

Central Units

Segments	**Polyurethanes**	**Polycarbonates**	**Coatings, Adhesives, Specialties**	**Other[1]**
Products	**Precursors for rigid and flexible foams** • Diphenylmethane diisocyanate (MDI) • Toluene diisocyanate (TDI) • Polyether polyols	**High-performance plastics for versatile applications** • Granules • Semifinished products • Composite materials	**Precursors for coatings, adhesives and specialties** • Base and modified isocyanates • Polyurethane dispersions • Specialty elastomers • Films	**Various chemical by-products, e.g.,** • Sodium hydroxide solution • Hydrochloric acid

Share of Group sales in 2020



[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.

The Board of Management of Covestro AG manages operations, and defines and tracks corporate goals. Dr. Markus Steilemann is the company's Chief Executive Officer (CEO). Sucheta Govil is Covestro's Chief Commercial Officer and is responsible for the three segments, Polyurethanes, Polycarbonates, and Coatings, Adhesives, Specialties. In addition, she heads the Innovation, and Marketing and Sales corporate functions. The Board of Management member responsible for Production and Technology as well as all production sites is Dr. Klaus Schäfer. Dr. Thomas Toepfer is its Chief Financial Officer (CFO) and additionally holds the position of Labor Director.

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

The 12-member Supervisory Board advises and oversees the Board of Management. In accordance with the German Codetermination Act, half of the members of the Supervisory Board are elected by the shareholders and the other half by the company's employees. Dr. Richard Pott is the Supervisory Board Chair.

See "Declaration on Corporate Governance."

Business model

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

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 mobile phone cases, and medical devices 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 and transportation; construction; furniture and wood processing; and electrical, electronics, and household appliances industries. The products are also used in sectors such as sports and leisure, cosmetics and health, as well as in the chemical industry itself. In addition, materials by Covestro are used to manufacture medical equipment, safety barriers, and sneeze and splash guards used to combat and control the spread of the coronavirus pandemic.

Covestro aims to leverage this broad positioning to further reduce the product range's exposure to cyclical fluctuations. The focus here is on sustainability and innovation. To this end, Covestro closely monitors developments in its sales and consumer markets and orients its activities to support customers' growth. Together with customers as well as with business and scientific partners, the company works continuously to further advance products, technologies, and application solutions.

Additional information is available at http://www.covestro.com/en/products

Global megatrends play a considerable role in this process: Advancing climate change, the growing global population, increasing urbanization, and new forms of transportation are changing the lives of billions of people. Consequently, the polymer industry will have to develop as well. Companies like Covestro are facing new challenges and playing a part in developing innovative solutions as a result. For this reason, Covestro intends to reorient its entire production process and product portfolio – and ultimately the entire company – to a circular approach in the long term, the focus is on alternative raw materials, innovative recycling, joined solutions, and renewable energies.

Covestro's aim is to pave the way and support these trends with its materials. By replacing traditional materials with durable, light, more environmentally-compatible and cost-effective materials, Covestro makes significant contributions in areas such as lightweight construction in the automotive industry, increasing the energy efficiency of living spaces through the use of new insulating materials, promoting sustainable energy with specialty raw materials, and improving the shelf-life of food through better insulation along the entire refrigeration chain.

Additional information is available at: solutions.covestro.com/en/industries

Reportable segments

Polyurethanes

In the PUR segment, Covestro primarily develops, produces, and markets chemical precursors for the manufacture of polyurethane foams. These precursors are diphenylmethane diisocyanate (MDI), toluene diisocyanate (TDI), and polyether polyol, which are used primarily in the furniture, construction, and automotive industries. MDI-based rigid polyurethane foam serves mainly to efficiently insulate buildings and refrigeration appliances, therefore contributing to lowering energy usage. TDI-based flexible polyurethane foam is used in products such as mattresses, upholstered furniture, and car seats, thus making day-to-day life more comfortable. Covestro was among the top suppliers in the global polyurethane industry in fiscal 2020. Our main competitors are BASF, Dow Chemical, Huntsman, and Wanhua Chemical.

Polycarbonates

In fiscal 2020, Covestro was also one of the world's leading 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 particularly light, transparent, shatter resistant, 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), and electrical and electronic devices (e.g., cords and laptop cases). Our main competitors include Lotte Chemical, Luxi Chemical, Mitsubishi Chemical, Saudi Basic Industries Corporation (SABIC), Teijin, and Wanhua Chemical.

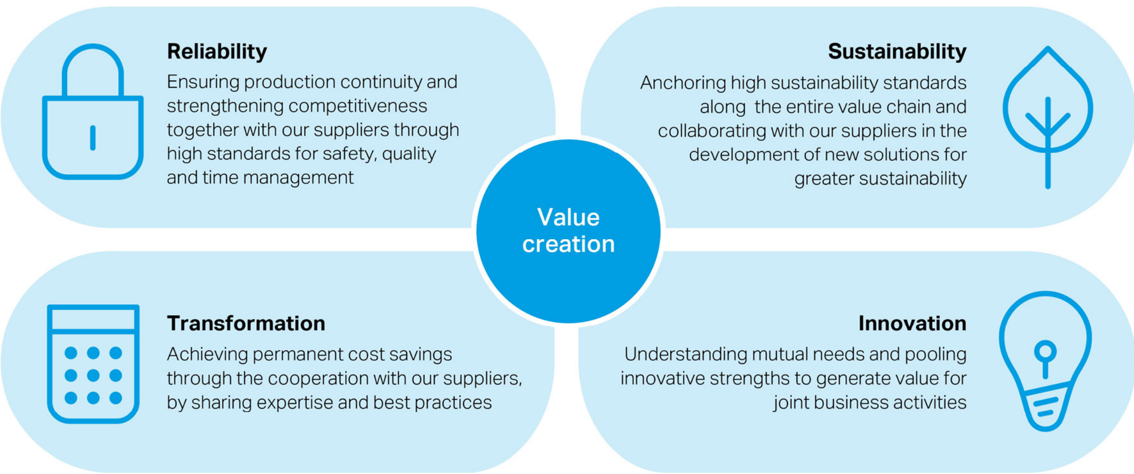
Coatings, Adhesives, Specialties

The CAS segment develops and produces substances that make finished products more aesthetically appealing and durable, and therefore increase their value. The focus is on 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. With more than 2,700 products and some 3,700 customers across the globe in the CAS segment, Covestro was among the world's top suppliers in the reporting period in this area as well. Our main competitors are BASF, Evonik Industries, Vencorex Chemicals, and Wanhua Chemical.

Procurement

Procurement at Covestro is centrally steered and managed by the Procurement corporate function, which is responsible for the timely global supply of goods and services to all divisions of the company under the best possible conditions. This ensures that our Group's high quality standards are met. Furthermore, Procurement is responsible for ensuring that Covestro's ethical and environmental principles are upheld throughout the entire procurement process. The basic tenets of our procurement policy are set forth in a directive that is binding on all employees throughout the Covestro Group.

Strategic principles in Procurement



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. By purchasing renewable energy or biobased raw materials, Procurement contributes to realizing Covestro's vision of a closed-loop circular economy. In addition, Procurement promotes the digitalization of purchasing processes and systems in the interest of improving the efficiency and effectiveness of the procurement process for Covestro and its suppliers.

See "Sustainability in the supply chain."

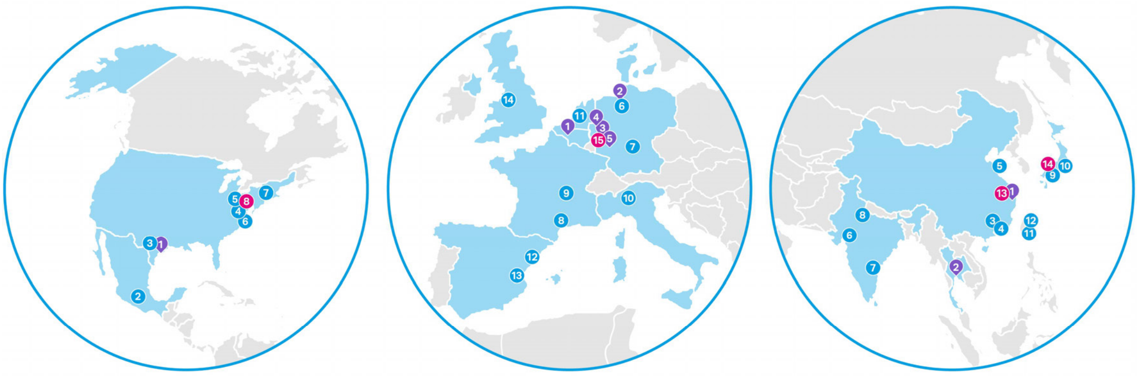
In fiscal 2020, goods and services were procured from some 13,000 suppliers (previous year: some 15,000) in 67 countries (previous year: 72) for approximately €7.9 billion (previous year: €9.4 billion). Distribution of purchasing volumes was balanced across the regions.

The most important raw materials for our products are petrochemical substances such as phenol, benzene, propylene/propylene oxide, toluene, and acetone – which collectively account for approximately 33% of our purchasing value. Moreover, the operation of our production facilities requires large amounts of energy, which we primarily procure from external sources and in the form of electricity and steam. We endeavor to procure raw materials essential for operations from within the Group or through joint ventures in order to reduce our dependence on external supply sources. To name just two examples: Covestro produces part of its chlorine in-house and procures propylene oxide through a joint venture. Operations, logistics, and investment projects require technical goods and services in addition to raw materials and energy. These activities are also centralized by Procurement to add value to Covestro. We regularly monitor the sustainability and quality of our suppliers and ensure that they comply with internal and external standards.

Production Sites and R&D Facilities

Covestro operates production sites and research and development (R&D) facilities for various product groups throughout the world. The following chart shows the geographical distribution of Covestro's 33 production sites and four R&D facilities.

Covestro's production sites and R&D facilities



NAFTA[1]

1. **Baytown (USA)** PUR | PCS | CAS
2. Santa Clara (Mexico) PUR | CAS
3. Channelview (USA) PUR
4. New Martinsville (USA) PUR | CAS
5. Newark (USA) PCS
6. South Charleston (USA) PUR
7. South Deerfield (USA) CAS
8. Pittsburgh (USA)

EMLA[2]

1. **Antwerp (Belgium)** PUR | PCS
2. **Brunsbüttel (Germany)** PUR
3. **Dormagen (Germany)** PUR | CAS
4. **Krefeld-Uerdingen (Germany)** PUR | PCS
5. **Leverkusen (Germany)** CAS
6. Bomlitz (Germany) CAS
7. Markt Bibart (Germany) PCS
8. Fos-sur-Mer (France) PUR
9. Romans-sur-Isère (France) CAS
10. Filago (Italy) PCS
11. Rotterdam (Netherlands) PUR
12. Barcelona (Spain) CAS
13. Tarragona (Spain) PUR
14. Cheadle Hulme (United Kingdom) CAS
15. Leverkusen (Germany)

APAC[3]

1. **Shanghai (China)** PUR | PCS | CAS
2. **Map Ta Phut (Thailand)** PCS | CAS
3. Guangzhou (China) PCS | CAS
4. Shenzhen (China) CAS
5. Tianjin (China) CAS
6. Ankleshwar (India) CAS
7. Cuddalore (India) CAS
8. Greater Noida (India) PCS
9. Niihama (Japan) PUR | CAS
10. Sakai (Japan) CAS
11. Linyuan (Taiwan) PUR
12. Changhua (Taiwan) CAS
13. Shanghai (China)
14. Amagasaki (Japan)

Sites: **Production site with world-scale facilities** • Production site • R&D facility

Segments: PUR Polyurethanes PCS Polycarbonates CAS Coatings, Adhesives, Specialties

[1] NAFTA: United States, Canada, and Mexico region.
[2] EMLA: Europe, Middle East, Africa, and Latin America (excluding Mexico) region.
[3] APAC: Asia and Pacific region.

Covestro has 33 production sites located in Europe, North 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 in the respective regions are supplied reliably and efficiently. We operate additional plants in selected countries to manufacture polyurethane precursors and products for the Coatings, Adhesives, Specialties segment. Moreover, we operate production plants in selected countries for customer-specific compounding of polycarbonate resins.

Thanks to the integration of upstream production stages (backward integration), e.g., in its own production of chlorine, Covestro has continually optimized the value chain. In addition, Covestro has put in place wide-ranging programs and initiatives to secure and steadily improve performance in the areas of safety, costs and plant availability.

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. Key growth projects in fiscal 2020 included commissioning the MDI plant in Brunsbüttel (Germany), boosting polycarbonate production capacity in Shanghai (China), and expanding specialty films production in Map Ta Phut (Thailand) and Dormagen (Germany).

See "Cash flows from investing activities."

Covestro conducts research and development at three major centers in Germany, North America, and China. Customer-facing applications are generally developed in the relevant regions, while global, fundamental research and technology development are mainly conducted in Germany. We also operate an R&D facility in Japan that concentrates on the Japanese market. Our global presence allows us to respond to regional trends and customer requirements.

See "Innovation."

Marketing and Sales

Industry-specific marketing and sales teams are responsible for developing potential business with prospective and existing customers and continually analyzing markets and trends. Each reportable segment markets and distributes its own products through its own sales organization as well as through trading houses and local distributors. Major customers with global operations are an exception to this, as these are serviced directly by our key account managers. Marketing is conducted in close cooperation between marketing, sales, and application development teams.

At Covestro, we have consolidated the management of marketing activities in the Central Marketing function, which is also responsible for our digital sales channel Covestro Direct Store. Selected business units transferred their sales activities to the Covestro Direct Store either in whole or in part in the 2020 fiscal year. During that time, this digital trading platform handled more than 8,000 transactions with a total value in the mid-triple-digit millions, corresponding to approximately four times the business volume compared with the prior-year period. Meanwhile, we are working hard to meet our goal of tailoring our products and services more consistently to our customers' needs as well as providing a completely digital customer experience. To this end, we developed a Group-wide initiative called Customer Centricity in fiscal 2020 to put customers at the forefront of every employee's day-to-day responsibilities. This effort relies greatly on digitalization. Especially against the background of the coronavirus pandemic, we were thus able to flexibly react to our customers' needs early on and to meet these optimally thanks to innovative applications such as webinars and digital showrooms. Our new digital customer relationship management (CRM) application supports us with this effort, as it helps us to understand our customers even better and provide them with more customized and tailored solutions.

The three Supply Chain Centers in the EMLA, NAFTA, and APAC regions are responsible for key customer service activities and the efficient fulfillment of customer orders. They cover the entire process – from receiving orders through shipping to invoicing and handling complaints. Customer-oriented support in the individual regions allows us to process orders especially quickly and seamlessly. Covestro makes use of channels such as e-commerce platforms for receiving and processing orders. Our customers can place orders and check the status of their orders at any time in the Order@Covestro self-service portal. However, Order@Covestro is not used to initiate new business: Instead, the portal complements the services we provide our existing customers and helps us handle routine inquiries during times outside our customer service and sales staff's business hours.

The transportation of our products to customers is handled by logistics service providers who 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 to us. The preferred mode of transportation is rail or intermodal – a combination of different modes of transportation. When selecting the mode of transportation, we also consider resource efficiency and seek to reduce associated CO_2 emissions in particular. Whenever permitted by transportation times and delivery reliability, we supply customers from close-to-production warehouses. In the case of longer distances and depending on the reliability of the mode of transportation, our products are temporarily stored in regional distribution centers and then dispatched from there in order to shorten delivery times. We also participate in the RH2INE industry initiative as part of our corporate commitment to reducing our carbon emissions. This initiative aims to deploy fuel-cell-powered vessels on the Rhine River starting in the year 2024. Building on RH2INE, Covestro is a key player in initiating another fuel cell project whose goal is to accelerate the development and use of fuel cells in cargo trucks.

See “Sustainability in the supply chain.”

In the future, we plan to measure customer satisfaction using the Net Promoter Score (NPS) to ensure that customer feedback is incorporated to a greater degree in our internal decision-making processes. The NPS is obtained by sending customers short surveys on an ad hoc basis to determine the extent to which they would recommend Covestro to others. In addition, our foremost quality goal is to eliminate error in all our processes to guarantee a high level of customer satisfaction. This information is regularly collected throughout the world and analyzed in a global management system, taking into account customer satisfaction analyses and supplier assessments. We use this data to derive corrective and preventive measures for the purpose of further increasing quality and customer satisfaction and further lowering the error rate and the incidence of complaints. In the reporting period, we received only 3.99 customer complaints per 1,000 deliveries, a reduction of 26% from the previous year.

Strategy

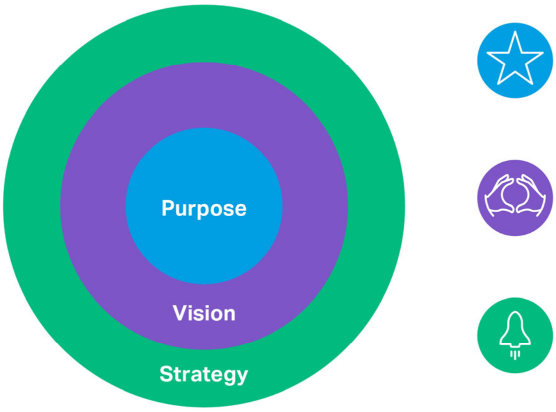
Purpose and Vision

Advancing climate change, the growing global population, rising urbanization, and new forms of mobility are enormous global challenges the world is facing. Covestro is meeting these challenges, thus bringing together economic success and sustainability. The goal is to realize Covestro's purpose: "To make the world a brighter place."

Our aim is to provide solutions to global challenges with our high-performance polymer materials. In pursuing it, we rely on technologies that reduce energy usage and emissions in our production processes. The products and solutions we develop are replacing traditional materials such as glass and metal, which are manufactured less sustainably or have a less sustainable life cycle. We are convinced that our long-term strategy of pursuing a circular economy will bring us closer to achieving our purpose.

Based on this purpose, we formulated a new vision during the reporting year and made it an integral element of our Group strategy: "We will be fully circular." Our vision provides us with a clear direction in which we want to develop as a company. With our products, which aim at circularity, we intend to contribute to solutions to global challenges along the entire value chain. We intend to achieve that, for example, by developing non-fossil-based polymer production, converting to renewable energy, and establishing recycling systems. To this end, we are increasing our participation in collaborative partnerships and networks.

Purpose, vision, and strategy



To make the world a brighter place
The reason why Covestro exists

We will be fully circular
What Covestro will look like in the future

Paving the way to tomorrow
How Covestro aims to implement the vision

Our corporate values and corporate culture as embodied by our employees are major factors in putting our purpose, vision, and strategy into action.

See "Corporate values and corporate culture."

Group Strategy

Strategic goals and activities

Our overarching goals derived from our purpose and our vision are directional of our Group strategy. This incorporates the changing world inside and outside the company, and reflects the new influence of our vision. Three strategic chapters are particularly important to Covestro. We want to “Become the best of who we are,” while we “Drive sustainable growth,” and “Become fully circular.” Our strategy is based on a solid foundation; its implementation is being enabled by the acceleration of Covestro’s digital transformation and expansion of our “We Are 1” culture.

Group strategy

“Become the best of who we are”

“Becoming the best of who we are” is the first strategic chapter to transform our company in the best possible way to exploit its full potential, thus creating the basis for sustainable and profitable growth. The first strategic chapter is driven by a clear understanding of our business: We deliver a broad portfolio of standard and specialty products and, at the same time, stand out with our strong innovation, research, and development capability. We want to focus even more on the factors that make our core business a success.

Our customers are our top priority in this process. We will optimize the processes that make our customers successful, improve workflows within our organization, and concentrate entirely on the needs of our customers. Depending on each customer’s focus, we will deliver high-quality standard products fast and at competitive prices, or assist our customers with our technical expertise in improving or developing (specialty) products. It is also our aim to considerably simplify, optimize, and digitalize our internal processes.

During the reporting year, we launched the “LEAP” global transformation program to implement the first strategic chapter. This program is intended to realign structures, processes, and control mechanisms to position our company to the best extent possible. To implement this, we aim to restructure our organization, workflows, and responsibilities. Our plans include structuring our business into standard products on the one hand and specialty products on the other. Furthermore, the program aims to bundle certain areas of competence across the company with the primary objective of improving our business, especially with a view to sustainability and the circular economy. The measures under the transformation program are scheduled to start in mid-2021 and be completed by the end of the year 2023.

Another important core element of the first strategic chapter is the “Customer Centricity” concept, with which we intend to focus even more on the needs of our customers. At Covestro, “Customer Centricity” is based on three pillars:

- Knowing the Customer: we need to know our customers so well that we understand exactly what added value we can provide for their business activities.
- Thinking Customer-first: every single function in our organization must be focused on what our customers need.
- Co-Creating Customer Value: we must join forces with our customers to create added-value in the marketplace.

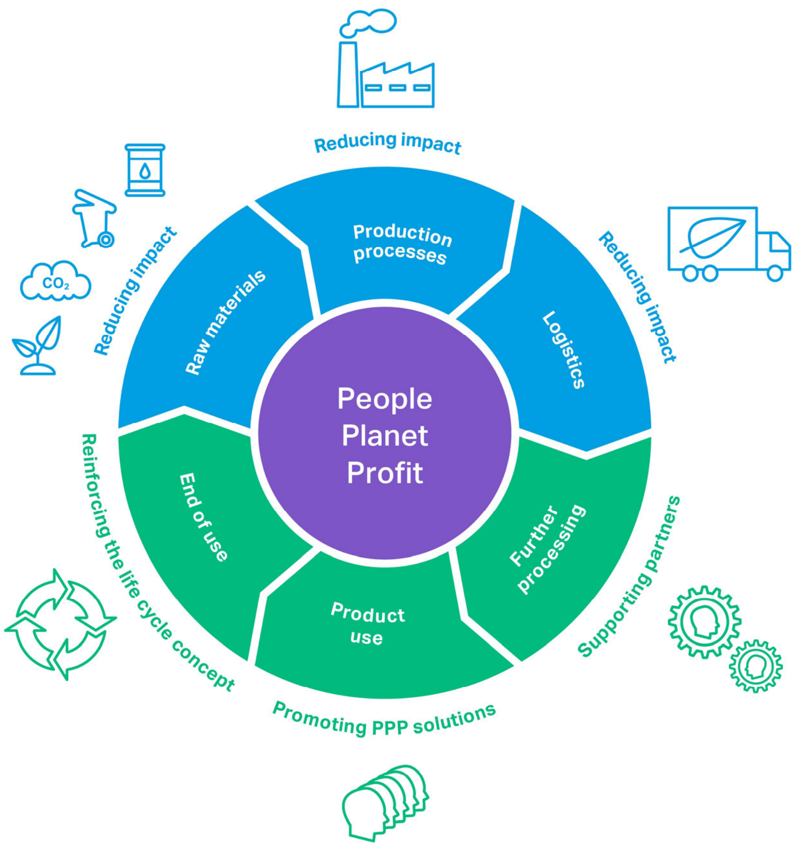
“Drive sustainable growth”

“Driving sustainable growth” – and therefore bringing together sustainability and economic success – is part of the second strategic chapter of our Group strategy. To ensure that our portfolio is fit for the future, we intend to invest in market segments that are attractive and sustainable for the long term. For this reason, we not only aim to make our investment portfolio sustainable, but also analyze and manage it based on profitability criteria to generate value with the capital we invest. We support investment projects with a return on capital employed (ROCE) above certain thresholds to sharpen our focus on value-oriented growth.

See “Key management indicators.”

In the future, we will orient all activities that promote organic and inorganic growth, i.e., investments, acquisitions, research and development (R&D) activities, and our strategic venture capital initiative (Covestro Venture Capital, COVeC), even more strongly toward sustainability. The majority of our new, innovative products already contribute to meeting the United Nations Sustainable Development Goals (SDGs), and we pursue the clear goal of expanding our portfolio of circular products.

Sustainability formula



In addition to our responsibility for the environment, we also want to fulfill our social responsibility within society in accordance with our purpose "to make the world a brighter place." This is why our strategy is focused on adding value equally at the social, environmental, and economic levels. Our decisions and our actions always take into account the three Ps of sustainability: people, planet, and profit (PPP). We are oriented toward a positive impact on at least two of the three Ps, while at the same time ensuring none of them is negatively impacted. Every decision, every action we take, and the resulting consequences are considered holistically at Covestro, that is, throughout the entire value cycle.

We plan to build plants faster and cheaper to increase the efficient use of our investment capital without sacrificing the reliability or safety of our facilities. For this reason, we will expand our global network of partners specializing in plant construction, equipment, and services; optimize in-house processes and the use of resources; accelerate internal approval processes; and increasingly apply a blueprint approach – i.e., we want to use completed construction projects as a template for future projects.

With the recently announced acquisition of the Resins & Functional Materials (RFM) business of Koninklijke DSM N.V., Heerlen (Netherlands), Covestro is expanding its sustainable business units to implement its long-term strategy. The planned completion of the acquisition and integration of RFM into the CAS segment will make Covestro one of the world's leading suppliers of sustainable coating resins. Closing is planned for the first quarter of 2021.

See note 7.2 "Acquisitions and divestitures" in the Notes to the Consolidated Financial Statements.

In the interest of accelerating the development of our circular product portfolio, we decided in the reporting year to allocate a significant portion of our investment budget for circular economy projects in the coming years.

Greenhouse gas emissions are considered to be the main driver of progressive climate change, which is why – in line with our goal of operating sustainably – we are working to continuously reduce our greenhouse gas emissions. In light of this, it was resolved during the reporting year to review the compensation system to create long-term performance incentives to hone the company's focus on sustainability. In particular, starting in the year 2021, the existing long-term variable compensation system for the Board of Management and eligible employees will be expanded to include a sustainability component that covers Covestro's direct greenhouse gas emissions. This will link long-term variable compensation to an absolute reduction in greenhouse gas emissions. There are also plans to include indirect greenhouse gas emissions in the future.

See "Greenhouse gas emissions."

"Become fully circular"

The third strategic chapter comprises our vision to "become fully circular." It describes our efforts to contribute to accelerating the transition to a climate-neutral and resource-efficient economy. We see this orientation as an opportunity for Covestro to add solutions to global challenges – our circular products – along the entire value chain.

Limited natural resources and advancing climate change are two key drivers of the circular economy. Our activities aim to close material and carbon loops, and thus achieve climate neutrality and reduce the use of resources in the company itself, and in upstream and downstream stages of the value chain. To this end, we are aiming for non-fossil-based polymer production, i.e., in the long run we want to replace fossil-based raw materials such as crude oil entirely with alternative raw materials. By realigning our production processes, we will be able to use raw materials derived from sustainable biomass, CO_2 or recycled materials, or obtained using electrochemical processes. Our goal is clear: In the future, we want to produce 100% of our products from alternative raw materials.

Completely climate-neutral production processes also require a rigorous stepwise transition of the electricity supply to renewable energies at competitive prices while maintaining a secure supply. In the future, we aim to obtain 100% of the electricity required by all of our sites from renewable sources of energy.

We also want to drive the circular economy by developing and using innovative recycling options. In this context, we consider chemical recycling particularly promising.

We are aware that shifting our production activities and our product portfolio to circular economy is a major, long-term undertaking that we cannot accomplish alone. For this reason, we will increasingly work on establishing collaborative partnerships and networks with our customers, suppliers, research institutes, and other solution providers throughout the value cycle.

Implementation of the third strategic chapter, and thus our vision, is driven by our global strategy program "Circular Economy."

For more information on our activities, see "Circular economy."

Digitalization and corporate culture

Our strategy consists of three strategic chapters resting on a solid foundation. Digitalization and our corporate culture are key elements of our company and our new strategy.

We plan to use an extensive program to take better advantage of the opportunities arising from digitalization. To achieve this goal, Covestro encourages the use of digital technologies and ways of working along the value chain, in corporate functions, and at all points of contact with the customer. The digital transformation of our core business aims to generate competitive advantages for Covestro. We intend to use digital business models to discover strategic options and new business areas. These include the expansion of our digital R&D activities and collaborations with major corporations such as Google.

See "Use of digital technologies."

We want to embed our culture firmly in the company in order to fully exploit our internal potential and achieve our business goals. The key to this is our employees, who live the "We Are 1" culture. We work consistently on promoting our culture, developing it, and making implementation easier by defining specific conduct based on the four cultural dimensions.

See "Employees."

Strategy of the Reportable 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 (PUR) segment, 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 space, mainly in the emerging economies. Considering the SDGs, there are some not yet fully addressed market segments that also warrant our attention – such as wind energy, where we provide materials for generation.

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

Polycarbonates

Increasing digitalization in various industries requires innovative solutions and unlocks new opportunities for the Polycarbonates (PCS) segment. We meet these new requirements by continuously enhancing our product portfolio and developing solutions to fulfill demand in application areas with potential for the future. These application areas include smart homes, sensor integration in cars, casings for high-performance battery cells in electric vehicles, as well as signal-penetrable distribution stations and functional housings such as those used in 5G infrastructures.

We intend to further increase the share of resilient business by focusing on application areas where stringent requirements are imposed by complex application technology and technical applications, particularly in the automotive, health, and electronics/LED areas. Furthermore, through innovations such as fiber-reinforced composite materials, we plan to expand the technological position of the PCS segment and generate even more growth in a variety of areas. In addition, new forms of mobility continue to provide opportunities for PCS since materials with low weight, high-quality optics, and transparency are particularly in demand in the automotive industry, such as in the promising electromobility market. With its distinct application expertise and global presence, the segment should grow at a higher rate than that of the global economy.

Coatings, Adhesives, Specialties

The Coatings, Adhesives, Specialties (CAS) segment specializes in manufacturing precursors for coatings and adhesives that are used in sectors such as the automotive, construction, and furniture industries. 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 customer-oriented product development. 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.

Our specialties business produces high-quality films, specialty elastomers, and precursors for cosmetics, textiles, and medical products. Covestro plans to grow at an above-average rate in this area as well, thanks to our strong technological expertise and our knowledge of chemical formulation. In this way, we aim to achieve new and profitable application areas for our products.

The completion of the acquisition, which is planned for the first quarter of fiscal year 2021, and integration of the Resins & Functional Materials business (RFM) of Koninklijke DSM N.V. into the CAS segment will make Covestro one of the world's leading suppliers of sustainable coating resins. RFM features a strong, sustainable product portfolio that will reinforce the position of CAS in the value chain. This will enable us to offer our customers more effective and comprehensive solutions.

Management

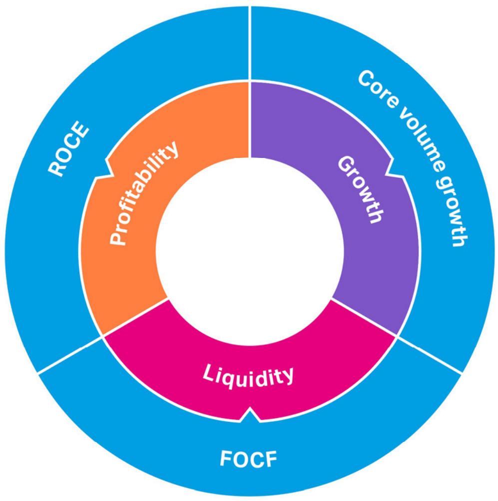
Covestro's management system is oriented toward long-term, profitable growth and continuous value creation. The Board of Management is the main decision-maker responsible for our global business and approving the planning derived from our corporate strategy. In order to plan, manage, and monitor the development of our business, we use key management indicators which enable the Group'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

Key management indicators

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

Key management indicators



Return on capital employed (ROCE) is the key management indicator used to assess the profitability of the Covestro Group, measuring the return the company achieves on the capital it uses. This KPI is calculated as the ratio of net operating profit after taxes* (NOPAT) to average capital employed. 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. ROCE is calculated annually at the end of each fiscal year.

Calculation of the return on capital employed

NOPAT	÷	Avg. capital employed	=	ROCE

* The imputed income taxes are determined by multiplying the effective tax rate by the operating result (earnings before interest and taxes, EBIT).

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

The growth of the Covestro Group is measured in terms of the development of core volume growth*. Unlike sales, this core volume growth key management indicator is influenced only indirectly by changes in raw material prices or currency effects.

The key management indicators are also used in Covestro's Group-wide bonus system, which is applicable uniformly to all staff – from the Board of Management members to employees under collective bargaining agreements. The three areas of profitability, liquidity, and growth 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.

See "Overall assessment of business performance and target attainment" and "Short-term variable compensation."

Other performance indicators

Throughout its financial reporting, Covestro uses performance indicators such as EBITDA (earnings before interests, taxes, depreciation, and amortization), capital employed, and the absolute value contribution in addition to the key management indicators to assess the business performance of the Group.

EBIT and EBITDA

EBIT, which corresponds to income after income taxes plus financial result and income taxes, allows us to assess income without the influence of variable tax rates and/or various financing activities. EBITDA is used to assess the operating profitability of Covestro and its reportable segments during the year. 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. As a result, EBITDA is adjusted for possible distortions arising from various depreciation/amortization methods and measurement options, and therefore represents earnings from operating business activities.

See "EBIT" and "EBITDA."

Capital employed

Capital employed, which is relevant to the calculation of ROCE, 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.

See "Return on capital employed (ROCE) and Value Contribution."

Weighted average cost of capital (WACC)

The weighted average cost of capital (WACC) is relevant to the calculation of the absolute value contribution and reflects the expected return on the entire company's capital comprising both equity and debt. The cost of equity factors used in WACC is calculated by adding the risk-free interest rate to 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 is calculated by adding the risk-free interest rate to a risk premium on debt capital that Covestro calculates using the financing costs of comparable companies, and subtracting 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.

See "Return on capital employed (ROCE) and Value Contribution."

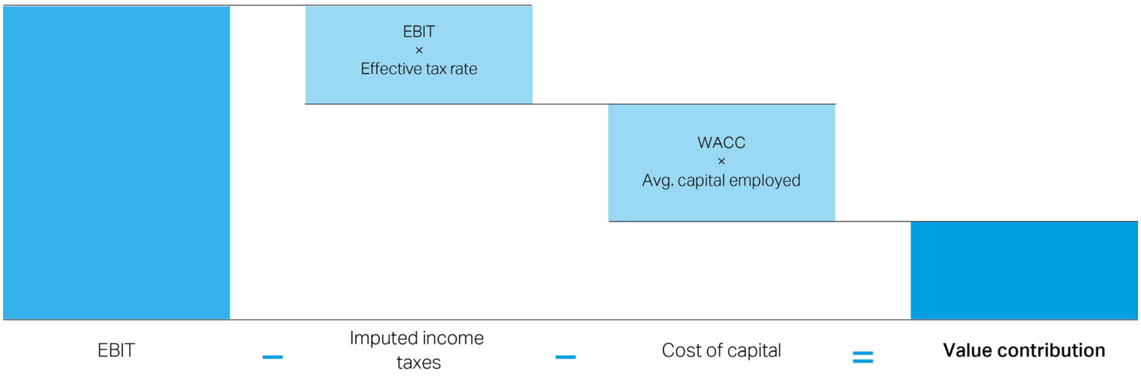
* Core volume growth refers to the core products in the Polyurethanes, Polycarbonates, and Coatings, Adhesives, Specialties segments. It is calculated as the percentage change in externally sold volumes compared with the prior year. Covestro also takes advantage of business opportunities outside its 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.

Value contribution

Covestro aims to steadily increase enterprise value. Value is generated if Group earnings exceed the cost of capital. The absolute value contribution 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.

See "Return on capital employed (ROCE) and Value Contribution."

Calculation of the value contribution



Net financial debt

Net financial debt is used to assess the financial position and financing requirements. It equals the sum of all financial liabilities less cash and cash equivalents, current financial assets and receivables from financial derivatives.

See "Net financial debt."

Sustainability

Doing business sustainably is a major factor in Covestro's success. This requires us to integrate sustainability principles into all of our business activities, while at the same time ensuring adequate focus on the issues of greatest relevance to us and our stakeholders. Sustainability issues are therefore also integral to corporate governance.

Management and governance

The Sustainability function advises the other corporate functions by sharing its extensive technical expertise on topics such as life cycle assessment (LCA), human rights, and the United Nations Sustainable Development Goals (SDGs). A network of sustainability officers guarantees access to this expertise for all corporate functions and all regions in which we operate.

Occupational health and safety and environmental protection are monitored using a Group-wide management system. Support is provided by a centralized team of experts with global responsibility for these issues.

See "Integrated management system for health, safety, environment, energy, and quality."

A holistic review of the issues of sustainability as well as health, safety, environment, energy, and quality (HSEQ) is conducted by the Board of Management. The company's management sets quantitative targets, monitors success on the basis of performance indicators, sets priorities, and adjusts the allocation of resources when necessary.

Our principles are anchored in publicly available corporate policies. They provide concrete specifications on the important issues of value creation, sustainability, innovation, people, HSEQ, and compliance. The framework for our activities in these policies is described more specifically and in greater detail in directives. Directives are binding for employees throughout the Group and are available to all staff in an in-house database. Compliance with the directives is verified using annual internal audits. In addition, issues and action plans as well as target attainment are monitored in a management review. Global and local procedures for the relevant processes ensure that the content of corporate policies and directives is implemented in all operating units.

See "Corporate policies."

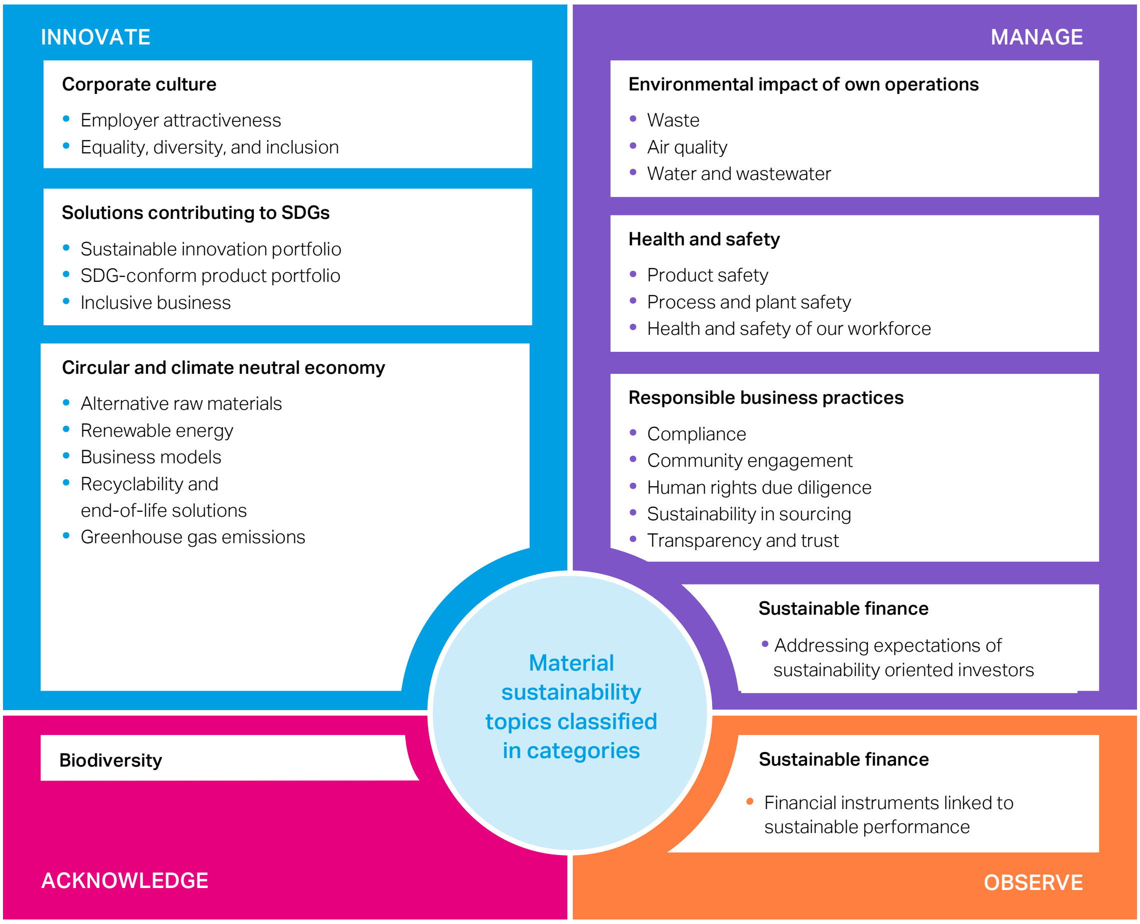
Binding ethical and legal principles are anchored in our compliance directive, which includes important guidelines on fair and respectful working conditions and on fighting corruption, among other topics. Covestro has implemented a reporting process so that employees can report potential compliance violations anonymously. Targeted communication measures and employee training sessions ensure that the contents of the compliance directive are understood throughout the organization.

See "Compliance."

Material sustainability topics

Covestro coordinates its sustainability activities across the Group and focuses on topics of particular significance. We regularly conduct a materiality assessment to identify and prioritize the most important sustainability topics for the Group. This year, we established a new materiality assessment process to further strengthen the link between sustainability and our strategy and risk management activities. This closer connection with the existing processes of other corporate functions increases the relevance of the results and fosters their systematic use.

Results of the materiality assessment



The process of determining the material topics in the reporting year involved the compilation of a long list, including sustainability topics from external and internal sources, and an assessment of their relevance to Covestro. It also took feedback and opinions of external and internal stakeholder into account. To identify the material sustainability topics for Covestro, we applied the three dimensions of materiality: “business relevance,” “stakeholder relevance,” and “impact.” The topics were combined into thematic areas for the first time in the reporting year and broken down into four categories (Innovate, Manage, Observe, Acknowledge) to reflect the activities appropriate to the topics to be derived for Covestro. The breakdown into categories helps combine familiar and new topics in the materiality assessment, since the action required differs depending on the management approaches in place. The material topics and their classification have been reviewed and approved by the Board of Management. They are reviewed annually and, if necessary, modified in line with the latest developments. The comprehensive materiality analysis described here is scheduled to take place every three to four years.

See “Nonfinancial Group statement.”

Material sustainability topics in the “Innovate” category

The material topics in the “Innovate” category are highly relevant to our business and for stakeholders, and provide opportunities for direct influence by Covestro. New management approaches must be defined and established for these topics of future relevance.

“Circular and Climate Neutral Economy” topics have become increasingly important in the public debate. Their growing relevance is also reflected in Covestro’s vision: We will be fully circular. Specific action items in our Group-wide circular economy program were identified for implementation and approved by the Board of Management.

See “Circular economy.”

“Solutions Contributing to SDGs” is another cluster whose increase in relevance we have observed. We have been aligning our innovation activities more strongly with the UN SDGs since the year 2017. In the reporting year, we began systematically evaluating our research and development (R&D) projects for their contribution to the SDGs. A total of 96% of R&D project costs incurred have already been assessed, and 51% of them exceed the threshold we have defined. We consolidate our activities in the material topic of inclusive business in a program under which we aim to meet needs in what are known as underserved markets. Our collaborative approach ensures that we offer scalable solutions intended to reach as many people as possible.

See “Innovation” and “Inclusive business.”

Corporate culture continues to be a key factor in our company's focus on sustainability. Covestro targets innovative solutions to advance topics of relevance to employees now and in the future. Where necessary, we establish suitable indicators of progress for this purpose.

See “Employees.”

Material sustainability topics in the “Manage” category

The “Manage” category comprises the material topics that are highly relevant to our business and for stakeholders, and provide opportunities for direct influence by Covestro and where Covestro already has robust management approaches in place. The management approaches associated with these topics are continually reviewed and improved further as needed.

In the reporting year, we reviewed and restructured the organization of the HSEQ corporate function. The “Environmental Impact of Own Operations” cluster is a core element of our integrated HSEQ management system.

See “Integrated management system for health, safety, environment, energy, and quality” and “Environmental protection.”

As a company in the chemical industry, we have a special responsibility with respect to health and safety. We intend to manage this responsibility with our integrated HSEQ management system.

See “Safety” and “Product stewardship.”

Covestro combines the following topics under the umbrella of "Responsible Business Practices": "Community engagement," "Compliance," "Human rights due diligence," "Sustainability in sourcing," and "Transparency and trust."

See "Social responsibility," "Sustainability in the supply chain," and "Compliance."

See "Stakeholder dialogue."

To document our commitment to sustainable finance and advance this, and to enhance our attractiveness for sustainability-oriented investors, we focus on a number of different strategic sustainability rankings.

See "Public recognition."

Material sustainability topics in the "Observe" and "Acknowledge" categories

In addition to the key topics in the "Innovate" and "Manage" categories, additional topics were identified that could become more important for Covestro in the future.

Financial instruments linked to sustainable performance provide interesting opportunities for Covestro. The use of these instruments allows the company's sustainable development to have a direct impact on financing and its costs. In the reporting year, Covestro already entered into two financing agreements that link changes in its sustainability rating to financing costs. Covestro continually observes whether other financial instruments can be linked meaningfully to sustainability aspects.

See "Financial position."

"Biodiversity" is a significant topic for our stakeholders, and we expressly acknowledge the societal importance of this issue. Our commitment to a circular economy and the associated increase in the use of biobased raw materials will make the topic of biodiversity more and more important for Covestro in the future.

Optimizing business practices

Continually maintaining and enhancing our sophisticated management systems is a key priority in ensuring societal acceptance of our ongoing business activity (license to operate). Based on our continual improvement process, we reviewed and redesigned our existing HSEQ management systems during the reporting year. A particular focal point in fiscal 2020 continued to be the topic of "Human rights due diligence." We also updated our methodology for systematically assessing our water risks in the reporting year and now consider not only physical but also regulatory risks at our production sites.

See "Integrated management system for health, safety, environment, energy, and quality," "Environmental protection," and "Human rights due diligence."

Public recognition

Our sustainability activities relating to environment, social, and governance (ESG) are regularly evaluated by third-party organizations such as rating agencies. Sustainability ratings are not only a decision-making basis for institutional investors and customers, but also help us to continually review our sustainability activities and supplement them as needed. We have identified four strategic ratings and actively engage with the agencies. In the year 2020, Covestro received special recognition from the rating agency ISS ESG, which again awarded us Prime status with an overall score of B–. This puts Covestro among the best 10% of rated companies in the chemical industry. Additionally, Covestro was ranked above average once more by another rating agency, Sustainalytics, placing third out of 120 specialty chemical companies assessed. In the year 2019, the international rating agency EcoVadis gave us its top Gold rating, we also retained the previous year's A rating from MSCI ESG Research, one of the world's largest provider of sustainability analyses and ESG ratings. In addition to the above-named ratings, we also qualified to remain listed in the important FTSE4Good Series.

Assessments by rating agencies

Rating	Rating scale	Covestro's score 2016	2017	2018	2019	2020	Distinction
ecovadis SUSTAINABLE SUPPLY MANAGEMENT	**0–100 points** (the higher the better)	73			80		GOLD 2019 ecovadis CSR Rating
Corporate ESG Performance Prime RATED BY ISS ESG	**A+ to D–** (top score: A+)	B–		B–		B–	**„Prime" Status** (since 2016)
MSCI	**AAA to CCC** (top score: AAA)	BBB	BBB	A	A	A	
SUSTAINALYTICS	**Until 2019: 0–100 points** (the higher the better)	74	75		80		
	After 2019: 0–100 points (the lower the better)				23.3	20.0	

We consider the results in these ratings and the inclusion in sustainability indices as an indication of our environmental, social, and governance performance. The details of these ratings also show us how we can continue to improve.

Additional information is available at: www.covestro.com/en/sustainability/what-drives-us/rating-and-indices

Sustainability targets

In the year 2016, we set targets for key nonfinancial topics. We report in detail on our progress in the relevant sections:

- Our project portfolio for research and development should be aligned with the SDGs. By the year 2025, 80% of project expenditures for research and development are to be used in areas that contribute to reaching these goals. In the year 2020, 51% of R&D project costs met this target.
  See "Innovation."

- All of our suppliers with regular purchasing volumes of more than €100,000 per year are expected to comply with our sustainability requirements by the year 2025. During the year 2020, 79% of relevant suppliers met our sustainability requirements (previous year: 81%).
  See "Sustainability in the supply chain."

- Specific greenhouse gas emissions per metric ton of product manufactured are to be reduced by 50% from the 2005 benchmark by the year 2025. By the end of the year 2020, we achieved a reduction of 46.2% (previous year: 46.1%).
  See "Environmental protection."

- We want 10 million people in underserved markets to benefit from our solutions by the year 2025. The goal is to improve their standard of living primarily through affordable housing, sanitation, and food security. By the end of the year 2020, our solutions had already reached 1.1 million people (previous year: 0.7 million people).
  See "Inclusive business."

- We intend to create more value and increase our carbon productivity by using fewer carbon-based fossil resources. Except for our efforts toward improving energy efficiency in our production processes, we also consider our circular economy activities to be a key factor in this regard.
  See "Circular economy."

Stakeholder dialogue

We have a close and collaborative relationship with our stakeholders. They assess our company not only from a legal standpoint, but also according to whether we do business in a sustainable and ethical manner. In order to identify material sustainability topics, we continually analyze the interests, expectations, and needs of our major stakeholders and incorporate the results into our target plan and our opportunity and risk management activities.
See "Material sustainability topics."

An open and continuous exchange with our regional, national, and global stakeholders is the foundation for mutual understanding and societal acceptance of Covestro's decisions. At the same time, these discussions provide new inspiration and important recommendations.

The following chart provides an overview of our key stakeholder groups and the relevant dialogue formats.

Covestro's transparent dialogue with important stakeholders

Stakeholder groups	Forms of dialogue
Customers	• Regular in-person exchanges via Sales and Marketing employees • Branding and market research, customer surveys • Attendance at international industry trade shows • Webinars and digital showrooms
Employees	• Town hall meetings with members of the Board of Management and senior executives • Ad-hoc mailings and presentations, company intranet, social media, internal campaigns • Dialogue between managers and employees, regular discussions between the Board of Management and Works Council
Suppliers	• Together for Sustainability initiative • Sustainability events and workshops with suppliers • Regular exchange via corporate function Procurement
Associations	• Active member in national and international associations, e.g., Plastics Europe, American Chemistry Council (ACC) and China Petroleum and Chemical Industry Federation (CPCIF)
Scientific community	• Long-standing, collaborative relationships with leading German and international universities and public research institutions
Investors, lenders and analysts	• Annual general meeting • Annual report, half-yearly and quarterly reporting • Various events for investors and analysts with different focuses • Online information offered on investor.covestro.com
Regulators	• Regular exchange with government agencies, ministries, politicians, and important opinion leaders
The public, neighbors and NGOs	• Ad-hoc dialogue, e.g., in the event of investment projects in the community • Chempark neighborhood offices (Germany), community advisory panels (CAPs) (United States)
Media	• Press releases, press conferences, background discussions, individual interviews • Communication through social media channels such as LinkedIn, Twitter, Facebook, and YouTube • Annual and quarterly reports, as well as presentations and speeches from conferences and meetings (also available on our website)

Depending on the topic and its relevance, Covestro's departments identify and prioritize major stakeholders and select the appropriate dialogue format and frequency of contact in each case. Covestro has been using various digital dialogue formats (for example, for the Annual General Meeting as well as employee and customer events) to ensure that we stay in touch with our stakeholders during the coronavirus pandemic.

Contribution to the United Nations Sustainable Development Goals (SDGs)

The SDGs are significant in their entirety for developing and improving living conditions worldwide. For this reason, it is important to us to maintain our focus on all SDGs and their relevant subgoals. In our opinion, all the SDGs are equally important, are closely interconnected, and influence each other. Our objective is to contribute to the attainment of all of these goals or to maximize our influence on them. The SDGs serve primarily as a source of inspiration for innovation and as indicators for the future direction of the company.

We have conducted a detailed analysis on the SDGs and our contributions, taking a close look at the top-level SDGs and their subgoals – under additional consideration of the UN's guidelines on interpreting the SDGs. We found that Covestro already makes substantial positive contributions to all 17 SDGs and many subgoals. The majority of these relate to products in our core business that, during their use phase, help conserve large amounts of energy. Additional contributions stem from our own production activities, our business practices, our community engagement, and solutions for underserved markets (the inclusive business segment).

See "Inclusive business."

In order to increase our contributions in the future, we are aligning our R&D portfolio with the SDGs, and the further operationalization of this goal was again a focal point of this reporting year.

See "Innovation."

In addition to evaluating the positive contributions to the SDGs that Covestro is already making, the analysis aimed to identify requirements that Covestro could face. By these types of requirements we mean topics that, from the perspective of stakeholders, could potentially be seen as having a negative impact on individual SDGs if there was any inactivity or neglect. For example, we are aware that our production is associated with high energy requirements. For this reason, we have set ourselves the target of reducing specific greenhouse gas emissions in our production by 50% until the year 2025 from the 2005 benchmark. To this end, we have initiated many activities that will reduce energy usage in our production and cut greenhouse gas emissions. Moreover, some of our products contribute to saving energy during the usage phase. In many cases, more energy is saved during usage than was used in their production – for example, in building insulation.

As a chemical industry player, Covestro has a particular responsibility – of which we are continually aware. For this reason, we ensure that the challenges we have identified are systematically addressed and continuously monitored. In this way, we want to ensure that we make positive contributions to the SDGs, including and especially in challenging areas – e.g., in areas where we currently have a low profile – or that our activities are at least neutral.

Current Covestro contribution to the SDGs (Covestro internal study 2017; R&D projects updated in the year under review)[1]

	AREAS OF ACTIVITY				
	R&D projects[2]	Core business products	Production, workflows, business ethics	Inclusive business	Social engagement
1 No Poverty	●	●	●	●●	●
2 Zero Hunger		●		●●	●●
3 Good Health and Well-Being	●●●	●●	●●	●	●
4 Quality Education			●	●	●●●
5 Gender Equality			●		●●
6 Clean Water and Sanitation	●	●	●●●	●	●●
7 Affordable and Clean Energy	●●	●●●	●		●●
8 Decent Work and Economic Growth	●●●	●●	●●●	●	●●
9 Industry, Innovation and Infrastructure	●●	●●	●●	●●	●●
10 Reduced Inequalities			●	●	●
11 Sustainable Cities and Communities	●●	●●	●	●●	●
12 Responsible Consumption and Production	●●●	●●●	●●●	●●	●
13 Climate Action	●●●	●●●	●●	●	●
14 Life Below Water	●		●		●
15 Life on Land	●		●		
16 Peace, Justice and Strong Institutions			●	●	
17 Partnerships for the Goals	●	●●	●●	●●●	●●●

● Low ●● Medium ●●● High

[1] The impact of the contributions is comparable only within individual areas of activity.
[2] Evaluation of R&D projects by project budget and estimated SDG contribution.

< Supplementary information

Corporate Policies

We have laid down important basic principles for our actions in six policies applicable throughout the Group. The text of these guidelines is publicly available. They provide our employees with guidance in the areas of value creation, sustainability, innovation, people, HSEQ, and compliance. The standards outlined in these policies are mandatory for all employees worldwide and form the framework for our activities. Where required, further detail is provided with more specific guidelines on particular topics.

Additional information is available at: www.covestro.com/en/sustainability/service-downloads/policies-commitments

Supplementary information >

Corporate policies

Value creation

Covestro's primary objective is to turn its development activities and products into solutions that create value for customers, society, the environment, employees, and investors. We do this, for instance, by manufacturing products with superior properties, environmental performance, usability and cost effectiveness. At the same time, Covestro aims make the life cycle of products as resource-efficient as possible to extract the greatest possible value from the resources used in them.

Sustainability

We want to bring economic success into alignment with environmental and societal goals. Doing business sustainably conforms to Covestro’s purpose: “to make the world a brighter place”. In making decisions and taking actions, we therefore consider the three dimensions of sustainability – people, planet, profit – equally, while adhering to the principle of avoiding a negative impact on any of them. Our Sustainability Policy underscores this intention. Special committees at Covestro are tasked with defining and managing important sustainability topics, including the development and implementation of goals and action plans.

See “Sustainability.”

The SDGs are of great significance for Covestro and are therefore also reflected in our corporate strategy. For instance, we have made it our aim to systematically accelerate the alignment of our R&D project portfolio with the SDGs. This conviction is also expressed in our voluntary commitment to attaining the SDGs on our website (Corporate Commitment on our Contribution to the United Nations Sustainable Development Goals).

Additional information is available at:
https://www.covestro.com/en/sustainability/what-drives-us/un-sustainable-development-goals

Innovation

Innovation is an essential factor in mastering the challenges of a changing world, remaining competitive, and creating value for the long term – inspired by and consistent with sustainability. Accordingly, we continually work on developing new products, processes, applications, and technologies that offer new perspectives. It is particularly important to us that innovation be an issue of personal concern to each and every Covestro employee.

See “Innovation.”

Employees

Covestro's success is based on the outstanding skills and strong commitment of its employees. We therefore offer our employees a good and safe working environment and promote their professional and personal development. Covestro values a corporate culture that is curious, courageous, and colorful, and enables employees to successfully contribute their talents to the company. The core competencies and management skills that guide our employees’ further development are also oriented to these values.

See “Employees.”

Health, safety, environment, energy, and quality (HSEQ)

Health, safety, environment, energy, and quality are vitally important for achieving our goals. We set high standards and continually work toward improving our performance. This is the main objective of our integrated HSEQ management system, which ensures the implementation of the specifications in our HSEQ Group Regulation in orientation to or conformity with the internationally recognized standards ISO 45001, ISO 9001, ISO 14001, and ISO 50001.

See "Integrated management system for health, safety, environment, energy, and quality."

Compliance

Covestro's corporate governance is characterized by a strong sense of responsibility as well as adherence to ethical principles. This includes strict compliance with all statutory requirements and Covestro's voluntary commitments, which are anchored in our internal regulations and are applicable to all employees worldwide.

See "Compliance."

Corporate commitments

As a company committed to operating sustainably, we take a clear stand on relevant issues. Like our guidelines, the text of these corporate commitments is publicly available. The minimum standards applicable to such efforts are stipulated in our voluntary corporate commitments. Compliance with them is governed by the corresponding directives, which are valid throughout the Group. At present, Covestro has entered into voluntary commitments on the following: the UN Sustainable Development Goals, the Ten Principles of the UN Global Compact, Responsible Care™, human rights, slavery and human trafficking (UK Modern Slavery Act Statement), water, product responsibility, corporate compliance, responsible lobbying, responsible marketing and sales, and tax transparency. In terms of lobbying in particular, we have laid down clear and binding rules for our engagement in the political arena. The voluntary commitment and a more comprehensive directive are applicable Group-wide and build on transparency and openness in the interaction with representatives of political institutions. In addition, Covestro has voluntarily joined the European transparency register in addition to publicly publishing its voluntary commitment. Covestro does not make any donations as a company to political parties, politicians, or candidates for a political office. The associations in which Covestro is a member make donations under their own responsibility and according to the respective relevant legislation, in particular taking account of laws related to donations to political parties.

Additional information is available at: www.covestro.com/en/sustainability/service-downloads/policies-commitments

< Supplementary information

Circular Economy

Covestro wants to use the circular economy in the future primarily to provide efficient solutions so that products and materials are returned to the value creation cycle at the end of their life cycle – as a whole, in the form of polymers, or in molecular or other chemical forms. The use of other renewable carbon sources and the increased deployment of renewable energies in production are complementary measures at Covestro for establishing a closed loop system in the company. Under the Circular Economy global strategy program Covestro took further steps to establish circularity throughout the entire company and to drive efforts toward "becoming fully circular" – our corporate vision. We identified areas of focus in the strategy program ranging from product design to procurement, energy and raw material generation and use, to the development of new business models and innovative production methods in order to achieve this goal. All our activities aim to close carbon and material loops, and thus achieve climate neutrality and reduce the use of resources in the company itself, and in upstream and downstream stages of the value chain.

See "Become fully circular."

Our target for increasing carbon productivity

We intend to create more value and increase our carbon productivity by using fewer carbon-based fossil resources.

Status

Our circular economy activities are making a critical contribution. We investigated and evaluated various indicators and measurement methods for circularity during the reporting year and will build on this to develop a system for Covestro.

Management and implementation

Both the internal transformation and the promotion of external transformation into a closed-loop system are driven by the Circular Economy global strategy program. In the course of announcing the new corporate vision, Covestro added a steering committee to the program. The committee is made up of the heads of the Strategy and Portfolio Development, Procurement, Sustainability, and Central Marketing corporate functions, Polyurethanes, Polycarbonates, and Coatings, Adhesives, Specialties, and the management of the Finance, Production, and Technology corporate functions. By making decisions and providing direction for the program, the steering committee is intended to ensure the implementation and development of steps toward a closed loop system in all corporate functions. Corresponding recommendations for action are developed in global teams that cover technologies for alternative raw materials, raw material markets, procurement, customer segments, site development, CO_2 impacts, and positioning in the context of a circular economy. This Group-wide program is sponsored by Covestro's CEO.

During the reporting period, we made progress on initiatives within the strategy program, including measuring and reporting circularity in the company, criteria for a circular and sustainable product portfolio, Covestro's climate stewardship, and identification of greenhouse gas reduction paths.

Measuring and reporting circularity in the company

In order to make our achievements in implementing a closed loop system measurable in line with our corporate vision, suitable indicators and criteria are required. We investigated and evaluated various indicators and measurement methods for circularity at Covestro during the reporting year and will build on this to develop a suitable system for Covestro. To this end, we are also studying existing models, e.g., the ones developed by the Ellen MacArthur Foundation or the World Business Council for Sustainable Development (WBCSD), and building on our experience to date with approaches to carbon productivity.

Criteria for a circular and sustainable product portfolio

We have begun defining criteria and circularity requirements for our products and services so that we can align our product portfolio more closely with circular solutions for our customers and offer these in a targeted manner in the future. Examples include minimum recycled or renewable raw material content and the combined use of renewable energy in the production of our materials. A top priority in this regard is to improve our carbon footprint compared with a conventional product portfolio so that we can make a tangible contribution to future climate-neutral value creation in our industry.

Covestro's climate stewardship and the identification of greenhouse gas reduction paths

The move towards a circular economy is key to substantially reducing Scope 1, Scope 2, and Scope 3 greenhouse gas emissions – i.e., direct and indirect emissions sources pursuant to the Greenhouse Gas Protocol (GHG)) – along the entire value chain. In the reporting year, development of a global carbon roadmap was initiated with an initial focus on the year 2030 in order to align Covestro's existing targets for reducing greenhouse gas emissions in accordance with the new corporate vision. The roadmap serves as a pillar of our Covestro Climate Stewardship, which is aimed at ensuring compliance with the greenhouse gas emissions targets and continual short-, medium-, and long-term reductions in emissions. The roadmap will be the foundation for prioritizing specific greenhouse gas reduction projects and for adapting the company's climate-related targets to the new corporate vision. It will generally address and evaluate all direct and indirect sources of emissions pursuant to the GHG Protocol. Covestro already has a regular reporting system in place for Scope 1 and Scope 2 emissions. A reporting system for Scope 3 greenhouse gas emissions is under development.

Recycling and production processes

Our core technical competence is the development and application of complex chemical processes. In particular, we want to use this expertise to establish innovative chemical and biochemical recycling and production processes for a circular economy. We want to create processes that enable us to reclaim from used materials the chemical precursors required for their production. These can in turn be used as raw materials in our own production activities. In addition, we also want to use recycled raw materials in upstream stages of the value chain in production at Covestro. On the whole, chemical recycling processes are an important tool for Covestro in gradually replacing the use of fossil-based materials and in contributing to closing carbon loops as a pillar in a climate-neutral method of production. The benefits of the new processes will be verified by means of a life cycle assessment (LCA), in other words, taking the entire life cycle into account.

When we engage in dialogue with politicians and the public, we advocate for structuring the required regulatory environment for establishing a comprehensive circular economy with room for innovation and, in addition to established recycling methods such as mechanical recycling, also recognizing chemical recycling processes as complementary methods.

Covestro is currently researching recycling processes for its own products and materials in more than 20 projects. Of particular importance for Covestro are processes with which materials can be chemically or enzymatically transformed back into their molecules. The secondary raw materials obtained in this manner are of a comparable quality and have properties similar to conventionally manufactured raw materials, and can therefore be reused to manufacture products and materials.

When it comes to implementing circularity, we have made important progress in polyurethane recycling. The first pilot plant for recycling flexible polyurethane foam was commissioned during the reporting year, building on our participation in the PUReSmart research partnership project. This foam is used, among other things, for the manufacturing of mattresses and car seats. In contrast to other processes under development, both polyether polyol toluene diamine (TDA) are reclaimed here, not just polyether polyol. TDA is used at Covestro in toluene diisocyanate (TDI) production. By recovering it, we aim to develop a fully closed loop for our flexible polyurethane foams.

Further development of the circular and sustainable product portfolio

A key element in the circular economy is applying the principle of design for circularity. This means that various aspects of circularity, such as alternative raw materials, avoiding waste, durability of the application, and recycling options, are considered when developing products. Depending on the intended use, design for recycling may also play an important role here, along with the use of as few as possible different and pure materials in a product.

In this context, Covestro has set standards and, for instance, launched a unique headlight concept based on the use of monomaterials. This LED headlight system is composed of just four materials: Makrolon® polycarbonate; Bayblend® polycarbonate/ABS blend, a scratch-resistant coating (outer lens cover), and metallization (reflectors). This simplifies recycling considerably as it reduces separation, sorting, and storage effort in the recycling streams at the end of the headlight's useful life.

Another aspect of circularity at Covestro is CO_2 recycling. The materials we produce are based on carbon, which can be converted to CO_2 in various ways. In the future, all possibilities for CO_2 use must be exploited to meet the ambitious government and non-government climate protection goals under the Paris Agreement. We have already established an innovative platform technology for this purpose – cardyon® – that allows us to use CO_2 in our production process directly, and we continually strive to expand the existing application options for this technology. In addition to current uses, such as mattresses, sports flooring, and textile fibers, Covestro developed another application in the reporting year and offers the technology for the manufacture of foams used in the automotive industry. In the year 2019, Covestro was nominated along with RWTH Aachen University and the Max Planck Institute for Chemical Energy Conversion, Mülheim an der Ruhr (Germany), for the German Future Prize – the Federal President's Prize for technology and innovation – and selected for inclusion in the "Circle of the Best" for this prize.

Moreover, in addition to the integration of renewable raw materials into production processes already underway, business activities involving mechanically recycled polycarbonate were expanded further in the reporting period. Polycarbonate products with mechanically recycled content are now marketed not only in the Asia-Pacific region but also in Europe. All told, 13 types of polycarbonate have been developed to date containing up to 75% recycled content. This enables us to reduce our carbon footprint by up to 50%.

In China, Covestro also entered into a strategic partnership in the area of drinking water container recycling. An agreement was signed with partners Nongfu Spring, Hangzhou (China), and Ausell, Shanghai (China), to introduce a recycling model for 19-liter reusable drinking water containers that can be recycled after several uses and reused as recycled polycarbonate, particularly in electronics applications. The partnership expects to collect and recycle one million of these drinking water containers annually.

Raw material and energy procurement

In addition to Covestro's own production of secondary and biogenic raw materials, the strategic alignment of our raw material and energy procurement activities with our corporate vision is vitally important. During the reporting period, Covestro therefore further expanded its strategic partnerships to promote the circular economy.

As part of a strategic raw material partnership with Neste, Espoo (Finland), and Borealis, Vienna (Austria), Covestro has started to use renewable hydrocarbons in the production of the phenol, which is required to manufacture polycarbonate. To date, the hydrocarbons on which this chemical is based were obtained from petroleum. At Neste, however, they are produced from resources such as waste and residual oils and fats. In a further step, Borealis uses the hydrocarbons certified by Neste to produce phenol, which Covestro uses to produce polycarbonate. On this basis, petroleum can be replaced with certified renewable raw materials in the value chain for producing polycarbonate.

We have begun to have our production facilities audited and certified to the ISCC+ process to reflect the certification of this material for its further use along the entire value chain. International Sustainability and Carbon Certification (ISCC) is a recognized system for certifying the sustainability of biomass and bioenergy. The standard, which covers all stages of the value chain, is widely used worldwide. In the reporting period, Covestro initially had the Krefeld-Uerdingen (Germany) and Antwerp (Belgium) sites in Europe certified to the ISCC+ process for the integration of renewable raw materials in production. Other sites for the integration of renewable raw materials are to be certified in the future in order to provide these solutions to a broad market and to move successively from the raw materials used in production to alternative raw materials.

Covestro also made progress in supplying production sites with renewable energy and signed what was then the world's largest industry supply contract for offshore wind energy with energy supplier Ørsted, Fredericia (Denmark). From the year 2025 onward, Covestro will be supplied with electricity for a period of at least 10 years from wind energy generated by a newly constructed wind farm off the island of Borkum. A capacity of 100 megawatts was agreed. This deal bolsters Covestro's comprehensive sustainability strategy and provides impetus for climate-friendly electricity generation. Likewise, it contributes to shrinking the carbon footprint of production, our products, and our customers' applications.

In the context of expanding the generation of electricity from renewable sources, Covestro advocates for subsidizing wind energy generation using a differentiated pricing model in which all cost components for the industrial electricity price are included to keep the price competitive in an international context and consequently drive the continued expansion of renewable energy in accordance with long-term climate goals at the European and global levels.

Digitalization and transparency in the value creation cycle

It is critically important for the transformation to a comprehensive circular economy that at the end of the life cycle of a material, the necessary information is available so that a suitable method of recycling can be chosen. Covestro is involved in the Circularise Plastics project along with Circularise, The Hague (Netherlands), and DOMO Chemicals, Leuna (Germany). The objective of the project is to develop an open blockchain standard for establishing a data exchange protocol. This will identify materials and their composition along the entire value chain so that the best possible recycling option at the end of the product's life cycle can be determined. The unique thing about this protocol is that the stored information is only accessible to those with a justified interest, enabling sensitive product information to remain protected.

Moreover, Covestro started a pilot project with Circularise and DOMO Chemicals as well as Porsche, Stuttgart (Germany), and Borealis, Vienna (Austria), in the reporting period. In this project, the traceability, carbon footprint, and other sustainability indicators are to be digitalized using the blockchain method along the entire supply chain for materials and products that Porsche uses in vehicle manufacturing.

Covestro also implements digital processes to support technology development as part of the circular project portfolio. "In silico" catalyst development, in which the sequence of chemical reactions and the effect of different catalyst structures are calculated with computer-chemical methods, and simulation of reactions are common methods in digital chemistry that are applied in this context. We use our expertise in digitalization for the development of important polymer feedstocks based on alternative raw materials. Moreover, modern data science methods support adaptation to future value chains.

Community and regional engagement

Covestro pursues the circular economy globally. Additional activities to promote a circular economy were initiated in the various regions in which we do business.

Our global commitment

As a company that does business across the globe and whose products are found in a wide variety of applications, Covestro is aware of its responsibility. This is why we advance the circular economy and climate protection in global initiatives. For example, as a founding member of the Alliance to End Plastic Waste, Covestro actively campaigns against the disposal of plastic waste in the environment.

See "Alliance to End Plastic Waste."

Within the framework of the World Economic Forum's "Collaborative Innovation for Low-Carbon Emitting Technologies" (LCET) initiative, Covestro advocates for the accelerated development of climate-friendly technologies in the chemical industry and downstream value creation stages. Covestro assumed co-leadership of the waste processing project within the LCET initiative. This project aims primarily to investigate the role of the circular economy in achieving greenhouse gas reduction targets and to advance this through collaborative approaches.

Our commitment in Europe

In addition to various R&D projects on the circular economy, Covestro participated in other circular economy projects at the sociopolitical level in Europe.

Of note is our participation in the Circular Economy Initiative Deutschland (CEID) organized by the German Academy of Science and Engineering (Acatech). This initiative financed by the Federal Ministry of Education and Research (BMBF) and partners such as Covestro published three final reports with our participation in fiscal 2020. The subjects of these reports are circular business models, closed-loop requirements for mobile electricity storage, and closed-loop requirements for plastic packaging. Together they form the starting point for the road map to be developed by CEID for a circular economy in Germany.

At the European level, Covestro is a founding member of the Circular Plastics Alliance, whose goal is for European industry to use at least 10 million metric tons of recycled plastics annually from the year 2025 onward. Recommendations for value-chain-specific action items are developed here in specific working groups. Covestro is an active member in the automotive, packaging, construction, electronics, and monitoring groups.

At the Leverkusen (Germany) site, Covestro participates in IN4climate.NRW, which was launched by the Ministry of Economics, Innovation, Digitalization, and Energy of North Rhine-Westphalia and serves as a platform for industry, the sciences, and the political sphere to establish climate-neutral industry. Covestro is represented in the economic advisory board by Board of Management member Dr. Klaus Schäfer, among others. In the reporting year, IN4climate.NRW concentrated on the circular economy, hydrogen, and the CO_2 economy, which are also core elements of Covestro's circular economy strategy. Among other things, Covestro participated in the drafting of discussion papers by IN4climate.NRW on CO_2 use, the potential of chemical plastic recycling, and the role of hydrogen.

The role of hydrogen in a greenhouse-gas-neutral chemical industry and Covestro's commitment

In the future, hydrogen is expected to contribute substantially to the energy transition – for example, by being used as part of CO_2 conversion for the generation of climate-neutral sources of energy, for use as energy and as a material, especially in the chemical industry.

Covestro campaigns for the development of a national and European hydrogen strategy. In this context, our Board of Management member Dr. Klaus Schäfer was appointed by the German government in September 2020 to the National Hydrogen Council, which began its work in October 2020.

Our commitment in the United States

In North America, we advocated at our site in Pittsburgh, Pennsylvania (United States), to include the option of chemical recycling in the state's waste regulations. Through our involvement in the American Chemistry Council (ACC), we are also promoting recognition of this option and a uniform regulatory environment in the United States in other American regions. Moreover, we have launched projects to accelerate the development of chemical processes to recycle polyurethane foams, e.g., as part of our partnership with the Mattress Recycling Council, which advocates for the use and recycling of used polyurethane foams for mattresses.

Our commitment in China

In addition to developing our portfolio of recycled polycarbonate, we pushed forward with the development of other applications by combining them with other recycled raw materials such as carbon fiber and PET (polyethylene terephthalate).

New waste management approaches and the development of creative closed loop approaches together with students were the focus of our longstanding partnership with Tongji University and the Covestro-Tongji Innovation Academy in Shanghai (China) in the reporting year.

In China, we were also involved in circular economy topics through various associations such as the China Petroleum and Chemical Industry Federation (CPCIF), the China Plastics Reuse and Recycling Association (CPRRA), and the China Circular Economy Association (CCEA). Of particular note during the year under review was the fact that we joined the CPCIF-CPRRA Green Recycled Plastic Group as a founding member. By participating in these associations, Covestro plans to contribute to advancing the closed loop principle for plastics in China and to raising awareness among politicians and citizens of circular options along the entire value chain, particularly in respect of plastics.

Moreover, we continued to take part in the Upgrading New Energy Vehicles recycling project under the auspices of the Sino-German partnership established by the governments of China and Germany. This project aims to investigate the basic conditions for closed loop recycling for cars and deliver results with a view to developing possible standards.

Innovation

For Covestro, innovation as a driver for greater sustainability in line with the United Nations Sustainable Development Goals (SDGs) is a core element of our strategy and an integral part of our identity. 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 company. We encourage all employees to promote innovation at Covestro.

In order to maintain and reinforce our position in the global arena, we continually work at all levels in close partnership with the Board of Management member responsible for Innovation, Sales, and Marketing 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

By managing innovation systematically throughout the Group, we ensure that our ongoing and planned activities and our project pipeline always satisfy the needs of our customers as well as user and consumer industries. Covestro 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 working on new, creative ideas from all parts of the company. Apart from that platform, we made an additional digital platform called "Covestro Ideenmanagement" (Idea Management) available to our employees in Germany in the year 2019. All suggestions for improvement are managed in our company system for submitting suggestions.

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, and patents and intellectual property.

Sustainable R&D portfolio

Covestro's product pipeline already puts many different sustainable solutions on the market. Going forward, however, we intend to develop and market products even more closely aligned with the SDGs. Attaining this goal means continually changing over our product range to more sustainable solutions. For instance, in research and development (R&D) we have already begun our pursuit of a much more sustainable project portfolio. This R&D strategy enables us to identify and research unconventional and unique approaches early on, and therefore to contribute to the SDGs with our R&D products and technologies.

See "Innovation in the reportable segments" and "Inclusive business."

Our innovation goal

We want our R&D project portfolio to be aligned with the SDGs. By the year 2025, 80% of project expenditures for research and development will take place in areas that contribute to reaching these goals.

Status

2020: 51% of project expenditure

We set ambitious thresholds for the standards we use to assess projects to see if they meet this goal, and we have decided to only consider projects that additionally contribute to reaching the SDGs in measuring our progress toward this target. To this end, we implemented a Group-wide assessment process as part of the existing innovation process we use to review how projects are progressing. All R&D projects are subjected to an assessment based on expert interviews. A total of 22 questions are asked to semi-quantitatively or qualitatively assess the impact of each project's results on all 17 SDGs based on certain rules. Only solutions that exceed a defined threshold for contributions compared with current market solutions will be included in this calculation. This assessment and the process, including all subsequent steps, are expected to be applied to all existing and new projects in the R&D pipeline by 2021. In the reporting year, we assessed projects using this process that already account for 96% of the R&D project costs incurred in fiscal 2020. Within this 96%, 51% of the R&D project costs exceed our defined threshold.

In fiscal 2020, our R&D expenditure amounted to €262 million (previous year: €266 million). This mainly went toward developing new application solutions for our products and refining products and process technologies. As of December 31, 2020, 1,205 employees* worldwide (previous year: 1,217) worked in R&D, most of them at the three major R&D centers in Leverkusen (Germany), Pittsburgh, Pennsylvania (United States), and Shanghai (China).

In addition, we raised awareness of the SDGs and their potential for Covestro among employees by holding information sessions and by way of a Group-wide campaign in the reporting year. The objective here is to further fill the R&D project pipeline with sustainable solutions.

Use of digital technologies

Covestro is committed to further pursuing digitalization along with the associated new opportunities for the entire chemical and plastic value chain. In the year under review, the outbreak of the global coronavirus pandemic and the associated safety measures instituted in the production facilities and administrative buildings greatly accelerated the implementation and use of digital tools throughout the entire company, which was already underway. This included the rapid proliferation throughout the Group of digital workplace initiatives featuring new digital platforms for work and communication.

Covestro utilizes the opportunities arising from digitalization with a comprehensive strategic program and especially the intelligent use of data, thus setting new standards in cooperation with customers. We increasingly anchor digital technologies and work methods in production, along the supply chain, in research and development, in administrative corporate functions, and at all points of contact with customers as well as in the development of new business models. In order to implement our strategic program directly and with focus, we set up a senior-level decision-making body under the leadership of the Chair of the Board of Management to manage the Covestro-wide portfolio of digitalization projects. A key decision-making criterion is the concrete benefit for our customers. During the reporting year, we set up a team focused on digital solutions (Digital Solutions Lab) at the Leverkusen (Germany) site, which provides technical support for developing and implementing digital products and business models. In production and technology, Covestro conducts a program called OSI2020 for the digitalization of technical, operational, and maintenance-related activities.

Covestro recognizes digitalization as a comprehensive ongoing development that includes various priorities and advances at different speeds. We have used data analysis for a number of years now for production processes, and continually invest in employees and infrastructure to systematically promote digitalization – thereby improving the efficiency of work and production processes using modern data processing and the intelligent interconnection of systems.

In this connection, Covestro is also continuing to ramp up the continuing digitalization of research and development. Key initiatives here are the further expansion of a high-performance computing cluster at the Leverkusen site and a partnership agreement with Google Ireland Ltd., Dublin (Ireland), aimed at researching quantum computing and making this novel technology usable for the development of innovative processes and products. During the reporting year, we also continued work on building a company-wide platform for the work of our data scientists in all corporate functions. In fiscal 2020, we laid the foundation for this project by launching a new Covestro-wide method for delivering data, computing capacity, and predefined services in the cloud.

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

Strategic partnerships and collaborations

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 consortia characterize our partnerships with research facilities and universities as well as with companies along the value chain.

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

Overview of the top three partnerships with universities

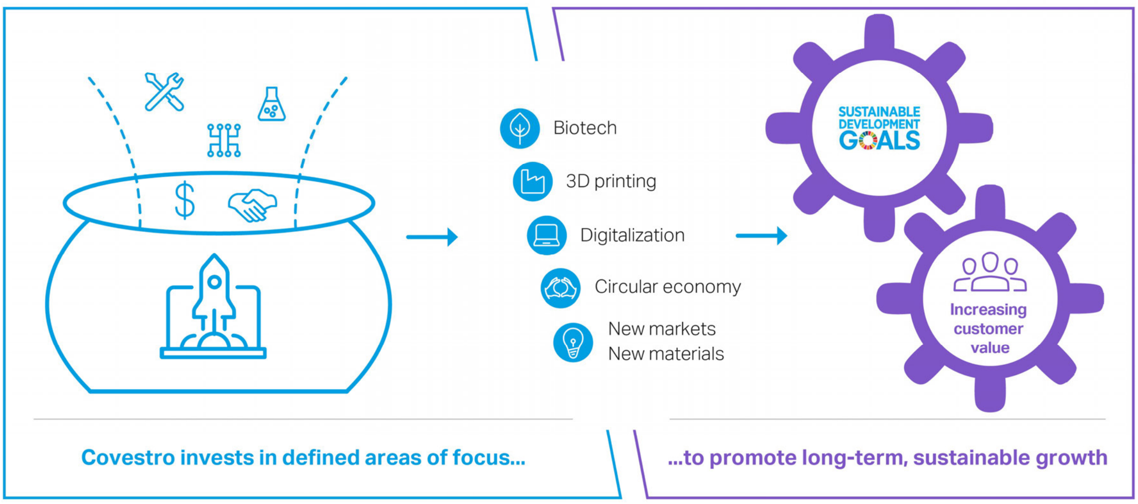
Partnerships with universities
Important tool for talent recruiting and implementation of innovation strategy

Research and development effectiveness and efficiency

Region	University	Focus	Examples
EMLA	RWTH Aachen University	• Process development • Basic research	• Chemical catalysis in various projects (CAT Catalytic Center, QuinCAT) • Electrochemistry (endowed professorship)
NAFTA	Carnegie Mellon University Engineering Carnegie Mellon University	• Digital technologies and machine learning • Application development	• Collaboration with start-ups in the university environment • Open innovation competitions (Pittsburgh Penguins Make-a-thon, Hackathon)
APAC	Tongji University	• R&D projects on electric-vehicle batteries, 3D printing and sustainability • Incubator for start-ups and promotion of talent	• Commercialization of products developed and events with industrial and education partners • Open innovation competitions (Make-a-thon, Hackathon)

We work with and invest in start-ups under the auspices of the Covestro Venture Capital (COVeC) approach, Covestro's venture capital arm, which was newly developed during the reporting year. This work involves connecting the need of start-ups for financing, customer networks, and market access with our strategic goal of securing long-term, sustainable business performance. In fiscal 2020, Covestro invested in the French start-up Crime Science Technology (C.S.T.). This investment enables Covestro to strengthen the specialty films business for identification documents and to secure access to the Optical Variable Material (O.V.M) technology for polycarbonates and polyurethanes.

Commitment to start-ups with the COVeC approach



In addition to working with start-ups, Covestro also collaborates with established partners. An example of a collaboration in a consortium project is the Kopernikus project Power-to-X (P2X), which is subsidized by the Federal Ministry of Education and Research. The transportation, industrial, and heating supply sectors need low-emissions solutions if Germany is to achieve climate neutrality by the year 2050. P2X researches one of the most promising approaches: technologies that convert green electricity into other forms of energy or materials, e.g., fuels, heat, and gases, or chemical raw materials and plastics. Along with partners, Covestro is investigating how hydrogen and CO_2 can be converted into polymer building blocks that are urgently needed in the chemical industry.

We participate in initiatives to further drive the development of the CO_2 technology platform such as the Carbon4PUR research project sponsored by the European Union (EU) in which we have been a member since the year 2017. This entails researching the use of industrial waste gases like carbon monoxide as new sources of raw materials for the production of insulation materials and coatings in conjunction with 13 other industrial and scientific partners.

In the interest of closing carbon loops, electrochemical processes offer a good starting point for forward-looking, circular solutions for the energy-efficient manufacture of basic chemicals. In pursuit of this goal, Covestro collaborated with RWTH Aachen University (Germany) and the Jülich Research Center (Germany) to establish the Competence Center for Industrial Electrochemistry ELECTRA in Aachen (Germany).

Alliance Management, a corporate function at Covestro, provides support throughout the Group in planning and implementing partnerships and networks and for raising the issues of innovation and sustainability at the state, federal and European policy levels.

Innovation in the reportable segments

Polyurethanes

In the Polyurethanes (PUR) segment, we are continually working on innovating polyurethane industry products with newly developed materials and process improvements throughout their entire life cycle, particularly core applications comprising rigid and flexible polyurethane foam, and composite materials. Our customers in the insulation, refrigeration appliance, furniture, and automotive industries along with many other industries can rely on our modern technologies and the highly motivated experts in our global network for developing their applications. The large number of new patent applications for our innovative technologies underscores Covestro’s leadership role in the collaboration with other companies in the polyurethane industry.

Furthermore, we develop sustainable, circular approaches to flexible foam applications by working with industrial and scientific partners to steadily improve the recycling of flexible polyurethane foam. This represents an important step toward turning polyurethane-based products into potential sources of raw materials for future production. An example of putting this into practice is our participation in the pan-European PUReSmart research project, which involves nine companies and academic institutions from six countries.

Covestro is also systematically conducting research in the PUR segment to determine how CO_2 and renewable carbon compounds from carbohydrates can be used intelligently as an alternative raw material to crude oil. Covestro has developed a new type of polyol for use as a component in flexible polyurethane foam that is manufactured on an industrial scale and contains as much as 20% CO_2. Sold under the brand name cardyon®, this product is already on the market in various applications such as mattresses, materials for sports flooring, and vehicle interiors.

Another new area of focus for the PUR segment is innovative research into chemolysis. In combination with use of the high-performance computing cluster, we want to use chemolysis to recapture raw materials for our production activities from polyurethane applications.

In fiscal 2020, we also continued to develop and refine flame-retardant insulation materials for the construction industry and further optimize insulation for the refrigeration appliance sector. By continually improving the insulating properties of refrigerators and refrigerated containers and boosting productivity, our materials contribute to sustainably optimizing the refrigeration chain in the global food supply.

Moreover, we were able to use new digital technologies to increase the productivity of rigid foam products for the household appliance and construction industries in the past fiscal year. These are initial successes we achieved by using digital tools to develop new Covestro products and enable them to be processed into large industrial goods at existing plants.

An exemplary use of state-of-the-art composite elements in the automotive industry is our improved solution for filling hollow spaces to help cut noise in the passenger compartment of vehicles.

Our development of novel polyurethane products for infusion technologies is another example of our innovation performance in fiscal 2020. For the first time, Covestro delivered polyurethane raw materials for the construction of wind turbines. The polyurethane resin developed and produced by Covestro was used to manufacture rotor blades for wind turbines, which were installed in a wind farm in eastern China. Fiscal 2020 also saw the subsequent commercialization of this technology, with initial customers in China converting their production to the new polyurethane technology.

Polycarbonates

In the Polycarbonates (PCS) segment, we are developing new polycarbonate-based materials and new technological solutions tailored to meet increasingly complex customer requirements in the areas of mobility, health, and electronics/LEDs. The key here is optimizing the performance of optical systems, improving safety, integrating functions, improving energy efficiency and sustainability, reducing the weight of components, and developing new design options.

Sustainable products and technologies taking into account the SDGs are being developed or are already available for all areas of application. Numerous products contain some percentage of recycled materials from various recycling paths. In addition, we are now also introducing new products for the first time that are made of chemically recycled base chemicals. The composite materials of the future are being optimized for recyclability of all of their components and additives. In addition to monolithic polycarbonate solutions for the automotive, electronics, and health care industries which are easier to recycle, our application development team is also working on ways to optimize processes and develop products that reduce the energy required at the end of a product's life cycle.

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 excellent optical performance and thermal stability, transparent polycarbonates are the ideal material for innovative solutions.

We focus consistently on the growing interest in LED technologies in the lighting market. Our newly developed products combine outstanding optical properties with exceptional longevity. In this way, Covestro supports the trend toward maintenance-free, sustainable, and efficient LED lighting.

In the automotive sector, the growing number of driving assistance systems, sensors, and camera systems can be seamlessly integrated with the sensor-transparent materials we market under the Makrolon® brand. We also fulfill the new requirements for sustainable electric drives by developing new functional and flame-retardant products, e.g., for the manufacture of ultra-light, impact-resistant honeycomb structures to protect batteries, vehicles, passengers, and battery case components.

We showcased a comprehensive vehicle passenger compartment concept featuring innovative and functional materials solutions that address current mobility trends such as autonomous driving, electric drives, and car sharing at K 2019, the world's leading plastics trade fair held in Düsseldorf (Germany). We also presented new applications for polycarbonates and polycarbonate blends for use in the global expansion of the 5G technology. Plans call for the seamless integration of an expanded network of antennae and base stations into the cityscapes of the future to increase public acceptance of these systems. Covestro is working with university students at the Umeå Institute of Design in Umeå (Sweden) and with Deutsche Telekom AG, Bonn (Germany), on draft concepts. In a pilot project, the partners tested creative design concepts for small 5G antennae and base stations, including adaptation of their color and surface texture. Covestro has also developed a multi-layer film solution made of polycarbonate and polymethyl methacrylate (PMMA) for use in manufacturing 5G-ready smartphones. Thanks to the innovation and a new manufacturing process, the back of the smartphone appears glass-like without being fragile.

For the electronics industry, our new product portfolio meets customers' sophisticated demands as regards optical and high-gloss display properties. With 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 our Markt Bibart (Germany) site, we commercially produce our continuous fiber-reinforced thermoplastics (CFRTP), which are sold under the Maezio® brand name. These composites combine the rigidity and strength of carbon fiber or fiberglass with the mechanical properties and efficient processability of polycarbonate resins. This makes applications more rigid and lighter, increasingly stable, and even more aesthetically pleasing. These materials thus open up new design possibilities for important industries such as IT, mobility, and consumer goods.

Coatings, Adhesives, Specialties

The Coatings, Adhesives, Specialties segment (CAS) serves a large number of specialized industries. In the reporting year, we worked with our customers and partners to introduce significant innovations, focusing on efficiency, sustainability, and promoting our specialties.

We again updated our product portfolio of innovative high-performance crosslinkers in the Ultra line. These products stand out due to their very low residual monomer content, thereby improving industrial hygiene. In addition, we participated in the Terminus research project sponsored by the EU's Horizon 2020 program, which aims to make multi-material packaging available to the circular economy and therefore to enable higher-quality recycling of individual materials.

Moreover, the CAS segment launched a new precursor for low-emissions, aqueous polyurethane furniture coatings that significantly accelerates the drying process. An extensive life cycle analysis was conducted in cooperation with Hesse Lignal, Hamm (Germany). The carbon footprint of finishes using the water-based coatings was improved compared with previously available coatings. In fiscal 2020, we also continued to promote the use of biobased raw materials in our products to help conserve additional resources and improve the carbon footprint. For example, we developed a new crosslinking agent for coil coatings whose content is approximately 30% renewable.

Together with a partner, we launched a textile coating based on purely aqueous and solvent-free formula components for breathable and yet water-resistant synthetic leather using polyurethane dispersions. The production technology developed by Covestro enables coated textiles to be produced using up to 95% less water and 50% less energy than processes involving organic solvents. For this reason, the technology received the Solar Impulse Efficient Solutions label, a distinction reserved for sustainable and environmentally friendly, but also profitable, solutions.

In terms of thermoplastic specialty elastomers, Covestro collaborated with RWTH Aachen University to develop an industrial process for manufacturing CO_2-based elastic textile fibers to partially replace crude oil as a raw material. The fibers can be used for applications such as stockings and medical textiles and are made of our precursor cardyon®, which contains CO_2. We additionally worked with Air Fom, Taichung (Taiwan), to develop a patented solution for airless tires that is based on expanded thermoplastic polyurethane (eTPU) by Covestro. It avoids the disadvantages of airless products available to date. Air Fom recently received a gold medal from the renowned Edison Award in the category of transportation/personal mobility for the innovation.

Covestro has also developed new elastomer solutions to meet the need for sustainable products in the mining industry. Currently, the screens used in this industry contain a steel insert. At the end of their life cycle, they are difficult to separate from the cast polyurethane elastomer, meaning they can be recycled only with substantial effort. The new composite material developed by Covestro replaces the steel structure in the screens, enabling them to be recycled more easily. This allows the materials to be returned to and help close the raw material loop from manufacture to use to recycling of a plastic product.

In addition, we developed a specialty polycarbonate film containing more than 50% carbon from plant biomass. Compared with a film made from petrochemicals, this material's carbon footprint is much smaller. Sony Corporation, Tokyo (Japan), used Covestro materials to achieve a breakthrough in the development of augmented reality displays. The company used a photopolymer film to produce an innovative display prototype that can project floating images within a 360-degree field of view while at the same time being highly transparent.

Employees

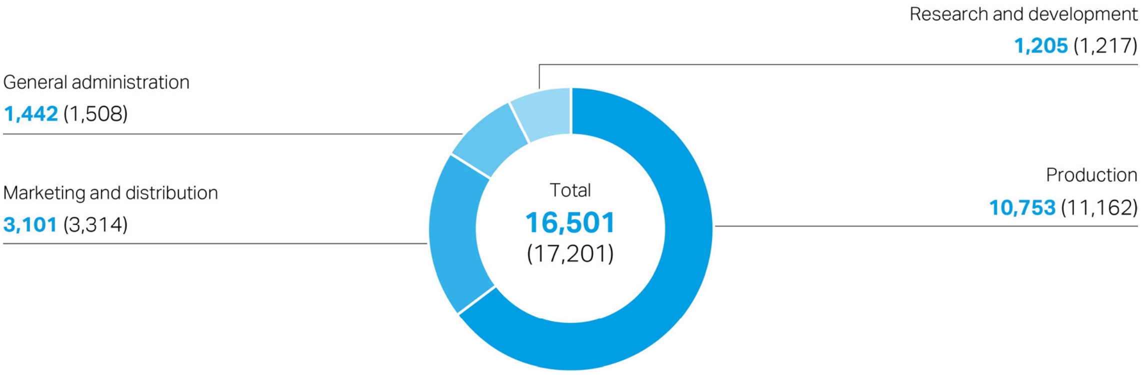
The multifaceted abilities and personal efforts of all employees contribute materially to Covestro's success. Every employee has both the freedom and the mandate to act and contribute in line with the company's goals, values, and culture. Covestro thus promotes a working environment that is shaped by unconventional thinking, the 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, 2020, Covestro had 16,501 employees worldwide (previous year: 17,201). At the reporting date, the Group also had 551 employees in vocational training worldwide (previous year: 550), 543 of whom were based in Germany (previous year: 531).

See note 11 "Personnel expenses and employee numbers" in the Notes to the Consolidated Financial Statements.

Employees by division[1]

in FTE (prior-year figure in parentheses)



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

In the year 2020, the global coronavirus pandemic required us to take decisive and sustained steps to protect our employees, customers, and suppliers, as well as other related groups. Physical distancing proved to be a successful measure to curb the coronavirus pandemic. In the reporting period, Covestro requested that employees in many different countries work from home to the extent permitted by their particular jobs. To enable digital cooperation the company put in place the framework required, including the appropriate technical, data protection, and organizational measures. This effort was completed successfully, and many employees made use of this option. Covestro had already launched the Coronavirus Info Hub on the intranet in January 2020 for purposes of providing transparent and timely information, and a channel for communication with the workforce across the globe. In addition to official notices and (travel) warnings, the Hub also offers opportunities for direct dialogue. Moreover, the Board of Management reaches out to employees through ongoing series of videos and several virtual global staff meetings (town halls) in which it answers their questions.

Corporate values and corporate culture

Covestro is proud of its corporate values, summarized as C^3: curious, courageous, and colorful. Curiosity triggers deeper thinking and allows us to create innovative and unexpected solutions for our customers. Courage helps us identify opportunities where others see limitations. Diversity promotes employee engagement and creativity; multiple viewpoints make us successful. These values guide all of the Group's employees and are reflected in their daily thoughts and actions.

The corporate culture is based on Covestro's values and behaviors, and is an integral part of Covestro's strategy. Our employees, especially our management staff, influence and shape our corporate culture. It is their responsibility to set a good example with their conduct and live out our culture. In our company, employees and managers work jointly to "make the world a brighter place" and implement our vision of a circular economy. Achieving these goals means working constantly on both structural changes and on shaping our "We Are 1" culture.

"We Are 1" describes the corporate culture Covestro is striving to build, which is made up of four cultural dimensions: "acting responsibly," "wanting better," "winning together," and "leading others." We want to continually improve the ways in which we collaborate by aligning our behavior with these concepts. This reporting year, we defined 12 key behaviors for these cultural dimensions to support our transition toward a circular economy. We want all our employees to embody these qualities in the future, help strengthen our "We Are 1" culture, and familiarize our customers – the center of our activities – with our corporate culture as well.

Our cultural dimensions and key behaviors

Acting responsibly	Wanting better	Winning together	Leading others
We think and act with a responsible and entrepreneurial mindset!	We drive innovation and change!	We are passionate about customer service!	We help each other grow!
We solve problems and do the right thing!	We are always curious and never stop learning!	We network and collaborate!	We motivate and empower our teams!
We look out for ourselves and others!	We are open and value diversity!	We are courageous!	We set the stage for the future!

Human resources profile and focus

Digital transformation, demographic change, and the trend toward individualization are changing our work and the ways we do it. Our human resources activities focus on the development and implementation of initiatives that sustainably support our business success in view of these changes, while at the same time encouraging the professional development and engagement of individual employees. In this context, Covestro's human resources strategy is derived from our overarching corporate strategy, and is also aligned with our corporate values and our corporate culture.

The top-level goals of the people strategy are set by the head of Human Resources (HR) in conjunction with Covestro's Board of Management. Promoting performance and opportunities for individual contributions are priorities, as are building and developing the individual skills and expertise of our workforce for the long term. These activities are based on leadership and management responsibility in line with Covestro's corporate culture and values. Together they set standards for working toward success, developing future-oriented skills, and conducting personal interactions based on mutual respect. Health and safety in the workplace are our highest priority. In addition, we focus in particular on further reinforcing diversity and inclusion.

Within the four strategic action areas of employee engagement, skills development, leadership, and work environment, the people strategy creates the conditions for professional development and support for our employees. Based on this strategy, all corporate functions and operating segments in the company set specific job-related goals which are agreed with the next level(s) of management. Monitoring, coaching, and reviews, as well as any necessary changes, are carried out in the regular meetings between employees and line managers.

In terms of its structure and its content, the HR organization is positioned in line with the goals named above, and uses a global personnel management system to map the necessary processes.

Winning qualified employees and promoting Covestro's employer brand

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

For this reason, we pursue the goal of strengthening Covestro's employer brand and continually improving the company's name recognition. During the reporting year, we more strongly aligned our employer brand with Covestro’s overall image, and consolidated our brand strategy under a single approach. Our employer brand is strictly used through the whole candidate journey, from applying for a job to employment at Covestro. We therefore address candidates from outside the company with the slogan “Become 1 of Us,” inviting them to become part of our team, and reinforce unity among our employees with the umbrella brand “We Are 1.”

We maintain close contacts with leading universities around the world, are involved in international student organizations, and took part in – largely virtual – career fairs during the reporting year. Covestro participates in selected initiatives and networks such as the global student association Enactus and the UNITECH International European engineering network. During the coronavirus pandemic, Covestro continued to maintain the company's visibility among up-and-coming talent by holding digital career events in cooperation with universities. One example is digital interview training for potential candidates organized in conjunction with the University of Pittsburgh, Pennsylvania (United States). Covestro also held digital career advising for students interested in vocational training in Germany.

In fiscal 2020, we also further refined our company's social media presence. We reach out to various target groups worldwide via social media and digital platforms such as LinkedIn, Instagram, Facebook, Stack Overflow, and Glassdoor to showcase Covestro as an employer. Covestro posts target group-specific content on local platforms such as XING (Germany, Switzerland) and WeChat (China) to reach professionals and university students. In addition, Covestro actively and effectively manages its reputation on regional and global rating platforms such as kununu and Glassdoor.

Our global recruiting strategy continues to focus on improving the candidate experience for potential new employees. In our recruiting process, we are increasingly concentrating on actively seeking out qualified candidates as well as stepping up our social media activities.

With regard to the coronavirus pandemic, we took steps early on in the reporting period to protect the health of our employees and job candidates in the application process. Even before that, we increasingly shifted HR marketing activities to reach and recruit future employees to online platforms. This transition was accelerated once the coronavirus pandemic started. For instance, we conducted recruiting interviews with candidates worldwide exclusively online.

We take responsibility for the future careers of young people, and during the 2020 fiscal year we gave 188 of them in Germany a start on their career paths. Covestro offers vocational training in a number of scientific, technical, and business-related jobs. If the vocational training is completed successfully, trainees are guaranteed a position with the company. The desire for more diversity and inclusion in the workforce is a driving force for Covestro. In the year 2020, the share of women among total vocational trainees was increased significantly year over year, for example. In addition to the vocational training options we offer in Germany, we bring in high-school and college students to take part in numerous professional internships worldwide each year. This gives them insight into our company’s operations as well as personal experience with Covestro as an employer. During the year 2020, these opportunities were provided mostly online due to the coronavirus pandemic. For instance, six female engineering students from Saudi Arabia took part in a virtual internship as part of the Young Scientist Initiative. Furthermore, Covestro offers varied trainee programs for university graduates in a wide variety of corporate functions.

As an employer, Covestro received major awards again in the reporting period. In Universum's current ranking of the best employers for young professionals in the sciences, we placed among the top 50 companies in Germany and the top 100 in China for university students of natural sciences. Furthermore, Covestro was named a “Top Employer” in China for the third consecutive time, and ranked second in a list of top companies in Mexico by the business magazine Expansión.

Promoting and developing employees

Well educated and trained staff is crucial for ensuring that the company can develop further, and is essential to the company’s success. We believe in the concept of lifelong learning, so 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. Numerous in-person classes are available worldwide along with virtual training sessions, each of which focuses on a different target group.

Early in the year 2020, we reorganized our educational activities and strategy. This reorganization was accelerated by the outbreak of the coronavirus pandemic, and the restructured training and education portfolio is now available to employees during the pandemic and beyond in preparation for the future. Our first step was to help employees adapt their work activities to the new conditions brought about by the rise of virtual work. The new training strategy aims to promote on-the-job learning and motivate knowledge holders in the company to share their knowledge more actively. In addition, an online platform called “My Passport to Learn” was made available to staff. This contains Covestro’s most important training content, provided online to promote continual learning and development. The more than 40 learning paths on the platform comprise Covestro's key educational content and are divided into seven thematic modules, e.g., leadership and digital transformation. They are available free to employees across the globe, who can put together the educational content they want and create an individual continuing education program for themselves.

In the area of personnel development, Covestro used a model with clearly defined core and leadership skills that serves as a reference for all employees during most of the year 2020. In the future, this will be replaced by our new cultural dimensions and the key behaviors newly defined in the reporting year. This is intended to ensure that managers and employees use the same vocabulary and uniform criteria when assessing performance. The model is used to conduct sound career planning, performance assessment, and potential assessment for employees. Moreover, it is also used to refine the requirement profile for top management at Covestro to emphasize the main aspects of leadership behavior in line with our corporate culture. We have also converted our performance assessment approach into an ongoing dialogue 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 perspectives within the Group are discussed. Managers and employees alike can take the initiative at any time and hold a development dialogue on an ad hoc basis. The contents of these discussions are integrated into the ongoing personnel planning conferences to optimally develop employees in their own best interests and those of the company.

Maintaining a constant dialogue between the employees and management is a key concern for us. 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.

The ENGAGE global initiative launched in the fourth quarter of 2019 to measure and improve employee engagement continued successfully in the year 2020. All employees worldwide can provide feedback several times a year by filling out a voluntary, anonymous online survey with standardized questions. This survey is currently carried out every four months to help us understand what is important to our employees in terms of work environment and day-to-day operations. The results are then shared transparently with the employees. Team discussions are held so that employees and supervisors can collaboratively decide on measures to continually improve the working situation.

Participation rates among employees averaging more than 70% in the surveys in the reporting year indicate that employees and supervisors viewed the tool positively. At the same time, improvement in the overall engagement score was observed over the course of the surveys. The engagement score measures company loyalty and is calculated for each category of questions. The July 2020 survey provided insight into the impact of the coronavirus pandemic on key drivers of employee engagement. For example, an analysis of the results regarding work environment as an engagement driver showed that employees in Germany in particular are very interested in flexibility in their choice of workplace and deciding for themselves whether and to what extent they will work from home. This and other insights from dealing with the coronavirus pandemic are currently being systematically analyzed by an interdisciplinary team of representatives from HR and other corporate functions. The objective is to define what remote work will look like at Covestro now and after the pandemic is over. After we completed the introductory phase of the first three survey rounds, Covestro's Board of Management decided to continue to use ENGAGE as a standardized measure of employee engagement at Covestro.

Compensating employees transparently and competitively

Offering fair compensation in line with the market independent of gender and other diversity criteria 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 standard compensation levels in the respective region. Regular compensation benchmarking is conducted to ensure this is maintained for the long term.

Through a bonus program, the Group-wide Covestro Profit Sharing Plan (Covestro PSP), 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 Prisma global compensation program, which bases payments on the Covestro share price, including comparisons with 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 the performance of their employees in regard to our corporate values.

See note 23 “Other provisions” in the Notes to the Consolidated Financial Statements.

In the interest of mitigating the impact of the coronavirus pandemic and safeguarding the liquidity of the company, we introduced various measures in the course of the reporting year to limit personnel costs. Country-specific pay cuts were implemented worldwide between June 1 and November 30, 2020. As a rule, we follow the guiding principle of fair and equitable distribution – across all regions and hierarchies. Board of Management and Supervisory Board members therefore made the largest contribution by taking a 15% pay cut in this period. In Germany, for example, employers and employee representatives agreed on a model stipulating reduced working hours along with reduced wages of up to 10% of their pay for all employee groups, depending on employee category, from June to November 2020. Employees in managerial functions were called upon to voluntarily participate in the program. The gratifyingly high participation rate of around 94% of this employee group indicates the great social cohesion of our workforce. Large numbers of employees also participated in such programs in other countries where they were offered on a voluntary basis. Because the economic situation improved greatly during the second half of fiscal 2020, employees worldwide received a one-time gross payment at year-end to compensate for their participation in the solidarity initiative.

As in previous years, the stock participation program Covestment was offered once again in fiscal 2020 and provided employees with the opportunity to purchase Covestro stocks at a discount. However, in fiscal 2020 the terms were modified from those of the prior year as part of the aforementioned measures to limit personnel costs. A total of 98% of Covestro's global workforce in 17 countries is thus able to purchase Covestro stock at discounted prices. Around 30% of all eligible employees worldwide took advantage of this offer. The participation rate was 46% in Germany, 24% in the United States, and 21% in China.

Promoting diversity and inclusion

We work to make the world a brighter place. We value differences and advocate for an integrated working environment in which various skills, talents, experiences, and points of view are welcome, and everyone is treated with dignity and respect, both within and outside of our company. It is our conviction that a diverse staff and integrated workplace are key business drivers of innovation, sustainability, and employee engagement, because diverse teams are more creative and make better decisions. Diversity and inclusion therefore contribute directly to the continued success of the company. Covestro is advancing the topics of diversity and inclusion as a core element of its corporate culture. Particular priorities are that people at Covestro can be themselves and unfold their full potential. The inclusion of different perspectives results in more balanced decisions and thus contributes substantially to Covestro's success.

Our diversity and inclusion strategy is derived from our values and includes the following areas of activity: colleagues, company, and community. These three factors are essential at Covestro for establishing a strong, diverse, inclusive, and innovative work culture at our sites and therefore making a significant contribution to Covestro's business performance. These three factors help Covestro promote engagement among our employees and external partners; support our efforts to recruit, retain, and ensure the professional development of our employees; expand our supplier diversity; and contribute to directing Covestro's business strategy.

Our diversity and inclusion strategy

Colleagues – build, engage and develop a strong, diverse workforce

Employee networks are a key factor in involving our staff even more in driving diversity. We want to bring people with similar interests or concerns together in these networks, and promote an exchange of inspiration and ideas to continually strengthen our inclusive work culture. Covestro has many different themed employee networks worldwide. The globally active UNITE network focuses on all issues of concern to our LGBTIQ (lesbian, gay, bi, trans, intersex, queer) community. Employees work on topics of gender equality in the Compass network. During fiscal 2020, we also introduced a framework for all network activities applicable across the globe. It provides all employees worldwide with the same conditions for taking action. We promote these initiatives because they are an important engine for driving inclusion at Covestro.

Company – establish an inclusive, supportive work environment and culture for everyone

Our goal is a diverse workforce, and one of the issues we focus on is gender equality. This is why we would like to hire more women at Covestro. In addition, we want to promote diversity and enable equal opportunity at all levels.

See “Promotion of equal participation of women and men in leadership positions.”

An integral part of inclusion is creating a supportive work environment. Due to the coronavirus pandemic, we have stepped up our efforts to enable employees to work remotely. In the future, we would like to continue to offer this work opportunity to interested employees and are currently evaluating the options and conditions to do so.

Community – achieving business objectives through community engagement, supplier diversity, and customer interaction

Promoting diversity is the mission of society as a whole in which each of us shares part of the responsibility. Covestro takes this responsibility seriously and thus proactively promotes diversity. We are also aware that we need to join forces with a variety of players beyond our own activities, because this is the only way that diversity can be sustainably anchored in the company and in society. For this reason, we are further expanding our cooperation with various partners. In Germany, we began working with the PROUT-AT-WORK foundation in the year 2020. This organization actively combats homophobia, transphobia, and biphobia. During the 2020 reporting year, Covestro also became a supporter of the "Komm, mach MINT" initiative, which aims to attract more women to STEM careers (MINT in German). As early as the year 2019, we entered into partnerships in Asia with the sHero Women & Diversity Council, the International WELL Building Institute (IWBI) and IWBI MIND Advisory, and the China Human Resources Management Research Institute, which advocate in favor of a number of different diversity, inclusion, and employee health issues.

Targets and an enhanced understanding of diversity and inclusion (D&I) are being further solidified in global action plans and regional implementation teams in all three areas of activity. The Board of Management member responsible for Production and Technology at Covestro is a sponsor and a member of the global D&I committee. Global decisions such as those on diversity targets are additionally made by Covestro's full Board of Management.

Designing the best possible working conditions and work models

The health, safety, and engagement of our employees are extremely important to us. Our basic principles include the constant monitoring and improvement of occupational safety and the identification of working and organizational conditions that either promote or are detrimental to health. In this context, we offer our employees an extensive selection of preventive health measures featuring programs and initiatives that promote good health. Our focus here is not only the health of individual employees but also current environmental influences, which we actively address. This was true particularly in the first half of the year 2020. In the course of the coronavirus pandemic, we worked with our occupational health agents to deliver online initiatives and plans to support employees in this largely new situation, both when working from home and under changed conditions in the workplace.

The Human Resources corporate function receives assistance in these issues from the Health, Safety, Environment and Quality (HSEQ) and Law, Compliance, and Internal Audit corporate functions, which ensure that all internal guidelines and all relevant labor laws and standards are met.

See "Integrated management system for health, safety, environment, energy, and quality."

We also offer modern working conditions to our employees, so that they can be successful in a changing working environment and balance their professional and personal interests. In many countries, we exceed our legal obligations, e.g., by offering solutions such as flexible working hours, part-time work, working from home, and remote work, if this is compatible with operational requirements. A direct dialogue 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 particularly ensure safety, health, and wellbeing in the workplace. Our sustainable personnel policy also features a strong social safety net for our employees.

See "Social responsibility" and "Human rights due diligence."

Moreover, Covestro actively raises awareness of healthy lifestyles with a stable committee structure for workplace health management and a range of initiatives and projects tailored to the individual needs of our employees. This is particularly true in regard to the challenges facing us as a result of digital transformation, demographic change, and the trend toward individualization, or freedom of choice and self-determination for individuals, which are all changing our work and the ways we do it.

We offer comprehensive workplace health management whose focal points are continually developed further in response to health surveys. Our intention is to ensure that all employees have access to suitable and affordable health services such as sports programs, regular medical check-ups, help in overcoming illness and on-site medical care, particularly with regard to psychosocial counseling. 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 or maintaining good health, in many cases exceeding statutory requirements. In order to help employees maintain their physical and mental health during the coronavirus pandemic, these offerings were expanded in the year 2020 to include new programs such as virtual ergonomics consulting, exercise breaks, and health and mindfulness training.

New, flexible working environments for improved contact and communication

Work environments, work content, and working methods are undergoing constant changes due to digital transformation and the increasing speed of change and complexity at our workplace. In order to meet these ever-changing requirements, Covestro provides a modern working environment that promotes flexible ways of working. This applies particularly to cases such as moving into or creating new workspaces. We have already proven at many sites that this flexible working concept is successful, including in Brazil, Hong Kong, Switzerland, Taiwan, Thailand, and China. Another new office building that we are using as our new corporate headquarters opened for business in November 2020 at the Leverkusen (Germany) location. On account of the coronavirus pandemic, employees will move into the building gradually while adhering to health precautions and in coordination with the return of employees to other buildings in 2021. Covestro prioritizes 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 work environment, which promotes flexible collaboration, our C³ way of working based on our C³ values. At the heart of this philosophy is our conviction that all our employees, regardless of their status in the hierarchy, need working environments suitable to their duties to be able to work effectively. In this way, we want to enable changes in perspective and drive creativity in the company. Open-plan office environments combined with flexible work concepts encourage contact and the exchange of information across team and departmental boundaries and thus strengthen communication and interdisciplinary cooperation. Active change management prepares employees for and involves them in shaping new work environments.

Our managers play a special role in this system. In addition to implementing/modeling established leadership standards and modern work methods, they increasingly collaborate with their employees to develop flexible and customized solutions to support Covestro's efforts to extract maximum potential from this new work environment.

Supplementary information >

Employee metrics in detail

Diversity and internationality

As of December 31, 2020, Covestro had 16,501 employees worldwide comprising 81 different nationalities, 76.7% of whom were male and 23.3% were female. Eleven nationalities are represented at the executive management level.

The majority of Covestro's employees (56.6%) worked in the EMLA region. The APAC region accounted for 27.0% of our employees, while 16.4% of the workforce was based in the NAFTA region.

The company-wide Diversity and Inclusion program aims to make progress on and promote diversity in the Group.

Employees[1] by employment status, region and gender in fiscal 2020

	EMLA		NAFTA		APAC		
	Women	Men	Women	Men	Women	Men	Total
Employees with permanent contracts	1,906	7,280	601	2,091	1,255	3,158	16,292
Employees with temporary contracts	53	104	1	9	24	18	209
Total	**1,960**	**7,384**	**602**	**2,100**	**1,279**	**3,176**	**16,501**

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

Permanent employees[1] by type of employment and gender in fiscal 2020

	Women	Men	Total
Part-time	704	1,997	2,701
Full-time	3,239	10,749	13,988
Total	**3,943**	**12,746**	**16,689**

[1] The number of employees (headcount) is stated irrespective of their degree of employment.

The percentages of male and female employees by employee group have remained largely constant.

Percentage of employees[1] by employee group and gender in fiscal 2020

Employee group	Women	Men	Total
Upper management	2.6%	9.6%	12.2%
Junior management	6.8%	16.8%	23.6%
Skilled workers	13.9%	50.3%	64.2%
Total	**23.3%**	**76.7%**	**100.0%**
Employees in vocational training	17.8%	82.2%	100.0%

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

Percentage of employees[1] by employee group and age group in fiscal 2020

Employee group	< 30 years	30 to 49 years	≥ 50 years	Total
Upper management	0.0%	6.1%	6.1%	12.2%
Junior management	1.0%	15.3%	7.3%	23.6%
Skilled workers	11.2%	33.1%	19.9%	64.2%
Total	**12.2%**	**54.5%**	**33.3%**	**100.0%**

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

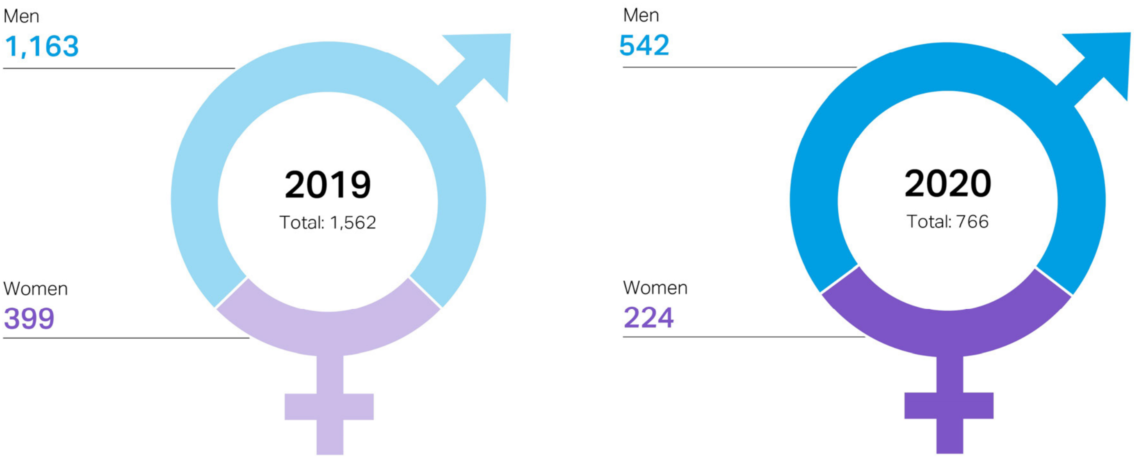
Work-life balance

We support work-life balance for our employees. For instance, partnerships with day care centers and financial support for vacation care for school-age children are among the solutions we offer to make combining work with family responsibilities easier. The programs offered by Covestro can differ from site to site.

Provided it is compatible with operational requirements, Covestro allows employees to take extended leave from work for personal projects such as scientific research, university studies, or other purely personal reasons. Employees around the world take advantage of this offer from time to time.

Attracting and retaining qualified employees

New hires



We welcome applications from all candidates, irrespective of their ethnic origin, nationality, religion, ideology, gender, age, disability, appearance, and/or sexual identity. We are committed to the principle of treating all applicants fairly and avoiding discrimination of any kind.

Covestro promotes young talent through internships, vocational training, and trainee programs. Worldwide, the company employed 224 interns in the year 2020, even under the difficult conditions of the coronavirus pandemic.

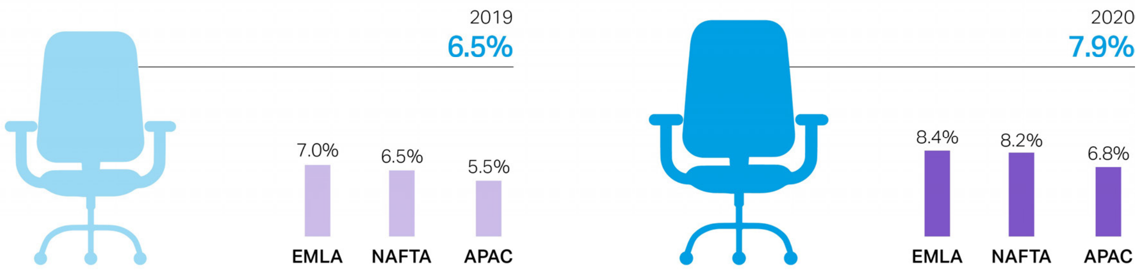
In the reporting year, 766 new employees were hired worldwide, the majority of whom are based in the EMLA region.

New hires[1] by age group, gender and region in fiscal 2020

	EMLA		NAFTA		APAC		Total	
	Absolute	%	Absolute	%	Absolute	%	Absolute	%
Women	**134**	**17.5%**	**21**	**2.8%**	**69**	**9.0%**	**224**	**29.3%**
< 30 years	82	10.7%	9	1.2%	35	4.6%	126	16.5%
30 to 49 years	50	6.6%	9	1.2%	31	4.0%	90	11.8%
≥ 50 years	2	0.2%	3	0.4%	3	0.4%	8	1.0%
Men	**403**	**52.6%**	**52**	**6.7%**	**87**	**11.4%**	**542**	**70.7%**
< 30 years	235	30.7%	19	2.5%	43	5.6%	297	38.8%
30 to 49 years	151	19.7%	30	3.9%	42	5.5%	223	29.1%
≥ 50 years	17	2.2%	3	0.3%	2	0.3%	22	2.8%
Total	**537**	**70.1%**	**73**	**9.5%**	**156**	**20.4%**	**766**	**100.0%**

[1] The number and percentage of permanent or temporary employees is stated in full-time equivalents (FTE). Part-time employees are included on a pro-rated basis in line with their contractual working hours. Percentages represent the distribution of new hires.

Attrition rate



Employee attritions in the different regions and age groups varied widely in some cases. Independent research indicates that younger employees are often more likely to change jobs. The increase in attritions was also a result of the sale of the PCS sheets business at the start of the reporting year and the demographically driven higher number of age-related departures.

Attritions[1] by age group, gender and region in fiscal 2020

	EMLA		NAFTA		APAC		Total	
	Absolute	%	Absolute	%	Absolute	%	Absolute	%
Women	**202**	**9.8%**	**51**	**8.3%**	**127**	**9.7%**	**380**	**9.5%**
< 30 years	42	10.7%	5	6.1%	22	14.4%	69	11.0%
30 to 49 years	82	7.6%	19	6.2%	81	7.7%	182	7.4%
≥ 50 years	78	13.1%	27	11.9%	24	22.5%	129	13.8%
Men	**628**	**8.0%**	**176**	**8.1%**	**183**	**5.7%**	**987**	**7.5%**
< 30 years	117	8.7%	17	7.0%	42	10.4%	176	8.8%
30 to 49 years	191	5.9%	40	4.2%	103	4.2%	334	5.0%
≥ 50 years	320	9.9%	119	12.3%	38	9.9%	477	10.4%
Total	**830**	**8.4%**	**227**	**8.2%**	**310**	**6.8%**	**1,367**	**7.9%**

[1] The number and percentage of employees are calculated on the basis of full-time equivalents (FTE). The attrition rate is calculated as the ratio of the total of all employer- and employee-initiated terminations, the end of fixed-term contracts, retirements, and deaths to the average number of employees (FTEs).

Compliance and compensation

Covestro regards fair and respectful working conditions as essential. We provide information, advice, and resources to prevent violations of laws or corporate policies. If any breach is suspected, employees can contact the Compliance Officer in their country at any time, anonymously if they wish. All suspected breaches of compliance are recorded using standard Group-wide criteria. This applies to all labor law-related matters such as working conditions, possible cases of discrimination, and potential violations of the rights to exercise freedom of association and collective bargaining, as well as generally with regard to human rights. If material risks arise from legal disputes and proceedings, they are published in the notes to the consolidated financial statements.

See “Compliance” and “Human rights due diligence.”

In the year under review, around 55% of our employees worldwide, mainly in Central Europe and South Korea, were subject to collective bargaining or company agreements. At various country subsidiaries, the interests of the workforce are represented by elected employee representatives who have a right to be consulted on certain decisions affecting the workforce.

Covestro offers its employees competitive compensation and attaches importance to equal pay regardless of gender and other diversity criteria. As of December 31, 2020, around 77% of the workforce had access to a company pension plan. At all locations, personnel policy is aligned with the statutory requirements, such as those for severance, pre-retirement, and retirement payments. For instance, in Germany employees are able to transfer salary and time components (converted into money) into a long-term account. The accumulated balance can then be used at a later date for certain legally defined purposes such as pre-retirement leave.

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Integrated Management System for Health, Safety, Environment, Energy, and Quality

Covestro's stated aims are to take preventive measures to protect employees, suppliers, and service providers; ensure uninterrupted operations; and continually improve quality. The head of the corporate function for health, safety, environment, energy, and quality (HSEQ) is commissioned directly by the Board of Management. The system ensures implementation of the requirements of the HSEQ corporate regulations and is based on internationally recognized standards governing occupational safety (ISO 45001), the environment (ISO 14001), energy (ISO 50001), and quality (ISO 9001).

Adherence to processes and workflows is verified through regularly conducted internal audits, annual self-assessments, and external certifications. The insights we gain from these measures are incorporated into our annual management review. 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, ISO 14001:2015, and ISO 45001 standards. In fiscal 2020, based on the respective new ISO standards, it was also successfully reviewed, audited, and had its certification upheld by an external certification body. Specific targets in line with the aforementioned ISO standards have been defined.

See "Safety" and "Environmental protection" for additional details on the aforementioned targets.

In fiscal 2020, Covestro decided to reorganize the HSEQ functions throughout the Group to encourage the individual regional and global functions to coalesce. The Environmental Management and Occupational Safety corporate functions were consolidated for this purpose into a new function called Environment, Health, and Safety. In the future, all regional HSEQ functions will follow the same organizational logic and act based on clear roles and responsibilities. The range of responsibilities exercised by the new corporate function will be expanded, and wellbeing will be emphasized as an increasingly important aspect of occupational safety. The second step will be to adapt the structure of the existing HSEQ-related communities to reflect the changes in the HSEQ organization there, too. This will also reduce existing redundancies in the handling of certain issues and guarantee a clear delineation of responsibilities. Coordinated roles and responsibilities are intended to promote cooperation and exchange between regions. Internal stakeholders benefit from the more consistent provision of a full range of HSEQ services and better site coverage. At the same time, HSEQ will play a more active role in implementing the integrated HSEQ management system. The integrated management system comprises the following three sub-sections:

Occupational health and safety

In the area of occupational health and safety, globally applicable processes and workflows include detailed rules governing the safety of production facilities and manufacturing processes, the investigation of accidents and environmental as well as transportation incidents, health care and occupational safety, and emergency management at Covestro. In fiscal 2020, we completed our migration to the new ISO 45001, the international occupational health and safety standard. The rules stipulated by international standards such as ISO 45001 comprise the minimum requirements applicable worldwide and are supplemented with additional regulations if needed. They are intended to prevent accidents and incidents at the workplace or on transportation routes that could have adverse consequences for people or the environment. In addition, we offer support to our customers, for example by providing training on the safe handling of our products in and outside of our facilities. We increasingly rely on the support of third-party databases to help us identify and comply with legal and other requirements.

Environment and energy

Minimum environmental and energy standards applicable worldwide were specified to ensure that our high standards for resource conservation and emissions reduction are met. These requirements are based on internationally recognized standards and rules such as ISO 14001 (environmental management) and ISO 50001 (energy management). 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 measures throughout the Group. In the year under review, the energy efficiency system we introduced in 2008 based on ISO 50001 was reviewed, audited, and recertified for the ninth time at the main German production sites by an independent certification body.

Quality

We have very high expectations of the raw material quality we use, and we set ourselves standards for their processing into high-performance plastics and polyurethane precursors. Within the framework of our integrated HSEQ management system, our quality management activities meet the requirements of the current ISO 9001:2015 standard. Thanks to our quality management system, we can put in place the conditions necessary for incorporating our customers’ requirements and their satisfaction into our products and services.

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Audits and certifications

Our binding Group regulations that serve to achieve HSEQ goals are available to all employees in the Group's in-house databases and are reviewed annually using internal audits and external certification companies. This may require the management system to be adjusted. Our business activities are covered by certified HSEQ management systems to the degree outlined below:

Certification of HSEQ management systems to external standards[1]

	2019	2020
Certified to various quality management standards such as ISO 9001	100%	100%
ISO 14001 certified/EMAS validated (environment)	96%	96%
ISO 45001 (formerly OHSAS 18001) certified (occupational safety)	89%	89%
ISO 50001 certified (energy)	46%	46%

[1] In % of business activity, measured according to energy usage.

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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. The company's top priorities include preventing injuries, equipment breakdowns, and transportation incidents, as well as preserving the health of our employees in the workplace and during work-related activities. This also applies to partner companies (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. Another priority is protection of the environment, and safe handling and use of products as part of our product stewardship. In addition, we have transferred the insights obtained from the SafeGuard safety program into our integrated management system in which we address all aspects of safety of importance to Covestro in a comprehensive and global manner.

Safety incidents that – under other circumstances – could have led to a High Potential Event (HPE) are examined using a set of criteria we have defined that includes their potential effects. Events classified as HPEs are thus treated as comparable to events that have actually occurred; they require a detailed cause analysis and must be communicated. Promoting safety awareness among employees is essential for minimizing hazards during day-to-day operations. In the year 2019, the Team Resource Management training program was set up to further increase safety awareness among our staff. Due to the coronavirus pandemic, this in-person training could not be held in fiscal 2020 and is expected to be continued in 2021.

The CEO Safety Award was awarded for the twelfth time in the reporting year. All employees were once again called upon to submit suggestions for improving safety. The ideas submitted were evaluated by a jury of in-house experts, and our CEO presented awards to the winners at the virtual Covestro Safety Day in September 2020.

Occupational Health and Safety

An integrated information management system (IIMS) implemented throughout the Group exists for reporting and processing work-related accidents and illnesses, as well as potential hazards. The classification and documentation follows the U.S. OSHA Standard 1904 "Recording and Reporting Occupational Injuries and Illness." The IIMS makes it possible to identify trends in a timely manner 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. The results of the root 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 and proactively remedy them. In the reporting year, the topic of electrical safety was identified as a priority and given the requisite attention with a global campaign. Furthermore, the working group on human-machine interaction launched in the year 2019 continued to meet.

Covestro processes documentable workplace accidents and illnesses 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. The RIR is calculated as a ratio of the total number of documentable workplace accidents and illnesses to hours worked (standardized to 200,000 working hours per year). The LTRIR is calculated as a ratio of lost time in days to the same hours worked figure. We calculate the number of hours worked by our employees based on the number of employees in the Group and multiply this figure at country level by the average working hours in the member states of the Organisation for Economic Co-operation and Development (OECD) and the International Labour Organization (ILO). If no OECD or ILO data is available, then we use the average number of hours worked at Covestro.

Due to the coronavirus pandemic, approximately 684,000 fewer hours were worked in fiscal 2020. This was taken into account in calculating the incident rates. The reduction in working hours was primarily attributable to government-mandated site closures and the research facilities affected by the home office regulations.

The number of hours worked by our contractors is calculated using a methodology that includes various categories for recording working hours, broken down by electronic or manual timekeeping or obtained using supplier invoices. The figure can also be calculated based on valid assumptions (estimates). At sites with fewer than 50 Covestro employees, no contractor working hours are counted, so these are not included in the incident rates calculation. We apply controls and other measures at the global level as well as individual site level to prevent possible errors in calculating contractor working hours. Implementation of the new system continued in fiscal 2020.

In the fiscal year 2020, we documented 29.5 million total hours worked (THW) for our employees (previous year: 31.1 million THW). During the same period, contractors reported 16.7 million THW (previous year: 20.2 million THW). This results in the following rates according to OSHA:

Work-related accidents[1]

	2019	2020
Recordable incidents		
in relation to Covestro employees	46	35
in relation to contractor employees[2]	26	26
Recordable incident rate (RIR)		
in relation to Covestro employees	0.29	0.24
in relation to contractor employees[2]	0.26	0.31
Recordable incidents in connection with days lost		
in relation to Covestro employees	30	20
in relation to contractor employees[2]	19	19
Lost time recordable incident rate (LTRIR)		
in relation to Covestro employees	0.19	0.14
in relation to contractor employees[2]	0.18	0.23
Fatal injuries		
in relation to Covestro employees	0	0
in relation to contractor employees[2]	0	0

[1] Includes work-related accidents and illnesses taking into account all fully consolidated companies, provided that they are part of the consolidation scope.
[2] Employees of partner companies contracted by Covestro whose accidents occurred on one of our company premises.

We work tirelessly to keep the incidence of accidents as low as possible in the future as well. Implementation of the SafeGuard safety program and introduction of the ISO 45001 standard provided fresh momentum for our efforts toward safety in the workplace. This was an important step for us toward meeting our goal of zero accidents. In the reporting year, workplace accidents involving our employees declined to 35 (previous year: 46), improving our employees' RIR by 0.05 points. In contrast, the RIR of our contractors' employees rose by 0.05 points.

We are facing enormous health and safety challenges due to the coronavirus pandemic as well. Our crisis management teams at the sites countered these with a range of measures. This effort even received recognition from outside the company from the European Chemical Industry Council (CEFIC). We were awarded a Responsible Care™ prize in the "Protecting Workers and the Workplace" category for our health and safety measures during the coronavirus pandemic. The Corporate Security function was the central point for consolidating information on country-specific conditions and reporting to the Board of Management. In this way, we were able to fulfill the requirements of the pandemic plan developed and implemented by Covestro.

Process and Plant Safety

We aim to ensure the safety of processes and plants in a way that avoids unacceptable risks to our employees, our neighbors, and the environment. We therefore conduct extensive, systematic safety inspections at regular intervals. An early indicator for all Covestro plants is the Loss of Primary Containment (LoPC) indicator, which is uniform throughout the world and is integrated into the Group's safety reporting.

Since the year 2019, Covestro has applied the German Chemical Industry Association's (Verband der Chemischen Industrie, VCI) guidelines on documenting plant safety performance indicators. The new reporting criteria are thus aligned with the updated and globally harmonized definition by the International Council of Chemical Associations (ICCA). A LoPC event comprises

- The release of chemicals classified according to the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) exceeding the defined volume thresholds within one hour,
- A reportable injury according to OSHA criteria to an employee or contractor as a result of product release or the release of energy,
- The release of energy (e.g., fire, explosion) that leads to damage with direct costs totaling more than €2,500,
- An evacuation officially declared outside the plant.

We use the LoPC incident rate (LoPC IR) to determine the number of LoPC incidents per 200,000 TWH per year by Covestro employees and contractors. In the year 2016, the ICCA adjusted the volume thresholds used to identify incidents and published these changes, which are binding for its members starting in the year 2020. We applied these volume thresholds at Covestro in the year 2019 so that our statistics would be comparable within the chemical industry and the benchmark. After the adjustments were made, the volume threshold for chlorine, for example, is now one kilogram instead of the original five kilograms. The considerably lower volume thresholds mean that less significant incidents have been systematically documented and investigated as LoPC events since the year 2019. In the reporting year, our LoPC IR was 0.64 (previous year: 0.66).

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., low thresholds or non-hazardous 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 global exchange of experiences relevant to safety is intended to help maintain the existing high standard of procedural and plant safety within the company. Globally binding standard processes and their uniform implementation also contribute to this effort, which led to the rollout of a mandatory IT application for technical change management at key production sites in fiscal 2019.

Safety at Work

The safety of employees, plants, data, and information as well as uninterrupted workflows and processes are particularly important to Covestro. This is why Covestro's safety strategy systematically focuses on meeting these safety targets. The corresponding duties and responsibilities are assigned to various departments of the responsible corporate functions. The Corporate Security, Information Technology, and Production Management functions therefore have special authority to effectively counter current and future risks and threats, especially those that are virtual or digital. Decision-making and management bodies focusing on risk, compliance, and crisis management as well as on information security management have been established.

Environmental and Transportation Safety

We work continually toward maximum safety during transportation of our products. 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 certain hazardous materials, we record and categorize all leaks starting with as little as five kilograms, according to our Corporate Commitment. Global events on transportation safety are held at regular intervals. Here, corrective measures are developed and implemented based on actual incidents, and tried-and-tested approaches are exchanged.

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Safety and accident prevention

Our safety management activities take into account requirements and standards applicable around the world. We continually update our safety management system in line with our corporate culture. The safety of our employees and the protection of their health in the workplace are a focal point of this work, as is preventing potential effects on the environment and harmful health effects caused by leaks at production facilities, or accidents involving hazardous goods and other transportation accidents. Our integrated HSEQ management system is a major contributor to achieving these goals.

Over the long term, we want to prevent all workplace accidents and work-related illness. For this reason, we regularly analyze the accident rate by site as well as by region and type of accident. The fluctuations observed indicate to us the structural differences that are discussed in analyzing and determining measures to be taken with the sites and segments, and adapted to local requirements.

Activities that led to accidents in the year 2020

Recordable incidents	Movement (stumbling/ falling)	Mechanical work	Chemical contact	Traffic and transportation	Other	Total
Employees	8	21	2	0	4	35
Contractors	6	14	5	0	1	26
Total	**14**	**35**	**7**	**0**	**5**	**61**

We classify accidents at Covestro according to the American Society for Testing and Materials (ASTM) standard E2920-14 to devote particular attention to the life-threatening or life-changing accidents among the entirety of the accident data. In the year 2020, five contacts with chemicals, one case of third-degree burns, and one finger injury were classified as serious accidents.

Hazard avoidance

Repairs, inspections, and technical modifications frequently require work that is potentially hazardous. Such jobs are performed individually or pooled and performed at one time during plant downtimes, which are planned well in advance. A work permit process is applied here. In addition to a precise description of the work to be performed, this includes a hazard assessment and a determination of the required safety and protective measures. All individuals involved in the work are informed of these parameters and must confirm receipt of this information with a signature. The responsible facility, participating technical crews, and, if necessary, additional safety officers monitor adherence with the measures and ensure the work is performed safely.

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Product Stewardship

To Covestro, product stewardship means comprehensively evaluating health, safety, and environmental risks in connection with the use and handling of our products. We want to ensure that our products are safe throughout their entire life cycle – from research to production and marketing to their intended use by the customer and all the way to disposal.

Monitoring the quality of our products and their suitability for particular applications is anchored in our operational units. Safe transportation, qualification for specifically regulated applications, and marketability are centrally managed at Covestro, as is the obligation to report to the Board of Management on these matters.

The safe use and application of our products have high priority. It is very important to us to communicate product safety information transparently and comprehensively. In addition to the documents required by law, we therefore provide supplementary information and offer training as part of the global product strategy of the InterICCA. Furthermore, experts throughout the company work closely with suppliers, customers, industry associations, and the public. Covestro thus aims to ensure the effective communication and observance of health, safety, and environmental information along the entire supply chain.

Management of product stewardship

Product stewardship involves both compliance with statutory requirements and voluntary commitments. Here we also take into account the so-called precautionary principle as explained in Principle 15 of the Rio Declaration of the United Nations and communication COM(2000) 1 of the European Commission. This important means of protecting consumers and the environment within the context of risk management may be used in special cases in which, 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 determined with sufficient certainty. In this regard, we follow the corresponding principles of the European Commission when applying the precautionary principle. These include especially the proportionality of the measures taken, an examination of the benefits and the costs of all relevant options, as well as the review of the measures taken in light of new scientific developments. 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.

All product groups at Covestro undergo a multiple-step product assessment process. At first, we identify chemicals that are subject to statutory regulations and document the corresponding regulations. We then examine the risk potential of our products. During this process, we also identify substances for which only limited use or marketing are permitted based on the applicable laws and regulations. These include, for example, Substances of Very High Concern (SVHC) as classified in accordance with the European Regulation on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and substances covered by the European regulation on greenhouse gases. Substance compositions in all regions are checked with the help of IT systems against lists of regulated substances so that noncompliance with regulatory requirements is identified reliably. Should the assessment or new findings reveal that it is not safe to use a certain chemical, we take the necessary risk mitigation measures. Those can range from technical measures such as protective gear and revised application recommendations to the withdrawal of support for a certain application or the substitution of a substance. In this case, an adequate replacement must be sought which can be produced in an economical and technically feasible way. Finally, we produce safety data sheets and labeling for all chemicals in up to 40 different languages, including chemicals that are not subject to any legal obligation. In this respect Covestro also exceeds the statutory requirements by making these safety data sheets publicly available.

We collect, document, and analyze all information about the safe and compliant use of our products in a global information system, which provides the basis for further improvements. This includes product monitoring and reporting on product-related and compliance incidents. Our global regulations for the Group contain rules and guidance on when and how this information is to be used. For example, this has helped us improve the information on the safe handling of our products and provide customers with specific training. Furthermore, workshops and online training sessions for our employees contribute to solidifying the understanding and importance of product stewardship in the company.

For fiscal 2020, we know of no material incidents of noncompliance with regulations or voluntary codes – either concerning the health and safety impacts of products and services, or relating to product information and labeling.

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. This is an initiative by the chemical industry that aims for continual improvement by companies in the areas of environment, safety, and health, regardless of the legal requirements. 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 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. Furthermore, we endorse the initiatives of the World Health Organization (WHO) and the European Union (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 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 thus shape our activities as a manufacturer, importer, and user of chemicals. We have established internal regulations to adequately address the range and complexity of the relevant requirements. They guide our employees in fulfilling regulatory 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 or restriction 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 substitution or prohibition. The restriction on diisocyanates published in the Official Journal of the European Union in August 2020 is one example of a restriction. In this case, labeling of diisocyanates must be modified by February 2022, but this will not affect their availability. However, all users of products containing diisocyanates at a concentration of more than 0.1% of the residual monomer must be trained in their use by August 2023. Covestro supports this process and advocates for the practical and effective implementation of this requirement, for instance in the preparation of training materials. As a member of the European chemical industry, we made a voluntary commitment to review and improve the REACH registration dossiers by the year 2026.

In addition, Covestro pursues 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 the end of 2020. This goal was more than 99% achieved in the reporting year. 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 corporate regulation on "Product Stewardship" in the attachment entitled "Substance Information and its Availability." When it comes to purchased substances, we are dependent on information provided by our suppliers.

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.

Covestro has also committed to compliance with animal welfare policies during toxicological and ecotoxicological testing.

Additional information is available at:
www.productsafetyfirst.covestro.com/en/resources/resources/detail-pages/statement-on-animal-studies

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. GPS is accessible at Covestro through the Product Safety First internet portal and is available worldwide. On this website, we inform our 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), an important raw material 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 discussed in the context of the European chemical regulation REACH.

Based on numerous scientifically valid and high-quality studies, Covestro is confident that BPA can be safely used in all areas of application supported to date. This assessment is underscored in the case of food safety, for instance, by the latest evaluations from the responsible European and American authorities, namely the European Food Safety Authority (EFSA) and the US Food and Drug Administration (FDA). By participating in regulatory processes, Covestro works actively to dispel uncertainties and answer open questions. In addition, we continue to advocate for more objective discussions based on all of the scientific data 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 discussions and provides information to customers and the public on this issue through associations, on the Covestro website, and through direct contacts.

Environmental Protection

Environmental protection and the efficient use of resources are fundamental drivers of Covestro's actions as an energy-intensive company, both in terms of our own business activities with substantial energy demands 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 sectors such as the automotive and construction industries, wind turbine operation, the electronics industry, as well as the furniture, sports, and textile industries, to improve their own resource efficiency and cut emissions.

Environmental protection key performance indicators (KPIs) are reported for all fully consolidated companies. Since these figures are calculated only at the end of the year they include the group of companies consolidated as it stands at year-end. Moreover, we include data from all environmentally relevant Covestro sites, i.e., all production sites and relevant administrative sites. This data is used in addition to the environmental reporting contained in this report to communicate with various stakeholders, e.g., associations, the press, and government agencies, as well as to continually improve our environmental performance. In order to comply with publication deadlines, the sites estimate the environmental data for the final weeks of the current fiscal year on the basis of established estimation methodologies that ensure accurate reporting of data as close as possible to the actual figures for the year. If, however, in the course of the following year, we become aware of material deviations based on internally defined thresholds, the figures in question are corrected retroactively to promote the transparency and comparability of our reporting. This was not required in fiscal year 2020.

Energy usage

Covestro’s energy usage includes the primary energy used in production and during electricity and steam generation by the company as well as additionally acquired quantities of electricity, steam, refrigeration energy, and process heat. This takes into account the energy lost while distributing electricity and steam. All told, these figures make up Covestro’s equivalent primary energy usage.

The use of energy and materials and the level of greenhouse gases emitted are closely related to the quantity of materials we produce. In fiscal 2020, total energy usage in the Group dropped by 2.4%, while the equivalent primary energy usage at our key production facilities fell by 2.7% – in line with a 5.4% decline in production volumes. As a result, the equivalent primary energy usage for a given production volume (energy efficiency) deteriorated by 2.9%. The increase in specific energy usage in the reporting year can therefore be mainly attributed to the cyclical decline in plant capacity utilization. When the capacity of production facilities is not optimally utilized, and economic conditions necessitate start-up and shut-down processes, this inevitably results in less efficient energy usage per production unit (specific energy usage).

Energy usage in the Covestro Group at the main production sites

	2019	2020
Equivalent primary energy usage[1, 2] (MWh)	20,773,977	20,212,384
Production volume[3] (million metric tons)	14.80	13.99
Specific energy usage (energy efficiency)[4] (MWh per metric ton)	**1.40**	**1.44**

[1] Sum of all individual energies used at our main production sites (responsible for more than 95% of our energy usage), converted into primary energy.
[2] Equivalent to 72,765 TJ in the reporting year (previous year: 74,786 TJ).
[3] All in-spec key products – which, in addition to our core products, also include precursors and by-products – manufactured at our main production sites, which are responsible for more than 95% of our energy usage.
[4] Ratio of equivalent primary energy usage to production volume.

Our continued long-term positive trend indicates an overall 34.2% improvement in energy efficiency compared to the base year 2005. This is attributable to factors that include our ongoing efficiency improvement programs and the global energy efficiency system implemented by Covestro.

See “Optimizing energy usage.”

Of particular note in the reporting year is the commissioning of a heat recovery system in the Makrolon® plant and process optimization of the plant producing methylene dianiline (MDA), a key intermediate in the manufacture of diphenylmethane diisocyanate (MDI), at the Krefeld-Uerdingen site. Steam usage was therefore cut by more than 19,000 MWh of primary energy in fiscal 2020, which is the equivalent of reducing emissions by some 5,400 metric tons of CO_2.

Greenhouse gas (GHG) emissions

Along with governments, non-governmental 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 CO_2, all other relevant greenhouse gases are also documented. The emissions factors for calculating CO_2 equivalents for global warming potential were taken from the Fifth Assessment Report by the Intergovernmental Panel on Climate Change (IPCC). Additionally, a completely revised and updated greenhouse gas regulation has been used since the year 2019. Information about the upstream and downstream GHG emissions throughout the entire value chain (Scope 3 emissions) has not been collected or reported to date. We are currently reviewing how to reliably and efficiently collect information about Scope 3 emissions and the requirements for reporting this data.

Our environmental protection goal

Specific greenhouse gas emissions per metric ton of product manufactured are expected to be reduced by 50% from the 2005 benchmark by the year 2025.

Status

2020: –46.2%

2019: –46.1%

In fiscal 2020, specific emissions totaled 0.3892 metric tons of CO_2 equivalents per metric ton of product. Compared with the base year 2005, this corresponds to a cumulative drop of 46.2%, and a 0.2% decrease compared to the previous year. We have used a calculation methodology based on the market-based method pursuant to the current GHG Protocol since the year 2018.

Covestro Group greenhouse gas emissions at the main production sites[1]

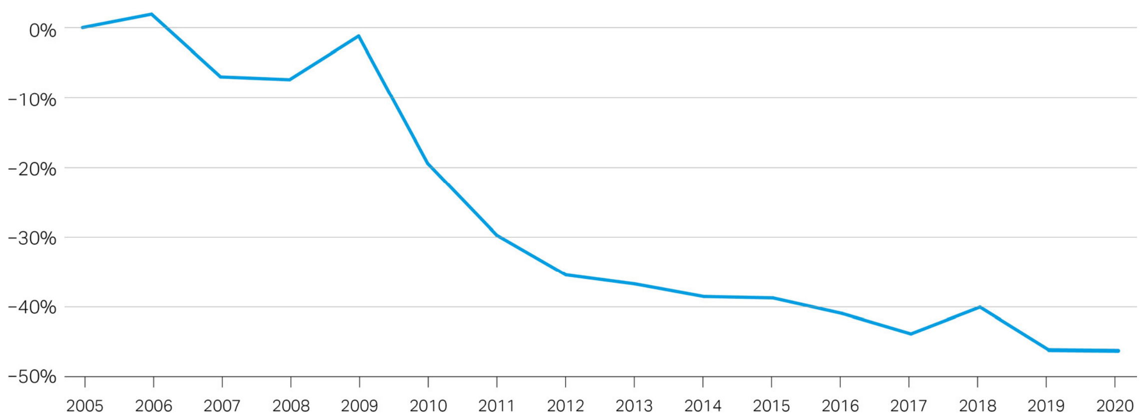
	2019	2020
Total greenhouse gas emissions[2] (million metric tons of CO_2 equivalents)	5.77	5.45
Production volume[3] (in million metric tons)	14.8	13.99
Specific greenhouse gas emissions[4] (metric tons of CO_2 equivalents per metric ton of production volume)	**0.3901**	**0.3892**

[1] Portfolio-adjusted based on the financial control approach of the GHG Protocol; global warming potential (GWP) factors according to the IPCC's Fifth Assessment Report.
[2] Total greenhouse gas emissions (Scope 1 and 2, GHG Protocol) at the main production sites (responsible for more than 95% of our energy usage).
[3] All in-spec key products – which, in addition to our core products, also include precursors and by-products – manufactured at our main production sites, which are responsible for more than 95% of our energy usage.
[4] Total GHG emissions divided by production volume. Market-based emissions factors were mostly used when calculating specific Scope 2 greenhouse gas emissions; wherever these were not available, the calculation was based on country-specific emissions factors from a generally accepted source (e.g., International Energy Agency, IEA).

Key drivers of the reduction are the developments at the production sites in Dormagen, Krefeld-Uerdingen, and Leverkusen in Germany. In combination with a cyclical decline in energy usage, we obtained energy such as steam and electricity externally with a significantly lower carbon footprint at these sites in the reporting year. We continue to find ourselves on the right path to reaching our GHG emissions target, i.e., halving specific emissions by the year 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 %)[1]



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

We continue to drive the development of products whose manufacture results in lower carbon emissions than those of conventional products – by using CO_2 as a raw material, for instance. In this context, the company began marketing an innovative polyol in fiscal 2018 for which a key component is produced using as much as 20% CO_2. This conserves the same quantity of petrochemical raw materials and improves our carbon footprint.

Water, effluents, and waste

Covestro takes a holistic view of water as a resource: We take not only our water usage and the related problems of water scarcity and quality into consideration, but also the wastewater we generate and the growing concern about plastic waste in the oceans. This is underscored in our Corporate Commitment on Water.

Additional information is available at: www.covestro.com/en/sustainability/service-downloads/policies-commitments

In fiscal 2017, we therefore 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.

See “Water usage and consumption.”

For economic considerations alone, Covestro’s manufacturing processes are already as efficient as possible when it comes to the use of materials; relatively little waste is produced as a result. We observe and evaluate our manufacturing processes on an ongoing basis to 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. However, production fluctuations, building demolition and refurbishment, and land remediation can also influence waste volumes and recycling paths. The total volume of waste produced declined in fiscal 2020, mainly due to decreases in nonhazardous waste from construction and demolition activity at the Dormagen and Krefeld-Uerdingen sites in Germany. The volume of hazardous waste produced also fell in the reporting year. One of the main reasons for this is the production-related waste at our production facilities in Baytown, Texas (United States) and Dormagen (Germany). We determine specific opportunities for waste reduction with targeted projects and put these into practice within the context of our existing manufacturing processes. For instance, in the manufacturing process for our toluene diisocyanate (TDI) product, our Dormagen site began testing a new procedure that significantly reduces the resulting process waste volumes in the year 2019. After its successful implementation, the findings can subsequently be transferred to additional plants at other Covestro sites. We therefore plan to equip our large-scale TDI production facility in Shanghai (China) with this technology. Due to pandemic-related restrictions, however, this project was postponed for two years and is not currently being carried out.

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. We have implemented an approach to address this: When procuring packing materials, Covestro reviews in principle whether and to what extent used or reconditioned packaging can be used in the place of new packaging. For instance, Covestro uses post consumer regrind (PCR) plastic barrels for waste transportation. Drums made of recycled plastic replace plastic drums from virgin material. Thus, Covestro uses fewer raw materials, reduces emissions, and has established the initial building blocks for a circular economy in the area of transportation and packaging.

Covestro also supports initiatives such as Operation Clean Sweep (OCS), which focuses on preventing plastic particles from entering waterways and oceans. We have introduced global measures to minimize the loss of plastic pellets on the way from production to the finished product at our customers’ locations. In fiscal 2018, we urged our partners in the supply chain to join the initiative; at the same time, we are continually monitoring its progress. In fiscal 2019, Covestro started work on a proposal for an external certification system in cooperation with the PlasticsEurope association and other members. Building on this effort, we added the topic of OCS to Covestro's health, safety, environment, energy, and quality (HSEQ) certifications in the year 2020. Auditors from an external certification body will now incrementally review and assess the relevant sites using a list of specifications to this end, and document the results in a report. The aforementioned list includes systematic environmental aspect analyses, risk assessments, preventive measures, targets, improvement measures, and employee training. Corrective measures must be taken in the case of identified deviations. We are further reviewing how we can make OCS targets part of the sustainability issues covered by contracts with logistics partners.

Supplementary information >

Environmental protection targets

We aim to use all natural resources as efficiently as possible while reducing emissions into the environment to the greatest extent possible. Our integrated management system, which is continually refined, serves as a steering mechanism for this purpose. Moreover, sophisticated data management systems help us to identify and leverage potential efficiency improvements and to keep the environmental impact of our production activities to a minimum.

Covestro's goal is to halve direct and indirect emissions of greenhouse gases per metric ton of product by fiscal 2025 as compared with the 2005 base year levels. In addition, by the year 2030 we also want to halve the specific energy usage of our production facilities compared with the same base year. This energy efficiency boost will contribute to further reducing specific GHG emissions.

Optimizing energy usage

Covestro's STRUCTese™ (Structured Efficiency System for Energy) system played a key role in permanently improving our specific energy usage. The energy efficiency system developed by Covestro compares actual energy usage in production with the realistic potential optimum. Eliminating inefficiencies results in permanent energy savings. STRUCTese® includes several different steps that enable the identification of improvement measures – from analysis to monitoring to benchmarking. These measures are known at Covestro as STRUCTese® projects. The system, which has been gradually rolled out since the year 2008, is now used in many of our energy-intensive production facilities around the world and will be implemented in other facilities going forward.

Equivalent primary energy consumption comprises the fuels used directly at Covestro for generating energy (primary energy) plus externally sourced energy (secondary energy), such as electricity, steam, and refrigeration. The latter are calculated to reflect the energy required to generate them.

Energy usage by energy type

	2019	2020
Primary energy usage for the in-house generation of electricity and steam (net, TJ)	**7,348**	**7,450**
of which Natural gas	7,676	7,991
(of which Natural gas sold to external third parties)	(98)	(98)
of which Coal	0	0
of which Liquid fuels	183	85
of which Waste	934	574
of which Other[1]	(1,445)	(1,200)
Secondary energy usage (net, TJ)	**49,465**	**48,019**
of which Electricity[2]	24,145	22,790
(of which Electricity sold to external third parties)	(1,985)	(1,953)
of which Steam	22,293	22,301
(of which Steam sold to external third parties)	(556)	(556)
of which Steam from waste heat (process heat)	2,481	2,488
of which Refrigeration energy	546	440
(of which Refrigeration energy sold to third parties)	(32)	(73)
Total energy usage (TJ)	**56,814**	**55,469**
Equivalent primary energy usage[3] (TJ)	74,786	72,765
Production volume[4] (million metric tons)	14.80	13.99
Specific energy usage[5] (MWh per metric ton of product)	1.40	1.44

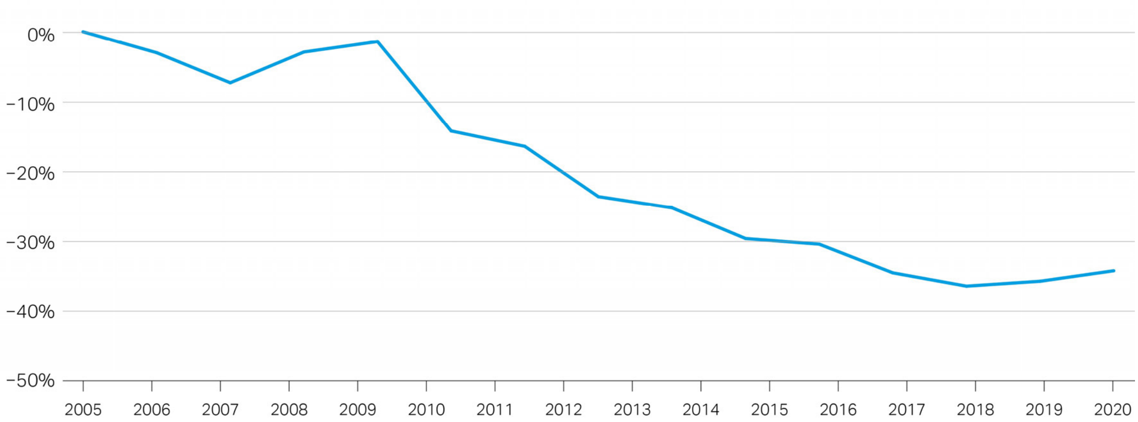
1 e.g., hydrogen.
2 Secondary energy usage for electricity is based on the raw material mix of the country concerned.
3 Total of all individual energies used at our main production sites (responsible for more than 95% of our energy usage), converted into primary energy Secondary energy usage is recalculated to equivalent primary energy usage at all sites based on specified factors aligned with indicators (literature values) for best-in-class energy generation plants operating at maximum efficiency.
4 All in-spec key products manufactured at our main production sites (responsible for more than 95% of our energy usage).
5 Specific energy usage: ratio of equivalent primary energy to in-spec production volume at our main production sites (1 MWh = 3,600 MJ).

Every year, projects are implemented under STRUCTese® that bring about lasting energy savings. An example is the use of waste heat from the plant neighboring the Bisphenol-A (BPA) facility in Shanghai (China). This cut steam usage considerably, which in turn reduced the energy required by some 16,000 MWh of primary energy and decreased emissions by around 3,000 metric tons of CO_2 in the year 2020. Covestro carried out various other projects in fiscal 2020, resulting in annual savings of 58,000 MWh of primary energy, or 12,000 metric tons of CO_2 emissions. Combined, all the projects implemented since the introduction of STRUCTese® in the year 2008 have resulted in lasting reductions totaling 2.32 million MWh of primary energy and around 700,000 metric tons of CO_2 per year.

These energy savings become particularly evident when viewing the significant fall in specific energy usage in production since fiscal 2005 as indicated in the following chart.

Development of specific energy usage at our main production sites

(Change in specific primary energy usage per metric ton of product, compared with the base year 2005, expressed in %)[1]



[1] (Equivalent primary energy usage/production volume)/(equivalent primary energy usage 2005/production volume 2005).

GHG emissions in detail

The data on direct emissions from Covestro's own plants (Scope 1) is collected at all of our production sites and relevant administrative sites. Emissions are calculated based on the specific activity rates, e.g., of the fuels used, and the relevant material parameters. In addition to CO_2, the calculation includes nitrous oxide (N_2O), methane (CH_4), and partly fluorinated hydrocarbons.

Indirect emissions (Scope 2) are calculated in accordance with the methods outlined in the GHG Protocol and are based on the energy used and the corresponding production site-specific emissions factors. If no specific factors are available, the International Energy Agency's (IEA) country-specific emissions factor is used among others for the calculation. Here we use the latest available IEA factors (IEA (2020), Emission Factors. All rights reserved). Since the 2018 reporting year, Scope 2 emissions have been reported using the location-based method and the market-based method in accordance with the most recent requirements of the GHG Protocol (dual reporting). The new form of presentation does not affect comparability with prior-year figures with regard to the two long-term corporate goals of lowering specific energy usage and specific greenhouse gas emissions.

The Group's total greenhouse gas (GHG) emissions declined by 5.6% over the previous year, with direct greenhouse gas emissions down by 3.3% and indirect greenhouse gas emissions down by 6.2%. At our major production sites, which account for over 95% of our energy usage, the production volume fell by 5.4% in fiscal 2020. As a result, specific emissions also dropped by 0.2% year over year.

Greenhouse gas emissions[1] (million metric tons of CO_2 equivalents)

	2019	2020
Direct greenhouse gas emissions[2]	1.29	1.25
Indirect greenhouse gas emissions calculated using the location-based method (GHG Protocol 2015)[3]	4.66	4.48
Indirect greenhouse gas emissions calculated using the market-based method (GHG Protocol 2015)[3]	4.62	4.33
Total greenhouse gas emissions, comprising Scope 1 and 2 emissions according to the market-based method of the 2015 GHG Protocol	**5.91**	**5.58**

[1] Portfolio-adjusted based on the GHG Protocol; financial control approach; global warming potential (GWP) factors correspond to the IPCC's Fifth Assessment Report.
[2] In the year 2020, 58.2% of emissions were CO_2 emissions, 40.1% were N_2O emissions, 1.6% consisted of partly fluorinated hydrocarbons, and 0.1% was methane.
[3] In combustion processes, CO_2 typically makes up more than 99% of all greenhouse gas emissions; this is why we restrict ourselves to CO_2 when calculating indirect emissions.

Other direct emissions into the air

In addition to greenhouse gases, Covestro’s business activities result in other emissions into the air, mainly from burning fossil fuels in order to generate electricity and steam. Emissions are also recorded and analyzed as part of determining the Group’s environmental impact. The impacts are assessed annually in the environmental management process with the Chief Technology Officer (CTO). Whereas emissions of carbon monoxide and nitrogen remained at their prior-year levels, sulfur dioxide emissions dropped (–35.0%), primarily as a result of production declines and lower volumes of sulfurous waste at our largest facility in North America. Dust emissions also declined (–8.7%), mainly as a result of downtime caused by the pandemic as well as lower capacity utilization overall at our Greater Noida site. The figure reported for NMVOC emissions dropped by 14.3%, but the value for ODS remained stable at the prior-year level.

Other important direct air emissions (1,000 metric tons p.a.)

	2019	2020
CO	0.28	0.28
NO_X	0.59	0.59
SO_X	0.06	0.04
Dust	0.11	0.10
NMVOC[1]	0.16	0.13
ODS[2]	0.0001	0.0001

[1] Non-methane volatile organic compounds (NMVOC).
[2] Ozone-depleting substances (ODS).

Water usage and consumption

The availability and accessibility of clean water is vital for our production sites. As part of our Corporate Commitment on Water issued in the year 2017, we initiated and have continually refined a global risk assessment of all of our production sites covering water availability, quality, and accessibility.

In fiscal 2020, our risk-based water approach was expanded. In addition to physical risks such as water scarcity and quality, we now also consider potential regulatory risks at our production sites. This approach is followed at the main production sites currently exposed to a high risk of what is known as water stress. Water stress includes water scarcity as well as other factors such as water quality and access to water. We identify locations subject to water stress using recognized tools, such as the Aqueduct Water Risk Atlas by the World Resources Institute and the Water Risk Filter by the World Wide Fund for Nature (WWF). In addition, we have internal exchanges with the experts at each site. Sites located in current water stress regions account for 27% of our total water usage. By analyzing the local water management at the sites, risks can be spotted at an early stage and potential for improvement can be identified. For instance, the production site in Antwerp (Belgium) launched a program in the year 2018 to reduce water consumption and increase the percentage of recycled water used. Moreover, the site along with 50 other chemical and pharmaceuticals companies joined a project called “Learning Network Water” organized by Essenscia, the Belgian Federation for Chemistry and Life Sciences Industries. The project aims to develop action plans for water protection and circular water usage and to provide a platform for members to learn from one another.

In addition, Covestro set up a water community in the year 2020 in which the affected sites can exchange information and share good practices.

Use of water in the year 2020 (million cubic meters)

Sources of water

	Total for Covestro	from WSR[1]
Surface water	**135** (55%)	**50** (75%)
Boreholes/springs	**2** (1%)	**0** (0%)
External water suppliers	**104** (42%)	**13** (20%)
Other sources[2]	**5** (2%)	**3** (5%)
Total[3]	**246**	**66**

Water usage

Cooling water[4]	**208** (84%)
Recycled and/or reused water from cooling and production	**5** (2%)
Production[5]	**38** (16%)
	246

Water discharges

Once-through cooling water	**199** (82%)
Losses due to evaporation from cooling water circuits	**9** (4%)
Process wastewater with subsequent treatment	**28** (11%)
Process wastewater w/o subsequent treatment	**8** (3%)
	244

[1] Water stress regions.
[2] e.g., rainwater.
[3] Differences between the volumes of water drawn and discharged can be explained in part through unquantified evaporation, leaks, water used as a raw material in products, and condensate from the use of steam as a source of energy.
[4] Also includes water for irrigation purposes.
[5] Total from production processes, sanitary wastewater, and rinsing and purification in production.

At 246 million cubic meters, overall water usage in the Group is below the previous year's figure. This is mainly attributable to a decline in the volume of water obtained from external suppliers by our North Rhine-Westphalia sites due to lower capacity utilization for economic reasons. Once-through cooling water accounts for over 80% of this figure, and consequently represents most of the water used by Covestro in fiscal 2020. This water is only heated and does not come into contact with products. It can be returned to the water cycle without further treatment in line with the relevant official permits. The total volume of once-through cooling water was 199 million cubic meters in the reporting year.

Some of the water used can be recycled in various ways. For instance, recycled water can be used again in the same process multiple times, e.g., for cleaning or cooling purposes. It is also possible to reuse water from upstream processes in subsequent steps. This permits corresponding quantities of fresh water to be conserved each year. In the reporting year, the volume of recycled water used stood at approximately 5 million cubic meters, around the same share as the prior year.

Total water consumption amounted to approximately 2 million cubic meters in the reporting year. This results from the difference between total water used and total water discharged. We currently calculate our total water consumption according to GRI Standard 303-5 (2018).

Wastewater

Our goal is to minimize wastewater emissions, which depend largely on our production volumes and the current product portfolio, as much as possible.

The volume of process wastewater saw a year-over-year decline of 4.0%. The proportion of process wastewater purified at a wastewater treatment plant operated by Covestro or a third party amounted to 76.9% worldwide. Following careful analysis, another 22.8% was categorized as environmentally safe and returned to the water cycle. The remainder (around 0.3%) was disposed of mainly through incineration. In the reporting year, the percentage of evaporation losses decreased by 2.2% to a total of 9 million cubic meters.

Total organic carbon (TOC) emissions into wastewater were down by 8.7% compared with the previous year. The volume of phosphates discharged was down 12.8%. The amount of nitrogen compounds discharged and the volume of inorganic salts introduced into wastewater grew by 17.7% and 1.9%, respectively. The volume of heavy metals emitted in the reporting year rose by 17.4%.

Emissions into water (1,000 metric tons p.a.)

	2019	2020
Phosphor	0.03	0.02
Nitrogen	0.23	0.27
TOC[1]	0.51	0.46
Heavy metals	0.0035	0.0041
Inorganic salts	714	727

[1] Chemical oxygen demand (COD), calculated based on total organic carbon (TOC) values: 1.39 (TOC × 3 = COD).

Work on the collaborative Re-Salt project, which was launched in the year 2016 by the Federal Ministry of Education and Research (BMBF) for the purpose of recycling salt-laden industrial process water, was successfully completed in fiscal 2020. A pilot plant we operated at the Krefeld-Uerdingen site effectively demonstrated that the salt concentration in process wastewater could be increased from 7% to around 12% using a membrane process. Currently, the plant is being used to gauge options for further increasing concentrations and reducing energy requirements. Covestro submitted a funding request to the BMBF to continue developing this process. At the same time, we are investigating ways to optimize the two recycling plants in operation at our production sites in Krefeld-Uerdingen (Germany) and Shanghai (China). Covestro's projects aimed at recycling salt-laden water were singled out by the Finnish innovation fund SITRA as examples of innovative circular economy solutions and showcased at the World Circular Economy Forum (WCEF) in September 2020.

Waste and recycling

In nearly all countries, the law stipulates exhaustive reporting on waste volumes and waste streams, a requirement complied with accordingly by Covestro’s sites. In Germany, for example, there are waste-tracking procedures between the source of the waste and its disposal that enable end-to-end traceability of the waste flows. We classify waste in the individual waste categories and the corresponding methods of disposal according to the locally applicable definitions. Based on this documentation, we prepare and evaluate our waste footprint, which is published annually.

Waste generated (1,000 metric tons p.a.)

	2019	2020
Total waste generated	**236**	**175**
of which non-hazardous waste generated	122	68
of which hazardous waste generated[1]	114	107
of which hazardous waste from production	109	103

[1] Definition of hazardous waste in accordance with the local laws in each instance.

Waste by means of disposal (1,000 metric tons p.a.)

	2019	2020
Total volume of waste disposed of[1]	**234**	**175**
of which incinerated	106	106
of which recycled	74	49
of which hazardous waste removed to landfill	6	3
of which non-hazardous waste removed to landfill	42	14
Other[2]	6	3

[1] A variance between the volume of waste generated and waste disposed of may arise due to the different times the waste is generated or disposed of and any resulting internal temporary storage.
[2] e.g., passed on to third parties (such as providers/waste disposal companies).

< Supplementary information

Sustainability in the Supply Chain

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

See "Human rights due diligence."

Additional information is available at: www.supplier-code-of-conduct.covestro.com

Covestro has set ambitious measurable targets through 2025 aimed at systematically promoting sustainability in supplier management. All suppliers must comply with our code of conduct, which they commit to by accepting the conditions of our purchase orders or contracts. In addition, relevant suppliers accounting for a repeat purchasing value exceeding €100,000 per year are assessed. They comply with Covestro's sustainability requirements by meeting the minimum result as defined by us in the supplier evaluations described below. In the year under review, around 95% of our total purchasing value was attributable to these target-relevant suppliers. In addition, we work closely with our strategically most important suppliers to improve their sustainability performance. We have also incorporated this approach into our sustainability goals.

Evaluation methods and processes of the Together for Sustainability (TfS) initiative

Covestro is a member of Together for Sustainability AISBL, a joint initiative undertaken by the chemical industry that now includes 29 companies. This nonprofit organization 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 criteria by the TfS initiative 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. TfS supports this effort by providing the infrastructure for online assessments and on-site audits of suppliers by third parties. The results of these supplier evaluations can be shared via an online platform. During the reporting year, Covestro once again played an active role in all TfS work streams in designing and improving the TfS program and the associated evaluation process.

Covestro uses a standardized TfS assessment process to evaluate whether the suppliers maintain the required sustainability standards. Covestro uses a structured prioritization process to select the suppliers to be evaluated and initiates either an online assessment or an on-site audit for these suppliers – provided that there are no current results. In prioritizing the suppliers for these evaluations, Covestro considers a combination of country and material risks. 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. It evaluates the degree to which suppliers' business practices are aligned with sustainability principles. The questionnaire suppliers complete for the online assessment is based on internationally recognized sustainability standards and includes 21 sustainability criteria grouped into the categories of environmental protection, labor and human rights, ethics, and sustainable procurement. The section on sustainable procurement also inquires about the extent to which the sustainability standards of upstream suppliers are considered. Certain suppliers that do not engage in wholesale trade and do not employ more than 25 people receive an abbreviated questionnaire that does not address the topic of "Sustainable Procurement".

The questionnaire is dynamically adapted by EcoVadis depending on factors such as the industrial sector, company size, and country risk. Suppliers must document their responses to the questionnaire with corresponding supporting documents. The EcoVadis analysts assess supplier responses and supporting documents under consideration of international standards, such as the UN Global Compact, and consolidate the data into a scorecard available online that shows results by category. This scorecard information includes a detailed overview of identified strengths and areas for improvement as well as a weighted overall result for the suppliers analyzed.

External, independent auditors trained and accredited by TfS conduct on-site audits of selected companies – and follow-up audits, if necessary, based on the TfS sustainability criteria. For the purpose of monitoring the quality of the audits, the initiating TfS member 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. The number of supplier evaluations conducted and the overall results are reviewed regularly and reported to the Board of Management member responsible for Production and Technology. In the event of noncompliance with our sustainability requirements, we work with suppliers to define specific improvement measures and corresponding targets, and Covestro constantly verifies the implementation of the required improvements.

In spite of the coronavirus pandemic and its effects on our suppliers, the number of supplier evaluations conducted in the reporting year rose to 846 (previous year: 778).

Key data from the sustainability evaluations of Covestro's suppliers

	2019	2020
Supplier evaluations conducted in the reporting year	**778**	**846**
of which through online assessments	760	812
of which through on-site audits	18	34
Total supplier evaluations conducted	**1,638**	**1,706**
of which through online assessments	1,478	1,540
of which through on-site audits	160	166

[1] 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 included.

Supplier evaluation results*

At the end of fiscal 2020, the number of supplier evaluations whose results met our sustainability requirements amounted to 1,204 (previous year: 1,133). Of these supplier assessments, 950 involved our target-relevant suppliers, who account for 79% (previous year: 81%) of our target-relevant purchasing value. Furthermore, 60% of our target-relevant suppliers who underwent a repeat assessment in fiscal 2020 have improved compared with their previous results.

Our supplier management goal

All of our suppliers with regular purchasing volumes of more than €100,000 per year are expected to comply with our sustainability requirements by 2025.

Status

2020: 79%
2019: 81%

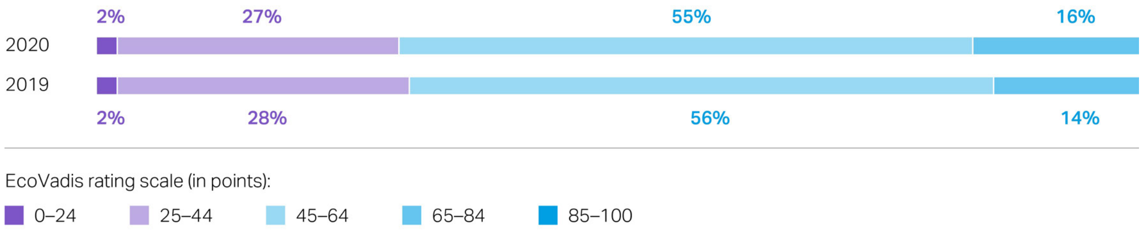
In the year 2020, assessment results considered critical by Covestro were identified for nine target-relevant suppliers (previous year: nine); that is, these suppliers failed to meet the required minimum result by a significant margin. Covestro responds to such infractions with specific action plans and demands that the suppliers in

* The results provided by the external providers EcoVadis SAS and Together for Sustainability AISBL were not subject to the audit by KPMG AG Wirtschaftsprüfungsgesellschaft.

question implement appropriate corrective measures; supplier assessments will be conducted in future to verify compliance.

The share of online assessments in which suppliers met the minimum result we defined – 45 out of 100 possible points – was 71% for the online assessments conducted in the year under review (previous year: 70%). Thanks to our joint efforts toward continually improving our sustainability performance, the results of the online assessments improved year over year.

Overall results of the online assessements completed in the reporting year



The share of on-side audits in which suppliers met the minimum result we defined – 45 out of 100 possible points – was 100% for the on-side audits conducted in the year under review (previous year: 100%).

None of the supplier assessments conducted revealed any indication of child or forced labor. In addition, Covestro had no cause to terminate a supplier relationship in the reporting year or in the previous year solely on account of an externally determined result or a serious sustainability deficit, e.g., human rights violations like child labor or forced labor.

Sustainability training and dialogue

For Covestro, it is important for our own procurement staff, in particular, to have a comprehensive understanding of the significance of sustainability in the supply chain. Awareness of this issue was raised among employees again in fiscal 2020 in company-wide sustainability training plus region- and country-specific training on evaluation methods and processes.

During the reporting year, we continued to promote the implementation of four strategic principles in procurement (reliability, sustainability, cost transformation, and innovation). Moreover, our Regional Program Managers in the EMLA, NAFTA, and APAC regions are working on permanently improving our sustainability program.

See “Procurement.”

Dialogue and close collaboration are essential in enabling suppliers to successfully comply with Covestro’s sustainability requirements. We therefore offer our suppliers a range of opportunities for training and dialogue. This provides the foundation for building reliable relationships and enables us to identify and eliminate issues at an early stage. Continually improving our suppliers’ sustainability performance is a priority for Covestro and is supported by the TfS initiative, which regularly organizes supplier days and promotes further training, among other activities. TfS provides a wide range of information materials and various online training courses on its website. In fiscal 2020, six online training sessions were offered in various languages, and one supplier day was held in China.

Additional information is available at: www.tfs-initiative.com

Supplementary information >

Worldwide supplier evaluations through the TfS initiative*

Since the start of the TfS industry initiative in the year 2011, the now 29 members of TfS have evaluated the sustainability performance of a total of 13,776 suppliers through online assessments and have performed 2,202 on-site supplier audits.

All of the results from the online assessments and on-site audits are available to members of the initiative on an online platform, thereby enabling continual monitoring of suppliers with a view to improvements. The TfS initiative also benefits suppliers because their standardized evaluations can be viewed by all TfS members. This means they do not have to complete multiple evaluation surveys by various (potential) customers.

In fiscal 2020, TfS members conducted a total of 5,315 online assessments and 258 on-site audits across the globe.

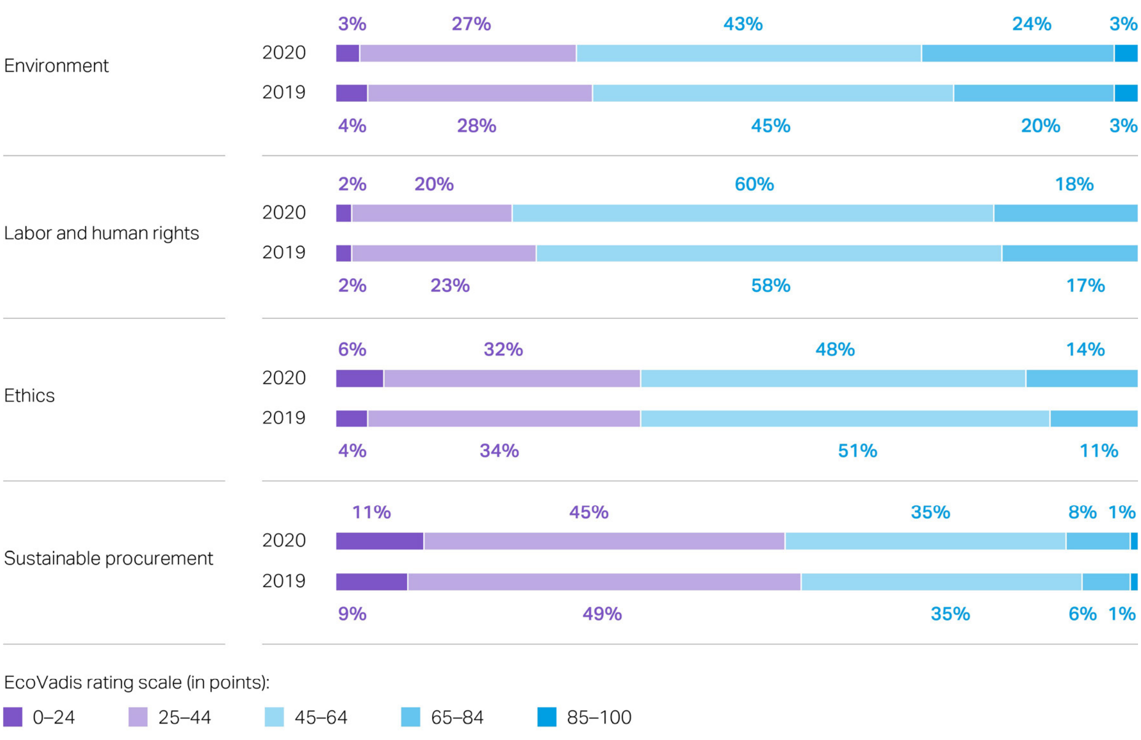
The new "TfS Grow & Deliver" strategy applicable for the next five years was approved at the TfS Steering Committee meeting held in February 2020 in Germany and ratified by the Annual General Meeting. The strategy focuses on four key pillars: Stronger Community, Higher Standards, Closer Collaboration, and Extended Reach.

Additional information is available at: tfs-initiative.com

Detailed results of the supplier evaluations*

We regularly analyze the results of the online assessments in the areas of environment, labor and human rights, ethics, and sustainable procurement. The results of the assessments carried out in the previous year and the reporting year are summarized in the following chart:

Detailed results of the online assessments completed in the reporting year



* The results provided by the external providers EcoVadis SAS and Together for Sustainability AISBL were not subject to the audit by KPMG AG Wirtschaftsprüfungsgesellschaft.

The detailed results in all areas indicate a neutral or positive trend (unchanged or increased share of online assessments reaching a score of 45 or higher).

In analyzing the supplier evaluations for the year 2020, we identified deviations from our sustainability requirements in all listed areas. This was due to factors including missing documentation of policies and measures relating to waste management, emissions, and energy, as well as a lack of occupational safety measures such as a failure to install emergency exits or exceeding the weekly working hours according to the TfS standard.

Procurement of key products

In fiscal 2020, the procurement spending of Covestro's main sites in Germany, the United States, and China accounted for just under 79% of Covestro's global spending. Most of this amount – around 79% – went to local suppliers in the individual countries.

Conflict minerals

International regulations such as the Dodd-Frank Act in the United States obligate companies to disclose the origin of certain raw materials to ensure that "conflict minerals" such as tin, tungsten, tantalum, and gold (3TG) from the Democratic Republic of Congo or neighboring states do not enter their products through the supply chain. European Union Regulation (EU) 2017/821, which entered into force on January 1, 2021, stipulates an expanded duty to perform human rights due diligence for the 3TG that includes all global conflict and high-risk regions. Covestro uses tin-containing compounds in production and therefore monitors all its suppliers of tin-containing raw materials. The requirements of the EU regulation on conflict minerals are being reviewed and integrated into the processes.

Using a structured survey process, we verify that our suppliers and their upstream suppliers obtain tin-containing material that is free from conflict minerals. Confirmations of conflict mineral-free procurement are documented centrally in the respective material/supplier combinations in our database.

Our requirements regarding conflict minerals are clearly communicated in our Supplier Code of Conduct. Covestro has obtained confirmations of compliance as regards conflict minerals from 100% of the suppliers from whom it actively purchases such minerals (38 material/supplier combinations) and who were identified as potentially affected by this issue. We update a list of potentially affected suppliers on an ongoing basis, and monitor the validity of all existing supplier confirmations. To date, there have been no critical results and no need for action regarding this issue.

< Supplementary information

Social Responsibility

Covestro is a signatory to the UN Global Compact charter and participates in the industry-led Responsible Care™ initiative and in global sustainability forums such as the World Business Council for Sustainable Development (WBCSD). We publish voluntary Corporate Commitments on important topics on our website, thus undertaking to comply with certain standards.

Additional information is available at: www.covestro.com/en/sustainability/service-downloads/policies-commitments

Human rights due diligence

Covestro is committed to respecting human rights on the basis of the United Nations Guiding Principles on Business and Human Rights. We advocate for compliance with the various national action plans and laws on human rights due diligence. In doing so, we clearly take responsibility as a company for respecting human rights in all of the Covestro Group's activities, at subsidiaries and throughout global supply chains and value chains, as well as for guarding against violations of human rights.

The principles of our human rights due diligence are delineated in various Corporate Commitments, company regulations, and in our Supplier Code of Conduct. In these documents, 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 commitment is zero tolerance of child labor, forced labor, and human trafficking. In the reporting year, we once again made a public statement on slavery and human trafficking ("Corporate Commitment against Slavery and Human Trafficking") to underline our position.

Additional information is available at: www.covestro.com/-/media/covestro/country-sites/global/documents/sustainability/policies/covestro-corporate-commitment--slavery-and-human-traffickingsigned.pdf?la=en

Human rights due diligence is carried out using Covestro's management systems and has been integrated into these for a long time now for aspects such as safety, product stewardship, compliance, and personnel policy.

See "Employees," "Safety," "Product stewardship," and "Compliance."

Covestro also regards compliance with sustainability standards within the supply chain as a fundamental factor in value creation and a lever for minimizing risks. In our Supplier Code of Conduct, we therefore require suppliers to protect the human rights of their employees and treat them with dignity and respect. We monitor their compliance with human rights standards through detailed supplier sustainability assessments and audits.

See "Sustainability in the supply chain."

Additional information is available at: www.supplier-code-of-conduct.covestro.com

To address the growing importance of human rights due diligence inside and outside the company, we established a cross-departmental Human Rights Task Force in the reporting year so as to fully integrate human rights requirements into our management systems.

The comprehensive management approach is based on the UN's Guiding Principles on Business and Human Rights, the core elements of the German national action plan, and the French law on human rights due diligence. We regularly monitor other national and international laws and legislative initiatives such as the German Supply Chain Act and the EU law on supply chain due diligence.

The Task Force is managed by the Sustainability corporate function and is composed of permanent members from the corporate functions of Health, Safety, Environment, Energy, and Quality (HSEQ); Procurement; Human Resources; Law; and Compliance as well as an expanded group of quality management, business, and risk management experts. The human rights-related responsibilities of the Task Force include developing and implementing the comprehensive management approach, systematically assessing risks, prioritizing and monitoring the implementation of individual measures, reporting to the Board of Management, and communicating about this issue in general. The individual corporate functions are responsible for identifying and assessing risks, and developing and implementing specific measures based on the Task Force's minimum requirements and best practice approaches, among other things. Measures are defined in consultation with the Task Force. In the reporting year, the corporate functions reported monthly to the Task Force about the measures implemented and their effectiveness.

The Human Rights Task Force presented the human rights due diligence approach and the status of this work to the Board of Management twice in the year under review. In addition, the priorities for the reporting year and the years 2021 to 2025 were determined. They are based on the human rights risk analysis carried out for the first time in the prior year, which is likewise underpinned by the aforementioned frameworks. As part of this analysis, material human rights risks and their possible occurrence in our value chains are identified and prioritized as a first step. Human rights risks are defined as any potential risk to those affected that could arise directly or indirectly from our business activity, the supply chain, or our products. Potentially affected persons could include Covestro's own employees, contractors, suppliers, customers, or even neighboring communities. The risk analysis covered all our own production and distribution sites as well as the supply chain and the use phase of our products. The potential risks were identified, discussed, and prioritized with selected corporate functions based on the severity of a possible human rights violation and the extent of Covestro’s possible influence for purposes of further work on the matter. Potential human rights violations assigned the highest degree of severity always take top priority for us.

As a result, various human rights topics along the value chain were identified which the Task Force will prioritize in its five-year plan. An initial status-quo comparison of existing processes and structures likewise provided insight into the extent to which priority topics are already addressed and where there is room for improvement. In the reporting year, initial measures were implemented in the Procurement, Human Resources, and Export Control corporate functions, and the risk-based approach for priority topics at Covestro was refined.

Alliance to End Plastic Waste

As a founding member of the Alliance to End Plastic Waste, Covestro is expanding its commitment against the uncontrolled disposal of plastic waste in the environment. This global network of companies strives to minimize, manage, and reuse plastic waste – and above all, prevent plastic waste from entering the environment. By the end of the year 2023, USD 1.5 billion (around €1.2 billion) is expected to have been provided for this purpose by the network. More than 50 companies from the chemical, plastic, consumer goods, and waste management sectors currently participate in this initiative.

For Covestro, the Alliance is a key component of the strategic Circular Economy program to close product loops worldwide. The Alliance identifies, invests in, and manages economically viable and sustainable waste collection and recycling solutions in cities with the support of strategic partners. Furthermore, the Alliance unlocks market opportunities for recycled materials and promotes the development of improved recycling processes and potential closed-loop products. These measures aim to transform unused and improperly disposed of plastic waste into sources of raw materials. The Alliance also advocates for sustainable consumer habits.

Besides the activities of the Alliance as a whole, its members’ activities are a key element in preventing plastic waste from entering the environment. In the year 2020, the Alliance compiled and assessed all activities in its first progress report. Covestro contributes to the Alliance not only financially, but also through the active participation of company experts and executives, including our CEO. Moreover, Covestro additionally contributes by pursuing

13 partnerships and our own projects that concentrate primarily on researching and developing new recycling methods, and identifying and setting up waste-based raw material streams. These include measures to reclaim and mechanically recycle polycarbonate water bottles in cooperation with mineral water supplier Nongfu Spring in Hangzhou (China) and recycling company Ausell in Shanghai (China). By the end of the year 2020, Covestro's total contribution amounted to USD 8.2 million (€7.2 million).

Inclusive business

Our inclusive business activities focus on the needs of underserved markets. With our collaborative approach, we ensure that we are offering scalable solutions that reach as many people as possible. We collaborate with customers as well as governmental and nongovernmental organizations to develop affordable solutions based on our technologies and products to benefit underserved populations and regions. Our employees focus on three regions (India, Southeast Asia, and East/South Africa) and work on improving the living conditions of disadvantaged and mostly low-income people by implementing new innovative solutions for affordable housing, food security, and water and sanitary facilities. In cooperation with partners, we develop affordable products based on our raw material technologies and tailored to user needs. One area of activity is post-harvest losses in the food industry in developing countries. Post-harvest losses are all losses that occur after the harvest (e.g., as a result of improper storage). They are an economic challenge particularly for smallholder farmers. Solar greenhouse dryers and cold storage, which are developed with industry partners within inclusive business, contribute substantially toward improving the financial situation of these farmers by reducing post-harvest losses. At the same time, innovative solutions help open up new markets for our company.

In the year 2020, we once again concentrated on collaboratively developing new, affordable solutions with partners who passed a due diligence review in advance. These solutions are financed by governmental and non-governmental organizations. Our work in consortia – always preceded by our standard due diligence process for new partners – also ensures that the relevant segments of the population ultimately profit from the jointly developed end products.

Our inclusive business goal

We want 10 million people in underserved markets to benefit from our solutions by the year 2025. The goal is to improve their standard of living primarily through affordable housing, sanitation, and food security.

Status

2020: 1.1 million people

2019: 0.7 million people

In line with the United Nations Sustainable Development Goals (SDGs), Covestro is pursuing the goal of improving the lives of 10 million people in underserved developing and emerging countries by the year 2025. The Board of Management is informed annually about these global activities. By the year 2020, we reached more than 1.1 million people with inclusive business solutions (previous year: more than 0.7 million people). We arrive at this number for the installed solutions by considering the people who could potentially benefit from our projects as part of their work or daily lives based on local conditions. The beneficiaries include farmers and their families from projects involving post-harvest solutions, schoolchildren thanks to the construction of training centers and installation of drinking water systems in schools, and other people due to new jobs that are created during our projects or the installation of solutions. The data collected as part of a defined process is reviewed at local and global level and the processes are continuously refined. The data is collected with the help of participating governmental and nongovernmental organizations as well as third-party sources of data for determining average family sizes in the respective countries.

Our inclusive business activities were severely affected by the global coronavirus pandemic in the year 2020 due to measures such as worldwide travel restrictions. Our activities in Africa felt the impact in particular. For this reason, we were forced to delay initiatives including water supply projects until the year 2021. Pandemic-related measures in Asia, which also affected the post-harvest handling of agricultural products, triggered an unexpected glut of fruit and vegetables in Malaysia. In the reporting year, we worked with the Malaysia Fruit Farmers Association to support farmers with food preservation by providing training. In Kenya, partnerships with our customers also enabled us to manufacture over 230 mattresses using our donated precursors and deliver them to hospitals, where they can continue to be used even after the coronavirus pandemic.

The main focus in Africa was on drying agricultural products. In the reporting year, we were able to continue the partnership with Tshwane University of Technology in Pretoria (South Africa) announced in the previous year. The students at the university will work on various research projects that use solar greenhouse dryers with a focus on alternative methods for drying traditional African fruits. We also cooperated with the University to run two workshops on strategic financial management and corporate governance in the South African province of Venda Limpopo. When the drying systems are successfully commissioned, we will be able to help a total of 900 people, mostly smallholder farmers and their families.

On the Indian subcontinent, our inclusive business activities in the reporting year focused on food preservation, construction, and the water supply. For instance, solar food dryers and solar cold storage help smallholder farmers increase their income, particularly in rural areas. In cooperation with the Fecal Sludge Management and Toilet Program, we successfully demonstrated the advantages of systems for drying fecal sludge based on polycarbonate technology in Karnataka and Odisha. In Maharashtra and Telangana, we were also able to use prefabricated construction modules to contribute substantially to building sanitary facilities. As a result of the coronavirus pandemic, the Indian government has increasingly concentrated on the procurement processes of health centers, especially in rural areas. During the construction process, our contribution of prefabricated construction modules shortened the construction time and positively influenced the result.

In Southeast Asia, the inclusive business team further stepped up its activities over the prior year by working on various community projects in the year 2020. We were able to more actively involve women in Vietnam in post-harvest management through our partnership with the GREAT program, an initiative of the Australian Department of Foreign Affairs and Trade. This initiative taught its female participants various methods of increasing value to generate higher income.

Our involvement in the Coffee Innovation Fund in Vietnam, which is run by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, allowed us to work closely with Sau Nhung Coffee Production. With the help of solar greenhouse dryers, the coffee farmers there were able to reduce coffee bean loss and cut drying times while increasing drying efficiency. Improving the quality of their coffee beans enabled them to sell their harvests for up to three times the regular price.

Social engagement and dialogue

Social and societal matters are of great significance to Covestro. We address our responsibility to society through corporate citizenship as well as ongoing constructive dialogue with authorities, neighbors, individual stakeholders, and organizations interested in Covestro. More specifically, we maintain regular contact with authorities and operate neighborhood offices. Donations, support programs, and special partnerships are further expressions of Covestro's active commitment to society. The particular areas of emphasis are determined in conjunction with the Board of Management. As a result of the coronavirus pandemic, Covestro donated IT equipment for virtual learning in addition to PPE such as masks. Due to the coronavirus pandemic, the plant tours (and participation in Currenta plant tours) that would have otherwise taken place regularly were not offered during the year under review.

In fiscal 2020, we worked as part of the THINC[30] program in conjunction with our stakeholders in Pittsburgh, Pennsylvania (USA), mainly on partnerships and local initiatives relating to the SDGs for a more just, socially balanced, and sustainable society.

Access to education, technology, and a better life

Covestro wants to facilitate access to education, technology, and a better life, and help achieve the SDGs through its social engagement. As one of the world's largest polymer companies, Covestro uses its position to work with different organizations in numerous regions around the world to advance projects for protecting the environment, improving the welfare of society, and stimulating the economy. The Sustainability corporate function supports Group-wide efforts to plan and implement cooperative efforts with partners and donation management in order to put an even greater emphasis on the SDGs.

See "Inclusive business."

REPORT ON ECONOMIC POSITION

Economic Environment

Global economy

The coronavirus pandemic had a substantial negative impact on the economy worldwide in the year 2020. The global economy weakened significantly, contracting by 4.1% year over year, and posted negative growth rates in all regions. Whereas the gross domestic product in the Asia-Pacific region was down only slightly thanks to still-positive growth in China, the other regions took a much harder hit.

Economic environment

	Growth[1] 2019	Growth[1] 2020
	%	%
World	**+2.5**	**–4.1**
Europe	**+1.6**	**–6.7**
of which Western Europe	+1.3	–7.2
of which Germany	+0.6	–5.3
of which Eastern Europe	+2.7	–4.8
Middle East	+1.1	–5.3
Latin America	–0.4	–7.5
Africa	+2.6	–3.6
North America[2]	**+2.0**	**–4.0**
of which United States	+2.2	–3.6
Asia-Pacific	**+4.1**	**–1.6**
of which China	+6.1	+2.1

1 Real growth of gross domestic product; source: IHS (Global Insight), as of January 2021.
2 North America (not including Central America): Canada, Mexico, United States.

Main customer industries*

In fiscal 2020, automotive production worldwide was down 16%. All regions experienced significant declines. Still the largest sales market for the automotive industry, China generated a less negative growth rate of around 4%.

At approximately 2%, negative growth in the global construction industry in fiscal 2020 was somewhat less severe than in the prior year. The construction industry in North America was stable, but Eastern Europe and the Asia-Pacific region exhibited mildly negative trends, and growth in Western Europe and Latin America was sharply negative.

The approximately 1% growth rate in the global electrical, electronics, and household appliances industry in fiscal year 2020 was well below the previous year's level. A key driver of the upturn was the Asia-Pacific region. In contrast, Europe and Latin America saw a substantial decline in growth rates. The North America region reported a slight drop compared with the prior year.

The global furniture industry experienced a 10% downturn with strongly negative growth rates in all regions in fiscal 2020. The impact in the Asia-Pacific region was milder, with a decline of around 6% resulting from a comparatively small downturn in China (roughly 4%).

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

Business Performance at a Glance

Significant Events

Coronavirus pandemic

Business performance in the year 2020 as a whole was heavily influenced by the coronavirus pandemic. Demand in our main customer industries reached its low in the second quarter of fiscal 2020, followed by a strong recovery in demand in the second half of the year. Covestro took a wide range of steps early on to protect the health of all its employees, secure its delivery capabilities, and safeguard its strong liquidity position. For instance, we implemented far-reaching health, safety, and hygiene measures at our sites. Depending on the local situation in each case, some of our staff, particularly employees in administrative departments, are working from home. Production has continued at our sites, for the most part unimpeded by the pandemic.

In anticipation of economic challenges, the Board of Management initiated measures for cost control in the course of the planning for fiscal 2020. In response to the coronavirus pandemic, the Board of Management once again raised the target for these cost savings. In total, we achieved short-term cost savings of €360 million during the reporting year compared with the original planning before resolving the additional measures. This step was taken in addition to the Perspective efficiency improvement program, which was launched in the year 2018 and successfully completed in fiscal 2020, cutting costs by €130 million in total. In addition, the figure for capital expenditure was lowered from the original projection. Investments totaled €704 million in fiscal year 2020 (projected: €900 million).

The Board of Management, the Supervisory Board, and Covestro employees are working together in solidarity to reach these goals and put the company in an even more robust position in the current environment. At all our German companies, the Board of Management and employee representatives agreed to implement a model to reduce working hours for six months while adjusting pay for all employees. The percentage reduction in compensation increased up the pay scale. Covestro's Board of Management and Supervisory Board are participating by accepting a 15% pay cut. All Covestro Group companies outside Germany implemented comparable country-specific measures to reduce costs. However, because the economic situation during the second half of fiscal 2020 proved to be more positive than expected, participants in the solidarity initiative worldwide received a one-time gross compensation payment at year-end.

Covestro is continually monitoring the development of the coronavirus pandemic worldwide to ensure that the company can react quickly when necessary. Existing measures are modified or expanded as required in line with recommendations and instructions issued by the relevant governments and committees of experts.

Other events

On January 2, 2020, Covestro successfully concluded the sale of its European polycarbonate sheets business to the Serafin Group. This included central management and distribution functions in Europe and production sites in Belgium and Italy. Serafin has pledged to continue operations at all sites. Covestro will continue to act as a key supplier of raw materials for the foreseeable future.

Covestro has taken various steps to safeguard its liquidity. Effective March 17, 2020, Covestro obtained a syndicated revolving credit facility totaling €2.5 billion with a term of five years. On June 5, 2020, Covestro also successfully placed €1.0 billion in euro bonds on foreign debt markets.

See “Financial position” for additional details and other key funding measures.

Moreover, a dividend for fiscal 2019 of €1.20 per share carrying dividend rights was resolved at Covestro's first virtual Annual General Meeting (AGM) on July 30, 2020. The Board of Management had previously proposed a dividend of €2.40 per share carrying dividend rights to the AGM originally scheduled for April 17, 2020, in Bonn (Germany).

In July 2020, Covestro AG's Supervisory Board voted in favor of an early extension of the contract with Board of Management member Dr. Thomas Toepfer. The contract now runs for five years from April 1, 2021, to March 31, 2026. Dr. Toepfer has held the position of Chief Financial Officer (CFO) and Labor Director since April 1, 2018.

On September 30, 2020, Covestro signed an agreement to acquire the Resins & Functional Materials (RFM) business from Koninklijke DSM N.V., Heerlen (Netherlands), for a preliminary purchase price of €1.6 billion. The goal is to build up Covestro's sustainable and innovative business activities to support the long-term corporate strategy. RFM's integration into the Coatings, Adhesives, Specialties segment significantly expands the portfolio of high-growth sustainable coating resins. As part of the announced acquisition, Covestro successfully carried out a capital increase of 10,200,000 no-par value bearer shares on October 13, 2020, using a portion of the Authorized Capital 2020 for this purpose. The gross issuing proceeds (before commission and costs) amounted to €447 million and will be used to finance the purchase price.

See "Financial position" and note 7.2 "Acquisitions and divestitures" in the Notes to the Consolidated Financial Statements.

Overall Assessment of Business Performance and Target Attainment

Business performance

Fiscal year 2020 was a challenging one for the Covestro Group, in part owing to the coronavirus pandemic. Compared with the prior year, core volume growth trailed well behind the results of fiscal 2019. This development is primarily due to a pandemic-related drop in demand in the first half of fiscal 2020, whereas in the second half, core volumes sold again exceeded the prior-year figure. At €1,472 million, EBITDA was down (previous year: €1,604 million), although cost-cutting measures played a major role in countering an even greater decrease. As a result of the pandemic, cash outflows for additions to property, plant, equipment, and intangible assets declined to €704 million (previous year: €910 million). Despite the lower EBITDA, free operating cash flow rose to €530 million (previous year: €473 million).

Target attainment

In the 2019 Annual Report, the Covestro Group published a forecast for key performance indicators in fiscal 2020. The Board of Management lowered the forecasts for all key management indicators for fiscal 2020 as a whole on April 15, 2020, as a result of business performance in the first quarter of fiscal 2020, which was heavily influenced by the coronavirus pandemic. After the business situation showed signs of a robust recovery in the second half of the year 2020, the Board of Management again adjusted the fiscal 2020 forecast on October 9, 2020. The recovery continued apace, and the forecast for the year as a whole was again modified on December 8, 2020. The Covestro Group most recently anticipated a decline in volumes between –5% and –6% after originally projecting volume growth in the low-single-digit percentage range. Also adjusted was the expected FOCF and ROCE performance. After initially projecting FOCF of between €0 million and €400 million, the Covestro Group changed this range in December 2020 to between €400 million and €550 million for the full year. The original ROCE forecast of 2% to 7% was lifted to the mid-single-digit percentage range in October 2020.

Despite the massive downturn in business in the first half of 2020, we were able to meet or exceed the profitability and liquidity forecasts from fiscal 2019. At –5.6%, our core volume growth fell below our original forecast target. Free operating cash flow for fiscal 2020 amounted to €530 million, exceeding the originally announced range, while ROCE at 7.0% came in at the upper end of the bandwidth originally communicated. In view of the most recently adjusted forecast from December 2020, the performance of all key performance indicators was as anticipated.

Target attainment for fiscal year 2020

	2019	Forecast 2020[1]	Adjusted forecast 2020[2]	Target attainment 2020
Core volume growth	+2.0%	Low single-digit-percentage range increase	Decrease of between –5% and –6%	–5.6%
Free operating cash flow	€473 million	Between €0 million and €400 million	Between €400 million and €550 million	€530 million
ROCE	+8.4%	Between 2% and 7%	Mid-single-digit-percentage range increase	+7.0%

1 Published on February 19, 2020 (Annual Report 2019).
2 Published on December 8, 2020 (ad hoc notification).

Results of Operations, Financial Position, and Net Assets of the Covestro Group

Key data Covestro Group

	4th quarter 2019	4th quarter 2020	Change	2019	2020	Change
	€ million	€ million	%	€ million	€ million	%
Core volume growth[1]	**+3.8%**	**+1.7%**		**+2.0%**	**–5.6%**	
Sales	2,864	3,007	+5.0	12,412	10,706	–13.7
Change in sales						
Volume	–0.7%	+4.7%		+0.8%	–5.1%	
Price	–13.3%	+5.4%		–17.3%	–5.7%	
Currency	+1.5%	–4.0%		+1.9%	–1.6%	
Portfolio	0.0%	–1.1%		–0.5%	–1.3%	
Sales by region						
EMLA	1,179	1,288	+9.2	5,289	4,600	–13.0
NAFTA	719	654	–9.0	3,141	2,554	–18.7
APAC	966	1,065	+10.2	3,982	3,552	–10.8
EBITDA	**278**	**637**	**>100**	**1,604**	**1,472**	**–8.2**
Depreciation and amortization	185	205	+10.8	752	776	+3.2
EBIT	93	432	>300	852	696	–18.3
Financial result	(26)	(13)	–50.0	(91)	(91)	0.0
Net income	37	312	>700	552	459	–16.8
Operating cash flows	637	635	–0.3	1,383	1,234	–10.8
Cash outflows for additions to property, plant, equipment and intangible assets	307	241	–21.5	910	704	–22.6
Free operating cash flow	**330**	**394**	**+19.4**	**473**	**530**	**+12.1**
Net financial debt[2]				989	356	–64.0
ROCE				**+8.4%**	**+7.0%**	

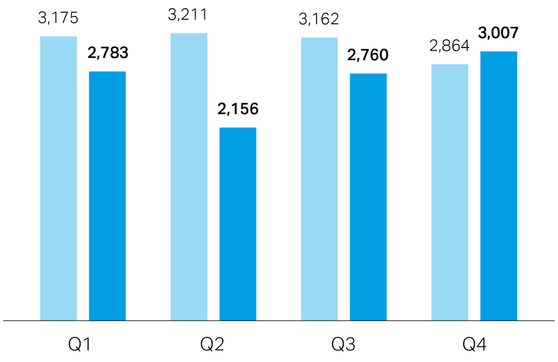
1 Reference values calculated on the basis of the definition of the core business effective March 31, 2020.
2 As of December 31, 2020, compared with December 31, 2019.

Results of Operations

The coronavirus pandemic had a significant impact on Covestro's results of operations in fiscal year 2020. In the second half of fiscal year 2020, we charted a recovery in demand for our products that differed in degree depending on the region and industry.

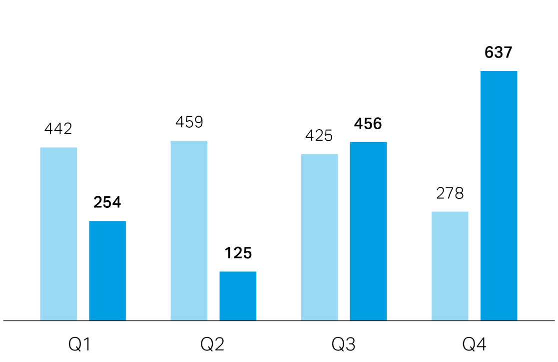
Covestro Group Quarterly sales

€ million



Covestro Group Quarterly EBITDA

€ million



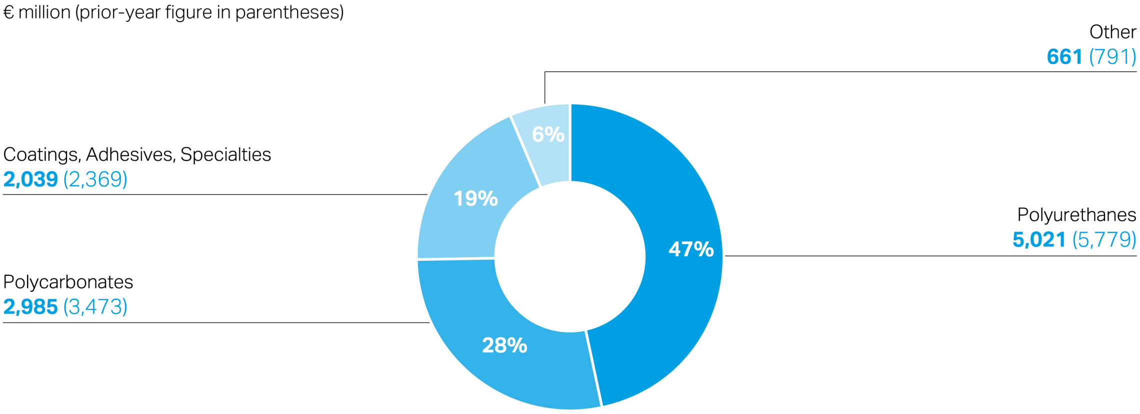
Sales

In the year 2020 as a whole, the Group's core volumes sold decreased by 5.6% from the prior year, primarily on account of weaker demand in the first half of 2020 driven by the coronavirus pandemic. The Polyurethanes and Polycarbonates segments reported declines of 6.1% and 3.0%, respectively. Core volumes sold fell by 8.9% in the Coatings, Adhesives, Specialties segment.

In fiscal 2020, Group sales were down by 13.7% year over year to €10,706 million (previous year: €12,412 million). This is largely due to lower selling prices, which reduced sales by 5.7%. This development was mainly driven by the increased competitive pressure in the Polyurethanes and Polycarbonates segments. In addition, the drop in total volumes sold had a negative effect on sales of 5.1%. Exchange rate movements also had a negative impact of 1.6%. Changes in the portfolio had an overall negative effect on sales of 1.3%. The sale of the European polyurethane systems house business in the fourth quarter of the year 2019 adversely affected sales in fiscal 2020, as did the sale of the European polycarbonate sheets business in the first quarter of fiscal year 2020. In contrast, the step acquisition of shares and subsequent full consolidation of DIC Covestro Polymer Ltd., Tokyo (Japan), in the second quarter of fiscal 2019 had no notable effect on sales in the year 2020 as a whole.

Sales by segment

€ million (prior-year figure in parentheses)



Sales in all reportable segments were down in fiscal 2020. In the Polyurethanes segment, sales fell by 13.1% to €5,021 million (previous year: €5,779 million), and the Polycarbonates segment's sales slid 14.1% to €2,985 million (previous year: €3,473 million). The Coatings, Adhesives, Specialties segment's sales declined by 13.9% to €2,039 million (previous year: €2,369 million).

EBIT

Covestro Group summary income statement

	2019	2020	Change
	€ million	€ million	%
Sales	12,412	10,706	–13.7
Cost of goods sold	(9,658)	(8,207)	–15.0
Gross profit	**2,754**	**2,499**	**–9.3**
Selling expenses	(1,380)	(1,195)	–13.4
Research and development expenses	(266)	(262)	–1.5
General administration expenses	(372)	(310)	–16.7
Other operating expenses (–) and income (+)	116	(36)	.
EBIT	**852**	**696**	**–18.3**
Financial result	(91)	(91)	–
Income before income taxes	**761**	**605**	**–20.5**
Income taxes	(204)	(151)	–26.0
Income after income taxes	**557**	**454**	**–18.5**
of which attributable to noncontrolling interest	5	(5)	.
of which attributable to Covestro AG shareholders (net income)	**552**	**459**	**–16.8**

The cost of goods sold was down by 15.0%, amounting to €8,207 million (previous year: €9,658 million), on account of lower raw material prices. The ratio of the cost of goods sold to sales therefore decreased to 76.7% (previous year: 77.8%).

Gross profit sank by 9.3% to €2,499 million (previous year: €2,754 million), primarily due to a decline in total volumes sold. In contrast, lower raw material costs more than compensated for the low level of selling prices, which boosted earnings.

Selling expenses were 13.4% lower, coming in at €1,195 million (previous year: €1,380 million) and yielding an almost unchanged ratio of selling expenses to sales of 11.2% (previous year: 11.1%). Research and development expenses (R&D) fell by 1.5% to €262 million (previous year: €266 million). As a share of sales, this produced an R&D ratio of 2.4% (previous year: 2.1%). General administration expenses were down by 16.7% to €310 million (previous year: €372 million), for an almost unchanged ratio of administration expenses to sales of 2.9% (previous year: 3.0%). Cost-cutting measures in the sales, R&D, and general administration functions led to a significantly lower cost level than in the previous year.

Net other operating expenses totaled €36 million (previous year: net other operating income of €116 million). In the reporting period, positive one-time effects from the previous year, including insurance reimbursements of €63 million and proceeds from divestitures amounting to €53 million, stood in contrast to expenses relating to the planned acquisition of the Resins & Functional Materials (RFM) business from Koninklijke DSM N.V., Heerlen (Netherlands) totaling €32 million and lower insurance reimbursements of €21 million.

EBIT amounted to €696 million, down 18.3% in the reporting period (previous year: €852 million). The EBIT margin fell to 6.5% (previous year: 6.9%).

EBITDA

Calculation of EBITDA

	2019	2020
	€ million	€ million
EBIT	**852**	**696**
Depreciation, amortization, impairment losses and impairment loss reversals	752	776
EBITDA	**1,604**	**1,472**

In the year 2020 as a whole, depreciation, amortization and impairment losses rose by 3.2% to €776 million (previous year: €752 million). This item comprised €754 million (previous year: €732 million) in depreciation and impairment losses on property, plant and equipment and €22 million (previous year: €20 million) in amortization and impairment losses on intangible assets. This included €20 million (previous year: €28 million) in impairment losses and €0 million (previous year: €1 million) in reversals of impairment losses.

The Group’s EBITDA in the year as a whole decreased by 8.2% from the prior-year period to €1,472 million (previous year: €1,604 million). EBITDA in the Polyurethanes segment slid by 3.5% to €625 million (previous year: €648 million). In contrast, the Polycarbonates segment’s EBITDA rose by 3.2% to €553 million (previous year: €536 million). At €341 million, EBITDA in the Coatings, Adhesives, Specialties segment dropped by 27.3% from the prior-year figure (previous year: €469 million).

Net income

In the fiscal year, the financial result was unchanged at €–91 million (previous year: €–91 million) and largely consisted of net interest expense of €–47 million (previous year: €–45 million). In view of the financial result, income before income taxes was down by 20.5% to €605 million (previous year: €761 million). The change in income resulted in the income tax expense declining by 26.0% to €151 million (previous year: €204 million). After taxes and noncontrolling interests, net income shrank by 16.8% and amounted to €459 million (previous year: €552 million).

Return on capital employed (ROCE) and Value Contribution

Calculation of the Value Contribution

	2019	2020
	€ million	€ million
EBIT	852	696
Effective tax rate[1]	+26.8%	+25.0%
Taxes[2]	(228)	(174)
Net operating profit after taxes (NOPAT)	**624**	**522**
Weighted average cost of capital (WACC)	+6.8%	+7.3%
Average capital employed	7,406	7,475
Cost of capital	**(504)**	**546**
Value contribution	**120**	**(24)**
ROCE	**+8.4%**	**+7.0%**

[1] The calculation of the effective tax rate is presented in note 13 “Taxes” in the Notes to the Consolidated Financial Statements.
[2] The imputed income taxes used in the calculation of NOPAT are determined by multiplying EBIT by the effective tax rate.

The Covestro Group's NOPAT totaled €522 million (previous year: €624 million), and average capital employed amounted to €7,475 million (previous year: €7,406 million). This resulted in a decline in ROCE to 7.0% (previous year: 8.4%), which fell below the WACC of 7.3% (previous year: 6.8%). The company therefore did not generate a premium on the cost of capital. The above figures resulted in a Value Contribution of €–24 million (previous year: €120 million).

Additional information on the calculation of indicators is available in “Management.”

Calculation of average capital employed

	Dec. 31, 2018[1]	Effects of IFRS 16	Jan. 1, 2019	Dec. 31, 2019	Dec. 31, 2020
	€ million	€ million	€ million	€ million	€ million
Goodwill	256	–	256	264	255
Other intangible assets	77	–	77	114	109
Property, plant and equipment[2]	4,409	660	5,069	5,286	5,175
Investments accounted for using the equity method	214	–	214	192	173
Other noncurrent financial assets[3]	8	–	8	7	5
Other receivables[4]	361	–	361	376	309
Deferred taxes[5]	256	–	256	221	253
Inventories	2,213	–	2,213	1,916	1,663
Trade accounts receivable	1,786	–	1,786	1,561	1,593
Claims for income tax refunds	55	–	55	104	55
Assets held for sale[6, 7]	–	–	1	12	36
Gross capital employed	**9,635**	**660**	**10,296**	**10,053**	**9,626**
Other provisions[8]	(721)	–	(721)	(422)	(360)
Other liabilities[9, 10]	(335)	–	(335)	(284)	(269)
Deferred tax liabilities[11]	(153)	–	(153)	(204)	(177)
Trade accounts payable[10]	(1,536)	–	(1,536)	(1,431)	(1,241)
Income tax liabilities	(279)	–	(279)	(164)	(162)
Liabilities directly related to assets held for sale[12, 13]	–	–	–	(8)	(7)
Capital employed	**6,611**	**660**	**7,272**	**7,540**	**7,410**
Average capital employed				**7,406**	**7,475**

1 Reference information was not restated for financial reporting standard IFRS 16.
2 As of January 1, 2019, this also contains the right-of-use assets from initial application of IFRS 16.
3 Other noncurrent financial assets were adjusted for nonoperating assets.
4 Other receivables were adjusted for nonoperating and financial receivables.
5 Deferred taxes were adjusted for deferred taxes from defined benefit plans and similar obligations.
6 Assets held for sale have been included in the calculation of capital employed since January 1, 2019. The prior-year figures were not restated.
7 Assets held for sale were adjusted for nonoperating and financial assets.
8 Other provisions were adjusted for provisions for interest payments.
9 Other liabilities were adjusted for nonoperating and financial liabilities.
10 Reference information was restated accordingly. See note 4.1 “Change in presentation of rebates granted to customers” in the Notes to the Consolidated Financial Statements.
11 Deferred tax liabilities were adjusted for deferred tax liabilities from defined benefit plans and similar obligations.
12 Liabilities directly related to assets held for sale have been included in the calculation of capital employed since January 1, 2019. The prior-year figures were not restated.
13 Liabilities directly related to assets held for sale were adjusted for nonoperating and financial liabilities.

Financial Position

Statement of cash flows

Covestro Group summary statement of cash flows

	4th quarter 2019	4th quarter 2020	2019	2020
	€ million	€ million	€ million	€ million
EBITDA	**278**	**637**	**1,604**	**1,472**
Income taxes paid	(31)	(40)	(296)	(155)
Change in pension provisions	26	(1)	49	25
(Gains)/losses on retirements of noncurrent assets	(35)	6	(51)	8
Change in working capital/other noncash items	399	33	77	(116)
Cash flows from operating activities	**637**	**635**	**1,383**	**1,234**
Cash outflows for additions to property, plant, equipment and intangible assets	(307)	(241)	(910)	(704)
Free operating cash flow	**330**	**394**	**473**	**530**
Cash flows from investing activities	**(252)**	**(764)**	**(838)**	**(1,769)**
Cash flows from financing activities	**(57)**	**377**	**(668)**	**1,204**
Change in cash and cash equivalents due to business activities	**328**	**248**	**(123)**	**669**
Cash and cash equivalents at beginning of period	**422**	**1,157**	**865**	**748**
Change in cash and cash equivalents due to changes in scope of consolidation	–	–	(1)	1
Change in cash and cash equivalents due to exchange rate movements	(2)	(1)	7	(14)
Cash and cash equivalents at end of period	**748**	**1,404**	**748**	**1,404**

Cash flows from operating activities/free operating cash flow

Cash flows from operating activities dropped to €1,234 million (previous year: €1,383 million). A reduction in EBITDA and increase in funds tied up in working capital stood in contrast to lower income tax payments. Thanks to the reduction in cash outflows for additions to property, plant, equipment, and intangible assets from the original forecast (projected: €900 million), free operating cash flow increased to €530 million (previous year: €473 million) despite the decrease in cash flows from operating activities.

Additional information on the calculation of indicators is available in "Management."

Cash flows from investing activities

In fiscal 2020, net cash used in investing activities totaled €1,769 million (previous year: €838 million). This item comprised investments in money market funds of €771 million, short-term bank deposits of €355 million, as well as cash outflows for additions to property, plant, equipment, and intangible assets of €704 million (previous year: €910 million).

Capital expenditures in fiscal 2020 were targeted at maintenance and improvement of existing plants as well as new capacity in all three reportable segments. In the Polyurethanes segment, an investment was made in the construction of a chlorine production facility at the Tarragona (Spain) site, which promotes the use of energy-saving technologies, following commissioning of the MDI pilot plant at the Brunsbüttel (Germany) site. What is more, an investment at the Rotterdam (Netherlands) site improved water treatment, while capital expenditure in Shanghai (China) secured and optimized the supply of chlorine. Strategically relevant investments comprised the expansion of capacity at the Shanghai and Krefeld-Uerdingen (Germany) sites in the Polycarbonates segment and of global production capacity for specialty films at the Map Ta Phut (Thailand) and Dormagen (Germany) sites in the Coatings, Adhesives, Specialties segment. In addition, the new Group headquarters building in Leverkusen (Germany) was completed.

Cash outflows for additions to property, plant, equipment, and intangible assets

	2019	2020
	€ million	€ million
Polyurethanes	543	409
Polycarbonates	209	157
Coatings, Adhesives, Specialties	158	138
Others/Consolidation	–	–
Covestro Group	**910**	**704**

Cash flows from financing activities

Net cash inflow from the Covestro Group's financing activities amounted to €1,204 million in fiscal 2020 (previous year: net cash outflow of €668 million). For the most part, this relates to the issue of euro bonds totaling €1.0 billion and the net proceeds of the capital increase in October 2020 amounting to €444 million. The dividend payout for Covestro AG was €219 million (previous year: €438 million).

Net financial debt

	Dec. 31, 2019	Dec. 31, 2020
	€ million	€ million
Bonds	997	1,990
Liabilities to banks	10	227
Lease liabilities	735	672
Liabilities from derivatives	10	9
Other financial liabilities	–	1
Receivables from derivatives	(15)	(13)
Financial debt	**1,737**	**2,886**
Cash and cash equivalents	(748)	(1,404)
Current financial assets	–	(1,126)
Net financial debt	**989**	**356**

In comparison with December 31, 2019, the Covestro Group's financial debt increased by €1,149 million to €2,886 million as of December 31, 2020. The increase was due to the assumption of a loan from the European Investment Bank totaling €225 million in the first quarter of 2020. The loan is for research and development with a focus on sustainability and the circular economy in the European Union. On June 5, 2020, Covestro also successfully placed a total of €1.0 billion in euro bonds on the capital market.

Current financial assets increased to €1,126 million and comprised money market funds in the amount of €771 million and short-term bank deposits totaling €355 million. At the same time, cash and cash equivalents rose to €1,404 million (previous year: €748 million).

On the one hand, the higher level of cash and cash equivalents and current financial assets at year-end reflected Covestro's aim to secure liquidity in view of the economic impact of the coronavirus pandemic. On the other hand, these are earmarked for financing of the purchase price of the announced acquisition of the RFM business from Koninklijke DSM N.V., Heerlen (Netherlands).

In fiscal 2020, net financial debt decreased by €633 million to €356 million (previous year: €989 million).

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.

Effective March 17, 2020, Covestro AG obtained a new syndicated revolving credit facility totaling €2.5 billion with a term of five years. It includes two options to extend the term by one year in each case. An important new feature of the credit line is its link to an ESG (environment, social, and governance) rating: The better (worse) the externally calculated ESG score is, the lower (higher) the interest component of the credit facility. The new facility replaces the existing revolving credit line of €1.5 billion and, like it, functions as a backup liquidity reserve. No loans had been drawn against this syndicated credit facility as of December 31, 2020. On September 30, 2020, Covestro arranged another syndicated credit facility in the original amount of €1.7 billion. This second credit facility was reduced on October 26, 2020, and stood at €1.2 billion as of December 31, 2020. This serves as bridge financing for the purchase price of the announced acquisition of the RFM business from Koninklijke DSM N.V. No loans had been drawn against the second syndicated credit facility as of December 31, 2020, either. This credit facility used for bridge financing was terminated as of January 29, 2021, thanks to Covestro’s strong liquidity position.

Covestro AG operates a Debt Issuance Program with a total volume of €5.0 billion 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. Covestro AG successfully placed several bonds from its Debt Issuance Program in March 2016. The outstanding bonds with a total volume of €1.0 billion are fixed-rate bonds maturing in October 2021 (1.00% coupon, €500 million) and September 2024 (1.75% coupon, €500 million), and carry a Baa2 rating with negative outlook from Moody’s Investors Service, London (United Kingdom). On June 5, 2020, Covestro successfully placed a total of €1.0 billion in euro bonds on the capital market. The proceeds of the new bonds placed will be used to further reinforce Covestro's liquidity in view of the economic effects of the coronavirus pandemic and, among other things, to repay the existing bond maturing in fiscal 2021. The bonds mature in February 2026 and June 2030 and carry coupon rates of 0.875% and 1.375%, respectively.

As a company, Covestro AG currently holds a Baa2 investment-grade rating with negative outlook from the rating agency Moody’s Investors Service. Covestro intends to continue to maintain financing structures and financial ratios that support a solid investment-grade rating.

The Covestro Group pursues a prudent debt management strategy to ensure flexibility, drawing on a balanced financing portfolio. This is 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. Instruments including derivatives are used to minimize risks.

For a detailed presentation of financial opportunities and risks as well as further explanations, please see Covestro’s opportunities and risks report.

See “Opportunities and risks report.”

Net Assets

Covestro Group summary statement of financial position

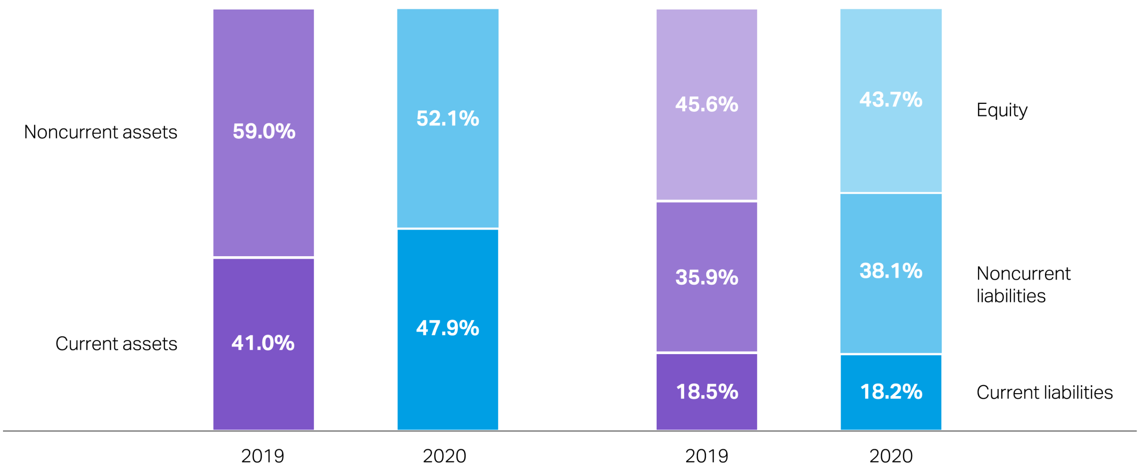
	Dec. 31, 2019	Dec. 30, 2020
	€ million	€ million
Noncurrent assets	6,791	6,734
Current assets	4,727	6,190
Total assets	**11,518**	**12,924**
Equity	**5,254**	**5,644**
Noncurrent liabilities	4,129	4,916
Current liabilities	2,135	2,364
Liabilities	**6,264**	**7,280**
Total equity and liabilities	**11,518**	**12,924**

Total assets increased by €1,406 million to €12,924 million as of December 31, 2020 (December 31, 2019: €11,518 million).

Noncurrent assets were down by €57 million to €6,734 million (previous year: €6,791 million) and accounted for 52.1% (previous year: 59.0%) of total assets. This was mainly due to the decline in property, plant, and equipment, as depreciation and impairment losses exceeded cash outflows for this item in the reporting year.

Current assets were up by €1,463 million to €6,190 million (previous year: €4,727 million) and therefore accounted for 47.9% (previous year: 41.0%) of total assets. This increase was chiefly attributable to investments in money market funds and short-term bank deposits and the higher level of cash and cash equivalents.

Covestro Group's balance sheet structure



Equity increased by €390 million to €5,644 million as of December 31, 2020 (previous year: €5,254 million). The equity ratio was 43.7% as of the reporting date (previous year: 45.6%). Equity grew primarily on account of the capital increase and the income after income taxes. This more than offset the degree to which the dividend distribution and remeasurement of pension obligations as well as negative exchange rate changes reduced equity.

Noncurrent liabilities increased by €787 million to €4,916 million as of the reporting date (previous year: €4,129 million) and accounted for 67.5% (previous year: 65.9%) of liabilities. This was mainly due to an increase in noncurrent financial liabilities as well as in provisions for pensions and other post-employment benefits. Noncurrent financial liabilities were higher principally as a result of the issue of euro bonds totaling €1.0 billion and the assumption of a loan for research and development from the European Investment Bank amounting to €225 million.

Net defined benefit liability for post-employment benefits

	Dec. 31, 2019	Dec. 31, 2020
	€ million	€ million
Net defined benefit liability for post-employment benefits	**1,963**	**2,121**

The net defined benefit liability for post-employment benefits (pension obligations less plan assets) rose by €158 million in the reporting year to €2,121 million (previous year: €1,963 million). An increase in the value of the plan assets was unable to offset actuarial losses primarily resulting from the lowering of the discount rate in Germany and the United States.

Current liabilities were up by €229 million to €2,364 million (previous year: €2,135 million) and accounted for 32.5% (previous year: 34.1%) of liabilities. This increase is mostly attributable to the reclassification of the bond maturing in October 2021 to current liabilities at the end of the fiscal year and a decrease in trade accounts payable.

Performance of the Reportable Segments

Polyurethanes

Polyurethanes key data

	4th quarter 2019	4th quarter 2020	Change	2019	2020	Change
	€ million	€ million	%	€ million	€ million	%
Core volume growth[1]	**+3.6%**	**+0.8%**		**+2.3%**	**–6.1%**	
Sales	1,336	1,519	+13.7	5,779	5,021	–13.1
Change in sales						
Volume	–0.2%	+2.9%		+1.5%	–5.0%	
Price	–16.9%	+16.2%		–24.7%	–5.1%	
Currency	+1.5%	–4.8%		+1.8%	–2.0%	
Portfolio	–0.7%	–0.6%		–0.1%	–1.0%	
Sales by region						
EMLA	546	683	+25.1	2,487	2,189	–12.0
NAFTA	394	365	–7.4	1,680	1,389	–17.3
APAC	396	471	+18.9	1,612	1,443	–10.5
EBITDA	**123**	**379**	**>200**	**648**	**625**	**–3.5**
EBIT	24	264	>900	250	197	–21.2
Operating cash flows	282	285	+1.1	575	423	–26.4
Cash outflows for additions to property, plant, equipment and intangible assets	168	138	–17.9	543	409	–24.7
Free operating cash flow	**114**	**147**	**+28.9**	**32**	**14**	**–56.3**

[1] Reference values calculated on the basis of the definition of the core business effective March 31, 2020.

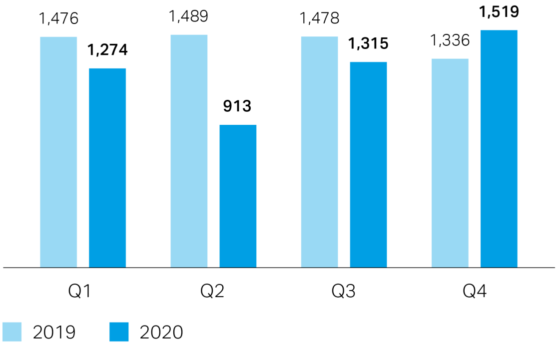
In fiscal 2020, core volumes sold in Polyurethanes dropped by 6.1% from the prior-year period. This is mainly due to lower core volumes sold in the furniture and wood processing industry, the automotive and transportation industry, and the construction industry, particularly in the EMLA region. Core volumes sold were down in the first six months of the year 2020 as a result of a steep pandemic-related downturn in demand. In the second half of fiscal 2020, demand improved considerably and the competitive situation was favorable, which resulted in core volumes sold increasing over the prior-year figures.

The Polyurethanes segment's sales were down by 13.1% to €5,021 million (previous year: €5,779 million). The lower average selling price level for the year reduced sales by 5.1%. Both prior-year effects and price volatility in the 2020 reporting year influenced the individual quarters to various degrees. In addition, the decline in total volumes sold and exchange rate movements reduced sales by 5.0% and 2.0%, respectively. The portfolio effect from the sale of the European systems house business in the fourth quarter of 2019 had a negative effect of 1.0% on sales in fiscal year 2020.

Sales in the EMLA region fell by 12.0% to €2,189 million (previous year: €2,487 million) on account of significantly lower average selling prices. Moreover, total volumes sold and exchange rate changes along with the aforementioned portfolio effect reduced sales somewhat. In the NAFTA region, sales decreased by 17.3% to €1,389 million (previous year: €1,680 million). Total volumes sold and average selling prices had a significantly adverse effect on sales. Exchange rate developments pushed sales down slightly. Sales in the APAC region dropped by 10.5% to €1,443 million (previous year: €1,612 million), with total volumes sold exerting a considerable negative effect on sales. At the same time, changes in exchange rates and a decline in the selling price level each caused sales to decline slightly.

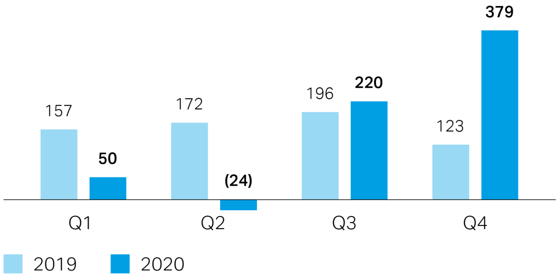
Polyurethanes Quarterly sales

€ million



Polyurethanes Quarterly EBITDA

€ million



EBITDA fell by 3.5% from the prior-year period to €625 million (previous year: €648 million). The decline in total volumes sold and positive one-time effects from the previous year, including insurance reimbursements of €63 million and proceeds from divestitures amounting to €34 million, reduced earnings. In contrast, lower raw material prices more than compensated for reduced selling prices, which led to higher margins. These, along with costs lowered by cost-cutting measures, had a positive effect on EBITDA.

EBIT was down by 21.2% to €197 million (previous year: €250 million).

Free operating cash flow declined to €14 million from the previous year, a reduction of 56.3% (previous year: €32 million). Funds were freed up from working capital in the previous year but tied up in working capital in the reporting year, which had a negative effect on free operating cash flow. This was mostly balanced out by reduced cash outflows for additions to property, plant, and equipment.

Polycarbonates

Polycarbonates key data

	4th quarter 2019	4th quarter 2020	Change	2019	2020	Change
	€ million	€ million	%	€ million	€ million	%
Core volume growth[1]	**+3.5%**	**+3.2%**		**+2.7%**	**–3.0%**	
Sales	814	803	–1.4	3,473	2,985	–14.1
Change in sales						
Volume	0.0%	+7.4%		+2.4%	–2.3%	
Price	–13.5%	–2.1%		–16.5%	–7.0%	
Currency	+1.6%	–3.7%		+2.0%	–1.5%	
Portfolio	0.0%	–3.0%		–2.2%	–3.3%	
Sales by region						
EMLA	270	244	–9.6	1,146	942	–17.8
NAFTA	160	154	–3.8	734	610	–16.9
APAC	384	405	+5.5	1,593	1,433	–10.0
EBITDA	**95**	**200**	**>100**	**536**	**553**	**+3.2**
EBIT	39	143	>200	300	332	+10.7
Operating cash flows	204	178	–12.7	613	484	–21.0
Cash outflows for additions to property, plant, equipment and intangible assets	84	61	–27.4	209	157	–24.9
Free operating cash flow	**120**	**117**	**–2.5**	**404**	**327**	**–19.1**

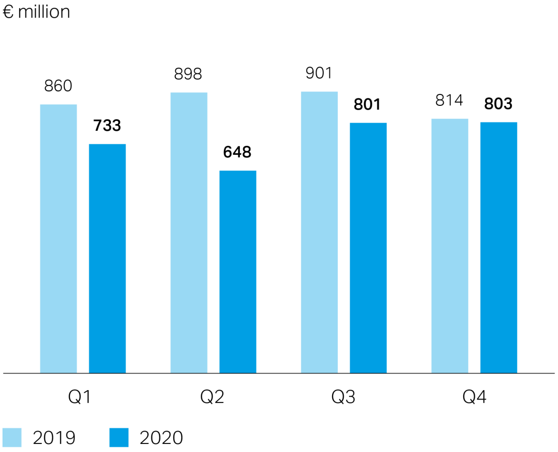
[1] Reference values calculated on the basis of the definition of the core business effective March 31, 2020.

In fiscal year 2020, core volumes sold in Polycarbonates were down by 3.0% from the prior-year period. Key drivers were lower volumes sold in the automotive and transportation industry, mainly in the EMLA and NAFTA regions, and in the electrical, electronics and household appliances industry, especially in the APAC region. In contrast, demand from the construction industry increased. The coronavirus pandemic led to a sharp slide in demand, particularly in the first six months of fiscal 2020, which in turn resulted in a drop in core volumes sold. In the second half of the year, a robust recovery in demand pushed core volumes sold over the prior-year level.

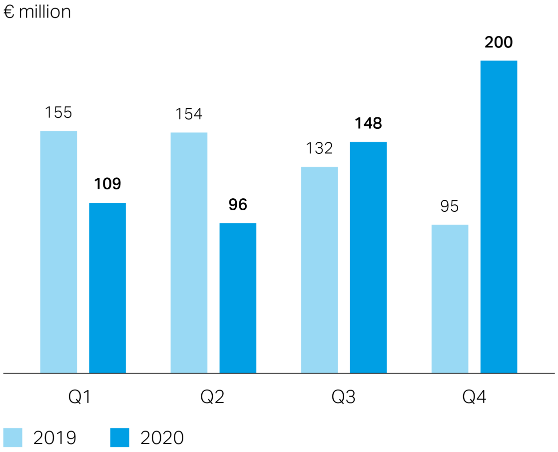
Sales in the Polycarbonates segment fell by 14.1% in the year 2020 to €2,985 million (previous year: €3,473 million), mostly due to lower selling prices, which reduced sales by 7.0%. A decrease in total volumes sold and exchange rate movements had negative effects on sales of 2.3% and 1.5%, respectively. The portfolio effect from the sale of the European polycarbonate sheets business in the first quarter of fiscal 2020 adversely affected sales, which declined by 3.3%.

In the EMLA region, sales tumbled 17.8% to €942 million (previous year: €1,146 million). The aforementioned portfolio effect and a reduction in average selling prices each significantly lowered sales. Exchange rate developments also pushed sales down somewhat. Total volumes sold remained at the prior-year level, however. Sales in the NAFTA region declined by 16.9% to €610 million (previous year: €734 million). Lower total volumes sold and a lower selling price level both had a strong adverse effect on sales. Moreover, exchange rate changes reduced sales somewhat. The APAC region saw sales slide by 10.0% to €1,433 million (previous year: €1,593 million), largely driven by a sharp drop in average selling prices. At the same time, exchange rate movements had a mildly negative effect on sales. However, total volumes sold remained stable year over year.

Polycarbonates
Quarterly sales



Polycarbonates
Quarterly EBITDA



In fiscal 2020, EBITDA in the Polycarbonates segment grew by 3.2% over the prior-year period, rising to €553 million (previous year: €536 million). Lower raw material prices along with an improved cost level thanks to cost-cutting measures had a positive effect on earnings. However, reduced selling prices and a decline in total volumes sold adversely affected EBITDA. Moreover, the portfolio effect from the sale of the European polycarbonate sheets business in the first quarter of 2020 reduced sales.

EBIT increased by 10.7% to €332 million (previous year: €300 million).

Free operating cash flow was down by 19.1% to €327 million (previous year: €404 million). A decrease in funds released from working capital had a negative effect, whereas reduced cash outflows for additions to property, plant, and equipment had a positive effect.

Coatings, Adhesives, Specialties

Coatings, Adhesives, Specialties key data

	4th quarter 2019	4th quarter 2020	Change	2019	2020	Change
	€ million	€ million	%	€ million	€ million	%
Core volume growth[1]	**+6.2%**	**+2.8%**		**–1.0%**	**–8.9%**	
Sales	533	529	–0.8	2,369	2,039	–13.9
Change in sales						
Volume	+0.1%	+7.5%		–2.1%	–9.0%	
Price	–4.2%	–4.9%		–1.1%	–4.2%	
Currency	+1.9%	–3.4%		+2.3%	–1.0%	
Portfolio	+2.0%	0.0%		+1.2%	+0.3%	
Sales by region						
EMLA	224	227	+1.3	1,052	908	–13.7
NAFTA	129	116	–10.1	562	469	–16.5
APAC	180	186	+3.3	755	662	–12.3
EBITDA	**62**	**52**	**–16.1**	**469**	**341**	**–27.3**
EBIT	32	19	–40.6	352	215	–38.9
Operating cash flows	170	113	–33.5	349	327	–6.3
Cash outflows for additions to property, plant, equipment and intangible assets	55	43	–21.8	158	138	–12.7
Free operating cash flow	**115**	**70**	**–39.1**	**191**	**189**	**–1.0**

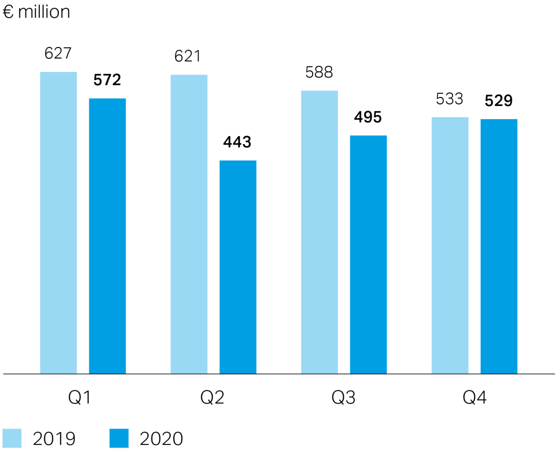
[1] Reference values calculated on the basis of the definition of the core business effective March 31, 2020.

In the 2020 fiscal year, core volumes sold in Coatings, Adhesives, Specialties were down by 8.9% from the prior year. The main factors behind this trend were pandemic-related developments in core volumes sold, especially in the automotive and transportation industry, and in the construction industry, particularly in the EMLA and NAFTA regions. Core volumes sold were down in the first six months of fiscal 2020, chiefly because demand crashed as a result of the coronavirus pandemic. By the end of the year, demand had recovered and, as a result, core volumes sold in the fourth quarter of the 2020 fiscal year exceeded the prior-year figures.

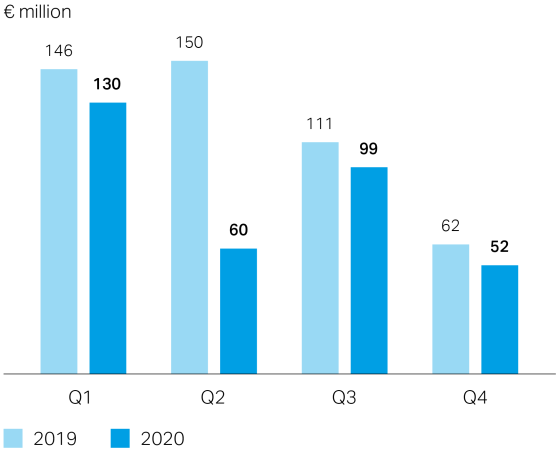
Sales in the Coatings, Adhesives, Specialties segment slid by 13.9% to €2,039 million (previous year: €2,369 million). This was largely due to a downturn in total volumes sold, which in turn reduced sales by 9.0%. Lower average selling prices and exchange rate developments had negative effects on sales of 4.2% and 1.0%, respectively. The change in the portfolio increased sales by 0.3%.

In the EMLA region, sales fell by 13.7% to €908 million (previous year: €1,052 million). This was chiefly due to a decrease in total volumes sold, which had a significant negative effect on sales, and to a lower selling price level, which pushed sales down somewhat. Sales were not noticeably affected by exchange rate movements. In the NAFTA region, sales were down by 16.5% to €469 million (previous year: €562 million), primarily due to a substantial decline in total volumes sold. Lower average selling prices and exchange rate developments both exerted a mildly negative effect on sales. Sales in the APAC region declined by 12.3% to €662 million (previous year: €755 million). Lower selling prices had a strong negative effect on sales. The decline in total volumes sold and exchange rate changes in turn reduced sales slightly. The portfolio effect had no notable impact with regard to sales.

Coatings, Adhesives, Specialties
Quarterly sales



Coatings, Adhesives, Specialties
Quarterly EBITDA



EBITDA fell by 27.3% compared with the prior-year period, coming in at €341 million (previous year: €469 million). Lower total volumes sold and margins reduced earnings. Moreover, expenses for the announced acquisition of the Resins & Functional Materials (RFM) business from Koninklijke DSM N.V., Heerlen (Netherlands), resulted in a €33 million decrease in earnings, of which €1 million were general administration expenses. This contrasts with a low cost level thanks to cost-cutting measures, which had a positive effect on EBITDA. EBITDA in the prior-year period was affected by a one-time gain of €19 million from the remeasurement of the shares of DIC Covestro Polymer Ltd., Tokyo (Japan), previously reported according to the equity method.

EBIT was down by 38.9% to €215 million (previous year: €352 million).

Free operating cash flow decreased by 1.0% to €189 million (previous year: €191 million). The low EBITDA had a negative effect. Funds were tied up in working capital in the previous year, but freed up in the reporting year, which had a positive effect, as did lower outflows for additions to property, plant, equipment, and intangible assets.

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 the German 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.

Covestro AG performs energy-specific services for Covestro Brunsbüttel Energie GmbH, Brunsbüttel, (affiliated power and gas grid operator) and therefore prepares activity reports in the areas of electricity supply and gas supply pursuant to Section 6b (3) Sentence 1 Nos. 2 and 4 of the German Energy Industry Act (EnWG).

There is a control and profit and loss transfer agreement between Covestro AG and Covestro Deutschland AG, Leverkusen (Germany). All profit not subject to a prohibition on transfer is transferred in full to Covestro AG at the end of the year. 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.

Results of Operations

Covestro AG income statements according to the German Commercial Code

	2019	2020
	€ million	€ million
Income from investments in affiliated companies – net	695	77
Interest expense – net	(14)	(23)
Other financial income – net	(3)	(16)
Net sales	21	22
Cost of services provided	(19)	(18)
General administration expenses	(48)	(46)
Other operating income	–	19
Other operating expenses	(3)	(31)
Income before income taxes	**629**	**(16)**
Income taxes	(6)	(29)
Net income/net loss	**623**	**(45)**
Retained earnings brought forward from prior year	1	220
Allocation to/withdrawal from other retained earnings	(185)	76
Distributable profit	**439**	**251**

In fiscal 2020, Covestro AG generated a net loss for the period of €45 million (previous year: net income of €623 million). This is due to factors including the reduced income from investments in affiliated companies of €77 million (previous year: €695 million). Income from investments in affiliated companies was solely attributable to income from the control and profit and loss transfer agreement with Covestro Deutschland AG.

General administration expenses totaling €46 million (previous year: €48 million) mainly consisted of personnel expenses for the employees of the Group holding company and members of the Board of Management. The interest result included interest expense of €20 million for the euro bonds issued. Other financial income and expenses mainly comprised bank fees totaling €15 million. These included fees for the provision of credit lines, one-time fees associated with the issue of the new euro bonds, the pro rata reversal of the discount on the euro bonds issued, and ancillary costs for the capital increase performed in fiscal 2020. Other operating income of €19 million related almost solely to the reversal of provisions for settling possible tax claims by Bayer AG in connection with the contribution, indemnification, and post-formation agreement. Other operating expenses mainly resulted from expenses associated with the announced acquisition of the Resins & Functional Materials (RFM) business from Koninklijke DSM N.V., Heerlen (Netherlands), in the amount of €30 million. Other income and expense items had no notable effect on earnings.

The result of operations was €–16 million (previous year: €629 million) and led to income taxes of €29 million (previous year: €6 million). After adding retained earnings brought forward from prior year of €220 million (previous year: €1 million) and withdrawing an amount of €76 million from other retained earnings (previous year: allocation of €185 million to other retained earnings), distributable profit amounted to €251 million (previous year: €439 million).

For fiscal 2020, net income was expected to be well below the level in fiscal 2019 in line with our forecast from the Annual Report 2019. With a net loss of €45 million this forecast was met. The Board of Management and the Supervisory Board are proposing a dividend of €1.30 per share carrying dividend rights for the 2020 fiscal year to the Annual General Meeting.

Net Assets and Financial Position

Covestro AG statements of financial position according to the German Commercial Code

	Dec. 31,2019 € million	Dec. 31,2020 € million
ASSETS		
Noncurrent assets	**1,767**	**1,767**
Intangible assets, property, plant and equipment	1	1
Financial assets	1,766	1,766
Current assets	**3,999**	**5,401**
Trade accounts receivables	7	30
Receivables from affiliated companies	3,902	5,337
Other assets	90	34
Deferred charges	**5**	**12**
Excess of plan assets over pension liability	**8**	**9**
Total assets	**5,779**	**7,189**
EQUITY AND LIABILITIES		
Equity	**4,636**	**4,823**
Capital stock	183	193
Own shares	–	–
Issued capital	183	193
Capital reserves	3,500	3,942
Other retained earnings	514	437
Distributable profit	439	251
Provisions	**125**	**90**
Provisions for pensions	3	4
Provisions for taxes	81	77
Other provisions	41	9
Liabilities	**1,018**	**2,276**
Bonds	1,000	2,000
Liabilities to banks	–	225
Trade accounts payables	11	17
Payables to affiliated companies	3	1
Other liabilities	4	33
Total equity and liabilities	**5,779**	**7,189**

Covestro AG had total assets of €7,189 million as of December 31, 2020 (previous year: €5,779 million). 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 (24.6% of total assets), of receivables from affiliated companies (74.2% of total assets) and of the liabilities.

Receivables from affiliated companies increased by €1,435 million to €5,337 million (previous year: €3,902 million). This was primarily due to a higher intercompany loan to Covestro Deutschland AG.

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

Property, plant, equipment, and intangible assets were of secondary importance. Current other receivables of €30 million (previous year: €7 million) and deferred income of €12 million (previous year: €5 million) were also immaterial in relation to total assets. Other assets of €34 million (previous year: €90 million) mainly included income tax and VAT receivables.

Covestro AG's equity amounted to €4,823 million (previous year: €4,636 million). This corresponds to an equity ratio of 67.1% (previous year: 80.2%). The October 2020 capital increase lifted capital stock by €10 million and capital reserves by €437 million. In addition, capital reserves increased by €4 million due to the issue of treasury shares to employees as part of the Covestment stock participation program. In contrast, the payment of the dividend for the 2019 fiscal year in the amount of €219 million and the net loss for the period of €45 million reduced equity.

In contrast to equity, provisions amounted to €90 million (previous year: €125 million) and other liabilities totaled €2,276 million (previous year: €1,018 million).

Provisions comprised provisions for pensions and other post-employment benefits of €4 million (previous year: €3 million), tax provisions of €77 million (previous year: €81 million), and other provisions of €9 million (previous year: €41 million).

The increase in liabilities was mainly due to the issue of euro bonds in June 2020 with a total volume of €1.0 billion. The bonds amounting to €2.0 billion have the following maturities: €500 million mature in 2021, another €500 million mature in one to five years, and €1.0 billion mature in 2026 or later. Moreover, liabilities to banks totaling €225 million are due in one to five years. All other liabilities are due within one year.

REPORT ON FUTURE PERSPECTIVES AND ON OPPORTUNITIES AND RISKS

Report on Future Perspectives

Economic Outlook

Global economy

The lingering coronavirus pandemic is likely to make the year 2021 remain a challenge for the global economy. On account of the increasing availability of vaccines and the resulting ability to wage a controlled fight against the pandemic, we expect all regions to return to positive growth rates, which should put overall global economic growth at around 4%.

Economic growth[1]

	Growth 2020	Growth[1] forecast 2021
	%	%
World	**–4.1**	**+4.4**
Europe	**–6.7**	**+3.2**
of which Western Europe	–7.2	+3.3
of which Germany	–5.3	+2.8
of which Eastern Europe	–4.8	+2.7
Middle East	–5.3	+4.5
Latin America	–7.5	+3.7
Africa	–3.6	+2.4
North America[2]	**–4.0**	**+4.0**
of which United States	–3.6	+4.0
Asia-Pacific	**–1.6**	**+5.7**
of which China	+2.1	+7.6

[1] Real growth of gross domestic product; source: IHS (Global Insight), as of January 2021.
[2] North America (not including Central America): Canada, Mexico, United States.

We believe growth in Western Europe will slightly underperform the global pace. Pandemic-related restrictions continue to pose challenges for the economy. In contrast, the stimulus provided by the EU recovery fund, still-expansive fiscal policy, and the investment pact agreed between the EU and China had a positive impact on growth. Germany's export-oriented economy should see growth of 2.8%.

In contrast, Eastern Europe and Africa are unlikely to be able to keep pace with this rate. Energy-producing countries in Eastern Europe, such as Russia, continue to face challenges in the form of low prices and production restrictions. In North Africa in particular, countries with a major tourism industry will remain under pressure, as this sector will stay below pre-pandemic levels in the first quarter of the year 2021 at a minimum. We anticipate that growth in the Latin America region will lie slightly below the global level. The reason for this is the expiration of economic stimulus programs.

Growth in the Middle East and North America will likely match that of the global economy, with the oil industry expected to be the driver of this expansion in the Middle East. Rising oil prices boost exporter income, which in turn will reduce the need for credit. An increasing number of coronavirus infections and the resulting measures implemented to curb the spread will hamper growth in the United States. The United States is nonetheless expected to recover relatively well due to new fiscal stimulus and could reach 2019 levels again by the end of the year 2021.

The Asia-Pacific region will probably succeed in controlling the pandemic with comparatively moderate restrictions. For this reason, it is expected to outpace the global economy earlier than other regions. Positive effects are expected from the new Regional Comprehensive Economic Partnership (RCEP) free trade agreement. In China, we project above-average economic growth of around 7.6% in the year 2021. However, the pace of recovery could be slowed by the expiration of economic policy measures.

Main customer industries*

We expect the automotive industry worldwide to return to positive growth of around 17% in the year 2021. Latin America will be the vanguard with the highest growth rate, but all other regions are expected to return to generating strong positive growth as well.

We anticipate positive growth of around 1% for the global construction industry. In Western Europe, growth is likely to be slightly positive. The construction industry in North America and the Asia-Pacific region should remain stable, whereas Eastern Europe and Latin America are expected to continue to report a mildly negative pace of growth.

In the year 2021, we project that the global electrical, electronics, and household appliances industry will grow by around 6%, again exceeding the prior-year level. All regions are expected to see strong positive growth rates, with Latin America and Asia-Pacific likely to somewhat outperform Europe and North America.

In the global furniture industry, fiscal year 2021 should bring growth of some 5%, mainly driven by expansion in the Asia-Pacific region. We expect an equally positive trend in Europe. In Latin America and North America, our forecast is for slightly positive growth rates.

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

Forecast for the Covestro Group and Covestro AG

Covestro Group

The following forecast for the 2021 fiscal year is based on the business development described in this Annual Report and takes into account the potential opportunities and risks. The completion of the acquisition, which is planned for the first quarter of fiscal year 2021, and integration of the Resins & Functional Materials (RFM) business of Koninklijke DSM N.V., Heerlen (Netherlands), into the Coatings, Adhesives, Specialties segment has been factored into this forecast. One-time costs that could arise in conjunction with the LEAP transformation program have not been considered.

Covestro AG's Board of Management expects the business situation to recover in fiscal year 2021, despite the coronavirus pandemic's continued influence on the market, and the company to see robust growth, in part thanks to the planned acquisition.

Forecast key management indicators

	2020	Forecast 2021
Core volume growth	–5.6%	Between 10% and 15%
Free operating cash flow	€530 million	Between €900 million and €1,400 million
ROCE	+7.0%	Between 7% and 12%

We anticipate that core volume growth for the Covestro Group will be between 10% and 15%, with around 6 percentage points attributable to the acquisition of the RFM business. Accordingly, we project growth for the Coatings, Adhesives, Specialties segment significantly above the corridor expected for the Group. In contrast, we expect growth in the mid- to high-single-digit percentage range in the Polyurethanes and Polycarbonates segments.

The Covestro Group's free operating cash flow (FOCF) is forecast to total between €900 million and €1,400 million. Owing to one-time expenses in conjunction with the planned acquisition, we expect FOCF in the Coatings, Adhesives, Specialties segment to be significantly below the prior-year value. In contrast, FOCF in the Polyurethanes and Polycarbonates segments will be significantly above the prior-year level.

We anticipate that return on capital employed (ROCE) will be between 7% and 12%.

Covestro AG

The earnings of Covestro AG, as the parent company of the Covestro Group, largely comprise the earnings of that company's subsidiaries. Covestro Deutschland AG's earnings from equity investments in Germany and abroad are transferred to Covestro AG under a profit and loss transfer agreement. The earnings of Covestro AG are therefore expected to reflect the business development anticipated in the Covestro Group. On the whole, Covestro AG should generate a net income significantly over the level of the previous year. This forecast includes the acquisition and integration of the RFM business, which is scheduled for completion in the first quarter of fiscal year 2021. One-time costs that could arise in conjunction with the LEAP transformation program have not been considered.

Opportunities and Risks Report

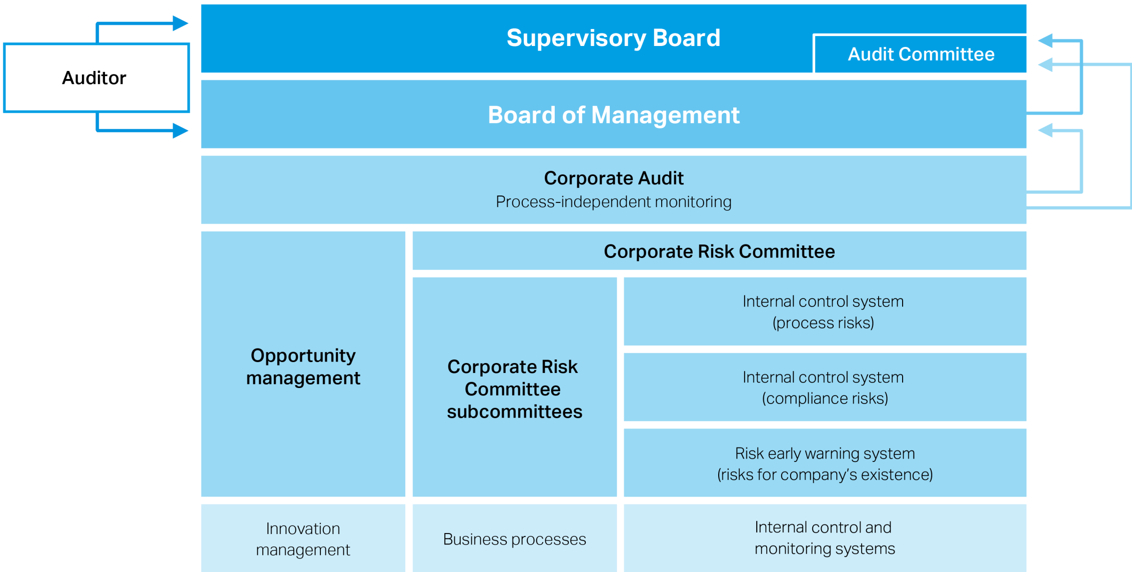
As a company with global operations, Covestro is exposed to opportunities and risks on a daily basis. Addressing them is an integral part of our business operations. We regard a risk as a development or event in or outside the company that could lead to a negative deviation from forecasts or the Group's 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 opportunities and risks is part of responsible corporate governance and is the foundation of sustainable growth and financial success. This includes the ability to systematically identify and take advantage of opportunities while managing risks at the same time. 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 corporate function.

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 aim 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. We consciously accept and bear manageable and controllable risks that are in reasonable proportion to the anticipated opportunities. Covestro regards these 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 characteristics, 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 intranet. Covestro's Board of Management is primarily responsible for supervising the Group's risk management. The Chief Financial Officer of Covestro AG is responsible for the effectiveness and appropriateness of the system as a whole in accordance with the areas of responsibilities.

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

The management of each Covestro Group company is responsible for implementing the ICS standards at the local level.

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 managers responsible for accounting and financial reporting, and ends with Covestro AG's Board of Management. The IT systems in use throughout the Covestro Group ensure 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.

Continually ensuring the effectiveness and suitability of our ICS considering process changes, new business models, and technical specifications requires regular reviews and updating of the controls applied. We identified possible potential for improvement by analyzing our existing ICS from various perspectives in the 2020 fiscal year.

In fulfillment of the Chief Financial Officer's responsibilities, the CFO of Covestro AG has confirmed the criteria and the effective functioning of the internal control system for accounting and financial reporting for fiscal 2020.

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 breaches of antitrust law and corruption, while the Export Control Officer is responsible for the risk of breaches of foreign trade law. With respect to corruption, areas including gifts and invitations, relationships with government officials, and relationships with certain business partners such as sales agents were identified as being especially risk-relevant. A corruption risk analysis was performed for all Covestro companies. During the reporting period, we specifically worked on implementing in operations the policies governing gifts and invitations that were revised the previous year as well as restructuring the compliance review process with a focus on corruption in the context of business partners.

Many controls have been implemented at both the global and local levels to reduce the number of compliance risks. To the extent possible, we integrate the compliance controls into our internal control system (ICS). The effectiveness of the compliance controls is evaluated on the basis of a cascaded self-assessment system, as are the ICS processes for accounting and financial reporting. The results of the effectiveness evaluations are documented in the global system for the ICS processes. Corporate Audit carries out dedicated compliance checks at regular intervals in the larger companies. In the smaller companies, compliance aspects are part of a general review.

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

Covestro has implemented a structured process for the early identification of any potentially disadvantageous developments that could have a material impact on our business or endanger the continued existence of the company. 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, and is aligned with 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 met four times in fiscal 2020 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. Additionally, we conduct an ad-hoc process for newly identified risks throughout the year so that these are immediately incorporated into the risk management system. These ad-hoc risks are identified and their handling is determined based on risk assessments and depending on the defined thresholds.

Risks are evaluated using estimates of the potential impact after taking into account countermeasures (net impact), the likelihood of their occurrence, and their relevance for our external stakeholders. The potential economic losses are projected using the expected EBITDA loss. In certain cases, the impact on free operating cash flow (FOCF) is used as an alternative. 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.

Risk management has been assigned a continuously high priority primarily due to the global coronavirus pandemic. For this reason, during the reporting year we revised the criteria for assessing risks at Covestro. This mainly resulted in changes in the likelihood of occurrence of risks and cumulative loss amounts. As a result, in the future all risks with a cumulative loss totaling €50 million or more will be considered material; the previous materiality threshold was €60 million. This modification did not change the estimated weighted risk occurrence of the individual risks.

See "Opportunities and risks."

The following matrix illustrates the direct 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		>1,000	Medium	Medium	High	High	High
Significant		>300 – 1,000	Medium	Medium	Medium	High	High
High		>150 – 300	Low	Medium	Medium	Medium	Medium
Moderate		≥50 – 150	Low	Low	Medium	Medium	Medium

Weighted risk occurrence Low Medium High

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

Criteria for 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 evaluated at regular intervals by the Corporate Audit corporate function, which performs an independent and objective audit 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. The Supervisory Board's Audit Committee is regularly informed about the results of these audits, and receives an annual report on the internal control system and its effectiveness.

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

The external auditor assesses the early warning system for risks as part of its audit of the annual financial statements, focusing on whether the system is fundamentally suitable 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 Covestro AG’s 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 and risk position of the Group, including pandemic-related risks, has not changed significantly compared to the previous year. The risks reported in the following paragraphs 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

The risks outlined below have material effects on EBITDA and, in individual cases, the FOCF of our Group. In this context, risks are deemed material if the potential loss to Covestro is estimated at €50 million (previously €60 million) or more, and/or they have at least a moderate potential indirect financial impact regardless of their likelihood of occurrence. 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. Various individual risks are combined into risk categories we have defined for this purpose. The following overview shows the levels of risk allocated to the individual risks within each category. A risk category can therefore include more than one weighted risk occurrence level. The order in which the risk categories are listed does not reflect their significance.

Risk categories by weighted risk occurrence

	Weighted risk occurrence		
Risk categories…	**Low**	**Medium**	**High**
…in the business environment			
Partnerships/acquisitions	●	●	
Market growth	●	●	
Regulations/policies	●	●	
Competition	●		
…in the company-specific environment			
Procurement	●	●	
Information technology	●	●	
Employees	●		
Production/value creation	●	●	
Product stewardship	●	●	
Law/compliance	●	●	

● The risk category includes at least one individual risk with this weighted risk occurrence.

Business environment

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, Covestro makes use of support by teams of experts for the due diligence and integration processes, if needed. 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. Acquisition risks with respect to the acquisition of the Resins & Functional Materials (RFM) business of Koninklijke DSM N.V., Heerlen (Netherlands), announced in the third quarter of 2020 are reflected in the corresponding risk category.

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

Negative economic developments triggered by a variety of events (e.g., worldwide pandemics) may have a negative impact on the global economy and international financial markets in general. As a rule, this also adversely affects the sales markets for our products, which then usually decreases Covestro's sales volumes and 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. Downturns in demand lead to reduced sales volumes and, ultimately, to reduced capacity utilization, which negatively impacts margins. Conversely, a positive economic environment characterized by growth and upward trends normally leads to improved business success.

Changes in Covestro's risk situation compared with the previous year resulted primarily from the current worldwide coronavirus pandemic, whose consequences for the global economy cannot be foreseen. Covestro has already developed a far-reaching pandemic plan that is being implemented by global crisis management teams. These teams immediately initiated a number of direct countermeasures to keep the virus from spreading among our employees. The pandemic's effects are still being felt and are expected to continue to affect the economic situation worldwide and therefore the business performance of Covestro as well. We rated this a mid-level risk in our Half-Year Financial Report 2020, and, based on our assessment matrix, continue to consider it a mid-level risk and currently one of Covestro's greatest challenges.

After sharp declines in demand in the second quarter of 2020, we were able to ascertain a strong, continual improvement in demand in our markets in the second half of 2020. In view of this development, we now consider the likelihood of negative economic performance, which we had rated a high-level risk in the Half-Year Financial Report 2020, to have lessened somewhat, and now rate this as a mid-level risk overall.

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. These shifting supply cycles 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. These are followed by a decline of industry-wide utilization rates.

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.

An economic downturn, changes in competitor 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. These risks are rated lower at the moment than in the previous year.

Further opportunities and risks may also arise if actual market developments vary from those we predict in the "Economic Outlook" section. 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.

Company-specific environment

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 comply with environmental regulations as well as occupational health and safety rules, respect human rights and therefore, for example, avoid 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 position on human rights.

Covestro requires significant quantities of different energy forms and petrochemical raw materials for production processes. Procurement prices for these forms of 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.

We purchase important raw materials based on long-term supply agreements and pursue 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.

Information technology (IT)

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 and information 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.

In addition, we named a Chief Information Technology Security Officer (CISO) and set up a department specially focused on this issue. They drive development and implementation of the IT security strategy for the Group. These measures are designed to guarantee optimum protection based on state-of-the-art technology.

Innovation

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

One example of the opportunities created by innovation is additive manufacturing, also known as 3D printing. This is a new market with 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 as well as increasing demands for fair working conditions. Our product portfolio offers such solutions for different areas of everyday life. We therefore see an opportunity here to expand our relevant market shares and to grow in these segments. A key focus of Covestro's strategy is sustainability and efficient production with the goal of making Covestro fully circular. To this end, we are developing new technologies, products, and business models that unlock opportunities for Covestro by lowering energy usage and carbon emissions.

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 of the need to use resources sustainably. Covestro is therefore developing new materials that help to further increase energy efficiency and lower emissions. For example, the polyurethane we manufacture is used in the construction industry for thermal insulation, thus improving its positive energy balance, while our 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. The use of cutting-edge digital technologies will help us add value along the entire value chain by optimizing the supply chain, stimulating growth, and developing new business models.

Employees

Skilled and dedicated employees are essential for the company's success. In countries with full employment, there is keen competition among companies for highly qualified personnel and employees in key positions in particular. 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. The risk of not knowing precisely when employees could leave the organization can potentially result in there not being sufficient run-up time for finding suitable replacements. We currently consider this a low-level risk.

Covestro has introduced 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 position on human rights, 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 restructuring programs, and amend existing collective agreements, and to negotiate reasonable and fair wages as well as other key working conditions.

Production and value creation

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, and safety management. If these risks were to materialize, this could result in personal injury, property and environmental damage, production stoppages, business interruptions and 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 external influences such as natural disasters, fires/explosions, sabotage, or supply shortages for our principal raw materials or intermediates. We mitigate this risk by distributing production of certain products among multiple sites and by building up safety stocks to the extent possible and economically feasible. Furthermore, a security and crisis management system has been implemented for all our production sites as a mandatory component of our HSEQ management activities. It is aimed at protecting employees, neighbors, the environment, and production facilities from the risks described. The "Corporate Security" and "Crisis Management" Group Regulations forms the foundation for this.

Covestro operates in markets in which the long-term trend is toward a balance between supply and demand. 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 capture more of the market in terms of profitability and growth in the short to medium term.

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 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.

Product stewardship

The Covestro Group is exposed to the risk of negative publicity, press speculation, and potential or actual legal proceedings in connection with 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 additionally 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 of Covestro's products and operations, the viability of certain products, its reputation, and its ability to attract and retain employees. Due to the technical expertise required to fully understand the possible effects 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 governmental regulations even before any harm is scientifically substantiated and possibly despite scientific evidence to the contrary.

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 corporate 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 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 sales methods, may result in the imposition of civil or criminal penalties – including substantial monetary fines – and/or other adverse financial consequences. They can also harm Covestro's reputation and ultimately hamper our commercial success.

Legal proceedings currently considered to involve material risks are described in the Notes to the Consolidated Financial Statements.

See note 28 "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. This was renewed and increased in fiscal 2020.

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. 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 given the corresponding master netting agreements.

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 pension obligations.

CORPORATE GOVERNANCE

Covestro's corporate governance is characterized by a sense of responsibility as well as ethical principles. Covestro places great importance on responsible corporate governance. This promise to shareholders, business partners, and employees is based on our commitment to the German Corporate Governance Code (GCGC) and the Articles of Incorporation that reflect these standards. In pursuing our business activities, we follow company principles that exceed the requirements of the law and the German Corporate Governance Code. A key concern is combining business success with environmental and social goals, so when making any business decision, we always consider the three dimensions of sustainability – people, planet, profit. The principles guiding our actions, which are also based on these dimensions, are documented in six policies applicable throughout the Group. These provide our employees with guidance in the areas of value creation, sustainability, innovation, human resources, HSEQ (Health, Safety, Environment, Energy, and Quality) and compliance. The standards contained in these policies are mandatory for all employees worldwide.

Additional information is available at: www.covestro.com/en/sustainability/service-downloads/policies-commitments

The Board of Management and Supervisory Board issued the current Declaration of Conformity with the GCGC pursuant to Section 161 of the German Stock Corporation Act (AktG) in December 2020. In this Declaration, Covestro AG affirms that it fulfills all of the recommendations of the GCGC in the December 16, 2019, version applicable in the fiscal year under review. The Board of Management and Supervisory Board provide information pertaining to corporate governance in the sections that follow, 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). Pursuant to Section 317, Paragraph 2, Sentence 6 HGB, the disclosures in the Declaration on Corporate Governance are not included in the audit. Corporate governance disclosures and supplementary information on the Board of Management and Supervisory Board, along with prior-year declarations of conformity with the GCGC are published on our website.

Additional information is available at: www.covestro.com/en/company/management/corporate-governance

Declaration on Corporate Governance

The Board of Management and Supervisory Board issued a Declaration of Conformity in December 2020 that is 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 compliance by the Board of Management and the Supervisory Board of Covestro AG on the German Corporate Governance Code pursuant to Section 161 of the German Stock Corporation Act

The recommendations of the Commission of the German Corporate Governance Code, as amended on 7 February 2017, published by the Federal Ministry of Justice and Consumer Protection on 24 April 2017 in the official part of the Federal Gazette, have been complied with since the last declaration of compliance was issued in October 2019.

The recommendations of the Commission of the German Corporate Governance Code, as amended on 16 December 2019, published by the Federal Ministry of Justice and Consumer Protection on 20 March 2020 in the official part of the Federal Gazette, are being complied with. Covestro AG will continue to comply with them in the future.

Leverkusen, December 2020

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 shareholders, employees, and other stakeholders. The Board of Management performs its duties according to the law, the Articles of Incorporation, the Board of Management's rules of procedure, and the recommendations of the GCGC 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 current rules of procedure of the Board of Management are available at: www.covestro.com/en/company/management/corporate-governance

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. Furthermore, 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 request 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 casts the deciding 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 as well as 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. The Board of Management currently has no committees.

Areas of responsibility[1]

Name	Position	Areas of responsibility	Memberships on supervisory boards and memberships in comparable supervising bodies of German or foreign corporations
Dr. Markus Steilemann	Chief Executive Officer	• Communications • Corporate Audit • Human Resources • Strategy • Sustainability	
Sucheta Govil	Chief Commercial Officer	• Polyurethanes • Polycarbonates • Coatings, Adhesives, Specialties • Central Marketing • Innovation Management & Commercial Services • Supply Chain Center EMLA • Supply Chain Center NAFTA • Supply Chain Center APAC	Independent non-executive director of Eurocell plc (United Kingdom)
Dr. Klaus Schäfer	Chief Technology Officer	• Global Project Engineering • Health, Safety, Environment & Quality • Production & Technology • Procurement • Site Management NRW • Site Management Baytown • Site Management Shanghai	Member of the Supervisory Board of TÜV Rheinland AG
Dr. Thomas Toepfer	Chief Financial Officer Labor Director	• Accounting • Controlling • Finance • Information Technology • Investor Relations • Law, Intellectual Property & Compliance • Portfolio Development • Taxes	

[1] As of December 31, 2020.

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. It conducts a systematic process for selecting candidates for the Board of Management, while following the recommendations of the GCGC. 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. For instance, Board of Management members will generally not be appointed if they are over the age of 63. 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 AG's Board of Management currently has four members. The goals regarding age structure and function-specific expertise were generally met in fiscal 2020. The Board of Management additionally meets the education and professional background requirements. The Board of Management's members ranged in age from 48 to 58 in fiscal 2020. 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, innovation, corporate strategy, production and technology, and finance, among others, and possess extensive experience in human resources management 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 AktG, the Supervisory Board of a company which is both listed and subject to codetermination rules should be composed of at least 30% women and at least 30% men. As of December 31, 2020, the Supervisory Board of Covestro AG comprised five women and seven 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. As of December 31, 2020, one woman and three men served on the Board of Management. Women therefore made up 25% of the Board of Management.

In addition, in 2017 the Board of Management set new targets for the first two management levels below the Board of Management. For the 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 Group	
	Status quo (Dec. 31, 2020)	Target (by June 30, 2022)	Status quo (Dec. 31, 2020)	Target (by June 30, 2022)
Management level 1[1]	0%	30%	13%	30%
Management level 2[2]	29%	30%	24%	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. The Chair also represents the Supervisory Board outside the company and, in this capacity, is generally prepared to conduct Supervisory Board-specific discussions with investors. In accordance with the Articles of Incorporation, the Supervisory Board has issued rules of procedure governing its activity. These rules of procedure are applicable to the Supervisory Board as a whole as well as to individual Supervisory Board committees. They also include rules concerning the composition and work of the committees.

Rules of Procedure for the Supervisory Board are available at: www.covestro.com/en/company/management/corporate-governance

In fiscal 2020, the Supervisory Board discussed at length the results of its effectiveness and efficiency review performed as a self-evaluation based on a written questionnaire answered by Supervisory Board members. The main topics covered were the Supervisory Board meeting process; cooperation with the Board of Management; the provision of information to the Supervisory Board; the responsibilities, composition and work of the committees; and cooperation with the shareholder and employee representatives. On the whole, the Supervisory Board's activity was evaluated and found to be efficient by its members.

The Board of Management informs the Supervisory Board about business policy, corporate planning, and strategy in regular and open discussions. 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 Group anagement report, taking into account the auditor's reports and explanations. The Supervisory Board also regularly meets without the Board of Management in attendance. Employee representatives often hold discussions with members of the Board of Management prior to Supervisory Board meetings.

Composition of the Supervisory Board

The Supervisory Board has 12 members, half of whom are shareholder 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 shareholder representatives are elected individually by the Annual General Meeting. The term of office of the six shareholder representatives on Covestro AG's Supervisory Board ended at the conclusion of the Annual General Meeting on July 30, 2020. The shareholder representatives were newly elected or reelected at the 2020 Annual General Meeting.

The Supervisory Board discussed the requirements stipulated by Section 100, Paragraph 5 AktG. 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.

Supervisory Board

Name/function	Membership on the Supervisory Board	Position	Memberships on other supervisory boards and memberships in comparable supervising bodies of German or foreign corporations
Dr. Richard Pott (Chair)	Member of the Supervisory Board since August 2015	• Member of various supervisory boards	• Chair of the Supervisory Board of Covestro Deutschland AG • Member of the Supervisory Board of Freudenberg SE • Member of the Supervisory Board of SCHOTT AG
Petra Kronen (Vice Chair)	Member of the Supervisory Board since October 2015	• Chair of the Works Council of Covestro at the Uerdingen site • Chair of the General Works Council of Covestro • Vice Chair of Covestro-European Forum • Employee of Covestro Deutschland AG	• Vice Chair of the Supervisory Board of Covestro Deutschland AG • Member of the Supervisory Board of Bayer Beistandskasse VVaG
Ferdinando Falco Beccalli	Member of the Supervisory Board since October 2015	• Chair of the Board of Falco Capital AG	• Member of the Supervisory Board of Covestro Deutschland AG
Dr. Christine Bortenlänger	Member of the Supervisory Board since October 2015	• Executive Member of the Board of Deutsches Aktieninstitut e.V.	• Member of the Supervisory Board of Covestro Deutschland AG • Member of the Supervisory Board of MTU Aero Engines AG • Member of the Supervisory Board of OSRAM GmbH (until February 2021) • Member of the Supervisory Board of OSRAM Licht AG (until February 2021) • Member of the Supervisory Board of TÜV SÜD AG • Member of the Supervisory Board of Siemens Energy AG (since September 2020) • Member of the Supervisory Board of Siemens Energy Managment GmbH (since September 2020)
Johannes Dietsch	Member of the Supervisory Board until July 2020	• Member of the Board of Management of thyssenkrupp AG (until March 2020)	• Member of the Supervisory Board of Covestro Deutschland AG
Irena Küstner	Member of the Supervisory Board since October 2015	• Chair of the Works Council of Covestro at the Leverkusen site • Chair of the Group Works Council of Covestro • Vice Chair of the General Works Council of Covestro • Employee of Covestro Deutschland AG	• Member of the Supervisory Board of Covestro Deutschland AG
Dr. Ulrich Liman	Member of the Supervisory Board since January 2018	• Chair of the Managerial Employees' Committee of Covestro Deutschland AG • Manager of Covestro Deutschland AG	• Member of the Supervisory Board of Covestro Deutschland AG

Supervisory Board

Name/function	Membership on the Supervisory Board	Position	Memberships on other supervisory boards and memberships in comparable supervising bodies of German or foreign corporations
Prof. Dr. Rolf Nonnenmacher	Member of the Supervisory Board since August 2015	• Member of various supervisory boards	• Member of the Supervisory Board of Covestro Deutschland AG • Member of the Supervisory Board of Continental AG • Member of the Supervisory Board of ProSiebenSat.1 Media SE
Petra Reinbold-Knape	Member of the Supervisory Board since January 2020	• Member of the Executive Committee of the German Mining, Chemical and Energy Industrial Union (IG BCE)	• Member of the Supervisory Board of Covestro Deutschland AG (since January 2020) • Member of the Supervisory Board of Bayer AG • Vice Chair of the Supervisory Board of Lausitz Energie Kraftwerke AG (until July 2020) • Vice Chair of the Supervisory Board of Lausitz Energie Bergbau AG (until July 2020)
Regine Stachelhaus	Member of the Supervisory Board since October 2015	• Member of various supervisory boards	• Member of the Supervisory Board of Covestro Deutschland AG • Member of the Supervisory Board of CECONOMY AG • Member of the Supervisory Board of Leoni AG • Member of the Supervisory Board of SPIE Deutschland und Zentraleuropa GmbH • Director of SPIE SA, France
Marc Stothfang	Member of the Supervisory Board since February 2017	• Chair of the Works Council of Covestro at the Brunsbüttel site • Chair of Covestro-European Forum • Employee of Covestro Deutschland AG	
Patrick W. Thomas	Member of the Supervisory Board since July 2020	• Member of various supervisory boards • Former Chair of the Board of Management of Covestro AG (until May 2018)	• Member of the Supervisory Board of Covestro Deutschland AG • Non-Executive Director (Chair) of Johnson Matthey plc, United Kingdom • Non-Executive Director of Akzo Nobel N.V., Netherlands
Frank Werth	Member of the Supervisory Board since September 2016	• District Manager of the German Mining, Chemical and Energy Industrial Union (IG BCE) – district Leverkusen	• Member of the Supervisory Board of Covestro Deutschland AG

Committees of the Supervisory Board

Following the election of the new shareholder representatives to the Supervisory Board at the Annual General Meeting on July 30, 2020, the members of the Supervisory Board's committees and their chairs were newly elected at the constitutive meeting of the Supervisory Board on the same day. The Supervisory Board currently has the following committees:

Presidial Committee: The Presidial Committee comprises the Supervisory Board Chair and Vice Chair along with an additional shareholder representative and an additional employee representative. The Presidial 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), Petra Kronen, Petra Reinbold-Knape (since February 2020), and Regine Stachelhaus

Audit Committee: The Audit Committee comprises three shareholder 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 GCGC. The Audit Committee meets four times a year. Its main responsibilities include auditing the accounts; monitoring the accounting and financial reporting process; monitoring the effectiveness of the internal control system, the risk management system, and the internal audit system; financial statement audits; and compliance. The accounting comprises in particular the consolidated financial statements and the Group Management Report (including sustainability reporting). The Audit Committee 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. To this end, the Audit Committee has obtained a statement of independence from the auditor. The auditor is required to immediately inform the Audit Committee about all possible grounds for exclusion or lack of impartiality arising during the audit or review, and all findings and incidents material to the Supervisory Board's responsibilities, particularly suspected accounting irregularities. Moreover, the Audit Committee has requested that the auditor inform the Committee and make a note in the audit report if facts are identified during the financial statement audit process that indicate an error in the Declaration of Conformity with the German Corporate Governance Code submitted by the Board of Management and Supervisory Board.

Members: Prof. Dr. Rolf Nonnenmacher (Chair), Christine Bortenlänger (since July 2020), Johannes Dietsch (until July 2020), Petra Kronen, Irena Küstner, Dr. Richard Pott (until July 2020), Petra Reinbold-Knape (since January 2020), and Patrick W. Thomas (since July 2020)

Human Resources Committee: On the Human Resources Committee, too, there is parity of representation between shareholders and employees. It consists of the Supervisory Board Chair and three other members. The 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 responsibility 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 (until July 2020), Petra Kronen, Dr. Ulrich Liman, and Regine Stachelhaus (since July 2020)

Nominations Committee: This committee carries out preparatory work when an election of shareholder 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 shareholder representative on the Presidial Committee, and an elected shareholder representative.

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

Special committee: A special committee was formed temporarily in fiscal 2020 to monitor and approve preparations for and performance of the capital increase for the planned acquisition of the Resins & Functional Materials (RFM) business of the Dutch company Koninklijke DSM N.V. This special committee solely met twice on October 13, 2020.

Members: Dr. Richard Pott (Chair), Petra Kronen, Prof. Dr. Rolf Nonnenmacher, and Petra Reinbold-Knape

Details on the Supervisory Board's activities and its committees are provided by the Supervisory Board in its Report.

See "Report of the Supervisory Board."

Objectives for the composition of the Supervisory Board and diversity concept

The composition of the Supervisory Board should be such 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 the GCGC.

Covestro AG's Supervisory Board has agreed the following specific goals for its composition that align with the recommendations of the GCGC 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 shareholder representatives on the Supervisory Board are to be independent.
- Absent of 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, sales, supply chain
    - Research and development, innovation
    - Sustainability, circular economy and new technologies
    - 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 strives 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 shareholder 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. To ensure continued compliance with these requirements, Ferdinando Falco Becalli was reelected to the Supervisory Board only until he reaches the stipulated age limit. In the opinion of the Supervisory Board, the shareholder representatives Dr. Richard Pott, Ferdinando Falco Beccalli, Dr. Christine Bortenläger, Prof. Dr. Rolf Nonnenmacher, Regine Stachelhaus, and Patrick W. Thomas are independent pursuant to the GCGC. The requirements for function-specific knowledge are generally being met, but the specific goal of having at least two shareholder representatives per field of expertise is not fulfilled in all areas.

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

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

In the year under review, 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 €20,000 or more in a calendar year no later than three business days after the date of the transaction. Covestro publishes the details of reportable transactions in suitable media in the European Union and on its website without delay, but no later than three business days after the date of the transaction, and also provides this information to the company register for archiving.

Additional information on securities transactions by members of the Board of Management or Supervisory Board is available at: www.covestro.com/en/investors/stock-details/disclosure-of-securities-transactions

Systematic risk management

Covestro's 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 (ICS) 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.

See "Opportunities and risks report."

Detailed reporting

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

In line with statutory requirements, the members of the company's Board of Management provide 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 additionally informs shareholders and other interested parties about developments by means of the half-year financial report and 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 also provides information about the current corporate strategy, important growth areas, the financial position and results of operations, and financial targets at regular press conferences and analysts' meetings. The company uses the internet as a platform for the timely disclosure of information, with major publications, such as annual reports, half-year financial reports, and quarterly statements, and the dates of events, such as Annual General Meetings, posted on the Group's website.

In line with the principle of fair disclosure, Covestro treats all shareholders and other key stakeholders 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.

Shareholders and Annual General Meeting

Covestro's shareholders exercise their rights within the scope provided for by the law and the Articles of Incorporation at the Annual General Meeting and there exercise their right to vote. Each share of Covestro AG confers the same rights and carries one vote at the Annual General Meeting. Shareholders can exercise their voting rights by way of a proxy, e.g., a credit institution, a shareholders' association, or another third party. Shareholders can issue and revoke proxies in respect of the company electronically using the company's online proxy system. The company also makes it easier for its shareholders to exercise their personal rights by appointing voting proxies to cast their votes, subject to their instructions. They are also available during the Annual General Meeting. The Board of Management can enable shareholders to take part in the Annual General Meeting without in-person attendance and without a proxy, and exercise all of their rights or individual rights in whole or in part through electronic means of communication. All of the company's shareholders and interested members of the public may watch the opening of the Annual General Meeting by the meeting chair and follow the report of the Board of Management live online. The Annual General Meeting on July 30, 2020, was held virtually due to the coronavirus pandemic. All documents and information on the Annual General Meeting such as the invitation, including the agenda, and the annual report are available on our website as well.

The live feed of the opening of the Annual General Meeting and the report of the Supervisory Board are available at: www.covestro.com/en/investors/financial-calendar/annual-general-meeting

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.

Additional information on Covestro's ownership structure is available at:
www.covestro.com/en/investors/stock-details/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 Article 6 of the Articles of Incorporation of Covestro AG. 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. The term of service for a Board of Management member appointed for the first time is generally three years. 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 Article 6, Paragraph 1 of the Articles of Incorporation, 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 Article 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 Articles 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 Annual General 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. Article 17, Paragraph 2 of the Articles of Incorporation 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 Article 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 €193,200,000 as of December 31, 2020, and is composed of 193,200,000 no-par value bearer shares. Each share confers equal rights and one vote at the Annual General Meeting.

Board of Management's authorizations to issue shares

The Annual General Meeting (AGM) passed a resolution on July 30, 2020, authorizing the Board of Management to increase the capital stock by up to €73,200,000 in the period up to July 29, 2025, with the approval of the Supervisory Board, by issuing new, no-par value bearer shares against cash contributions and/or contributions in kind (Authorized Capital 2020).

On October 13, 2020, the Board of Management, with the approval of the Supervisory Board, partially utilized the Authorized Capital 2020 created by resolution of the AGM on July 30, 2020, to increase the company's capital stock by €10,200,000 by issuing 10,200,000 new, no-par value bearer shares with a proportionate interest in the capital stock of €1.00 each against cash contributions, while disapplying the subscription rights of shareholders.

The Authorized Capital 2020 amounts to €63,000,000 after this partial utilization.

On July 30, 2020, the AGM additionally authorized the Board of Management to issue bonds with conversion or exchange rights or warrants, or with conversion obligations, or a combination of these instruments on up to 18,300,000 no-par value bearer shares of Covestro AG. Based on this authorization, convertible/warrant bonds can be issued up to a total nominal value of €2,000,000,000 by the company or a Group company in the period up to July 29, 2025. The 2020 AGM also resolved to conditionally increase the capital stock by up to €18,300,000 by issuing up to 18,300,000 no-par value bearer shares to grant shares to the holders or creditors of such convertible/warrant bonds (Conditional Capital 2020). New shares from Authorized Capital 2020 and the aforementioned bonds can be issued against cash contributions or contributions in kind. They must generally be offered to the shareholders for subscription. The Board of Management is authorized, with the approval of the Supervisory Board, to disapply shareholders' subscription rights when instruments are issued against contributions in kind. When issuing instruments against cash contributions, subscription rights can be disapplied with the approval of the Supervisory Board in the following cases:

- Subscription rights must be disapplied where the subscription ratio gives rise to fractional amounts.
- Subscription rights are disapplied to provide compensation for dilution in connection with convertible/warrant bonds already issued.
- The issue price of the new shares or bonds will not be significantly lower than their stock market price or the theoretical fair value of the bonds calculated using recognized financial valuation methods (disapplication of subscription rights limited to 10% of the capital stock under or in accordance with Section 186, Paragraph 3, Sentence 4 of the German Stock Corporation Act).

Additional restrictions, which are described in greater detail in the respective authorization, may apply to the new shares issued or to be issued against cash contributions or contributions in kind while disapplying the subscription rights of shareholders. In addition, the Board of Management declared in a Corporate Commitment ending no later than July 29, 2025, that it will not increase the company's capital stock from Authorized Capital 2020 and Conditional Capital 2020 by a total of more than 10% of the amount of capital stock at the time of the AGM on July 30, 2020, insofar as capital increases are implemented from Authorized Capital 2020 against cash contributions or contributions in kind while disapplying subscription rights, or for the purpose of servicing convertible/warrant bonds issued under the authorization resolved on July 30, 2020, while disapplying subscription rights.

Acquisition and use of treasury shares

By a resolution adopted by the Annual General Meeting on April 12, 2019, 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 April 11, 2024, 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, or if this amount is lower, at the time the authorization is exercised, 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 71a et seqq. 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.

The acquisition may only take place via the stock exchange or by means of a public purchase offer and must satisfy the principle of the equal treatment of shareholders (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 shareholder 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 shareholders' 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. Shareholders likewise 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 shareholders, and this public offer complies with the principle of equal treatment, the Board of Management is authorized to disapply the shareholders' subscription rights for fractions.

1.3 The Board of Management is authorized to also sell the treasury shares acquired on the basis of the above or an earlier authorization in a manner other than via the stock exchange or by way of an offer to all shareholders, provided that the sale takes place against cash payment and at a price which, at the date of the sale, is not significantly lower than the market price for the same class of shares in the company. This authorization governing 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 this authorization becomes effective or, if this amount is lower, at the date the present authorization is exercised. The upper limit of 10% of the capital stock is reduced by the proportionate interest in the capital stock that is attributable to those shares which are issued or sold during the term of this authorization while disapplying subscription rights under or in accordance with Section 186, Paragraph 3, Sentence 4 of the German Stock Corporation Act. The upper limit of 10% of the capital stock is further reduced by the proportionate interest in the capital stock that 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 during the term of this authorization while disapplying subscription rights in application of Section 186, Paragraph 3, Sentence 4 of the German Stock Corporation Act, with the necessary modifications.

1.4 The Board of Management is authorized to transfer the treasury shares acquired under the above or an earlier 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 or an earlier authorization without a further resolution by the Annual General 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 under the above or an earlier 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 approval of the Supervisory Board. Moreover, the Supervisory Board may determine that the measures taken by the Board of Management on the basis of this resolution by the Annual General Meeting may only be implemented with its approval.

1.8 Overall, the above authorizations governing 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.

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 either at the date of the resolution by the Annual General Meeting or, if this amount is lower, at the date 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 financial valuation methods. 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 April 11, 2024, and must be selected so that the shares are not acquired using derivatives after April 11, 2024.

2.5 The provisions under 1. also apply to the use of company shares acquired on the basis of the authorization under 2. using derivatives.

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 may 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.

In the event of a takeover offer for Covestro AG, these agreements stipulate that 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 subject to the severance cap set out in the German Corporate Governance Code as amended on December 16, 2019, and may not exceed compensation for the remaining term of the contract.

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.

Culture and targets

In its 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. These requirements apply within the company as well as to all interactions with external partners and the general public. Our code of conduct furthermore provides a framework for all decisions by the company and our employees. The Corporate Compliance Policy is available on our intranet and on our website, and is part of an information packet distributed to new employees when they are hired.

Additional information is available at:
www.covestro.com/-/media/covestro/country-sites/global/documents/company/compliance/1_10_ccp_policy_en.pdf?la=en

Covestro is aware that employees will likely embrace and exhibit integrity if managers are excellent role models. As the Covestro Board of Management 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 and underscore the importance of complying with statutory requirements and in-house regulations.

See "Corporate commitments."

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, and
- Uncover, remedy, and proactively eliminate a repeat occurrence of any compliance violations committed by individuals acting without authorization and in breach of clear rules.

We have taken steps to meet our targets, including implementing an internal control system to ensure compliance. The insights gained from our annual evaluation of effectiveness are leveraged in our efforts to continually improve our compliance management system.

See "Internal control system to ensure compliance."

Organization

At Covestro, the Chief Compliance Officer oversees compliance activities and reports in this capacity directly to the Board of Management. The Compliance corporate function is the single point of contact that coordinates Group-wide activities. Chaired by the CFO of Covestro, the Compliance Committee is the Group's top-level decision-making body on these issues. The Committee's responsibilities include 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, target groups are defined for each category of course content and the employees who require each type of training are identified.

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. Employees 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, or to the Global Compliance Office.

Additional information is available at: www.covestro.com/en/company/management/compliance

An internal policy sets out the principles for handling compliance incidents at Covestro. All suspected compliance incidents are recorded in a central database. Confirmed violations are evaluated, and 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. Moreover, a current overview of incidents, including additional information on various aspects and developments related to this topic, is published in a monthly Compliance Telegram on the intranet. This ensures a high degree of transparency.

On a quarterly basis, all companies document risks arising from pending or current legal proceedings. Relevant cases are reported to the Audit Committee of the Supervisory Board. The material legal risks are disclosed in the Notes to the Consolidated Financial Statements.

See note 28 "Legal risks" in the Notes to the Consolidated Financial Statements.

Compensation Report

The Compensation Report outlines 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 applicable accounting and reporting regulations for listed companies, the German Commercial Code (HGB), the principles of German Accounting Standard No. 17 (DRS 17), and the International Financial Reporting Standards (IFRSs). It also complies with the recommendations of the German Corporate Governance Code (GCGC) in the version of December 16, 2019, applicable on the reporting date.

Compensation of the Board of Management

Objectives

The compensation system for Covestro AG's Board of Management for the year 2020 remains largely unchanged from the version approved by the Annual General Meeting on May 3, 2016. It is aligned with the corporate strategy and is designed to facilitate a long-term increase in the company's value and responsible corporate governance. We aim to position Covestro as an attractive employer in the competition for highly qualified executives, and, at the same time, ensure statutory and regulatory compliance. Board of Management compensation is in line with the basic principles of the compensation structure and, as a principle, is structured uniformly for the Board of Management as well as for other executives, including managerial employees, in the Covestro Group.

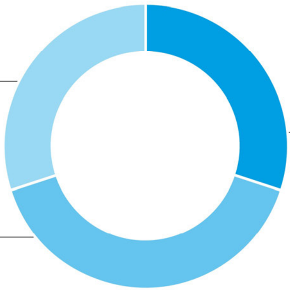
In December 2020, the Supervisory Board resolved to revise the system approved by the Annual General Meeting in 2016 for compensating Board of Management members effective January 1, 2021. The total target compensation remains essentially the same. The changes primarily entail adding a sustainability target to long-term variable compensation, introducing rules for withholding or recovering variable compensation (penalty or clawback), and defining maximum compensation. These modifications were made pursuant to the provisions of the Act Implementing the Second Shareholders' Rights Directive (ARUG II) of December 12, 2019, and the GCGC as amended on December 16, 2019. The company pension scheme will be adjusted as well. A detailed explanation of the revised compensation system will be published when the 2021 Annual General Meeting (AGM) is convened. It will be presented to the AGM for approval at that time.

The amount and appropriateness of the compensation of the Board of Management in view of both company and external standards are regularly reviewed by the Supervisory Board and the compensation adjusted, if necessary. The Supervisory Board used the services of an independent, third-party compensation consultant to determine appropriateness. As a rule, adjustments are in line with the increase in the consumer price index in Germany. If the need for a larger adjustment is ascertained, this is discussed in detail by the Human Resources Committee in view of the appropriate background information, and a resolution is proposed to the Supervisory Board as a whole. Covestro's external peer group comprises the companies listed on the DAX and MDAX (not including banks and insurance companies due to limited comparability). Covestro is compared with these companies to determine, in particular, whether Covestro's relative position within this group in terms of revenue, employees, and market capitalization is in line with the relative positioning of Board of Management compensation. An internal comparison also takes into account the compensation of senior leadership in Germany, i.e., the employees with management responsibilities at management levels 1 and 2 below the Board of Management, as well as the compensation of all employees in Germany. The Supervisory Board then votes on the proposed adjustment.

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 the long-term variable compensation, i.e., 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 liability insurance for the members of the Board of Management to cover their legally required personal liability arising from their service on the Board of Management. The deductible amounts to 10% of the loss up to a maximum of 1.5 times the fixed annual compensation of the respective Board of Management member, and is line with the current requirements of the German Stock Corporation Act (AktG).

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. It is paid out in 12 monthly installments.

Fringe benefits

Fringe benefits mainly comprise a vehicle allowance (or company cars limited to the term of existing vehicle leases), use of the company carpool, payments toward the cost of security equipment, and reimbursement of the cost of annual health screening examinations. Due to her family's place of residence in England and her British citizenship, Sucheta Govil also receives assistance from an external advisor in preparing her tax returns. Fringe benefits 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 performance.

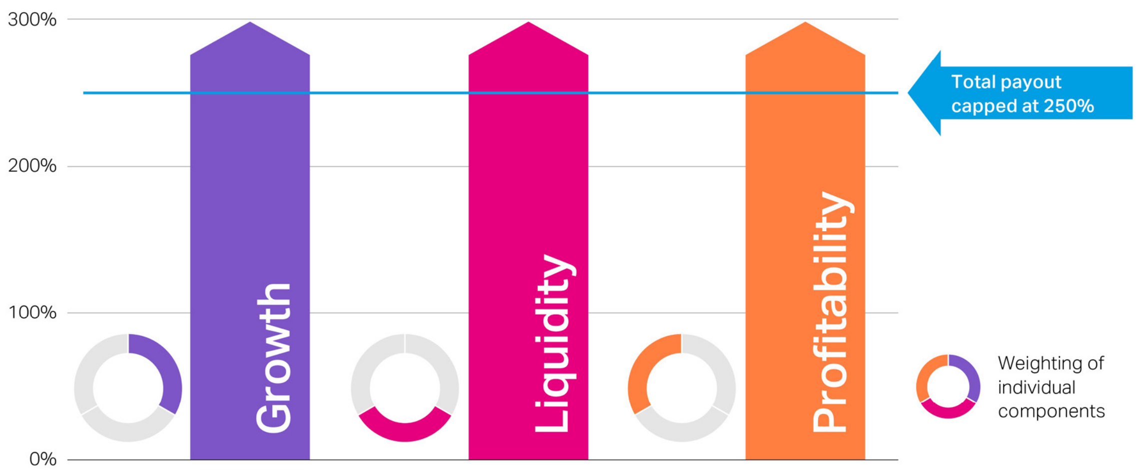
The members of the Board of Management participate in the Group-wide Covestro Profit Sharing Plan (Covestro PSP). It consists of a short-term variable compensation based solely on the company's business performance. The system is based on the same performance indicators used to manage the company. The 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 the year 2018, 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 three-year period from 2019 to 2021. These targets will not be adjusted after the fact. Between these values, linear interpolation is used to determine the payout.

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 performance indicator, 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



If a Board of Management member's term begins or ends in the middle of a fiscal year, their PSP entitlement is prorated based on calendar days. The PSP entitlement for the fiscal year in which a Board of Management member leaves the company is forfeited in the event the member steps down (unless this occurs for good cause for which the member is not responsible) and in cases where the Board of Management member is terminated by the company for good cause.

The Supervisory Board is entitled to reduce the PSP payout to below the calculated amount or resolve to eliminate it entirely to the extent that target attainment falls far short of expectations (e.g., when the Covestro Group's profitability, measured as ROCE, comes in below the weighted average cost of capital (WACC)), or if an incident occurs at one of Covestro's plants resulting in death or a large-scale discharge of chemicals that affects the surrounding areas.

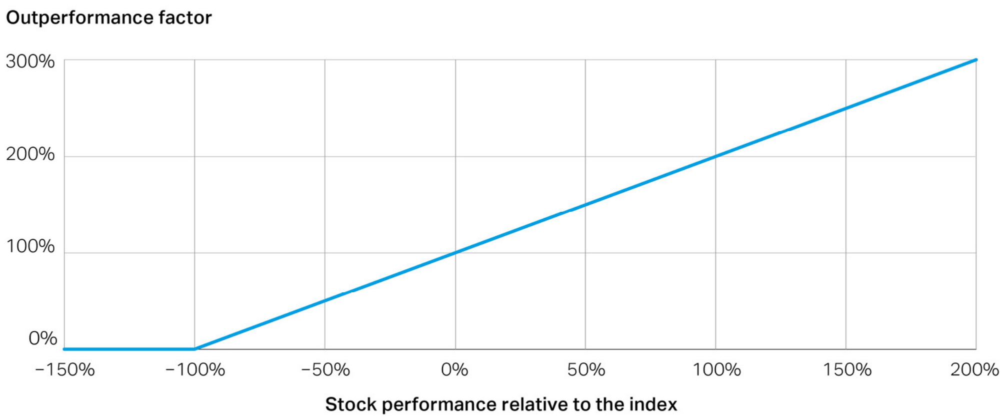
Long-term compensation

Prisma

The members of the Board of Management are eligible to participate in the Prisma compensation program as long as they are employed by the Covestro Group and fulfill the share ownership guidelines applicable to them. 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 four-year performance period, or tranche, 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. If Covestro's stock performance (in %) matches the performance of the index (in %), the outperformance factor is 100%. If the performance of Covestro stock (in %) underperforms the index by 100 percentage points or more, the outperformance factor is 0%. The outperformance factor increases in proportion with the deviation if Covestro's stock performance falls within ± 100 percentage points of the performance of the index. The same is true if it outperforms the index by more than 100 percentage points.

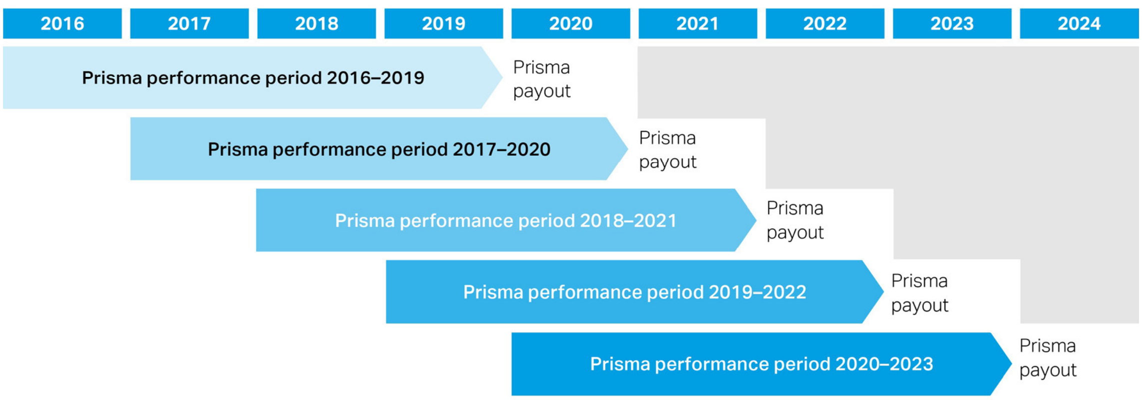
Relationship between the outperformance factor and Covestro's stock performance



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 a Board of Management member's term begins or ends in the middle of the first year of a performance period, their Prisma claim is prorated based on calendar days in that year. Tranches awarded for previous years remain in effect if members leave the company. Prisma claims for the tranches still in effect when a Board of Management member leaves the company are forfeited in the event the member steps down (unless this occurs for good cause for which the member is not responsible) and in cases where the Board of Management member is terminated by the company for good cause.

Prisma performance periods



Share ownership guidelines

The members of the Board of Management are contractually obligated to acquire Covestro shares equivalent to half of the Prisma target value (65% of the fixed compensation) on their own account within three years of their initial appointment and to hold these shares for the duration of their service on the Board of Management. In the revised compensation system, this obligation was increased to 100% of the fixed annual compensation and is already written into the contracts of Sucheta Govil and Dr. Thomas Toepfer in this amount.

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. These pension payments will be made monthly. The arrangements for surviving dependents basically provide for a widow's/widower'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 defined contributions. From September 1, 2015, onward, Covestro has provided a hypothetical benefit amounting to 33% of the respective fixed compensation beyond the relevant income threshold in the statutory pension plan. 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.

For their fixed compensation up to the statutory contribution ceiling, the members of the Board of Management, like all entitled employees, remain subject to the rules governing the basic company pension and are regular members in the respective pension plan.

Dr. Klaus Schäfer has additionally been granted 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 contributed to 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 GCGC, 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 of the individual components in the case of 100% target attainment of the variable components.

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, 2020.

Sample calculation of compensation cap based on the compensation of the Chair of the Board of Management

€ thousand	Target value	Achievable value upon maximum payout of both variable compensation components
Fixed annual compensation	1,210	1,210
Short-term variable compensation[1]	1,210	3,025
Long-term variable compensation[2]	1,573	3,146
Pension service cost[3]	567	567
Target compensation	**4,560**	**7,948**
Fringe benefits[4]		100
Total		**8,048**
Limited to 1.9 times the target compensation		**8,664**

[1] Target value: 100% of fixed annual compensation.
[2] Target value: 130% of fixed annual compensation.
[3] Pension service cost (HGB).
[4] 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 amounts to 2.5 times the contractual fixed annual compensation and is limited to 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 the GCGC.

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, plus, where applicable, a fictitious period of service from that date to the member's 55th birthday where applicable.

Compensation of the Board of Management for the fiscal year

The following section reports the compensation of the Board of Management of Covestro AG for fiscal 2020. 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.

In the 2020 reporting period, the aggregate compensation for the members of the Board of Management of Covestro AG amounted to €6,947 thousand (previous year: €6,274 thousand). This amount comprised €3,285 thousand (previous year: €3,001 thousand) in non-performance-related components and €3,662 thousand (previous year: €3,273 thousand) in performance-related components.

The following table shows the total compensation of the individual members of the Board of Management who served in the years 2020 and/or 2019 according to the HGB.

Total Board of Management compensation (HGB)

	Non-performance-related compensation				Performance-related compensation					
	Fixed annual compensation		Fringe benefits		Short-term variable compensation		Long-term variable compensation[1]		Aggregate compensation	
€ thousand	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Dr. Markus Steilemann (Chair)	1,192	1,210	33	27	236	120	1,171	1,279	2,632	2,636
Sucheta Govil[2]	250	609	20	24	50	60	247	644	567	1,337
Dr. Klaus Schäfer	600	609	36	30	119	60	590	644	1,345	1,343
Dr. Thomas Toepfer	729	740	141	36	144	73	716	782	1,730	1,631
Total	**2,771**	**3,168**	**230**	**117**	**549**	**313**	**2,724**	**3,349**	**6,274**	**6,947**

1 Fair value when granted.
2 Member of the Board of Management since August 2019.

Fixed annual compensation

The fixed compensation of Board of Management members was increased as of January 1, 2020, based on the change in the previous year's consumer price index (1.53% from November 2018 to October 2019). The Board of Management members took a pay cut totaling 15% of their fixed compensation from June to November 2020 as part of a Group-wide show of solidarity during the coronavirus pandemic. However, because the economic situation in the second half of fiscal 2020 proved to be more positive than could be expected during the year, employees worldwide received a one-time gross payment to compensate for their participation in the solidarity initiative. Based on a clause in the waiver signed by the Board of Management, members were reimbursed in December 2020 for the compensation withheld.

The fixed compensation of all members of the Board of Management in the 2020 reporting period totaled €3,168 thousand (previous year: €2,771 thousand).

Short-term variable compensation

In the year 2020, the short-term variable compensation for all Board of Management members totaled €313 thousand (previous year: €549 thousand) after deduction of the solidarity contribution which is explained below. This was based on a payout of 10.8% of the respective target value whose calculation is presented in the table below. 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 2020 reporting period, the contribution amounted to 8.44% of each employee's Covestro PSP award. By resolution of the Supervisory Board, this contribution is also withheld from the Board of Management.

Payout of the Covestro Profit Sharing Plan for the year 2020

	Growth: Core volume growth	Liquidity: FOCF	Profitability: ROCE
Achieved value	–5.6%	Cash inflow of €530 million	0.0% points above WACC
Resulting payout	0.0%	+32.5%	0.0%
Total payout (averaged)		**10.8%**	

Long-term compensation (Prisma)

The total compensation according to the HGB includes long-term stock-based compensation (Prisma) with a fair value when granted of €3,349 thousand (previous year: €2,724 thousand).

As of December 31, 2020, provisions of €4,585 thousand (previous year: €10,570 thousand) had been accrued for long-term compensation payable to members of the Board of Management; former members of the Board of Management accounted for €1,015 thousand (previous year: €6,027 thousand) of this figure.

Long-term compensation (IFRSs)

	Board of Management members serving as of Dec. 31, 2020								Former Board of Management members					
	Dr. Markus Steilemann (Chair)		Sucheta Govil (Innovation, Marketing and Sales)		Dr. Klaus Schäfer (Production and Technology)		Dr. Thomas Toepfer (Finance and Labor Director)		Frank H. Lutz		Patrick W. Thomas		Total	
€ thousand	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Total expenses in the reporting period for long-term compensation	772	977	22	293	668	582	151	591	148	20	1,066	338	2,827	2,801

Shareholdings

The following table lists the number of Covestro shares held by currently serving Board of Management members as of the reporting date.

Number of shares held by Board of Management members at reporting date

Board of Management member	Number of Covestro shares held
Dr. Markus Steilemann	23,100
Sucheta Govil	4,070
Dr. Klaus Schäfer	5,101
Dr. Thomas Toepfer	5,500

Pension obligations

The pension service cost recognized for the members of the Board of Management in the reporting year was €1,208 thousand (previous year: €956 thousand) according to the HGB, while the current service cost for pension entitlements recognized according to IFRSs was €1,443 thousand (previous year: €1,351 thousand). Pension obligations are shown in the following table.

Pension entitlements (HGB and IFRSs)

	HGB				IFRSs			
	Pension service cost[1]		Settlement value of pension obligation as of Dec. 31[2]		Service cost for pension entitlements earned in the respective year		Present value of defined pension obligation as of Dec. 31	
€ thousand	2019	2020	2019	2020	2019	2020	2019	2020
Dr. Markus Steilemann	489	567	2,329	3,160	705	700	3,661	4,839
Sucheta Govil[3]	59	160	65	201	78	174	92	277
Dr. Klaus Schäfer	222	258	3,823	4,416	291	285	5,393	6,106
Dr. Thomas Toepfer	186	223	409	555	277	284	672	873
Total	**956**	**1,208**	**6,626**	**8,332**	**1,351**	**1,443**	**9,818**	**12,095**

[1] Including company contribution to Bayer Pensionskasse VVaG or Rheinische Pensionskasse VvaG.
[2] Includes direct and indirect pension obligations.
[3] Member of the Board of Management since August 2019.

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

Disclosures pursuant to the recommendations of the German Corporate Governance Code

The amended GCGC no longer provides recommendations on reporting Board of Management compensation using the sample tables included in the version dated February 7, 2017. However, for purposes of improved comparability, the following tables continue to show the compensation and fringe benefits paid for the reporting period (2020) 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.

Compensation and benefits granted for the reporting period

	Dr. Markus Steilemann (Chair)				Sucheta Govil (Innovation, Marketing and Sales)				Dr. Klaus Schäfer (Production and Technology)				Dr. Thomas Toepfer (Finance and Labor Director)			
	Joined August 20, 2015				Joined August 1, 2019				Joined August 20, 2015				Joined April 1, 2018			
€ thousand	Target value 2019	Target value 2020	Min. 2020	Max.[2] 2020	Target value 2019	Target value 2020	Min. 2020	Max.[2] 2020	Target value 2019	Target value 2020	Min. 2020	Max.[2] 2020	Target value 2019	Target value 2020	Min. 2020	Max.[2] 2020
Fixed annual compensation	1,192	1,210	1,210	1,210	250	609	609	609	600	609	609	609	729	740	740	740
Fringe benefits	33	27	27	27	20	24	24	24	36	30	30	30	141	36	36	36
Total	**1,225**	**1,237**	**1,237**	**1,237**	**270**	**633**	**633**	**633**	**636**	**639**	**639**	**639**	**870**	**776**	**776**	**776**
Short-term variable compensation	1,192	1,210	–	3,025	252	609	–	1,523	600	609	–	1,523	729	740	–	1,850
Long-term stock-based compensation (2019–2022 Prisma tranche)[1]	1,171	–	–	–	247	–	–	–	590	–	–	–	716	–	–	–
Long-term stock-based compensation (2020–2023 Prisma tranche)[1]	–	1,279	–	3,146	–	644	–	1,583	–	644	–	1,583	–	782	–	1,924
Total	**3,588**	**3,726**	**1,237**	**7,408**	**769**	**1,886**	**633**	**3,739**	**1,826**	**1,892**	**639**	**3,745**	**2,315**	**2,298**	**776**	**4,550**
Benefit expense	705	700	700	700	78	174	174	174	291	285	285	285	277	284	284	284
Total compensation	**4,293**	**4,426**	**1,937**	**8,108**	**847**	**2,060**	**807**	**3,913**	**2,117**	**2,177**	**924**	**4,030**	**2,592**	**2,582**	**1,060**	**4,834**

[1] Fair value when granted.
[2] 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

	Dr. Markus Steilemann (Chair)		Sucheta Govil (Innovation, Marketing and Sales)		Dr. Klaus Schäfer (Production and Technology)		Dr. Thomas Toepfer (Finance and Labor Director)	
	Joined August 20, 2015		Joined August 1, 2019		Joined August 20, 2015		Joined April 1, 2018	
€ thousand	2019	2020	2019	2020	2019	2020	2019	2020
Fixed annual compensation	1,192	1,210	250	609	600	609	729	740
Fringe benefits	33	27	20	24	36	30	141	36
Total	**1,225**	**1,237**	**270**	**633**	**636**	**639**	**870**	**776**
Short-term variable compensation	236	120	50	60	119	60	144	73
2015–2018 Aspire tranche	–	–	–	–	–	–	–	–
2016–2019 Prisma tranche	–	1,707	–	–	–	1,707	–	–
Total	**1,461**	**3,064**	**320**	**693**	**755**	**2,406**	**1,014**	**849**
Benefit expense	705	700	78	174	291	285	277	284
Total compensation	**2,166**	**3,764**	**398**	**867**	**1,046**	**2,691**	**1,291**	**1,133**

The first tranche of the Prisma long-term compensation program ended at the close of the year 2019. The awards are based on the opening and closing prices of Covestro stock and the STOXX Europe 600 Chemicals index, calculated in each case as the average of the relevant closing prices during the months of November and December in the years 2015 and 2019. For the 2016–2019 tranche, the overall payout factor was 179.1%. The target opportunity for each Board of Management member is determined individually. These figures and the calculation of the distribution amounts and of the factors relevant for the payout (TSR factor and outperformance factor) are presented below as a sample calculation based on the long-term compensation for the current Chair of the Board of Management. The dividend payments for individual years are provided on Covestro's website.

Additional information is available at: www.covestro.com/en/investors/stock-performance/dividends

Sample calculation of the 2016–2019 Prisma tranche based on the compensation of the Chair of the Board of Management[1]

$$\frac{\text{Closing price} + \text{Cumulative dividends 2016–2019}}{\text{Opening price}} = \text{Total Shareholder Return (TSR) factor (2020)}$$

$$\frac{€43.36 + €6.65}{€32.24} = 155.1\%$$

$$100\% + \left(\text{Change in Covestro share price}^{2} - \text{Change in index price}^{3}\right) = \text{Outperformance factor (2020)}$$

$$100\% + \left(34.5\% - 19.0\%\right) = 115.5\%$$

$$\underbrace{\left(\text{TSR factor} \times \text{Outperformance factor}\right)} \times \text{Prisma target value} = \text{Prisma payout (2020)}$$

$$\underbrace{\left(155.1\% \times 115.5\%\right)}_{\text{Payout factor: } 179.1\%} \times €953{,}334 = €1{,}707{,}421.19$$

[1] The relevant prices are calculated as the average of the applicable closing prices during the months of November and December in the years 2015 and 2019.
[2] Percentage change in the closing price of Covestro stock for the year 2019 (€43.36) as compared with the opening price of Covestro stock for 2016 (€32.24).
[3] Percentage change in the closing price of the STOXX Europe 600 Chemicals index for the year 2019 (€1,010.32) as compared with the opening price of the STOXX Europe 600 Chemicals index for the year 2016 (€848.97).

In the 2020 reporting period, former Board of Management members Frank H. Lutz and Patrick W. Thomas received €2,111 thousand and €3,260 thousand respectively for the 2016–2019 tranche of the Prisma long-term compensation program. Neither former Board of Management member received any payments from the 2015–2018 Aspire tranche in 2019.

Compensation of former members of the Board of Management

In fiscal 2020, former members of the Board of Management did not receive any compensation (previous year: no compensation). A provision of €8,270 thousand (previous year: €7,818 thousand) is recognized in the consolidated financial statements as of December 31, 2020, for current pensions for former Board of Management members. The settlement value of direct and indirect pension obligations in the financial statements of Covestro AG as of December 31, 2020, amounted to €6,315 thousand (previous year: €5,804 thousand).

Compensation of the Supervisory Board

The compensation of the Supervisory Board, which has not been changed since Covestro AG was founded, is in line with 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 GCGC, additional compensation is paid to the Supervisory Board Chair and Vice Chair, and for chairing and membership in committees. The Supervisory Board Chair receives fixed compensation of €300 thousand, while €150 thousand is paid to the Vice Chair. This compensation includes chairmanship of and membership in committees. 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. If this cap is exceeded, compensation is paid for the two highest paid positions. If changes are made to the Supervisory Board and/or its committees during the year, members receive compensation on a prorated 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. No attendance fees were paid for meetings held virtually due to the coronavirus pandemic.

See "Report of the Supervisory Board."

Compensation of the Supervisory Board for the fiscal year

Like Covestro's Board of Management, the Supervisory Board agreed to participate in a corresponding pay cut. As was the procedure for the Board of Management, this waiver was lifted in December because of the economic recovery. The following table outlines the components of each Covestro AG Supervisory Board member's compensation for the 2020 reporting period and the prior-year period:

Compensation of the members of the Supervisory Board of Covestro AG

	Fixed compensation		Attendance fee		Total	
€ thousand	2019	2020	2019	2020	2019	2020
Ferdinando Falco Beccalli	100	100	6	2	106	102
Dr. Christine Bortenlänger	100	111	6	–	106	111
Johannes Dietsch (until July 2020)	145	84	9	2	154	86
Peter Hausmann (until December 2019)	145	–	8	–	153	–
Petra Kronen (Vice Chair)	150	150	10	2	160	152
Irena Küstner	125	125	9	2	134	127
Dr. Ulrich Liman	120	120	8	1	128	121
Prof. Dr. Rolf Nonnenmacher (Chair of the Audit Committee)	150	150	9	3	159	153
Dr. Richard Pott (Chair)	300	300	9	2	309	302
Petra Reinbold-Knape (since January 2020)	0	139	0	2	0	141
Regine Stachelhaus	120	128	6	1	126	129
Marc Stothfang	100	100	6	1	106	101
Patrick W. Thomas (since July 2020)	0	53	0	–	0	53
Frank Werth	100	100	6	1	106	101
Total	**1,655**	**1,660**	**92**	**19**	**1,747**	**1,679**

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 €652 thousand (previous year: €883 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, which has included a deductible to date. Since the new version of the GCGC no longer includes such a recommendation, the rules of procedure for the Supervisory Board were amended accordingly, and no deductible will be required in future.

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, 2019, or December 31, 2020.

DISCLOSURES ON SUSTAINABILITY REPORTING

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.

Our sustainability reporting is based on recognized standards. We report on material 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 standards of the Global Reporting Initiative (GRI) "Core" option.

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 GRI standards as a framework for preparing the nonfinancial Group statement.

Key topics relevant to the nonfinancial Group statement are identified in an internal process and in consideration of their significance and implementation within the company. The starting point for this is the materiality analysis and the material topics identified or updated as a result, i.e., the topics of high or very high relevance for Covestro. 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.

Key sustainability topics of the Group's nonfinancial statement (HGB)

Key topics of the Group's nonfinancial statement (German Commercial Code)	Relevant aspects in accordance with the Group's nonfinancial statement (German Commercial Code)	Section reference in the Group Management Report
Alternative raw materials	Environmental matters, social matters	"Strategy," "Management," "Circular Economy," "Innovation."
Compliance	Environmental matters, fighting corruption and bribery, respect for human rights	"Opportunities and risks report," "Compliance."
Employer attractiveness	Employee matters	"Employees."
Equality, diversity, and inclusion	Social matters, employee matters, respect for human rights	"Employees."
Greenhouse gas emissions	Environmental matters	"Management," "Circular economy," "Environmental protection."
Health and safety of our workforce	Employee matters	"Integrated management system for health, safety, environment, energy, and quality," "Safety."
Human rights due diligence	Social matters, respect for human rights	"Management," "Social responsibility."
Inclusive business	Social matters	"Management," "Social responsibility."
Process and plant safety	Environmental matters, social matters	"Integrated management system for health, safety, environment, energy, and quality," "Safety."
Product safety	Social matters	"Product safety."
Recyclability and end-of-life solutions	Environmental matters	"Strategy," "Circular economy."
Renewable energy	Environmental matters, social matters	"Strategy," "Circular economy," "Innovation."
SDG-conform product portfolio	Environmental matters, social matters	"Management," "Innovation."
Sustainability in sourcing	Environmental matters, social matters, fighting corruption and bribery, respect for human rights	"Procurement," "Management," "Sustainability in the supply chain."
Sustainable innovation portfolio	Environmental matters, social matters	"Management," "Innovation."

As an integral part of the Group Management Report, the nonfinancial Group statement was audited by the financial statement auditor, KPMG AG Wirtschaftsprüfungsgesellschaft, as part of the audit of the consolidated financial statements based on an expansion of the audit engagement.

A nonfinancial statement or nonfinancial report does not have to be provided at this time for Covestro AG.

Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

The TCFD was established by the Financial Stability Board for the purpose of developing a uniform framework for reporting on climate-related opportunities and risks. The focus is on disclosing financial risks that companies face due to climate change.

We view the recommendations of the TCFD as a logical extension of our reporting, particularly in view of the forward-looking elements they contain, and wish to transparently report Covestro AG's handling of climate-related opportunities and risks.

An overview of content pertaining to this issue is provided in the following index on the TCFD recommendations. The index contains references to passages in the text of relevance to the core areas of corporate governance, strategy, risk management, and indicators and goals recommended by the TCFD. Considering the growing importance of the effects of climate change, we will strive in the coming years to implement additional components of the TCFD recommendations. In fiscal 2020, we expanded the TCFD-relevant content in this report to include information about the new strategic Circular Economy program in particular.

TCFD-Index

	Governance	Strategy	Risk Management	Metrics and Targets
TCFD requirements	The organization's governance around climate-related opportunities and risks	The actual and potential impacts of climate-related opportunities and risks on the business, strategy and financial planning	The processes used to identify, assess, and manage climate-related risks	The metrics and targets used to assess and manage relevant climate-related opportunities and risks
Section in Annual Report (or corresponding supplementary information on sustainability)	• Strategy • Management • Environmental Protection • Opportunities and Risks Report	• Company Profile • Strategy • Management • Circular Economy • Innovation • Environmental Protection • Opportunities and Risks Report	• Management • Circular Economy • Opportunities and Risks Report[1]	• Strategy • Management • Circular Economy • Innovation • Environmental Protection • Disclosures on Sustainability Reporting

[1] The identification and assessment of climate-related opportunities and risks are integrated into Group-wide risk management.

GRI Index

General Disclosures

Disclosure number	Disclosure title	Section in Annual Report	Section in supplementary information on sustainability	Explanation/omission
GRI 102 – General Disclosures				
102-1	Name of the organization	• Organization and business model		
102-2	Activities, brands, products, and services	• Reportable segments		
102-3	Location of headquarters	• Organization and business model		
102-4	Location of operations	• Production sites and R&D facilities		
102-5	Ownership and legal form	• Organization and business model • Covestro on the Capital Market		The Covestro Group has been legally and financially independent since September 1, 2015. Covestro AG, the parent company of the Covestro Group, is head-quartered in Leverkusen (Germany), and has been listed on the German stock exchange since October 6, 2015.
102-6	Markets served	• Reportable segments		
102-7	Scale of the organization	• Production sites and R&D facilities • Results of Operations, Financial Position, and Net Assets of the Covestro Group		
102-8	Information on employees and other workers	• Employees by division	• Employee metrics in detail	Around the world, Covestro has about 550 temporary employees, corresponding to approximately 3.2% of our workforce. In addition, a number of people work for Covestro externally through contracts for work or service agreements. It is not possible to determine the precise number, since performance is defined via trades or in service-level agreements rather than by the number of people or the hours worked.
102-9	Supply chain	• Procurement		
102-10	Significant changes to the organization and its supply chain	• Procurement • Sustainability in the Supply Chain • Declaration on Corporate Governance • Notes to the Consolidated Financial Statements of the Covestro Group – Scope of consolidation and investments • Results of Operations, Financial Position, and Net Assets of the Covestro Group		
102-11	Precautionary Principle or approach	• Product Stewardship		
102-12	External initiatives	• Social Responsibility		
102-13	Membership of associations		• Stakeholder dialogue	
102-14	Statement from senior decision-maker	• Foreword		
102-16	Values, principles, standards, and norms of behavior	• Corporate policies • Corporate values and corporate culture • Declaration on Corporate Governance • Compliance	• Corporate commitments	
102-17	Mechanisms for advice and concerns about ethics	• Compliance		

General Disclosures

Disclosure number	Disclosure title	Section in Annual Report	Section in supplementary information on sustainability	Explanation/omission
102-18	Governance structure	• Sustainability • Declaration on Corporate Governance		
102-19	Delegating authority	• Sustainability • Declaration on Corporate Governance		
102-20	Executive-level responsibility for economic, environmental, and social topics	• Organization and business model • Declaration on Corporate Governance		
102-22	Composition of the highest governance body and its committees	• Organization and business model • Declaration on Corporate Governance		
102-23	Chair of the highest governance body	• Declaration on Corporate Governance		
102-24	Nominating and selecting the highest governance body	• Declaration on Corporate Governance		
102-25	Conflicts of interest	• Declaration on Corporate Governance • Compliance		
102-26	Role of highest governance body in setting purpose, values, and strategy	• Declaration on Corporate Governance		
102-32	Highest governance body's role in sustainability reporting			The Covestro Management Report and the supplementary information 2020 were approved by the Chair of the Board of Management.
102-35	Renumeration policies	• Business Performance • Compensating employees transparently and competitively • Compensation Report	• Employee metrics in detail	
102-40	List of stakeholder groups		• Stakeholder dialogue	
102-41	Collective bargaining agreements		• Employee metrics in detail	
102-42	Identifying and selecting stakeholders		• Stakeholder dialogue	
102-43	Approach to stakeholder engagement	• Material sustainability topics	• Stakeholder dialogue	
102-44	Key topics and concerns raised	• Material sustainability topics		
102-45	Entities included in the consolidated financial statements	• Notes to the Consolidated Financial Statements of the Covestro Group – Scope of consolidation and investments		
102-46	Defining report content and topic Boundaries	• Material sustainability topics		
102-47	List of material topics	• Material sustainability topics		
102-48	Restatements of information		• GHG emissions in detail	
102-49	Changes in reporting	• Report Profile		Due to the new process established in the reporting year for defining the material topics, there were significant changes compared with the previous year in terms of the topic selection, their prioritization and presentation. A detailed presentation of the individual changes is not provided. The listing and prioritization of the material topics in previous reports are all publicly available on the Covestro website.
102-50	Reporting period			This report covers the period from January 1 to December 31, 2020.

General Disclosures

Disclosure number	Disclosure title	Section in Annual Report	Section in supplementary information on sustainability	Explanation/omission
102-51	Date of most recent report			The most recent Annual Report and the associated GRI supplementary information were published in February 2020.
102-52	Reporting cycle			Covestro carries out annual sustainability reporting.
102-53	Contact point for questions regarding the report	• Financial Calendar		
102-54	Claims of reporting in accordance with the GRI Standards	• Report Profile		
102-56	External assurance	• Independent Auditor's Report	• Report by the independent auditor on an audit to obtain limited assurance with regard to sustainability information	

Specific Standard Disclosures

Disclosure number	Disclosure title	Section in Annual Report	Section in supplementary information on sustainability	Explanation/omission
GRI 200 – Economic topics				
GRI 201 – Economic Performance (2016)				
103-1,2,3	Management Approach	• Group strategy • Business Performance		
201-1	Direct economic value generated and distributed	• Consolidated Financial Statements and Notes		
GRI 204 – Procurement Practices (2016)				
103-1,2,3	Management Approach	• Procurement • Material sustainability topics • Sustainability in the Supply Chain • Human rights due diligence • Opportunities and risks	• Sustainability in the Supply Chain	
204-1	Proportion of spending on local suppliers		• Sustainability in the Supply Chain	Since our locations in Germany, the United States and China cover most of our procurement volume, the sites located in these countries are referred to as main sites within the meaning of the GRI terminology. Local procurement is regarded as purchasing from suppliers headquartered in the same country as the legal entity they supply.
GRI 205 – Anti-corruption (2016)				
103-1,2,3	Management Approach	• Material sustainability topics • Compliance	• Corporate commitments	
205-1	Operations assessed for risks related to corruption	• Compliance		A risk analysis for 2020 was conducted for every country/every company. Definition of location of operations as a legal entity.
GRI 206 – Anti-competitive Behavior (2016)				
103-1,2,3	Management Approach	• Opportunities and risks • Compliance	• Corporate commitments	
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices			No actions were reported through internal reporting in fiscal 2020.

Specific Standard Disclosures

Disclosure number	Disclosure title	Section in Annual Report	Section in supplementary information on sustainability	Explanation/omission
GRI 300 – Environmental topics				
GRI 302 – Energy (2016)				
103-1,2,3	Management Approach	• Material sustainability topics • Circular Economy • Energy usage • Opportunities and risks	• Corporate commitments • Optimizing energy usage	
302-1	Energy consumption within the organization		• Optimizing energy usage	Information pertaining to the share of renewable energy was not included in this report.
302-3	Energy intensity	• Energy usage	• Optimizing energy usage	
302-4	Reduction of energy consumption		• Optimizing energy usage	In 2005, Covestro began to introduce a certified energy management system. This requires that we compare our performance with a designated base year, and that year was 2005.
GRI 303 – Water (2018)				
103-1,2,3	Management Approach	• Material sustainability topics • Water, effluents, and waste • Opportunities and risks	• Water usage and consumption	
303-1	Interactions with water as a shared resource	• Water, effluents, and waste	• Water usage and consumption	
303-2	Management of water discharge-related impacts	• Water, effluents, and waste	• Water usage and consumption	The standards to be applied are oriented to local laws.
303-3	Water withdrawal	• Water, effluents, and waste	• Water usage and consumption	Water withdrawal is measured in m^3 (cubic meters) since this is the more common approach to measurement. Here, 1 megaliter (ML) corresponds to 1,000 m^3. Usage of other than fresh water <1,000 mg TDS/l: Pursuant to ISO 14046, Covestro uses no water from sea water sources, thus there is no figure for this in the water balance. At some facilities, it is possible that brackish water >1,000 mg TDS/l is used as cooling water. These amounts are included in the water balance and not reported separately. This water can be returned to the water cycle without further treatment in line with the relevant official permits.
GRI 305 – Emissions (2016)				
103-1,2,3	Management Approach	• Material sustainability topics • Circular Economy • Greenhouse gas (GHG) emissions • Opportunities and risks	• GHG emissions in detail	
305-1	Direct (Scope 1) GHG emissions		• GHG emissions in detail	Biogenic CO_2 emissions are not reported because they are irrelevant.
305-2	Energy indirect (Scope 2) GHG emissions		• GHG emissions in detail	
305-4	GHG emissions intensity	• Greenhouse gas (GHG) emissions	• GHG emissions in detail	Disclosure as CO_2 equivalent of specific GHG. Emissions of sulfur hexafluoride (SF_6) have been recorded. However, because our chemical production processes do not currently cause any SF_6 emissions and because Covestro does not use SF_6, such emissions do not appear in our reporting.
305-5	Reduction of GHG emissions	• Greenhouse gas (GHG) emissions	• GHG emissions in detail	Greenhouse gas emissions are reported separately for Scopes 1 and 2. When considering GHG reductions, the specific greenhouse gas emissions are calculated using the total emissions for Scopes 1 and 2 because otherwise any shifts between the categories would lessen the informative value of the results.

Specific Standard Disclosures

Disclosure number	Disclosure title	Section in Annual Report	Section in supplementary information on sustainability	Explanation/omission
305-7	Nitrogen oxides (NO_X), sulfur oxides (SO_X), and other significant air emissions		• Other direct emissions into the air	Reporting focuses on significant air emissions; persistent organic pollutants (POPs) and hazardous organic pollutants (HAPs) are not reported. Air emissions are generally measured directly at the source of the emission or are calculated from the stoichiometric determination of the formula mass.
GRI 306 – Effluents and Waste (2016)				
103-1,2,3	Management Approach	• Material sustainability topics • Circular Economy • Environmental Protection • Opportunities and risks	• Corporate commitments • Wastewater • Waste and recycling	
306-2	Waste by type and disposal method		• Wastewater • Waste and recycling	Covestro measures the quantity of waste that is reused or recycled. However, no distinction is drawn between reused and recycling. The specific form of processing is the responsibility of the waste processing company. Covestro does not generally differentiate between hazardous and non-hazardous waste. The composting of non-hazardous waste plays only a minimal or no role in the chemical industry. As a rule, energy is recovered from waste incineration. Due to the large number of sites, it may be the case that no energy is recovered at some locations. According to the information currently available, deep well injection is not used.
GRI 307 – Environmental Compliance (2016)				
103-1,2,3	Management Approach	• Environmental Protection • Opportunities and risks • Compliance	• Corporate commitments • Water usage and consumption • Wastewater • Waste and recycling	
307-1	Non-compliance with environmental laws and regulations			In fiscal 2020, no significant administrative or court-ordered sanctions (fines, nonmonetary sanctions) for noncompliance with environmental laws and regulations were reported through internal reporting.
GRI 308 – Supplier Environmental Assessment				
103-1,2,3	Management Approach	• Procurement • Sustainability • Sustainability in the Supply Chain • Opportunities and risks		
308-2	Negative environmental impacts in the supply chain and actions taken	• Sustainability in the Supply Chain	• Sustainability in the Supply Chain	
GRI 400 – Social topics				
GRI 401 – Employment (2016)				
103-1,2,3	Management Approach	• Purpose and Vision • Corporate policies • Corporate values and corporate culture • Human resources profile and focus • Winning qualified employees and promoting Covestro's employer brand • Opportunities and risks	• Corporate commitments	
401-1	New employee hires and employee turnover		• Employee metrics in detail	In fiscal 2020, new hires and the resignation rate were broken down according to male and female genders, as no other-gendered employees were known of. If this should change, the tables will be adjusted accordingly in future.

Specific Standard Disclosures

Disclosure number	Disclosure title	Section in Annual Report	Section in supplementary information on sustainability	Explanation/omission
GRI 403 – Occupational Health and Safety (2018)				
103-1,2,3	Management Approach	• Material sustainability topics • Designing the best possible working conditions and work models • Integrated Management System for Health, Safety, Environment, Energy, and Quality • Safety • Opportunities and risks	• Corporate policies • Safety	
403-1	Occupational health and safety management system (2018)	• Integrated Management System for Health, Safety, Environment, Energy, and Quality • Safety	• Safety	A list of the legal requirements has been dispensed with. The integrated management system for occupational health and safety covers all our employees across the Group and in some cases also our contractors, regardless of the type of work environment or activity performed.
403-2	Hazard identification, risk assessment, and incident investigation (2018)	• Integrated Management System for Health, Safety, Environment, Energy, and Quality • Safety	• Compliance and compensation • Safety	Every employee, contractor or – as appropriate – visitor must comply with the applicable occupational safety procedures, rules, and relevant protective measures. Employees are authorized to withdraw from work situations that seem to them to represent a direct and serious threat to their lives or health. They are obligated to report such situations to their supervisors immediately. Employees may not be subjected to impermissible consequences of such withdrawals or reports.
403-3	Occupational health services (2018)	• Designing the best possible working conditions and work models		Depending on site-specific local circumstances, there are in-house occupational physicians or occupational health services are provided in conjunction with external parties. A country-specific description of the functions of the occupational health services has been dispensed with.
403-4	Worker participation, consultation, and communication on occupational health and safety (2018)	• Safety		Depending on legal requirements, some sites have formal employer-employee committees for occupational health and safety that hold regular meetings. In Germany, for instance, this is the occupational safety and health committee as legally required by Section 11 of the Act on Occupational Physicians, Safety Engineers and Other Occupational Safety Specialists (AsiG). Informal committees are in place at many other locations for which there is no corresponding legal requirement. A country-specific list and a description of the committees has been dispensed with.
403-5	Worker training on occupational health and safety (2018)	• Safety		Our employees receive the applicable statutorily required training as well as further training that exceeds these requirements depending on the individual circumstances at our sites. Our contractors receive site-specific safety instructions.
403-6	Promotion of worker health (2018)	• Designing the best possible working conditions and work models • Safety		Voluntary health services are made available only to Covestro employees, since the influence of such measures has the greatest relevance here.
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships (2018)	• Integrated Management System for Health, Safety, Environment, Energy, and Quality • Safety • Sustainability in the Supply Chain	• Safety	
403-9	Work-related injuries (2018)	• Safety	• Safety	We record the most important types and frequency of work-related injuries for all employee groups according to the ASTM standard E2920-14, "Severe Incidents and Fatalities" (A. deaths, B. life-changing/life-altering cases, C. other).

Specific Standard Disclosures

Disclosure number	Disclosure title	Section in Annual Report	Section in supplementary information on sustainability	Explanation/omission
GRI 404 – Training and Education (2016)				
103-1,2,3	Management Approach	• Corporate policies • Corporate values and corporate culture • Promoting and developing employees • Opportunities and risks	• Corporate policies	
404-2	Programs for upgrading employee skills and transition assistance programs	• Promoting and developing employees	• Compliance and compensation	
GRI 405 – Diversity and Equal Opportunity (2016)				
103-1,2,3	Management Approach	• Material sustainability topics • Promoting diversity and inclusion • Opportunities and risks		
405-1	Diversity of governance bodies and employees	• Declaration on Corporate Governance	• Employee metrics in detail	At the end of the year, the Supervisory Board consisted of five women (41.7%) and seven men (58.3%). The age structure is as follows: 8.3% are 30-50 years old, and 91.7% are over 50. Membership in a minority is not recorded for legal reasons. In fiscal 2020, new hires and the resignation rate were broken down according to male and female genders, as no other-gendered employees were known of. If this should change, the tables will be adjusted accordingly in future.
GRI 406 – Non-discrimination (2016)				
103-1,2,3	Management Approach	• Material sustainability topics • Promoting diversity and inclusion • Opportunities and risks		
406-1	Incidents of discrimination and corrective actions taken			For confidentiality reasons, we do not disclose the type and scope of the incidents reported.
GRI 407 – Freedom of Association and Collective Bargaining				
103-1,2,3	Management Approach	• Material sustainability topics • Sustainability in the Supply Chain • Human rights due diligence • Compliance	• Compliance and compensation	
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	• Sustainability in the Supply Chain	• Sustainability in the Supply Chain	In fiscal 2020, no significant cases were reported using formal grievance mechanisms. There was no high risk for the sites in the year 2020, as the local heads of Human Resources and the local managing directors are required by internal rules to maintain a regular exchange of information with unions and employee representatives.

Specific Standard Disclosures

Disclosure number	Disclosure title	Section in Annual Report	Section in supplementary information on sustainability	Explanation/omission
GRI 414 – Supplier Social Assessment (2016)				
103-1,2,3	Management Approach	• Procurement • Material sustainability topics • Sustainability in the Supply Chain • Human rights due diligence • Opportunities and risks		
414-2	Negative social impacts in the supply chain and actions taken	• Sustainability in the Supply Chain	• Sustainability in the Supply Chain	
GRI 415 – Public Policy (2016)				
103-1,2,3	Management Approach	• Material sustainability topics		
415-1	Political contributions		• Corporate commitments	
GRI 416 – Customer Health and Safety (2016)				
103-1,2,3	Management Approach	• Material sustainability topics • Integrated Management System for Health, Safety, Environment, Energy, and Quality • Product Stewardship • Opportunities and risks • Compliance	• Corporate policies • Integrated Management System for Health, Safety, Environment, Energy, and Quality	
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	• Product Stewardship		No significant incidents were reported through internal reporting in fiscal 2020.
GRI 417 – Marketing and Labeling (2016)				
103-1,2,3	Management Approach	• Material sustainability topics • Integrated Management System for Health, Safety, Environment, Energy, and Quality • Product Stewardship • Opportunities and risks • Compliance	• Corporate policies • Integrated Management System for Health, Safety, Environment, Energy, and Quality	
417-1	Requirements for product and service information and labeling	• Product Stewardship		
417-2	Incidents of non-compliance concerning product and service information and labeling	• Product Stewardship		No significant incidents were reported through internal reporting in fiscal 2020.
GRI 419 – Socioeconomic Compliance (2016)				
103-1,2,3	Management Approach	• Material sustainability topics • Opportunities and risks • Compliance	• Corporate commitments	
419-1	Non-compliance with laws and regulations in the social and economic area			In fiscal 2020, no significant administrative or court-ordered sanctions (fines, nonmonetary sanctions) for noncompliance with laws and regulations with respect to the provision and use of products and services were reported through internal reporting.

< Supplementary information

CONSOLIDATED FINANCIAL STATEMENTS

CONSOLIDATED FINANCIAL STATEMENTS OF COVESTRO AG AS OF DECEMBER 31, 2020

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COVESTRO GROUP CONSOLIDATED INCOME STATEMENT

	Note	2019	2020
		€ million	€ million
Sales	**8**	**12,412**	**10,706**
Cost of goods sold		(9,658)	(8,207)
Gross profit		**2,754**	**2,499**
Selling expenses		(1,380)	(1,195)
Research and development expenses		(266)	(262)
General administration expenses		(372)	(310)
Other operating income	9	181	63
Other operating expenses	10	(65)	(99)
EBIT[1]		**852**	**696**
Equity-method loss		(22)	(13)
Result from other affiliated companies		2	1
Interest income		40	26
Interest expense		(85)	(73)
Other financial result		(26)	(32)
Financial result	**12**	**(91)**	**(91)**
Income before income taxes		**761**	**605**
Income taxes	13	(204)	(151)
Income after income taxes		**557**	**454**
of which attributable to noncontrolling interest		5	(5)
of which attributable to Covestro AG stockholders (net income)		552	459
		€	€
Basic earnings per share[2]	**14**	**3.02**	**2.48**
Diluted earnings per share[2]	**14**	**3.02**	**2.48**

[1] EBIT: income after income taxes plus financial result and income tax expense

[2] In accordance with IAS 33 (Earnings per Share), earnings per share corresponds to net income divided by the weighted average number of outstanding no-par voting shares of Covestro AG. The calculation is based on 184,912,207 no-par shares (previous year: 182,728,724). For more information, see note 14 "Earnings per share."

COVESTRO GROUP CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

	Note	2019	2020
		€ million	€ million
Income after income taxes		557	454
Remeasurements to the net defined benefit liability for post-employment benefit plans	22	(439)	(130)
Income taxes	13	103	48
Other comprehensive income from remeasurements of the net defined benefit liability for post-employment benefit plans		**(336)**	**(82)**
Changes in fair values of equity instruments	26	–	1
Income taxes	13	–	–
Other comprehensive income from equity instruments		**–**	**1**
Other comprehensive income that will not be reclassified subsequently to profit or loss		**(336)**	**(81)**
Exchange differences of foreign operations		93	(210)
Reclassified to profit or loss		–	–
Other comprehensive income from exchange differences		**93**	**(210)**
Other comprehensive income that may be reclassified subsequently to profit or loss		**93**	**(210)**
Total other comprehensive income[1]		(243)	(291)
of which attributable to noncontrolling interest		1	(3)
of which attributable to Covestro AG stockholders		(244)	(288)
Total comprehensive income		314	163
of which attributable to noncontrolling interest		6	(8)
of which attributable to Covestro AG stockholders		308	171

[1] Total change recognized outside profit or loss.

COVESTRO GROUP CONSOLIDATED STATEMENT OF FINANCIAL POSITION

	Note	Dec. 31, 2019	Dec. 31, 2020
		€ million	€ million
Noncurrent assets			
Goodwill	15	264	255
Other intangible assets	15	114	109
Property, plant and equipment	16	5,286	5,175
Investments accounted for using the equity method	17	192	173
Other financial assets	18	32	32
Other receivables	20	52	65
Deferred taxes	13	851	925
		6,791	6,734
Current assets			
Inventories	19	1,916	1,663
Trade accounts receivable		1,561	1,593
Other financial assets	18	27	1,144
Other receivables	20	359	295
Claims for income tax refunds		104	55
Cash and cash equivalents		748	1,404
Assets held for sale		12	36
		4,727	6,190
Total assets		**11,518**	**12,924**
Equity	**21**		
Capital stock of Covestro AG		183	193
Capital reserves of Covestro AG		3,487	3,925
Other reserves		1,537	1,489
Equity attributable to Covestro AG stockholders		**5,207**	**5,607**
Equity attributable to noncontrolling interest		47	37
		5,254	5,644
Noncurrent liabilities			
Provisions for pensions and other post-employment benefits	22	1,965	2,123
Other provisions	23	230	218
Financial liabilities	24	1,601	2,277
Income tax liabilities	13	95	88
Other liabilities	25	32	31
Deferred taxes	13	206	179
		4,129	4,916
Current liabilities			
Other provisions	23	203	155
Financial liabilities	24	151	622
Trade accounts payable[1]		1,431	1,241
Income tax liabilities	13	69	74
Other liabilities[1]	25	267	262
Liabilities directly related to assets held for sale		14	10
		2,135	2,364
Total equity and liabilities		**11,518**	**12,924**

[1] Reference information was restated accordingly, see note 4.1 “Change in presentation of rebates granted to customers.”

COVESTRO GROUP CONSOLIDATED STATEMENT OF CASH FLOWS

	Note	2019	2020
		€ million	€ million
Income after income taxes		557	454
Income taxes		204	151
Financial result		91	91
Income taxes paid		(296)	(155)
Depreciation, amortization, impairment losses and impairment loss reversals		752	776
Change in pension provisions		49	25
(Gains)/losses on retirements of noncurrent assets		(51)	8
Decrease/(increase) in inventories		322	160
Decrease/(increase) in trade accounts receivable		238	(106)
(Decrease)/increase in trade accounts payable[1]		(123)	(154)
Change in other working capital[1], other noncash items		(360)	(16)
Cash flows from operating activities	**29.1**	**1,383**	**1,234**
Cash outflows for additions to property, plant, equipment and intangible assets		(910)	(704)
Cash inflows from sales of property, plant, equipment and other assets		6	6
Cash inflows from divestments less divested cash		51	(3)
Cash outflows for noncurrent financial assets		(15)	(16)
Cash inflows from noncurrent financial assets		2	7
Cash outflows for acquisitions less acquired cash		(11)	–
Interest and dividends received		40	30
Cash outflows for other current financial assets		(1)	(1,089)
Cash flows from investing activities	**29.2**	**(838)**	**(1,769)**
Capital contributions		–	444
Reissuance of treasury shares		7	4
Dividend payments and withholding tax on dividends		(442)	(221)
Issuances of debt		444	1,775
Retirements of debt		(591)	(719)
Interest paid		(86)	(79)
Cash flows from financing activities	**29.3**	**(668)**	**1,204**
Change in cash and cash equivalents due to business activities		**(123)**	**669**
Cash and cash equivalents at beginning of year		**865**	**748**
Change in cash and cash equivalents due to changes in scope of consolidation		(1)	1
Change in cash and cash equivalents due to exchange rate movements		7	(14)
Cash and cash equivalents at end of year		**748**	**1,404**

[1] Reference information was restated accordingly, see note 4.1 “Change in presentation of rebates granted to customers.”

COVESTRO GROUP CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

	Capital stock of Covestro AG	Capital reserves of Covestro AG	Retained earnings incl. total income	Accumulated other comprehensive income	Equity attributable to Covestro AG stockholders	Equity attributable to noncontrolling interest	Equity
	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Dec. 31, 2018	**183**	**3,480**	**1,356**	**323**	**5,342**	**33**	**5,375**
Issuance of treasury shares	–	7			7		7
Dividend payments			(438)		(438)	(3)	(441)
Other changes[1]			(12)		(12)	11	(1)
Income after income taxes			552		552	5	557
Other comprehensive income			(336)	92	(244)	1	(243)
Total comprehensive income			216	92	308	6	314
Dec. 31, 2019	**183**	**3,487**	**1,122**	**415**	**5,207**	**47**	**5,254**
of which treasury shares	–	(7)			(7)		(7)
Dec. 31, 2019	**183**	**3,487**	**1,122**	**415**	**5,207**	**47**	**5,254**
Capital increase[2]	10	434			444		444
Issuance of treasury shares	–	5			5		5
Dividend payments			(219)		(219)	(2)	(221)
Other changes[3]		(1)	–		(1)	–	(1)
Income after income taxes			459		459	(5)	454
Other comprehensive income			(82)	(206)	(288)	(3)	(291)
Total comprehensive income			377	(206)	171	(8)	163
Dec. 31, 2020	**193**	**3,925**	**1,280**	**209**	**5,607**	**37**	**5,644**
of which treasury shares	–	(2)			(2)		(2)

[1] Other changes result from a step acquisition of shares in April 2019 and the related equity transaction, see note 5.2 "Acquisitions and divestitures" in the 2019 Annual Report.
[2] After deduction of the cost of raising equity
[3] Other changes include the difference between the historical cost of treasury shares and the issue price in November 2020.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS OF THE COVESTRO GROUP

Principles and Methods

1. General Information

Covestro AG (registered at the district trade register, or Amtsgericht, for Cologne, number: HRB 85281) is a stock exchange-listed corporation headquartered at Kaiser-Wilhelm-Allee 60, 51373 Leverkusen, (Covestro AG). The consolidated financial statements of Covestro AG for the period ended December 31, 2020, cover Covestro AG and its subsidiaries, joint arrangements and associated companies. They have been prepared according to the International Financial Reporting Standards (IFRSs) of the International Accounting Standards Board (IASB), London (United Kingdom), as endorsed by the European Union (EU) and in effect at the reporting date, the Interpretations (IFRICs) of the IFRS Interpretations Committee (IFRS IC) and the Interpretations published by the Standing Interpretations Committee (SIC), as well as the additional requirements of German commercial law pursuant to Section 315e (1) of the German Commercial Code (HGB) for the exempting IFRS consolidated financial statements. Reference information for the previous year was restated against the background of the change in presentation of rebates granted to customers.

See note 4 "Change in presentation of rebates granted to customers and trade working capital."

The declaration pertaining to the German Corporate Governance Code pursuant to Section 161 of the German Stock Corporation Act (AktG) has been issued and made available to shareholders.

See "Declaration on corporate governance" in the Group Management Report.

If certain items in the income statement, statement of comprehensive income, statement of financial position, statement of cash flows and statement of changes in equity of the Covestro Group are condensed for the sake of clarity, this is explained in the notes. The income statement has been prepared using the cost-of-sales method. Assets and liabilities are classified by maturity. They are classified as current if they mature within one year or within the Group's normal business cycle, or are held for sale. Inventories, trade accounts receivable and payable and assets held for sale are consistently presented as current. Deferred tax assets, deferred tax liabilities and pension provisions are consistently presented as noncurrent.

The consolidated financial statements are drawn up in euros. Amounts are stated in millions of euros (€ million) except where otherwise indicated.

Exchange rates

In the reporting period, the following exchange rates were used for the major currencies of relevance from the perspective of the Covestro Group:

Average rates for major currencies

		Average Rates	
€1/		2019	2020
BRL	Brazil	4.41	5.80
CNY	China	7.74	7.87
HKD	Hong Kong	8.77	8.84
INR	India	78.82	84.43
JPY	Japan	122.01	121.72
MXN	Mexico	21.55	24.35
USD	United States	1.12	1.14

Closing rates for major currencies

		Closing Rates	
€1/		2019	2020
BRL	Brazil	4.52	6.37
CNY	China	7.82	7.98
HKD	Hong Kong	8.75	9.51
INR	India	80.19	89.66
JPY	Japan	121.94	126.49
MXN	Mexico	21.22	24.42
USD	United States	1.12	1.23

2. Effects of New Financial Reporting Standards

2.1 Financial reporting standards applied for the first time in the reporting period

IFRS pronouncement (published on)	Title	Effective for annual periods beginning on or after
Amendments to IFRS Standards (March 29, 2018)	Amendments to References to the Conceptual Framework in IFRS Standards	January 1, 2020
Amendments to IFRS 3 (October 22, 2018)	Definition of a Business	January 1, 2020
Amendments to IFRS 9, IAS 39 and IFRS 7 (September 26, 2019)	Interest Rate Benchmark Reform	January 1, 2020
Amendments to IAS 1 and IAS 8 (October 31, 2018)	Definition of Material	January 1, 2020

Initial application of the standards listed in the table had no or no material impact on the presentation of the net assets, financial position and results of operations of the Covestro Group.

2.2 Published financial reporting standards that have not yet been applied

The IASB and the IFRS IC have issued the following standards, amendments to standards, and interpretations whose application has not yet been mandatory to date. The application of these IFRS standards is conditional upon their endorsement by the European Union.

IFRS pronouncement (published on)	Title	Effective for annual periods beginning on or after
Endorsed by the EU		
Amendments to IFRS 16 (May 28, 2020)	Covid 19-Related Rent Concessions	June 1, 2020
Amendments to IFRS 4 (June 25, 2020)	Extension of the Temporary Exemption from Applying IFRS 9	January 1, 2021
Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 (August 27, 2020)	Interest Rate Benchmark Reform – Phase 2	January 1, 2021
Not yet endorsed by the EU		
Amendments to IFRS 3 (May 14, 2020)	Reference to the Conceptual Framework	January 1, 2022
Amendments to IAS 16 (May 14, 2020)	Property, Plant and Equipment: Proceeds before Intended Use	January 1, 2022
Amendments to IAS 37 (May 14, 2020)	Onerous Contracts – Cost of Fulfilling a Contract	January 1, 2022
Annual Improvements to IFRSs (May 14, 2020)	2018–2020 Cycle	January 1, 2022
IFRS 17 (May 18, 2017)	Insurance Contracts	January 1, 2023
Amendments to IAS 1 (January 23, 2020)	Classification of Liabilities as Current or Non-current	January 1, 2023
Amendments to IFRS 17 (June 25, 2020)	Amendments to IFRS 17 – Insurance Contracts	January 1, 2023
Amendments to IAS 1 (July 15, 2020)	Classification of Liabilities as Current or Non-current – Deferral of Effective Date	January 1, 2023
Amendments to IAS 1 (February 12, 2021)	Disclosure of Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2)	January 1, 2023
Amendments to IAS 8 (February 12, 2021)	Definition of Accounting Estimates (Amendments to IAS 8)	January 1, 2023

The date of initial application of the standards not yet endorsed by the EU is deemed to be the effective date stipulated by the IASB.

The effects of the initial application of the financial reporting standards described below are currently being reviewed. At the time the financial statements were prepared, no material impact on the presentation of the net assets, financial position, and results of operations of the Covestro Group was expected. According to the analysis as it stands currently, initial application of the other standards listed in the table have no effect on the presentation of the net assets, financial position, and results of operations of the Covestro Group.

On August 27, 2020, the IASB published "Interest Rate Benchmark Reform – Phase 2" containing amendments to IFRS 9 (Financial Instruments), IAS 39 (Financial Instruments: Recognition and Measurement), IFRS 7 (Financial Instruments: Disclosures), IFRS 4 (Insurance Contracts), and IFRS 16 (Leases). The amendment pertaining to leases establishes a practical expedient relating (solely) to lease modifications within the meaning of IFRS 16 as a direct consequence of the interest rate benchmark reform.

On May 14, 2020, the IASB issued "Reference to the Conceptual Framework" with amendments to IFRS 3 (Business Combinations). The amendments ensure that IFRS 3 refers to the Conceptual Framework revised in the year 2018 instead of the previous version of the Conceptual Framework. In addition, the amendments require that, for transactions within the scope of IAS 37 (Provisions, Contingent Liabilities and Contingent Assets) or IFRIC 21 (Levies), IAS 37 or IFRIC 21 must be applied to identify the liabilities assumed in a business combination. Moreover, the amendments explicitly state that acquired contingent assets are not recognized. Absent these amendments, according to the IASB, so-called day 2 gains or losses might arise if the Conceptual Framework revised in the year 2018 requires the initial (non-)recognition of a liability or an asset, whereas, for purposes of subsequent recognition, applicable standards would not. The amendments relate to business combinations completed on or after the effective date.

On May 14, 2020, the IASB also released amendments to IAS 16 (Property, Plant and Equipment) in "Property, Plant and Equipment: Proceeds before Intended Use." The amendments to IAS 16 mainly include a change whereby proceeds from selling items produced while bringing an asset to the location and into the condition necessary for it to be capable of operating as intended by management and the corresponding costs according to IAS 2 (Inventories) are recognized directly in profit or loss. Supplementary disclosures in the notes are also prescribed. Specific transition rules apply to the amendments.

On May 14, 2020, the IASB additionally published "Onerous Contracts – Cost of Fulfilling a Contract," which contains amendments to IAS 37 (Provisions, Contingent Liabilities and Contingent Assets). The amendments specify that, for the purpose of assessing whether a contract is onerous, the cost of fulfilling a contract comprises all costs directly related to the contract. Costs directly associated with fulfilling an onerous contract include, for example, directly attributable labor and material costs ("incremental cost") as well as proportionately attributable depreciation charges. Specific transition rules apply to the amendments.

On May 18, 2017, the IASB issued IFRS 17 (Insurance Contracts). IFRS 17 governs the recognition, measurement, and presentation of issued insurance contracts as well as the necessary disclosures in the notes. In addition, IFRS 17 requires the application of similar principles in the case of reinsurance contracts and, insofar as insurance contracts are issued, of investment contracts with a discretionary participation feature. IFRS 17 will replace IFRS 4 (Insurance Contracts). On June 25, 2020, the IASB released amendments to IFRS 17 in addition to other associated amendments and clarifications in respect of other standards with the aim of deferring the effective date of the standard by two years to January 1, 2023 (previously: January 1, 2021). This deferral addresses concerns such as those of insurers and certain financial service providers as those most affected by IFRS 17, and occurs in parallel with the deferral of the effective date of IFRS 9 (Financial Instruments) for this sector. IFRS 17 includes complex transition rules.

On January 23, 2020, the IASB issued amendments to IAS 1 under the title "Classification of Liabilities as Current or Non-current." The amendments define more precisely when a liability is to be classified as current or non-current in the statement of financial position if the settlement date is still uncertain. Due to the added pressure on companies from the coronavirus pandemic and the possible renegotiation of loans, the IASB issued an amendment to this publication on July 15, 2020, deferring the effective date by one year to January 1, 2023 (previously: January 1, 2022). The amendment is to be applied retrospectively.

On February 12, 2021 the IASB issued additional amendments to IAS 1, "Disclosure of Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2)," along with an amendment to the relevant practice statement. These amendments require all companies to disclose those accounting policies in their notes to the consolidated financial statements that are relevant for understanding the financial statements and the underlying transactions ("material accounting policies"), rather than their significant accounting policies in general. The amendments to IFRS Practice Statement 2 provide guidelines for the application of this materiality concept.

Also on February 12, 2021 the IASB issued amendments to IAS 8, "Definition of Accounting Estimates (Amendments to IAS 8)." These amendments are intended to clarify the distinction between changes in accounting policies and changes in accounting estimates. This distinction is generally relevant since changes in accounting policies are, subject to transitional provisions, always applied retrospectively to consolidated financial statements, while changes in accounting estimates are only applied prospectively from the date of the change in estimates.

3. Accounting Policies and Valuation Principles

Covestro's consolidated financial statements are based on the principle of the historical cost of acquisition, construction or production. Exceptions are items measured at fair value, such as certain financial assets, assets held for sale, plan assets, and derivatives.

In preparing the consolidated financial statements, Covestro management has to make assumptions and estimates to a certain extent that may substantially impact the presentation of the Covestro Group's net assets, financial position, and results of operations and could deviate from the actual results. Such estimates, assumptions, and the exercise of discretion mainly relate to the following areas: defining the useful life of noncurrent assets, calculating the discounted cash flows used for impairment testing to be conducted at least annually, purchase price allocations, accounting for income taxes, the assessment of the amount of deferred tax assets recoverable in future periods as well as the recognition of provisions, (e.g., for litigation-related expenses, pensions and other employee benefits, other taxes, environmental compliance and remediation costs, and product liability). In addition, Covestro's management must decide which information is relevant for readers of the IFRS consolidated financial statements and should be included in the notes. Information about exercising discretion in the application of accounting policies that most significantly affect the amounts reported in the consolidated financial statements, and about estimates and assumptions, is disclosed in the following notes.

Consolidation

As of December 31, 2020, the direct and indirect subsidiaries of Covestro AG were fully consolidated in accordance with the principles of IFRS 10 (Consolidated Financial Statements). In addition, joint arrangements as defined by IFRS 11 (Joint Arrangements) were classified as joint operations and consolidated proportionately in the consolidated financial statements, or classified as joint ventures and accounted for in the same way as associated companies using the equity method in accordance with IAS 28 (Investments in Associates and Joint Ventures).

See note 7.1 "Scope of consolidation and investments."

Joint operations and joint ventures

Joint operations and joint ventures are based on joint arrangements. A joint arrangement is deemed to exist if Covestro AG, through a contractual agreement, indirectly or directly jointly controls an activity together with one or more third parties. Joint control is only deemed to exist if decisions regarding the relevant activities require the unanimous consent of the parties sharing control.

A joint operation is a joint arrangement whereby the parties that have joint control over the arrangement have rights to the assets attributable to the arrangement and obligations with regard to the liabilities attributable to the arrangement. The Covestro Group recognizes the share of assets, liabilities, revenues and expenses relating to its interest in a joint operation in accordance with its rights and obligations.

A joint venture is a joint arrangement whereby the parties that have joint control over the arrangement have rights to the net assets of the arrangement. Joint ventures are accounted for using the equity method.

Associates over which Covestro AG is able to exercise significant influence, directly or indirectly, generally through an ownership interest between 20% and 50%, are also accounted for using the equity method.

Currency translation

The financial statements of the individual companies for inclusion in the consolidated financial statements are prepared in their respective functional currencies. The majority of consolidated companies carry out their activities autonomously from a financial, economic and organizational point of view, and their functional currencies are therefore the respective local currencies.

In the separate financial statements of the foreign companies, receivables and liabilities in currencies other than the respective functional currency are translated at closing rates. Related exchange differences are recognized in profit or loss and recorded as exchange gains or losses under other financial result.

In the consolidated financial statements, the assets and liabilities of Covestro companies outside the eurozone are translated into euros at closing rates at the start and end of the reporting period, while income and expense items and cash flows are translated into euros at average rates. Equity items are translated at historical rates.

Sales and other operating income

All revenues derived from the selling of products or rendering of services, or from licensing agreements, are recognized as sales. Other operational revenues are recognized as other operating income.

In principle, the amount of consideration from a contract with a customer to which Covestro expects to be entitled in exchange for the transfer of goods or services is recognized as sales when the customer obtains control of the corresponding goods or services.

Sales are generated primarily from the sale of chemical products. In most cases, control over these products is transferred to the customer at a point in time.

Depending on the contractual agreements made and transportation clauses agreed upon with the customer, in the majority of cases control is transferred to the customer upon delivery at the place of destination, furthermore at the point in time of collection by the customer or upon handover to the freight carrier. In some cases, sales are made through consignment warehouses in which customers primarily obtain control over the delivered goods upon delivery to the consignment warehouse.

In principle, control is considered to be transferred when the customer can direct the use of the product to be delivered and obtain substantially all of the remaining benefits from the product, while this is no longer possible for Covestro.

Determining the point in time of the transfer of control involves considering additional indicators. In particular, it is considered at which point in time Covestro has a present right to payment for the product and when physical possession of the product or, in a broader sense, the possibility of sole access to the product, is transferred to the customer. Depending on the transportation clauses, the possibility of sole access to the product may be transferred even prior to arrival or physical handover of the product to the customer. Furthermore, the point in time when the legal title passes to the customer is also considered to the extent that it constitutes more than a protective right. The point in time when the significant rewards and risks of ownership of a product are transferred to the customer is usually linked closely with the aforementioned indicators and is therefore considered with these. Based on experience, it is assumed that products sold fulfill the agreed-upon specifications, thus acceptance by the customer is an indicator that does not generally affect the point in time at which control is transferred.

As a result, depending on the contractual agreements made and transportation clauses agreed upon with the customer, the point in time of the transfer of control is determined.

In the case of products sold through a consignment warehouse, the customer generally obtains physical possession of this product upon delivery to the consignment warehouse. In addition, the right to payment for the delivered goods generally arises upon delivery. To the extent that the other three indicators do not lead to a contrary conclusion, control of the products in the case of a sale through a consignment warehouse transfers to the customer upon delivery to the consignment warehouse. The corresponding sales are therefore realized at the time of delivery.

Certain products are only sold to one customer. Some of these customer-specific products have no alternative use for Covestro. Insofar as Covestro has an enforceable right to payment for performance completed to date, sales are recognized on the basis of progress towards complete satisfaction of the performance obligation. As a rule, control over an individual customer-specific product is considered to be transferred when the generally short production process is completed successfully and the product has been tested to confirm that the agreed-upon specifications have been met.

To the extent that, for certain types of performance obligations that are satisfied over time, there is a right to consideration in an amount that corresponds directly with the value of the performance provided by Covestro to date, revenue will normally be realized in the amount to which Covestro has a right to invoice.

Invoices are usually payable in 0 to 90 days. Contracts may contain early payment discounts or rebates. Rebates are generally retroactively granted sales- or volume-dependent rebates based on the sales or volume of a period customarily spanning up to 12 months. Some contracts include pricing formulas used to determine the billable price at the time of delivery. Moreover, the final prices for certain contracts with customers are not yet fixed at the time of transfer of control. Instead, provisional prices are billed initially.

Sales are recognized in the amount of the transaction price that Covestro is expected to receive. Sales do not include amounts collected on behalf of third parties (e.g., sales tax). Where consideration includes a variable component, for example due to the contract clauses described, this component of the consideration is estimated either based on the expected value method or the most likely amount. The method producing the best estimate is used in this case. However, variable consideration is only taken into account to the extent it is not constrained as defined by IFRS 15. Variable consideration is not constrained if it is highly probable that a significant reversal in the amount of sales will not occur when the corresponding uncertainty is subsequently resolved. The transaction price of a contract is allocated to the performance obligations therein using the relative stand-alone selling prices, which generally correspond to the agreed upon prices. If the conditions are met, variable amounts are completely allocated to individual performance obligations.

Refund liabilities result particularly from rebates granted and total the amount of the rebate expected to be refunded, which is calculated based on the methods described. The rebate deemed to be due is reported in refund liabilities until payment.

As a rule, no warranties are issued beyond normal warranties that products will fulfill the agreed-upon specifications.

In the case of contracts with customers, Covestro generally does not expect more than one year to pass between the transfer of a product to a customer and the payment thereof. As a result, the agreed consideration is not adjusted for significant financing components. When incremental costs of obtaining a contract arise, these are immediately recognized as expenses, if the potential amortization period is one year or less.

Research and development expenses

Research and development expenses are incurred in the Covestro Group for in-house research and development activities as well as research and development collaborations and alliances with third parties.

According to IFRSs, research costs cannot be capitalized. Development costs, on the other hand, must be capitalized according to closely defined conditions. An intangible asset must be recognized if there is reasonable certainty of receiving future cash flows that will cover an asset’s carrying amount. Covestro’s development projects are often subject to uncertainties, so the conditions for the capitalization of development costs are normally not satisfied. Each project or contract is reviewed to determine potential capitalization requirements. The recognition, measurement, and presentation rules for other intangible assets apply where development costs are capitalized.

Income taxes

Income taxes comprise the taxes levied on taxable income in the individual countries along with changes in deferred tax assets and liabilities that are recognized in profit or loss. The income taxes recognized are reflected at the amounts likely to be payable or reimbursable under the statutory regulations in force, or already enacted in relation to future periods, at the end of the reporting period.

As a rule, deferred taxes are recognized in profit or loss. However, if deferred taxes relate to items recognized outside profit or loss in equity, they, too, are recognized outside profit or loss.

The probability that deferred tax assets resulting from temporary differences, tax credits or loss carryforwards can be utilized in the future is the subject of forecasts by the individual companies regarding the future earnings situation in the respective Covestro companies and other parameters.

Deferred tax liabilities are recognized on planned dividend payments by subsidiaries. Where no dividend payment or disposal of corresponding equity investments is planned for the foreseeable future, no deferred tax liability is recognized on the difference between the proportionate equity according to IFRSs and the tax base of the carrying amount of the investment in the subsidiary (outside basis differences).

The expected effects of uncertain deferred and actual income tax positions are estimated in accordance with IFRIC 23 (Uncertainty over Income Tax Treatments) either based on the expected value method or the most likely amount. The method producing the best estimate is used in this case. Tax audits in which the relevant tax authority could take a view differing from Covestro's legal position are by far the most important sources of estimation uncertainties for uncertain tax positions. Uncertain tax positions are accounted for under the assumption that the tax authorities will investigate all relevant matters and have all relevant information at their disposal.

Goodwill

Goodwill is not amortized. Its carrying amount is subjected to impairment testing annually or more often if there is any indication of possible impairment. Detailed explanations of impairment testing can be found under "Procedure used in global impairment testing and its impact." Once an impairment loss has been recognized on goodwill, it generally cannot be reversed in subsequent periods. In the event of a restructuring, e.g., the reorganization of financial reporting processes, or external portfolio divestments, any associated goodwill is reallocated or only derecognized in part according to the relative fair value principle.

Other intangible assets

Other intangible assets are identifiable nonmonetary assets without physical substance, other than goodwill (such as software or rights). Other intangible assets are recognized at the cost of acquisition or generation. Those with a determinable useful life are amortized accordingly on a straight-line basis over a period of up to 20 years, except where their actual depletion demands a different amortization pattern. Determination of the expected useful lives of other intangible assets is based on estimates of the period for which they will generate cash flows. Other intangible assets with an indefinite useful life and other intangible assets recognized, but not yet available for use, with a specified useful life are tested for impairment, like goodwill.

Property, plant and equipment

Property, plant and equipment are carried at the cost of acquisition or construction and depreciated by the straight-line method over the expected useful life. An impairment loss is recognized in addition if an asset's recoverable amount falls below its carrying amount. Right-of-use assets recognized in accordance with IFRS 16 (Leases) are also included in property, plant and equipment.

If the construction phase or manufacturing process of property, plant or equipment extends over a period of 12 months or more, the interest incurred on borrowed capital up to the date of completion is capitalized as part of the cost of acquisition or construction in accordance with IAS 23 (Borrowing Costs).

Costs for regular, comprehensive maintenance work (such as the major overhaul of a technical facility) are capitalized as a separate component if they satisfy special recognition criteria.

The following depreciation periods are generally applied throughout the Covestro Group:

Useful life of property, plant and equipment

Buildings	20 to 50 years
Infrastructure	10 to 20 years
Storage tanks and pipelines	10 to 20 years
Plant installations	6 to 20 years
Machinery and equipment	6 to 12 years
Furniture and fixtures	4 to 10 years
Vehicles	5 to 8 years
Computer equipment	3 to 5 years
Laboratory and research facilities	3 to 5 years

Significant asset components with different useful lives are accounted for and depreciated separately.

When assets are sold, closed down, or scrapped, the difference between the recoverable amount, which normally amounts to the fair value less costs of disposal, and the net carrying amount of the assets is recognized as a gain or loss in other operating income or expenses, respectively.

Impairment of other intangible assets and property, plant and equipment

If there are indications that an individual item of other intangible assets or property, plant and equipment (including recognized right-of-use assets from leases) may be impaired, the recoverable amount is compared to the carrying amount to determine whether it is higher or lower. The recoverable amount is generally the higher of the value in use or the fair value less costs of disposal. If the recoverable amount does not equal or exceed the respective carrying amount, an impairment loss is recognized in profit or loss in the amount of the difference between the carrying amount and the recoverable amount. If the reasons for a previously recognized impairment loss no longer apply, the impairment loss is reversed in profit or loss provided that the reversal does not cause the carrying amount to exceed the original (amortized) cost of acquisition or generation.

Both depreciation or amortization and impairment losses are recognized in the functional cost in line with the use of the relevant asset.

Inventories

Inventories are recognized at their cost of acquisition or production (production-related full cost) – calculated by the weighted-average method – or at their net realizable value, whichever is lower. The net realizable value is the estimated selling price in the ordinary course of business less estimated cost to complete and selling expenses.

Financial instruments

Contracts are recognized as financial instruments in the financial statements which simultaneously give rise to a financial asset at one entity while resulting in a financial liability or equity instrument at another entity. Accordingly, financial assets are recognized in the consolidated financial statements if the Covestro Group has a contractual right to receive cash or other financial assets from another entity. Regular-way purchases and sales of financial assets are generally posted on the settlement date. Financial liabilities are initially recognized in the consolidated financial statements if Covestro has a contractual obligation to transfer cash or other financial assets to another entity. With the exception of trade accounts receivable, financial instruments are measured at fair value plus directly attributable transaction costs upon initial recognition. For financial instruments measured at fair value through profit or loss, transaction costs are recognized directly in the income statement. Trade accounts receivable are recognized at their transaction price. Subsequent measurement of financial instruments is based on their classification in the categories stipulated by IFRS 9 (Financial Instruments).

Financial assets

Financial assets comprise loans, acquired equity and debt instruments, cash and cash equivalents, other financial assets, and derivatives with positive fair values. The classification and measurement of financial assets is based on the business model pursued by the Covestro Group with regard to the management of its financial assets for the purpose of collecting cash flows, and on the characteristics of the contractual cash flows from the relevant financial assets (cash flow condition). Subsequent measurement takes place according to the measurement rules for the respective category, as described below.

Financial assets carried at amortized cost comprise nonderivative financial assets that are held as part of a business model that aims to collect contractual cash flows and that additionally fulfill the cash flow condition, i.e., the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. This category comprises trade accounts receivable, the loans included in other financial assets, the additional financial receivables reflected in other receivables, and cash and cash equivalents. Interest income from financial assets assigned to this category is determined using the effective interest method.

Financial assets carried at fair value through other comprehensive income encompass debt instruments held as part of a business model that aims to obtain cash flows from the instrument both by collecting contractual payments as well as through the sale thereof, and that additionally fulfill the cash flow condition. Acquired bonds may be classified in this category to the extent that they are intended to be sold before they mature. Interest income, foreign currency gains and losses, and impairment losses or impairment loss reversals are recognized in the income statement for financial assets in this category. The remaining fair value changes are recognized in other comprehensive income. Upon derecognition, the cumulative net gains or losses included in other comprehensive income are reclassified to the income statement.

The Covestro Group exercises the option of recognizing changes in the fair value of equity instruments that are not held for trading in other comprehensive income. In contrast to the treatment of debt instruments, the gains and losses recognized in other comprehensive income are not reclassified to the income statement upon derecognition, and no impairment losses are recognized in profit or loss.

Financial assets carried at fair value through profit or loss are all financial assets not assigned to any of the above categories and particularly include derivatives with positive fair values. The Covestro Group does not opt to measure financial assets at fair value, e.g., for the purpose of avoiding or minimizing accounting mismatches.

Financial assets are derecognized when contractual rights to receive cash flows from the financial assets expire or the financial assets are transferred together with all significant risks and rewards.

Cash and cash equivalents

Cash and cash equivalents comprise cash, checks received, and balances with banks. Cash equivalents are highly liquid short-term financial investments that are subject to an insignificant risk of changes in value, are easily convertible into a known amount of cash, and have a maturity of three months or less from the date of acquisition or investment.

Derivatives

Derivatives – such as forward exchange contracts – are used to mitigate the risk of fluctuations in exchange rates. Derivatives are recognized at the trade date.

Contracts concluded in order to receive or deliver nonfinancial goods for the company's own purposes are not accounted for as derivatives but treated as pending transactions. Where embedded derivatives are identified that are required to be separated from the pending transactions, they are accounted for separately. To cover possible peak demand, a nonmaterial volume of transactions may be entered into for which the possibility of immediate resale cannot be excluded. Such transactions are allocated to separate portfolios upon acquisition and accounted for as or like derivatives according to IFRS 9 (Financial Instruments).

Derivatives are carried at fair value. This relates to what are known as standalone derivatives as well as derivatives embedded in certain types of contracts and therefore required to be accounted for separately from their host contracts. Positive fair values at the end of the reporting period are reflected in financial assets, negative fair values in financial liabilities. Changes in the fair values of these derivatives are recognized directly in profit or loss in the other operating result. Changes in the fair values of forward exchange contracts and currency options serving as hedging instruments for items in the statement of financial position are divided into an interest and a currency component. The interest component is recognized in interest expense or income and the currency component is recognized as exchange gains or losses in the other financial result. Changes in the fair value of forward exchange contracts used to hedge forecasted transactions in foreign currencies are recognized in other operating result.

Covestro does not apply hedge accounting.

Financial liabilities

Financial liabilities generally comprise primary financial liabilities and negative fair values of derivatives.

In subsequent periods, such nonderivative liabilities are measured at amortized cost using the effective interest method. The Covestro Group does not opt to measure financial liabilities at fair value, e.g., to avoid or minimize accounting mismatches.

Financial liabilities are derecognized when the contractual obligation is discharged, cancelled, or has expired.

Provisions for pensions and other post-employment benefits

Within the Covestro Group, post-employment benefits are provided under defined contribution and defined benefit plans. In the case of defined contribution plans, the company pays contributions to publicly or privately administered pension plans on a mandatory, contractual or voluntary basis. Once the contributions have been paid, the company has no further payment obligations. The regular contributions constitute expenses for the year in which they are due and as such are included in the functional cost items, and thus in income after income taxes plus financial result and income tax expense (EBIT). All other post-employment benefit systems are defined benefit plans, which may be either unfunded, i.e., financed by provisions, or funded, i.e., financed through pension funds.

The present value of the defined benefit obligations and the resulting expense are calculated in accordance with IAS 19 (Employee Benefits) by the projected unit credit method. The future benefit obligations are valued by actuarial methods and spread over the entire employment period on the basis of specific assumptions regarding beneficiary structure and the economic environment. These relate mainly to the discount rate, future salary and pension increases, variations in health care costs, and mortality rates.

The discount rates used are calculated from the yields of high-quality corporate bond portfolios in specific currencies with cash flows approximately equivalent to the expected cash outflows from the pension plans. The uniform discount rate derived from this interest rate structure is thus based on the yields, at the closing date, of a portfolio of corporate bonds with at least an AA or AAA rating whose weighted residual maturities approximately correspond to the duration necessary to cover the entire benefit obligation.

The fair value of plan assets is deducted from the present value of the defined benefit obligation for pensions and other post-employment benefits to determine the net defined benefit liability. Plan assets in excess of the benefit obligation are reflected in other receivables, subject to the asset ceiling specified in IAS 19. Comprehensive actuarial valuations for all major plans are performed annually as of December 31.

The balance of all income and expenses relating to defined benefit plans, except the net interest on the net liability, is recognized in EBIT. The net interest is reflected in the financial result.

The effects of remeasurements of the net defined benefit liability are reflected in other comprehensive income. They consist of actuarial gains and losses, the return on plan assets and changes in the effects of the asset ceiling, less the respective amounts included in net interest for the last two components. Deferred taxes relating to the effects of remeasurements are also recognized in other comprehensive income.

Other provisions

Other provisions are measured in accordance with IAS 37 (Provisions, Contingent Liabilities and Contingent Assets) or, where applicable, IAS 19 (Employee Benefits). Where the cash outflow to settle an obligation is expected to occur after one year, the provision is recognized at the present value of the expected cash outflow. Claims for reimbursements from third parties are separately reflected in other receivables if their realization is virtually certain.

If the projected obligation declines as a result of a change in the estimate, the provision is reversed by the corresponding amount and the resulting income generally recognized in the operating expense item(s) in which the original charge was recognized.

To enhance the information content of the estimates, certain provisions that could have a material effect on the net assets, financial position and results of operations are selected and tested for their sensitivity to changes in the underlying parameters using sensitivity analysis. To reflect uncertainty about the likelihood of the assumed events actually occurring, the impact of a five-percentage-point change in the probability of occurrence is examined in each case.

Provisions for environmental protection are recorded if future cash outflows are likely to be necessary to ensure compliance with environmental regulations or to carry out remediation work based on an obligation, such costs can be reliably estimated, and no future benefits are expected from such measures.

Estimating the future costs of environmental protection and remediation involves many uncertainties, particularly with regard to the status of laws, regulations and the information available about conditions in the various countries and at the individual sites. Significant factors in estimating the costs include previous experiences in similar cases, the conclusions in expert opinions obtained for existing environmental programs, current costs, and new developments affecting these costs. Also taken into consideration are management’s interpretation of current environmental laws and regulations, the number and financial position of third parties that may become obligated to participate in any remediation costs on the basis of joint liability, and the remediation methods likely to be deployed. Changes in these assumptions could impact future reported results.

Taking into consideration experience gained to date regarding environmental matters of a similar nature, Covestro's management believes the existing provisions to be adequate based upon currently available information. Given the businesses in which the Covestro Group operates and the difficulties inherent in accurately estimating liabilities for environmental protection, it remains possible that material additional costs will be incurred beyond the amounts accrued. It may transpire during remediation work that additional expenditures are necessary over an extended period and that these exceed existing provisions and cannot be reasonably estimated.

Provisions for restructuring are based either on a legal or a constructive external obligation. They only cover expenses that arise directly from restructuring measures, are necessary for restructuring, and are not related to future business operations. Such expenses include severance payments to employees and compensation payments in respect of rented property that can no longer be used. Prior to recognition of this type of provision, the associated assets are tested for impairment.

Restructuring measures may include the sale or termination of business units, site closures, relocations of business activities or fundamental reorganizations of business units. The respective provisions are established when a detailed restructuring plan has been drawn up, resolved by the responsible decision-making level of management, and communicated to the affected employees and/or their representatives. Provisions for restructuring are generally established at the present value of future cash outflows.

As a company with international operations, the Covestro Group is exposed to numerous legal risks for which provisions for litigation must be established under certain conditions – including especially in the areas of product liability, competition and antitrust law, patent disputes, tax law, environmental law, and compliance issues such as corruption and export control.

Litigation and other judicial proceedings often raise complex issues and are subject to many uncertainties and complexities including, but not limited to, the facts and circumstances of each particular case, the jurisdiction in which each suit is brought and differences in applicable law. The outcomes of currently pending and future proceedings generally cannot be predicted. Judgment in court proceedings, regulatory decisions or the conclusion of a settlement may result in the Covestro Group incurring charges for which no accounting measures have been taken for lack of reasonable estimate or which exceed established provisions and insurance coverage.

The Covestro Group considers the need for accounting measures in respect of pending or future litigations, and the extent of any such measures, on the basis of the information available to its legal department and in close consultation with legal counsel acting for the Covestro Group.

Where it is more likely than not that such a litigation will result in an outflow of resources that is already reasonably estimable, a provision for litigation is normally recorded in the amount of the present value of the expected cash outflows. Such provisions cover the estimated unavoidable payments to the plaintiffs, court and procedural costs, attorney costs, and the cost of potential settlements.

It is often impossible to reliably determine the existence of a present obligation or reasonably estimate the probability that a potential outflow of resources will result from a pending or future litigation. Due to the special nature of these litigations, provisions generally are not established until initial settlements allow an estimate of potential amounts or judgments have been issued and not before at least a range of possible legal outcomes of such litigations is possible. Provisions for legal defense costs are established if it is probable that material costs will have to be incurred for external legal counsel to defend the company's legal position.

Internal and external legal counsels evaluate the current status of the material legal risks of the Covestro Group at the end of each reporting period. The need to establish or adjust a provision and the amount of the provision or adjustment are determined on this basis. Adjusting events are reflected up to the date of preparation of the consolidated financial statements.

See note 28 "Legal risks."

Personnel-related provisions are mainly those recorded for variable one-time payments, individual performance awards, long-service awards, severance payments in connection with early retirement arrangements, surpluses on long-term accounts and other personnel costs.

Obligations under stock-based compensation programs that provide for awards payable in cash are also included in personnel-related provisions. The compensation of the Board of Management of Covestro AG and of managerial employees includes stock-based compensation components that are earned with lock-up periods and are reflected in profit or loss as personnel expenses in line with the consideration paid in the performance period. They are measured using a subscription price model at the time of granting and at each reporting date in accordance with IFRS 2 (Share-based Payment).

Miscellaneous provisions include those for other liabilities, product liability, warranties, and insurance payments. Rebates to be granted to customers are reported in refund liabilities, however.

Other receivables and liabilities

Grants and subsidies from third parties that serve to promote investment are reflected in the statement of financial position under other liabilities, and amortized to income over the useful lives of the respective investments.

Leases

A lease exists when the lessor grants the lessee the contractual right to control an identified asset for a specified period of time and in return the lessor receives consideration from the lessee.

When Covestro is the lessee in a lease, as a rule a right-of-use asset and a corresponding liability (lease liability) are recognized in the statement of financial position on the date the underlying asset is made available for use to Covestro.

The right-of-use asset represents a lessee's right to use the asset being leased in return for payment. Upon initial recognition, the right-of-use asset is generally capitalized at the amount of the corresponding lease liability plus any initial direct costs, any dismantling obligations and lease payments made prior to the commencement date less any lease incentives received. For subsequent measurement, the right-of-use asset is depreciated over the lease term. Contract modifications, as long as these are not measured as separate leases, and reassessment of the lease liability are also reflected in the right-of-use asset. The right-of-use asset is included in the line item property, plant and equipment in the statement of financial position. Impairment testing and reporting of any impairment losses are carried out for the right-of-use assets in the statement of financial position in accordance with the regulations applicable to property, plant and equipment.

The lease liability represents the company's obligation to make contractual lease payments and is measured as the present value of precisely these outstanding lease payments. While IFRS 16 (Leases) requires use of the interest rate implicit in the lease in order to calculate the present value, it is frequently not possible to ascertain this interest rate. Accordingly, the incremental borrowing rate is generally applied in discounting the lease payments. If the outstanding lease payments include fixed payments or variable lease payments that depend on an index or an interest rate, these are taken into consideration in the lease liabilities. Variable lease payments that depend on an index or an interest rate are measured at the underlying index or interest rate as soon as this is to be applied. If, as an exception, there are residual value guarantees, purchase options or penalty fees, these are to be recognized accordingly in the lease liability to the extent that they are anticipated. At Covestro, lease agreements usually include fixed contract terms. Additionally, options to extend and terminate the lease exist particularly for the rental of production and logistics infrastructure and of real estate. In order to assess whether options to extend or terminate the lease are reflected in the lease term, all relevant facts are examined to determine the existence of economic incentives to exercise or not to exercise these options. The lease term is only adjusted to reflect changes in the expectations regarding whether or not such options will be exercised if there is reasonable certainty. The effective interest method is used for the subsequent measurement of lease liabilities. Using this method, periodic lease payments with an effect on cash flows are divided into an interest portion which affects profit or loss and a repayment portion not affecting profit or loss. Lease liabilities are reported in financial liabilities classified as current or noncurrent according to their maturity.

Overall, effects on income from leases to be recognized in accordance with IFRS 16 comprise depreciation of the right-of-use asset and any impairment losses on the right-of-use asset (operating result), discounting and subsequent measurement of the lease liability (financial result) and in cases in which a lease agreement is modified. Such lease modifications can result, for instance, from options to terminate or extend a lease which were previously not explicitly stipulated in the contract. Contractual lease payments for leases accounted for in accordance with IFRS 16 are shown solely under cash flows from financing activities.

IFRS 16 provides exemptions for applying the recognition and measurement rules for leases with a term of less than 12 months, those with a low-value underlying asset, or if the underlying asset is an intangible asset. Covestro considers an asset to be of low value if the new value is less than €5,000. Leases are not recognized as a depreciable right-of-use asset on the balance sheet or as a lease liability at Covestro for the exceptions referenced above. Corresponding contractual payments are instead shown in the cash flows from operating activities and the same amount is recognized as an expense in the operating result.

For leases in which Covestro is the lessor, a differentiation is made between finance lease and operating lease in accordance with IFRS 16. Leases that transfer substantially all the risks and rewards incidental to ownership of the leased asset to the lessee are treated as finance leases. At the commencement date, the lessor recognizes a lease receivable in the statement of financial position in the amount of the net investment in the lease and derecognizes the underlying asset from the noncurrent assets. The net investment routinely comprises the present value of future contractual lease payments. Any lease incentives or variable lease payments that depend on an index or an interest rate to be paid by the lessee, as well as any residual value guarantees or other contractual payment claims against the lessee can be included in the net investment. The lessor applies the interest rate implicit in the lease for initial measurement of the net investment or the lease receivable. Using this method, periodic lease payments with an effect on cash flows are divided into an interest portion which affects profit or loss and a repayment portion not affecting profit or loss; the interest portion is shown in the financial result. The effective interest method is applied for the subsequent measurement of the net investment or lease receivable. In an operating lease, the underlying asset continues to be shown under the lessor's property, plant and equipment and depreciated over the useful life. Lease payments received are recorded as sales.

Acquisition accounting

Businesses acquired pursuant to IFRS 3 (Business Combinations) are accounted for using the acquisition method, which requires that all identifiable assets acquired and all (contingent) liabilities assumed be recorded at their respective fair values on the date control is obtained. Ancillary acquisition costs are recognized as expenses in the periods in which they occur.

Procedure used in global impairment testing and its impact

Global impairment testing is performed at the level of cash-generating units for reported goodwill. A cash-generating unit (CGU) is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. The Covestro Group regards its strategic business units as cash-generating units with goodwill and subjects them to global impairment testing. The cash-generating units usually constitute the first financial reporting level below the reportable segments.

The Polyurethanes (PUR) reportable segment includes the diphenylmethane diisocyanate (MDI), toluene diisocyanate (TDI), and polyether polyols (PET) as cash-generating units. In the Polycarbonates (PCS) segment, impairment testing is conducted at the level of the PCS cash-generating unit. The composition of the cash-generating units changed in fiscal year 2020 as a result of reorganization of the financial reporting processes of the Coatings, Adhesives, Specialties (CAS) reportable segment's strategic business units. Coatings, Adhesives, Specialties continues to include the Specialty Films (SF) strategic business unit. The business of the Base & Modified Isocyanates (BMI) and Resins (RES) strategic business units included in the segment in the previous year was divided into the Aliphatics (ALI), Aromatics (ARO), Thermoplastic Polyurethanes (TPU), Elastomers (ELA), and Performance Resins & Dispersions (PRD) cash-generating units starting this year.

Cash-generating units are globally tested if there is an indication of possible impairment. Strategic business units or groups of strategic business units to which goodwill or another item of other intangible assets with an indefinite useful life is allocated are tested at least annually.

In the case of impairment, the resulting expense is reflected for goodwill in other operating expenses and for other assets in the functional item of the income statement in which the depreciation or amortization of the respective assets is recognized. The same applies to income from impairment loss reversals, although impairment losses on goodwill may not be reversed.

The recoverable amount is generally determined on the basis of the fair value less costs of disposal, taking into account the present value of the future cash flows as market prices for the individual units are normally not available. The forecasts of future cash flows generally have a planning horizon of three to five years and are based on the Covestro Group's current planning. Forecasting involves making assumptions based on internal Group estimates and external sources, especially regarding future selling prices, sales volumes, costs, market growth rates, economic cycles, and exchange rates. Where the recoverable amount is the fair value less costs of disposal, the cash-generating unit is measured from the viewpoint of an independent market participant. Cash flows beyond the planning period are determined on the basis of long-term business expectations using the respective individual growth rates derived from market information. The measurement of fair value less costs of disposal is based on unobservable inputs (Level 3 of the fair value hierarchy).

The net cash inflows are discounted at the weighted average cost of capital (WACC), which is calculated as the weighted average cost of equity and cost of debt. To take into account the risk and return profile of the Covestro Group, an after-tax cost of capital is calculated and a specific capital structure is defined by benchmarking against comparable companies in the same industry sector ("peer group"). The cost of equity corresponds to the return expected by shareholders, while the cost of debt is based on the terms at which the peer group can obtain long-term financing. In principle, both components are derived from capital market information.

The growth rates for the terminal value applied for impairment testing in fiscal 2020 amounted to 1% (previous year: 1%) for the PET cash-generating unit and 2% (previous year: 2%) for the other cash-generating units. These growth assumptions reflect in particular economic cycles over several years as well as expectations for capacity and the market for each cash-generating unit. The after-tax capital cost factor used to discount the expected cash flows was 6.5% (previous year: 6.4%).

As in the previous year, no impairment losses were recognized on reported goodwill in the reporting period on the basis of the global annual impairment testing of the cash-generating units. In the fiscal year, impairment losses on property, plant and equipment and intangible assets amounted to €20 million (previous year: €28 million) and impairment loss reversals on property, plant and equipment and intangible assets amounted to €0 million (previous year: €1 million). Details are provided in notes 15 "Goodwill and Other Intangible Assets" and 16 "Property, Plant and Equipment."

See note 15 "Goodwill and other intangible assets" and note 16 "Property, plant and equipment."

Although the estimates of the useful lives of certain assets, assumptions concerning the macroeconomic environment and developments in the industries in which the Covestro Group operates, and estimates of the discounted future cash flows are believed to be appropriate, changes in assumptions or circumstances could require changes in the analysis. This could lead to additional impairment losses in the future or – except in the case of goodwill – to reversals of previously recognized impairment losses if developments are contrary to expectations.

The sensitivity analysis for cash-generating units to which goodwill is allocated was based on a 10% reduction in the future free operating cash flow, a 10% increase in the WACC, or a one-percentage-point reduction in the long-term growth rate. On this basis, there would be no need to recognize an impairment loss for any of the cash-generating units except PET and TPU. The same applies at the measurement date to other deviations from the assumptions used in the impairment testing that were deemed possible.

In the case of PET, the recoverable amount would correspond to its carrying amount at the measurement date if the discounted cash flows were €161 million lower, the WACC were 0.8 percentage points higher or the long-term growth rate were 1.0 percentage points lower. For TPU, this would be the case if the discounted cash flows were €34 million lower, the WACC increased by 0.6 percentage points or the long-term growth rate decreased by 0.8 percentage points. When applied to TPU or PET, the reduction in free operating cash flow assumed for the other cash-generating units as part of the sensitivity analysis would not have resulted in a need to recognize an impairment loss in either case.

Fair value

According to IFRS 13 (Fair Value Measurement), fair value is the price that would be received to sell an asset or paid to transfer a liability at the measurement date in an orderly transaction in a primary market or, if such is not available, in the most favorable market to which the Covestro Group has access at that time. In essence, the fair value of a liability reflects the risk of nonfulfillment.

If available, the Covestro Group calculates the fair value of a financial instrument based on quoted prices in an active market for this instrument. A market is regarded as active when transactions for the respective asset or liability take place with sufficient frequency and volume to provide regular pricing information at the reporting date.

If no quoted prices on an active market exist, measurement methods are used which maximize the use of relevant observable inputs and minimize the use of non-observable inputs. All factors taken into account by market participants in pricing such a transaction are incorporated into the relevant method of measurement.

Depending on the asset or liability category, specific information is provided about the principles for using or determining fair value. In the Covestro Group, this generally applies to items in the financial statements as well as disclosures in the notes.

Impairment losses

The Covestro Group calculates a risk provision for expected credit losses for the following items:

- Financial assets measured at amortized cost;
- Debt instruments measured at fair value through other comprehensive income;
- Financial guarantees and loan commitments;
- Contract assets.

For financial instruments without a significant increase in credit risk since initial recognition, the amount of the risk provision for expected credit losses equals the credit losses expected to occur within the next twelve months. For financial instruments with a significant increase in credit risk, a risk provision is calculated in the amount of the credit losses expected over their residual maturity.

Relevant data from within and outside the company that can be obtained with reasonable effort is considered when determining whether the credit risk has increased substantially since initial recognition. For instance, the financial data of counterparties or customers, ratings, the payment histories of counterparties or customers, and forward-looking information are all assessed. It is assumed that a significant increase in credit risk has occurred when the financial asset is more than 30 days past due.

A default event has occurred when the Covestro Group comes to the conclusion that the counterparty is highly unlikely to be able to meet its payment obligations in full.

In the case of trade accounts receivable and contract assets, the amount of the risk provision is equal to the credit losses expected over their remaining term.

At each reporting date, the Covestro Group determines whether financial assets measured at amortized cost or at fair value through other comprehensive income are credit impaired. Indicators of possible credit impairment of a financial asset include observable data regarding the following events:

- Significant financial difficulties of the issuer or borrower;
- A breach of contract, such as default or delinquency;
- Concessions that Covestro makes to the borrower for financial or legal reasons relating to the financial difficulties of the borrower that it would not otherwise make;
- It is becoming probable that the borrower will enter bankruptcy or other financial reorganization;
- The loss of an active market for this financial asset.

The gross carrying amount of a financial asset is derecognized when the Covestro Group comes to the conclusion that the counterparty is no longer able to meet its payment obligations. Following derecognition, the Covestro Group assumes that it will no longer be able to recover any significant amounts.

4. Change in Presentation for Rebates Granted to Customers and Trade Working Capital

4.1 Change in presentation of rebates granted to customers

According to IFRS 15 (Revenue from Contracts with Customers), recognition of a refund liability is required if an entity receives consideration from a customer and expects this consideration to be refunded to the customer in whole or in part (i.e., amounts not included in the transaction price). Most refund liabilities result from rebates granted and comprise the amount of the rebate expected to be returned to the customer based on a reasonable estimate.

The presentation of refund liabilities relating to rebates granted was modified as of December 31, 2020, to reduce complexity while remaining in compliance with reporting guidelines under IFRS 15. Refund liabilities relating to rebates granted are no longer reclassified to trade accounts payable as soon as the uncertainty associated with the payment is eliminated. Instead, the rebate deemed to be due is reported in refund liabilities until payment.

As a result, refund liabilities increase by the same amount as customer rebates previously reclassified, whereas trade accounts payable decrease by this amount.

The prior-year figures were restated in accordance with IAS 1.41.

The following tables illustrate the effects of the change in presentation of refund liabilities relating to rebates granted:

Change in presentation of rebates granted to customers in fiscal 2020

	Dec. 31, 2020 pre-change	Change in presentation	Dec. 31, 2020 post-change
	€ million	€ million	€ million
Refund liabilities	22	65	87
Trade account payables	1,306	(65)	1,241

Change in presentation of rebates granted to customers in fiscal 2019

	Jan. 01, 2019 pre-change	Change in presentation	Jan. 01, 2019 post-change	Dec. 31, 2019 pre-change	Change in presentation	Dec. 31, 2019 post-change
	€ million	€ million	€ million	€ million	€ million	€ million
Refund liabilities	33	101	134	30	76	106
Trade account payables	1,637	(101)	1,536	1,507	(76)	1,431

4.2 Change in presentation of trade working capital

Covestro modified its definition of trade working capital as of December 31, 2020. Contract assets, contract liabilities, and refund liabilities are considered current items resulting from the ordinary course of business and were therefore added to Covestro's definition of trade working capital. The prior-year figures were restated accordingly pursuant to IAS 1.41.

The following tables illustrate the effects of the change in presentation of trade working capital:

Change in presentation of trade working capital in fiscal 2020

	Dec. 31, 2020 pre-change	Change in presentation	Dec. 31, 2020 post-change
	€ million	€ million	€ million
Inventories	1,663	–	1,663
Trade accounts receivable	1,593	–	1,593
Trade accounts payable	(1,306)	65	(1,241)
Contract assets		43	43
Contract liabilities		(22)	(22)
Refund liabilities		(87)	(87)
Trade working capital	**1,950**	**(1)**	**1,949**

Change in presentation of trade working capital in fiscal 2019

	Jan. 01, 2019 pre-change	Change in presentation	Jan. 01, 2019 post-change	Dec. 31, 2019 pre-change	Change in presentation	Dec. 31, 2019 post-change
	€ million	€ million	€ million	€ million	€ million	€ million
Inventories	2,213	–	2,213	1,916	–	1,916
Trade accounts receivable	1,786	–	1,786	1,561	–	1,561
Trade accounts payable	(1,637)	101	(1,536)	(1,507)	76	(1,431)
Contract assets		52	52		43	43
Contract liabilities		(28)	(28)		(18)	(18)
Refund liabilities		(134)	(134)		(106)	(106)
Trade working capital	**2,362**	**(9)**	**2,353**	**1,970**	**(5)**	**1,965**

5. Effects of the Coronavirus Pandemic on Financial Reporting

Business performance in the year 2020 as a whole was heavily influenced by the coronavirus pandemic. During this period, Covestro saw sales decline sharply due to a lower level of selling prices and total volumes sold. Whereas the APAC region's sales had dropped considerably in the first quarter of 2020, sales in the EMLA and NAFTA regions did not begin their steep decline until the second quarter of 2020. In contrast, the slowdown in sales in the APAC region, particularly China, was much less severe than in the other regions in the second quarter of 2020. Starting in the third quarter of 2020, a strong recovery took shape in all regions, particularly APAC and EMLA. These two regions closed out the fourth quarter of 2020 with significant sales growth, mainly due to a higher level of selling prices and a positive effect stemming from total volumes sold. The NAFTA region saw sales drop considerably in the fourth quarter of 2020. This development was attributable to exchange rate and price effects, whereas total volumes sold rose slightly.

The significant declines in sales in fiscal 2020 affected all reportable segments, largely on account of a lower level of selling prices and total volumes sold. The change in total volumes sold resulted from weaker demand in all main customer industries.

Additional disclosures on the effects of the coronavirus pandemic and the countermeasures taken by Covestro are presented in the Group Management Report.

See "Report on Economic Position" in the Group Management Report.

In view of the aforementioned changes in the business environment, preparation of the consolidated financial statements required Covestro to make assumptions and estimates to a certain extent that affected the measurement of reported assets and liabilities, as well as income and expenses, and that could deviate from the actual results in individual cases. Such estimates, assumptions and the exercise of discretion related primarily to the following areas:

- Impairment testing of non-financial assets, particularly goodwill;
- Assessment of the probability that deferred tax assets can be utilized in the future;
- Calculation of impairment losses on trade accounts receivable.

The method applied and effects of global impairment testing as of December 31, 2020, are outlined in the corresponding note:

See note 3 "Accounting policies and valuation principles."

The probability that deferred tax assets resulting from temporary differences, tax credits or loss carryforwards can be utilized in the future is the subject of forecasts by the individual companies regarding the future earnings situation in the respective Covestro companies and other parameters. These forecasts have been updated to reflect the effects of the coronavirus pandemic and did not result in any impairment losses on deferred tax assets in the current financial statements.

The level of default risk associated with the Covestro Group's trade accounts receivable depends mainly on the creditworthiness of our customers. The coronavirus pandemic heightened industry risk (equivalent to the default risk relating to the companies in a particular industry), because demand, and subsequently sales revenues, in certain industries declined sharply. This can directly affect the creditworthiness of customers in these industries. In order to appropriately reflect the increased default risk when measuring trade accounts receivable, industry risk was additionally considered when assessing the creditworthiness of customers. The expected losses in trade accounts receivable therefore increased by €3 million.

See note 26.2 "Financial risk management and information on derivatives."

In addition, attention is drawn to the following accounting issue associated with the coronavirus pandemic:

Covestro received public subsidies abroad in accordance with IAS 20 (Accounting for Government Grants and Disclosure of Government Assistance) for managing sales losses resulting from the coronavirus pandemic. These subsidies related mainly to a reduction in personnel costs and amounted to €8 million in fiscal 2020.

6. Segment and Regional Reporting

The Board of Management of Covestro AG, as the chief operating decision maker of the Covestro Group, allocates resources to the operating segments and assesses their performance. The reportable segments and regions are identified, and the disclosures selected, in line with the internal financial reporting system (management approach). These are based on the same accounting policies as described for the Covestro Group.
See note 3 "Accounting policies and valuation principles."

As of December 31, 2020, the Covestro Group comprises three reportable segments with the following activities:

Polyurethanes
The Polyurethanes segment develops, produces and markets high-quality precursors for polyurethanes. These precursors are toluene diisocyanate (TDI), diphenylmethane diisocyanate (MDI) and polyether polyol. Flexible polyurethane foam based on TDI is used primarily in the furniture and automotive industries (e.g., in upholstered furniture, mattresses and car seats). Rigid foam based on MDI is used mainly in the construction industry as an insulating material as well as along the entire refrigeration chain. The segment operates production facilities worldwide for formulating and supplying customized polyurethane systems.

Polycarbonates
The Polycarbonates segment develops, produces and markets the high-performance plastic polycarbonate in the form of granules, composite materials and semifinished products. The material is used primarily in the automotive industry (e.g., in the passenger compartment and for vehicle lighting) and in the construction industry (e.g., for roof structures). It is also used in the electrical and electronics industry (e.g., for connector housings and laptop cases), the medical technology sector, and the lighting industry (e.g., for LED components). The Covestro Group produces polycarbonate all around the world and processes it at compounding centers to meet specific customer requirements.

Coatings, Adhesives, Specialties
The Coatings, Adhesives, Specialties segment develops, produces and markets precursors for coatings, adhesives and sealants as well as specialties. They include polymer materials and aqueous dispersions mainly based on the isocyanates hexamethylene diisocyanate (HDI) and isophorone diisocyanate (IPDI), which are produced at facilities located throughout the world. The main areas of application are automotive and transportation, infrastructure and construction, wood processing, and furniture. The specialties comprise specialty elastomers, high-quality films and precursors for the cosmetics, textiles, and health care sectors.

Business activities that cannot be allocated to any of the aforementioned segments are reported under **"All other segments."** The external sales from these activities are generated mainly from by-products of chlorine production and use.

The costs of Corporate Center functions and higher or lower expenses for long-term stock-based compensation arising from fluctuations in the performance of Covestro AG stock are presented in the segment reporting as **"Corporate Center and reconciliation."**

The segment data is calculated as follows:

- 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.
- EBIT and EBITDA are not defined in the International Financial Reporting Standards. EBIT is equal to income after income taxes plus financial result and income taxes. EBITDA is the EBIT as reported in the income statement plus depreciation and impairment losses on property, plant, and equipment and amortization and impairment losses on intangible assets, less impairment loss reversals.
- Free operating cash flow is the operating cash flows less cash outflows for additions to property, plant, and equipment and intangible assets. As a component of operating cash flows, income taxes paid are not directly attributed to any particular unit of the company. For purposes of calculating operating cash flows, the income taxes paid of a reportable segment are determined according to the management approach by multiplying the effective tax rate (ETR) expected for the fiscal year by that segment's EBIT.
- Trade working capital comprises inventories, trade accounts receivable, and contract assets, less trade accounts payable, contract liabilities, and refund liabilities.

The following tables show the segment reporting data:

Key data by segment

				Other/Consolidation		
	Polyurethanes	Polycarbonates	Coatings, Adhesives, Specialties	All other segments	Corporate Center and reconciliation	Covestro Group
	€ million	€ million	€ million	€ million	€ million	€ million
2020						
Sales	5,021	2,985	2,039	661	–	10,706
Core volume growth[1]	–6.1%	–3.0%	–8.9%			–5.6%
EBITDA	625	553	341	22	(69)	1,472
EBIT	197	332	215	21	(69)	696
Free operating cash flow	14	327	189	57	(57)	530
Cash outflows for additions to property, plant and equipment and intangible assets	409	157	138	–	–	704
Depreciation, amortization and impairment losses	(428)	(221)	(126)	(1)	–	(776)
of which impairment losses	(14)	(2)	(4)	–	–	(20)
of which impairment loss reversals	–	–	–	–	–	–
Research and development expenses	(91)	(78)	(92)	(1)	–	(262)
2019						
Sales	5,779	3,473	2,369	791	–	12,412
Core volume growth[1]	+2.3%	+2.7%	–1.0%			+2.0%
EBITDA	648	536	469	13	(62)	1,604
EBIT	250	300	352	12	(62)	852
Free operating cash flow	32	404	191	(87)	(67)	473
Cash outflows for additions to property, plant and equipment and intangible assets	543	209	158	–	–	910
Depreciation, amortization and impairment losses	(398)	(236)	(117)	(1)	–	(752)
of which impairment losses	(5)	(22)	(1)	–	–	(28)
of which impairment loss reversals	–	1	–	–	–	1
Research and development expenses	(94)	(81)	(95)	3	1	(266)

[1] Reference values calculated based on the definition of the core business effective March 31, 2020. Not an IFRS KPI, reported voluntarily.

* Not an IFRS KPI, reported voluntarily

Working capital by segment

	Dec. 31, 2019[1]	Dec. 31, 2020
	€ million	€ million
Polyurethanes	839	900
Polycarbonates	580	550
Coatings, Adhesives, Specialties	483	444
Total of reportable segments	**1,902**	**1,894**
All other segments	73	66
Corporate Center and reconciliation	(10)	(11)
Trade working capital	**1,965**	**1,949**
of which inventories	1,916	1,663
of which trade accounts receivable	1,561	1,593
of which trade accounts payable	(1,431)	(1,241)
of which IFRS 15 items[2]	(81)	(66)

[1] Reference information was restated accordingly, see note 4 "Change in presentation of rebates granted to customers and trade working capital."
[2] The item includes contract assets, contract liabilities, and refund liabilities.

Information by geographical areas

The following table shows information by geographical area. The EMLA region consists of Europe, the Middle East, Africa, and Latin America except Mexico, which together with the United States and Canada forms the NAFTA region. The APAC region includes Asia and the Pacific region.

Regional reporting[1]

	EMLA	NAFTA	APAC	Total
	€ million	€ million	€ million	€ million
2020				
Sales (external) by market	4,600	2,554	3,552	10,706
Sales (external) by point of origin	4,554	2,613	3,539	10,706
2019				
Sales (external) by market	5,289	3,141	3,982	12,412
Sales (external) by point of origin	5,239	3,209	3,964	12,412

[1] No further presentation of interregional sales is provided, as these are neither reported separately to, nor do they influence the EBIT and EBITDA reported to the Board of Management of Covestro AG.

The following table provides a breakdown by countries of external sales by market and of property, plant and equipment as well as intangible assets:

Sales (external) by market and property, plant and equipment and intangible assets by country

	Sales (external) by market	Property, plant and equipment and intangible assets
	€ million	€ million
2020		
Germany	1,342	1,925
United States	2,128	1,129
China	2,250	1,355
Other	4,986	1,130
Total	**10,706**	**5,539**
2019		
Germany	1,557	1,834
United States	2,604	1,298
China	2,456	1,429
Other	5,795	1,103
Total	**12,412**	**5,664**

Information on major customers

Revenues from transactions with a single customer in no case exceeded 10% of Covestro Group sales in fiscal 2020 or the previous year.

Reconciliation

The following table shows the reconciliation of EBITDA of the segments to income before income taxes of the Group:

Reconciliation of segments' EBITDA to group income before income taxes

	2019	2020
	€ million	€ million
EBITDA of reportable segments	1,653	1,519
EBITDA of all other segments	13	22
EBITDA of Corporate Center and reconciliation	(62)	(69)
EBITDA	**1,604**	**1,472**
Depreciation, amortization, impairment losses and impairment loss reversals of reportable segments	(751)	(775)
Depreciation, amortization, impairment losses and impairment loss reversals of all other segments	(1)	(1)
Depreciation, amortization, impairment losses and impairment loss reversals	**(752)**	**(776)**
EBIT of reportable segments	902	744
EBIT of all other segments	12	21
EBIT of Corporate Center and reconciliation	(62)	(69)
EBIT	**852**	**696**
Financial result	(91)	(91)
Income before income taxes	**761**	**605**

7. Changes in the Scope of Consolidation

7.1 Scope of consolidation and investments

As of December 31, 2020, the scope of consolidation comprised Covestro AG and 47 (previous year: 47) consolidated companies.

Effective January 1, 2020, Asellion B.V., Amsterdam (Netherlands), was included in the consolidated financial statements for the first time as a result of growth in business activities. Previously, the company had been classified as an immaterial subsidiary. Asellion B.V. provides a digital platform for online direct sales where manufacturers, suppliers and service providers can do business in a flexible, secure and private environment.

Covestro (Tielt) NV, Tielt (Belgium), and Covestro S.p.A., Milan (Italy), were deconsolidated in the course of the sale of the European polycarbonate sheets business to Munich-based Serafin Group concluded on January 2, 2020.

Effective June 1, 2020, Covestro International Re, Inc., Colchester, Vermont (United States), was included in the consolidated financial statements as a fully consolidated company. This is Covestro's own insurance company, which received a license from the state of Vermont to act as a reinsurer for the external primary insurer and to provide coverage for certain insurance risks to which the Covestro Group is exposed.

The Covestro Group holds 100% of the voting rights in the fully consolidated subsidiary Pearl Covestro Polyurethane Systems L.L.C, Dubai (United Arab Emirates), pursuant to a contractual agreement with the noncontrolling shareholders.

As in the previous year, the scope of consolidation as of December 31, 2020, included the joint operation LyondellBasell Covestro Manufacturing Maasvlakte V.O.F, Rotterdam (Netherlands). Pursuant to IFRS 11 (Joint Arrangements), Covestro's shares of this company's assets, liabilities, revenues and expenses are included in the consolidated financial statements in accordance with Covestro's rights and obligations. The main purpose of LyondellBasell Covestro Manufacturing Maasvlakte V.O.F is the joint production of propylene oxide (PO) for Covestro and its partner LyondellBasell.

Additionally, two associated companies (previous year: two) are accounted for in the consolidated financial statements using the equity method.

Nine (previous year: seven) subsidiaries and two (previous year: two) associated companies that in aggregate are immaterial to the Covestro Group's net assets, financial position and results of operations are not consolidated but recognized at cost. The immaterial subsidiaries each accounted for no more than 0.1% of Group sales, equity or total assets.

The consolidated financial statements of Covestro are submitted to the operator of the Federal Gazette (Bundesanzeiger).

Fully consolidated companies

Company name	Place of business	Covestro's interest in %
EMLA		
Pearl Covestro Polyurethane Systems FZCO	Dubai (United Arab Emirates)	51
Pearl Covestro Polyurethane Systems L.L.C	Dubai (United Arab Emirates)	49[1]
Asellion B.V.	Amsterdam (Netherlands)	100
Covestro (France) SNC	Fos-sur-Mer (France)	100
Covestro (Slovakia) Services s.r.o.	Bratislava (Slovakia)	100
Covestro Brunsbüttel Energie GmbH	Brunsbüttel (Germany)	100
Covestro Deutschland AG	Leverkusen (Germany)	100
Covestro Elastomers SAS	Romans-sur-Isère (France)	100
Covestro First Real Estate GmbH	Leverkusen (Germany)	100
Covestro GmbH	Leverkusen (Germany)	100
Covestro Indústria e Comércio de Polímeros Ltda.	São Paulo (Brazil)	100
Covestro Intellectual Property GmbH & Co. KG	Leverkusen (Germany)	100
Covestro International SA	Fribourg (Switzerland)	100
Covestro NV	Antwerp (Belgium)	100
Covestro Polyurethanes B.V.	Nieuwegein (Netherlands)	100
Covestro Procurement Services GmbH & Co. KG	Leverkusen (Germany)	100
Covestro S.r.l.	Filago (Italy)	100
Covestro Second Real Estate GmbH	Leverkusen (Germany)	100
Covestro Thermoplast Composite GmbH	Markt Bibart (Germany)	100
Covestro UK Limited	Cheadle Hulme (United Kingdom)	100
Covestro, S.L.	La Canonja (Spain)	100
Epurex Films GmbH & Co. KG	Walsrode (Germany)	100
MS Global AG	Köniz (Switzerland)	100
MS Holding B.V.	Nieuwegein (Netherlands)	100
NAFTA		
Covestro International Re, Inc.	Colchester, Vermont (United States)	100
Covestro International Trade Services Corp.	Wilmington, Delaware (United States)	100
Covestro LLC	Pittsburgh, Pennsylvania (United States)	100
Covestro PO LLC	Pittsburgh, Pennsylvania (United States)	100
Covestro S.A. de C.V.	Mexico City (Mexico)	100
APAC		
Covestro (Hong Kong) Limited	Hong Kong (China)	100
Covestro (India) Private Limited	Thane (India)	100
Covestro (Shanghai) Investment Company Limited	Shanghai (China)	100
Covestro (Taiwan) Ltd.	Kaohsiung City (Taiwan)	95.5
Covestro (Thailand) Co., Ltd.	Bangkok (Thailand)	100
Covestro (Viet Nam) Company Limited	Ho Chi Minh City (Vietnam)	100
Covestro Far East (Hong Kong) Limited	Hong Kong (China)	100
Covestro Japan Ltd.	Tokyo (Japan)	100
Covestro Korea Corporation	Seoul (South Korea)	100
Covestro Polymers (China) Co., Ltd.	Shanghai (China)	100
Covestro Polymers (Qingdao) Co., Ltd.	Qingdao (China)	100
Covestro Polymers (Shenzhen) Co., Ltd.	Shenzhen (China)	100
Covestro Pty Ltd	Mulgrave (Australia)	100
DIC Covestro Polymer Ltd.	Tokyo (Japan)	80
Guangzhou Covestro Polymers Co., Ltd.	Guangzhou (China)	100
PT Covestro Polymers Indonesia	Jakarta (Indonesia)	99.9
Sumika Covestro Urethane Company, Ltd.	Amagasaki (Japan)	60

[1] Fully consolidated subsidiary pursuant to IFRS 10.B39

In addition, the following joint operation was included in the consolidated financial statements in line with Covestro's shares of its assets, liabilities, revenues and expenses:

Joint operation

Company name	Place of business	Covestro's interest in %
LyondellBasell Covestro Manufacturing Maasvlakte V.O.F	Rotterdam (Netherlands)	50

The following associated companies are accounted for in the consolidated financial statements using the equity method:

Associates accounted for using the equity method

Company name	Place of business	Covestro's interest in %
Paltough Industries (1998) Ltd.	Kibbuz Ramat Yochanan (Israel)	25
PO JV, LP	Wilmington, Delaware (United States)	39.4

The following subsidiaries were reflected in the consolidated financial statements at amortized cost due to their immateriality:

Immaterial subsidiaries

Company name	Place of business	Covestro's interest in %
Asellion (Shanghai) Information Technology Co.,Ltd.	Shanghai (China)	100
Covestro Intellectual Property Verwaltungs GmbH	Leverkusen (Germany)	100
Covestro Middle East FZ-LLC	Dubai (United Arab Emirates)	100
Covestro Polímer Anoním Şírketí	Istanbul (Turkey)	100
Covestro Polymers (Tianjin) Co., Ltd.	Tianjin (China)	100
Covestro Procurement Services Verwaltungs GmbH	Leverkusen (Germany)	100
Covestro sp. z o.o.	Warsaw (Poland)	100
Epurex Films Geschäftsführungs-GmbH	Walsrode (Germany)	100
OOO Covestro	Moscow (Russia)	100

The following associated companies are accounted for in the consolidated financial statements at cost due to their immateriality:

Immaterial associate

Company name	Place of business	Covestro's interest in %
Pure Salt Baytown LLC	Houston, Texas (United States)	0
Technology JV, L.P.	Wilmington, Delaware (United States)	33.3

The 41.2% investment in Crime Science Technology SAS, Loos (France), is classified as a debt instrument in accordance with IAS 32 (Financial Instruments: Presentation) and is measured at fair value through profit or loss in accordance with IFRS 9 (Financial Instruments).

The following domestic subsidiaries availed themselves in fiscal 2020 of certain exemptions granted under Section 264, Paragraph 3 or Section 264b of the German Commercial Code (HGB) regarding the preparation, auditing and publication of financial statements:

German exempt subsidiaries

Company name	Place of business	Covestro's interest in %
Covestro GmbH	Leverkusen (Germany)	100
Covestro Intellectual Property GmbH & Co. KG	Leverkusen (Germany)	100
Covestro Procurement Services GmbH & Co. KG	Leverkusen (Germany)	100
Epurex Films GmbH & Co. KG	Walsrode (Germany)	100

7.2 Acquisitions and divestitures

Acquisitions

On September 30, 2020, Covestro signed an agreement to acquire the Resins & Functional Materials (RFM) business of Koninklijke DSM N.V., Heerlen (Netherlands). The acquisition of RFM will make Coatings, Adhesives, Specialties into one of the leading suppliers of sustainable coating resins and enable the segment to add clear value for its customers thanks to a more comprehensive and highly innovative product portfolio. In fiscal 2019, the core RFM business generated sales of €1.0 billion and EBITDA of €141 million, based on published company figures in each case. Moreover, the transaction also includes the Additive Manufacturing, Advanced Solar Coatings, and Niaga innovation projects. Covestro and Koninklijke DSM N.V. agreed on a preliminary purchase price of €1.6 billion. Funding for the acquisition was initially secured for Covestro with an acquisition financing agreement featuring a combination of equity and debt instruments and cash generation by Covestro. However, on account of the successful capital increase in October 2020, and the very positive performance of free operating cash flow in the fourth quarter of 2020, Covestro now has sufficient liquidity to pay the full purchase price in cash. The transaction is expected to close in the first quarter of 2021 subject to regulatory approval, including approval under the Merger Regulation and other standard authorizations.

Divestitures

On January 2, 2020, Covestro concluded the sale of the assets and liabilities (disposal group) of the European polycarbonate sheets business, belonging to the Polycarbonates segment, to the Serafin Group, Munich (Germany). Polycarbonate sheets are extremely strong and are used primarily in the areas of industrial protection, construction systems and for advertising applications. The European polycarbonate sheets business comprises production sites in Belgium and Italy as well as central management and distribution functions in Europe. Within the scope of the sale, net liabilities totaling €2 million were transferred to the buyer and net payments amounting to €3 million were made by Covestro to Serafin. The loss on the disposal of this business totaling €1 million was recognized in other operating result.

In the fourth quarter of 2020, Covestro decided to sell the assets and liabilities (disposal group) of the systems house business in the Middle East to the current co-shareholder Pearl Industries Overseas Ltd., Dubai (United Arab Emirates). The sale of this systems house business is the next step in Covestro's portfolio streamlining process, which has already led to divestment of the only systems house business in North America in April 2017 and the system house business in Europe in November 2019. The systems house business belongs to the Polyurethanes segment and produces customer-specific polyurethane systems, primarily for the construction industry. The transaction is structured as a share deal. The expected sale price is lower than the value of the net assets to be sold, for which impairment losses were recognized. The impairment led to losses totaling €16 million reported in the cost of production, selling expenses, and general administration expenses. In connection with this divestiture, current assets amounting to €19 million and liabilities of €10 million were classified as “held for sale” in accordance with IFRS 5 (Non-current Assets Held for Sale and Discontinued Operations). The transaction is expected to close in the first half of 2021 subject to regulatory approval.

Notes to the Income Statement

8. Sales

Net sales are categorized according to “geographical regions and key countries” and mainly comprise sales from contracts with customers and an insignificant amount of rental and leasing sales. The table also contains a breakdown of sales by reportable segments.

Disaggregation of sales

				Other/Consolidation		
	Polyurethanes	Polycarbonates	Coatings, Adhesives, Specialties	All other segments	Corporate Center and reconciliation	Covestro Group
	€ million	€ million	€ million	€ million	€ million	€ million
2020						
EMLA	2,189	942	908	561	–	4,600
of which Germany	405	198	394	345	–	1,342
NAFTA	1,389	610	469	86	–	2,554
of which United States	1,108	508	428	84	–	2,128
APAC	1,443	1,433	662	14	–	3,552
of which China	899	998	349	4	–	2,250
2019						
EMLA	2,487	1,146	1,052	604	–	5,289
of which Germany	471	271	448	367	–	1,557
NAFTA	1,680	734	562	165	–	3,141
of which United States	1,336	597	507	164	–	2,604
APAC	1,612	1,593	755	22	–	3,982
of which China	997	1,076	378	5	–	2,456

The following table presents the opening and closing balances of trade accounts receivable, contract assets, and contract liabilities:

Contract balances

	Jan. 1, 2019	Dec. 31, 2019	Dec. 31, 2020
	€ million	€ million	€ million
Trade accounts receivable	1,786	1,561	1,593
Contract assets	52	43	43
Contract liabilities	28	18	22

Contract assets are recognized in case the right to consideration in exchange for goods or services that have been transferred to a customer is conditional. This occurs primarily in the event of goods delivered to consignment warehouses of external customers. Where sales are made through consignment warehouses, customers primarily obtain control over the delivered goods upon delivery to the consignment warehouse. Contract assets are recognized as receivables upon invoicing.

Contract liabilities are recognized for advance payments received from customers prior to transferring goods or services. These contract liabilities are recognized as sales when the goods or services have been transferred.

Sales from performance obligations satisfied (or partially satisfied) in previous periods and recognized in fiscal 2020 amounted to €2 million (previous year: €5 million).

The changes in contract assets and contract liabilities in the reporting period resulted from the following circumstances:

Reconciliation of contract assets

	2019	2020
	€ million	€ million
Transfers from contract assets recognized at the beginning of the period to trade accounts receivable	(51)	(40)
Increases due to performance obligations fulfilled but not billed at the reporting date	39	43
Catch-up adjustments to revenue that affect the corresponding contract asset	3	(3)
Total	**(9)**	**–**

Reconciliation of contract liabilities

	2019	2020
	€ million	€ million
Revenue recognized that was included in the contract liability balance at the beginning of the period	(28)	(18)
Increases due to cash received, excluding amounts recognized as revenue during the period	18	22
Catch-up adjustments to revenue that affect the corresponding contract liability	–	–
Total	**(10)**	**4**

The following table provides the transaction price allocated to the remaining performance obligations as of the balance sheet date. The total amount is divided according to the reporting period when it is expected to be recognized:

Transaction price allocated to the remaining performance obligations

	Dec. 31, 2019		Dec. 31, 2020
	€ million		€ million
2020	448	2021	648
2021	386	2022	633
2022	426	2023	465
2023	283	2024	323
2024	182	2025	102
2025 or later	83	2026 or later	155
Total	**1,808**	**Total**	**2,326**

The disclosures on the transaction price allocated to the remaining performance obligations is based on long-term supply contracts according to IFRS 15 (Revenue from Contract with Customers) which stipulate minimum volumes to be purchased as agreed between both parties.

Performance obligations from contracts with an original expected term of twelve months or less are excluded. Similarly, the disclosure of the transaction price excludes performance obligations satisfied over time for which Covestro has the right to consideration in an amount that corresponds directly with the value to the customer of the performance completed to date and for which Covestro may recognize revenue in the amount to which Covestro has the right to invoice.

The transaction price only includes variable consideration arising from contracts with customers, like sales- or volume-based rebates or price formulas, for which the prices are derived from external, market based indices, to the extent that they are not constrained as defined in IFRS 15.

9. Other Operating Income

Other operating income was comprised as shown in the following table:

Other operating income

	2019	2020
	€ million	€ million
Gains on retirements of noncurrent assets	6	3
Gains from derivatives	2	2
Reversals of impairment losses on receivables	7	4
Reversals of unutilized provisions	2	–
Miscellaneous operating income	164	54
Total	**181**	**63**

Gains from derivatives in fiscal years 2019 and 2020 resulted from embedded derivatives.

Miscellaneous operating income in the reporting period mainly included insurance reimbursements of €21 million (previous year: €63 million) and insurance premiums of €13 million received by Covestro International Re, Inc., Colchester (USA).

See note 7.1 “Scope of consolidation and investments“ for further information regarding Covestro International Re, Inc.

10. Other Operating Expenses

Other operating expenses were comprised as shown in the following table:

Other operating expenses

	2019	2020
	€ million	€ million
Losses on retirements of noncurrent assets	(7)	(12)
Impairment losses on receivables	(7)	(7)
Losses from derivatives	(5)	(3)
Miscellaneous operating expenses	(46)	(77)
Total	**(65)**	**(99)**

The losses from derivatives resulted from embedded derivatives in fiscal 2020. In fiscal 2019, the losses resulted from embedded derivatives as well as currency hedging transactions.

Miscellaneous operating expenses in fiscal 2020 largely comprised nonrecurring expenses of €32 million in connection with the planned acquisition of the Resins & Functional Materials (RFM) business from Koninklijke DSM N.V., Heerlen (Netherlands), and insurance expenses of €20 million (previous year: €13 million).

See note 7.2 “Acquisitions and divestitures.“

11. Personnel Expenses and Employee Numbers

Personnel expenses in fiscal 2020 were comprised as shown in the following table:

Personnel expenses

	2019	2020
	€ million	€ million
Salaries	(1,388)	(1,341)
Social expenses and expenses for pensions and other benefits	(374)	(382)
of which for defined contribution pension plans	(96)	(95)
of which for defined benefit and other pension plans	(107)	(122)
Total	**(1,762)**	**(1,723)**

Personnel expenses decreased in fiscal 2020 primarily due to the lower headcount, a decline in expenses associated with the Perspective efficiency program, and lower expenses for short-term variable compensation under the Group-wide Covestro Profit Sharing Plan (Covestro PSP).

See "Compensation Report" in the Group Management Report for further information on the components of Covestro PSP.

Average number of employees

	2019	2020
Production	10,955	10,885
Marketing and distribution	3,438	3,181
Research and development	1,210	1,213
General administration	1,539	1,457
Total	**17,142**	**16,736**
Employees in vocational training	515	514

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. The figures do not include employees in vocational training.

The joint venture LyondellBasell Covestro Manufacturing Maasvlakte V.O.F, Rotterdam (Netherlands), had an average of 178 employees in the 2020 reporting year.

12. Financial Result

12.1 Result from investments in affiliated companies

The result from investments in affiliated companies comprised mainly the loss of €20 million (previous year: loss of €23 million) from PO JV, LP, Wilmington, Delaware (USA), an associate accounted for using the equity method, and the gain of €7 million from Paltough Industries (1998) Ltd., Kibbuz Ramat Yochanan (Israel), accounted for using the equity method (previous year: gain of €1 million). In addition, this item includes €1 million (previous year: €2 million) in dividend income from other investments.

See note 17 "Investments accounted for using the equity method."

12.2 Net interest expense

Net interest expense was comprised as shown in the following table:

Net interest expense

	2019	2020
	€ million	€ million
Expenses		
Interest and similar expenses	(48)	(50)
Interest expenses for FX derivatives	(37)	(23)
Income		
Interest and similar income	7	6
Interest income from FX derivatives	33	20
Total	**(45)**	**(47)**

Interest and similar expenses primarily resulted from interest expenses from leases totaling €28 million (previous year: €33 million) and bonds issued by Covestro AG totaling €20 million (previous year: €14 million). Interest expense and interest income from forward exchange contracts included interest rate-induced fair value changes and the forward element.

12.3 Other financial result

The other financial result was comprised as shown in the following table:

Other financial result

	2019	2020
	€ million	€ million
Interest portion of interest-bearing provisions	(27)	(19)
Exchange gain	5	3
Miscellaneous financial expenses	(4)	(16)
Total	**(26)**	**(32)**

The interest portion of interest-bearing provisions mainly comprised €24 million (previous year: €31 million) in interest expense for pension and other post-employment benefit provisions plus €5 million in effects of interest income (previous year: €4 million) from interest rate fluctuations for other provisions and corresponding overfunding in fiscal 2020.

Miscellaneous financial expenses included losses from the decline in the fair values of money market funds and a contingent purchase price receivable (€4 million), expenses from the early termination of the syndicated credit facility (€2 million), expenses for financing the purchase price associated with the announced acquisition of the Resins & Functional Materials (RFM) business of Koninklijke DSM N.V., Heerlen (Netherlands), (€2 million), and negative interest income from money market funds (€2 million).

13. Taxes

The breakdown of tax expenses by type is shown in the table below:

Income taxes

	2019	2020
	€ million	€ million
Current taxes	(126)	(199)
of which tax expense current year	(174)	(199)
of which tax expense prior years	48	–
Deferred taxes	(78)	48
of which from temporary differences	(82)	14
of which from tax loss carryforwards and tax credits	4	34
Total	**(204)**	**(151)**

The deferred tax assets and liabilities were allocated to the items in the statements of financial position as shown in the table below:

Deferred tax assets and liabilities

	Dec. 31, 2019			Dec. 31, 2020		
	Deferred tax assets	Deferred tax liabilities	of which recognized in profit or loss	Deferred tax assets	Deferred tax liabilities	of which recognized in profit or loss
	€ million	€ million	€ million	€ million	€ million	€ million
Intangible assets	38	(15)	23	27	(13)	14
Property, plant and equipment[1]	129	(318)	(188)	119	(258)	(139)
Financial assets	1	(75)	(73)	1	(43)	(42)
Inventories	42	(1)	41	41	(1)	40
Receivables	17	(5)	12	6	(24)	(18)
Provisions for pensions and other post-employment benefits	632	(23)	(12)	710	(16)	24
Other provisions	39	(18)	22	62	(19)	43
Liabilities[1]	195	(1)	194	116	(3)	113
Tax loss carryforwards	8	–	8	41	–	41
Total	**1,101**	**(456)**	**25**	**1,123**	**(377)**	**76**
of which noncurrent	1,002	(415)		1,060	(345)	
Offsetting	(250)	250		(198)	198	
Recognition	**851**	**(206)**		**925**	**(179)**	

[1] The figures include right-of-use assets and lease liabilities from application of IFRS 16.

Of the total tax loss carryforwards of €277 million (previous year: €42 million), an amount of €277 million (previous year: €42 million) is expected to be usable within a foreseeable period. The increase in loss carryforwards was mainly due to the growth of tax loss carryforwards in the reporting year and tax reassessments for prior years. Deferred tax assets of €41 million (previous year: €8 million) were recognized for the amount of loss carryforwards expected to be usable.

As in the previous year, no use of tax loss carryforwards was subject to legal or economic restrictions with regard to its usability.

No material tax credits were recorded in either the reporting year or the prior year.

In fiscal 2020, subsidiaries that reported losses for the reporting year or the previous year recognized net deferred tax assets totaling €719 million (previous year: €627 million) from temporary differences and tax loss carryforwards, of which €39 million (previous year: €5 million) were recognized from tax loss carryforwards. All of the deferred tax assets were considered to be unimpaired because the companies concerned were expected to generate taxable income sufficient to utilize them. The planning anticipates stable, positive business performance in future business cycles.

In the reporting year, deferred tax liabilities of €8 million (previous year: €31 million) were recognized for planned dividend distributions by subsidiaries. No deferred tax liabilities were recognized for temporary differences of €88 million (previous year: €48 million) relating to shares in subsidiaries, as the parent company can control the timing of the reversal of the temporary differences, and it is unlikely that these temporary differences will reverse in the foreseeable future.

The reported tax expense of €151 million (previous year: €204 million) for fiscal 2020 was €25 million higher (previous year: €15 million) than the expected tax expense of €126 million (previous year: €189 million) that would have resulted from applying an expected weighted average tax rate to the pre-tax income of the Covestro Group. This average tax rate was derived from the expected tax rates of the individual Group companies and amounted to 20.8% in fiscal 2020 (previous year: 24.8%). The effective tax rate was 25.0% (previous year: 26.8%).

The Covestro Group operates in various countries. The tax rates range from 13.9% to 34% (previous year: 9.2% to 34.4%) due to national regulations.

The reconciliation of expected to actual income tax expense and of the expected to the effective tax rate for the Covestro Group is shown in the following table:

Reconciliation of expected to actual income tax expense

	2019		2020	
	€ million	%	€ million	%
Expected income tax expense and expected tax rate	**189**	**+24.8**	**126**	**+20.8**
Reduction in taxes due to tax-free income	(33)	–4.3	(12)	–2.0
Increase in taxes due to non-tax-deductible expenses	47	+6.1	19	+3.2
Tax income (–) and expenses (+) relating to other periods	(19)	–2.5	(1)	–0.2
Tax effects of change in tax rates	5	+0.7	–	–
Other tax effects	15	+2.0	19	+3.2
Actual income tax expense and effective tax rate	**204**	**+26.8**	**151**	**+25.0**

14. Earnings per Share

Earnings per share are calculated according to IAS 33 (Earnings per Share) as the relationship of the Group's income after income taxes (net income) for the fiscal year to the weighted average number of outstanding no-par voting shares of Covestro AG. A total of 10,200,000 new, no-par value bearer shares were issued by way of a resolution dated October 13, 2020. In fiscal 2020, a weighted average number of outstanding no-par voting shares of 184,912,207 was used to calculate earnings per share, while in fiscal 2019, these shares amounted to 182,728,724.

Earnings per share

	2019	2020
	€ million	€ million
Income after income taxes	557	454
of which attributable to noncontrolling interest	5	– 5
of which attributable to Covestro AG stockholders (net income)	552	459
	Shares	Shares
Weighted average number of outstanding no-par voting shares of Covestro AG	182,728,724	184,912,207
	€	€
Basic earnings per share	3.02	2.48
Diluted earnings per share	3.02	2.48

Notes to the Statement of Financial Position

15. Goodwill and Other Intangible Assets

Changes in intangible assets in fiscal 2020

	Acquired goodwill	Patents and technologies	Marketing and distribution rights	Production rights	Software	Other rights	Advance payments	Total
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Cost of acquisition or generation, December 31, 2019	**265**	**28**	**92**	**90**	**156**	**205**	**36**	**872**
Acquisitions	–	–	–	–	–	–	–	–
Capital expenditures	–	–	–	–	2	1	14	17
Retirements	–	–	–	–	(4)	(2)	–	(6)
Transfers	–	–	(48)	48	16	–	(16)	–
Transfers (IFRS 5)	–	–	(4)	(4)	–	–	–	(8)
Exchange differences	(8)	–	–	(2)	–	(1)	–	(11)
Cost of acquisition or generation, December 31, 2020	**257**	**28**	**40**	**132**	**170**	**203**	**34**	**864**
Accumulated amortization, impairment losses and impairment loss reversals, December 31, 2020	2	14	33	130	150	171	–	500
Carrying amounts, December 31, 2020	**255**	**14**	**7**	**2**	**20**	**32**	**34**	**364**
Amortization and impairment losses in fiscal 2020	1	1	6	2	7	5	–	22
Amortization	–	1	6	2	7	5	–	21
Impairment losses	1	–	–	–	–	–	–	1
Impairment loss reversals in fiscal 2020	–	–	–	–	–	–	–	–

The impairment losses amounted to €1 million in the reporting year (previous year: €1 million) and related to goodwill previously recognized on a pro rata basis for the systems house business in the Middle East held for sale in the Polyurethanes reportable segment. No reversals of impairment losses were recognized either in the reporting period or in the reference period.

See note 7.2 "Acquisitions and divestitures."

The impairment testing procedure for goodwill and other intangible assets is explained under "Procedure used in global impairment testing and its impact."

See note 3 "Accounting policies and valuation principles."

Changes in intangible assets in fiscal 2019

	Acquired goodwill	Patents and technologies	Marketing and distribution rights	Production rights	Software	Other rights	Advance payments	Total
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Cost of acquisition or generation, December 31, 2018	**256**	**28**	**105**	**97**	**157**	**176**	**15**	**834**
Acquisitions	10	–	–	–	–	29	–	39
Capital expenditures	–	–	–	–	2	1	23	26
Retirements	–	–	–	–	(2)	–	–	(2)
Transfers	–	–	1	–	1	–	(2)	–
Transfers (IFRS 5)	(3)	–	(14)	(8)	(4)	–	–	(29)
Exchange differences	2	–	–	1	2	(1)	–	4
Cost of acquisition or generation, December 31, 2019	**265**	**28**	**92**	**90**	**156**	**205**	**36**	**872**
Accumulated amortization, impairment losses and impairment loss reversals, December 31, 2019	1	14	78	86	147	168	–	494
Carrying amounts, December 31, 2019	**264**	**14**	**14**	**4**	**9**	**37**	**36**	**378**
Amortization and impairment losses in fiscal 2019	1	1	7	2	5	4	–	20
Amortization	–	1	7	2	5	4	–	19
Impairment losses	1	–	–	–	–	–	–	1
Impairment loss reversals in fiscal 2019	–	–	–	–	–	–	–	–

Goodwill that is of material significance for the Covestro Group was allocated to the following cash-generating units at the end of the reporting period:

Material goodwill by cash-generating unit

	Cash-generating unit	Dec. 31, 2019	Dec. 31, 2020
Reporting segment		€ million	€ million
Polyurethanes (PUR)	MDI	60	56
Polyurethanes (PUR)	PET	22	21
Polycarbonates (PCS)	PCS	121	119
Coatings, Adhesives, Specialties (CAS)	ALI	25	25
Coatings, Adhesives, Specialties (CAS)	PRD	10	10
Coatings, Adhesives, Specialties (CAS)	TPU	17	16

16. Property, Plant and Equipment

Changes in property, plant and equipment in fiscal 2020

	Land and buildings	Plant installations and machinery	Furniture, fixtures and other equipment	Construction in progress and advance payments	Total
	€ million	€ million	€ million	€ million	€ million
Cost of acquisition or construction, December 31, 2019	**3,427**	**11,856**	**766**	**1,188**	**17,237**
Changes in scope of consolidation	–	–	–	–	–
Acquisitions	–	–	–	–	–
Capital expenditures	105	199	90	451	845
Retirements	(41)	(115)	(71)	(1)	(228)
Transfers	127	637	15	(779)	–
Transfers (IFRS 5)	(12)	(3)	(1)	–	(16)
Exchange differences	(107)	(390)	(30)	(15)	(542)
Cost of acquisition or construction, December 31, 2020	**3,499**	**12,184**	**769**	**844**	**17,296**
Accumulated depreciation, impairment losses and impairment loss reversals, December 31, 2020	2,101	9,519	500	1	12,121
Carrying amounts, December 31, 2020	**1,398**	**2,665**	**269**	**843**	**5,175**
Depreciation and impairment losses in fiscal 2020	163	507	82	2	754
Depreciation	150	504	81	–	735
Impairment losses	13	3	1	2	19
Impairment loss reversals in fiscal 2020	–	–	–	–	–

In the fourth quarter of 2020, Covestro completed construction of the new Group headquarters in Leverkusen. The construction in progress and advance payments item totaling €76 million was therefore reclassified as land and buildings.

No impairment losses were reversed for property, plant, and equipment in the reporting year (previous year: €1 million).

Borrowing costs of €8 million were capitalized in property, plant, and equipment in the reporting year as part of the cost of qualifying assets (previous year: €6 million). The capitalization rate applied amounted to 2.1% on average (previous year: 1.4%).

Changes in property, plant and equipment in fiscal 2019

	Land and buildings	Plant installations and machinery	Furniture, fixtures and other equipment	Construction in progress and advance payments	Total
	€ million	€ million	€ million	€ million	€ million
Cost of acquisition or construction, December 31, 2018	**3,098**	**11,486**	**533**	**850**	**15,967**
Changes in scope of consolidation	–	(73)	–	–	(73)
Initial application IFRS 16	268	154	238	–	660
Acquisitions	5	7	1	2	15
Capital expenditures	63	165	56	698	982
Retirements	(46)	(253)	(75)	–	(374)
Transfers	28	321	17	(366)	–
Transfers (IFRS 5)	(39)	(81)	(11)	(1)	(132)
Exchange differences	50	130	7	5	192
Cost of acquisition or construction, December 31, 2019	**3,427**	**11,856**	**766**	**1,188**	**17,237**
Accumulated depreciation, impairment losses and impairment loss reversals, December 31, 2019	2,026	9,425	500	–	11,951
Carrying amounts, December 31, 2019	**1,401**	**2,431**	**266**	**1,188**	**5,286**
Depreciation and impairment losses in fiscal 2019	149	499	84	1	733
Depreciation	138	485	83	–	706
Impairment losses	11	14	1	1	27
Impairment loss reversals in fiscal 2019	–	(1)	–	–	(1)

16.1 Leasing

Covestro as lessee

The reported right-of-use assets from leases are recorded under property, plant and equipment.

The following table shows the changes in carrying amounts of right-of-use assets from January 1, 2020, to December 31, 2020.

Changes in right-of-use assets in fiscal 2020

	Land and buildings	Plant installations and machinery	Furniture, fixtures and other equipment	Total
	€ million	€ million	€ million	€ million
Carrying amounts, January 1, 2020	**329**	**250**	**178**	**757**
Additions	31	57	67	155
Retirements	(19)	(3)	(5)	(27)
Depreciation and impairment losses	(63)	(52)	(46)	(161)
Other changes	(11)	(11)	(13)	(35)
Carrying amounts, December 31, 2020	**267**	**241**	**181**	**689**

Right-of-use assets relate mainly to leases for production and logistics infrastructure and real estate leases. Leases for production and logistics infrastructure are mainly related to the rental of tanks and containers as well as rail cars. For tanks and containers, the average lease term is 15 years and for rail cars, 12 years. Leases for renting real estate, particularly buildings, are for an average lease term of 10 years. Some of the underlying leases include variable lease payments as well as options to extend or terminate the lease.

See note 3 "Accounting policies and valuation principles."

The following table shows the amounts for all leases shown in the statement of cash flows and income statement:

Expenses and cash outflows for leases

	2019	2020
	€ million	€ million
Amounts reported in the statement of cash flows		
Total cash outflow for leases	196	196
Amounts reported in the income statement		
Depreciation and impairment losses	157	161
Interest expense	33	28
Expenses relating to short-term leases	16	11
Expenses relating to leases of low-value assets	3	3
Expenses relating to variable lease payments not included in the lease liability	1	2

The lease commitments for current leases not recognized on the balance sheet amount to €3 million (previous year: €2 million).

Further information on the lease liabilities arising from leases and details on payments from leases are described in the following notes:

Note 24 "Financing and financial liabilities."

Note 29 "Notes to the statement of cash flows."

Covestro as lessor

In the reporting year, leasing income generated from lease contracts under IFRS 16 (Leases) was €14 million (previous year: €12 million). These are mainly related to real estate. In addition, lease payments from rentals of €7 million (previous year: €8 million) are expected to be received in the following year, not including the investment property as outlined below. Lease payments totaling €7 million are expected to be received in 2022–2025, and lease payments totaling €4 million after the year 2025.

At Covestro, risks from renting real estate are usually limited by building insurance policies and by the contractual obligation of the renter to return the real estate to its original condition. In addition, price adjustments based mainly on the consumer price index mechanisms are contractually agreed.

16.2 Investment property

Internal valuations are used as the primary basis for determining the fair values of investment property. The income approach is used for buildings and developed sites, and the market comparison approach is used for undeveloped sites.

The total carrying amount of investment property as of December 31, 2020, amounted to €24 million (previous year: €31 million), and its fair value totaled €210 million (previous year: €211 million). The rental income from investment property was €17 million (previous year: €17 million) and the operating expenses directly allocable to this property amounted to €14 million (previous year: €14 million). In the reporting period and in the previous year, there were no operating expenses recognized for investment property not generating any rental income.

Rental income generated from the leasing of properties classified as investment properties stemmed in part from contracts for hereditary building rights and leases granted by the Covestro Group. These contracts with a weighted average remaining term of 35 years relate to space used by companies and contractual partners in the chemical industry at production sites in Germany. Based on current rental prices, around €5 million in compensation will be received annually from these long-term contracts for the use of this space in the coming years.

17. Investments Accounted for Using the Equity Method

The two following tables contain summarized data from the income statement and statement of financial position of the associate PO JV, LP, Wilmington, Delaware (United States), which is accounted for using the equity method, and show the respective amounts recognized in the financial statements of the Covestro Group.

See note 7.1 “Scope of consolidation and investments” for an overview of the companies accounted for using the equity method.

In year 2000, the polyols business and parts of the propylene oxide (PO) production operations of former Lyondell Chemicals Company, Houston, Texas (USA), were acquired with the objective of ensuring access to patented technologies and safeguarding the long-term supply of PO, a precursor for polyurethanes. As part of this strategy, a company was established to jointly produce PO (PO JV, LP, in which Covestro continues to hold a 39.4% interest). Covestro benefits from fixed long-term supply quotas/volumes of PO from this company’s production.

Income statement data of PO JV, LP, Wilmington, Delaware (United States)

	2019	2020
	€ million	€ million
Sales	1,413	1,231
Net loss after taxes	(59)	(59)
Share of net loss after taxes	(23)	(20)
Share of total comprehensive loss after taxes	**(23)**	**(20)**

Data from the statements of financial position of PO JV, LP, Wilmington, Delaware (United States)

	Dec. 31, 2019	Dec. 31, 2020
	€ million	€ million
Noncurrent assets	436	358
Equity	436	358
Share of equity	**185**	**157**
Other	(15)	(12)
Carrying amount	**170**	**145**

The item “Other” mainly comprised differences arising from adjustments of data to Covestro’s uniform accounting policies, purchase price allocations and their subsequent measurement.

The following table contains the income statement data and the carrying amount of the other associates accounted for using the equity method:

Income statement data and carrying amounts of other investments accounted for using the equity method

	2019	2020
	€ million	€ million
Income after taxes	5	29
Share of income after taxes	1	7
Share of total comprehensive income after taxes	**1**	**7**
Carrying amount	**22**	**28**

18. Other Financial Assets

The other financial assets were comprised as follows:

Other financial assets

	Dec. 31, 2019		Dec. 31, 2020	
	Total	Of which current	Total	Of which current
	€ million	€ million	€ million	€ million
Money market funds	–	–	771	771
Loans and bank deposits	16	11	365	360
Other investments	13	–	14	–
Receivables from derivatives	22	16	18	13
Receivables under lease agreements	8	–	8	–
Total	**59**	**27**	**1,176**	**1,144**

Receivables from derivatives included €13 million (previous year: €15 million) in forward exchange contracts and €5 million (previous year: €7 million) in embedded derivatives.

See note 26.2 "Financial risk management and information on derivatives."

See note 26.1 "Financial instruments by category" for further information regarding money market funds, loans and bank deposits and other investments.

Receivables under lease agreements relate to finance leases where Covestro is the lessor and the economic owner of the leased assets is the contractual partner. Receivables under lease agreements are based on expected lease payments of €33 million (previous year: €34 million) including an interest component of €25 million (previous year: €26 million). In the reporting period, interest income for finance leases of €1 million (previous year: €1 million) was recognized. Of the expected lease payments, €1 million is due within one year (previous year: €1 million), €3 million is due within the following four years (previous year: €3 million) and €29 million is due in subsequent years (previous year: €30 million).

19. Inventories

Inventories were comprised as follows:

Inventories

	Dec. 31, 2019	Dec. 31, 2020
	€ million	€ million
Raw materials and supplies	592	537
Work in process, finished goods and goods purchased for resale[1]	1,323	1,123
Advance payments	1	3
Total	**1,916**	**1,663**

[1] In fiscal 2020, work in process comprises approximately 19% (previous year: approximately 19%).

In fiscal 2020, impairment losses on inventories of €24 million (previous year: €32 million) and reversals of impairment losses of €6 million (previous year: €9 million) were recognized through profit or loss in cost of goods sold.

20. Other Receivables

The other receivables were comprised as follows:

Other receivables

	Dec. 31, 2019		Dec. 31, 2020	
	Total	**Of which current**	**Total**	**Of which current**
	€ million	€ million	€ million	€ million
Other tax receivables	197	175	108	104
Deferred charges	75	70	81	75
Contract Assets	43	43	43	43
Reimbursement claims	–	–	2	2
Net defined benefit asset	2	–	2	–
Receivables from employees	9	9	6	6
Receivables from divestments	17	3	11	–
Miscellaneous receivables	68	59	107	65
Total	**411**	**359**	**360**	**295**

The miscellaneous receivables included an advance payment in the amount of €4 million (previous year: €7 million), which is offset against monthly purchases. Other receivables included €31 million (previous year: €41 million) in financial receivables. The impairment losses calculated for financial receivables as of the reporting date are immaterial.

See note 8 "Sales" for further information on contract assets.

21. Equity

The individual components of equity and changes in equity in fiscal years 2019 and 2020 are presented in the Covestro Group consolidated statement of changes in equity.

Capital stock

The capital stock of Covestro AG changed as follows in fiscal 2020:

Change in capital stock

	Number of shares	of which treasury shares	Shares carrying dividend rights	Capital stock
	number	number	number	€ million
Dec. 31, 2019	**183,000,000**	**(135,315)**	**182,864,685**	**183**
Capital increase	10,200,000		10,200,000	10
Issuance of treasury shares		95,859	95,859	–
Dec. 31, 2020	**193,200,000**	**(39,456)**	**193,160,544**	**193**

The Covestro AG's capital stock as of December 31, 2020, is divided into 193,200,000 (previous year: 183,000,000) no-par value bearer shares and is fully paid up. Each share confers the right to one vote.

On October 13, 2020, the Board of Management, with the approval of the Supervisory Board, partially utilized the Authorized Capital 2020 created by resolution of the Annual General Meeting (AGM) on July 30, 2020, to increase the company's capital stock by €10.2 million by issuing 10,200,000 new, no-par value bearer shares with a proportionate interest in the capital stock of €1.00 each against cash contributions, while disapplying the subscription rights of shareholders.

Treasury shares

Covestro AG issued 95,859 (previous year: 160,083) treasury shares to employees of the German legal entities under the Covestment stock participation program. As of December 31, 2020, the company held 39,456 (previous year: 135,315) treasury shares. This corresponds to 0.02% (previous year: 0.07%) of the capital stock.

The cost of the treasury shares held by Covestro AG at the end of the fiscal year was €2 million. This was based on a price of €49.22 per share. They are valued using the FIFO method.

Authorized and conditional capital

The authorized capital and conditional capital as of December 31, 2020, were comprised as follows:

Authorized and conditional capital

	€ million	Purpose[1]
Authorized capital 2020	73.2	Increase in capital stock against cash contributions and/or contributions in kind (by July 29, 2025)
Conditional capital 2020	2,000	Issue of warrants or conversion rights (by July 29, 2025)

[1] Requires in each case Supervisory Board approval.

After partial use of the authorized capital 2020, this amounted to €63 million as of December 31, 2020.

On July 30, 2020, the AGM additionally authorized the Board of Management to issue bonds with conversion or exchange rights or warrants, or with conversion obligations, or a combination of these instruments on up to 18,300,000 no-par value bearer shares of Covestro AG. Based on this authorization, convertible/warrant bonds can be issued up to a total nominal value of €2 billion by the company or a Group company in the period up to July 29, 2025. The 2020 AGM also resolved to conditionally increase the capital stock by up to €18.3 million by issuing up to 18,300,000 no-par value bearer shares to grant shares to the holders or creditors of such convertible/warrant bonds (Conditional Capital 2020).

Conditional capital has not been used to date.

Capital reserves

Covestro AG's capital reserves as of December 31, 2020, amounted to €3,925 million (previous year: €3,487 million). The increase is attributable to the capital increase and the issuance of treasury shares under the Covestment program. The capital increase amounted to €434 million after the costs of raising equity were deducted.

Dividend

The dividend available for distribution is based on the distributable profit reported in the annual financial statements of Covestro AG, which were prepared according to the provisions of the German Commercial Code (HGB). The dividend proposed for fiscal 2020 amounts to €1.30 per share carrying dividend rights for a total distribution of €251 million based on the number of shares carrying dividend rights as of December 31, 2020, and depends on authorization by the shareholders at the Annual General Meeting. It is therefore not recognized as a liability in the consolidated financial statements. For fiscal 2019, a dividend of €1.20 per share carrying dividend rights was paid in August 2020.

Equity attributable to noncontrolling interest

The equity attributable to noncontrolling interest mainly relates to the equity of Pearl Covestro Polyurethane Systems FZCO, Dubai (United Arab Emirates), Sumika Covestro Urethane Company, Ltd., Amagasaki (Japan), DIC Covestro Polymer Ltd., Tokyo (Japan), and Covestro (Taiwan) Ltd., Kaohsiung City (Taiwan).

The changes in equity attributable to noncontrolling interest are presented in the following table:

Components of noncontrolling interest in equity

	2019	2020
	€ million	€ million
January 1	**33**	**47**
Change in equity not recognized in profit or loss		
Exchange differences on translation of operations outside the eurozone	1	(3)
Other changes in equity	11	–
Dividend payments	(3)	(2)
Change in equity recognized in profit or loss	**5**	**(5)**
December 31	**47**	**37**

Accumulated other comprehensive income

Accumulated other comprehensive income were comprised as follows:

Accumulated other comprehensive income

	Currency translation	Accumulated other comprehensive income
	€ million	€ million
Jan. 1, 2019	**323**	**323**
Other comprehensive income	92	92
Total comprehensive income	92	92
Dec. 31, 2019	**415**	**415**
Other comprehensive income	(206)	(206)
Total comprehensive income	(206)	(206)
Dec. 31, 2020	**209**	**209**

22. Provisions for Pensions and Other Post-employment Benefits

Provisions for pensions and other post-employment benefits were recognized for defined benefit obligations.

See note 11 "Personnel expenses and employee numbers" for the expenses for defined contribution obligations.

The net defined benefit liability for post-employment benefit plans was accounted for as follows:

Net defined benefit liability reflected in the statement of financial position

	Pensions		Other post-employment benefits		Total	
	Dec. 31, 2019	Dec. 31, 2020	Dec. 31, 2019	Dec. 31, 2020	Dec. 31, 2019	Dec. 31, 2020
	€ million	€ million	€ million	€ million	€ million	€ million
Provisions for pensions and other post-employment benefits	**1,818**	**1,977**	**147**	**146**	**1,965**	**2,123**
Germany	1,699	1,862	–	–	1,699	1,862
Other countries	119	115	147	146	266	261
Net defined benefit asset	**2**	**2**	**–**	**–**	**2**	**2**
Germany	2	2	–	–	2	2
Other countries	–	–	–	–	–	–
Net defined benefit liability	**1,816**	**1,975**	**147**	**146**	**1,963**	**2,121**
Germany	1,697	1,860	–	–	1,697	1,860
Other countries	119	115	147	146	266	261

The expenses for defined benefit plans and for other post-employment benefits included the components described as follows:

Expenses for defined benefit plans

	Pension plans						Other post-employment benefit plans	
	Germany		Other countries		Total		Other countries	
	2019	2020	2019	2020	2019	2020	2019	2020
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Current service cost	83	97	15	11	98	108	2	2
Past service cost	16	12	–	–	16	12	–	–
Plan settlements	–	–	(9)	–	(9)	–	–	–
Service cost	**99**	**109**	**6**	**11**	**105**	**120**	**2**	**2**
Interest expense from defined benefit obligation	61	41	24	15	85	56	5	4
Interest income from plan assets	(40)	(24)	(20)	(12)	(60)	(36)	–	–
Net interest	**21**	**17**	**4**	**3**	**25**	**20**	**5**	**4**
Total expenses	**120**	**126**	**10**	**14**	**130**	**140**	**7**	**6**

In fiscal 2020, a total of €130 million (previous year: €439 million) in effects of remeasurements of the net defined benefit liability was also recognized in other comprehensive income. Of this amount, €119 million (previous year: €427 million) relates to pension obligations and €11 million (previous year: €12 million) to other post-employment benefit obligations.

The changes in the net defined benefit liability for post-employment benefit plans were as follows:

Changes in defined benefit obligation

	2019			2020		
	Germany	Other countries	Total	Germany	Other countries	Total
	€ million	€ million	€ million	€ million	€ million	€ million
January 1	**3,390**	**825**	**4,215**	**4,154**	**790**	**4,944**
Divestment	(4)	–	(4)	(3)	(3)	(6)
Current service cost	83	17	100	97	13	110
Past service cost	16	–	16	12	–	12
(Gains)/losses from plan settlements	–	(9)	(9)	–	–	–
Net interest	61	30	91	41	19	60
Net actuarial (gain)/loss	647	85	732	225	69	294
of which due to change in financial assumptions	644	92	736	223	64	287
of which due to change in demographic assumptions	–	(4)	(4)	–	(4)	(4)
of which due to experience adjustments	3	(3)	–	2	9	11
Employee contributions	9	1	10	10	1	11
Payments due to plan settlements[1,2]	–	(123)	(123)	8	(8)	–
Benefits paid out of plan assets[2]	(21)	(44)	(65)	(28)	(41)	(69)
Benefits paid by the company	(27)	(10)	(37)	(29)	(17)	(46)
Exchange differences	–	18	18	–	(52)	(52)
December 31	**4,154**	**790**	**4,944**	**4,487**	**771**	**5,258**
of which other post-employment benefits	–	148	148	–	147	147

[1] Payments due to plan settlements may include transfers from and to other companies in the course of employee transfers for which benefits are granted as part of a multi-employer plan managed as a pension plan by the transferring and receiving company.
[2] Previous year adjusted due to a plan settlement in the United States

Changes in fair value of plan assets

	2019			2020		
	Germany	Other countries	Total	Germany	Other countries	Total
	€ million	€ million	€ million	€ million	€ million	€ million
January 1	**2,202**	**571**	**2,773**	**2,457**	**526**	**2,983**
Divestment	–	–	–	(1)	(3)	(4)
Net interest	40	20	60	24	12	36
Return or (expense) on plan assets excluding amounts recognized as interest result	210	83	293	116	47	163
Employer contributions	17	9	26	43	10	53
Employee contributions	9	1	10	10	1	11
Payments due to plan settlements[1,2]	–	(123)	(123)	6	(7)	(1)
Benefits paid out of plan assets[2]	(21)	(44)	(65)	(28)	(41)	(69)
Exchange differences	–	9	9	–	(35)	(35)
December 31	**2,457**	**526**	**2,983**	**2,627**	**510**	**3,137**
of which other post-employment benefits	–	1	1	–	1	1

[1] Payments due to plan settlements may include transfers from and to other companies in the course of employee transfers for which benefits are granted as part of a multi-employer plan managed as a pension plan by the transferring and receiving company.
[2] Previous year adjusted due to a plan settlement in the United States

Effects of the asset ceiling

	2019			2020		
	Germany	Other countries	Total	Germany	Other countries	Total
	€ million	€ million	€ million	€ million	€ million	€ million
January 1	**–**	**2**	**2**	**–**	**2**	**2**
Remeasurement of asset ceiling	–	–	–	–	(1)	(1)
Exchange differences	–	–	–	–	(1)	(1)
December 31	**–**	**2**	**2**	**–**	**–**	**–**
of which other post-employment benefits	–	–	–	–	–	–

Development of the net defined benefit liability

	2019			2020		
	Germany	Other countries	Total	Germany	Other countries	Total
	€ million	€ million	€ million	€ million	€ million	€ million
January 1	**1,188**	**256**	**1,444**	**1,697**	**266**	**1,963**
Divestment	(4)	–	(4)	(2)	–	(2)
Current service cost	83	17	100	97	13	110
Past service cost	16	–	16	12	–	12
(Gains) / losses from plan settlements	–	(9)	(9)	–	–	–
Net interest	21	10	31	17	7	24
Net actuarial (gain) / loss	647	85	732	225	69	294
(Return) or expense on plan assets excluding amounts recognized as interest result	(210)	(83)	(293)	(116)	(47)	(163)
Remeasurement of asset ceiling	–	–	–	–	(1)	(1)
Employer contributions	(17)	(9)	(26)	(43)	(10)	(53)
Employee contributions	–	–	–	–	–	–
Payments due to plan settlements[1]	–	–	–	2	(1)	1
Benefits paid out of plan assets	–	–	–	–	–	–
Benefits paid by the company	(27)	(10)	(37)	(29)	(17)	(46)
Plan administration cost paid out of plan assets	–	–	–	–	–	–
Exchange differences	–	9	9	–	(18)	(18)
December 31	**1,697**	**266**	**1,963**	**1,860**	**261**	**2,121**
of which other post-employment benefits	–	147	147	–	146	146

[1] Payments due to plan settlements may include transfers from and to other companies in the course of employee transfers for which benefits are granted as part of a multi-employer plan managed as a pension plan by the transferring and receiving company.

The benefit obligations pertained mainly to Germany (85%; previous year: 84%) and the United States (11%; previous year: 12%). In Germany, current employees accounted for about 61% (previous year: 63%) of entitlements under defined benefit plans, retirees or their surviving dependents for about 31% (previous year: 29%), and former employees with vested pension rights for about 8% (previous year: 8%). In the United States, current employees accounted for about 40% (previous year: 40%) of entitlements under defined benefit plans, retirees or their surviving dependents for about 53% (previous year: 53%), and former employees with vested pension rights for about 7% (previous year: 7%).

The actual income from assets of defined benefit plans for pensions or other post-employment benefits amounted to €199 million (previous year: €353 million) and €0 million (previous year: €0 million), respectively.

A third-party consulting firm began calculating the discount rate for pension obligations in the euro area using a standard methodology as of the first quarter of 2020. Adjusted for the change in calculation procedure, the discount rate would have amounted to 0.50% for Germany as of December 31, 2020. Measurement using the original discount rate would have resulted in a pension obligation €203 million higher as of December 31, 2020. The net interest for the coming reporting year will be €3 million higher than if the discount rate had been calculated using the original methodology.

The following table shows the defined benefit obligations for pensions and other post-employment benefits along with the funded status of the funded obligations:

Defined benefit obligation and funded status

	Pension obligations		Other post-employment benefit obligations		Total	
	2019	2020	2019	2020	2019	2020
	€ million	€ million	€ million	€ million	€ million	€ million
Defined benefit obligation	**4,796**	**5,111**	**148**	**147**	**4,944**	**5,258**
Unfunded[1]	90	94	145	144	235	238
Funded[1]	4,706	5,017	3	3	4,709	5,020
Funded status of funded obligations						
Overfunding	4	2	–	–	4	2
Underfunding[1]	1,728	1,883	2	2	1,730	1,885

[1] Previous year adjusted for other post-employment benefit obligations in the United States

Pension entitlements and other post-employment benefit obligations

The Covestro Group provides retirement benefits for most of its employees, either directly or by contributing to privately or publicly administered funds. The way these benefits are provided varies according to the legal, tax and economic conditions of each country, the benefits generally being based on employee compensation and years of service. The obligations relate both to existing retirees' pensions and to pension entitlements of future retirees.

Funded pension plans exist for employees in various countries. In principle, an individual investment strategy is determined for each of the Covestro Group's defined benefit pension plans taking into account the risk structure of the obligations (especially demographics, the current funded status, the structure of the expected future cash flows, interest sensitivity, biometric risks, etc.), the regulatory environment and the existing level of risk tolerance or risk capacity. A strategic target investment portfolio is then developed in line with the plan's risk structure, taking capital market factors into consideration. Further determinants are risk diversification, portfolio efficiency and the need for both a country-specific and a global risk/return profile centered on ensuring the payment of all future benefits. In principle, as the capital investment strategy for each pension plan is developed individually in light of the plan-specific conditions listed above, the investment strategies for different pension plans may vary considerably. The investment strategies are generally aligned less toward maximizing absolute returns and more toward the reasonable assurance of financing pension commitments over the long term. For plan assets, stress scenarios are simulated and other risk analyses (such as value at risk) are undertaken with the aid of risk management systems.

Bayer-Pensionskasse VVaG, Leverkusen (Germany), (Bayer-Pensionskasse), is the most significant of the pension plans for Covestro. It has been closed to new members since January 1, 2005. This legally independent fund is regarded as a life insurance company and is therefore subject to the German Insurance Supervision Act. The benefit obligations covered by Bayer-Pensionskasse comprise retirement, surviving dependents' and disability pensions. It is financed with contributions by the active members and by their employers. The company contribution is a certain percentage of the employee contribution. This percentage is the same for all participating employers and is set by agreement between the plan's executive committee and supervisory board, acting on a proposal from the responsible actuary. It takes into account the differences between the actuarial estimates and the actual values for the factors used to determine liabilities and contributions. Bayer AG, Leverkusen (Germany), (Bayer AG), may adjust the company contribution in agreement with the plan's executive committee and supervisory board, acting on a proposal from the responsible actuary. The plan's liability is governed by Section 1, Paragraph 1, Sentence 3 of the German Law on the Improvement of Occupational Pensions (BetrAVG). This means that if the pension plan exercises its right under the articles of association to reduce benefits, each participating employer has to make up the resulting difference. Covestro is not liable for the obligations of other participating employers, even if they cease to participate in the plan.

Pension entitlements for people hired in Germany on or after January 1, 2005, are granted via Rheinische Pensionskasse VVaG, Leverkusen (Germany), (Rheinische Pensionskasse). Future pension payments from this plan are based among other things on contributions and the return on plan assets; a guaranteed interest rate applies.

The Bayer-Pensionskasse and Rheinische Pensionskasse pension obligations are classified as multi-employer plans as defined by IAS 19 (Employee Benefits). A defining characteristic of multi-employer plans is that assets from various employers not under common control are pooled at plan level and used to collectively grant pension benefits to employees. Allocation mechanisms that would permit an exact distribution of the plan assets managed by the pension plan to individual employers often do not exist, as in the case of Bayer-Pensionskasse and Rheinische Pensionskasse. Covestro therefore applies an estimation method that is adequately suited to this purpose to calculate its proportional share of the assets of the pension plans.

Another important pension provision vehicle is Metzler Trust e.V., Frankfurt am Main (Germany), (Metzler Trust). This vehicle covers further retirement provision arrangements for German employees of the Covestro Group, such as the conversion of salary entitlements into pension entitlements, pension obligations and components of other direct commitments.

The defined benefit pension plans in the U.S. have been frozen for some years, and no significant new entitlements can be earned under these plans. The assets of all the United States pension plans are held by a master trust for reasons of efficiency. The applicable regulatory framework is based on the Employee Retirement Income Security Act (ERISA). In particular, these stipulate a statutory 80% minimum funding requirement to avoid benefit restrictions. The actuarial risks, such as investment risk, interest rate risk and longevity risk, remain with the company.

The risk management concept aligned with the benefit obligations (asset-liability matching) is regularly revised for the German direct commitments as well as the U.S. defined benefit pension plan. First, the actuarial obligations were analyzed and updated. On this basis, statistical methods are applied to this information to determine investment strategies that would ensure a suitable risk-return profile. The factors considered here are expected returns for the various asset classes and anticipated balance sheet volatility. A new investment strategy for German direct commitments was defined in fiscal 2019 and further implemented in the reporting year. The changes in the investment strategy were subsequently carried out by third-party asset managers. Environmental social governance (ESG) criteria were given consideration for around 50 % of the investment volume. In the year under review, the investment strategy for the U.S. defined benefit pension plan remained unchanged.

The other post-employment benefit obligations outside Germany are mainly related to retirees’ health care benefit payments in the United States.

The fair value of the plan assets to fund pensions and other post-employment benefit obligations was as follows:

Fair value of plan assets as of December 31

	Pension obligations				Other post-employment obligations	
	Germany		Other countries		Other countries	
	2019	2020	2019	2020	2019	2020
	€ million	€ million	€ million	€ million	€ million	€ million
Plan assets based on quoted prices in active markets						
Real estate and special real estate funds	–	–	7	6	–	–
Equities and equity funds	526	556	57	52	–	–
Callable debt instruments	–	–	8	9	–	–
Noncallable debt instruments	725	782	74	72	–	–
Bond funds	408	415	245	233	–	–
Derivatives	2	1	–	–	–	–
Cash and cash equivalents	80	154	10	8	–	–
Other	–	–	10	9	–	–
	1,741	**1,908**	**411**	**389**	**–**	**–**
Plan assets for which quoted prices in active markets are not available						
Real estate and special real estate funds	120	145	–	–	–	–
Equities and equity funds	25	29	–	–	–	–
Callable debt instruments	238	199	–	–	–	–
Noncallable debt instruments	314	331	–	–	–	–
Bond funds	–	–	–	–	–	–
Derivatives	–	–	–	–	–	–
Cash and cash equivalents	–	–	–	–	–	–
Other	19	15	114	120	1	1
	716	**719**	**114**	**120**	**1**	**1**
Total plan assets	**2,457**	**2,627**	**525**	**509**	**1**	**1**

No properties leased by Group companies were included in the fair value of the domestic plan assets. Likewise there were no Covestro shares or bonds held through funds. The other plan assets comprise mortgage loans granted, other receivables and qualified insurance policies.

Risks

The risks from defined benefit plans arise partly from the defined benefit obligations and partly from the investment in plan assets. The risks lie in the possibility that higher direct pension payments will have to be made to the beneficiaries and/or that additional contributions will have to be made to plan assets in order to meet current and future pension obligations.

Demographic/biometric risks

Since a large proportion of the defined benefit obligations comprises lifelong pensions or surviving dependents' pensions, longer claim periods or earlier claims may result in higher benefit obligations, higher benefit expense and/or higher pension payments than previously anticipated.

Investment risks

If the actual return on plan assets were below the return anticipated on the basis of the discount rate, the net defined benefit liability would increase, assuming there were no changes in other parameters. This could happen as a result of a drop in share prices, increases in market rates of interest, default of individual debtors or the purchase of low-risk but low-interest bonds, for example.

Interest rate risks

Declining capital market interest rates, especially for high-quality corporate bonds, would increase the defined benefit obligation. This effect would be at least proportionately offset by the ensuing increase in the market values of the debt instruments held in plan assets.

Measurement parameters and their sensitivities

The bond portfolio consists exclusively of high-quality corporate bonds with a rating of at least AA or AAA. The portfolio does not include any government-guaranteed or secured bonds. The following weighted parameters were used to measure the pension obligations as of December 31 and the expense for pensions and other post-employment benefits in the respective reporting year.

Parameters for benefit obligations

	Germany		Other countries		Total	
	2019	2020	2019	2020	2019	2020
	%	%	%	%	%	%
Pension obligations						
Discount rate[1]	1.00	0.70	2.52	1.70	1.20	0.80
Projected future salary increases	2.75	2.75	3.08	2.95	2.80	2.75
Projected future benefit increases	1.70	1.60	3.25	2.72	1.90	1.75
Other post-employment benefit obligations						
Discount rate	–	–	3.10	2.30	3.10	2.30

[1] A third-party consulting firm began calculating the discount rate for pension obligations in the euro area using a standard methodology as of the first quarter of 2020. Adjusted for the change in calculation procedure, the discount rate would have amounted to 0.50 % for Germany as of December 31, 2020.

In Germany, the Heubeck 2018 G mortality tables were used, in the United States the MP-2020 Mortality Tables. The parameters for measuring the benefit expense are the same as those used to measure the benefit obligations in the most recent annual financial statements.

The parameter sensitivities were computed by expert actuaries based on a detailed evaluation similar to that performed to determine the net defined benefit liability. Altering individual parameters by 0.5 percentage points (mortality by 10% per beneficiary) while leaving the other parameters unchanged would have impacted pension and other post-employment benefit obligations as of the end of fiscal 2020 as follows:

Sensitivity analysis of benefit obligations

	Germany		Other countries		Total	
	Increase	Decrease	Increase	Decrease	Increase	Decrease
	€ million	€ million	€ million	€ million	€ million	€ million
Pension obligations						
0.5 percentage points change in discount rate	(457)	533	(36)	40	(493)	573
0.5 percentage points change in projected future salary increases	37	(34)	3	(3)	40	(37)
0.5 percentage points change in projected future benefit increases	269	(242)	3	(2)	272	(244)
10% change in mortality	(145)	164	(12)	13	(157)	177
Other post-employment benefit obligations						
0.5 percentage points change in discount rate	–	–	(9)	10	(9)	10
10% change in mortality	–	–	(4)	5	(4)	5

Sensitivity analysis of benefit obligations (previous year)

	Germany		Other countries		Total	
	Increase	Decrease	Increase	Decrease	Increase	Decrease
	€ million	€ million	€ million	€ million	€ million	€ million
Pension obligations						
0.5 percentage points change in discount rate	(423)	493	(36)	40	(459)	533
0.5 percentage points change in projected future salary increases	37	(34)	3	(3)	40	(37)
0.5 percentage points change in projected future benefit increases	251	(226)	3	(2)	254	(228)
10% change in mortality	(131)	148	(12)	13	(143)	161
Other post-employment benefit obligations						
0.5 percentage points change in discount rate	–	–	(9)	10	(9)	10
10% change in mortality	–	–	(4)	4	(4)	4

Provisions are also set up for the obligations, mainly of the U.S. subsidiary, to provide post-employment benefits in the form of health care cost payments to retirees. The valuation of health care costs was based on the assumption that they will increase at a rate of 7% (previous year: 7%), which should gradually decline to 5% (previous year: 5%) by 2032. The following table shows the impact on other post-employment benefit obligations and total benefit expense of a one percentage point change in the assumed cost increase rates:

Sensitivity analysis of health care cost increases

	2019		2020	
	Increase of one percentage point	Decrease of one percentage point	Increase of one percentage point	Decrease of one percentage point
	€ million	€ million	€ million	€ million
Impact on other post-employment benefit obligations	13	(11)	13	(10)

Employer contributions made or expected

The following payments or transfers correspond to the employer contributions made or expected to be made to funded benefit plans:

Employer contributions made or expected

	Germany				Other countries			
	2019	2020 expected	2020	2021 expected	2019	2020 expected	2020	2021 expected
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Pension obligations	17	41	43	38	9	12	8	7
Other post-employment benefit obligations	–	–	–	–	–	–	2	–
Total	**17**	**41**	**43**	**38**	**9**	**12**	**10**	**7**

Pensions and other post-employment benefits payable in the future from funded and unfunded plans are estimated as follows:

Future benefit payments

	Payments out of plan assets				Payments by the Company			
	Pensions		Other post-employment benefits		Pensions		Other post-employment benefits	
	Germany	Other countries	Other countries	Total	Germany	Other countries	Other countries	Total
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
2021	33	32	–	65	38	6	6	50
2022	36	34	–	70	37	5	6	48
2023	39	32	–	71	40	6	6	52
2024	42	39	–	81	43	6	7	56
2025	45	34	–	79	46	8	7	61
2026–2030	276	198	1	475	268	43	37	348

The weighted average term of the pension obligations is 23.3 years (previous year: 22.8 years) in Germany and 12.4 years (previous year: 12.2 years) in other countries. The weighted average term of the obligations for other post-employment benefits in other countries is 12.8 years (previous year: 12.4 years).

23. Other Provisions

Changes in the various provision categories in fiscal 2020 were as follows:

Changes in other provisions

	Taxes	Environ-mental protection	Restruc-turing	Trade-related commit-ments	Litigations	Personnel commit-ments	Miscella-neous	Total
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
December 31, 2019	**9**	**48**	**18**	**14**	**2**	**310**	**32**	**433**
Additions	5	1	47	14	5	208	45	325
Utilization	(10)	(2)	(39)	(15)	(2)	(221)	(28)	(317)
Reversal	(1)	(1)	(24)	(1)	(1)	(29)	(5)	(62)
Reclassifications	–	–	–	–	–	(1)	–	(1)
Interest cost	–	–	–	–	–	3	–	3
Exchange differences	–	(2)	1	–	–	(3)	(4)	(8)
December 31, 2020	**3**	**44**	**3**	**12**	**4**	**267**	**40**	**373**
thereof long-term	–	41	1	–	–	156	20	218

Taxes

Provisions for taxes comprise provisions for other types of taxes amounting to €3 million (previous year: €9 million).

Environmental protection

Provisions for environmental protection mainly relate to the rehabilitation of contaminated land and recultivation of landfills as well as water protection measures at sites in the United States and Spain.

Restructuring

As of December 31, 2020, provisions for restructuring included €2 million (previous year: €17 million) for severance payments. The utilizations related primarily to the completion of the "Perspective" efficiency program, which aimed to improve the cost structures in the medium term and expired at the end of the reporting year.

Personnel commitments

Personnel-related provisions are mainly those recorded for variable one-time, short-term and long-term incentive payments and other personnel-related provisions.

Long-term incentive programs

The long-term incentive programs of the Covestro Group entail commitments offered collectively to different groups of employees. In principle, all obligations from long-term compensation programs are covered by provisions. As of the reporting date, their amount corresponds to the fair value of the entitlement earned of the respective commitments to the employee groups. All resulting valuation adjustments are recognized in profit or loss.

Senior executives and other managerial employees at Covestro are entitled to participate in the stock-based compensation program Prisma. A percentage of the employee's annual base salary – based on his/her position – is defined as a target for variable payments (Prisma target opportunity). The payout is calculated by multiplying the Prisma target opportunity by the total shareholder return (total of Covestro's closing share price* and all of the dividends distributed in the respective performance period divided by the opening share price) and the performance of Covestro stock relative to the STOXX Europe 600 Chemicals benchmark index. The payout is capped at 200% of the Prisma target opportunity. If Covestro's shares were to significantly underperform the STOXX Europe 600 Chemicals index (e.g., if the price of the stock went down while the index increased in value), Prisma target attainment could amount to zero, in which case there would be no payout. The target achievement for the first tranche 2016–2019 amounted to 179.1% and was distributed in the amount of €39 million in January 2020.

* Calculated as the average price for the last 30 days of trading in the relevant performance period

The net expense for all long-term incentive programs amounted to €23 million (previous year: €16 million), of which €3 million (previous year: €5 million) was attributable to the stock participation program Covestment, explained in greater detail in the following section.

The fair value for the stock-based incentive program Prisma recognized in the provision amounted to €35 million as of December 31, 2020 (previous year: €53 million). The fair value was calculated using the Monte Carlo simulation method on the basis of the following key parameters pertaining to the reporting date:

Monte Carlo simulation parameters

	Tranche		
	2018	2019	2020
Risk-free interest rate	–0.57%	–0.56%	–0.55%
Stock price volatility	+42.86%	+38.55%	+37.07%
STOXX Europe 600 Chemicals volatility	+28.64%	+23.52%	+21.20%
Correlation between stock price and STOXX Europe 600 Chemicals	0.79	0.77	0.75

Stock participation program (Covestment)

Under the Covestment program, employees of numerous Group companies could invest a fixed amount of their compensation in Covestro shares in fiscal 2020, which Covestro supplemented through an employer subsidy. The discount granted for fiscal 2020 was generally 20%–30% of the subscription amount and is set every year. The total individual investment amount was capped at €3,600, depending on the Group company and the employee's position. Overall, around 98% of Covestro's global workforce was authorized to participate in Covestment.

Around 239,000 shares were purchased by employees at a weighted average share price of €40.87 under the Covestment program in fiscal 2020. Depending on the Group company, the purchased shares are subject to a vesting period of at least one year from the subscription date.

24. Financing and Financial Liabilities

The €5.0 billion Debt Issuance Program launched in the first quarter of 2016 is a key form of external financing. In fiscal 2016, Covestro placed euro bonds totaling €1.5 billion, of which 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) remain in the portfolio. An additional €1.0 billion in euro bonds was placed on June 5, 2020. The fixed-rate bonds have terms expiring in February 2026 (a coupon of 0.875% and a volume of €500 million) and June 2030 (a coupon of 1.375% and a volume of €500 million). The proceeds of the bond placement serve to further reinforce Covestro's liquidity in view of the economic effects of the coronavirus pandemic and to provide funds to repay the existing bond maturing in fiscal 2021.

Effective March 17, 2020, Covestro obtained a new syndicated revolving credit facility totaling €2.5 billion with a term of five years, including two options for extending the term by one year in each case. An important new feature of the credit line is its link to an ESG (environment, social, governance) rating: The better (worse) the externally calculated ESG score is, the lower (higher) the interest component of the credit facility. The new facility replaced the existing revolving credit line of €1.5 billion and, like it, functions as a backup liquidity reserve. On September 30, 2020, Covestro AG arranged another syndicated credit facility in the original amount of €1.7 billion. This second credit facility was reduced on October 26, 2020, and stood at €1.2 billion as of December 31, 2020. This credit facility was used for bridge financing of the purchase price of the announced acquisition of the Resins & Functional Materials (RFM) business from Koninklijke DSM N.V., Heerlen (Netherlands), and was terminated as of January 29, 2021, thanks to Covestro’s strong liquidity position.

Furthermore, Covestro AG obtained a €225 million loan for research and development from the European Investment Bank (EIB) in March 2020. The focus here is, in particular, on sustainability and the circular economy in the European Union. The term of the EIB loan runs until September 30, 2025.

As of December 31, 2020, the Group had total credit facilities of €3,969 million (previous year: €1,510 million) at its disposal. Of this amount, €227 million (previous year: €10 million) was drawn down while €3,742 million (previous year: €1,500 million) remained unused.

Financial liabilities were comprised as follows:

Financial liabilities

	Dec. 31, 2019		Dec. 31, 2020	
	Total	Of which current	Total	Of which current
	€ million	€ million	€ million	€ million
Bonds	997	–	1,990	500
Liabilities to banks	10	10	227	2
Lease liabilities	735	131	672	111
Liabilities from derivatives	10	10	9	9
Other financial liabilities	–	–	1	–
Total	**1,752**	**151**	**2,899**	**622**

Maturities of financial liabilities

	Dec. 31, 2019		Dec. 31, 2020
Maturity	€ million	Maturity	€ million
2020	151	2021	622
2021	608	2022	115
2022	96	2023	90
2023	83	2024	554
2024	545	2025	268
2025 or later	269	2026 or later	1,250
Total	**1,752**	**Total**	**2,899**

The financial liabilities of the Covestro Group are mainly unsecured.

Lease liabilities

Lease payments of €782 million (previous year: €876 million) are to be made to the respective lessors in future years; of this amount, the interest component amounts to €110 million (previous year: €141 million). The lease liabilities mature as follows:

Lease liabilities

	Dec. 31, 2019				Dec. 31, 2020		
	Lease payments	Interest component	Lease liabilities		Lease payments	Interest component	Lease liabilities
Maturity	€ million	€ million	€ million	Maturity	€ million	€ million	€ million
2020	155	24	131	2021	131	20	111
2021	131	22	109	2022	132	17	115
2022	112	16	96	2023	104	14	90
2023	96	13	83	2024	67	11	56
2024	56	9	47	2025	51	8	43
2025 or later	326	57	269	2026 or later	297	40	257
Total	**876**	**141**	**735**	**Total**	**782**	**110**	**672**

See note 26.2 "Financial risk management and information on derivatives" for further information on the accounting for liabilities from derivatives.

25. Other Liabilities

Other liabilities were comprised as follows:

Other liabilities

	Dec. 31, 2019		Dec. 31, 2020	
	Total	Of which current	Total	Of which current
	€ million	€ million	€ million	€ million
Other tax liabilities	83	83	63	63
Deferred income	1	1	13	13
Grants and subsidies received from governments	11	4	11	2
Liabilities to employees	34	30	25	21
Liabilities for social expenses	11	11	11	11
Accrued interest on liabilities	5	5	12	12
Contract liabilities	18	18	22	22
Refund liabilities[1]	106	106	87	87
Miscellaneous liabilities	30	9	49	31
Total	**299**	**267**	**293**	**262**

[1] Reference information was restated accordingly. See note 4.1 "Change in presentation of rebates granted to customers."

The miscellaneous liabilities included €3 million (previous year:€3 million) in liabilities from derivatives.

See note 8 "Sales" for further information on contract liabilities.

26. Financial Instruments

26.1 Financial instruments by category

The following tables show the carrying amounts and fair values of the individual financial assets and liabilities based on IFRS 9 (Financial Instruments):

Carrying amounts of financial instruments and their fair values as of December 31, 2020

		Measurement according to IFRS 9				
	Carrying amount	Carried at amortized cost	Fair value through other comprehen-sive income	Fair value recognized in profit or loss	Measurment according to IFRS 16	Fair value
	€ million	€ million	€ million	€ million		€ million
Financial assets						
Trade accounts receivable	1,593	1,593	–	–		1,593
Other financial assets	1,176					
Money market funds	771	–	–	771		771
Loans and bank deposits	365	360	–	5		365
Other investments	14		14	–		14
Receivables under lease agreements	8				8	21
Derivatives that do not qualify for hedge accounting	18			18		18
Other receivables[1]	31	25	–	6		31
Cash and cash equivalents	1,404	1,404	–	–		1,404
Financial liabilities						
Financial debt	2,899					
Bonds	1,990	1,990		–		2,107
Lease liabilities	672				672	
Liabilities to banks	227	227		–		234
Other financial liabilities	1	1		–		1
Derivatives that do not qualify for hedge accounting	9			9		9
Trade accounts payable[3]	1,241	1,241		–		1,241
Other liabilities[2]	150					
Derivatives that do not qualify for hedge accounting	3			3		3
Refund liabilities[3]	87	87		–		87
Miscellaneous other liabilities	60	60		–		60

[1] The other receivables recognized in the consolidated statement of financial position also include nonfinancial assets totaling €329 million.
[2] The other liabilities recognized in the consolidated statement of financial position also include nonfinancial liabilities totaling €143 million.
[3] Reference information was restated accordingly, see note 4.1 "Change in presentation of rebates granted to customers."

Carrying amounts of financial instruments and their fair values as of December 31, 2019

		Measurement according to IFRS 9				
	Carrying amount	Carried at amortized cost	Fair value through other comprehen-sive income	Fair value recognized in profit or loss	Measurement according to IFRS 16	Fair value
	€ million	€ million	€ million	€ million		€ million
Financial assets						
Trade accounts receivable	1,561	1,561	–	–		1,561
Other financial assets	59					
Money market funds		–	–	–		–
Loans and bank deposits	16	16	–	–		16
Other investments	13		13	–		13
Receivables under lease agreements	8				8	19
Derivatives that do not qualify for hedge accounting	22			22		22
Other receivables[1]	41	32	–	9		41
Cash and cash equivalents	748	748	–	–		748
Financial liabilities						
Financial debt	1,752					
Bonds	997	997		–		1,045
Lease liabilities	735				735	
Liabilities to banks	10	10		–		10
Other financial liabilities	–	–		–		–
Derivatives that do not qualify for hedge accounting	10			10		10
Trade accounts payable[3]	1,431	1,431		–		1,431
Other liabilities[2]	140					
Derivatives that do not qualify for hedge accounting	3			3		3
Refund liabilities[3]	106	106		–		106
Miscellaneous other liabilities	31	31		–		31

[1] The other receivables recognized in the consolidated statement of financial position also include nonfinancial assets totaling €370 million.
[2] The other liabilities recognized in the consolidated statement of financial position also include nonfinancial liabilities totaling €159 million.
[3] Reference information was restated accordingly, see note 4.1 "Change in presentation of rebates granted to customers."

The fair values of financial instruments are determined and reported in accordance with IFRS 13 (Fair Value Measurement) on the basis of the fair value hierarchy described below:

Level 1 covers fair values determined on the basis of unadjusted prices which exist in active markets.

Level 2 comprises fair values determined on the basis of parameters which are observable in an active market.

Level 3 applies to fair values determined using parameters whose input factors are not based on observable market data.

The following table shows the assignment of the financial instruments to the three-level fair value hierarchy:

Fair value hierarchy of financial instruments

	Fair value Dec. 31, 2019	Level 1	Level 2	Level 3	Fair value Dec. 31, 2020	Level 1	Level 2	Level 3
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Financial assets carried at fair value								
Money market funds	–	–	–	–	771	–	771	–
Loans and bank deposits	–	–	–	–	5	–	–	5
Other investments	13	5	–	8	14	5	–	9
Derivatives that do not qualify for hedge accounting	22	–	15	7	18	–	13	5
Other receivables	9	–	–	9	6	–	–	6
Financial assets not carried at fair value								
Receivables under lease agreements	19	–	–	19	21	–	–	21
Financial liabilities carried at fair value		–	–	–				
Derivatives that do not qualify for hedge accounting	13	–	10	3	12	–	9	3
Financial liabilities not carried at fair value		–	–	–				
Bonds	1,045	1,045	–	–	2,107	2,107	–	–
Liabilities to banks	10	–	10	–	234	–	234	–
Other financial liabilities	–	–	–	–	1	–	1	–

Reallocation between the different levels of the fair value hierarchy takes place at the end of the reporting period in which the change occurred. During the fiscal year, no transfers were made between the levels of the fair value hierarchy.

Because of the generally short maturities of cash and cash equivalents, loans and bank deposits, trade accounts receivable and payable, and other receivables and liabilities, their carrying amounts do not significantly differ from the fair values.

The fair value of the bonds issued by Covestro AG is based on quoted, unadjusted prices in active markets and therefore assigned to Level 1 of the fair value hierarchy. The fair value of some of the other investments is also based on quoted prices in active markets (Level 1).

The fair values stated for noncurrent financial assets and liabilities are the present values of the respective future cash inflows or outflows. These are determined by discounting the cash flows at a reporting-date interest rate that takes into account the term of the assets or liabilities and the creditworthiness of the counterparty. For this reason, these values are assigned to Level 2 of the fair value hierarchy.

The fair values of money market funds correspond to the quoted prices of the funds in accordance with Article 29 in conjunction with Article 33 of EU Regulation 2017/1131 on money market funds (Level 2).

The fair values of derivatives for which no publicly quoted market prices exist are determined using valuation techniques based on observable market data as of the reporting date (Level 2). Credit value adjustments and debt value adjustments are determined to allow for both the contracting party's credit risk and Covestro's own credit risk. The currency forward contracts are measured individually at their forward rates or forward prices as of the reporting date. These depend on spot rates or prices including time spreads.

Fair values measured using unobservable inputs are categorized within Level 3 of the fair value hierarchy. The fair values of noncurrent receivables under lease agreements are calculated on the basis of interest curves observable in the market. Additionally, a discount for cash flows that are very far in the future is applied as an unobservable factor.

Covestro works with and invests in start-ups under the auspices of the Covestro Venture Capital (COVeC) approach, which was newly developed in fiscal 2020. Debt instruments associated with COVeC activities are recognized at fair value through profit and loss. The fair value is calculated as the present value of the future cash flows estimated based on available performance indicators. The cash flows are discounted at a current interest rate for the appropriate term on the reporting date and reflecting the creditworthiness of the venture capital company. The main input factors are not based on observable market data (Level 3). The estimated fair value of the debt instruments classified in Level 3 would rise (fall) if the expected cash inflows were to be higher (lower) or if the risk-adjusted discount rate were to be lower (higher).

Other financial investments are recognized at fair value directly in equity because they are held for the long term for strategic reasons. The fair value of some of the other investments is based on quoted prices in active markets (Level 1). Where there are no quoted, unadjusted prices in an active market for identical or similar instruments, and there is no suitable valuation method where all major input factors are based on observable market data, the fair value of the other investments is determined using a market price-oriented valuation method where the main input factors are not based on observable market data (Level 3). The valuation of certain other investments is based on available performance indicators as well as on market valuation multipliers. The estimated fair value of the equity instruments categorized within Level 3 would rise (fall) if the multiple applied were to be greater (smaller).

Further, the fair values of embedded derivatives are determined on the basis of unobservable input factors (Level 3). They are separated from their respective host contracts, which are purchase agreements relating to the operational business. The embedded derivatives cause the cash flows from the contracts to vary with fluctuations in exchange rates, or regional and industry-specific price indices, for example. The internal measurement of embedded derivatives is mainly performed using the discounted cash flow method, which is based on unobservable inputs. These include prices or price indices derived from market data. The estimated fair value of the embedded derivative would rise (fall) if the expected payment flows were to be higher (lower) as a result of fluctuations in exchange rates or prices.

Other receivables include a contingent purchase price receivable from divestments. The fair value of the receivable is measured as the present value of the future cash inflows. The basis is the expected EBITDA of the business unit sold for fiscal 2021. The cash flows are discounted at the current interest rate for the appropriate term on the reporting date and reflecting the creditworthiness of the buyer. The contingent purchase price receivable is assigned to Level 3 of the fair value hierarchy. The estimated fair value would rise (fall) if the expected cash inflows were to be higher (lower) or if the risk-adjusted discount rate were to be lower (higher).

The table below shows the reconciliation of Level 3 financial instruments:

Changes in the net amount of financial assets and liabilities recognized at fair value based on unobservable inputs

	2019	2020
	€ million	€ million
Net carrying amounts, Jan. 1	**9**	**21**
Gains (losses) recognized in profit or loss	–	(5)
of which related to assets/liabilities recognized in the statement of financial position	–	(5)
Gains (losses) recognized outside profit or loss	–	1
Additions of assets (liabilities)	12	5
Net carrying amounts, Dec. 31	**21**	**22**

Gains and losses from embedded derivatives (Level 3) recognized in profit or loss are reported in other operating expenses or income.

Other financial investments amount to €14 million, of which €4 million is attributable to Hi-Bis GmbH, Bitterfeld-Wolfen, and €4 million to Hydrogenious LOHC Technologies GmbH, Erlangen. In fiscal 2020, the Covestro Group received dividends of €1 million (previous year: €2 million) from other financial investments, all of which was attributable to Hi-Bis GmbH.

The following table shows income, expenses, gains and losses from financial instruments assigned to the measurement categories in accordance with IFRS 9:

Net result by measurement category in accordance with IFRS 9

	2019	2020
	€ million	€ million
Financial assets at amortized cost	(1)	(56)
of which net interest	4	1
Financial instruments measured at fair value through other comprehensive income	2	1
of which net interest	–	–
Financial instruments measured at fair value through profit or loss	–	23
of which net interest	(4)	(3)
Liabilities carried at amortized cost	(45)	(20)
of which net interest	(46)	(46)

26.2 Financial risk management and information on derivatives

Capital 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 Baa2 investment-grade rating with a negative outlook from the rating agency Moody's Investors Service, London (United Kingdom). Covestro uses the debt ratios published by prominent rating agencies in managing its capital and pursues a conservative debt policy along with a balanced financing portfolio. This is based for the most part on bonds, syndicated credit facilities, and bilateral loan agreements.

Credit risk

Credit risk is the risk of a loss for the Covestro Group when a counterparty is unable to meet its payment obligations arising from a financial instrument as contractually stipulated. The payment obligations to the Covestro Group primarily comprise trade accounts receivable, debt instruments, other financial assets and contract assets.

The carrying amount of the financial assets and the contract assets represents the maximum credit risk exposure.

The impairment loss for financial assets and contract assets recognized during the year resulted almost exclusively from impairment losses on trade accounts receivable. The net impairment loss amounted to €3 million (previous year: €0 million) in the reporting year.

Trade accounts receivable and contract assets

The credit risk the Covestro Group is exposed to through its trade accounts receivable and contract assets depends largely on the creditworthiness of the customer. In order to manage this risk, the Covestro Group's Credit Management implemented a process that uses internal and external data to assess each customer in terms of its creditworthiness. Quantitative and qualitative data are evaluated during the assessment process. The assessment reflects financial data, ratings, payment history and data on the customer's environment. The customer is allocated to one of five risk categories on the basis of the final assessment. The categories range from A to E, with risk category A representing the most creditworthy companies and risk category E the least.

Meaningful data is used to determine an expected loss rate for each risk category. Data such as default probabilities from rating agencies and credit insurance firms, historical impairment losses recognized by the Covestro Group and the empirical data from Credit Management are used to determine the expected loss rates. In addition, forward-looking information such as the country rating is also used in determining the expected loss rates. The coronavirus pandemic heightened industry risk (equivalent to the default risk relating to the companies in a particular industry), because demand, and subsequently sales revenues, in certain industries declined sharply. To appropriately reflect the increased default risk when measuring trade accounts receivable, the industry rating was additionally considered as other forward-looking information. Every year the expected and actual losses are compared (backtesting).

The following table presents the gross carrying amounts and the expected losses for trade receivables and contract assets:

Expected credit loss by category as of December 31

	Cluster					
2020	**A**	**B**	**C**	**D**	**E**	**Total**
Expected loss rate (%)	0.03	0.14	0.51	1.79	9.37	
Gross amount (€ million)	337	535	582	175	18	1,647
Expected loss (€ million)	–	(1)	(5)	(3)	(2)	(11)
2019	**A**	**B**	**C**	**D**	**E**	**Total**
Expected loss rate (%)	0.03	0.14	0.51	1.79	9.37	
Gross amount (€ million)	350	543	547	155	16	1,611
Expected loss (€ million)	–	(1)	(3)	(4)	(1)	(9)

The accumulated impairment losses amounted to €24 million (previous year: €28 million) for those customers that the Covestro Group considers credit impaired on the basis of this assessment. The corresponding gross carrying amount amounted to €24 million (previous year: €29 million). Indicators that trade accounts receivable and contract assets are at risk of credit impairment include significant financial difficulties of the customer and a breach of contract such as default or delinquency. Determining that a customer is credit impaired does not occur automatically when payments are overdue for more than 90 days, but is instead always based on the individual assessment conducted by Credit Management.

Total impairment losses for trade accounts receivable and contract assets changed as follows:

Reconciliation expected credit loss

	2019	2020
	€ million	€ million
Valuation allowances, Jan. 1	**(42)**	**(36)**
Net remeasurement impairment loss	–	(3)
Write offs	6	3
Foreign exchange differences	–	1
Valuation allowances, Dec. 31	**(36)**	**(35)**

The Covestro Group limits the credit risk exposure from trade accounts receivable by stipulating the shortest payment terms possible. In addition, the Covestro Group has a widely diversified customer portfolio. In order to avoid concentration of risk, customer limits are set, regularly monitored and exceeded only in agreement with Credit Management.

Receivables of €27 million (previous year: €27 million) are secured mainly by letters of credit.

Debt instruments

The Covestro Group pursues a conservative investment policy based on a strategy of maintaining liquidity and safeguarding value. Consequently, the investments are limited to counterparties with investment grade ratings, simple debt instruments and short-term investment horizons. Credit risks, particularly concentration of risk with individual counterparties, are managed by means of a Group-wide limit system in conjunction with ongoing monitoring.

The general approach for calculating and recording impairment losses in accordance with IFRS 9 applies to all debt instruments, loan commitments and financial guarantees recognized at amortized cost or at their fair values directly in equity. Covestro uses a general, three-stage approach for measuring the risk provision for expected credit losses as follows:

- Stage 1: The risk provision is calculated as the 12-month expected credit loss, whereby the default probability is derived from historical data published by prominent rating agencies. The Covestro Group assumes that investment grade ratings imply a low level of credit risk.
- Stage 2: The amount of the risk provision is the expected credit loss over the lifetime of the debt instrument if the credit risk has increased significantly since its initial recognition. Changes in credit risk are assessed using the actual payment history and external information. Whenever available, Covestro uses credit default swap prices and other forward-looking information such as ratings outlooks in addition to external ratings.
- Stage 3: If Covestro determines that the collectability of a debt instrument has deteriorated, it is reclassified to stage 3. This is the case, for instance, when a counterparty has obtained insolvency status; when there is sufficient information available to show that the counterparty has applied for insolvency proceedings; or when debt instruments are more than 90 days overdue.

No reclassification between the stages of the general impairment approach took place either in the reporting period or in the reference period, and the Covestro Group holds no collateral to secure its debt instruments.

Because of the low credit risk profile, the Covestro Group is not exposed to significant credit risk from debt instruments. For fiscal 2020 and for the previous year, the risk provision calculated using the general approach is immaterial both overall and for the individual stages.

Currency risks

Currency opportunities and risks for the Covestro Group result from changes in exchange rates and the related changes in the value of financial instruments (including receivables and payables) and of anticipated payment receipts and disbursements in foreign currencies. Material receivables and payables in liquid currencies from operating and financial activities are generally fully hedged through forward exchange contracts. A value-at-risk approach is used to manage foreign currency exposures arising from planned receivables and liabilities. As in the previous year, the planned foreign currency exposure was not hedged. They will be hedged using forward contracts if the foreign currency risk increases significantly. The extent of the currency risk is represented below by a sensitivity analysis.

The currency risk shown in the sensitivity analysis results from the following:

- The unsecured portion of receivables and payables in nonfunctional currencies
- Unsecured bank deposits and liabilities to banks in nonfunctional currencies
- Currency risks from embedded derivatives

Sensitivities were determined based on a hypothetical scenario in which the euro depreciates by 10% against all other currencies compared with the year-end exchange rates. Under this scenario, the estimated hypothetical gains recognized in profit or loss as of December 31, 2020, would have totaled €7.1 million (previous year: €7.7 million). The table below shows the distribution of these effects among the individual currencies:

Sensitivity by currency

	2019		2020
Currency	€ million	Currency	€ million
CNY	3.9	CNY	3.5
USD	2.7	USD	2.7
RUB	0.3	AUD	0.2
Other	0.8	Other	0.7
Total	**7.7**	**Total**	**7.1**

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. The syndicated, revolving credit facility amounting to €2.5 billion and running until March 2025 offers additional financial flexibility.

The liquidity risks to which the Covestro Group was exposed from its financial instruments can be divided into obligations for interest and repayment installments on financial liabilities and payment obligations arising from derivatives. The following tables show the maturity structure of the nondiscounted contractually agreed payments arising from these line items:

Maturity analysis of financial liabilities and derivative financial instruments

	Carrying amount	Contractual cash flows					
	Dec. 31, 2020	2021	2022	2023	2024	2025	after 2025
	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Financial liabilities							
Bonds	1,990	523	20	20	520	11	1,039
Liabilities to banks	227	3	1	1	1	226	–
Lease liabilities	672	131	132	104	67	51	297
Other financial liabilities	1	–	–	–	–	–	1
Trade accounts payable[1]	1,241	1,241	–	–	–	–	–
Other liabilities							
Accrued interest on liabilities	12	12	–	–	–	–	–
Refund liabilities[1]	87	87	–	–	–	–	–
Miscellaneous other liabilities	48	32	2	2	–	–	12
Liabilities from derivatives							
Derivatives that do not qualify for hedge accounting	12	10	1	1	–	–	–
Receivables from derivatives							
Derivatives that do not qualify for hedge accounting	18	15	2	1	–	–	–
Loan commitments	–	219	–	–	–	–	–

	Carrying amount	Contractual cash flows					
	Dec. 31, 2019	2020	2021	2022	2023	2024	after 2024
	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Financial liabilities							
Bonds	997	14	514	9	9	509	–
Liabilities to banks	10	10	–	–	–	–	–
Lease liabilities	735	155	131	112	96	56	326
Other financial liabilities	–	–	–	–	–	–	–
Trade accounts payable[1]	1,431	1,431	–	–	–	–	–
Other liabilities							
Accrued interest on liabilities	5	5	–	–	–	–	–
Refund liabilities[1]	106	106	–	–	–	–	–
Miscellaneous other liabilities	26	10	2	1	1	–	12
Liabilities from derivatives							
Derivatives that do not qualify for hedge accounting	13	11	1	1	–	–	–
Receivables from derivatives							
Derivatives that do not qualify for hedge accounting	22	17	2	2	1	–	–
Loan commitments	–	208	–	–	–	–	–

[1] Reference information was restated accordingly, see note 4.1 "Change in presentation of rebates granted to customers".

In addition to the primary financial liabilities and derivative financial instruments, there was an obligation under certain conditions to make a loan totaling €219 million (previous year: €208 million) to the effective initial fund of Bayer-Pensionskasse VVaG, Leverkusen (Germany), and Rheinische Pensionskasse VVaG, Leverkusen (Germany), which may result in payments by Covestro AG in subsequent years. This is reflected in the loan commitments shown in the table above.

See note 27 "Contingent liabilities and other financial commitments."

In this analysis, foreign currencies were translated at the closing rates. Derivative financial instruments are reported as net amounts.

Interest rate 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.

A sensitivity analysis based on our net floating-rate receivables and payables position at year-end 2020, taking into account the interest rates relevant for our receivables and payables in all principal currencies, produced the following result: A hypothetical increase in the interest rates by 100 basis points or one percentage point would (assuming currency exchange rates remain constant) result in an increase in interest expense of €4.8 million (previous year: €0.0 million).

Raw material price risks

The Covestro Group requires significant quantities of different forms of energy and petrochemical feedstocks for its production processes. Procurement prices for energy and raw materials may fluctuate significantly. Important raw materials are procured on the basis of long-term supply agreements and active supplier management to minimize 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 price fluctuation risk for energies. During the past fiscal year, derivative financial instruments were not used to hedge raw material price risks.

Derivatives

As of the reporting date, the nominal volume of the forward exchange contracts used to hedge currency risk amounted to €1,722 million (previous year: €2,015 million). Other market risks are not hedged as of the reporting date.

Covestro has entered into master netting agreements or similar agreements for derivative financial instruments. These take effect in particular in the event of the insolvency of one of the contractual partners involved. The derivative financial instruments covered by netting agreements from the perspective of the Covestro Group are presented in the table below:

Disclosures for netting of financial assets and liabilities as of December 31

	Gross amounts of financial assets/ liabilities	Net amounts of financial assets/ liabilities presented in the balance sheet	Balance sheet amounts eligible for netting covered by netting agreements	Net amounts after possible netting
	€ million	€ million	€ million	€ million
2020				
Receivables from derivatives	13	13	2	11
Liabilities from derivatives	9	9	2	7
2019				
Receivables from derivatives	15	15	3	12
Liabilities from derivatives	10	10	3	7

27. Contingent Liabilities and Other Financial Commitments

Contingent liabilities

The following table presents warranty contracts as well as other contingent liabilities existing as of the reporting date:

Contingent liabilities

	Dec. 31, 2019	Dec. 31, 2020
	€ million	€ million
Warranties	2	3
Other contingent liabilities	3	3
Total	**5**	**6**

Other financial commitments

The other financial commitments were as follows:

Other financial commitments

	Dec. 31, 2019	Dec. 31, 2020
	€ million	€ million
Purchase agreement in regard to the acquisition of RFM from Koninklijke DSM N.V.[1]	–	1,629
Orders already placed for started or planned investment projects	340	236
Loan commitments to pension funds	208	219
Total	**548**	**2,084**

[1] For additional information, see note 7.2 "Acquisitions and divestitures."

Some of the pension obligations allocable to the Covestro Group are funded through pension institutions used jointly with other companies (especially Bayer AG). In such cases, it can generally be contractually ensured that Covestro participates accordingly in funding measures that serve to guarantee adequate funding status and/or adequate solvency capital of these pension institutions for the long term. To this end, Covestro AG agreed to grant interest-bearing loans of up to €208 million for Bayer-Pensionskasse VVaG, Leverkusen (Germany), and up to €11 million for Rheinische Pensionskasse VVaG, Leverkusen (Germany), for the effective initial fund to be drawn down as required.

28. Legal Risks

As a company with international operations, the Covestro Group is exposed to numerous legal risks, particularly in the areas of product liability, competition and antitrust law, patent disputes, tax law, environmental law, and compliance issues such as corruption and export control. The outcome of any current or future proceedings cannot be predicted. It is therefore possible that legal judgments or regulatory decisions or future settlements could give rise to expenses that are not covered, or not fully covered, by insurers' compensation payments and could significantly affect the earnings of the Covestro Group.

Legal proceedings currently considered to involve material risks are outlined below. The legal proceedings referred to do not necessarily represent an exhaustive list:

Carbon monoxide pipeline from Dormagen to Krefeld-Uerdingen

The carbon monoxide pipeline is intended to connect the chemical production sites at Dormagen and Krefeld-Uerdingen and complement the network already existing between Dormagen and Leverkusen. The aim is to ensure a safe and reliable supply of carbon monoxide to and across all sites. Although the pipeline was almost completed by the end of year 2009, it cannot currently be put into operation because of ongoing court proceedings. Following confirmation by the Düsseldorf Administrative Court in year 2011 that there were no grounds to challenge the material aspects of the planning permission decision, in particular the safety of the materials used and the legal conformity of the relevant pipeline act (Rohrleitungsgesetz), the plaintiffs and the regional government against which legal proceedings had been instituted lodged appeals before the Higher Administrative Court in Münster. In year 2014, the Münster Higher Administrative Court raised no objections in principle to the safety and routing of the pipeline, but questioned the constitutionality of the pipeline act which forms the legal basis for the project. On December 21, 2016, the German Federal Constitutional Court dismissed the corresponding constitutionality question referred to it by Münster Higher Administrative Court as inadmissible and confirmed the legal opinion of the Covestro Group. Subsequently, Münster Higher Administrative Court again considered the facts of the appeal and, in a decision handed down on August 31, 2020, dismissed the actions against the planning permission decision. The Higher Administrative Court did not permit an appeal against its decision. The plaintiffs can now file a complaint against the denial of leave to appeal with the Federal Administrative Court.

Civil class action lawsuits over diisocyanates (in the United States)

On July 9, 2018, Covestro LLC, Pittsburgh, Pennsylvania (United States) – as one of numerous other defendants – was served the first of now 12 class action lawsuits initiated by various U.S. Diphenylmethane Diisocyanate (MDI) and Toluene Diisocyanate (TDI) customers. The plaintiffs allege that the defendants have violated various provisions of the Sherman Antitrust Act since January 1, 2015, by acting in coordination to limit production capacities of MDI and TDI and, at the same time, raising prices for these products in the market. On October 3, 2018, the Judicial Panel on Multidistrict Litigation ruled that all class action lawsuits in pretrial proceedings would be centralized in the District Court for the Western District of Pennsylvania. Based in essence on the same assertions and the violations of federal consumer protection and antitrust laws allegedly resulting from them, the attorney general of the state of Mississippi filed a separate civil complaint against Covestro LLC and numerous other defendants on behalf of the state and its citizens in September 2019. In November 2020, the parties suspended these lawsuits without prejudice for a period of two years. Covestro currently considers these claims without merit and will therefore use all legal means to defend itself against these allegations – also in light of the official conclusion in November 2018 of the six-month investigation by the U.S. Department of Justice into possible anticompetitive practices in relation to MDI.

Other Information

29. Notes to the Statement of Cash Flows

29.1 Cash flows from operating activities

The net cash of €1,234 million (previous year: €1,383 million) provided by operating activities comprises the cash surplus from operating activities and reflects the changes in working capital and other noncash transactions.

The €149 million (–10.8%) year-over-year decrease in net cash provided by operating activities was chiefly the result of lower EBIT by €156 million. The outflows from working capital of €116 million (previous year: inflows of €77 million) were partially offset by lower income tax payments by €141 million.

29.2 Cash flows from investing activities

Net cash outflow for investing activities in fiscal 2020 amounted to €1,769 million (previous year: €838 million).

These mainly included cash outflows for additions to property, plant, equipment and intangible assets of €704 million (previous year: €910 million) and expenses for other current financial assets of €1,089 million (previous year: €1 million).

29.3 Cash flows from financing activities

The net cash inflow from financing activities amounted to €1,204 million in fiscal 2020 (previous year: net cash outflow from financing activities of €668 million). Net credit assumed amounted to €1,056 million (previous year: net credit repaid of €147 million). Short-term debt assumed and repaid was netted.

The issuance of 10,200,000 new, no-par value bearer shares resulted in net cash (after deduction of the costs of raising equity) of €444 million.

In August 2020, dividend totaling €219 million was paid to Covestro AG shareholders (previous year: €438 million).

The interest paid totaling €79 million (previous year: €86 million) reflected in cash flows from financing activities relates mainly to lease liabilities of €28 million (previous year: €33 million), forward exchange contracts used to hedge foreign currency risks of €27 million (previous year: €39 million), and bonds of €14 million (previous year: €14 million).

Reconciliation of financial debt in fiscal 2020

			Changes cash flows not realized				
	Carrying amounts Dec. 31, 2019	Changes cash flows realized	Changes due to exchange rate movements	Changes in measurement	New contracts	Other changes	Carrying amounts Dec. 31, 2020
	€ million	€ million	€ million	€ million	in Mio. €	€ million	€ million
Bonds	997	991	–	2		–	1,990
Liabilities to banks	10	218	(1)	–		–	227
Lease liabilities	735	(152)	(35)	–	127	(3)	672
Other financial liabilities	–	(1)	–	–		2	1
Financial debt[1]	**1,742**	**1,056**	**(36)**	**2**	**127**	**(1)**	**2,890**

[1] Not including forward exchange contracts used to hedge currency risks

30. Related Companies and Persons

30.1 Related companies

Related entities as defined in IAS 24 (Related Party Disclosures) are those legal entities that are able to exert at least significant influence on Covestro AG and its subsidiaries or over which Covestro AG or its subsidiaries exercise control or have at least a significant influence. They include nonconsolidated subsidiaries, joint ventures, associated companies and post-employment benefit plans.

Receivables from and liabilities to related parties

	Dec. 31, 2019		Dec. 31, 2020	
	Receivables	Liabilities	Receivables	Liabilities
	€ million	€ million	€ million	€ million
Nonconsolidated subsidiaries and associates	–	5	3	8
Associates	3	–	6	–

Sales and purchases of goods and services to/from related parties

	2019		2020	
	Sales of goods and services	Purchases of goods and services	Sales of goods and services	Purchases of goods and services
	€ million	€ million	€ million	€ million
Nonconsolidated subsidiaries and associates	40	67	33	46
Associates	11	569	14	493

The goods and services provided by associated companies mainly result from the ongoing operating business with PO JV, LP, Delaware (United States). Covestro benefits from fixed long-term supply quotas/volumes of propylene oxide (PO) from this company's production.

See note 17 "Investments accounted for using the equity method."

Receivables from and payables to related parties mainly comprise leasing and financing matters, trade in goods and services, and other transactions. No impairment losses were recorded on receivables from related parties either in the reporting period or in the reference period.

30.2 Related persons

Related persons as defined in IAS 24 are those natural persons who, on account of their function in the Covestro Group, are responsible for Covestro's global business operations. These persons include the corporate officers of Covestro AG, who are the members of the Board of Management and Supervisory Board.

Compensation of the corporate officers

The compensation for key management personnel in fiscal 2020 amounted to €9,163 thousand (previous year: €9,486 thousand), including the compensation of the Supervisory Board amounting to €1,679 thousand (previous year: €1,747 thousand).

This compensation is shown below:

Board members compensation according to IFRSs

	2019	2020
	€ thousand	€ thousand
Total short-term compensation	5,308	5,277
Total stock-based compensation (long-term incentive)	2,827	2,443
Service cost for pension entitlements earned in the respective year	1,351	1,443
Total (IFRSs)	**9,486**	**9,163**

Aggregate compensation of the members of the Board of Management (according to the German Commercial Code (HGB)) amounted to €6,947 thousand (previous year: €6,274 thousand).

See "Compensation Report" in the Group Management Report.

Since 2016, the members of the Board of Management have been entitled to participate in the Prisma long-term stock-based compensation program, as long as they are employed by the Covestro Group, and acquire for their own account and hold an individually defined number of Covestro shares as specified by the guidelines. The fair value of the long-term stock-based compensation (Prisma) granted to the Board of Management in fiscal 2020 was €3,349 thousand (previous year: €2,724 thousand).

Provisions of €3,883 thousand (previous year: €5,103 thousand) were recognized for the short-term variable cash compensation and long-term stock-based cash compensation for the members of the Board of Management serving during the 2020 reporting period. At the end of the year, the present value of the defined benefit pension obligations for the current members of the Board of Management was €12,095 thousand (previous year: €9,818 thousand). Provisions of €1,015 thousand (previous year: €6,027 thousand) were recognized for long-term stock-based cash compensation for former members of the Board of Management. The present value of the defined benefit pension obligations for former members of the Board of Management was €8,270 thousand (previous year: €7,818 thousand).

The compensation of the Supervisory Board is exclusively non-performance-related. 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 €652 thousand (previous year: €883 thousand). Pension obligations for employee representatives on the Supervisory Board amounted to €3,798 thousand (previous year: €3,346 thousand).

There were no advances or loans to members of the Board of Management or the Supervisory Board outstanding in fiscal 2020 or the previous year.

31. Auditor’s Fees

Since fiscal 2018 KPMG AG Wirtschaftsprüfungsgesellschaft, Düsseldorf, (KPMG AG) has been the elected statutory auditor of Covestro AG and Covestro Group. Dr. Markus Zeimes is the auditor responsible for carrying out the audit. Dr. Markus Zeimes and Oliver Geier first signed the Independent Auditor’s Report as of December 31, 2018. The following fees were recognized as expenses for the services provided by KPMG AG:

Auditor's fees

	2019	2020
	€ million	€ million
Audit services	2.1	2.3
Other attestation services	0.2	0.2
Tax services	0.2	0.1
Other services	–	0.1
Total	**2.5**	**2.7**

The fees for audit services for fiscal 2020 mainly comprise those for the statutory audit of the consolidated financial statements of the Covestro Group, the review of the Covestro Group’s interim report for the period ended June 30, 2020, and the audit of the financial statements of Covestro AG and its subsidiaries in Germany.

The fees for other attestation services in fiscal 2020 particularly contain the assurance of sustainability information and special audits concerning energy-related topics. Tax services include mainly consultancy services for the preparation of tax reports and matters related to VAT. Other services essentially comprise fees for IT security audits.

32. Events after the End of the Reporting Period

The syndicated credit facility arranged by Covestro AG on September 30, 2020, which originally served as bridge financing for the purchase price of the announced acquisition of the Resins & Functional Materials (RFM) business of Koninklijke DSM N.V., Heerlen (Netherlands), and amounted to €1.2 billion as of December 31, 2020, was terminated as of January 29, 2021, due to Covestro's strong liquidity situation.

See note 24 “Financing and financial liabilities.“

Leverkusen, February 17, 2021
Covestro AG
The Board of Management

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Responsibility Statement

To the best of our knowledge, and in accordance with the applicable reporting principles for financial reporting, the consolidated financial statements give a true and fair view of the net assets, financial position and results of operations of the Covestro Group, and the Group Management Report, which has been combined with the Management Report of Covestro AG, includes a fair review of the development and performance of the business and the position of the Covestro Group and Covestro AG, together with a description of the principal opportunities and risks associated with the expected development of the Covestro Group and Covestro AG.

Leverkusen, February 17, 2021
Covestro AG
The Board of Management

Dr. Markus Steilemann (Chairman)	Sucheta Govil	Dr. Klaus Schäfer	Dr. Thomas Toepfer

Independent Auditor’s Report

To Covestro AG, Leverkusen

Report on the Audit of the Consolidated Financial Statements and of the Combined Management Report

Opinions

We have audited the consolidated financial statements of Covestro AG, Leverkusen, and its subsidiaries (the Group) – which comprise the consolidated income statement and consolidated statement of comprehensive income for the financial year from 1 January 2020 to 31 December 2020, the consolidated balance sheet as at 31 December 2020, and the consolidated statement of cash flows and the consolidated statement of changes in equity for the financial year from 1 January 2020 to 31 December 2020 as well as the notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the combined management report of Covestro AG for the financial year from 1 January 2020 to 31 December 2020 including the non-financial statement in accordance with Section 315b (1), 315c HGB [Handelsgesetzbuch: German Commercial Code]. In accordance with German legal requirements, we have not audited the content of those components of the combined management report specified in the "Other Information" section of our auditor's report.

The management report contains cross-references marked as unaudited and not required by law. In accordance with German legal requirements, we have not audited the content of these cross-references or the information to which they refer.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e (1) HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at 31 December 2020, and of its financial performance for the financial year from 1 January 2019 to 31 December 2020, and
- the accompanying combined management report as a whole provides an appropriate view of the Group’s position. In all material respects, this combined management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the combined management report does not cover the content of those components of the combined management report specified in the "Other Information" section of the auditor's report. In accordance with German legal requirements, we have not audited the content of those components of the combined management report specified in the "Other Information" section of our auditor's report.

Pursuant to Section 322 (3) sentence 1 HGB [Handelsgesetzbuch: German Commercial Code], we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the combined management report.

Basis for the Opinions

We conducted our audit of the consolidated financial statements and of the combined management report in accordance with Section 317 HGB and the EU Audit Regulation No. 537/2014 (referred to subsequently as “EU Audit Regulation”) and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). *We performed the audit of the consolidated financial statements in supplementary compliance with the International Standards on Auditing (ISAs).* Our responsibilities under those *requirements, principles and standards* are further described in the “Auditor’s Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report” section of our auditor’s report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other

German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the combined management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from 1 January 2020 to 31 December 2020. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, we do not provide a separate opinion on these matters.

- Recoverability of the carrying amount of goodwill and of assets with determinable useful lives

The accounting policies as well as the assumptions made are disclosed in the notes to the consolidated financial statements in note 3. Disclosure of the amount of goodwill is provided in the notes to the consolidated financial statements in note 15 with explanations with respect to the business development of the operating segments included in the combined management report in the chapter "Performance of the Reportable Segments".

THE FINANCIAL STATEMENT RISK

In the consolidated financial statements of Covestro AG Goodwill, Other intangible assets, and Property, plant and equipment amount to EUR 5,5 billion in total. These items account for a significant portion of the Group's noncurrent assets and for 43% of the Group's total assets. Of these items, Goodwill amounts to EUR 255 million for the financial year 31 December 2020.

A central impairment test is carried out, when there is an indication of impairment for an asset. Goodwill is also tested annually for impairment. To this end, the carrying amount of the individual Cash Generating Units (CGU) is compared with their recoverable amount. If the carrying amount exceeds the recoverable amount of the respective CGU, an impairment is recorded. Initially the impairment reduces the carrying amount of goodwill and then the carrying amount of the other assets of the CGU.

The goodwill impairment test for CGU is complex and is based on a number of judgmental assumptions. These include, among others, the expected business and earnings development of the CGU for the upcoming years, the assumed long-term growth rates and the discount rate used.

The financial year 2020 was characterized by the significant negative economic consequences of the COVID-19 pandemic and the resulting strong decline in global economy. Due to the continuing COVID-19 pandemic, the year 2021 is expected to be a challenging year for the global economy. Despite these special circumstances, there are also signs of improvement of future business prospects in the company's main customer's industries from 2021 onwards. As a result of the impairment test carried out by the company, no need for the recording of an impairment was identified. However, the Company's sensitivity analyses indicated that a reasonably possible change in the expected cash flows, the discount rate or in the long-term growth rate of the CGU Polyether polyols and Thermoplastic Polyurethanes would lead to an impairment.

There is the risk for the financial statements that required impairments were not identified. In addition, there is the risk that the disclosures in the notes associated herewith are not complete and appropriate.

OUR AUDIT APPROACH

We initially obtained an understanding of the Company's process for assessing the recoverability of the carrying amount of goodwill and of assets with determinable useful lives on the basis of explanations provided by the accounting and controlling departments as well as by assessing documentation.

Subsequently, with the support of our valuation specialists, we have assessed the appropriateness of the significant assumptions as well as company's valuation model. This included a discussion of the expected development of the business and results as well as of the assumed underlying long-term growth rates with those responsible for the planning process. In addition, reconciliations were made with other internally available forecasts as well as with the financial planning prepared by the Executive Board and approved by the Supervisory Board. Furthermore, we also assessed the consistency of the assumptions with external market expectations, by utilizing economic reports from recognized industry institutes as well as analyst assessments.

Moreover, we assessed the Company's planning accuracy by comparing projections for previous financial years with the actual results realised and analysed deviations. We have compared the assumptions and parameters underlying the discount rate – in particular the risk-free rate, the market risk premium and the beta factor – with own assumptions and publicly available information.

To provide for the mathematical accuracy of the valuation model utilised, we recalculated the Company's calculations.

To reflect the existing uncertainty with respect to forecasts for the impairment test, we have assessed reasonably possible changes of the discount rate, the expected earnings respectively the long-term growth rate on the recoverable amount (sensitivity analysis) by calculating alternative scenarios and comparing these with the Company's valuation results.

Finally, we assessed whether the disclosures in the notes with respect to the recoverability of the carrying amount of the goodwill are appropriate. This also included an assessment as to the appropriateness of the disclosures in the notes pursuant to IAS 36.134(f) with respect to sensitivities resulting from reasonably possible changes of key assumptions underlying the valuation.

OUR OBSERVATIONS

The underlying valuation model used in the impairment test of goodwill is appropriate and consistent with the applicable accounting principles. The Group's assumptions and data underlying the valuation are within an acceptable bandwidth and are, on the whole, acceptable. The disclosures in the notes associated herewith are complete and appropriate.

Other Information

Management and the Supervisory Board are responsible for the other information. The other information comprises the following unaudited parts of the combined management report:

- the Declaration on Corporate Governance included in the chapter "Declaration on Corporate Governance" of the combined management report,
- the information included in the chapter "Sustainability in the Supply Chain" of the combined management report that is marked as unaudited and a part of the non-financial statement, and
- information extraneous to management reports and marked as unaudited.

The other information also includes the remaining parts of the annual report.

The other information does not include the consolidated financial statements, the combined management report information audited for content and our auditor's report thereon.

Our opinions on the consolidated financial statements and on the combined management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the combined management report information audited for content or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

In addition, we were engaged to perform a separate assurance engagement on the supplementary sustainability information. Regarding the type, scope and results of that assurance engagement, we refer to our assurance report dated 18 February 2021.

Responsibilities of Management and the Supervisory Board for the Consolidated Financial Statements and the Combined Management Report

Management is responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition, management is responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, management is responsible for the preparation of the combined management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, management is responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a combined management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the combined management report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the combined management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the combined management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the combined management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) *and supplementary compliance with the ISAs* will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this combined management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the combined management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.
- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the combined management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems of the Group.
- Evaluate the appropriateness of accounting policies used by management and the reasonableness of estimates made by management and related disclosures.
- Conclude on the appropriateness of the management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the combined management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the combined management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our opinions.
- Evaluate the consistency of the combined management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.
- Perform audit procedures on the prospective information presented by management in the combined management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by management as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other Legal and Regulatory Requirements

Report on the Assurance in accordance with Section 317 (3b) HGB on the Electronic Reproduction of the Consolidated Financial Statements and the Group Management Report Prepared for Publication Purposes

We have performed assurance work in accordance with Section 317 (3b) HGB to obtain reasonable assurance about whether the reproduction of the consolidated financial statements and the group management report (hereinafter the "ESEF documents") contained in the file that can be downloaded by the issuer from the electronic client portal with access protection, *„covestroag-2020-12-31.zip" (SHA256-Hashwert: a9e84028dcb02434ddc515a3b5cda50f7652e44c2263bb463b9f546e31912d42),* and prepared for publication purposes complies in all material respects with the requirements of Section 328 (1) HGB for the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this assurance only extends to the conversion of the information contained in the consolidated financial statements and the group management report into the ESEF format and therefore relates neither to the information contained in this reproduction nor any other information contained in the above-mentioned electronic file.

In our opinion, the reproduction of the consolidated financial statements and the group management report contained in the above-mentioned electronic file and prepared for publication purposes complies in all material respects with the requirements of Section 328 (1) HGB for the electronic reporting format. We do not express any opinion on the information contained in this reproduction nor on any other information contained in the above-mentioned file beyond this reasonable assurance opinion and our audit opinion on the accompanying consolidated financial statements and the accompanying group management report for the financial year from 1 January 2020 to 31 December 2020 contained in the "Report on the Audit of the Consolidated Financial Statements and the Group Management Report" above.

We conducted our assurance work on the reproduction of the consolidated financial statements and the group management report contained in the above-mentioned electronic file in accordance with Section 317 (3b) HGB and the Exposure Draft of the IDW Assurance Standard: Assurance in accordance with Section 317 (3b) HGB on the Electronic Reproduction of Financial Statements and Management Reports Prepared for Publication Purposes (ED IDW AsS 410) and the International Standard on Assurance Engagements 3000 (Revised). Accordingly, our responsibilities are further described below. Our audit firm has applied the IDW Standard on Quality Management 1: Requirements for Quality Management in Audit Firms (IDW QS 1).

The company's management is responsible for the preparation of the ESEF documents including the electronic reproduction of the consolidated financial statements and the group management report in accordance with Section 328 (1) sentence 4 item 1 HGB and for the tagging of the consolidated financial statements in accordance with Section 328 (1) sentence 4 item 2 HGB.

In addition, the company's management is responsible for the internal controls they consider necessary to enable the preparation of ESEF documents that are free from material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB for the electronic reporting format.

The company's management is also responsible for the submission of the ESEF documents together with the auditor's report and the attached audited consolidated financial statements and audited group management report as well as other documents to be published to the operator of the German Federal Gazette [Bundesanzeiger].

The supervisory board is responsible for overseeing the preparation of the ESEF documents as part of the financial reporting process.

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB. We exercise professional judgement and maintain professional scepticism throughout the assurance work. We also:

- Identify and assess the risks of material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB, design and perform assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance opinion.

- Obtain an understanding of internal control relevant to the assurance of the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.

- Evaluate the technical validity of the ESEF documents, i.e. whether the electronic file containing the ESEF documents meets the requirements of Commission Delegated Regulation (EU) 2019/815 on the technical specification for this electronic file.

- Evaluate whether the ESEF documents enable an XHTML reproduction with content equivalent to the audited consolidated financial statements and the audited group management report.

- Evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) enables an appropriate and complete machine-readable XBRL copy of the XHTML reproduction.

Further Information pursuant to Article 10 of the EU Audit Regulation

We were elected as auditor by the annual general meeting on 30 July 2020. We were engaged by the Audit Committee of the Supervisory Board on 10 August 2020. We have been the group auditor of Covestro AG without interruption since financial year 2018.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

German Public Auditor Responsible for the Engagement

The German Public Auditor responsible for the engagement is Dr. Markus Zeimes.

Düsseldorf, 19 February 2021

KPMG AG
Wirtschaftsprüfungsgesellschaft

[Original German version signed by:]

Dr. Zeimes
[German Public Auditor]

Geier
[German Public Auditor]

Limited Assurance Report of the Independent Auditor regarding the supplementary sustainability information[1]

To the Management Board of Covestro AG, Leverkusen

We have performed an independent limited assurance engagement on the supplementary sustainability information in the "Covestro Annual Report 2020" (hereinafter: "report") of Covestro AG, Leverkusen, Germany for the period from January 1 to December 31, 2020.

Management's Responsibility

The legal representatives of the Company are responsible for the preparation of the report in accordance with the reporting criteria. Covestro AG applies the principles and standard disclosures specified in the Global Reporting Initiative (GRI) Sustainability Reporting Standards in conjunction with the Corporate Accounting and Reporting Standard (Scope 1 and 2) of the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD) as reporting criteria (hereinafter: "Reporting Criteria").

This responsibility of the legal representatives includes the selection and application of appropriate methods to prepare the supplementary sustainability information and the use of assumptions and estimates for individual disclosures which are reasonable under the given circumstances. Furthermore, the legal representatives are responsible for the internal controls they deem necessary for the preparation of the supplementary sustainability information that is free of – intended or unintended – material misstatements.

Practitioner's Responsibility

It is our responsibility to express a conclusion on the supplementary sustainability information based on our work performed within a limited assurance engagement.

We conducted our work in the form of a limited assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): "Assurance Engagements other than Audits or Reviews of Historical Financial Information", published by IAASB. Accordingly, we have to plan and perform the assurance engagement in such a way that we obtain limited assurance as to whether any matters have come to our attention that cause us to believe that the supplementary sustainability information of the Company for the period from January 1 to December 31, 2020 has not been prepared, in all material respects, in accordance with the aforementioned Reporting Criteria. We do not, however, issue a separate conclusion for each disclosure. As the assurance procedures performed in a limited assurance engagement are less comprehensive than in a reasonable assurance engagement, the level of assurance obtained is substantially lower. The choice of assurance procedures is subject to the auditor's own judgement.

Within the scope of our engagement we performed, amongst others, the following procedures:

- Inquiries of group-level personnel who are responsible for the materiality analysis in order to understand the processes for determining material topics and respective reporting boundaries for Covestro AG
- A risk analysis, including media research, to identify relevant information on Covestro AG's sustainability performance in the reporting period
- Evaluation of the design and the implementation of systems and processes for identifying, processing, and monitoring sustainability performance data and metrics within the scope of the audit, including the consolidation of data

[1] Our engagement applied to the German version of the Covestro Annual Report 2020. This text is a translation of the Independent Assurance Report issued in German, whereas the German text is authoritative.

- Inquiries of group-level personnel who are responsible for determining disclosures on concepts, results, performing internal control functions and consolidating disclosures
- Inspection of selected internal and external documents
- Analytical procedures for the evaluation of data and of the trends of quantitative disclosures as reported at group level by all sites
- Assessment of local data collection, validation, and reporting processes and the reliability of reported data through a sample survey at Baytown (USA), Shanghai (China), Fos-sur-Mer (France), Leverkusen (Germany), New Martinsville (USA), South Deerfield (USA), and Tarragona (Spain).
- Assessment of the overall presentation of the disclosures

In our opinion, we obtained sufficient and appropriate evidence for reaching a conclusion for the assurance engagement.

Independence and Quality Assurance on the Part of the Auditing Firm

In performing this engagement, we applied the legal provisions and professional pronouncements regarding independence and quality assurance, in particular the Professional Code for German Public Auditors and Chartered Accountants (in Germany) and the quality assurance standard of the German Institute of Public Auditors (Institut der Wirtschaftsprüfer, IDW) regarding quality assurance requirements in audit practice (IDW QS 1).

Conclusion

Based on the procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the supplementary sustainability information of Covestro AG for the period from January 1 to December 31, 2020 has not been prepared, in all material respects, in accordance with the Reporting Criteria.

Restriction of Use/General Engagement Terms

This assurance report is issued for purposes of the Management Board of Covestro AG, Leverkusen only. We assume no responsibility with regard to any third parties.

Our assignment for the Management Board of Covestro AG, Leverkusen, and professional liability as described above was governed by the General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungs-gesellschaften (Allgemeine Auftragsbedingungen für Wirtschaftsprüfer und Wirtschaftsprüfungsgesellschaften) in the version dated January 1, 2017 (https://www.kpmg.de/bescheinigungen/lib/aab_english.pdf). By reading and using the information contained in this assurance report, each recipient confirms notice of the provisions contained therein including the limitation of our liability as stipulated in No. 9 and accepts the validity of the General Engagement Terms with respect to us.

Düsseldorf, February 19, 2021

KPMG AG
Wirtschaftsprüfungsgesellschaft
[Original German version signed by:]

Dr. Zeimes Wirtschaftsprüfer [German Public Auditor]	Hell

Glossary

A

AktG/German Stock Corporation Act
Regulates the legal provisions pertaining to German stock corporations

ADR/American Depositary Receipt
A depositary receipt issued by U.S. banks that documents ownership of a certain number of deposited shares of a foreign company and is traded on U.S. stock markets as representation of the original shares

APAC
Comprises all countries in the Asia and Pacific region in which Covestro is active

C

Capital employed
Capital employed is the sum of noncurrent and current assets less non-interest-bearing liabilities such as trade accounts payable

Carbon productivity
The value generated per carbon unit used (e.g., in the form of fossil raw materials such as coal, oil and natural gas). Measuring carbon productivity is intended to promote a sustainable and optimal use of carbon.

Circular economy
A regenerative economic system in which resource input, waste production, emissions, and energy consumption are minimized based on long-lasting and closed material and energy cycles.

COVeC approach
Covestro venture capital approach in which Covestro invests in start-ups with innovative products, solutions, or business models. Covestro aims to actively support these new companies wherever they offer value added.

Covestment
Stock participation program in which approximately 98% of all employees worldwide can acquire Covestro shares at a discount

D

DRS/German Accounting Standards
Pronouncements of the German Accounting Standards Committee e. V., which substantiate the HGB requirements in reference to the application of the Group accounting principles

Due diligence
Information on the processes for identifying, preventing, and mitigating the actual or possible negative impact on nonfinancial aspects.

E

EBIT/earnings before interest and taxes
Income after income taxes plus financial result and income tax expense

EBITDA/earnings before interest, taxes, depreciation and amortization
EBIT plus depreciation and amortization of property, plant, equipment, and intangible assets

EcoVadis
Rating agency that evaluates the degree to which suppliers' business practices are aligned with sustainability principles.

EMLA
Comprises all countries in Europe, the Middle East, Africa and Latin America (excluding Mexico) in which Covestro is active

Earnings per share
Net income divided by the weighted average number of outstanding shares in the reporting period

EURO STOXX 50
European stock index that reflects the share price performance of the 50 most important and highest revenue companies in Europe.

F

FOCF/free operating cash flow
Operating cash flows (pursuant to IAS 7) less cash outflows for additions to property, plant, equipment and intangible assets

G

GCGC/German Corporate Governance Code
A set of regulations compiled by the Government Commission on the German Corporate Governance Code in respect of responsible corporate governance, which contains recommendations and suggestions for the management and oversight of listed corporations in Germany

GHG Protocol/Greenhouse Gas Protocol
International accounting system for greenhouse gas emissions developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD)

GPS/Global Product Strategy
Initiative of the International Council of Chemical Associations (ICCA) with the aim of anchoring uniform global standards for product safety in the chemical industry

GRI / Global Reporting Initiative
Guidelines for the preparation of sustainability reports by companies, governments and non-governmental organizations (NGOs)

H

HDI/hexamethylediisocyanate
A chemical compound from the class of aliphatic isocyanates, primarily used in polyurethane coating systems

HGB/German Commercial Code
Comprises much of the German accounting legislation

HSEQ/Health, safety, environment, energy, and quality
Health, safety, environment, energy, and quality

I

IAS/Accounting Standards
International accounting standards as endorsed by the European Union respectively published by the IASB or the IFRS IC

IASB/International Accounting Standards Board
The International Accounting Standards Board is an independent, private-sector body that develops and approves the International Financial Reporting Standards (IFRSs).

ICS/internal control system
Internal control system to ensure compliance with directives by means of technical and organizational rules

IDW/Institut der Wirtschaftsprüfer in Deutschland e. V.
A professional association of German Public Auditors and German Public Audit Firms that represents the interests of its members and supports their work

IFRSs/International Financial Reporting Standards
International accounting standards as endorsed by the European Union respectively published by the IASB or the IFRS IC

IPDI/isophorone diisocyanate
A chemical compound from the class of aliphatic isocyanates, primarily used in polyurethane coating systems

L

LGBTIQ
International abbreviation for lesbian, gay, bisexual, trans, intersex, and queer people.

LoPC/Loss of Primary Containment
Leaks of chemicals in amounts above defined thresholds leaking from their primary containers, such as pipelines, pumps, tanks and drums

LTRIR/lost time recordable incident rate
Lost time recordable incident rate

M

MDI/diphenylmethane diisocyanate
A chemical compound from the class of aromatic isocyanates, primarily used in polyurethane foams

Core volume growth
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 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.

N

NAFTA
Region comprising the United States, Canada, and Mexico in which Covestro is active

Net financial debt
Interest-bearing liabilities (excluding pension obligations) less liquid assets

Net income
Income after income taxes that is attributable to the shareholders

NOPAT/net operating profit after taxes
Operating result (EBIT) after imputed income taxes

P

PMDI/Polymeric diphenylmethane diisocyanate
A chemical compound from the class of aromatic isocyanates, primarily used in polyurethane foams

PO/propylene oxide
A chemical compound from the class of epoxies used in the production of polyurethanes

Prisma
Prisma is a stock-based compensation program with a four-year performance period for senior executives and other managerial employees.

PSP/Profit Sharing Plan
Covestro PSP is the Group's short-term variable compensation system. It is based exclusively on the target attainment of the relevant Covestro performance indicators (core volume growth, FOCF, ROCE).

R

REACH Regulation
REACH stands for Registration, Evaluation, Authorisation, and Restriction of Chemicals. Regulation (EC) No. 1907/2006, which entered into force in 2007, standardizes EU chemicals law.

Responsible Care™ initiative
Initiative by the German Chemical Industry Association (VCI) aimed at continuously improving health, environmental protection and safety in its member states

RIR/recordable incident rate
Total number of recordable workplace accidents per 200,000 working hours

ROCE/return on capital employed
Ratio of operating result after imputed income taxes to the capital employed

S

Scope 1, Scope 2, Scope 3 emissions
The GHG Protocol distinguishes between direct emissions of greenhouse gases (Scope 1), emissions from the generation of externally purchased energy (Scope 2), and all other emissions arising in the value chain either before or after our business activities (Scope 3).

SDGs
The 17 United Nations Sustainable Development Goals were ratified by all UN member states and entered into force on January 1, 2016. Their objective is to combat global poverty, protect the planet, and secure peace and prosperity for all.

Stakeholders
Internal and external interest groups which are directly or indirectly impacted by the company's corporate activities and/or may be so in the future

STOXX Europe 600 Chemicals
A sector index provided by STOXX. The STOXX Europe 600 is comprised of 600 companies across Europe.

T

TCFD / Task Force on Climate-related Financial Disclosures
The TCFD was formed by the Financial Stability Board to develop a uniform framework for reporting on climate-related opportunities and risks.

TDI/toluene diisoycanate
A chemical compound from the class of aromatic isocyanates, primarily used in polyurethane foams and coating systems

TfS/Together for Sustainability
An initiative undertaken by various companies in the chemical industry to standardize supplier assessments globally in order to improve sustainability practices in the supply chain

U

UN Global Compact
The world's largest responsible corporate governance initiative. The member companies undertake to implement ten universal principles and regularly document their progress.

V

Value contribution
The difference between the operating result after imputed income taxes and the cost of capital. A positive value contribution means that value has been created.

VCI/Verband der Chemischen Industrie – German Chemical Industry Association
German chemical industry association

W

WACC/weighted average cost of capital
Weighted average cost of capital reflecting the expected return on the company's equity and debt capital

Materiality analysis
A materiality analysis enables companies to systematically identify the most important sustainability issues from the internal and external perspective.

World-scale plants
Covestro defines world-scale plants in terms of their permitted production capacity in kilotons per year:

- MDI plants
  from 400 kilotons per year
- Polyether polyol plants
  from 300 kilotons per year
- Polycarbonate plants
  from 240 kilotons per year
- HDI plants
  from 40 kilotons per year
- TDI plants
  from 300 kilotons per year

Segment and Quarterly Overview

Segment information 4th quarter

	Polyurethanes		Polycarbonates		Coatings, Adhesives, Specialties		Others/consolidation		Covestro Group	
	4th quarter 2019	4th quarter 2020	4th quarter 2019	4th quarter 2020	4th quarter 2019	4th quarter 2020	4th quarter 2019	4th quarter 2020	4th quarter 2019	4th quarter 2020
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Sales	1,336	1,519	814	803	533	529	181	156	2,864	3,007
Change in sales										
Volume	–0.2%	+2.9%	0.0%	+7.4%	+0.1%	+7.5%	–9.4%	–3.2%	–0.7%	+4.7%
Price	–16.9%	+16.2%	–13.5%	–2.1%	–4.2%	–4.9%	–7.9%	–9.8%	–13.3%	+5.4%
Currency	+1.5%	–4.8%	+1.6%	–3.7%	+1.9%	–3.4%	+0.7%	–0.8%	+1.5%	–4.0%
Portfolio	–0.7%	–0.6%	0.0%	–3.0%	+2.0%	0.0%	0.0%	0.0%	0.0%	–1.1%
Core volume growth[1]	**+3.6%**	**+0.8%**	**+3.5%**	**+3.2%**	**+6.2%**	**+2.8%**			**+3.8%**	**+1.7%**
Sales by region										
EMLA	546	683	270	244	224	227	139	134	1,179	1,288
NAFTA	394	365	160	154	129	116	36	19	719	654
APAC	396	471	384	405	180	186	6	3	966	1,065
EBITDA	**123**	**379**	**95**	**200**	**62**	**52**	**(2)**	**6**	**278**	**637**
EBIT	24	264	39	143	32	19	(2)	6	93	432
Depreciation, amortization, impairment losses and impairment loss reversals	99	115	56	57	30	33	–	–	185	205
Operating cash flows	282	285	204	178	170	113	(19)	59	637	635
Cash outflows for additions to property, plant, equipment and intangible assets	168	138	84	61	55	43	–	(1)	307	241
Free operating cash flow	**114**	**147**	**120**	**117**	**115**	**70**	**(19)**	**60**	**330**	**394**
Trade working capital[2]	839	900	580	550	483	444	63	55	1,965	1,949

[1] Reference values calculated on the basis of the definition of the core business effective March 31, 2020

[2] Trade working capital includes inventories plus trade accounts receivable and contract assets, less trade accounts payable, contract liabilities, and refund liabilities as of December 31, 2019/2020. Reference information was restated accordingly, see note 4 "Change in presentation of rebates granted to customers and trade working capital."

Segment information full year

	Polyurethanes		Polycarbonates		Coatings, Adhesives, Specialties		Others/consolidation		Covestro Group	
	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Sales	5,779	5,021	3,473	2,985	2,369	2,039	791	661	12,412	10,706
Change in sales										
Volume	+1.5%	–5.0%	+2.4%	–2.3%	–2.1%	–9.0%	–5.4%	–7.3%	+0.8%	–5.1%
Price	–24.7%	–5.1%	–16.5%	–7.0%	–1.1%	–4.2%	–1.9%	–8.9%	–17.3%	–5.7%
Currency	+1.8%	–2.0%	+2.0%	–1.5%	+2.3%	–1.0%	+1.2%	–0.2%	+1.9%	–1.6%
Portfolio	–0.1%	–1.0%	–2.2%	–3.3%	+1.2%	+0.3%	0.0%	0.0%	–0.5%	–1.3%
Core volume growth[1]	**+2.3%**	**–6.1%**	**+2.7%**	**–3.0%**	**–1.0%**	**–8.9%**			**+2.0%**	**–5.6%**
Sales by region										
EMLA	2,487	2,189	1,146	942	1,052	908	604	561	5,289	4,600
NAFTA	1,680	1,389	734	610	562	469	165	86	3,141	2,554
APAC	1,612	1,443	1,593	1,433	755	662	22	14	3,982	3,552
EBITDA	**648**	**625**	**536**	**553**	**469**	**341**	**(49)**	**(47)**	**1,604**	**1,472**
EBIT	250	197	300	332	352	215	(50)	(48)	852	696
Depreciation, amortization, impairment losses and impairment loss reversals	398	428	236	221	117	126	1	1	752	776
Operating cash flows	575	423	613	484	349	327	(154)	–	1,383	1,234
Cash outflows for additions to property, plant, equipment and intangible assets	543	409	209	157	158	138	–	–	910	704
Free operating cash flow	**32**	**14**	**404**	**327**	**191**	**189**	**(154)**	**–**	**473**	**530**
Trade working capital[2]	839	900	580	550	483	444	63	55	1,965	1,949

[1] Reference values calculated on the basis of the definition of the core business effective March 31, 2020

[2] Trade working capital includes inventories plus trade accounts receivable and contract assets, less trade accounts payable, contract liabilities, and refund liabilities as of December 31, 2019/2020. Reference information was restated accordingly, see note 4 "Change in presentation of rebates granted to customers and trade working capital."

Quarterly overview

	1st quarter 2019	2nd quarter 2019	3rd quarter 2019	4th quarter 2019	1st quarter 2020	2nd quarter 2020	3rd quarter 2020	4th quarter 2020
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Sales	3,175	3,211	3,162	2,864	2,783	2,156	2,760	3,007
Polyurethanes	1,476	1,489	1,478	1,336	1,274	913	1,315	1,519
Polycarbonates	860	898	901	814	733	648	801	803
Coatings, Adhesives, Specialties	627	621	588	533	572	443	495	529
Core volume growth[1]	**–1.8%**	**+1.1%**	**+5.3%**	**+3.8%**	**–4.1%**	**–22.7%**	**+3.0%**	**+1.7%**
EBITDA	**442**	**459**	**425**	**278**	**254**	**125**	**456**	**637**
Polyurethanes	157	172	196	123	50	(24)	220	379
Polycarbonates	155	154	132	95	109	96	148	200
Coatings, Adhesives, Specialties	146	150	111	62	130	60	99	52
EBIT	264	274	221	93	67	(68)	265	432
Polyurethanes	57	72	97	24	(51)	(130)	114	264
Polycarbonates	105	99	57	39	54	41	94	143
Coatings, Adhesives, Specialties	118	120	82	32	100	28	68	19
Financial result	(23)	(23)	(19)	(26)	(39)	(17)	(22)	(13)
Income before income taxes	241	251	202	67	28	(85)	243	419
Income after taxes	180	190	149	38	21	(53)	180	306
Net income	179	189	147	37	20	(52)	179	312
Operating cash flows	120	164	462	637	(110)	171	538	635
Cash outflows for additions to property, plant, equipment and intangible assets	165	219	219	307	139	147	177	241
Free operating cash flow	**(45)**	**(55)**	**243**	**330**	**(249)**	**24**	**361**	**394**

1 Reference values calculated based on the definition of the core business effective March 31, 2020

Five-Year Summary

Five-year summary

	2016	2017	2018	2019	2020
	€ million	€ million	€ million	€ million	€ million
Core volume growth[1]	**+7.5%**	**+3.4%**	**+1.5%**	**+2.0%**	**–5.6%**
Sales	11,904	14,138	14,616	12,412	10,706
Polyurethanes	5,927	7,660	7,362	5,779	5,021
Polycarbonates	3,298	3,737	4,051	3,473	2,985
Coatings, Adhesives, Specialties	2,040	2,053	2,361	2,369	2,039
EBITDA	**2,014**	**3,435**	**3,200**	**1,604**	**1,472**
EBIT	1,331	2,808	2,580	852	696
Financial result	(196)	(150)	(104)	(91)	(91)
Net income	795	2,009	1,823	552	459
Earnings per share (€)[2]	3.93	9.93	9.46	3.02	2.48
Operating cash flows	1,786	2,361	2,376	1,383	1,234
Cash outflows for additions to property, plant, equipment and intangible assets	419	518	707	910	704
Free operating cash flow	**1,367**	**1,843**	**1,669**	**473**	**530**
Trade working capital[3]	1,859	2,177	2,353	1,965	1,949
Net financial debt	1,499	283	348	989	356
ROCE	+14.2%	+33.4%	+29.5%	+8.4%	+7.0%
Employees (in FTE)	15,579	16,176	16,770	17,201	16,501

1 Values calculated based on the definition of the core business effective March 31 of the respective subsequent year.

2 Figures based on weighted average number of voting shares outstanding that were subject to relevant changes resulting from, among other factors, the IPO on October 6, 2015, the share buyback program of November 21, 2017, through December 4, 2018, and the capital increase on October 19, 2020.

3 Trade working capital includes inventories plus trade accounts receivable and contract assets, less trade accounts payable, contract liabilities, and refund liabilities as of December 31, 2018 to 2020. In the years 2016 and 2017, trade working capital comprised inventories plus trade accounts receivable, less trade accounts payable. Reference information for 2018 and 2019 was restated accordingly, see note 4 "Change in presentation of rebates granted to customers and trade working capital."

FINANCIAL CALENDAR

ANNUAL GENERAL MEETING 2021	**April 16, 2021**
QUARTERLY STATEMENT FIRST QUARTER 2021	**April 28, 2021**
HALF-YEAR FINANCIAL REPORT 2021	**July 27, 2021**
QUARTERLY STATEMENT THIRD QUARTER 2021	**October 26, 2021**

PUBLISHING INFORMATION

Published by
Covestro AG
Kaiser-Wilhelm-Allee 60
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Design and layout
nexxar GmbH
Vienna, Austria

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