

# GRI SUPPLEMENTARY REPORT 2017

Supplementary  
sustainability information  
and GRI Index as part  
of the yearly reporting  
of Covestro AG





» Nobody can turn  
80 years of experience into  
new perspectives. «

# WHY NOT?

With this spirit, we want  
to push boundaries  
to make the world  
a brighter place –  
every day and  
for every customer,  
in every single project.

#PushingBoundaries

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## About this Report

### Non-discrimination

We are committed to non-discrimination. For the sake of readability, this Report generally avoids using gender-specific wording. All references to persons are intended to apply equally to both genders.

### Rounding

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

### Language versions

This GRI Supplementary Report is available in both German and English. If there are any differences, only the German version is authoritative.

### Key



Links to additional information online



Cross-references within the GRI Supplementary Report and to the Annual Report

### Publication date

This GRI Supplementary Report was published on February 20, 2018.

# 1. Reporting Structure

## 1.1 Reporting Principles

Covestro provides comprehensive and transparent information on issues that are material to the company and our stakeholders. We measure our sustainability performance using both financial metrics and material non-financial indicators, all of which are published in the Covestro Annual Report. Through this process, we aim to illustrate how environmental and societal considerations are closely linked to our long-term business success.

The Annual Report and supplementary sustainability information in this GRI Supplementary Report comprise our annual sustainability reporting. The reporting period covers the period from January 1 to December 31, 2017. The most recent Annual Report and its associated GRI Supplementary Report were published in February 2017.

Covestro's sustainability reporting follows international guidelines and recommendations, including those on the definition and selection of non-financial indicators and on reporting. Our sustainability reporting is prepared in accordance with the "Core" option of the Global Reporting Initiative's (GRI) Sustainability Reporting Standards (SRS). A GRI Index can be found at the end of this document. We additionally fulfill the requirements of the CSR Directive Implementation Act (CSR-RUG). The non-financial statement was published in the Fundamental Information about the Group section in the 2017 Annual Report.

In selecting and measuring indicators, the recommendations of the European Federation of Financial Analysts Societies (EFFAS) and the Sustainability Accounting Standards Board (SASB) for non-financial metrics were both taken into account in accordance with the rules in German Accounting Standard No. 20 (DRS 20). Our greenhouse gas emissions (Scope 1 and 2) are recorded in line with the requirements of the Greenhouse Gas Protocol (GHG Protocol).

## 1.2 Data Collection for Non-Financial Metrics

Our Group-wide safety and environmental performance metrics, for example, are compiled for the Group as a whole using our site information system. This system covers all fully consolidated companies in which Covestro owns at least a 50% interest. The environmentally relevant indicators we have defined are measured at all production sites. Irrespective of Covestro's stake in these companies, the performance metrics are fully consolidated. Data on workplace accidents, transportation and environmental incidents are collected at all sites worldwide.

Our human resources metrics are ascertained through our global human resources information system. Compliance incidents throughout the Group are compiled in an incident database and subjected to an extensive review allowing appropriate remedial steps to be taken. In addition, violations and complaints regarding our products received throughout the Group are recorded in a reporting system, evaluated and then appropriate measures are initiated.

As one of the six founding members of the "Together for Sustainability" (TfS) initiative launched by leading chemical companies, Covestro pursues the global harmonization of its suppliers' sustainability assessments and audits.

## 1.3 External Assurance

PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft has audited this report on a limited assurance basis to assess compliance with the requirements of the GRI SRS. The audit was conducted in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised). The independent assurance report follows the GRI Index at the end of this report. The sustainability section in the combined management report for the fiscal year 2017 has been audited in full with "reasonable assurance" by the external auditor in accordance with § 317 German Commercial Code (HGB).

## 2. Embedding of Sustainability

### 2.1 Company Policies and Voluntary Commitments

Sustainability management at Covestro contributes to the development of customer-focused products as well as to the protection of the environment through resource-efficient and low-emissions production, and creates economic value. Specific requirements on important sustainability issues are anchored in our six Corporate Policies in order to realize the sustainability aspects of our strategy.

**Creating value:** Value creation is the primary objective of Covestro. We develop solutions that create value for customers, society and the environment, employees and investors. We accomplish this with superior material properties, environmental compatibility, user friendliness and cost effectiveness. Covestro's approach addresses important economic aspects of various industries. In doing so, Covestro endeavors to design the life cycle of its products to use resources as efficiently as possible and to maximize the value produced from the resources used. In order to grow profitably and generate attractive returns, we strive to balance short-term and long-term goals by applying three equally important financial parameters: core volume growth, free operating cash flow (FOCF) and return on capital employed (ROCE).

**Sustainability:** Our aim is to align economic success with environmental and social goals. This type of sustainable business activity corresponds with our vision of "making the world a brighter place". Our decisions and our actions therefore equally account for the three pillars of sustainability – economy, environment and society – and are based on the principle of avoiding negative impacts in all of these three areas. Our sustainability policy underpins this intention. Specific committees have been appointed at Covestro to define and manage important sustainability issues. These include the development and implementation of targets and action programs.

**Innovation:** Innovation is vital if we are to master the global challenges of our time and create value in the long term. Accordingly, we continuously develop new products, applications and technologies that offer new perspectives. In addition to these research and development (R&D)-driven innovations focused on products and meeting customers' needs, we focus on market-oriented operational innovations aimed at improving internal processes and on developing new business models.

**People:** Covestro's success is based on the strong commitment of our employees. We therefore offer a pleasant and safe work environment and promote the professional and personal development of our employees. This is why curiosity, courage and diversity are the values that shape our corporate culture and enable our workforce to contribute to the success of our company. The core skills and leadership abilities that guide the professional development of our employees are aligned with these values.

**HSEQ (Health, Safety, Environment and Quality):** Occupational health, safety, environmental protection, energy efficiency and quality management are key factors in achieving our goals. We set high standards and always aim for continuous improvement. This is the primary goal of our Integrated Management System.

**Compliance:** Covestro's corporate conduct is characterized by a sense of responsibility as well as ethical principles. Strict compliance with all statutory requirements and voluntary commitments by Covestro is therefore considered to be of the utmost importance and is anchored in our internal regulations, which apply to all employees worldwide.

Other codes and voluntary commitments additionally govern the treatment and behavior of employees and suppliers with regard to certain issues. In its voluntary commitment to responsible lobbying, Covestro has created clear and binding rules for its involvement in the political sphere. The voluntary commitment in conjunction with the more comprehensive directive is applicable across the Group and requires transparency and openness in working with representatives of political institutions. It stipulates that Covestro shall make no direct donations to political parties, politicians, or candidates for political office.



For more information, see our Annual Report, Group Management Report, section 3



For more information, see our Annual Report, Group Management Report, section 2

In accordance with local law, a political action committee (PAC) was set up in the United States which is only open to Covestro employees, but remains completely independent of the Group. The PAC manages individual voluntary donations by employees to support political candidates, ballot initiatives or legislative decisions in the United States. In addition to its externally published voluntary commitment, Covestro has signed up on a voluntary basis to the European Transparency Register. The purpose of this register is to record and monitor lobbying activities at the EU level, requiring the disclosure of certain company-specific information including, for example, the interests of related activities and the number of Covestro staff involved in lobbying. Detailed regulations also apply to lobbying activities in the United States. These include, for instance, a duty to report all political interactions on a quarterly basis, which Covestro meets in full.



Link to the European Transparency Register: [www.ec.europa.eu/transparency/register](http://www.ec.europa.eu/transparency/register)

## 2.2 Sustainability Goals

Our mission is to promote innovation and to drive growth – through profitable products and technologies that benefit society and reduce environmental impacts. Similarly, we aim to serve our customers, society, and the environment alike through our sustainability commitment, in accordance with our corporate vision of making the world a brighter place. In doing so, we aim to meet the economic, ecological, and social goals of sustainable development.



Our sustainability targets are set out on our website at [www.covestro.com/en/goals](http://www.covestro.com/en/goals)

Since 2016, Covestro has been following its own sustainability program for the entire Group which defines ambitious goals through 2025. The individual goals address key matters from different areas ranging from procurement through production and marketing to innovation. Our goals are aligned with the UN Sustainable Development Goals. We report on our progress in the Group Management Report and in this GRI Supplementary Report.



See section 10 "Safety" and section 11 "Environmental Protection"

In addition, occupational health and safety, environmental protection, energy efficiency and quality management goals have been defined as part of our Integrated Management System.

Our five goals are outlined below:



### **Our R&D-project portfolio is aligned with the UN Sustainable Development Goals**

By 2025, our target is to have 80% of project expenditures for research and development go toward the areas that contribute to reaching these goals. Many of our innovations and research activities already help to master global challenges. These include solutions developed for the Solar Impulse project, improvements in resource efficiency, and products that are cost-effective, environmentally sensitive and socially responsible.



For more information, see our Annual Report, Group Management Report, section 4



### **100% of suppliers compliant with our sustainability requirements**

All our suppliers with recurrent annual invoicing exceeding €100,000 will be assessed and must meet our sustainability requirements. This covers some 97% of our total purchasing volume. The remainder of our suppliers must also comply with our code of conduct by accepting the conditions of our purchase orders or contracts. We also seek to partner with our key suppliers to assist them in improving their sustainability performance, as well as that of the total value chain.



For more information, see our Annual Report, Group Management Report, section 6



### **Reduce specific greenhouse gas emissions by 50% compared to the base year 2005**

By 2025, we aim to cut our specific greenhouse gas emissions – those generated per metric ton of product produced – by half compared to our base year 2005. To this end we have created an energy management system which has been gradually rolled out globally since 2008 and now covers many of our more energy-intensive production plants. Besides optimizing specific energy consumption and the associated CO<sub>2</sub> emissions, we have also taken steps to reduce the emissions of other greenhouse gases such as nitrous oxide, methane and partially fluorinated hydrocarbons.



For more information, see our Annual Report, Group Management Report, section 11



### **Ten million people in underserved markets benefit from our business solutions**

We work to help improve the lives of a targeted ten million people in underserved markets, primarily in developing and emerging countries, by the year 2025. In collaboration with customers, governmental and non-governmental organizations, we intend to develop affordable solutions based on our technologies and products opening up new business models and solutions that improve the economic and social situation in these regions. Our focus is on affordable housing, sanitation and food security.



For more information, see our Annual Report, Group Management Report, section 12 and magazine "Why not?", Products



### **Getting the most out of carbon**

Our products are based on carbon and we want to use carbon as intelligently as possible. Increasing carbon productivity means creating more value with fewer carbon-based fossil resources. We work with a group of international organizations in the Carbon Productivity Consortium to develop a generally recognized method for assessing carbon productivity.



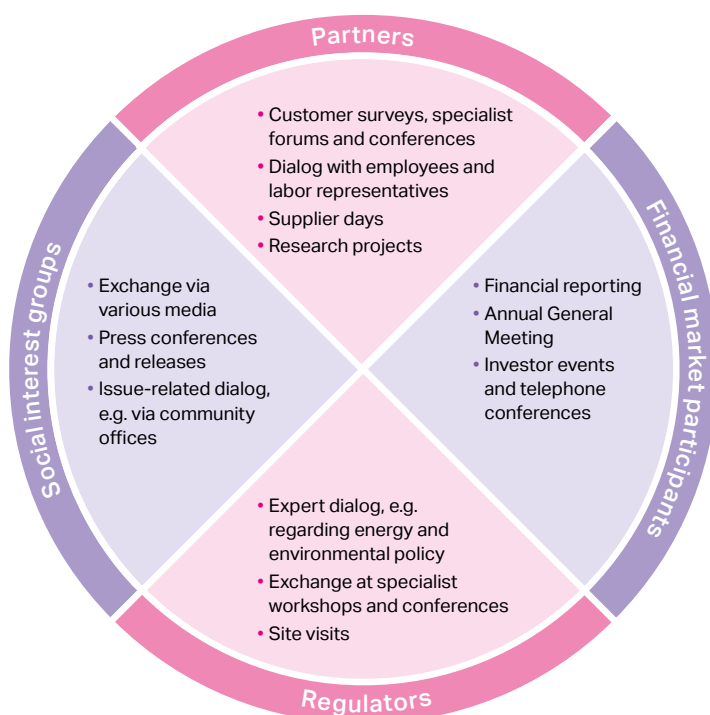
For more information, see our Annual Report, Group Management Report, section 4

## 3. Sustainability Management

### 3.1 Stakeholder Dialog

We are committed to an active, open and constructive dialog with our stakeholders – whether at a regional, national or global level. Our external stakeholders evaluate the company not only in terms of financial and legal aspects but also with regard to behavior in line with sustainable and ethical principles. Stakeholders are our business partners, with whom we work closely on a daily basis: financial market participants, who judge our performance; regulators, with whom we discuss changes in our company and in the legal framework within which we operate; and societal stakeholders, whose acceptance and interest in the company is necessary for us. In order to identify and address current developments and sustainability-related opportunities and risks at an early stage, we review whether there are any new findings relevant to opportunity and risk management.

#### Main Stakeholder Groups and Dialog Formats



We focus on a transparent and open communication approach. Depending on the relevance of a particular issue, our various departments identify and prioritize key stakeholders and select appropriate channels for communication. We also update our materiality analysis each year in which we survey our internal and external stakeholders to determine the key sustainability issues for Covestro.

#### Partners

Collaboration with customers, employees and suppliers is crucial for the long-term success of our company. Our cooperation with – and active participation in – industry associations and scientific institutions is also important to us. We maintain close contacts with all of these groups, both at senior management level and through various departments.

In addition, Covestro participates in many international industry trade shows. In the reporting period, this included major events such as Chinaplas, the international plastics and rubber trade fair; the European Coatings Show (ECS), a top global trade fair for the paint and coatings industries; JEC World, an international composites trade show; the furniture industry expo interzum; and the in-cosmetics fair.



## Customers

We are in constant contact with our customers worldwide, primarily through our sales and marketing staff across the Group. In addition, we routinely evaluate the satisfaction of our customers as a core component of our Integrated Management System and use their feedback for continual improvement.

At regular intervals, we conduct branding and market research in-house or hire independent consultants. In these surveys existing and potential customers from all of the industries relevant to Covestro are interviewed. We use the findings from this research to continually improve our performance and customer-oriented market positioning in marketing and sales, innovation, product management, supply chain and communication. The latest market study was a global customer survey in 2016/2017 for the PUR segment during which nearly 500 interviews were conducted worldwide to improve our understanding of our customers' needs. For example, key criteria for purchasing and the challenges facing various industry segments in the future were discussed, including how Covestro could help customers deal with these issues. The results of this research are used to implement measures designed to improve Covestro's market position.

## Suppliers

To ensure the smooth running of production processes and implement our sustainability policy, Covestro works closely with its suppliers. As a founding member of the "Together for Sustainability" (TfS) initiative, Covestro maintains a regular dialog with suppliers and assesses their performance regarding sustainability issues relevant to us.

Covestro organized numerous sustainability events with suppliers during the reporting period. In March 2017, a supplier day was held in Düsseldorf under the motto "Pushing Boundaries Together". During this supplier event, the groundwork was laid for new and more intensive partnerships with Covestro's primary suppliers with regard to issues like costs, reliability, innovation and sustainability. Another "Ecovadis" supplier day was co-organized by Covestro in Düsseldorf in September 2017. In addition, several sustainability workshops were held with individual suppliers in Europe, the Middle East and Africa. In Pittsburgh and Shanghai, workshops themed "Ambition 2020 – Four Strategic Issues" took place in April 2017, and in September 2017, Covestro employees participated in the China Petroleum and Chemical Industry Conference in Shanghai.

## Employees

Covestro aims to be an attractive employer in order to attract and retain motivated and talented employees. We regularly update our workforce about current business developments and seek their active involvement through dialog. We inform our staff promptly and fully about any upcoming changes as required by the applicable national and international regulations. Covestro regularly holds town hall meetings with members of the Board of Management and senior executives at all its major sites around the world. In addition to business performance and the company's strategic goals, these also address specific topics such as workplace safety and global or regional issues. Covestro disseminates news through presentations, the employee newsletter C<sup>3</sup>, occasional mailings, plus the company's intranet and social media, including a blog by the CEO. The Board of Management is also in regular dialog with the Works Council and trade unions. Additionally, managers can exchange information about industry and department-specific issues with staff at Round Tables and "Lunch & Learns".

Covestro encourages employees to participate in finding solutions and engage in active dialog. For instance, our employees have the opportunity to contribute their innovative business ideas in a contest where the best idea is awarded a prize. We also actively promote communication among employees. A new software called Shiftconnector was introduced to improve shift handovers. Group activities are also organized for staff, such as the Brunsbüttel family cycling day in July.

In April 2017, Covestro launched the Young Champions of the Earth initiative in conjunction with the UN Environment Programme. This initiative promotes outstanding ideas and projects for protecting the environment that young people aged 18 to 30 can showcase on an international educational platform ("DO school"). Acting as mentors, Covestro employees shared their expertise with the 30 finalists in the competition.



www.tfs-  
initiative.com



For more  
information, see  
our Annual Report,  
magazine  
"Why not?", Spirit

### Associations

Covestro is currently an active member of more than 200 national and international associations. In addition, Covestro participates in many different committees in these organizations that are concerned with sustainability, energy and climate issues.

Since 2016, our CEO Patrick Thomas has been a member of the board of the German Chemical Industry Association (VCI). He is a founding member of the World Plastics Council (WPC) and sits on its Executive Committee. Patrick Thomas is also a member of the Board of Management and the Executive Committee of the European Chemical Industry Council (CEFIC) and holds the Chair of CEFIC Research and Innovation. Additionally, he served as President of PlasticsEurope, the European plastics manufacturers' association, until June 2017.

Dr. Markus Steilemann, Chief Commercial Officer and member of the Board of Management responsible for innovation, has been active on the Board of Trustees of the Fonds der Chemischen Industrie since 2016. He joined the Steering Board of PlasticsEurope in July 2017. Dr. Markus Steilemann has served as President of SusChem, the European Technology Platform for Sustainable Chemistry, since October 2017.

Board of Management member responsible for Production and Technology Dr. Klaus Schäfer is a board member of VIK, the federation of power consumers from industry and business in Germany, as well as a board member of the North Rhine-Westphalia regional association of the German Chemical Association (VCI NRW).

In addition, Covestro is active in the International Council of Chemical Associations (ICCA) and the American Chemistry Council (ACC) as well as other associations with particular relevance to sustainability issues important to the company, such as the World Energy Council Germany (member of the Presidium), the Forum für Zukunftsenergien (member of the Board of Trustees) and the Innovationsforum für Energiewende of German industrial trade union, Bergbau, Chemie, Energie (IG BCE). Covestro is a signatory to the UN Global Compact and is active in econsense, the Forum for Sustainable Development of German Business.

### Scientific institutions

Research and development is the central plank that enables Covestro to combine economic success with community involvement and environmental stewardship. These activities are therefore extremely important, both for the financial stability of the company as well as for our contribution to society and the environment.

Covestro maintains long-standing, national and international collaborative relationships with leading universities and public research institutions. In Germany, Covestro works with RWTH Aachen University, for example. One highlight of this partnership is the CAT Catalytic Center in Aachen that conducts fundamental research on catalysis. Covestro additionally cooperates closely with the Technical University of Berlin on materials development and cost estimation. In the United States, Covestro maintains partnerships with several universities and university-affiliated institutions, including the Penn State Materials Research Institute. The research conducted here involves developing sustainable materials for sanitary facilities. A Covestro employee also serves on the advisory board of the University of Minnesota and works with the Center for Sustainable Polymers there. In China, Covestro and Covestro-Tongji Eco-Construction & Material Academy (formerly Bayer-Tongji Eco-Construction & Material Academy) have a long-term collaboration at Tongji University. The Academy was founded jointly by the School of Materials Science and Engineering, the School of Architecture and Urban Planning of Tongji University and Covestro, who donated €150,000 toward its establishment. The Academy promotes innovation and sustainability in construction and in materials science through teaching, research and the development of programs for young talent.

Covestro is a member of the UNEP-Tongji Institute of Environment for Sustainable Development (IESD).

In 2016, Covestro joined the International Committee of Clean Technologies launched by the Solar Impulse project, which is dedicated to popularizing low-carbon solutions.

## Financial market participants

Intensive dialog with capital markets is a high priority for Covestro. We actively exchange information, especially with investors and lenders, along with rating agencies and analysts, on an ongoing basis. In this way, we aim to contribute to achieving a fair share price and an appropriate credit rating. These efforts are focused on ensuring a comprehensive, consistent and timely exchange of information between the company and the financial markets.

### Investors, lenders and analysts

As well as hosting the Annual General Meeting and publishing four quarterly reports, an investor teleconference is held every quarter. During the reporting period, Covestro held a Capital Market Day in London. In addition to the business performance of the individual segments, important financial data and key investments were presented. Covestro held other face-to-face investor meetings at various locations during the year under review.



investor.covestro.com/en/start/

### Rating agencies

Sustainability ratings not only help institutional investors make decisions, they also provide an opportunity to continually review sustainability activities and expand them where appropriate. Rating agencies' criteria include both the expectations of our relevant stakeholders as well as new issues that could be of relevance for Covestro in the future.

In 2017, Covestro again qualified for inclusion in major sustainability indexes such as the FTSE4Good Index and the Euronext Vigeo Index (Eurozone 120).



Moreover, outside rating agencies (e.g. Oekom Research, Sustainalytics) assess the sustainability and climate protection achievements of companies and support investors in developing and implementing sustainable investment strategies.



FTSE4Good

Already in 2016 Covestro had received recognition from rating firms like Oekom Research, in whose most recent survey Covestro did extremely well, achieving "Prime" status with an overall score of B-. This puts Covestro in the top 10% of companies in the chemical industry. Oekom Research did not reassess Covestro in 2017, since its ratings are issued at two-year intervals. With a score of 75 out of 100, Sustainalytics classified Covestro as an "Outperformer" in 2017. Here Covestro ranked 10th out of the 133 chemical companies analyzed with regard to the overall score.



The findings of the main rating agencies were compiled and analyzed in detail in 2017 to systematically identify potential areas of improvement. The results were then prioritized according to an internal list of criteria and the most important ones were forwarded to the responsible managers. By leveraging the information provided to us by rating agencies, we can drive continuous improvements even in areas otherwise outside of our immediate focus.

## Regulators

We maintain a regular dialog with government agencies, ministries, politicians and key regulatory opinion leaders at the local, regional, national and international level. This dialog takes the form of submissions to public consultations, participation in specialist workshops, association activities and specific discussions with policymakers. The focus of Covestro's representation of its public policy interests in 2017 was on chemicals and energy policy, low-carbon circular economy, transportation, and environmental and climate protection.

In its Code of Conduct for Responsible Lobbying, Covestro has created clear and binding rules for its involvement in the political sphere.

## Societal stakeholders

Covestro is in active contact with the general public, neighbors living in the vicinity of our sites, non-governmental organizations (NGOs), and the media. Engaging with various societal stakeholder groups through a number of different channels and forums is a key component of our communications strategy.

### The public, neighbors and non-governmental organizations

Our sites around the world consider the impact of their business activity on their neighbors and society at large, and take account of this in their operational and strategic decisions. This includes an active, open and constructive dialog allowing Covestro to be recognized as a reliable and trustworthy partner that takes its social responsibility seriously.

Dialog with neighbors, the public and NGOs is initiated on a case-by-case basis. During this process, we adhere to – and indeed often exceed – national and local standards. When capital investment projects are undertaken, the neighborhood is proactively informed and involved. In the United States, dialog takes place through Community Advisory Panels. These panels organize regular meetings with local public authorities and/or neighborhood representatives, in order to provide updates on current issues. In Germany, the Chempark neighborhood offices are used to communicate with neighbors. Especially when new facilities begin operation, we reach out for direct dialog with stakeholder groups in the community.

We also maintain relationships with various organizations and NGOs as part of our wider engagement with society, for instance with UN Global Compact, the United Nations Environment Programme (UNEP) and Habitat for Humanity.

### Media

Another key component of our stakeholder dialog is our relationship with the media. The channels for our media work include press releases, press conferences, background discussions, individual interviews and journalist visits as well as social media channels such as LinkedIn, Twitter, Facebook and YouTube. We also regularly inform the media and all other stakeholders about current developments via our website. In addition to press releases, we publish financial information, such as annual and quarterly reports, as well as presentations and speeches from conferences and meetings.



See section 12 "Corporate Citizenship", and further information in the Annual Report, Group Management Report, section 12

## 3.2 UN Sustainable Development Goals (SDGs)

As a corporation, Covestro is part of society and also has a responsibility to address current challenges such as climate change, resource scarcity, protecting health, and combating poverty. We align our activities with the UN Sustainable Development Goals. Where we can exert a significant influence on the global challenges underlying the UN Sustainable Development Goals, we have incorporated these sustainability issues into the Group's strategy. This applies to our products and processes as well as to our relationships with stakeholders.

In the reporting year, we performed a more detailed analysis of the UN Sustainable Development Goals. We thoroughly reviewed the overarching UN Sustainable Development Goals and their sub-goals, also taking the UN guidelines for interpreting the UN Sustainable Development Goals into account.

The objective of this analysis was to assess the current contribution made by Covestro to the UN Sustainable Development Goals and at the same time to identify possible challenges Covestro could be confronted with.

The analysis was carried out in five categories (see figure):

- core business products;
- Covestro's workflows and production processes as well as business ethics;
- research and development (R&D) projects;
- inclusive business (improving the living standards of low-income communities with innovative solutions); and
- social engagement (mostly by way of partnerships and donations, educational activities and employee volunteering).

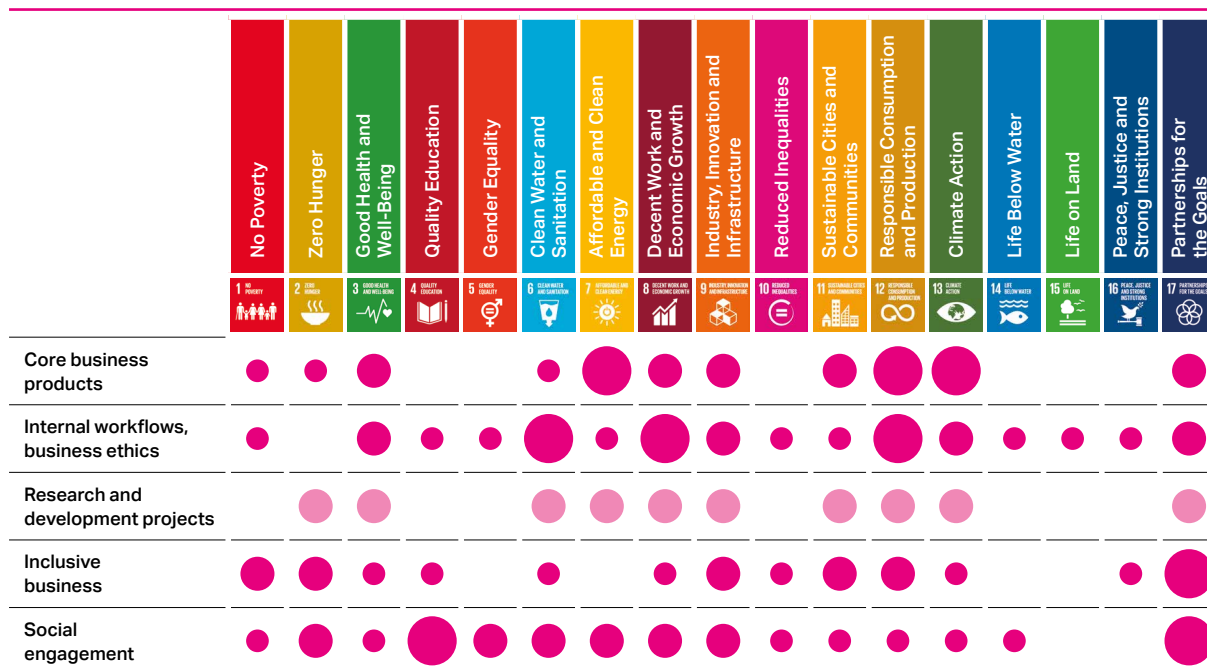


[www.un.org/sustainabledevelopment](http://www.un.org/sustainabledevelopment)



[www.covestro.com/en/inclusive-business](http://www.covestro.com/en/inclusive-business)

**Covestro's Current Contribution to UN Sustainable Development Goals (2017 Internal Study)<sup>1</sup>**



<sup>1</sup> Assessment of contribution using for example the sales amount for core products, internal processes, business practices, portion of R&D project spending, donation budgets, etc.



The assessment of Covestro's contribution is based on qualitative and quantitative data that was collected at the level of the 169 individual sub-goals and subsequently consolidated at the level of the 17 overarching goals. Among other factors, the analysis included sales figures, R&D project spending, donation budgets as well as internal processes, standards and environmental requirements and their respective influence on the goal or sub-goal. Each category was analyzed separately.

The results indicate that Covestro is making positive contributions to all 17 UN sustainability goals to a greater or lesser extent.

We are currently contributing the most to the following goals:

- No. 13 – Climate action
- No. 12 – Responsible consumption and production
- No. 9 – Industry, innovation and infrastructure
- No. 8 – Decent work and economic growth
- No. 7 – Affordable and clean energy
- No. 6 – Clean water and sanitation
- No. 3 – Good health and well-being

Most of these contributions relate to our core products, whose use helps to save large amounts of energy, and to our own workflows and business practices. The majority of our R&D projects also aim to meet these UN Sustainable Development Goals as well as goal No. 2 – Zero hunger. Our contributions to the UN Sustainable Development Goals with a social focus primarily lie in our business ethics, social engagement and Inclusive Business activities.

We are convinced that we can only be successful by working in partnership with others. Many of our activities are therefore conducted through partnerships or consortia (No. 17 – Partnerships for the goals).

In addition to evaluating the positive contributions on UN Sustainable Development Goals already being made by Covestro, the analysis also aimed to identify challenges that Covestro may be confronted with. We define these challenges as issues that, if neglected or not addressed, have the potential to negatively affect individual UN Sustainable Development Goals from the point of view of our stakeholder groups. For instance, we are aware that our production processes require considerable amounts of energy. This is why Covestro has set itself the goal of reducing the specific greenhouse gas emissions

of our production activities by 50% compared to the base year 2005. To this end, we have taken many initiatives to cut energy consumption in production and lower greenhouse gas emissions. In addition, some of our products help conserve energy during their use phase. Many of these products save more energy in use than was consumed during their production, e.g. building insulation.

As part of the chemical industry, Covestro is aware that it bears special responsibility. This is our way of ensuring – no matter how challenging the issue – that Covestro is making a positive contribution to the UN Sustainable Development Goals, or having a neutral impact at least.

In the course of this year's stakeholder interviews conducted during the update of the materiality matrix, the UN Sustainable Development Goals were also incorporated into the discussion. The focus here was on assessing the influence that Covestro might have on positive development and on existing or potential risks and opportunities.

The following UN Sustainable Development Goals were frequently cited as being the most relevant to Covestro from the point of view of stakeholders: No. 7 – Affordable and clean energy, No. 9 – Industry, innovation and infrastructure, No. 12 – Responsible consumption and production, No. 13 – Climate action, No. 14 – Life below water, No. 17 – Partnerships for the goals.

This is in line with the results of our own analysis conducted internally.



See section 2.2  
"Sustainability  
Goals"



See section 11  
"Environmental  
Protection"



See section 3.3  
"Material Sustaina-  
bility Issues"

### 3.3 Material Sustainability Issues

As part of the materiality analyses, important sustainability issues are also analyzed each year and prioritized in relevance for Covestro. This occurs by analyzing the interests, expectations and requirements of our key stakeholders and reflecting them in the sustainability topics we regard as material. The issues identified as material give us direction for our company's business positioning, goals and strategy development.

The sustainability issues and their definitions from the previous year were used as the basis for this year's materiality analysis. These issues were assessed in interviews with selected external stakeholders, with topics being added or amended as necessary. Taking into account current trends and developments, the stakeholders evaluated the degree of relevance of each for Covestro. The issues were subsequently discussed and analyzed from the internal perspective in a workshop with Covestro experts from various fields. The Covestro sustainability goals for 2025 were also included in the analysis.

We reviewed and updated the materiality analysis in four stages:

#### 1. Review of the previous year's definitions of sustainability issues prior to interviews

Compared to the previous year, there were only insignificant changes in the sustainability issues and their definitions used as the basis for stakeholder interviews. The "Donations" topic was renamed "Corporate Citizenship" to better reflect Covestro's actual activities. Individual issues were broken down initially to enable clearer differentiation in the discussions.

#### 2. Interviews with external stakeholders from associations, NGOs, scientific institutions and investors

Specially trained Covestro staff held a total of seven stakeholder interviews. When selecting stakeholders, the focus was on representing key stakeholder groups through multipliers and additionally ensuring an international perspective. Sustainability issues from the previous year were discussed along with new topics and the UN Sustainable Development Goals. The stakeholders were asked to rank the sustainability issues we proposed or new ones, if applicable, according to their relevance for Covestro. After all of the interviews were completed, some definitions were adjusted. Finally, the relevance of each issue was determined by averaging all the stakeholder ratings.

### 3. Internal workshop with experts from various Covestro divisions

The results of the stakeholder interviews and the necessary adjustments to the definitions derived from these were checked for correctness and clarity. The Covestro experts then evaluated the relevance of the issues for Covestro from the company's perspective.

### 4. Updating of the materiality matrix

The materiality matrix was amended and approved by the Chief Sustainability Officer (CSO) based on the results of the stakeholder interviews and the internal materiality workshop.

The materiality matrix visualizes the sustainability topics of key importance to Covestro and external stakeholders. Based on the results of the stakeholder interviews and the internal expert workshop, the sustainability issues and their definitions were refined by summarizing topics or separating out particular aspects. As a result, based on feedback from external stakeholders, the topic of "Innovation", which was material in the prior reporting period, was broken down into three specific topics: "Circular economy solutions for a resource-efficient economy", "Innovative solutions for climate change mitigation" and "Innovative solutions that contribute towards the UN Sustainable Development Goals". The issues "Emissions and waste reduction in operations" and "Resource- and energy-efficient production" were combined into the new "Environmentally efficient operations" topic. Furthermore, the definition of "Product stewardship" was amended to include the entire value chain.

Compared to the previous year, "Employer attractiveness" was ranked as being somewhat less relevant. According to the statements by the external stakeholders interviewed, this is viewed more as an internal Covestro issue with minimal external implications. Internal stakeholders were of the opinion, that Covestro is already a very attractive employer due to its innovative business models and corporate culture.

The analysis indicated that the following sustainability issues have high or very high relevance on the whole for Covestro and the stakeholders. Going forward, these topics will become more important and be more heavily integrated into our strategic and commercial business focus. These sustainability topics are also important as the foundation for selecting the main aspects and indicators as required for the GRI core reporting:

- Innovative solutions for climate change mitigation
- Innovative solutions that contribute towards the UN Sustainable Development Goals
- Product stewardship
- Partnering for scalable solutions
- Circular economy solutions for a resource-efficient economy
- Occupational health and safety in operations
- Environmentally efficient operations
- Business ethics and transparency
- Sustainable procurement

**Materiality Matrix 2017**

Stakeholder relevance (external view)	Very high		<ul style="list-style-type: none"> <li>Partnering for scalable solutions</li> <li>Circular economy solutions for a resource-efficient economy</li> </ul>	<ul style="list-style-type: none"> <li>Innovative solutions for climate change mitigation</li> <li>Innovative solutions that contribute to the UN Sustainable Development Goals</li> <li>Product stewardship</li> </ul>
	High		<ul style="list-style-type: none"> <li>Business ethics and transparency</li> <li>Sustainable procurement</li> </ul>	<ul style="list-style-type: none"> <li>Occupational health and safety in operations</li> <li>Environmentally efficient operations</li> </ul>
	Medium	<ul style="list-style-type: none"> <li>Social engagement</li> </ul>	<ul style="list-style-type: none"> <li>Employer attractiveness</li> </ul>	
		Medium	High	Very high
<b>Relevance for Covestro (internal view)</b>				

**Innovative solutions for climate change mitigation**

It is our goal to reduce greenhouse gas emissions along the entire value chain through the development of our products, business models and processes while at the same time developing solutions for optimal carbon productivity.



See section 4 "Innovation"

**Innovative solutions that contribute towards the UN Sustainable Development Goals**

We contribute to achieving the UN Sustainable Development Goals with our innovative products, processes and business models. The extent of our impact on the individual UN Sustainable Development Goals varies depending on the areas in which we operate.



See section 4 "Innovation"

**Product stewardship**

Product stewardship for Covestro means the comprehensive evaluation of health, safety and environmental risks. We want our products, when used as intended, to be safe throughout their life – from research through production, marketing, use by the customer, to disposal. Our voluntary commitments and standards in this regard exceed the statutory requirements.



See section 9 "Product Stewardship"

**Partnering for scalable solutions**

Collaboration with various industry, political and societal stakeholders at the national and international level is very important for Covestro to enable the development of effective solutions for mastering society's challenges. Many partnerships play a part in working out effective methods that would not have been possible for us independently, or would take much longer.



For more information, see our Annual Report, Group Management Report, section 12



### Circular economy solutions for a resource-efficient economy

Covestro has set its sights on developing innovative life cycle management solutions. We focus not only on innovative products, but also on new types of business models and process improvements that make circular material flows resource-efficient and economically viable.



See section 4  
"Innovation"

### Occupational health and safety in operations

Preventing accidents and incidents in day-to-day operations and promoting health in the workplace are key aspects of corporate responsibility and therefore Covestro's highest priority, both in our production facilities and during related travel and transportation.



See section 10  
"Safety"

### Environmentally efficient operations

As a chemical company, minimizing emissions in the air (particularly greenhouse gases, Scope 1 and 2) and water, reducing waste and its transport, and responsible recycling are vital from an economic and an environmental standpoint. This includes preventing unintended pollution of the environment with plastics.



See section 11  
"Environmental Protection"

### Business ethics and transparency

Every action taken by Covestro is founded on integrity. Drawing on our sense of responsibility and ethical principles, we ensure that we strictly follow all statutory requirements and our conduct toward our stakeholders is appropriate in every way. We also ensure adherence to our high internal standards for integrity, corporate governance, compliance, combating corruption, lobbying, respect for human rights and zero tolerance for forced or child labor.



See section 13  
"Compliance"

### Sustainable procurement

For Covestro, adherence to sustainability standards along the entire supply chain is a crucial factor in value creation and a key lever for minimizing risk. At Covestro, we require our suppliers to respect and implement the principles set forth in our Supplier Code of Conduct.



See section 6  
"Procurement"

## The following topics were rated by the stakeholder representatives as being of average overall relevance:

### Employer attractiveness

For Covestro as a global company, safeguarding and promoting human rights constitute significant elements of our corporate responsibility. In particular, this entails promoting equal opportunities and the right to collective bargaining. This creates the foundation for good relationships with our employees, workforce representatives and trade unions.



See section 5  
"Employees"

We meet the growing expectations of employees and applicants with clear value propositions, such as work-life balance, competitive compensation, opportunities for advancement, equal opportunities and volunteering.

### Social engagement

Supporting and strengthening our relationships with local communities in the vicinity of Covestro sites is very important to us. This includes donations and investments, as well as partnerships and volunteering.



See section 12  
"Corporate Citizen-ship"

### 3.4 Standards and Certifications

The integrated management system implemented throughout the Group combines the different requirements from the health, safety, environment and quality areas. The integrated management system ensures implementation of the specifications of the HSEQ Group guidelines in compliance with internationally recognized standards governing occupational safety (OHSAS 18001), the environment (ISO 14001), energy (ISO 50001), and quality (ISO 9001).

Binding, Group-wide directives that support meeting HSEQ targets are accessible to all employees in an internal Group database. Compliance with these directives is checked during internal audits and external certifications conducted annually. This can result in changes to the management system. In 2016, we began reviewing and aligning our existing HSEQ management system with the newly revised ISO 9001:2015 and ISO 14001:2015 standards. During 2017, our Integrated Management System was then successfully certified to these ISO standards.

Based on energy consumption, the coverage of our business activities with HSEQ management systems is as follows:

#### Certification According to External Standards (in percent)<sup>1</sup>

	2016	2017
According to various quality management standards such as ISO 9001	100	100
ISO 14001 certified/EMAS validated	95	96
OHSAS 18001 certified	90	88
ISO 50001 certified	40	46

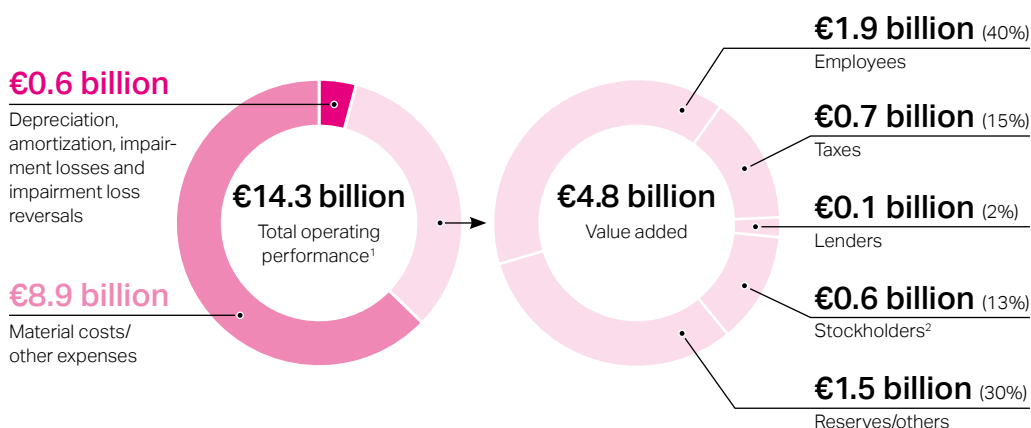
<sup>1</sup> In percent of business activities based on energy consumption

### 3.5 Value Creation

Covestro aims to create sustainable value for all stakeholder groups in the value chain.

Our value added calculation represents the value added we have generated as the company's contribution to the gross national product of the individual country, and shows its distribution in the fiscal year. We define value added as the company's business performance minus its outlays, such as material expenses, other expenses or depreciation, amortization, impairment losses and impairment loss reversals. In 2017, the Covestro Group's business performance amounted to €14.3 billion. Value added came to €4.8 billion. The statement of allocation shows that the majority of it benefited the employees, who received €1.9 billion in the form of personnel expenses. The government obtained €0.7 billion of value added in form of taxes, the stockholders €0.6 billion and lenders €0.1 billion.

#### Group Value Added



<sup>1</sup> Total operating performance = sales + other operating income + financial income including equity-method income (loss)

<sup>2</sup> Dividend proposal by Covestro AG for the fiscal year multiplied by the number of outstanding no-par voting shares at the closing date (December 31, 2017) plus acquisition of first treasury shares as of the closing date (December 31, 2017)

## 4. Innovation

Covestro's innovation strategy is driven by sustainability: We seek to systematically align our research and development portfolio with the UN Sustainable Development Goals (SDGs) – consistent with our corporate vision of making the world a brighter place. By 2025, our target is to have 80% of project expenditures for research and development go toward the areas that contribute to reaching these goals. The framework for company-wide introduction of the evaluation process for existing and new innovation processes was completed over the course of 2017. Exploration and preparation of a next step toward an external review and validation of this process is currently ongoing.

The key role of innovations is also evident in their importance for the various areas in which Covestro does business, such as for product and technology development, process engineering, business process optimization, and the development of new business models.

In the reporting period, we further improved our processes with functional innovations, for instance our STRUCTese™ (Structured Efficiency System for Energy) energy management system, which was developed in-house. This system enables us to control production facilities with optimum energy efficiency.

Our innovative INSQIN™ process for manufacturing polyurethane-coated fabrics for clothing and shoes is demonstrably more sustainable than conventional technologies, as confirmed by a life cycle assessment (LCA) in September 2017. The results of the analysis indicate that the use of water-based polyurethane for producing synthetic leather, a key material in the textile sector, significantly reduces the CO<sub>2</sub> footprint of the material compared to solvent-based technologies. The solvent-free process greatly simplifies the required occupational safety measures, lowers the risk of environmental pollution, and reduces water and energy usage.

In 2017, Covestro also made two substantial advances in the use of plant-based raw materials in plastics production. In the future, this will decrease dependence on fossil resources and improve the CO<sub>2</sub> footprint in production. We employed a biobased hardener for automotive refinish coatings in a collaborative project for the first time in 2017. A total of 70% of the hardener's carbon content is sourced from biomass. In addition to reducing energy consumption and carbon dioxide emissions, this product also minimizes the use of fossil resources. The innovative product was successfully deployed, for example, in a solar car race in Australia under extreme climate conditions in October 2017. We were also able to produce laboratory-scale quantities of the important basic chemical aniline entirely from biomass. To date, aniline has been manufactured worldwide solely from fossil resources such as petroleum. Our next research steps aim to scale up the production of biobased aniline, ultimately enabling industrial-scale production. Aniline is used in the chemical industry as a feedstock for numerous products and at Covestro for manufacturing a precursor for polyurethane insulation foam.

As part of our sustainability approach, Covestro is also developing materials and technologies for generating renewable energy, with a current focus on wind power. In particular, we developed innovative technology for manufacturing rotor blades for wind turbines. A special process is used to produce the rotor blades from polyurethane resin and woven fiberglass. In the reporting period, Covestro was awarded the important DNV GL certification for its newly developed resin system in China. DNV GL is a leading international industry standard for wind turbine safety, reliability and performance, and is additionally a requirement for entering the wind power market in China.

Moreover, Covestro established an innovative recycling process for saline wastewater generated during the production of polycarbonate. This high-performance plastic is required in many fields, such as automotive engineering, electronics, and medical technology. We are already using the new technology in an industrial pilot plant at Krefeld-Uerdingen. Our company was recognized for this innovation in 2017 by the North Rhine-Westphalia regional association of the German Chemical Industry Association (VCI NRW).



For more information, see our Annual Report, Group Management Report, section 4



For more information, see our Annual Report, magazine "Why not?", Products

Many of our innovation activities focus on partnerships and collaboration. For instance, Covestro has been participating in the Carbon4PUR EU research project since October 2017 along with 14 partners from seven European countries with the aim of promoting sustainable, resource-efficient and low-carbon technologies. This project is looking at the use of waste gases from the steel industry, such as CO<sub>2</sub>, in the manufacture of polyurethanes. In addition, we already use CO<sub>2</sub> from chemical industry waste gases to produce an important component of polyurethane foam.

In the interest of formalizing the interdisciplinary exchange of ideas relating to sustainable sources of raw materials, Covestro along with the Technical University of Berlin and DECHEMA Gesellschaft für Chemische Technik und Biotechnologie organized a raw materials summit in Berlin in June 2017. Participants discussed how the chemical industry can increase its use of sustainable raw materials such as plants or CO<sub>2</sub> in production to conserve our limited reserves of fossil fuels like petroleum. Three international start-ups received the designation "Resource Innovator 2017" for their outstanding entrepreneurial spirit and innovations along with prize money donated by Covestro.

Specifically promoting creativity, ideas and entrepreneurial thinking among Covestro employees is the mission of Covestro's Group-wide Start-up Challenge, which was launched in the reporting period. Employees from all divisions had the opportunity to submit their business and project ideas for Covestro products and corporate goals with the chance to implement these as an in-house start-up. Around 600 ideas worldwide have been submitted to the contest. The winning team will be able to work for up to one year on implementing their project with full financial support.



For more information, see our Annual Report, magazine "Why not?", Spirit

## 5. Employees

### 5.1 Strategy and Processes

The Human Resources (HR) strategy is derived from Covestro's corporate strategy. The HR goals are based on our corporate goals and our corporate values. The overarching goals are set by the Head of HR in conjunction with Covestro's CEO. The HR organization plays a key part in our company's success by addressing cross-functional issues such as demographics, digitalization, innovation and diversity management. It creates a framework for professional and innovative employee life cycle management, which involves providing proactive support to employees during their entire tenure at the company. Based on this HR strategy each HR department then sets supporting goals related to their individual tasks, which are agreed with the next level(s) of management. Monitoring, coaching and reviews, as well as any necessary changes, are handled in the regular meetings between employees and their line manager.



For more information, see our Annual Report, Group Management Report, section 5

To assure agility in the HR function, our organization, processes and system environment undergo continual further development. Accordingly, a modern personnel management system is currently in the implementation phase.

### 5.2 Employee Metrics

#### Diversity and internationality

As of December 31, 2017, Covestro had 16,176 employees worldwide, of which 76% were male and 24% were female. Their average age was 42.4 years. The company-wide "Diversity & Inclusion" program aims to promote and make progress on diversity in the Group. This includes professional succession planning with a special focus on diversity targets.

In the reporting year, Covestro's worldwide workforce comprised people of 84 different nationalities, with 13 nationalities represented at the executive management level.

The majority of Covestro's employees (56.4%) worked in Europe, the Middle East, Africa and Latin America (EMLA region). 26.0% of our employees were based in the Asia-Pacific region (APAC). The United States, Canada and Mexico (NAFTA region) accounted for 17.6% of our workforce.

The percentage of temporary employees in our company amounted to 1.5%.

#### Employees<sup>1</sup> by Employment Status, Region and Gender in 2017

	APAC		EMLA		NAFTA		Total
	Women	Men	Women	Men	Women	Men	
Permanent employees	1,240	2,954	1,891	7,022	632	2,200	15,939
Temporary employees	11	11	54	151	3	7	237
<b>Total</b>	<b>1,251</b>	<b>2,965</b>	<b>1,945</b>	<b>7,173</b>	<b>635</b>	<b>2,207</b>	<b>16,176</b>

<sup>1</sup> 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.

Worldwide 13.9% of all permanent employees worked part-time.

#### Percentage of Permanent Employees<sup>1</sup> by Type of Employment and Gender in 2017

	Women	Men	Total
Part-time	666	1,601	<b>2,267</b>
Full-time	3,275	10,740	<b>14,015</b>
<b>Total</b>	<b>3,941</b>	<b>12,341</b>	<b>16,282</b>

<sup>1</sup> The number of employees is presented irrespective of their degree of employment (head count).

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

#### Percentage of Employees by Employee Group and Gender in 2017

Employee group	Women	Men	Total
Senior management	2.3	9.5	11.8
Junior management	6.3	15.1	21.4
Skilled employees	15.1	51.7	66.8
<b>Total</b>	<b>23.7</b>	<b>76.3</b>	<b>100.0</b>
Employees in vocational training	18.6	81.4	100.0

#### Percentage of Employees by Employee Group and Age Group in 2017

Employee group	< 30 years	30 to 49 years	≥ 50 years	Total
Senior management	0.1	5.9	5.8	11.8
Junior management	1.0	13.6	6.8	21.4
Skilled employees	11.1	35.3	20.4	66.8
<b>Total</b>	<b>12.2</b>	<b>54.8</b>	<b>33.0</b>	<b>100.0</b>

#### Work-life balance

We promote 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 at various Covestro sites to enable our employees to combine work with their family responsibilities.

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

To both male and female employees we grant parental leave as required by law, and we offer support when employees need to care for relatives.

**Attracting qualified employees and professional development**

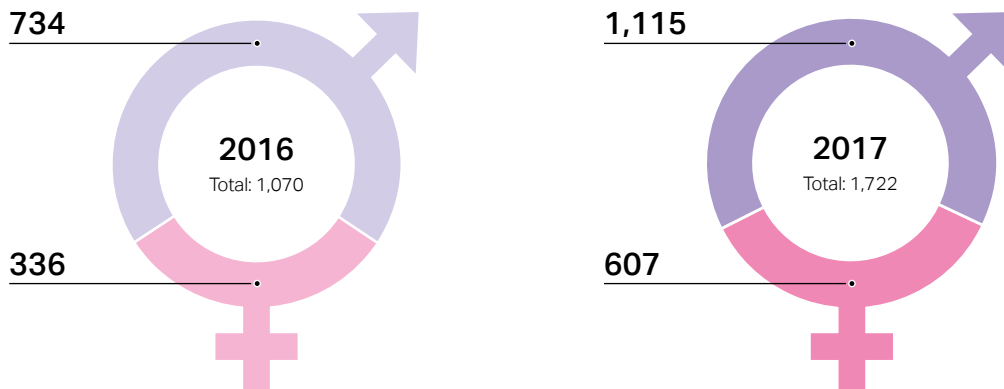
1,722 new employees were hired worldwide in the reporting year, the majority in EMLA. Wherever possible, Covestro supports its employees in pursuing continuing education and training to positively influence their career development.

**New Hires<sup>1</sup> by Age Group, Gender and Region in 2017**

	APAC		EMLA		NAFTA		Total	
	Ab-solute	%	Ab-solute	%	Ab-solute	%	Ab-solute	%
<b>Women</b>	<b>134</b>	<b>7.8</b>	<b>380</b>	<b>22.1</b>	<b>93</b>	<b>5.4</b>	<b>607</b>	<b>35.2</b>
< 30 years	67	3.9	189	11.0	56	3.3	312	18.1
30 to 49 years	66	3.8	172	10.0	29	1.7	267	15.5
≥ 50 years	1	0.1	19	1.1	8	0.5	28	1.6
<b>Men</b>	<b>218</b>	<b>12.7</b>	<b>681</b>	<b>39.5</b>	<b>216</b>	<b>12.5</b>	<b>1,115</b>	<b>64.8</b>
< 30 years	110	6.4	376	21.8	115	6.7	601	34.9
30 to 49 years	102	5.9	267	15.5	75	4.4	444	25.8
≥ 50 years	6	0.3	38	2.2	26	1.5	70	4.1
<b>Total</b>	<b>352</b>	<b>20.4</b>	<b>1,061</b>	<b>61.6</b>	<b>309</b>	<b>17.9</b>	<b>1,722</b>	<b>100.0</b>

<sup>1</sup> Employee figures are stated in full-time equivalents (FTE), percentages represent the distribution of new hires.

**New Hires, Total 2016/2017**



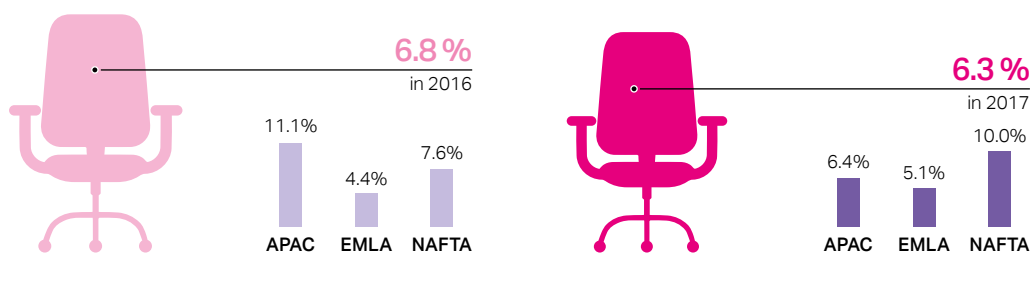
Turnover rates varied widely in some cases depending on the region and age group. This is primarily affected by cultural factors.

**Turnover<sup>1,2</sup> by Age Group, Gender and Region in 2017**

	APAC		EMLA		NAFTA		Gesamt	
	Ab-solute	%	Ab-solute	%	Ab-solute	%	Ab-solute	%
<b>Women</b>	<b>79</b>	<b>6.5</b>	<b>111</b>	<b>6.0</b>	<b>71</b>	<b>11.1</b>	<b>261</b>	<b>7.0</b>
< 30 years	24	12.2	32	12.2	36	35.9	92	16.4
30 to 49 years	51	5.3	55	5.1	19	6.4	124	5.3
≥ 50 years	4	6.9	24	4.7	16	6.5	44	5.4
<b>Men</b>	<b>185</b>	<b>6.3</b>	<b>349</b>	<b>4.9</b>	<b>216</b>	<b>9.7</b>	<b>750</b>	<b>6.1</b>
< 30 years	35	8.1	56	7.9	61	27.5	152	11.2
30 to 49 years	116	5.2	129	3.9	71	7.7	316	4.9
≥ 50 years	34	13.7	164	5.3	84	7.8	282	6.4
<b>Total</b>	<b>264</b>	<b>6.4</b>	<b>460</b>	<b>5.1</b>	<b>287</b>	<b>10.0</b>	<b>1,011</b>	<b>6.3</b>

<sup>1</sup> Employee figures are stated in full-time equivalents (FTE). The turnover rate is calculated as the ratio of FTEs to the average number of employees.  
<sup>2</sup> Includes all employer- and employee-driven terminations, retirements and deaths.

**Turnover Rate, Total 2016/2017**



Covestro promotes young talents through internships, vocational training and trainee programs. Worldwide, the company had 499 interns in total in 2017. In the previous year, this number was 435.



### Compliance and social responsibility

Integrated Compliance Management is our framework for defining compliance processes and systematically identifying and evaluating compliance risks. These include risks relating to fair and respectful working conditions. If any breach is suspected, employees can contact their Compliance Officer at any time, anonymously if wished. All suspected breaches of compliance are recorded in a standard way throughout the Group. This applies to all labor law-related matters such as working conditions, human rights, possible cases of discrimination and possible violations of the rights to exercise freedom of association and collective bargaining. If material risks arise from legal disputes and proceedings, these are published in the notes to the consolidated financial statements.

In the year under review, around 55% of our employees worldwide were subject to collective or company agreements. The contractually agreed working hours of our employees do not exceed 48 hours per week in any country. An exception is made for functional reasons for the employees of the fire service at one German facility. At various country subsidiaries, the interests of the workforce are represented by elected employee representatives. Covestro respects the obligation to consult with these representatives on certain personnel-related decisions.

Covestro's employees receive competitive compensation. As of December 31, 2017, access to a company pension plan was available to around 78% of the workforce. At all locations, HR 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) to a long-term account. The accumulated balance can then be used at a later point in time for certain legally defined purposes such as pre-retirement leave.

## 6. Procurement

### 6.1 Procurement of Key Products

In 2017, the procurement spend of Covestro’s main sites in Germany, the United States and China accounted for just under 79% of Covestro’s global spend. Most of this amount – around 76% – went to local suppliers in the individual countries.

### 6.2 Sustainability in the Supply Chain

#### Supplier audits and online assessments

For Covestro, adherence to sustainability standards along the entire supply chain is a crucial factor in value creation and a key lever for minimizing risk. Auditing and assessing suppliers with regard to sustainability criteria is a key part of making procurement decisions.

The sustainability practices of our suppliers are regularly assessed in accordance with the standardized global “Together for Sustainability” (TfS) program. Since the launch of the TfS industry initiative, which was co-founded by Covestro predecessor Bayer MaterialScience in 2011, the now 20 members have evaluated the sustainability performance of a total of 8,692 suppliers through online assessments and 1,187 on-site supplier audits.

All results of the sustainability assessments and audits are available to TfS members on an online platform. The online platform provides them with information for continual monitoring with a view to encouraging improvements using the supplier evaluations. The TfS approach is also beneficial for suppliers, because their standardized assessment can be viewed by all TfS members. This means they do not have to complete multiple assessment surveys by various potential customers.

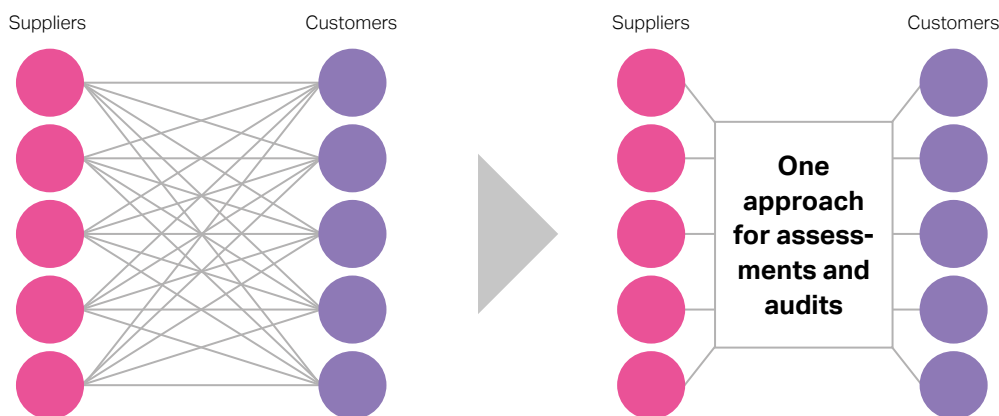


For more information, see our Annual Report, Group Management Report, section 6



[www.tfs-initiative.com](http://www.tfs-initiative.com)

#### Advantage of the TfS Initiative: One Assessment per Supplier for All TfS Members



Source: Together for Sustainability, TfS initiative, <https://tfs-initiative.com/audit-process/>

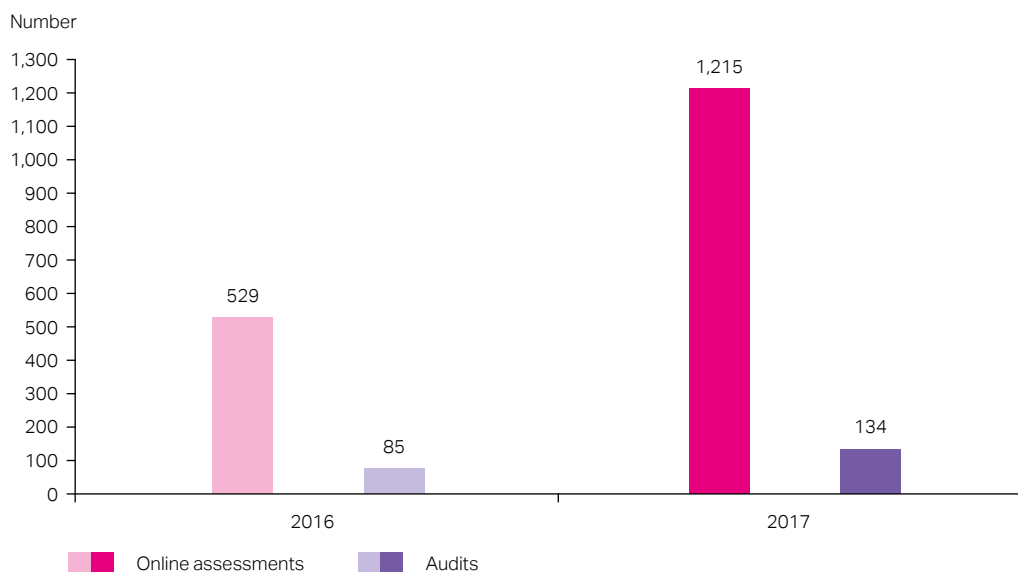
In 2017, TfS members conducted a total of 1,794 online assessments and 441 audits across the globe.

At the TfS general meeting in April 2017, Covestro Chief Procurement Officer (CPO) Dirk Jan De With was elected to the TfS Steering Committee. In the reporting period, TfS worked with the American Chemistry Council's (ACC) US Responsible Care Initiative to incorporate its RC audit approach into the TfS audit program. Moreover, the partnership between TfS and the China Petroleum and Chemical Industry Federation (CPCIF) was stepped up in 2017. Projects included joint supplier training on sustainability organized and held in Shanghai in September 2017.

At Covestro, suppliers are selected to be assessed based on a combination of country and material risk as well as their strategic importance in relation to our corporate goals.

Covestro aims to reassess suppliers at least every three years, or earlier if indicated. Reassessments are performed by independent, TfS-accredited service providers.

### Valid Online Assessments and Audits Conducted at Covestro Suppliers<sup>1</sup>



<sup>1</sup> Valid online assessments and audits of Covestro suppliers initiated by Covestro and shared by TfS, no more than three years old

Covestro discusses improvements and measures to be taken directly with suppliers and agrees appropriate targets. Implementation of the required improvements is verified continuously. Based on these results, reassessments were conducted at 284 suppliers during the year under review, approximately 66% of which notably improved their sustainability performance.

### Results of audits and online assessments

None of the audits conducted produced any indication of child labor or forced labor. The results did not indicate any significant actual or potential negative impacts for the company or the environment. Particularly in China, some assessments revealed deviations relating to working hours and waste management. Appropriate corrective action was taken by the affected suppliers, and implementation was verified with follow-up audits.

### Sustainability training and dialog

It is also important for our own procurement employees to have a comprehensive understanding of the significance of sustainability in the supply chain. Company-wide sustainability training plus region- and country-specific training on the topic of sustainability audits as well as sustainability road shows made this possible again in 2017.

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

Supplier performance development is one of the goals of Covestro and the TFS initiative, which regularly organizes Supplier Days and promotes further training. TFS provides a wide range of information materials and online training courses on its website.

### 6.3 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 from the Democratic Republic of Congo or neighboring states, do not enter their products through the supply chain. Covestro uses tin-containing compounds in production and therefore monitors all suppliers to make sure they do not source raw materials containing tin from the affected regions through their supply chains.

Using a structured survey process, we obtain confirmation that our suppliers and their upstream suppliers are obtaining tin-containing material free from conflict minerals. The confirmations of conflict mineral-free procurement are documented centrally in the respective material/supplier pairs in our Global Substance List Online (GSLO) database.

In order to clearly communicate our requirements regarding conflict minerals, we also included these in our Supplier Code of Conduct. Covestro has obtained confirmations of conflict metal compliance from 100% of the identified suppliers potentially affected by this issue (153 material/supplier pairs). A list of potentially affected suppliers is updated on an ongoing basis, and the validity of all existing supplier confirmations is permanently monitored. To date, there have been no critical results and no need for action regarding this issue.

## 7. Production

### 7.1 Production Sites

Covestro operates around 30 production sites in Europe, America, and Asia, eight of which are world scale. The latter are large-capacity production facilities that serve particularly to ensure efficient and reliable supply to customers around the world. These are Baytown (United States); Shanghai (China); Dormagen, Krefeld-Uerdingen, Leverkusen, Brunsbüttel (Germany); Antwerp (Belgium) and Map Ta Phut (Thailand). They account for around 86% of our total production activities based on energy consumption.

A key component of Covestro's strategy is the continuous optimization of our production activities worldwide. The declared goal is to operate plants that are more efficient than those of our competitors.

The following significant changes occurred in 2017:

**Dormagen:** Through a combination of mathematically modeled chemical reactions and process simulation with plant trials, the best-in-class TDI gas phase phosgenation process was significantly improved in the Dormagen unit. Residue formation was reduced by up to 40% while simultaneously cutting energy consumption by up to 20%. By increasing the reaction yield, consumption of raw materials was reduced by 2%.

### 7.2 Quality Management

In order to update and optimize our existing HSEQ management system in line with the revised ISO 9001:2015 (quality management) and ISO 14001:2015 (environmental management) standards, we have started to review the applicable Group regulations, and rewrite them where necessary. As well as incorporating the changes into the standards, we are reviewing whether our existing regulations are necessary in future in view of the restructuring of the company, and also identifying any scope for simplifying or streamlining these guidelines.

The proper implementation of the updated standards was confirmed by the successful external certification during 2017. This process concentrated on aspects such as an increased risk focus for existing processes, knowledge within the organization, and a stronger emphasis on stakeholders' needs that are relevant to Covestro's quality management system. In addition to customers, these include suppliers, government agencies, banks, competitors and opposing interest groups. Specifically, it is now mandatory to assess the opportunities and risks for the results of all processes of relevance to quality and the environment.

### 7.3 Investments

In addition to ongoing investments in property, plant and equipment to optimize production and expand production facilities, we continually invest in forward-looking strategic measures and projects as well as in projects that actively contribute to conserving our environmental resources. Highlights in 2017 were the use of improved catalysts in exhaust gas cleaning in nitric acid production in Shanghai (China). As a result, the specific nitrous oxide emissions per metric ton of nitric acid produced were reduced by one third compared to 2016. This change led to a reduction in absolute emissions from this plant of around 110,000 metric tons of CO<sub>2</sub> equivalents in 2017.



A selection of other measures implemented in 2017 are presented in section 4 "Innovation" and section 11 "Environmental Protection" as well as in the Annual Report, Group Management Report, section 4.

## 8. Distribution and Logistics

### 8.1 Distribution

We strive to eliminate defects and errors as our ultimate quality goal to ensure customer satisfaction. In 2017, we made significant progress in this regard. Worldwide, we recorded a total of 4,918 complaints from 2,085 customers. This is the equivalent of 6.88 complaints per 1,000 deliveries, down from the previous year's level (2016: 7.42 complaints per 1,000 deliveries). Various steps were taken to increase customer satisfaction, shorten customer complaint processing times and prevent further problems during processing. For instance, complaint processing was centralized in the regional Supply Chain Center for Covestro customers in the Europe, Middle East and Africa region in 2017. The underlying processes, such as preparing statements about the technical and business issues involved and responding to customers, were simplified. In addition, quality checks, effectiveness controls and preventive measures were all instituted. Since then, processing times have been reduced considerably and the quality of complaint processing, particularly regarding communication with customers, has increased. There were no complaints regarding violations of customer privacy or the loss of customer data.



For more information, see our Annual Report, magazine "Why not?", Digitalization

Digitalization is a trend of interest to customers and Covestro alike. Based on our strategic goal of market leadership, we aim to identify customer needs, and both substantive and technical requirements at an early stage in order to develop state-of-the-art, innovative solutions. The digitalization of our business expands the possibilities for reaching out to customers. Various projects support this goal. For instance, in 2017, the groundwork was laid to improve the scope and user friendliness of the digital customer interface in 2018. Additionally, our local and central websites were extensively redesigned in the course of 2017.



For more information, see our Annual Report, Group Management Report, section 8

### 8.2 Transportation and Packaging

In 2017, our contracted logistics service providers completed more than 460,000 deliveries to our customers worldwide. The volume delivered amounted to 7.54 million metric tons, with the volume of goods shipped exclusively by rail or waterway totaling 41.2%. Road transportation by truck thus remains our most important mode of transport with 51.2%.

In many places, the capacity situation in regional and global transportation markets remains constrained, despite a general willingness by logistics service providers to invest in additional transportation capacity. Above all, this is the result of the ongoing and increasingly evident structural shortage of truck drivers, particularly in the NAFTA region and in Europe.

In this challenging environment, carefully selecting logistics service providers and maintaining good relationships with strategic suppliers are particularly important. Covestro again succeeded in maintaining a very high level of transport network reliability in 2017. From the sustainability point of view, Covestro is continually endeavoring to increase its use of intermodal and energy-efficient forms of transportation – by rail or inland waterways. At around 7.6% in 2017, the volume accounted for by intermodal transport dropped slightly compared with 2016 (8.1%).

The capacity situation in both global and regional transportation markets remained strained in 2017. In this context, the following events are particularly notable:

- In Q1 2017, one of the most serious crises ever to occur in container shipping severely impacted the reliability of container shipments from Europe to the Middle East and Asia. The crisis, which affected shippers from all industries equally, was triggered mainly by the bankruptcy of South Korean shipping company Hanjin in 2016. This resulted in a decline in capacity and reshuffling of strategic alliances in global container shipping. The combination of these events led to a substantial decrease in shipping space and therefore to deterioration in the timeliness of departures and arrivals. In some cases, the delays were as long as several weeks.

- In June 2017, the Petya cyberattack was directed at A.P. Moller-Maersk, the world's largest shipping company and terminal operator. This resulted in a nearly two-week delay in regional and interregional container shipments, which further amplified the crisis in the global container shipping industry.
- On August 12, 2017, tunnel work under the Rheintalbahnhof train tracks at Rastatt near Karlsruhe (Germany), one of the most important railway links between Germany and Italy through Switzerland, caused a landslide which led to the collapse of a 50-meter stretch of railway tracks. Extensive repair work necessitated the unplanned complete closure of this important railway link for seven weeks from August 2017. Up to 200 freight trains daily had to be rerouted and time-critical shipments had to be delivered by road. Covestro was able to minimize delays in customer deliveries, engaging a comprehensive exception management process.
- The production facility in Baytown (United States) was affected by Hurricane Harvey in August 2017. Maintaining the flow of deliveries to customers required goods to be shipped from alternative, logistically suboptimal warehouse locations at increased freight costs. Although the flooding was limited to the greater Houston area, the effects were felt throughout the entire U.S. transportation network.

In 2017, we made progress in our sustainable packaging efforts as well. Many projects aimed to reduce the quantity of raw materials used in our packaging materials. For one, this was accomplished by optimizing specifications or substituting materials. For instance, the use of smaller quantities of PE raw materials of a higher quality at our plastic bag suppliers led to a sustained 20% decrease in material usage. Yet we also held targeted workshops with representatives of various stakeholder groups and suppliers with the aim of increasing the share of recycled packaging material. Companies specializing in this field collect this packaging and, after processing, put it back into circulation. Raw materials from packaging material that cannot be returned to circulation are separated and recycled to the greatest extent possible.

Recently, Covestro also began using PE barrels partly made of recycled materials. These replace a portion of the plastic barrels to date made exclusively of virgin materials.

## 9. Product Stewardship

Covestro has adopted a systematic approach, including a reporting system and global regulations, for verifying the regulatory compliance of our activities and for incident notification and reporting. Product stewardship aspects are also covered. Incidents are tracked in a global information system and regularly evaluated in order to take corrective action and continuously improve our stewardship performance. For example, we have been able to improve the information on the safe handling of our products and provide customers with specific training. Furthermore, computer-based training for our employees along with workshops help embed the understanding and importance of product stewardship in the company.

Our product portfolio does not contain any products on UN banned lists or prohibited by international conventions. In 2017, we know of no material incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services, nor of any significant non-compliance with regulations and voluntary codes relating to product information and labeling.

Our own system for creating safety information covers mandatory information on content, safe use of the product, as well as relevant disposal information. We systematically evaluate new products and applications using process-specific IT tools.

Animal studies are essential to assess the safety of our products, especially to humans, but also to the environment. Covestro does not conduct such required studies itself. Instead we work with research institutions and facilities. Internal guidelines require that these adhere to our animal welfare requirements. We reserve the right to verify the information provided in supplier self-descriptions in on-site visits. This applies to registration processes within the European Union, the United States and China, which prescribe results from toxicological and ecotoxicological studies by law.



For more information, see our Annual Report, Group Management Report, section 9



See section 13 "Compliance"



## 10. Safety

Safety and the continual improvement of our safety culture are high priorities for Covestro and key aspects of corporate responsibility. As well as continually updating our safety management systems to comply with global minimum requirements and standards, we are constantly developing our corporate safety culture. In doing so, we focus not only on the safety and health of our employees at work every day, but also on preventing potential environmental and health impacts that could result from leaks in production facilities or accidents while transporting hazardous goods or other materials.



For more information, see our Annual Report, Group Management Report, section 10

### 10.1 Occupational Health and Safety

Protecting the health and safety of our employees at work and during work-related activities is among our top goals. This effort aligns with our social and ethical responsibility as an employer and our business responsibility as a company. After all, workplace accidents and work-related illnesses can have a markedly negative effect on our business.

Potential risks are evaluated based on uniform Group-wide criteria to prevent workplace accidents and work-related illnesses as effectively as possible. Nonetheless, should an incident occur, we investigate the root cause. Therefore we have introduced a methodology that addresses behavioral factors in particular. Recommendations for further action are derived from the findings and implemented to prevent these risks from arising again.

For 2017, one focal point in this context was hand safety of employees during work. The long-term goal is to reduce serious hand injuries to a minimum. In order to raise awareness among our workforce about this issue and to generally increase carefulness in day-to-day life, a training program was developed to educate our employees through group work, presentations and videos.

In 2017, a total of 79 recordable incidents occurred involving our employees and those of third-party companies (contractors). The workplace accidents recorded were those resulting in days missed, alternative work or medical treatment (accidents requiring treatment beyond first aid).

Incident rates are regularly analyzed by site and by region. Fluctuations provide an indication of the structural differences that need to be discussed with the sites and business units when analyzing, then deciding on and adapting measures to local circumstances.

**Recordable Incident Rate (RIR)<sup>1</sup> of Covestro Employees and Contractors by Region**

	2016	2017
<b>Total</b>	<b>0.33</b>	<b>0.36</b>
of which Covestro employees	0.31	0.34
of which contractors	0.37	0.43
<b>EMLA<sup>2</sup></b>	<b>0.39</b>	<b>0.54</b>
of which Covestro employees	0.32	0.46
of which contractors	0.75	0.81
<b>NAFTA<sup>3</sup></b>	<b>0.60</b>	<b>0.40</b>
of which Covestro employees	0.48	0.33
of which contractors	0.92	0.68
<b>APAC<sup>4</sup></b>	<b>0.13</b>	<b>0.07</b>
of which Covestro employees	0.18	0.10
of which contractors	0.08	0.03

<sup>1</sup> The rate meets the Occupational Safety and Health Administration (OSHA) of United States Department of Labor definition and is calculated per 200,000 hours worked.

<sup>2</sup> Europe, Middle East, Africa and Latin America (excluding Mexico)

<sup>3</sup> United States, Canada, Mexico

<sup>4</sup> Asia- Pacific

In a benchmark study, the American Chemistry Council (ACC) compared the recordable incident rate (RIR) in various U.S. chemical companies. Compared to the statistics for the NAFTA region, Covestro's global accident rate is low.

The increase of the recordable incident rate compared to 2016 was caused by an exceptionally high number of employee injuries in March 2017.

Starting in April 2017, a "safety break" was organized worldwide to raise awareness for safety throughout the company. In these events our employees, supported by members of management, discussed potential risks in their own particular work areas and how to reduce them.

Injury numbers for the remainder of 2017 then decreased to our long-time average level.

## 10.2 Process and Plant Safety

Safe, reliable operation of our production facilities is an essential prerequisite for protecting people and the environment and for achieving economic success. All work performed at a plant must be carried out with the requisite technical expertise and great care throughout its entire life cycle.

The foundation for safe operation is laid already during the planning and construction phases, e.g. by the selection of processes, the layout of machinery and equipment, and the use of suitable materials. All process conditions are systematically analyzed in multi-stage risk assessments, possible deviations or disruptions are identified, and appropriate safety plans are developed with the aim of effectively avoiding or mitigating their possible effects. This proven approach was a significant reason why new world-scale plants and additional capacity could be commissioned without problems.

In addition, existing facilities are continuously monitored and maintained. As well as keeping pace with technological advances, this also improves the efficiency and sustainability of plants and processes on an ongoing basis. Our products are also continually optimized. All of this makes changes in our professionally designed and built plants and processes necessary. These are implemented using a management of change (MOC) approach. This entails compliance with internal and external regulations and the applicable HSEQ laws when realizing technical changes.

Maintenance and inspection tasks and technical alterations frequently necessitate potentially dangerous work. Such work is carried out during planned system downtimes – either individually or as a bundle of changes – and is organized using work permits. In addition to a detailed description of the work to be done, the permit includes an assessment of the hazards and an outline of the required safety and protective measures. Everyone involved in the work is informed of this and must sign to confirm they have received this information. The responsible plant and technical operatives involved – and additional safety officers if necessary – monitor compliance with the measures and the safe performance of the work.



For more information, see our Annual Report, magazine “Why not?“, Digitalization

To provide integrated information security management, Corporate Security continually develops and improves processes and protective measures to prevent the outflow of know-how from the company. The types of knowledge to be protected, availability and integrity are also addressed. The integrity of transmitted data and manipulation-free operation of the systems controlling our plants are essential for the security of our facilities. For this reason, the risk of triggering a malfunction (known as an “upset condition risk”) has been included in the current phase of the rollout of the internal “Information Safety Management” directive. In the previous project, technical and process-related control engineering standards were defined with a focus on operational safety, in the sense of an increase in integrity and availability. Implementation of the standards has not yet been completed. In the ongoing expansion of information security management, disruption-free operation of our plants is a goal we continually pursue.

## 10.3 Environmental and Transportation Safety

Covestro is committed to maintaining uniformly high global HSEQ standards along its entire value chain and to optimizing these on an ongoing basis in a continuous improvement process (CIP).

Transportation safety, as well as the safe handling and safe storage of intermediates and finished products – known collectively as “transportation and logistics activities” – are critical for ensuring the safety of humans and protection of the environment.

All types of transportation and logistics activities pose potential risks for people and the environment. Identifying such risks, and defining and implementing safe procedures and processes at Covestro, forms the foundation for ensuring safety in transportation and logistics activities.

In 2017, a global team of experts responsible for transportation and logistics safety conducted an extensive review of the “Transportation and Distribution Safety” directive applicable globally up to that point. The result of this review is the “Transportation and Logistics Safety” directive published on July 1, 2017, laying down the global minimum requirements for ensuring the safety of all transportation and logistics activities directly and indirectly supervised by Covestro. As all transportation services and nearly all associated logistics activities, such as packaging and warehousing, are performed by more than 250 transportation and logistics service providers engaged by Covestro, it is imperative for Covestro to exercise a high level of control over these services provided.

In order to minimize the risks associated with the transportation and logistics services provided for Covestro, compliance is strictly monitored on the basis of industry-specific, statutory standards as well as Covestro’s special requirements with the help of a series of systematic control points. For instance, risk assessments must be carried out for all high consequence dangerous goods to identify risks in a timely manner and then mitigate or completely eliminate them by implementing appropriate measures. To ensure early risk detection in all areas of transport operations, since 2017, a video that underscores the importance of reporting near-misses is used in safety meetings and driver trainings to further raise awareness of risk among truck drivers in particular.

Based on the success of the APAC Safety Champion program and scope for further digitalization, another initiative for reinforcing awareness of risk was launched in the APAC region. This initiative enables

transportation and logistics service providers to share their best practices as videos on topics such as emergency response, load securing, and loading/unloading safety. The best videos are shared internally and externally and are available for training purposes.

Covestro's constant efforts to improve environmental and transportation safety have been recognized by professional associations. In the United States, Covestro received the Grand Slam Award from the Association of American Railroads (AAR) on October 18, 2017. The award honors shippers of hazardous goods who did not experience any unplanned leakages of material while transporting hazardous goods in rail tank cars during the past calendar year.

In 2017, almost 900,000 documented transportation movements were initiated by Covestro via road, rail, waterways and air travel. Six transportation incidents were reported, of which two were classified as environmental incidents. Two additional environmental incidents occurred at our sites. The following is a breakdown of transportation incidents by mode of transport:

#### Serious Transportation Incidents by Mode of Transportation

	2016	2017
Road	7	5
Rail	0	0
Inland waterways	0	0
Sea	0	1
Air	0	0
Pipeline	0	0
<b>Total</b>	<b>7</b>	<b>6</b>

## 11. Environmental Protection

Environmental protection and the efficient use of resources are fundamental drivers for Covestro's actions. With respect to our business activities, this means we aim to use all natural resources as efficiently as possible while reducing emissions into the environment to a minimum. The management tool we use for this purpose is our continuously updated Integrated Management System. We also use sophisticated data management systems to identify and realize potential efficiency improvements and reduce the environmental impact of our production activities as much as possible.



For more information, see our Annual Report, Group Management Report, section 11

Effective September 30, 2017, the Bayer Group permanently relinquished control over Covestro. A comparison of the figures from current fiscal year 2017 with those from the prior year reveals that this new legal situation had an impact on several of the key environmental figures. For example, certain amounts of greenhouse gas, which were previously counted as direct emissions, will now be regarded as indirect emissions, since the energy producer no longer belongs to the same Group. This also results in shifts in energy and greenhouse gas performance as well as in some water-related statistics. However, this does not affect the comparability thereof with the prior-year figures with regard to the two long-term corporate goals "specific energy consumption" and "specific greenhouse gas emissions".

Based on 2005 levels, Covestro's goal is to halve direct and indirect emissions of greenhouse gases per metric ton of product by 2025. In addition, by 2030 we also want to halve the specific energy consumption of our production facilities compared with the same base year. Doubling our energy efficiency in this way will be a significant lever in reducing specific greenhouse gas emissions.

In 2017, we were able to further reduce our specific energy consumption, lowering it 2.9% compared with the previous year. Compared with the base year 2005, this represents a 36.4% improvement. Once again, our energy efficiency system STRUCTese™ helped us achieve this. At the same time, specific greenhouse gas emissions (CO<sub>2</sub> equivalents) were cut by 43.8% from 2005 baseline levels. In 2017, specific greenhouse gas emissions were down 4.9% from the previous year.

### 11.1 Energy Consumption

Our production volume grew by 7.6% in 2017. Over the same period, however, energy consumption increased by a smaller percentage. The company's total energy consumption was up 4.7%, and equivalent primary energy consumption grew by 4.5%. 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, calculated to reflect the energy required to generate them. We were able to decouple energy consumption from the increase in production through further efficiency improvements in our production facilities. In addition, the high level of capacity utilization at our plants positively affected this trend.

## Energy Consumption

	2016	2017
<b>Primary energy consumption for the in-house generation of electricity and steam (net, TJ)</b>	<b>7,815</b>	<b>7,731</b>
Natural gas	8,044	7,785
(Natural gas sold to external third parties)	346	453
Coal	0	0
Liquid fuels	133	129
Waste	1,244	1,513
Other <sup>1</sup>	-1,606	-1,696
<b>Secondary energy consumption (net, TJ)</b>	<b>47,273<sup>6</sup></b>	<b>49,949</b>
Electricity <sup>2</sup>	23,486	24,014
(Electricity sold to external third parties)	1,055	1,081
Steam	23,182	25,046
(Steam sold to external third parties)	531	523
Steam from waste heat (process heat)	168 <sup>6</sup>	417
Refrigeration energy	438	472
(Refrigeration energy sold to third parties)	-	119
<b>Total energy consumption (TJ)</b>	<b>55,087<sup>6</sup></b>	<b>57,680</b>
<b>Equivalent primary energy consumption<sup>3</sup> (TJ)</b>	<b>71,981</b>	<b>75,202</b>
<b>Production volume<sup>4</sup> (million metric tons)</b>	<b>13.92</b>	<b>14.97</b>
<b>Specific energy consumption<sup>5</sup> (MWh per metric ton of product)</b>	<b>1.44</b>	<b>1.40</b>

<sup>1</sup> E.g. hydrogen

<sup>2</sup> Secondary energy consumption for electricity is based on the raw material mix of the country concerned.

<sup>3</sup> Sum of all individual energy figures translated into primary energy at our main production sites, which account for more than 95% of our energy consumption. Secondary energy usage is recalculated to equivalent primary energy consumption at all sites based on specified factors aligned with figures (literature values) for best-in-class energy generation plants operating at maximum efficiency.

<sup>4</sup> Sum of the in-spec key products at our main production sites, which account for more than 95% of our energy consumption

<sup>5</sup> Specific energy consumption: Quotient of equivalent primary energy and in-spec production volume at our main production sites (1 MWh = 3,600 MJ)

<sup>6</sup> This energy figure was adjusted to reflect the energy footprint at our production sites and recalculated to avoid double counting.

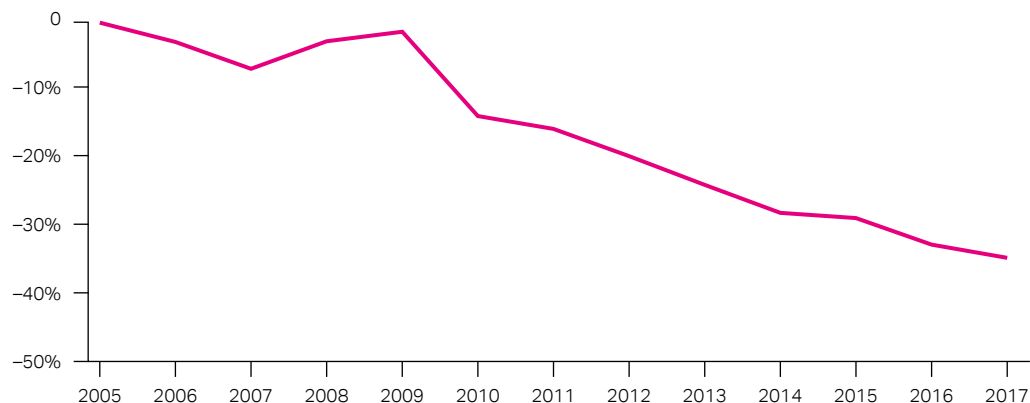
Covestro developed STRUCTese™ (Structured Efficiency System for Energy) which compares actual energy consumption in production with the realistic potential optimum. Eliminating inefficiencies results in permanent energy savings. STRUCTese™ comprises many different analysis, monitoring and benchmarking steps that can be used to identify potential improvement measures, which are known at Covestro as STRUCTese™ projects. The system, which has been gradually rolled out since 2008, is now used in 58 energy-intensive production facilities worldwide and will be implemented in other facilities going forward.

Every year, projects are implemented under STRUCTese™ that bring about lasting, annually recurring energy savings. One example is a project in Shanghai (China), where specifically modifying the temperature of a secondary cooling water circuit substantially reduced primary cooling water throughput. As a result, it was possible to reduce the number of pumps running on the primary cooling water side. This project saved around 5,000 MWh. Overall, various other projects were carried out in 2017 resulting in annual savings totaling 115,000 MWh of primary energy and 120,000 metric tons of CO<sub>2</sub> emissions. Combined, all the projects implemented since the introduction of STRUCTese™ in 2008 will result in lasting annual reductions totaling 1.83 million MWh of primary energy and 600,000 metric tons of CO<sub>2</sub>.

This positive trend is particularly notable in view of the significant improvement in specific energy consumption in production since 2005 (see chart).

### Development of Specific Energy Consumption

(Reduction of the specific energy consumption per metric ton of product, compared with the baseline year, in %)<sup>1</sup>



<sup>1</sup>  $(\text{equivalent primary energy consumption}/\text{production volume}) / (\text{equivalent primary energy consumption 2005}/\text{production volume 2005}) - 1$

In the reporting year, the energy management systems at Covestro's large German sites were successfully certified to ISO 50001 for the sixth time.

## 11.2 Air Emissions

### Greenhouse gas emissions

Covestro reports greenhouse gas emissions in line with the requirements of the Greenhouse Gas Protocol (GHG Protocol). Direct emissions from our plants (Scope 1) are determined at all production locations 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<sub>2</sub>, the calculation includes nitrous oxide (N<sub>2</sub>O), methane and partially fluorinated hydrocarbons.

Indirect emissions (Scope 2) are calculated in accordance with the methods outlined in the GHG Protocol based on the energy used and the corresponding production site-specific emissions factors. This makes the data calculated highly representative of each site. If no specific factors are available, the International Energy Agency's (IEA) country-specific emissions factor is used. Additionally, Scope 2 emissions are reported using the location-based method and the market-based method in accordance with the requirements of the GHG Protocol (dual reporting). We base our calculations of specific emissions on the requirements of the GHG Protocol up to 2014 so they can be more easily compared with historical data.

In 2017, total greenhouse gas (GHG) emissions rose by 2.1% over the previous year. While direct GHG emissions declined by 46.9%, indirect GHG emissions rose by 35.2%. The aforementioned consolidation effect due to the company's new legal situation after the carve-out from the Bayer Group was a particularly significant factor here. At the most important production sites, which account for more than 95% of our energy consumption, the production volume rose by 7.6% in 2017. Specific emissions in 2017 sank by 4.9% compared with the previous year. This puts Covestro well on track to achieving the planned emissions targets.

**Greenhouse Gas Emissions<sup>1</sup> (million metric tons of CO<sub>2</sub> equivalents)**

	Base year <sup>2</sup> : 2005	2016	2017
Direct greenhouse gas emissions <sup>3</sup>	–	2.33	1.24 <sup>4</sup>
Indirect greenhouse gas emissions (calculated using the GHG Protocol method until 2014) <sup>5</sup>	–	3.46	4.68 <sup>4</sup>
using the location-based method (GHG Protocol 2015)	–	4.66	5.03
using the market-based method (GHG Protocol 2015)	–	5.07	4.98
<b>Total greenhouse gas emissions (Scope 1 and 2 in accordance with GHG protocol)</b>	<b>6.57</b>	<b>5.79</b>	<b>5.92</b>
Specific greenhouse gas emissions (metric tons of CO <sub>2</sub> equivalents per metric ton of production volume) <sup>6</sup>	0.687	0.406	0.386

<sup>1</sup> Portfolio-adjusted based on the GHG Protocol; financial control approach; 2017 global warming potential (GWP) factors, correspond to the "IPCC 2nd Assessment Report".

<sup>2</sup> A valid calculation breaking down emissions into direct and indirect emissions was not possible for the base year.

<sup>3</sup> In 2017, 64.8% of emissions were CO<sub>2</sub> emissions, 34.7% were N<sub>2</sub>O emissions, just under 0.5% consisted of partly fluorinated hydrocarbons, and 0.03% was methane.

<sup>4</sup> The shift in direct and indirect emissions compared with 2016 is attributable to the carve-out of Covestro from the Bayer Group.

<sup>5</sup> In combustion processes, CO<sub>2</sub> typically makes up more than 99% of all greenhouse gas emissions; this is why we restrict ourselves to CO<sub>2</sub> when calculating indirect emissions. We have continued to apply the method of calculating indirect emissions used up to 2014, since a valid calculation of overall emissions for the baseline year according to the new guideline is not possible retroactively.

<sup>6</sup> Total greenhouse gas emissions (Scope 1 and 2, GHG Protocol) at the main production sites, which are responsible for over 95% of our energy consumption (total of 5.78 million metric tons of CO<sub>2</sub> equivalents in 2017), divided by the in-spec production volumes at these sites



For more information, see our Annual Report, Group Management Report, section 11

**Other direct emissions into the air**

In addition to greenhouse gases, Covestro's business activities result in other emissions into the air. These arise mainly from burning fossil fuels in order to generate electricity and steam. These emissions are recorded and analyzed as part of our Group's environmental impact. Our environmental impacts are assessed annually in the environmental management process with the Chief Technology Officer (CTO). Whereas emissions of sulfur dioxide were up (plus 12.8%), less nitrogen oxides were emitted (minus 13.9%). The reported dust and carbon monoxide emissions remained around the previous year's level.

**Other Important Direct Air Emissions (1,000 metric tons p.a.)**

	2016	2017
CO	0.34	0.34
NO <sub>x</sub>	0.86	0.74
SO <sub>x</sub>	0.03	0.04
Dust	0.10	0.10
ODS <sup>1</sup>	0.0002	0.0005

<sup>1</sup> Ozone-Depleting Substances

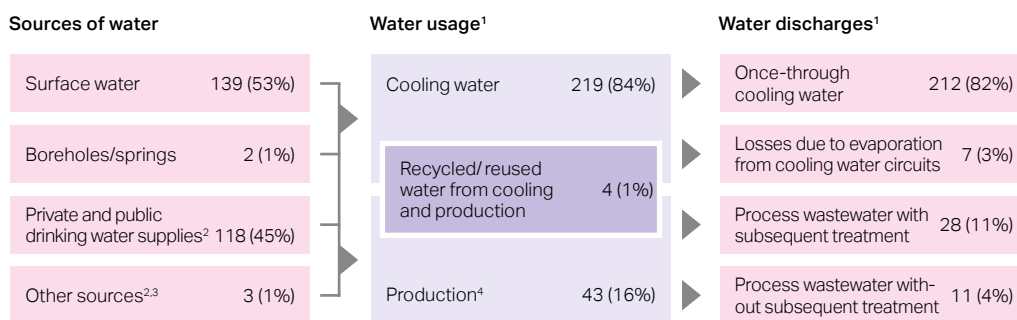


## 11.3 Water Consumption and Usage

Covestro takes a holistic view of water as a resource: We account not only for our water consumption and the associated problems of water scarcity and quality, but also the wastewater we generate, and the growing concerns about plastic waste in the oceans. This is underscored in our “Corporate Commitment on Water” issued in 2017.

For our production sites, the availability of and access to clean water is vital. In many regions of the world, however, this is increasingly at risk. As part of our commitment on water, we therefore initiated a risk assessment of our production sites that covers water availability, quality and accessibility. Based on information from several databases indicators – including the “Aqueduct Water Risk Atlas” from the World Resources Institute – production sites are identified that are currently exposed or will be exposed in future to a high risk of water stress. Water stress includes water scarcity as well as other factors, such as water quality and access to water. The selection of sites is subsequently verified with other relevant contributing factors, including climatic conditions in the affected regions and water issues in adjacent catchment areas. Our continual risk assessment enables us to set priorities for carrying out local measures at the production sites.

### Use of Water in 2017 (million cubic meters)



<sup>1</sup> 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.  
<sup>2</sup> As described in the introduction in section 11 “Environmental Protection”, the new legal situation has resulted in shifts between these items compared with the previous year.  
<sup>3</sup> E.g. rainwater.  
<sup>4</sup> Total from production processes, sanitary wastewater, and rinsing and purification in production.

In 2017, the Group’s total water usage rose by 6.1% compared to the previous year, reaching 262 million cubic meters. Due to stepped up production activities, the German site Dormagen registered the largest increase, mainly for cooling purposes. 81.1% of all water used by Covestro in 2017 is once-through cooling water. 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 212 million cubic meters in the reporting year.

Of the remaining 39 million cubic meters, a total of 3.7 million cubic meters of water was reused in the reporting year. This water was recycled in various ways. Water used once 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. As a result, corresponding amounts of fresh water are saved every year.

## Wastewater

Our goal is to minimize emissions into the wastewater flow. These emissions are largely dependent on our production volumes and the current product portfolio.

The volume of process wastewater increased by 3.3% in 2017 over the previous year. The proportion of process wastewater purified at a wastewater treatment plant operated by Covestro or a third party amounted to 71.9% worldwide. Following careful analysis, another 27.8% was categorized as environmentally safe and returned to the water cycle. The remainder (around 0.3%) was disposed of mainly through incineration.

Total organic carbon (TOC) emissions into wastewater decreased by 4.4% compared with the previous year. The volume of nitrogen emitted into wastewater was also down, by 18.4%. In contrast, phosphate emissions rose 18.6%. The reason for this development was the recommissioning of a wastewater treatment plant in Kaohsiung (Taiwan) at which the aggregate volumes from the previous year were now additionally being processed this year. The volume of inorganic salts introduced into wastewater rose by 7.1%. This was mainly due to production-driven growth in volume at sites including Antwerp and Dormagen. The 16.8% increase in heavy metals emitted in the reporting year was also attributable to production as a result of a greater wastewater load.

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

	2016	2017
Phosphor	0.03	0.04
Nitrogen	0.27	0.22
TOC <sup>1</sup>	0.60	0.57
Heavy metals	0.0032	0.0038
Inorganic salts	747	800
COD <sup>2</sup>	1.81	1.71

<sup>1</sup> Total organic carbon

<sup>2</sup> Chemical oxygen demand, calculated value based on TOC values (TOC x 3 = COD)

In January 2016, a pilot plant for recycling saline industrial wastewater began operating at the Krefeld-Uerdingen site. The closed-loop system is being promoted by the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) as part of its Environmental Innovation Program and is currently in the technical trial phase. Thanks to the new process developed in collaboration with Covestro, the chlor-alkali electrolysis process is set to reduce the use of salt by up to several 10,000 metric tons and of fully desalinated water by several 100,000 metric tons annually. This equals emissions savings of several 1,000 metric tons of CO<sub>2</sub> equivalents per year. Furthermore, this can reduce the amount of salinated wastewater released into the Rhine.

This technology is the basis for the new joint project "Re-Salt" (recycling of salt-laden industrial process water). Re-Salt is scheduled to run for three years and has a budget of approximately €3.4 million, with some 60% provided by the German Ministry for Education and Research (BMBF). A key objective of this project is to increase the salt content in the process water in a way that is as environmentally friendly as possible. This will be done in part using the waste heat from adjacent production plants. Covestro is planning a demonstration plant for testing purposes at its Krefeld-Uerdingen site.

## 11.4 Waste and Recycling

In nearly all countries, the law requires exhaustive reporting on waste volumes and waste streams. Covestro's sites meet this requirement accordingly. In Germany, for example, there are waste-tracking procedures between the source of the waste and disposal of the waste that enable end-to-end traceability of the waste flows. Classification in the individual waste categories and the corresponding methods of disposal is according to the locally applicable definitions. Based on this documentation, we prepare and evaluate the Covestro Group's waste footprint, which is published annually.

Compared with the previous year, the volume of hazardous waste produced in 2017 rose by 6.6% to a total of 126,000 metric tons. The increase was primarily due to the substantial growth in production activities worldwide and the reclassification as hazardous of a type of waste at the Brunsbüttel facility formerly considered non-hazardous. The total amount of waste produced at Covestro rose by 3.1% in 2017, mainly due to increased production activities by the Group as well as construction and renovation activities at the Brunsbüttel and Santa Clara (Mexico) sites.

### Waste Generated<sup>1</sup>

	2016	2017
<b>Total waste generated (1,000 metric tons p.a.)</b>	<b>188</b>	<b>193</b>
of which non-hazardous waste generated	70	67
of which hazardous waste generated <sup>2</sup>	118	126
of which hazardous waste from production	113	121

<sup>1</sup> Waste generated by Covestro only, without third-party waste disposed of by Covestro

<sup>2</sup> Definition of hazardous waste in accordance with the local laws in each instance

### Waste by Means of Disposal

	2016	2017
<b>Total volume of waste disposed of<sup>1</sup> (1,000 metric tons p.a.)</b>	<b>200</b>	<b>204</b>
of which incinerated (in %)	55	58
of which recycled (in %)	31	27
Hazardous waste, of which removed to landfill (in %)	2	2
Non-hazardous waste, of which removed to landfill (in %)	8	10
Other <sup>2</sup> (in %)	4	3
Internally landfilled hazardous waste (1,000 metric tons p.a.)	3	1
Internally landfilled non-hazardous waste (1,000 metric tons p.a.)	8	7

<sup>1</sup> Covestro serves as a certified waste disposal plant operator at various sites. At these locations, Covestro disposes not only of its own waste but also of waste from third parties. For that reason, the volume of waste disposed of differs slightly from the volume of waste generated by Covestro.

<sup>2</sup> E.g. passed on to third parties (providers / waste disposal companies)

Covestro's Global Sideline Business unit sold legacy plants and equipment on the market, thereby returning them to the resource cycle. This will also help to conserve resources over the long term. In addition, at Covestro's sites worldwide metal scrap and used packaging such as barrels and pallets were either reused or recycled.

## 12. Corporate Citizenship

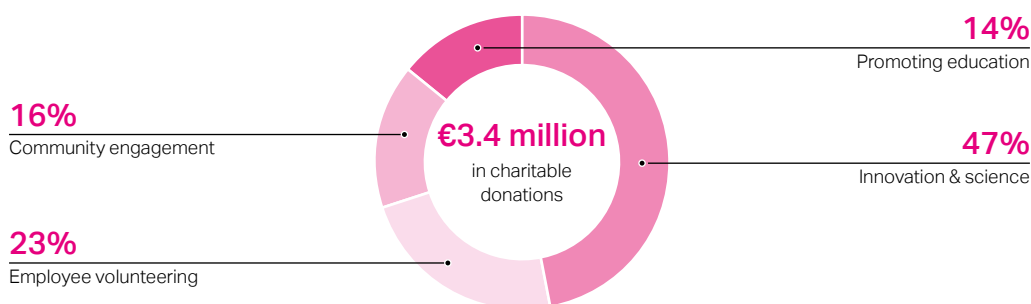
Sustainable thinking and action is imperative if we want to preserve our planet and improve the quality of life of millions of people. Covestro is seeking to improve the lives of ten million people in underserved regions by 2025 – and not just with our products and engineering which benefit society and reduce our impact on the environment. We also want to engage in communities as a catalyst for reaching the UN Sustainable Development Goals more quickly, and use our position as one of the world’s largest producers of polymers to work alongside a number of other organizations to advance projects aiming to improve the environment, society and the economy. As a corporate citizen, we want to promote education, particularly in STEM (science, technology, engineering, mathematics) subjects, and support communities with reliable access to new technologies and knowledge. A unit with Group-wide responsibility therefore supports the planning and implementation of the partnerships and donations to help the company move closer to achieving the UN Sustainable Developmental Goals.



For more information, see our Annual Report, Group Management Report, section 12 and magazine “Why not?”, Products

In 2017, Covestro invested more than €3.4 million in charitable activities within the areas shown in the following chart.

### Distribution of Donations per Unit in 2017



### Asia-Pacific

In Thailand, Covestro worked with the Science Center for Education to organize the “Brighter World” event, which encouraged over 70 girls and boys to get interested in science, recycling and environmental protection. Building on this success, Covestro supported the efforts of the National Museum of Marine Science & Technology and the National Museum of Natural Science to supply 145 schools with teaching materials on environmental protection and clean oceans.

In India, together with the Nehru Science Centre, Mumbai, Covestro and Greenlight 4 Girls held a one-week STEM event for 1,200 girls to show them how fun and exciting science, technology, engineering and mathematics can be. Moreover, Covestro awarded scholarships to two schoolgirls from disadvantaged backgrounds to enable them to graduate from school.

In China, Covestro held an open day to inspire China’s future leaders to contribute ideas and participate in building sustainable cities. 45 high school and college students, including 15 students from Tongji University, which has long been one of Covestro’s strategic partners for innovation, were invited to the event dubbed “Together for Sustainable Cities”. As part of Covestro’s participation in the Responsible Care initiative, they visited the Polymer Research and Development Center (PRDC) in Shanghai, Covestro’s innovation center in the Asia-Pacific region.

### Europe, Middle East, Africa and Latin America

Covestro continues to be a sponsor of the German ice hockey league (DEL). Among other things, high-tech materials from Covestro are used in the visors of referees’ helmets, providing excellent protection against injuries.

In 2017, Covestro also participated in the Germany-wide Girls Day initiative by organizing several events across all its German sites. One group of girls visited Covestro's Science Lab in Leverkusen, for instance. In Dormagen, participants observed plastics production and learned what it is like to be a chemist, laboratory technician and plastics engineer. At Krefeld-Uerdingen, information was provided to girls about careers in chemistry.

Covestro also donated more than 500 computers to The Turing Trust in the UK. The efforts of The Turing Trust toward improving the educational opportunities for citizens of Malawi of all ages through access to information and communication technologies won awards from the Scottish government's Small Grants Programme in 2016 and 2017. The donated machines are being used to establish a custom e-library and for a pilot project to set up a cooperative, off-grid, solar-powered computer lab for schools.

Information collected by Handicap International in 2016 about the needs of 25,000 injured Syrian refugees indicated that 8% suffered amputations during the civil war, and therefore require inexpensive prostheses. Covestro donated €45,000 to the non-profit organization LimbForge to support needs assessments and their capacity-building efforts. This donation contributes to achieving the UN Sustainable Development Goals for people with physical limitations and takes a step toward meeting their needs and rehabilitation requirements.

Moreover, Covestro and the United Nations Environment Programme (UNEP) created a project to promote young people. Its goal is to honor people aged 18 to 30 for their ideas for a positive impact on society or the environment and to support them in realizing these ideas. In addition to presenting awards, with its Young Champions of the Earth program Covestro is seeking to identify and foster the next generation of leaders in sustainable development. About 300 Covestro employees volunteered their expertise to help the program's participants turn their ideas into reality.

In addition, Covestro is a participant in the Ocean Sole initiative, which is part of a program for job seekers that recycles flip-flops that have floated ashore by using them to create artworks.

### United States, Canada and Mexico

In Pittsburgh (United States), the site of Covestro's North American headquarters, donations amounting to €130,000 were provided to the Greater Pittsburgh Community Food Bank to expand its Backpack Program in the region over the next three years. In addition to the meals they receive on weekdays at school, the program also provides students with nutritious meals and snacks to take home on the weekends so they can return to school on Monday ready to learn. Studies have shown that hungry students lack concentration and energy and do not do as well on their schoolwork. With this donation, the company is joining the fight against childhood hunger and helping to level the educational playing field for all students. Covestro is thus helping to combat hunger and promoting high-quality education, again underscoring our commitment to the UN Sustainable Development Goals.

In campaigns run by Covestro together with the charity United Way at the company's sites in the USA, donations amounting to €860,000 were collected. This total comprises personal donations by employees, proceeds from fundraising events plus a contribution from the company: Covestro matched each employee donation as part of the annual United Way campaign. In addition, the "Raise the Roof" project by Habitat for Humanity in Kanawha and Putnam County, West Virginia (United States), which aims to construct affordable and safe homes, was supported by more than 60 of the company's employees in addition to a €43,000 donation by Covestro. As a dedicated patron of non-profit organizations, Covestro has backed the work of Habitat for Humanity for many years. Over the past three years, Covestro's donations to the "Raise the Roof" project alone amounted to over €105,000. Furthermore, Covestro actively participated in disaster relief in the United States, not least because employees were directly



For more information, see our Annual Report, magazine "Why not?", Spirit

affected. The American Red Cross in West Virginia received a €4,500 donation for mitigating the effects of flooding in the areas around Covestro sites. When Hurricane Harvey hit Houston, Covestro upped its assistance:

- Donations totaling €86,000 were made to the American Red Cross for relief work in the aftermath of Hurricane Harvey. Following this hurricane, private donations were collected from Covestro employees amounting to €70,000 and given to the Red Cross for its disaster relief efforts. The company matched this amount in order to assist directly affected colleagues.
- Employees at Covestro sites in the United States also donated restaurant vouchers to affected employees and put together activity/reading kits for children who had to leave their homes.

At the same time, Covestro donated €83,500 to the Mexican Red Cross to support the victims of the earthquake in September 2017.

## 13. Compliance

All Covestro's business activities are founded on integrity. Drawing on our sense of responsibility and ethical principles, we ensure that our conduct toward all our stakeholders is appropriate in every way. Consequently, Covestro will forgo any business that would only be possible by violating laws or breaching our internal rules.

The way each employee conducts the company's business can affect Covestro's public image. Covestro will therefore not tolerate any violation of applicable laws or internal rules and regulations.

Our Corporate Compliance Policy details our commitment to fair competition, integrity in business dealings, the principles of sustainability and product stewardship, 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.

Our senior executives have a vital role to play in implementing the Corporate Compliance Policy. Leading by example, they play a significant role in ensuring that this important code of conduct is adhered to in practice. Executives may lose their entitlement to variable compensation components and be subject to disciplinary measures if systematic violations of applicable laws that result in possible loss or damage to Covestro occur within their sphere of responsibility which could have been prevented if they had taken appropriate action. Compliant and lawful conduct forms part of the performance appraisal of all senior managers.

Every employee is required as a matter of principle to immediately report any infringement of the Corporate Compliance Policy unless this is not permitted by national law. Employees can personally report potential compliance violations to the Compliance Officer, or use a worldwide hotline or email address that also permit anonymous reports. A Group policy sets out the principles for handling compliance incidents at Covestro, the associated responsibilities and procedures, and the consequences arising if any breaches are found.

All suspected compliance incidents are recorded in a central database. Confirmed cases are evaluated and organizational, disciplinary or legal action taken if necessary. In addition to the potential financial loss for the company, non-financial criteria such as damage to Covestro's reputation and the hierarchy level of the employees involved are also included in the evaluation. The Supervisory Board's Audit Committee receives a report each quarter on the total number of compliance incidents and a summary of the most serious cases.

In setting up our compliance management system (CMS), we applied the framework of the Committee of the Sponsoring Organizations of the Treadway Commission (COSO). The design, appropriateness, implementation and effectiveness of the CMS were confirmed in the reporting period without restriction in accordance with Auditing Standard 980 of the Institute of Public Auditors in Germany (IDW) in the areas of antitrust law, anticorruption measures and export controls.

Compliance risks are systematically identified and evaluated during our risk management process. If necessary, measures to minimize risk are defined. These focus on the areas of antitrust law, anticorruption measures, export controls, conflicts of interest, insider dealing and antidiscrimination regulations. A local risk assessment covering antitrust law and anticorruption measures has been conducted for each country in which a Covestro Group company is domiciled. With regard to anticorruption, gifts and invitations, tenders, donations and collaboration with certain business partners such as customs agents have been identified as high-risk areas. Through extensive communication and training, Covestro helps employees develop a lasting awareness of appropriate conduct and integrity as well as the potential consequences of non-compliance.

All Covestro companies document risks arising from pending or current legal disputes and proceedings quarterly. Relevant cases are reported to the Audit Committee of the Supervisory Board, and the major risks are disclosed in the notes to the consolidated financial statements in the "Legal Risks" section.



For more information, see our Annual Report, Group Management Report, section 13

## 14. GRI Index

Our reporting is prepared in accordance with the “Core” option of the 2016 GRI Sustainability Reporting Standards (SRS) drawn up by the Global Reporting Initiative (GRI). The following table includes all sustainability indicators to be listed according to the GRI SRS “Core” option as well as further sustainability indicators that we report on, and shows where they are presented within the Covestro Annual Report and the supplementary sustainability information.

The report was audited by PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft. More information on this audit can be found in the audit report (on p. 59 ff.).

### 14.1 General Standard Disclosures

#### GRI 102 – GENERAL DISCLOSURES

Disclosure number	Disclosure title	Section in the Covestro Annual Report 2017	Section in the Covestro GRI Supplementary Report 2017	Explanation/omission
102-1	Name of the organization	Section 1 Structure		
102-2	Activities, brands, products, and services	Section 1 Structure – Business model; Segments		
102-3	Location of headquarters	Section 1 Structure – Organization and sites		
102-4	Location of operations	Section 1 Structure – Organization and sites		
102-5	Ownership and legal form	Section 1 Structure – Organization and sites		
102-6	Markets served	Section 1 Structure – Business model; Segments		
102-7	Scale of the organization	Section 1 Structure – Organization and sites; Section 5 Employees		
102-8	Information on employees and other workers	Section 5 Employees	Section 5.2 Employee Metrics	
102-9	Supply chain	Section 6 Procurement	Section 6 Procurement	
102-10	Significant changes to the organization and its supply chain	Section 1 Structure – Organization and sites; Section 24 Governance		
102-11	Precautionary Principle or approach	Section 9 Product Stewardship – Management of product stewardship		
102-12	External initiatives	Section 3 Management – Sustainability management		
102-13	Membership of associations	Section 3 Management – Sustainability management	Section 3.1 Stakeholder Dialog	



## GRI 102 – GENERAL DISCLOSURES

Disclosure number	Disclosure title	Section in the Covestro Annual Report 2017	Section in the Covestro GRI Supplementary Report 2017	Explanation/omission
102-14	Statement from senior decision-maker	Letter to Stockholders		
102-16	Values, principles, standards, and norms of behavior	Section 2 Strategy – Corporate values; Section 3 Management – Sustainability management; Section 24 Governance; Section 25 Compliance	Section 2.1 Company Policies and Voluntary Commitments; Section 3.2 UN Sustainable Development Goals (SDGs); Section 13 Compliance	
102-17	Mechanisms for advice and concerns about ethics	Section 25 Compliance	Section 13 Compliance	
102-18	Governance structure	Section 24 Governance; Section 3 Management		
102-19	Delegating authority	Section 24 Governance; Section 3 Management		
102-20	Executive-level responsibility for economic, environmental, and social topics	Section 24 Governance; Section 1 Structure – Organization and sites; Section 3 Management		
102-22	Composition of highest governance body and its committees	Section 24 Governance; Section 1 Structure – Organization and sites		
102-23	Chair of the highest governance body	Section 24 Governance		
102-24	Nominating and selecting the highest governance body	Section 24 Governance		
102-25	Conflicts of interest	Section 24 Governance	Section 13 Compliance	
102-26	Role of highest governance body in setting purpose, values, and strategy	Section 24 Governance; Section 3 Management		
102-32	Highest governance body's role in sustainability reporting			CEO
102-35	Remuneration policies	Section 26 Compensation Report; Section 5 Employees		
102-40	List of stakeholder groups	Section 3 Management	Section 3.1 Stakeholder Dialog	
102-41	Collective bargaining agreements		Section 5.2 Employee Metrics	
102-42	Identifying and selecting stakeholders		Section 3.1 Stakeholder Dialog	
102-43	Approach to stakeholder engagement		Section 3.1 Stakeholder Dialog	
102-44	Key topics and concerns raised	Section 3 Management	Section 3.3 Material Sustainability Issues	

**GRI 102 – GENERAL DISCLOSURES**

Disclosure number	Disclosure title	Section in the Covestro Annual Report 2017	Section in the Covestro GRI Supplementary Report 2017	Explanation/omission
102-45	Entities included in the consolidated financial statements	Notes to the Consolidated Financial Statements of the Covestro Group		
102-46	Defining report content and topic Boundaries		Section 3.3 Material Sustainability Issues	
102-47	List of material topics	Section 3 Management – Strategic alignment	Section 3.3 Material Sustainability Issues – Materiality matrix	
102-48	Restatements of information		Section 3.3 Material Sustainability Issues	
102-49	Changes in reporting		Section 3.3 Material Sustainability Issues	
102-50	Reporting period		Section 1.1 Reporting Principles	
102-51	Date of most recent report		Section 1.1 Reporting Principles	
102-52	Reporting cycle		Section 1.1 Reporting Principles	
102-53	Contact point for questions regarding the report	Publishing Information	Publishing Information	
102-54	Claims of reporting in accordance with the GRI Standards	Independent Practitioner's Limited Assurance Report	Section 1.1 Reporting Principles	
102-56	External assurance	Independent Practitioner's Limited Assurance Report	Section 1.3 External Assurance	

**14.2 Specific Standard Disclosures****LIST OF MATERIAL TOPICS**

Disclosure number	Disclosure title	Section in the Covestro Annual Report 2017	Section in the Covestro GRI Supplementary Report 2017	Explanation
<b>GRI 200 – ECONOMIC</b>				
<b>GRI 201 – ECONOMIC PERFORMANCE</b>				
103-1	Explanation of the material topic and its Boundary	Section 2 Strategy	Section 3.5 Value Creation	
103-2	The management approach and its components	Section 3 Management	Section 3.3 Material Sustainability Issues; Section 13 Compliance	
103-3	Evaluation of the management approach	Section 3 Management		
201-1	Direct economic value generated and distributed		Section 3.5 Value Creation	

## LIST OF MATERIAL TOPICS

Disclosure number	Disclosure title	Section in the Covestro Annual Report 2017	Section in the Covestro GRI Supplementary Report 2017	Explanation
<b>GRI 204 – PROCUREMENT PRACTICES</b>				
103-1	Explanation of the material topic and its Boundary	Section 6 Procurement	Section 3.3 Material Sustainability Issues	
103-2	The management approach and its components	Section 3 Management; Section 6 Procurement	Section 6.2 Sustainability in the Supply Chain; Section 13 Compliance	
103-3	Evaluation of the management approach	Section 6 Procurement	Section 6.2 Sustainability in the Supply Chain	
204-1	Proportion of spending on local suppliers		Section 6.1 Procurement of Key Products	Since our locations in Germany, the United States and China cover the majority of our procurement volume, the sites located in these countries are referred to as main sites in the sense of the GRI terminology. Local procurement is regarded as purchasing from suppliers headquartered in the same country as the legal entity they supply.
<b>GRI 205 – ANTI-CORRUPTION</b>				
103-1	Explanation of the material topic and its Boundary		Section 2.1 Company Policies and Voluntary Commitments; Section 3.3 Material Sustainability Issues	
103-2	The management approach and its components	Section 25 Compliance	Section 13 Compliance	
103-3	Evaluation of the management approach	Section 25 Compliance	Section 13 Compliance	
205-1	Operations assessed for risks related to corruption	Section 25 Compliance	Section 13 Compliance	
<b>GRI 206 – ANTI-COMPETITIVE BEHAVIOR</b>				
103-1	Explanation of the material topic and its Boundary	Section 25 Compliance; Section 22.2.1 Opportunities and Risks in General and in the Company's Business Environment	Section 2.1 Company Policies and Voluntary Commitments; Section 13 Compliance	
103-2	The management approach and its components	Section 25 Compliance	Section 13 Compliance	
103-3	Evaluation of the management approach	Section 25 Compliance	Section 13 Compliance	
206-1	Legal action for anti-competitive behavior, anti-trust, and monopoly practices			No actions were reported through internal reporting in 2017.

## LIST OF MATERIAL TOPICS

Disclosure number	Disclosure title	Section in the Covestro Annual Report 2017	Section in the Covestro GRI Supplementary Report 2017	Explanation
<b>GRI 300 – ENVIRONMENTAL</b>				
<b>GRI 302 – ENERGY</b>				
103-1	Explanation of the material topic and its Boundary	Section 3 Management; Section 11 Environmental Protection; Section 22.2.1 Opportunities and Risks in General and in the Company's Business Environment	Section 2.1 Company Policies and Voluntary Commitments; Section 3.2 UN Sustainable Development Goals (SDGs)	
103-2	The management approach and its components	Section 3 Management; Section 11 Environmental Protection; Section 22.2.1 Opportunities and Risks in General and in the Company's Business Environment	Section 2.2 Sustainability Goals; Section 3.4 Standards and Certifications; Section 11.1 Energy Consumption	
103-3	Evaluation of the management approach	Section 11 Environmental Protection	Section 11.1 Energy Consumption	
302-1	Energy consumption within the organization		Section 11.1 Energy Consumption	
302-3	Energy intensity	Section 11 Environmental Protection	Section 11.1 Energy Consumption	
302-4	Water recycled and reused		Section 11.1 Energy Consumption	
<b>GRI 303 – WATER</b>				
103-1	Explanation of the material topic and its Boundary	Section 11 Environmental Protection	Section 3.3 Material Sustainability Issues; Section 11.3 Water Consumption and Usage	
103-2	The management approach and its components	Section 11 Environmental Protection	Section 11.3 Water Consumption and Usage	
103-3	Evaluation of the management approach	Section 11 Environmental Protection	Section 4 Innovation; Section 11.3 Water Consumption and Usage	
303-1	Water withdrawal by source		Section 11.3 Water Consumption and Usage	
303-3	Water recycled and reused		Section 11.3 Water Consumption and Usage	
<b>GRI 305 – EMISSIONS</b>				
103-1	Explanation of the material topic and its Boundary	Section 3 Management; Section 4 Innovation; Section 22.2.1 Opportunities and Risks in General and in the Company's Business Environment	Section 2.2 Sustainability Goals; Section 3.2 UN Sustainable Development Goals (SDGs); Section 3.3 Material Sustainability Issues	

## LIST OF MATERIAL TOPICS

Disclosure number	Disclosure title	Section in the Covestro Annual Report 2017	Section in the Covestro GRI Supplementary Report 2017	Explanation
103-2	The management approach and its components	Section 3 Management; Section 11 Environmental Protection	Section 2.2 Sustainability Goals; Section 3.2 UN Sustainable Development Goals (SDGs); Section 4 Innovation; Section 11.2 Air Emissions	
103-3	Evaluation of the management approach	Section 11 Environmental Protection	Section 11.2 Air Emissions	
305-1	Direct (Scope 1) GHG emissions		Section 11.2 Air Emissions	
305-2	Energy indirect (Scope 2) GHG emissions		Section 11.2 Air Emissions	
305-4	GHG emissions intensity	Section 11 Environmental Protection	Section 11.2 Air Emissions	Disclosure as CO <sub>2</sub> -equivalent of specific GHG
305-5	Reduction of GHG emissions	Section 11 Environmental Protection	Section 11.2 Air Emissions	The greenhouse gas emissions are reported separately for Scope 1 and 2. In examining the GHG reduction, specific greenhouse gas emissions are calculated using the total greenhouse gas emissions Scope 1 and Scope 2, since arising shifts between the categories would lessen the validity of the results. This year, the shift between the categories is particularly pronounced (see footnote 4 in the table "Greenhouse Gas Emissions (million metric tons of CO <sub>2</sub> equivalents)" in section 11.2).
305-7	Nitrogen oxides (NO <sub>x</sub> ), sulfur oxides (SO <sub>x</sub> ), and other significant air emissions	Section 11 Environmental Protection	Section 11.2 Air Emissions	The reporting focuses on significant air emissions. POP, VOC, HAP were not reported.
<b>GRI 306 – EFFLUENTS AND WASTE</b>				
103-1	Explanation of the material topic and its Boundary	Section 11 Environmental Protection; Section 22.2.1 Opportunities and Risks in General and in the Company's Business Environment	Section 2.1 Company Policies and Voluntary Commitments; Section 3.3 Material Sustainability Issues	
103-2	The management approach and its components	Section 4 Innovation; Section 11 Environmental Protection	Section 11.3 Water Consumption and Usage; Section 11.4 Waste and Recycling	
103-3	Evaluation of the management approach	Section 11 Environmental Protection	Section 11.3 Water Consumption and Usage; Section 11.4 Waste and Recycling	

**LIST OF MATERIAL TOPICS**

Disclosure number	Disclosure title	Section in the Covestro Annual Report 2017	Section in the Covestro GRI Supplementary Report 2017	Explanation
306-2	Waste by type and disposal method		Section 11.4 Waste and Recycling	Covestro measures the quantity of waste that is reused and recycled. However, no distinction is drawn in this context between reuse and recycling, because the specific form of processing is the responsibility of the waste processing company. Additionally, Covestro does not generally differentiate between hazardous and non-hazardous waste in this case. The composting of non-hazardous waste plays a minimal or no role in the chemical industry. As a rule, energy is recovered during waste incineration. However, due to the large number of sites, it cannot be ruled out that, in individual cases, no energy is recovered. Deep-well injection is not a factor according to currently available information.
<b>GRI 307 – ENVIRONMENTAL COMPLIANCE</b>				
103-1	Explanation of the material topic and its Boundary	Section 3 Management; Section 22.2.1 Opportunities and Risks in General and in the Company's Business Environment	Section 2.1 Company Policies and Voluntary Commitments	
103-2	The management approach and its components	Section 11 Environmental Protection; Section 22.2.1 Opportunities and Risks in General and in the Company's Business Environment; Section 25 Compliance	Section 11.4 Waste and Recycling; Section 13 Compliance	
103-3	Evaluation of the management approach		Section 11.4 Waste and Recycling; Section 13 Compliance	
307-1	Non-compliance with environmental laws and regulations			In 2017, no significant administrative or court-ordered sanctions (fines, non-monetary sanctions) for non-compliance with environmental laws and regulations were reported through internal reporting.
<b>GRI 308 – SUPPLIER ENVIRONMENTAL ASSESSMENT</b>				

## LIST OF MATERIAL TOPICS

Disclosure number	Disclosure title	Section in the Covestro Annual Report 2017	Section in the Covestro GRI Supplementary Report 2017	Explanation
103-1	Explanation of the material topic and its Boundary	Section 6 Procurement; Section 22.2.1 Opportunities and Risks in General and in the Company's Business Environment	Section 2.2 Sustainability Goals; Section 3.3 Material Sustainability Issues – Sustainable procurement	
103-2	The management approach and its components	Section 6 Procurement	Section 3.1 Stakeholder Dialog; Section 6.2 Sustainability in the Supply Chain	
103-3	Evaluation of the management approach	Section 6 Procurement	Section 6.2 Sustainability in the Supply Chain	
308-2	Negative environmental impacts in the supply chain and actions taken	Section 6 Procurement – Evaluating the sustainability performance of our suppliers	Section 6.2 Sustainability in the Supply Chain	
<b>GRI 400 – SOCIAL</b>				
<b>GRI 401 – EMPLOYMENT</b>				
103-1	Explanation of the material topic and its Boundary	Section 2 Strategy; Section 22.2.1 Opportunities and Risks in General and in the Company's Business Environment	Section 2.1 Company Policies and Voluntary Commitments; Section 3.3 Material Sustainability Issues	
103-2	The management approach and its components	Section 5 Employees; Section 22.2.1 Opportunities and Risks in General and in the Company's Business Environment	Section 3.1 Stakeholder Dialog; Section 5.1 Strategy and Processes	
103-3	Evaluation of the management approach	Section 5 Employees	Section 5.2 Employee Metrics	
401-1	New employee hires and employee turnover		Section 5.2 Employee Metrics – Attracting qualified employees and professional development	
<b>GRI 403 – OCCUPATIONAL HEALTH AND SAFETY</b>				
103-1	Explanation of the material topic and its Boundary	Section 10 Safety	Section 2.1 Company Policies and Voluntary Commitments; Section 3.3 Material Sustainability Issues	
103-2	The management approach and its components	Section 2 Strategy; Section 5 Employees – Creating the best working conditions and work models; Section 10 Safety; Section 22.2.1 Opportunities and Risks in General and in the Company's Business Environment	Section 10.1 Occupational Health and Safety	
103-3	Evaluation of the management approach	Section 10 Safety	Section 10.1 Occupational Health and Safety	

**LIST OF MATERIAL TOPICS**

Disclosure number	Disclosure title	Section in the Covestro Annual Report 2017	Section in the Covestro GRI Supplementary Report 2017	Explanation
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Section 10 Safety – Occupational Health and Safety	Section 10.1 Occupational Health and Safety	A breakdown by gender is not carried out for reasons of data protection and is not a factor in the goal of generally preventing accidents. At the majority of Covestro sites, the data required to determine the occupational disease rate (ODR) is subject to data protection rules, and in some cases employers' liability insurance associations, for example, do not provide the company with this information. For purposes of the lost day rate (LDR), Covestro records all accidents, including lost days, without being able to provide sufficiently verifiable information. In addition, some of this information is subject to physician-patient privilege. The absentee rate (AR) is not currently tracked across all sites, but may be recorded in the future after a new HR system is introduced.
<b>GRI 404 – TRAINING AND EDUCATION</b>				
103-1	Explanation of the material topic and its Boundary	Section 5 Employees	Section 2.1 Company Policies and Voluntary Commitments	
103-2	The management approach and its components	Section 5 Employees; Section 22.2.1 Opportunities and Risks in General and in the Company's Business Environment	Section 5.2 Employee Metrics	
103-3	Evaluation of the management approach			
404-2	Programs for upgrading employee skills and transition assistance programs	Section 5 Employees – Promoting employees and their development	Section 5.1 Strategy and Processes	
<b>GRI 405 – DIVERSITY AND EQUAL OPPORTUNITY</b>				
103-1	Explanation of the material topic and its Boundary	Section 5 Employees; Section 22.2.1 Opportunities and Risks in General and in the Company's Business Environment		
103-2	The management approach and its components	Section 5 Employees	Section 5.2 Employee Metrics	
103-3	Evaluation of the management approach	Section 5 Employees	Section 5.2 Employee Metrics	



## LIST OF MATERIAL TOPICS

Disclosure number	Disclosure title	Section in the Covestro Annual Report 2017	Section in the Covestro GRI Supplementary Report 2017	Explanation
405-1	Diversity of governance bodies and employees	Section 5 Employees; Section 24 Governance	Section 5.2 Employee Metrics	Minority group membership is not recorded for legal reasons.
<b>GRI 406 – NON-DISCRIMINATION</b>				
103-1	Explanation of the material topic and its Boundary	Section 5 Employees	Section 3.3 Material Sustainability Issues	
103-2	The management approach and its components	Section 5 Employees; Section 25 Compliance	Section 5.2 Employee Metrics; Section 13 Compliance	
103-3	Evaluation of the management approach		Section 5.2 Employee Metrics	
406-1	Incidents of discrimination and corrective actions taken			For reasons of confidentiality, we do not make statements concerning the type and scope of the incidents reported.
<b>GRI 407 – FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING</b>				
103-1	Explanation of the material topic and its Boundary		Section 3.3 Material Sustainability Issues; Section 5.2 Employee Metrics	
103-2	The management approach and its components	Section 5 Employees; Section 6 Procurement; Section 25 Compliance	Section 5.2 Employee Metrics; Section 6 Procurement; Section 13 Compliance	
103-3	Evaluation of the management approach		Section 5.2 Employee Metrics; Section 6 Procurement	
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Section 5 Employees	Section 5 Employees; Section 6 Procurement	In 2017, no significant cases were reported using formal grievance mechanisms. There was no high risk exposure in 2017 to the sites, since the local heads of HR and the local managing directors are required by internal rules to maintain a regular exchange of information with unions and employee representatives.
<b>GRI 414 – SUPPLIER SOCIAL ASSESSMENT</b>				
103-1	Explanation of the material topic and its Boundary	Section 6 Procurement; Section 22.2.1 Opportunities and Risks in General and in the Company's Business Environment	Section 2.1 Company Policies and Voluntary Commitments; Section 3.3 Material Sustainability Issues	
103-2	The management approach and its components	Section 6 Procurement	Section 6 Procurement	
103-3	Evaluation of the management approach	Section 6 Procurement	Section 6 Procurement	

## LIST OF MATERIAL TOPICS

Disclosure number	Disclosure title	Section in the Covestro Annual Report 2017	Section in the Covestro GRI Supplementary Report 2017	Explanation
414-2	Negative social impacts in the supply chain and actions taken	Section 6 Procurement	Section 6 Procurement	
<b>GRI 416 – CUSTOMER HEALTH AND SAFETY</b>				
103-1	Explanation of the material topic and its Boundary	Section 9 Product Stewardship; Section 22.2.1 Opportunities and Risks in General and in the Company's Business Environment	Section 2.1 Company Policies and Voluntary Commitments; Section 3.3 Material Sustainability Issues; Section 9 Product Stewardship	
103-2	The management approach and its components	Section 7 Production; Section 9 Product Stewardship; Section 25 Compliance	Section 3.1 Stakeholder Dialog; Section 7.2 Quality Management; Section 9 Product Stewardship; Section 13 Compliance	
103-3	Evaluation of the management approach	Section 9 Product Stewardship	Section 7.2 Quality Management	
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services		Section 9 Product Stewardship	In 2017, no significant incidents were reported through internal reporting.
<b>GRI 417 – PRODUCT AND SERVICE LABELING</b>				
103-1	Explanation of the material topic and its Boundary	Section 9 Product Stewardship; Section 22.2.1 Opportunities and Risks in General and in the Company's Business Environment	Section 2.1 Company Policies and Voluntary Commitments; Section 3.3 Material Sustainability Issues; Section 9 Product Stewardship	
103-2	The management approach and its components	Section 9 Product Stewardship	Section 7.2 Quality Management; Section 9 Product Stewardship;	
103-3	Evaluation of the management approach	Section 9 Product Stewardship	Section 9 Product Stewardship	
417-1	Requirements for product and service information and labeling	Section 9 Product Stewardship	Section 9 Product Stewardship	
417-2	Incidents of non-compliance concerning product and service information and labeling	Section 9 Product Stewardship	Section 9 Product Stewardship	In 2017, no significant incidents were reported through internal reporting.

## LIST OF MATERIAL TOPICS

Disclosure number	Disclosure title	Section in the Covestro Annual Report 2017	Section in the Covestro GRI Supplementary Report 2017	Explanation
<b>GRI 419 – SOCIOECONOMIC COMPLIANCE</b>				
103-1	Explanation of the material topic and its Boundary	Section 22.2.1 Opportunities and Risks in General and in the Company's Business Environment; Section 25 Compliance	Section 2.1 Company Policies and Voluntary Commitments; Section 13 Compliance	
103-2	The management approach and its components	Section 3 Management; Section 25 Compliance	Section 2.1 Company Policies and Voluntary Commitments; Section 13 Compliance	
103-3	Evaluation of the management approach	Section 25 Compliance	Section 13 Compliance	
419-1	Non-compliance with laws and regulations in the social and economic area			In 2017, no significant administrative or court-ordered sanctions (fines, non-monetary sanctions) for non-compliance with laws and regulations with respect to the provision and use of products and services were reported through internal reporting.

# Independent Practitioner's Report on a Limited Assurance Engagement on Sustainability Information<sup>1</sup>

## To Covestro AG, Leverkusen

We have performed a limited assurance engagement on the disclosures in the GRI Supplementary Report of Covestro AG, Leverkusen (hereinafter: "the Company"), for the period from 1 January 2017 to 31 December 2017 (hereinafter: "Report").

### Responsibilities of the Executive Directors

The executive directors of the Company are responsible for the preparation of the Report in accordance with the principles stated in the Sustainability Reporting Standards of the Global Reporting Initiative (hereinafter: "GRI-Criteria").

This responsibility of the Company's executive directors includes the selection and application of appropriate methods of sustainability reporting as well as making assumptions and estimates related to individual sustainability disclosures, which are reasonable in the circumstances. Furthermore, the executive directors are responsible for such internal controls as they have considered necessary to enable the preparation of a Report that is free from material misstatement whether due to fraud or error.

### Independence and Quality Control of the Audit Firm

We have complied with the German professional provisions regarding independence as well as other ethical requirements.

Our audit firm applies the national legal requirements and professional standards – in particular the Professional Code for German Public Auditors and German Chartered Auditors ("Berufssatzung für Wirtschaftsprüfer und vereidigte Buchprüfer": "BS WP/vBP") as well as the Standard on Quality Control 1 published by the Institute of Public Auditors in Germany (Institut der Wirtschaftsprüfer; IDW): Requirements to quality control for audit firms (IDW Qualitätssicherungsstandard 1: Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis - IDW QS 1) – and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

### Practitioner's Responsibility

Our responsibility is to express a limited assurance conclusion on the disclosures in the Report based on the assurance engagement we have performed.

Within the scope of our engagement we did not perform an audit of external sources of information or expert opinions referred to in the Report.

We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the IAASB. This Standard requires that we plan and perform the assurance engagement to allow us to conclude with limited assurance that no matters have come to our attention that cause us to believe that the disclosures in the Company's Report for the period from 1 January 2017 to 31 December 2017 have not been prepared, in all material aspects, in accordance with the relevant GRI-Criteria.

In a limited assurance engagement the assurance procedures are less in extent than for a reasonable assurance engagement and therefore a substantially lower level of assurance is obtained. The assurance procedures selected depend on the practitioner's professional judgment.

<sup>1</sup> PricewaterhouseCoopers GmbH has performed a limited assurance engagement on the German version of the GRI Supplementary Report (GRI-Ergänzungsbericht) and issued an independent assurance report in German language, which is authoritative. The following text is a translation of the independent assurance report.

Within the scope of our assurance engagement, we performed amongst others the following assurance procedures and further activities:

- Obtaining an understanding of the structure of the sustainability organization and of the stakeholder engagement
- Inquiries of personnel involved in the preparation of the Report regarding the preparation process, the internal control system relating to this process and selected disclosures in the Report
- Identification of the likely risks of material misstatement of the Report under consideration of the GRI-Criteria
- Analytical evaluation of selected disclosures in the Report
- Performance of site visits to review the implementation of data collection processes and requirements at the following subsidiaries:
  - Covestro LLC, Baytown
  - Covestro Polymers (China) Co. Ltd, Caojing
  - Covestro Deutschland AG, Dormagen
  - Covestro Deutschland AG, Leverkusen
  - Covestro Deutschland AG, Uerdingen
- Comparison of selected disclosures with corresponding data in the consolidated financial statements and in the group management report
- Evaluation of the presentation of the selected disclosures regarding sustainability performance

### **Assurance Conclusion**

Based on the assurance procedures performed and assurance evidence obtained, nothing has come to our attention that causes us to believe that the disclosures in the Company's Report for the period from 1 January 2017 to 31 December 2017 have not been prepared, in all material aspects, in accordance with the relevant GRI-Criteria.

### **Intended Use of the Assurance Report**

We issue this Report on the basis of the engagement agreed with the Company. The assurance engagement has been performed for purposes of the Company and the Report is solely intended to inform the Company as to the results of the assurance engagement. The Report is not intended to provide third parties with support in making (financial) decisions. Our responsibility lies solely toward the Company. We do not assume any responsibility towards third parties.

Munich, 15 February 2018  
PricewaterhouseCoopers GmbH  
Wirtschaftsprüfungsgesellschaft

Hendrik Fink  
Wirtschaftsprüfer  
(German Public Auditor)

ppa. Juliane v. Clausbruch

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