

# GRI SUPPLEMENTARY REPORT

# 2016

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





To make the world a brighter place

**PUSH** BOUNDARIES  
**bnzHING**

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## About this Report

### In keeping with the General Equal Treatment Act

We consider equal treatment to be important. To ensure greater legibility, this Report abstains from the use of gender-specific wording. The corresponding terms shall apply equally to both genders according to the principle of equal treatment.




### Rounding principles

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. In case of discrepancies, only the German version shall be binding.

### Key

-  References to online amendments
-  References within the GRI Supplementary Report and to the Annual Report
-  Statements were audited by an independent auditor

This GRI Supplementary Report was published on February 20, 2017.

# 1. Reporting Structure

## 1.1 Reporting Principles

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

The Annual Report and supplementary sustainability information comprise our annual sustainability reporting. The reporting period encompasses the period from January 1 to December 31, 2016. The most recent Annual Report and GRI Report were published in February 2015.

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 G4 Sustainability Reporting Guidelines drawn up by the Global Reporting Initiative (GRI), following the GRI Implementation Manual. A GRI Index can be found at the end of this document.

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

Credible reporting is based on transparency and data validity. Covestro uses various recognized information systems and databases for this purpose.

Our Group-wide safety and environment performance metrics 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. Irrespective of Covestro's precise share, the performance metrics for these companies are fully consolidated. Data on occupational injuries, transportation and environmental incidents are collected at all sites worldwide. Environmentally relevant indicators are measured at all production sites. Our human resources metrics are ascertained through our global SAP HR 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. As one of the six initial members of the Together for Sustainability initiative founded by leading chemical companies, Covestro pursues the global harmonization of its suppliers' sustainability assessments and audits.

The metrics set out in the report are stated in accordance with commercial rounding principles. In some individual cases this may result in values not adding up exactly to the total given or precise percentages not being evident from the values presented.

## 1.3 External Assurance

PricewaterhouseCoopers AG Wirtschaftsprüfungsgesellschaft has audited all data marked "✓" on a limited assurance basis to assess whether the reported metrics are in accordance with the GRI's G4 guidelines. The audit was conducted in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised). The independent assurance report follows the GRI Index.

As stated in the report of independent auditors in the Annual Report, the consolidated financial statements and the combined management report of Covestro AG for the fiscal year 2016 have been audited in full by the external auditor in accordance with § 317 German Commercial Code (HGB).

## 2. Strategy

### 2.1 Company Guidelines

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 defined in our internal regulations and guidelines in order to advance the sustainability aspects of our strategy.

- **Creating value:** Ongoing value creation is the primary objective of Covestro. We develop solutions that create value for customers, society and the environment, as well as for employees and investors.
- **Sustainability:** Our aim is to align economic targets with environmental and social goals. Ensuring that our business activities embrace sustainability reflects our purpose "To make the world a brighter place."
- **Innovation:** Innovation is necessary for mastering the global challenges of our time and for creating value in the long term. As a result, we develop new products, applications and technologies that focus on sustainable development.
- **People:** Covestro's success is based on the strong commitment of our employees. We want to motivate and offer them an attractive workplace.
- **HSEQ (Health, Safety, Environment and Quality):** Occupational health, safety, environmental protection, energy efficiency and quality management are key factors in achieving our aims. Continuous improvement 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 legal requirements and voluntary pledges by Covestro is therefore considered to be of the utmost importance.

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.

### 2.2 Sustainability Goals

Covestro fully supports the United Nations' sustainability goals (SDGs). We have analyzed the influence that our activities, products, initiatives and our engagement can have on these goals. The SDGs and the findings of the analysis are incorporated into our sustainability agenda.

In 2016, Covestro set five ambitious goals to be reached by 2025, which are aligned with the SDGs. We will report regularly on the progress made.

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



The new target program is presented on our website [www.covestro.com/de/sustainability/targets/target-overview](http://www.covestro.com/de/sustainability/targets/target-overview)



For further information, see our Annual Report, Combined Management Report, section 2 "Strategy"

The five goals to be achieved by 2025 are outlined below:



### **Our project portfolio is aligned with the United Nations Sustainable Development Goals**

We will align our research and development projects (R&D) to address the UN SDGs. By 2025, 80% of our R&D project spending will be targeted in areas that specifically contribute to achieving these goals, either undertaken in partnership with or endorsed by recognized institutions.

Many of our innovations and research activities already promote our efforts toward mastering global challenges. These include the solutions developed for the Solar Impulse project, improvements in resource efficiency, and cost-effective and environmentally and socially friendly products.



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

All our suppliers with recurrent annual spending exceeding €100,000 will be assessed and are expected to achieve compliance with Covestro's sustainability requirements. This group covers some 97% of the total purchasing volume. The remainder of our suppliers must comply with our code of conduct through accepting the conditions of our purchase orders or contracts. We also seek to partner with our key suppliers to assist them in advancing their sustainability performance.



### **Reduce specific greenhouse gas emissions by 50%**

We aim to reduce our specific greenhouse gas emissions – those generated per metric ton of product produced – by 50% compared to our base year 2005.



### **Ten million people in underserved markets benefited by our business solutions**

We have undertaken to contribute to improve the lives of 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 to jointly provide new business models and business solutions that can be employed to the economic and social benefit of those in this sector. We intend to focus primarily on affordable housing, sanitation and food security applications in which our materials offer significant benefits.



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

Our products are based on carbon. In order to ensure we are delivering positive returns on our use of this element, we aim to work with our value chains, public and non-profit sectors to establish and employ a methodology to ensure our use of carbon delivers optimal productivity.

Our carbon productivity initiative aims to increase the return on carbon invested throughout the value chain.

For example, by investing carbon in the manufacture of polyurethane insulation foam, we can save up to 70 times that investment through the life of this material due to lower energy consumption and reduced emissions.



### 3. Sustainability Management

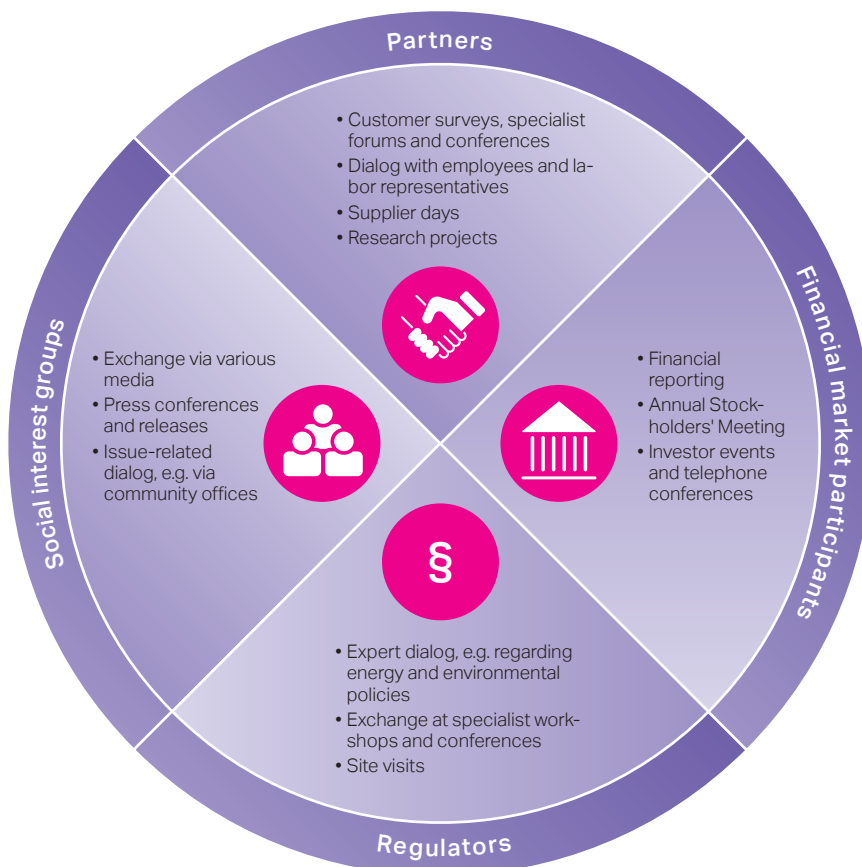
#### 3.1 Stakeholder Dialog

We are committed to active, open and honest dialog with our stakeholders – whether in the immediate vicinity of our sites or at national or global level. Our main stakeholder groups include Covestro’s partners as well as financial market participants, regulators and social interest groups. Addressing their interests is very important in respect of our strategy development, our decision-making and our risk management activities.



For further information, see our Annual Report, Combined Management Report, section 21 "Opportunities and Risks Report"

#### Stakeholder Dialog



We adopt an open communication approach. Depending on specific issues and relevance, our various departments identify and prioritize key stakeholders and appropriate formats to address them.

#### Partners

Collaboration with customers, employees and suppliers is a prerequisite for the long-term success of our company. We also value the cooperation with – and the active participation in – industry-relevant associations and scientific institutions. We are in frequent contact with all of these groups, both at senior management level and through various departments.

In addition, Covestro participates in a number of international industry trade shows. In the year under review, these included major events such as K 2016, Chinaplast, the American Institute of Architects (AIA) National Convention, Roof India, Light+Building, and JEC World Composites.

## Customers

We maintain constant contact with our customers around the world, a responsibility handled primarily by our sales and marketing representatives. In addition, we regularly evaluate the satisfaction of our customers as a core component of our Integrated Management System as well as conduct periodic surveys in our Group segments.

At regular intervals, we hire independent rating institutions to conduct branding or market research to survey existing and potential customers in all relevant industries. The findings from these studies are used to improve our performance and customer-oriented market positioning in terms of marketing and sales, innovation, product management, supply chain and communication. The most recent branding and market analyses were carried out in 2015 for the Polycarbonates (PCS) and Coatings, Adhesives, Specialties (CAS) segments. Measures aimed at effectively reaching customers and improving market positioning were derived from the results and implemented.

## Suppliers

To ensure the smooth running of production processes and to implement our sustainability requirements, we work closely with our suppliers. Through our participation in the Together for Sustainability (TfS) initiative, Covestro maintains a regular dialog with suppliers and assesses their performance regarding sustainability issues relevant to us.

In addition to day-to-day contact, our country companies' TfS events and Supplier Days are useful platforms for face-to-face dialog on the subject of sustainability between purchasers and suppliers. As part of the TfS initiative, a global TfS event with around 500 participants was organized in India, at which, among other things, discussions were held on sustainability in the supply chains of chemical companies. In addition, our country companies held local Supplier Days in 2016. For instance, more than 70 representatives of key Covestro suppliers came together in Mumbai to talk about important topics, including sustainability.

As part of the trade fair for plastics and rubber in Düsseldorf (K 2016), the Covestro stand featured a Sustainability Day with a podium discussion in which a main supplier took part. Moreover, TfS supplier training with representatives from around 300 supplier companies took place at the 2016 annual conference of the China Petroleum and Chemical Industry Federation (CPCIC) in Shanghai.

## Employees

We aim to be an attractive employer in order to attract and retain motivated and talented employees. The expertise and commitment of our employees are essential to Covestro's business success. We aim to keep them regularly updated with current business developments as well as to actively involve them through dialog. This includes informing our staff promptly and extensively about any upcoming changes in compliance with the applicable national and international regulations. Covestro regularly holds town-hall meetings with members of the Board of Management and senior management at all key sites around the world. In addition to business performance and the company's strategic goals, these focus on specific topics such as workplace safety and specific global or regional issues. Moreover, Covestro disseminates current information through presentations, mailings sent out as needed, and the company's intranet and social media, including a blog by the CEO. The Board of Management also maintains a continuous 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."

## Associations

Covestro has been an active member of a number of national and international associations for many years. With regard to sustainability, energy and climate issues, Covestro is now represented on relevant committees within these organizations.

Since 2016, our CEO Patrick Thomas has been a member of the board of the German Chemical Industry Association (VCI). He is also a founding member of the World Plastics Council and sits on its Executive Committee. Patrick Thomas is 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. Patrick Thomas additionally serves as President of PlasticsEurope, the European plastics manufacturers' association. Dr. Markus Steilemann, 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. Board of



TfS provides a wide range of information and online training on its website [www.tfs-initiative.com](http://www.tfs-initiative.com)



Management member responsible for Production and Technology Dr. Klaus Schäfer is a member of the Governing Council of the World Chlorine Council (WCC) and on the board of the Verband der Industriellen Energie- und Kraftwirtschaft (VIK).

In addition, Covestro is active in the International Council of Chemical Associations (ICCA) and the American Chemistry Council (ACC) as well as associations with particular relevance to sustainability issues important to us such as the Weltenergieerat Deutschland (member of the Presiding Committee), the Forum für Zukunftsenergien (member of the Board of Trustees) and the Industriegewerkschaft Bergbau, Chemie, Energie (IG BCE; member of the innovation forum steering committee). Among other things, Covestro is a signatory to the UN Global Compact and is active in econsense, the German business forum for sustainable development.

### Scientific institutions

Covestro maintains long-standing, national and international collaborative relationships with leading universities and public research institutions. In Germany, for example, RWTH Aachen University and Covestro are working together at the CAT Catalytic Center in Aachen, where 25 staff members are conducting basic research in the area of catalysis. A high point was the joint development of a process for the efficient use of carbon dioxide as a raw material for plastics production. This led to Covestro starting industrial-scale production of a new type of CO<sub>2</sub>-based component for flexible polyurethane foam in a production facility in Dormagen (Germany) in 2016. We also cooperate 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 primary 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, the company has a long-term collaboration with Tongji University within the context of the Covestro-Tongji Eco-Construction & Material Academy and has a position on the board of UNEP-Tongji Institute of Environment for Sustainable Development.

In 2016, Covestro joined the newly established International Committee of Clean Technology, which aims to popularize low-carbon energy solutions. The Committee was formed by the founders of the Solar Impulse project – who successfully completed the first circumnavigation of the globe in a manned solar aircraft in 2016. Covestro supported the project as an official partner through the supply of materials and application solutions as well as funding.



See section 12  
"Social Responsibility"



For further information, see our Annual Report, section "Pushing Boundaries"

## Financial market participants

### Investors and creditors, rating agencies, analysts



FTSE4Good

Intensive dialog with the capital market is a high priority for Covestro. This dialog started in the run-up to the initial public offering on October 6, 2015, and has been maintained on an ongoing basis. Active contact is maintained primarily with investors and creditors as well as rating agencies and analysts. 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 prompt exchange of information between the company and financial market participants.



External agencies regularly rate the sustainability and climate protection performance of companies. For the first time in fiscal 2016, Covestro was evaluated as an independent company by Oekom Research, Sustainalytics, Vigeo and FTSE. In terms of key factors such as safety, climate protection and renewable resources, Covestro was rated above average by Oekom Research, receiving "Prime" status with an overall rating of B-. In December, FTSE Russell added Covestro to its FTSE4Good Index Series. This series is comprised of companies that fulfill high standards of sustainability in the environmental, social, and corporate governance areas.

As well as hosting the Annual Stockholders' Meeting and publishing four quarterly reports, an investor conference call is held each financial quarter. The first in-person Capital Markets Day was held in Leverkusen (Germany) in May 2016, at which Covestro presented key financial information and key investments, and reported on the performance of the individual business segments. Another 16 investor conferences were held at various locations in the year under review.



See our website for more information in the Investor Relations and Investor News sections

## Regulators

We maintain a regular dialog with authorities, ministries, politicians and key stakeholders of regulatory affairs at the local, regional, national and international level. This dialog takes the form of contributions to public consultations, involvement in specialist workshops, association activities and specific discussions with policymakers. The focus of Covestro's representation of its public policy interests in 2016 was on the areas of chemicals and energy policy, low-carbon economy, circular economy, transportation and environmental and climate protection. Dr. Klaus Schäfer, the Board of Management member responsible for Production and Technology, participated in a symposium on EU energy policy held in Brussels (Belgium) by the Economic Council of the CDU, the co-governing party in Germany. Attended by 40 selected European participants from the fields of politics, business and science, key issues concerning Europe's energy future were considered from various angles and corresponding plans developed in subsequent workshops. Covestro also participates in the chemical industry's dialog with the German Federal Ministry for Economic Affairs and Energy. In addition, members of the German Bundestag visited Covestro's sites and plants several times.

In its Code of Conduct for Responsible Lobbying, Covestro has created clear and binding rules for its involvement in the political sphere. The Code 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 as a corporation to political parties, politicians, or candidates for political office. In line with applicable law there, a political action committee (PAC) was set up in the United States that is available only to Covestro employees, but remains completely independent of the Group. This PAC manages individual voluntary donations by employees to support political candidates, ballot initiatives or legislative decisions in the United States. In addition to having an internal code, Covestro signed up on a voluntary basis to the European transparency register. The purpose of the register is to record and keep a check on lobbying activities at the EU level, requiring the disclosure of various company-specific information including, for example, the interests of related activities and the number of staff involved in lobbying work at Covestro. Detailed regulations also apply to lobbying work 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:  
<http://ec.europa.eu/transparency/register>

## Societal stakeholders

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

Our sites around the world consider the effect of their business activity on the neighborhood and society in general and take account of this in their operational and strategic decisions. This includes an active, open and honest dialog allowing Covestro to be recognized as a reliable and trustworthy partner that is committed to its social responsibility. Dialog with neighbors, the public and non-governmental organizations (NGOs) is initiated on a case-by-case basis. When capital investment projects are undertaken, the neighborhood is proactively informed and involved. In the United States, dialog takes place through Community Advisory Panels (CAPs). These panels organize regular meetings with local government and/or neighborhood representatives, in order to provide information on current issues. In Germany, dialog with neighbors is conducted through the Chempark neighborhood offices. Especially when new facilities begin operation, we reach out for direct dialog with stakeholder groups in the community. Numerous guests from the community and the business, science and political arenas attended the opening of our first production facility which uses carbon dioxide as a feedstock for industrial-scale plastics production at the site in Dormagen (Germany).

We also maintain relationships with various NGOs as part of our commitment to wider society, for instance with UN Global Compact, UNEP and Habitat for Humanity.



See section 12  
"Social Responsibility"

### Media

An important component of our stakeholder dialog is contact 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 continually inform the media and all other stakeholders about current developments on 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.

### 3.2 Material Sustainability Issues

As a corporation, Covestro is part of society and has a responsibility with regard to current challenges such as climate change, resource scarcity, health and poverty. To the extent that we can exert a significant influence, key sustainability issues were incorporated into the Group’s strategy and are therefore the foundation of many of our activities. This relates to our products and processes as well as our conduct with respect to stakeholders.

Each year, we analyze the interests, expectations and requirements of our key stakeholders across the Group, which are then reflected in the major sustainability issues we define. This process is known as a materiality analysis and is used to document and evaluate how stakeholders inside and outside the company assess the importance of sustainability issues for Covestro. The issues identified as material give us direction for our company’s business positioning, goals and strategy development. The starting point for the current materiality matrix is based on the findings from the 2015 materiality analysis. We re-evaluated these taking into account current trends and developments. In addition, our new sustainability goals for 2025 were also incorporated. For each of these elements, a clear definition was developed. In addition to the sustainability issues themselves, we included “global challenges” that align with the UN’s sustainable development goals (SDGs). These are influenced by Covestro directly through our business activities or indirectly through our other commitments.

#### UN's Sustainable Development Goals with Covestro's Impact



As a result, we have updated the materiality analysis in four stages:

- 1 Strategic review of the global trends underlying the analysis and the resulting challenges for Covestro and the industry in general
- 2 Interviews with external stakeholders such as industry players, customers, investors, scientific institutions and associations
- 3 Internal validation with Covestro’s own experts from various organizational units
- 4 Release of the updated matrix by the Chief Sustainability Officer (CSO)

This process resulted in the identification of the most important global challenges and sustainability issues for Covestro. The sustainability issues that are defined as material according to the materiality matrix (blue-colored bold print in purple-colored area) represent the basis for the selection of key aspects and indicators in line with the GRI core reporting.

**Materiality Matrix**

Stakeholder relevance (external perspective)	Very high	<ul style="list-style-type: none"> <li>• Partnering for scalable solutions</li> <li>• Reduced emissions and waste in operations</li> <li>• Urbanization</li> <li>• Finite resources</li> </ul>	<ul style="list-style-type: none"> <li>• Innovations</li> <li>• Product Stewardship</li> <li>• Attractiveness as employer</li> <li>• Climate change</li> <li>• Increasing mobility and transport</li> </ul>	
	High	<ul style="list-style-type: none"> <li>• Demographic change and population growth</li> <li>• Local water scarcity</li> </ul>	<ul style="list-style-type: none"> <li>• Business ethics</li> <li>• Sustainable procurement</li> <li>• Endangered marine life</li> <li>• Vulnerability of the poor</li> </ul>	<ul style="list-style-type: none"> <li>• Health and safety in operations</li> <li>• Resource- and energy-efficient operations</li> </ul>
	Mid	<ul style="list-style-type: none"> <li>• Donations</li> </ul>		
		Mid	High	Very high
<b>Covestro relevance (internal perspective)</b>				

Key

- Topics (material topics Covestro strives for as levers for sustainability in the scope of the company)
- Challenges (global challenges Covestro can help answer with its solutions)

**Very high relevance for Covestro and very high relevance for stakeholders**

**Innovation**

Innovation is an essential pillar of our present and future business success. It involves developing innovative materials and products as well as improving production and handling processes. In this way, we seek to maintain and extend our position in the global market. Many of our product and process innovations address current global issues such as climate change, the scarcity of fossil fuels, urbanization and increasing mobility. Our particular focus is on solutions that enable customers to reduce their individual environmental footprint as well as offering additional improvements (e.g., closed loops). Innovations like these are developed in-house or in partnerships.



See section 4 "Innovation" and in our Annual Report, Combined Management Report, section 4 "Innovation"

**Product stewardship**

Our aim is to minimize the risks our products present to health, safety and the environment throughout their life cycle – from research and development through production, marketing and customer application to final disposal.



See section 9 "Product Stewardship" and in our Annual Report, Combined Management Report, section 9 "Product Stewardship"

For Covestro, product stewardship is of fundamental importance from both a strategic and an operational point of view. We follow a systematic approach, based on suitable IT reporting systems and globally applicable internal regulations, in order to ensure we meet legal requirements as well as our commitment to global product stewardship. Accidents are recorded in a global information system and evaluated regularly. Where necessary, appropriate action is taken.

### Attractiveness as employer

We meet the growing expectations of employees and applicants through a corporate culture in which our people are at the center. Clear value propositions, such as workplace safety, work-life balance, competitive compensation, opportunities for advancement, equal opportunity and volunteering are all aimed at encouraging motivation for the long term. In 2016, Covestro took second place in workplace attractiveness in a ranking by the Association of Employed Academics and Executives in the Chemical Industry (VAA - Chemistry Managers).

For Covestro as a global company, safeguarding and promoting human rights form a material component of our corporate responsibility. In particular, this entails promoting equal opportunity and the right to collective bargaining. This creates a foundation for a good relationship with staff, employee representatives and trade unions. We signed the UN Global Compact initiative in September 2015.

Our basic values and our understanding are expressed in our human resources policy. Special directives and instructions govern human resources management globally, regionally and at our sites.

### Global challenges: Climate change; Increasing mobility and transport

Global warming and the resultant change; Increasing in extreme weather phenomena pose an enormous challenge to the world. In order to comply with the internationally agreed target of limiting global warming to less than two degrees Celsius, emissions of greenhouse gases must be lowered to a minimum in all areas. The transportation sector is responsible for 14% of worldwide greenhouse gas emissions.

These challenges are being addressed at Covestro with innovative products and processes and resource- and energy-efficient production processes. For example, the use of lighter materials for vehicles and aircrafts can reduce the consumption of fossil fuels and cut emissions. At the same time, Covestro itself can contribute to reducing emissions and resources used by optimizing processes.

## Very high relevance for Covestro and high relevance for stakeholders

### Health and safety in operations

In order to ensure the safety of our employees and all people involved in our activities (plant, process and transportation safety), we continually update our safety management activities and improve our safety culture.

Preventing accidents and incidents in day-to-day work and promoting health in the workplace are key aspects of corporate responsibility and therefore Covestro's highest priority – in the operation of our production facilities and on work-related travel and transportation routes. Safety remains a top priority in our Group-wide HSEQ measures and is anchored in directives and globally applicable core processes.

### Resource- and energy-efficient operations

Covestro's production processes require considerable amounts of energy and petrochemical raw materials as feedstock. We therefore continually strive to reduce costs, energy and resource usage, as well as emissions. The same is true for water use. We use the goals defined in our Integrated Management System as well as procedure and process descriptions to systematically work towards achieving this objective. Efficiency in the use of resources and energy is also part of our HSEQ Policy.



See section 5 "Employees" and in our Annual Report, Combined Management Report, section 5 "Employees"



See section 4 "Innovation" and in our Annual Report, Combined Management Report, section 4 "Innovation"



See section 10 "Safety" and in our Annual Report, Combined Management Report, section 10 "Safety"



See section 11 "Environmental Protection" and in our Annual Report, Combined Management Report, section 11 "Environmental Protection"

## High relevance for Covestro and very high relevance for stakeholders

### Partnering for scalable solutions

Collaboration with various stakeholders in industry and the political sphere at the national and international levels is very important in Covestro's efforts to develop effective solutions in line with our business to address critical issues and global challenges. Cooperating with scientific institutions builds our innovative capabilities and helps us develop innovative products and technologies.

In addition, we also make donations to contribute to the improvement of society, as well as participate in partnerships to assist underserved communities. This is not just part of our corporate responsibility: it also helps to ensure that our company is acceptable to the public at large. Covestro is, and will continue to be, committed to engaging in local communities, innovation and science, education and employee volunteering.



See section 4 "Innovation" and section 12 "Corporate Citizenship" and in our Annual Report, Combined Management Report, section 4 "Innovation"

### Reduced emissions and waste in operations

Covestro aims to reduce environmentally harmful emissions such as greenhouse gases (Scope 1 and 2) in accordance to GHG Protocol) and fine particulate matter as well as solid waste and substances that pollute the water.

As part of Covestro's integrated HSEQ management activities, we set ourselves the goal of halving our specific greenhouse gas emissions by 2025 compared to a 2005 baseline. We expect this to positively affect the environment as well as reduce costs. Covestro reports the Group's greenhouse gas emissions in line with the requirements of the Greenhouse Gas Protocol (GHG Protocol).

Greenhouse gas emissions at Covestro are largely due to the generation and consumption of energy, which we are continually monitoring and optimizing through our energy management system STRUCTese™ (Structured Efficiency System for Energy). Products and solutions from Covestro also help conserve resources and cut emissions in a number of key industries and central areas of life.

For Covestro as a chemical company, reducing waste, undertaking recycling and minimizing emissions into water are of both financial and environmental importance. The aim is to keep both, consumption of materials and disposal volumes, as low as possible and to minimize wastewater volumes and pollution. Rules for the handling of waste and wastewater at Covestro are set down and defined in the HSEQ policy.



See section 11 "Environmental Protection" and in our Annual Report, Combined Management Report, section 11 "Environmental Protection"

### Global challenges: Urbanization; Finite resources

Although research indicates that no fossil fuel bottlenecks are expected in the near future, long-term, forward-thinking action on this issue is appropriate. Efforts to reduce energy and resource usage are focused mainly on cities, as buildings account for about 40% of all energy consumed globally. Energy-efficient construction solutions are essential to achieve improvements here.

At Covestro, we address these challenges through resource- and energy-efficient production and innovative products and applications that contribute to cutting resource usage, for instance, insulation suitable for improving the energy efficiency of existing buildings.



See section 4 "Innovation" and in our Annual Report, Combined Management Report, section 4 "Innovation"

## High relevance for Covestro and high relevance for stakeholders

### Business ethics

Integrity is the basis of every action taken by Covestro. Drawing on our sense of responsibility and ethical principles, we ensure that our conduct in respect of all stakeholders is appropriate in every way.

Our Corporate Compliance Policy defines the principles and rules for our conduct within the company and in relation to our external partners and the general public. As a result, Covestro will forgo any business that would only be possible by violating laws or internal company rules.



See section 13 "Compliance" and in our Annual Report, Combined Management Report, section 24 "Compliance"



**Sustainable procurement**

Assessing, reviewing and auditing suppliers with regard to sustainability criteria is vital for making procurement decisions. We also aim to promote fair and environmentally conscious conduct along the procurement supply chain.

For Covestro, adherence to sustainability standards along the entire supply chain is an elementary factor in value creation and, at the same time, a key lever in minimizing risk. At Covestro, we expect our suppliers to respect and implement the principles in our Supplier Code of Conduct. This code is based on Covestro’s sustainability principles and defines the expectations we have of our partners throughout the value chain. The code is integrated into electronic ordering systems and contracts throughout the Group as part of the process of selecting and evaluating suppliers.

Furthermore, Covestro is a founding member of the Together for Sustainability industry initiative. The global auditing program that is part of this initiative is used to regularly evaluate the sustainability practices of our suppliers.

**Global challenges: Endangered marine life; Vulnerability of the poor**

Plastic waste is increasingly threatening marine life in the world’s oceans and on coastlines. Covestro works with international organizations to ensure that as little plastic waste as possible enters our waters. To this end, the company supports the industry-wide Zero Plastics to Landfill and Zero Plastics to the Ocean initiatives. The Zero Plastic to Landfill initiative aims to reduce the amount of plastic waste dumped in European landfills to zero by 2025. We also embrace the Zero Pellet Loss initiative to prevent plastic pellets and other particles from entering the environment.

Poor populations especially suffer when events such as climate catastrophes and health crises occur. We aim to work with customers as well as governmental and non-governmental organizations to improve the living standards of ten million people in underserved markets. Our focus is on affordable housing, sanitary facilities and food security.

These key aspects are already reflected in our new sustainability goals and are part of our Integrated Management System. They will continue to be included when we revise and update our sustainability agenda.

**3.3 Standards and Certifications**

For the operational implementation of our commitment, we use our integrated management system and defined corresponding global minimum standards in the form of rules and regulations. Adherence to processes and workflows is regularly checked through internal audits and external certifications. 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. By the end of 2017, we strive to have our Integrated Management System certified to these ISO Standards.

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

**Standards and Certifications<sup>1</sup>**

	2014	2015	2016 ✓
<b>Certification to external standards</b>			
Certified according to various quality management standards such as ISO 9001	100	100	100
Certified to ISO 14001/EMAS validation	93	95	95
Certified to OHSAS 18001	17	54	90
Certified to ISO 50001	35	39	40

<sup>1</sup> in % of business activity based on energy consumption

✓ Audited as described in the independent assurance report on p. 50 et seqq.



See section 6 "Procurement" and in our Annual Report, Combined Management Report, section 6 "Procurement"



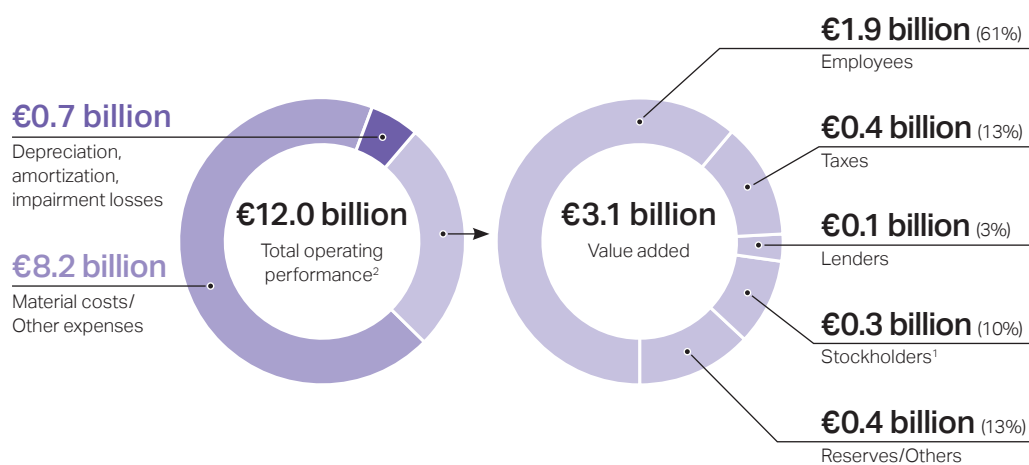
See section 2 "Strategy" and section 4 "Innovation" and in our Annual Report section "Pushing Boundaries" as well as section 2 and 4 in the Combined Management Report

### 3.4 Value Creation

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

Our value added calculation presents the value added we have generated as the company’s contribution to the gross national product of the individual country, and shows its distribution during 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 and impairment losses. In 2016, the Covestro Group’s business performance amounted to €12.0 billion. Value added came to €3.1 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 stockholders accounted for €0.3 billion of value added, lenders for €0.1 billion and the government for €0.4 billion.

#### Group value added



<sup>1</sup> Covestro AG dividend proposal for the fiscal year

<sup>2</sup> Total operating performance = sales + other operating income + financial income / equity-method income (loss)

## 4. Innovation

In 2016, Covestro aligned its corporate strategy even more closely with sustainable development and set measurable targets. As a result, our innovation efforts are also guided by our understanding of sustainable development. By 2025 we intend to spend up to four-fifths of our project R&D expenses on development to address the United Nations Sustainable Development Goals (SDGs).

Covestro's understanding of innovation is broad and incorporates product and technology development, process engineering, as well as business processes optimization and new business model development.

An example of customer-centered innovation is evident in the way we support customer order management by taking into account external events, such as extreme weather conditions, into our delivery and logistics process. In this way, we ensure optimally reliable deliveries and prevent supply bottlenecks for our customers.

We optimize our own processes with what are known as functional innovations, such as STRUCTese™, our energy management system developed in-house, which is used to manage our production facilities as energy-efficiently as possible.

Furthermore, we work on innovative business models. We have designed processes including one for the textile industry for manufacturing polyurethane-coated fabrics for clothing and shoes, which is marketed under the brand name INSQIN™. Thanks to solvent-free processing, INSQIN™ greatly simplifies the required occupational safety measures, lowers the risk of environmental pollution, and reduces water and energy usage considerably.

2016 saw the start of the commercial production of a new, pentamethylene diisocyanate (PDI)-based crosslinker. Its carbon content consists of up to 70% renewable raw materials. Various customers have received initial shipments that can now be used to conduct thorough application testing.

Many of our innovation activities focus on partnerships and collaborations with third parties. In 2016, we joined the Carbon2Chem project, which aims to use gases from the steelmaking process, including CO<sub>2</sub>, as a feedstock for chemical products. A number of corporations and scientific institutions are participating in this project sponsored by the German Federal Ministry of Education and Research. Covestro is particularly interested in manufacturing plastics from steel mill gases. In parallel, we already use carbon dioxide from chemical industry waste gases to manufacture an important component of flexible polyurethane foam. In 2016, the first production facility using this technology began operating in Dormagen (Germany).

In 2016, we awarded the Covestro Science Award, a prize recognizing outstanding research in polymer science, for the first time. German scientist André Bardow won the award for his pioneering work in life cycle analysis, particularly of CO<sub>2</sub>-containing polymers. Bardow is Chair of Technical Thermodynamics at RWTH Aachen University. The prize was awarded as part of the Covestro Science Celebration – a theme day we organized at the world's largest plastics trade fair K 2016 in Düsseldorf, where we invited leading scientists to visit our booth.

In recognition of excellence within the company, we additionally awarded four employees the inaugural Covestro Science Medal at K 2016. They succeeded in making specific improvements to the surfaces of components made of polycarbonate blends to improve their quality and functionality. Since surface quality is extremely important in this segment, this research creates considerable value for Covestro.

In order to fully leverage the creativity and wealth of ideas in the company, we promote networking and the exchange of information among employees in as many areas as possible. A company-wide idea management platform was introduced for this purpose in 2016. Moreover, we set up the Idea.Garden, a place for casual meetings and discussions among employees, at our company headquarters in Leverkusen. It is also open to guests. For instance, a workshop was held for design students in which their task was to design functional fashion for physically disabled people from Covestro materials.



For further information, see our Annual Report, section "Pushing Boundaries"



For further information, see our Annual Report, section "Pushing Boundaries"



See section 11 "Environmental Protection"

## 5. Employees

### 5.1 Strategy and Processes

The Human Resources (HR) strategy is derived from Covestro's company strategy. The HR goals follow the corporate goals as well as the corporate values. The overarching goals are set by the Head of HR in conjunction with Covestro's CEO. Based on these, three to five supporting goals related to the individual tasks are set by each HR department. They are agreed upon with the next level(s) of management and documented. Monitoring, instructions and reviews, as well as potentially necessary changes, take place in regular meetings between supervisor and employee.

### 5.2 Employee Metrics

#### Diversity and internationality

As of December 31, 2016, Covestro had 15,579 employees worldwide, of which 77% were male and 23% were female. ✓ Their average age was 43.4 years. ✓



For employees by function (production, sales, R&D, administration, employees in vocational training), see our Annual Report, Combined Management Report, section 5 "Employees"

#### Employees<sup>1</sup> by Age Group and Gender as of December 31, 2016 ✓

Age group	Women	Men	Total	of which Board of Management
< 30 years	490	1,244	1,733	0
30 to 49 years	2,256	6,468	8,724	2
≥ 50 years	768	4,354	5,121	2
<b>Total</b>	<b>3,514</b>	<b>12,065</b>	<b>15,579</b>	
<b>of which Board of Management</b>	<b>0</b>	<b>4</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.

✓ Audited as described in the independent assurance report on p. 50 et seqq.

The percentage of temporary employees at our company amounts to 1.6%. ✓

#### Employees<sup>1</sup> by Employment Status and Gender in 2016 ✓

	Women	Men	Total
Permanent employees	3,443	11,889	15,331
Temporary employees	71	176	247
<b>Total</b>	<b>3,514</b>	<b>12,065</b>	<b>15,579</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.

✓ Audited as described in the independent assurance report on p. 50 et seqq.

Out of all permanent employees, 13.3% worldwide work part-time. ✓

#### Percentage of Permanent Employees Working Part-time by Gender in 2016 ✓

	Women	Men	Total
<b>Total</b>	<b>4.0%</b>	<b>9.3%</b>	<b>13.3%</b>

✓ Audited as described in the independent assurance report on p. 50 et seqq.

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

#### Employees by Employee Group and Gender in 2016, proportionately (%)✓

Employee group	Women	Men	Total
Senior management	2%	10%	<b>12%</b>
Junior management	6%	15%	<b>21%</b>
Skilled employees	15%	53%	<b>67%</b>
<b>Total</b>	<b>23%</b>	<b>77%</b>	<b>100%</b>
Employees in vocational training	18%	82%	<b>100%</b>

✓ Audited as described in the independent assurance report on p. 50 et seqq.

#### Employees by Employee Group and Age Group in 2016, proportionately (%)✓

Employee group	< 30 years	30 to 49 years	≥ 50 years	Total
Senior management	0.1%	6.2%	5.7%	<b>12.0%</b>
Junior management	0.8%	13.1%	6.7%	<b>20.6%</b>
Skilled employees	10.3%	36.6%	20.5%	<b>67.4%</b>
<b>Total</b>	<b>11.2%</b>	<b>55.9%</b>	<b>32.9%</b>	<b>100.0%</b>

✓ Audited as described in the independent assurance report on p. 50 et seqq.

In the reporting year, Covestro's worldwide workforce comprised employees of 82 different nationalities, with 12 nationalities represented at the upper senior management level.✓

The majority of Covestro's employees (53.3%) work in Europe, the Middle East, Africa and Latin America (EMLA region).✓ The United States, Canada and Mexico (NAFTA region) account for 18.3% of our workforce, and 26.4% of our employees are based in Asia and the Pacific region (APAC).✓

#### Employees<sup>1</sup> by Region and Gender in 2016✓

Region	Women	Men	Total
APAC	1,196	2,921	<b>4,117</b>
EMLA	1,697	6,917	<b>8,614</b>
NAFTA	621	2,227	<b>2,848</b>
<b>Total</b>	<b>3,514</b>	<b>12,065</b>	<b>15,579</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.

✓ Audited as described in the independent assurance report on p. 50 et seqq.

#### Work-life balance

We promote work-life balance for our employees. For instance, we grant parental leave to both female and male employees as stipulated by law and offer support when employees need to care for relatives.

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

**Attracting qualified employees and professional development**

In the reporting year, 1,070 new employees were hired, the majority in EMLA. ✓

**New Hires<sup>1</sup> by Age Group, Gender and Region in 2016 ✓**

	APAC	EMLA	NAFTA	Total
<b>Women</b>	<b>88</b>	<b>170</b>	<b>78</b>	<b>336</b>
< 30 years	45	90	52	<b>187</b>
30 to 49 years	43	72	20	<b>135</b>
≥ 50 years	0	8	6	<b>14</b>
<b>Men</b>	<b>136</b>	<b>440</b>	<b>158</b>	<b>734</b>
< 30 years	70	259	91	<b>420</b>
30 bis 49 years	64	148	59	<b>271</b>
≥ 50 years	2	33	8	<b>43</b>
<b>Total</b>	<b>224</b>	<b>610</b>	<b>236</b>	<b>1,070</b>

<sup>1</sup> Employee figures stated in full-time equivalents (FTE).

✓ Audited as described in the independent assurance report on p. 50 et seqq.

Turnover rates varied widely in some cases depending on the region and age group. This is primarily affected by cultural factors, though we fall below local benchmarks in all regions.

**Employee Fluctuation<sup>1</sup> by Age Group, Gender and Region in 2016 (%) ✓**

	APAC	EMLA	NAFTA	Total <sup>2</sup>
<b>Women</b>	<b>11.8%</b>	<b>5.0%</b>	<b>10.1%</b>	<b>8.2%</b>
< 30 years	14.1%	6.5%	41.2%	<b>14.5%</b>
30 to 49 years	11.1%	4.7%	4.3%	<b>7.3%</b>
≥ 50 years	13.4%	4.5%	5.2%	<b>5.2%</b>
<b>Men</b>	<b>10.8%</b>	<b>4.3%</b>	<b>6.9%</b>	<b>6.3%</b>
< 30 years	11.7%	5.4%	26.6%	<b>10.0%</b>
30 to 49 years	9.9%	2.8%	4.6%	<b>5.5%</b>
≥ 50 years	16.5%	5.8%	5.2%	<b>6.3%</b>
<b>Total</b>	<b>11.1%</b>	<b>4.4%</b>	<b>7.6%</b>	<b>6.8%</b>

<sup>1</sup> The fluctuation rate is calculated using the ratio of the number of employees stated in full-time equivalents (FTE).

<sup>2</sup> Includes all employer- and employee-driven terminations, retirements and deaths.

✓ Audited as described in the independent assurance report on p. 50 et seqq.

Covestro promotes young talent by offering professional internships in addition to vocational training and trainee programs. Worldwide, the company had 435 interns in 2016. ✓ In the previous year, this number was around 346.



### Compliance and social responsibility

Integrated Compliance Management is the framework for systematically identifying and evaluating compliance risks and defining compliance processes. These include risks relating to fair and respectful working conditions. If there are signs of violation, employees can contact their Compliance Officer at any time, anonymously if required. All suspected cases of compliance violations are recorded throughout the Group in accordance with uniform criteria. This is true for all labor law-related issues such as working conditions, human rights, possible cases of discrimination and possible violations of the rights to exercise the freedom of association and collective bargaining. Additional information is available in the "Compliance" section and in the GRI Content Index in this report. 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 brigade at one German facility. At various country companies, the interests of the workforce are represented by elected employee representatives who have a right to be consulted on certain personnel-related decisions.

Our sustainable human resources approach also includes ensuring a high level of social protection for our employees. As well as competitive compensation, we offer our employees numerous additional benefits. For example, almost all our employees worldwide either have statutory health insurance or can obtain health insurance through the company. In the year under review, Covestro expanded or improved the quality of the health benefits provided for employees in many countries. As of December 31, 2016, access to a company pension plan was available for 78.2% of the workforce.✓

At all Covestro locations, severance payments meet legal requirements. Pre-retirement and retirement payments are subject to local regulations. For instance, in Germany, employees are able to transfer salary and time components (converted into money) to a long-term account. The accumulated salary balance can be used at a later point in time for legally defined purposes such as pre-retirement leave.



See section 13  
"Compliance" and  
section 14 "GRI  
Index"

## 6. Procurement

### 6.1 Procurement of Key Products

In 2016, Covestro’s procurement spend in Germany, the United States and China accounted for just under 79% of Covestro’s global spend. Most of this amount – around 78% – was accounted for by suppliers in the individual countries. ✓ In terms of our main sites, a total of 78% of total procurement spend was allocated to local suppliers. ✓

### 6.2 Sustainability in the Supply Chain

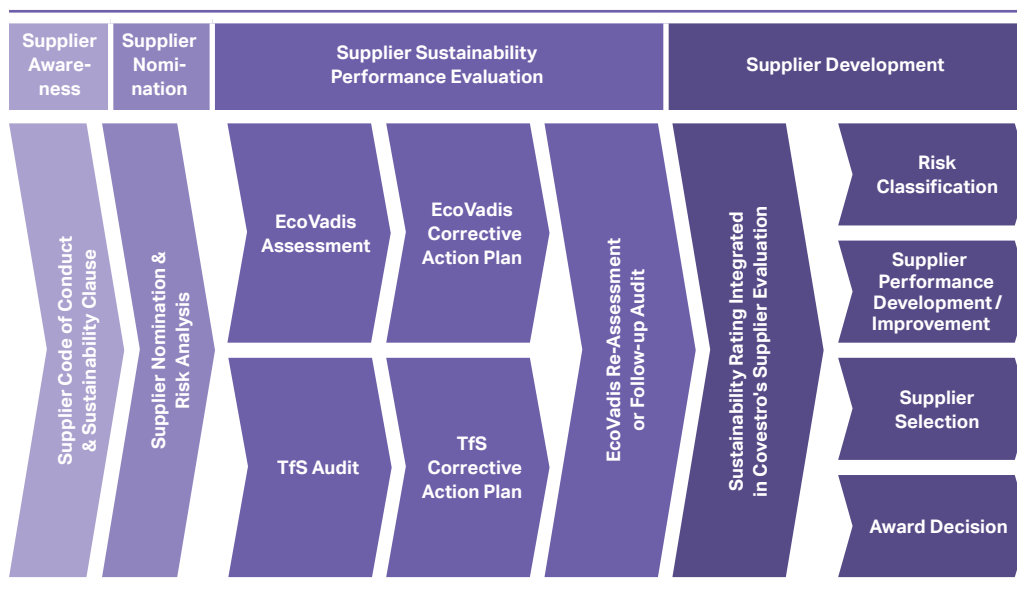
Covestro regards adherence to sustainability standards within its supply chain as both a vital factor for value creation and a crucial lever for minimizing risks. In order to develop and establish a sustainability standard for our supply base, we are working with the Together for Sustainability (TfS) initiative of the chemical industry.

In 2011, Covestro – formerly Bayer MaterialScience and part of the Bayer Group – was one of the six founding members of the TfS initiative. Since the launch of TfS, the now 19 TfS members have evaluated the sustainability practices of 6,383 suppliers using online assessments and conducted in addition 724 on-site supplier audits. ✓ In 2016, a total of 1,773 supplier assessments and 241 audits have been completed globally, including in China, India and Brazil. ✓



For additional information, see the website of TfS at <http://tfs-initiative.com>

#### TfS Process Model



The online assessments are carried out via the established provider EcoVadis, which is accredited by TfS. The objective of these assessments is to gauge the sustainability practices of supplier companies in line with corporate social responsibility (CSR). The questionnaire for the assessment is filled out by the supplier. It is based on internationally accepted sustainability standards and includes 21 criteria broken down into the following topics: environmental protection, working conditions and human rights, fair business practices and sustainable sourcing. It is adapted dynamically according to the industry sector, company size and country risk. The information provided must be backed up by appropriate documentation. The CSR experts at EcoVadis then analyze the answers according to international standards and compile them in a scorecard accessible online that shows in detail where improvements can be made.

External, independent auditors accredited by TfS conduct on-site audits at selected companies and, if necessary, re-audits based on TfS sustainability criteria to verify the statements made by suppliers.

The TfS members can access the assessment and audit results via an online platform, which also offers content for purposes of continually monitoring improvements.

It is Covestro's goal to have the supplier base conducting a re-evaluation at least every three years, depending on the results. In 2016, 308 assessments and 29 audits were therefore initiated by Covestro. ✓ An initial assessment was carried out at 175 new suppliers. In total, evaluation results no more than three years old are available for 614 Covestro suppliers. ✓

Covestro discusses necessary improvement directly with suppliers and agrees the corresponding targets with them. Implementation of the required improvements is verified continuously. Based on these results, re-assessments were conducted at 127 suppliers during the year under review, approximately 60% of which notably improved their sustainability performance. ✓

Supplier performance development is particularly important to Covestro and to the TFS initiative, which regularly organizes Supplier Days and promotes continuing education. In addition, TFS provides a wide range of information and online training on its website.

The TFS initiative aims to drive its global audit and assessment program internationally. Therefore, TFS cooperates with various associations and organizations around the world. Another important step was taken in this regard in October 2016: A master agreement was signed with China Petroleum and Chemical Industry Federation (CPCIF) to jointly promote and improve sustainability in China.

### 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 its neighboring states, do not enter their products through the supply chain. Covestro uses tin in production and therefore monitors all suppliers to make sure they do not source raw materials containing tin from the affected areas through their supply chains and deliver these to us.

In order to clearly communicate our requirements regarding conflict minerals, we made these part of 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 and the validity of all existing supplier confirmations are permanently monitored.

## 7. Production

### 7.1 Production Sites

Covestro operates around 30 production facilities in Europe, Asia and the Americas. The eight largest sites in Baytown, Shanghai, Dormagen, Krefeld-Uerdingen, Leverkusen, Brunsbüttel, Antwerp, and Map Ta Phut alone account for approximately 86% of our total production activities in terms of energy usage. In addition, the company's worldwide operations include sales, technology, and innovation centers as well as additional smaller production sites in line with the philosophy of doing business in the closest possible proximity to customers. These small-scale production facilities are designed mainly for regional purposes.

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

The following significant changes at the sites occurred in 2016:

- Shanghai (China): Commissioning and start-up of new PCS and HDI production capacity, and therefore completion of the Golden Tiger program to expand the site
- Brunsbüttel (Germany): Expansion of MDI production by 2018
- Kimhae (South Korea): Shutdown of polycarbonate sheet production at the site due to a downturn in the regional buyer market and non-competitive cost structures

### 7.2 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 that actively contribute to protecting our environmental resources. Particularly notable in 2016 was the commissioning of two pilot plants for saltwater recycling at the Krefeld-Uerdingen and Shanghai production sites in January 2016 and October 2016, respectively. Salinated process water is recycled in the manufacture of polycarbonates so that the volume of saltwater released into surface waters and the environmental effects are minimized. In the Shanghai project, we are on track over three years to use approximately one-third less salinated water than previously required for manufacturing polycarbonates.



A selection of other measures implemented in 2016 is presented in section 4 "Innovation" and section 11 "Environmental Protection" and in our Annual Report, Combined Management Report, section 4 "Innovation"

### 7.3 Quality Management

In order to update and optimize our existing HSEQ management system in line with the revised ISO 9001:2015 (Quality management systems) and ISO 14001:2015 (Environmental management systems) standards, we have started to review the applicable Group directives and, where necessary, rewriting them. We are incorporating the changes in the standards and reviewing the existing directives in view of the reorganization of the company to determine whether they are necessary for the future, as well as identifying potential for simplifying or streamlining these guidelines.

By the end of 2017, our Integrated Management System is expected to be certified to the new ISO standards.

## 8. Distribution and Logistics

### 8.1 Distribution

In order to ensure high customer satisfaction, error-free distribution is our foremost quality target. Customer satisfaction is systematically analyzed on a global scale. To this end, we regularly evaluate customer complaints that are entered and processed in a global management system. Moreover, we obtain evaluations from our customers. We take feedback from our customers and derive corrective and preventive measures in order to further increase quality and customer satisfaction and thereby lower the error rate and the incidence of complaints. In 2016, we made significant progress in this regard. Worldwide, a total of 5,284 complaints were submitted by 2,145 customers. ✓ This is a rate of 7.42 complaints per 1,000 deliveries, which is below the 2015 figure of 7.61 complaints per 1,000 deliveries. ✓ Despite this gratifying decrease, our efforts continued unabated in 2016 with the focus still on damaged packaging and missed delivery dates.

### 8.2 Transportation and Packaging

In 2016, the logistics service providers we contracted worldwide completed more than 426,649 deliveries to our customers. ✓ The volume delivered amounted to 5.37 million metric tons, with the share of goods shipped exclusively by rail or waterway totaling 16.3%. ✓ Road transportation by truck remains our most important form of transportation. In many places, the capacity situation in regional as well as global transportation markets was often strained. The logistics industry is generally being very cautious about making investments in additional transportation equipment for all modes of transportation. In nearly all countries, the regional transportation markets continued to be adversely impacted by a major structural lack of qualified drivers. Nonetheless, Covestro has been able to maintain the reliability of its transportation networks at a very high level thanks to the careful selection of effective service providers.

A number of projects were undertaken to optimize packaging material procurement. This reduced the amount of raw materials used, thus contributing to our sustainability position. Avoiding the need for coating the interiors of steel drums saved considerable amounts of internal coating material, for instance. In another project, we are currently optimizing our PE bags for shipping polycarbonate granules. Changing the composition of the bags will both improve their robustness and reduce the amount of raw materials used in their manufacture. Pallets are another area where we are using fewer raw materials. Using special pallets for securing loads as a substitute for standard chemical industry pallets, we have been able to lower the timber requirements per pallet by approximately one-third. Based on our calculations, this corresponds to a forested area around the size of five soccer fields per year.

In terms of packaged goods logistics, we also saw improvements in sustainability. For instance, in certain facilities, the loading weight of sacks and bulk bags on pallets has increased by around 25% to improve the utilization of cargo space capacity and to save on load carriers.

## 9. Product Stewardship

Covestro has a systematic approach including reporting systems and global guidelines for compliance control, incident notification and reporting that includes product stewardship aspects. Any incidents are tracked in a global information system and frequently evaluated. The systematic approach includes root cause analysis for corrective actions in order to continuously improve our product stewardship performance.



See section 13  
"Compliance"

Our product portfolio does not contain any products that are banned by UN listing or through international conventions. In 2016 no material case of incident of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services has been recorded or is known to us, nor has any material case of incident of non-compliance with regulations and voluntary codes concerning product and service information and labeling occurred in 2016. ✓

Our own system to create safety information covers mandatory information on content, safe use of the product, as well as relevant disposal information. We apply systematic evaluations for new products and applications and systematically utilize IT tools to support this process.

Animal studies are essential to assess the safety of our products, especially to humans, but also to the environment. For these studies, Covestro respects the 3Rs principle. The aim of the 3Rs principle is to reduce the use of laboratory animals, replace them through other methods, and refine and improve the test procedures wherever possible. Covestro only contacts and selects research institutes and organizations that meet our animal welfare principles. Compliance with our animal welfare requirements is regularly monitored, and information provided in supplier self-evaluations is verified through on-site audits. For example, this is valid with regard to the registration processes within the European Union, the United States and China, which prescribe results from toxicological and ecotoxicological studies by law.



## 10. Safety

The safety of employees, suppliers, customers and plants is a top priority for Covestro. We continually update our safety management activities based on global minimum requirements and standards, and our leading corporate safety culture. We not only focus on the safety and health of our employees at work every day, but also on preventing potential environmental and health hazards which could result from leaks in production facilities or accidents while transporting hazardous and other materials.

Our 2016 Annual Report contains extensive reporting on safety. However, some additional information is included here to cover further aspects.

### 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 financial 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. We have introduced a methodology for this purpose that addresses, in particular, behavioral factors. Recommendations for further action are derived from the findings and implemented to prevent these risks from arising again.

For the eighth successive year, Covestro invited all employees to submit their suggestions for the company's annual CEO Safety Award to further promote safety in the company. This award recognizes outstanding safety initiatives at the sites and underscores the importance of safety for our employees and processes. All ideas are first reviewed internally by the relevant Safety Councils, and then the best suggestions are evaluated by a panel of professionals with participants from outside the company, including peer companies. The winners were presented with their awards by the Chairman of the Covestro Board of Management (CEO) Patrick Thomas.

In 2016, a total of 82 recordable occupational incidents occurred involving our employees and those of third-party companies (contractors).✓ The reportable 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 structural differences that must be taken into account when analyzing and deciding on measures.

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

	2014	2015	2016 ✓
<b>Total</b>	<b>0.30</b>	<b>0.34</b>	<b>0.31</b>
EMLA <sup>2</sup>	0.34	0.45	<b>0.32</b>
NAFTA <sup>3</sup>	0.40	0.43	<b>0.48</b>
APAC <sup>4</sup>	0.21	0.13	<b>0.18</b>

<sup>1</sup> The rate is calculated per 200,000 hours worked.

<sup>2</sup> Europe, Middle East, Africa and Latin America.

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

<sup>4</sup> Asia/Pacific

✓ Audited as described in the independent assurance report on p. 50 et seqq.

In 2016, we focused on safety walk-throughs in the plants and offices to maintain a high level of safety awareness throughout the company. This effort was reinforced with a brochure and regular reporting on outstanding examples of safety in practice.

## 10.2 Safe Production

Safe, reliable operation of our production facilities is the basis for protecting people and the environment and for our economic success. All tasks performed at a plant across its entire life cycle must be carried out with technical competence and great care.

We establish the foundation for the safe operation of a system as early as its construction, in part through the choice of materials and the design of equipment and machines. In addition, we use systematic risk analyses to identify possible disruptions to operations and define suitable safety measures that effectively prevent these disruptions or limit their possible effects.

We carry out both temporary and permanent technical alterations to and optimizations of our systems to meet the demands of technical progress and improve sustainability and efficiency. Using the management of change procedure, planned alterations are examined for their relevance to safety. If necessary, the system's safety concept is adapted. A multi-stage approval and review process ensures that alterations take place in a controlled fashion, that all safety aspects are considered and that any necessary safety measures are defined.

Maintenance and inspection tasks and technical alterations frequently require work that has the potential to be dangerous. Such work is carried out in steps, individually or bundled, within the scope of planned system downtimes, and managed with the help of a work permit in which all the steps in the process are approved via signature. Careful planning and a careful hazard assessment are the foundation of the safety measures and work steps documented in the work permit, which must be approved by the plant's management. This includes detailed descriptions of the work to be carried out. All those who perform this work must receive instruction as regards the work itself and the defined safety measures. Approval to carry out work will not be given until all the conditions have been met: the current condition of the systems must permit the work to be performed and all the safety measures defined for the work must be in place. In addition, depending on the type of work to be done, safety officers may be used to supervise the work. Moreover, in the event of certain potentially dangerous tasks, emergency response personnel may be informed preventively and included on-site in the safety measures.

## 10.3 Environmental and Transportation Safety

For a company that sees more than 3,000 deliveries worldwide per day carried out by nearly 200 transportation service providers, selecting the right suppliers is a key factor in ensuring safety and customer satisfaction.

In every region, we choose our transportation and logistics providers based on an assessment system developed at industry level that reviews the effectiveness of supplier management systems in terms of health, safety, the environment and quality (HSEQ).

In Europe, we extended the assessment based on CEFIC SQAS (the safety and quality assessment system of the European Chemical Industry Council) to include service providers specializing in transporting packaged goods. In the past, this tool was only used to select service providers for large loads, whereas other suppliers were assessed and chosen based on more general criteria, such as certification according to ISO 9001.

In North America and Mexico, we increased the frequency with which we conduct motor carrier assessments according to the American Chemistry Council protocol and review the effectiveness of improvement measures. Audit frequency is derived from a risk assessment and ensures effective monitoring of our suppliers.

We also use assessment and monitoring systems established at industry level and aimed at ensuring transportation safety in Latin America and Asia. In Asia, we launched the APAC Safety Champion initiative, which focuses on the active exchange of information with our logistics service providers. The goal is to even more strongly emphasize the importance of safety in logistics through innovations and the exchange of best-practice cases.

In 2016, we carried out a campaign in Europe to focus on near-misses during unloading operations in order to improve safety in ground transportation. Our freight forwarders were challenged to inform their drivers about potential hazards and encourage them to report near-misses. The campaign was an off-shoot of our 2015 fuel depot assessments performed at and with our customers.

Covestro is active worldwide in key committees and associations focused on transportation and distribution safety, and campaigns for industry-wide safety standards for product transportation.

In 2016, Covestro registered nearly 900,000 loads transported via road, rail, water and air. ✓ Seven transportation incidents were reported and one environmental incident. ✓ The following is a breakdown of transportation incidents by mode of transportation:

#### Transportation Incidents by Mode of Transportation

	2014	2015	2016 ✓
Road	11	11	7
Rail	1	1	0
Inland waterways	0	0	0
Sea	0	0	0
Air	0	0	0
Pipeline	0	0	0
<b>Total</b>	<b>12</b>	<b>12</b>	<b>7</b>

✓ Audited as described in the independent assurance report on p. 50 et seqq.

At our production facility in Antwerp (Belgium) a leak occurred in a sealing flange on July 28, 2016, when a pump was restarted after maintenance. This resulted in the release of ten cubic meters of chlorobenzene, about two cubic meters of which were absorbed into the soil. The contaminated soil was removed and disposed of through incineration. In order to avoid such incidents in the future, various preventive measures were taken, such as special leakage testing.

## 11. Environmental Protection

We aim to use all natural resources as efficiently as possible while reducing emissions 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 effects of our production activities as much as possible.

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

In 2016, we were able to optimize our energy efficiency further, achieving an increase of 34.5% compared with the baseline year 2005. ✓ This represented an improvement of 5.9% over 2015. ✓ Once again, our energy management system STRUCTese™ made a contribution to this achievement. At the same time, specific greenhouse gas emissions (CO<sub>2</sub> equivalents) dropped by a total of 40.9% from our baseline year, 2005. ✓ Specific emissions in 2016 sank by 3.6% compared with 2015. ✓ Our innovative products and processes help ensure that our customers can also increase efficiency and reduce environmental impacts.

### 11.1 Energy Consumption

Our production volume grew by 5.5% in 2016, while at the same time our energy consumption remained approximately at the prior-year level. ✓ The company's total energy consumption was down 0.44%, and equivalent primary energy consumption was down 0.81%. ✓ Equivalent primary energy consumption comprises the fuels used directly at Covestro for the purpose of generating energy and the forms of energy sourced from outside the company (secondary energy), such as electricity, steam, and refrigeration, recalculated to reflect the energy required to generate them. We were able to unlink energy consumption from the increase in production through efficiency improvements in our production facilities. In addition, the high level of capacity utilization at our plants positively affected this trend.

## Energy Consumption

	2014	2015	2016
<b>Primary energy consumption for the in-house generation of electricity and steam (net, TJ)</b>	<b>7,439</b>	<b>7,345</b>	<b>7,815</b> ✓
Natural gas	7,884	7,884	8,044
(Natural gas sold to external third parties)	402	358	346
Coal	0	0	0
Liquid fuels	177	139	133
Waste	378	953	1,244
Other <sup>1</sup>	-1,001	-1,631	-1,606
<b>Secondary energy consumption (net, TJ)</b>	<b>51,590</b>	<b>51,161</b>	<b>50,436</b> ✓
Electricity <sup>2</sup>	23,240	23,728	23,486
(Electricity sold to external third parties)	1,072	1,059	1,055
Steam	24,848	24,058	23,182
(Steam sold to external third parties)	534	493	531
Steam from waste heat (process heat)	3,269	3,090	3,331
Refrigeration energy	233	284	438
<b>Total energy consumption (TJ)</b>	<b>59,029</b>	<b>58,506</b>	<b>58,251</b> ✓
<b>Equivalent primary energy consumption<sup>3</sup> (TJ)</b>	<b>72,340</b>	<b>72,570</b>	<b>71,981</b> ✓
<b>Production volume<sup>4</sup> (million metric tons)</b>	<b>13.00</b>	<b>13.20</b>	<b>13.92</b> ✓
<b>Energy efficiency<sup>5</sup> (MWh per metric ton)</b>	<b>1.55</b>	<b>1.53</b>	<b>1.44</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

<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> Energy efficiency: quotient of equivalent primary energy and in-spec production volume at our main production sites (1 MWh = 3600 MJ).

✓ Audited as described in the independent assurance report on p. 50 et seqq.

Covestro developed STRUCTese™ (Structured Efficiency System for Energy) which compares actual energy consumption in production with the realistic potential optimum. Eliminating inefficiencies results in recurring annual savings. The system, which has been introduced gradually 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 as part of STRUCTese™ that bring about lasting, annually recurring energy reductions. For instance, various projects in 2016 amounted to annual savings of 150,000 MWh of primary energy and 70,000 metric tons of CO<sub>2</sub> emissions. ✓ All the projects implemented since the introduction of STRUCTese™ in 2008 will result in lasting annual reductions of a total of 1.65 million MWh of primary energy and 470,500 metric tons of CO<sub>2</sub>. ✓ In the reporting year, the energy management systems at all Covestro's German sites were successfully certified to ISO 50001 for the sixth time.

The European Chemical Industry Council (CEFIC) recognized Covestro with the Responsible Care Award in the Environment category for success in the use of CO<sub>2</sub> in plastics production. Covestro has used carbon dioxide on an industrial scale to manufacture a key component of high-quality polyurethane foam since 2016. This partially reduces the consumption of petroleum, the raw material usually used in this process.

## 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 own plants (Scope 1) are determined at all production locations and relevant administrative sites. Emissions are calculated based on the specific activity rates, e.g., fuels used, and the relevant material parameters. The calculation includes nitrogen oxide (N<sub>2</sub>O), methane and partially fluorinated hydrocarbons in addition to CO<sub>2</sub>.

Indirect emissions (Scope 2) are calculated in accordance with the methods outlined in the GHG Protocol (as amended 2014) by multiplying the quantities of energy sourced by 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. The Scope 2 emissions are compiled in parallel. This is done using location-based method and the market-based method outlined in the updated standards (dual reporting). We base our calculations of specific emissions on the requirements of the GHG Protocol up to 2014 for the purpose of better comparability with the historical data.

In 2016, the total volume of greenhouse gas (GHG) emissions remained at almost the same level as the year before (minus 0.2%). ✓ While direct GHG emissions rose by 10.0% indirect GHG emissions fell by 6.1%. ✓ One of the reasons for the shift from indirect to greater direct emissions was that, during the reporting year, we began to produce steam internally that was originally externally sourced. At the most important production sites, which account for more than 95% of our energy consumption, the production volume rose by 5.5% in 2016. The specific emissions dropped by 3.6% ✓ from the previous year's levels, and Covestro is thus well on its way toward meeting its emissions targets.

### Greenhouse Gas Emissions<sup>1</sup>

	Million metric tons of CO <sub>2</sub> equivalents			
	Base year: 2005	2014	2015	2016 ✓
Direct greenhouse gas emissions <sup>2</sup>	–	1.93	2.12	2.33
Indirect greenhouse gas emissions (calculated according to the GHG Protocol method until 2014) <sup>3</sup>	–	3.73	3.69	3.46
in accordance with the location-based method (GHG Protocol 2015) <sup>4</sup>	–	–	4.99	4.66
in accordance with the market-based method (GHG Protocol 2015) <sup>4</sup>	–	–	5.14	5.07
<b>Total greenhouse gas emissions (Scope 1 and 2 in accordance with GHG Protocol)</b>	<b>6.57</b>	<b>5.66</b>	<b>5.81</b>	<b>5.79</b>
Specific greenhouse gas emissions (metric tons of CO <sub>2</sub> equivalents per metric ton of production volume) <sup>5</sup>	0.687	0.423	0.421	0.406
<b>Production volume (million metric tons)<sup>6</sup></b>	<b>8.87</b>	<b>13.00</b>	<b>13.20</b>	<b>13.92</b>

<sup>1</sup> Portfolio-adjusted based on the GHG Protocol; financial control approach; global warming potential (GWP) factors correspond to "IPCC 2nd Assessment Report"; the division of emissions into direct and indirect emissions could not be calculated validly for the baseline year.

<sup>2</sup> In 2016, 76.4% of emissions were CO<sub>2</sub> emissions, 23.2% were N<sub>2</sub>O emissions, just under 0.4% consisted of partly fluorinated hydrocarbons and 0.02% was methane.

<sup>3</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 use our previous method of calculating indirect emissions, since a valid calculation of overall emissions for the baseline year according to the new guideline is not possible retroactively.

<sup>4</sup> Certain emissions were included as indirect emissions that were categorized as direct emissions using the GHG Protocol method applied through 2014. The change in category is due to Covestro's carve-out from the Bayer Group. This approach enables both retroactive comparability (the method applied through 2014) as well as future comparability (GHG Protocol method 2015).

<sup>5</sup> Total greenhouse gas volumes (Scope 1 and 2 in accordance with GHG Protocol) at the most important production sites, representing more than 95% of our energy consumption (a total of 5.65 million metric tons of CO<sub>2</sub> equivalents in 2016), divided by the in-spec production volumes at these sites.

<sup>6</sup> The production volume comprises the sum of the in-spec key products at our main production sites, which account for more than 95% of our energy consumption.

✓ Audited as described in the independent assurance report on p. 50 et seqq.

### Other direct emissions into the air

In addition to greenhouse gas emissions, Covestro measures additional emissions into the air. The amount of carbon monoxide (plus 2.4%) and nitrogen oxide (plus 5.4%) increased, whereas less sulfur dioxide (minus 16%) were emitted. ✓ Dust emissions reported to the authorities dropped significantly (minus 44%) owing to legally prescribed changes in calculation methods in the United States. ✓

### Other Important Direct Air Emissions

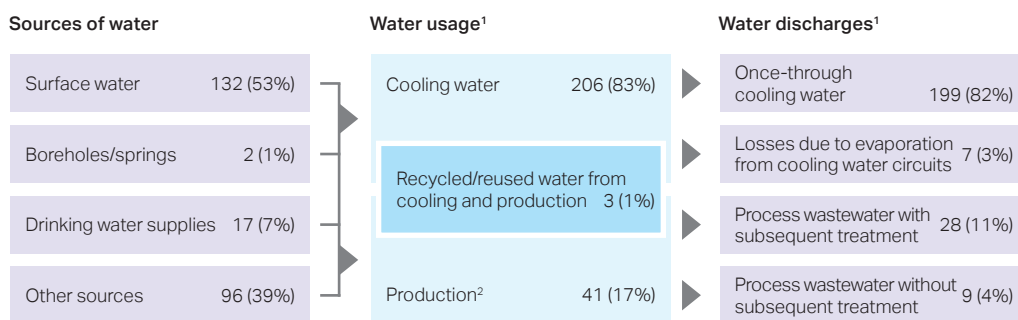
	1,000 metric tons p.a.		
	2014	2015	2016 ✓
CO	0.34	0.33	0.34
NO <sub>x</sub>	0.83	0.82	0.86
SO <sub>x</sub>	0.07	0.04	0.03
Dust	0.19	0.17	0.10

✓ Audited as described in the independent assurance report on p. 50 et seqq.

## 11.3 Water Consumption and Usage

The resource-efficient use of water forms part of Covestro’s HSEQ regulations. Water usage is regularly evaluated at our sites as part of our environmental aspect analysis.

### Use of Water in 2016 (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 waste condensation from the use of steam as a source of energy.

<sup>2</sup> Total from production processes, sanitary waste water, and rinsing and purification in production.

✓ Audited as described in the independent assurance report on p. 50 et seqq.

The Group’s total water usage rose 4.5% in 2016 to 247 million cubic meters. ✓ Due to higher production activities the German sites Brunsbüttel and Uerdingen registered the largest increase, mainly for cooling purposes. Of all water used by Covestro, 80.5% 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 199 million cubic meters in the reporting year. ✓

In the reporting year, a total of 3.1 million cubic meters of water was reused. ✓

## Wastewater

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

The volume of process wastewater increased by 10.4% in 2016. ✓ The share of the company's process wastewater worldwide purified at a wastewater treatment plant operated by Covestro or a third party amounted to 74.7% worldwide. ✓ Following careful analysis, 25.0% was categorized as environmentally safe and returned to the water cycle. A remaining part was disposed of mainly through incineration. ✓

Total organic carbon (TOC) emissions into wastewater decreased by 2.6%. ✓ In contrast, the volume of nitrogen emitted into wastewater was up 46.8%. ✓ This was amongst others vor mainly due to mainly due to an increase at the German production sites in Krefeld-Uerdingen and Dormagen caused by higher production activities. Phosphate emissions were down 11.4% in 2016, with the largest decreases reported at the facility in Kaohsiung (Taiwan). ✓ In global terms, Covestro's phosphate emissions are low. The volume of inorganic salts introduced into wastewater rose by 3%. ✓ In contrast, emissions of heavy metals were down sharply by 24.5%, particularly at the German sites in Leverkusen and Brunsbüttel. ✓ In Brunsbüttel, a plant closure halved the quantity of copper released.

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

	2014	2015	2016 ✓
Phosphor	0.04	0.04	0.03
Nitrogen	0.28	0.18	0.27
TOC <sup>1</sup>	0.62	0.61	0.60
Heavy metals	0.0034	0.0043	0.0032
Inorganic salts	667	726	747
COD <sup>2</sup>	1.85	1.84	1.81

<sup>1</sup> Total organic carbon

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

✓ Audited as described in the independent assurance report on p. 50 et seqq.

In January 2016, a pilot plant for recycling industrial wastewater began operating at the Krefeld-Uerdingen site. The circulation procedure is being promoted by the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety within the scope of the 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 intended to reduce the use by up to several 10,000 metric tons of salt and several 100,000 metric tons of fully desalinated water annually. This equals an emissions savings of several thousand metric tons of CO<sub>2</sub> equivalents per year. Furthermore, this can reduce the amount of salinated wastewater that is released into the Rhine River.



## 11.4 Waste and Recycling

In 2016, the volume of hazardous waste produced was up over the previous year by 7.8% to a total of 118,000 metric tons. ✓ The increase was primarily due to production-related waste, especially from our new TDI plant in Dormagen. This plant's operations are currently being optimized so that the volume of waste generated can be reduced in the near future. The total amount of waste produced at Covestro therefore rose accordingly by 3.9% ✓ in 2016, also due to higher production activities.

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

	2014	2015	2016 ✓
<b>Total waste generated (1,000 metric tons p.a.)</b>	<b>178</b>	<b>180</b>	188
of which non-hazardous waste generated	68	70	70
of which hazardous waste generated <sup>2</sup>	110	110	118
of which hazardous waste from production	107	107	113

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

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

✓ Audited as described in the independent assurance report on p. 50 et seqq.

### Waste by Means of Disposal

	2014	2015	2016 ✓
<b>Total volume of waste disposed of<sup>1</sup> (1,000 metric tons p.a.)</b>	<b>178</b>	<b>181</b>	<b>200</b>
of which removed to landfill (in %)	18	11	10
of which incinerated (in %)	50	54	55
of which recycled (in %)	25	31	31
Other <sup>2</sup> (in %)	7	4	4

<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 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)

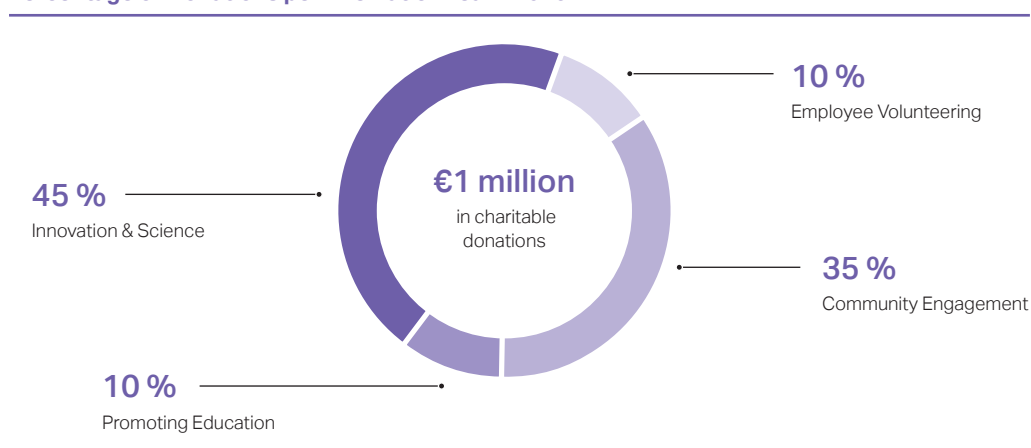
✓ Audited as described in the independent assurance report on p. 50 et seqq.

## 12. Corporate Citizenship

Sustainable thinking and acting is imperative to preserve our planet and improve the quality and safety of the lives of millions. Covestro wants to improve the lives of ten million people in underserved markets by 2025, not only with products and engineering that benefit society and reduce the impact on the environment, but also by brokering access to education, technology and a better life – according to the company’s purpose “To make the world a brighter place.” Our values of being curious, courageous and colorful are a commitment to making a difference. These values are reflected in the UN Sustainability Development Goals to transform the world by 2030 and stimulate action in areas of critical importance for humanity and the planet. At Covestro, we aim to use our position as one of the world’s largest polymer companies to partner with organizations in many regions to foster environmental, societal and economic improvement. A central function supports the planning and implementation of the partnerships and donations across the Covestro Group designed to advance the UN Sustainability Goals.

In its first year as an independent company, Covestro invested more than €1,000,000 in charitable activities within the areas shown in the following table.✓

**Percentage of Donations per Thematic Area in 2016 ✓**



### Asia / Pacific

Since 2011, Covestro, formerly Bayer MaterialScience, has been collaborating with Tongji University in Shanghai (China) within the context of the Covestro-Tongji Eco-Construction & Material Academy to foster innovation in energy-efficient construction through teaching, research and development of programs for upcoming talent. Effective October 2016, Covestro took over custody of this program from the Bayer Foundation, contributing more than €150,000 to scholarships and professorships for the School of Material Science & Engineering and School of Architecture and Urban Planning for the purpose of increasing scientific knowledge about eco-building design.

Supporting the Swachh Bharat (Clean India) mission, which is in progress with a target of 154 million toilets to be built by 2019, Covestro has collaborated with Habitat for Humanity and Vaspar Eco Solutions to create efficient and low-cost toilet solutions. The production is done in KediBanautha, a small village of about 2,000 inhabitants in the Gautam Budh Nagar district of India near our Greater Noida site.

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

Since 2008, Covestro and RWTH Aachen University (Germany) have been jointly operating the CAT Catalytic Center in Aachen. One important goal has been to use the climate-affecting gas CO<sub>2</sub> as a new raw material for polyurethane foam. In 2016, Covestro inaugurated a plant at its site in Dormagen (Germany) to start production of the new material on an industrial scale. In the same year, we launched the Covestro Science Award, which aims at providing more than €180,000 in scholarship funding for young and talented scientists.



For further information, see our Annual Report, section "Pushing Boundaries"

In the UK, Covestro was the headline sponsor for the 2016 annual Design Innovation in Plastics competition – the longest established student plastics competition of its kind in Europe. It produced high-quality entries which ranged from an innovative horse strap which prevents injury, a dog feeder to prevent lungworm and a ball to improve dog mouth hygiene. This competition has boosted many students in their careers as well as raising the awareness among universities of fostering innovative thinking.

Covestro continues to work with the Moscow-based fashion studio “Begrantz Couture” specialized in designing outfits for disabled people. In 2016 we organized a five-day “fashion workshop” at our premises in Leverkusen (Germany), inviting fashion-design students and product designers to learn about Universal Design. As a result, the participants designed two outfits for disabled people considering the special needs and material properties.

Covestro continues providing its support for sports and cultural events at the Dormagen, Krefeld-Uerdingen and Leverkusen sites in Germany. Similarly, in 2016, Covestro became a sponsor of the German Ice Hockey League (Deutsche Eishockey Liga or DEL), since its high-tech materials are well suited for that sport to protect athletes from injury.

In cooperation with the university hospital in Düsseldorf (Germany), Covestro organized three events at its property, where employees could get themselves typecasted for bone marrow donation.

### **United States, Canada and Mexico**

Our U.S. sites supported employee volunteering and fundraising initiatives. Among others, employees across the United States raised €500,000 for the Workplace Campaign of the charity “United Way” through a combination of creative fundraisers and payroll deductions.

Covestro employees have also been volunteering for Habitat for Humanity in the Kanawha and Putnam Counties. This included renovation work, partial demolition and the construction of homes for the needy.

Furthermore, Covestro sponsored the MRI Humanitarian Materials Initiative award hosted by Penn State University, to support ongoing research that is aimed at providing long-term and sustainable solutions to problems in under-resourced regions of the world. Covestro donated to a project that investigates moringa-coated sand filters for water purification.

## 13. Compliance

Integrity is the basis of all of Covestro's entrepreneurial activities. Drawing on our sense of responsibility and ethical principles, we ensure that our conduct in respect of all stakeholders is appropriate in every way. As a result, Covestro will forgo any business that would only be possible by violating laws or internal company rules.

The way each employee conducts the company's business can affect Covestro's public image. Therefore, Covestro does not tolerate any violation of applicable laws or internal regulations.

Our Corporate Compliance Policy details our commitment to fair competition, integrity in business dealings, the principles of sustainability and product stewardship, the upholding of foreign trade laws and insider trading laws, the separation of business and private interests, proper record-keeping and transparent financial reporting, and fair, respectful and nondiscriminatory working conditions.

Our managerial employees have a vital part to play in implementing the Corporate Compliance Policy. As role models, they must help to ensure that this important code of conduct is adhered to in practice. Managers may lose their entitlement to variable compensation components and be subject to disciplinary measures if systematic violations of applicable law entailing loss or possible damage to Covestro occur in their sphere of responsibility and could have been prevented if they had taken appropriate action. Compliant and lawful conduct forms part of the performance evaluations of all managerial employees.

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 hotline and email address accessible worldwide that also permit anonymous reports. A Group directive stipulates the guidelines for handling compliance incidents at Covestro, the associated responsibilities and processes, and the consequences derived from investigation results.

All potential compliance incidents are recorded in a central database. Confirmed cases are evaluated and organizational, disciplinary or legal actions are taken, if necessary. In addition to the potential financial loss for the company, nonfinancial 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.

Compliance risks are systematically identified and evaluated during our risk management process. If necessary, measures to minimize risk are defined. This focuses on the areas of antitrust law, anticorruption measures, export controls, conflicts of interest, insider trading and antidiscrimination policies. 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.

Risks arising from pending or ongoing legal disputes and proceedings are reported quarterly by all Covestro companies. 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.

## 14. GRI Index

Our reporting is prepared in accordance with the “Core” option of the G4 Sustainability Reporting Guidelines drawn up by the Global Reporting Initiative (GRI). The following table includes all sustainability indicators to be listed according to the G4 “Core” option as well as further sustainability indicators reported by us. It sets out where they are presented within the Covestro Annual Report and the supplementary sustainability information.

All the check-marked ✓ statements in the report and thus most of the quantitative, specific standard disclosures listed in section 14.2 were audited by PricewaterhouseCoopers AG Wirtschaftsprüfungsgesellschaft. More information on this audit can be found in the audit report [on p. 50 et seqq.].

### 14.1. General Standard Disclosures

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#### GENERAL STANDARD DISCLOSURES

General Standard Disclosures	Standard Disclosure Title	Section / page in the Covestro Annual Report 2016	Section / page in the Covestro GRI Supplementary Report 2016	Comment
<b>STRATEGY AND ANALYSIS</b>				
G4-1	CEO statement	Letter to Stockholders / p. 8 et seqq.		
<b>ORGANIZATIONAL PROFILE</b>				
G4-3	Name of the organization	Section 1 Structure / p. 54 et seqq.		
G4-4	Primary brands, products, services	Section 1 Structure / p. 54 et seqq.		
G4-5	Headquarter of the organization	Section 1 Structure / p. 54 et seqq.		
G4-6	Countries of operation	Section 1 Structure / p. 54 et seqq.		
G4-7	Ownership and legal form	Section 1 Structure / p. 54 et seqq.		
G4-8	Markets served	Section 1 Structure / p. 54 et seqq.		
G4-9	Scale of the organization	Section 1 Structure / p. 54 et seqq.; section 13 Business Development / p. 76 et seqq.; section 17 Net Assets / p. 89 et seqq.; section 5 Employees / p. 62 et seqq.		
G4-10	Workforce	Section 5 Employees / p. 62 et seqq.	Section 5 Employees / p. 18 et seqq.	
G4-11	Collective bargaining agreements		Section 5 Employees / p. 21	
G4-12	Supply chain	Section 6 Procurement / p. 65 et seqq.	Section 6 Procurement / p. 22	
G4-13	Significant changes in the organization during the reporting period	Section 1 Structure / p. 54 et seqq.	Section 7 Production / p. 24	

## GENERAL STANDARD DISCLOSURES

General Standard Disclosures	Standard Disclosure Title	Section / page in the Covestro Annual Report 2016	Section / page in the Covestro GRI Supplementary Report 2016	Comment
G4-14	Precautionary approach	Section 9 Product Stewardship / p. 69 et seqq.		
G4-15	Endorsement of externally developed standards, principles or initiatives	Section 3 Management / p. 58 et seqq.		
G4-16	Memberships		Section 3 Sustainability Management / p. 8 et seqq.	
<b>IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES</b>				
G4-17	Organizational entities	Annex / p. 138 et seqq.		
G4-18	Process for defining the report content and the Aspect Boundaries		Section 3 Sustainability Management / p. 11 et seqq.	
G4-19	Material Aspects	Section 3 Management / p. 58 et seqq.	Section 3 Sustainability Management / p. 11 et seqq.	
G4-20	Aspect Boundaries within the organization		Section 3 Sustainability Management / p. 11 et seqq.	
G4-21	Aspect Boundaries outside the organization		Section 3 Sustainability Management / p. 11 et seqq.	
G4-22	Restatements		Section 3 Sustainability Management / p. 11	
G4-23	Significant changes in Aspects		Section 3 Sustainability Management / p. 11	
<b>STAKEHOLDER ENGAGEMENT</b>				
G4-24	Relevant stakeholder groups	Section 3 Management / p. 58 et seqq.	Section 3 Sustainability Management / p. 7 et seqq.	
G4-25	Identification and selection of stakeholders		Section 3 Sustainability Management / p. 7	
G4-26	Approach to stakeholder engagement		Section 3 Sustainability Management / p. 7	
G4-27	Key topics and concerns raised		Section 3 Sustainability Management / p. 7 et seqq.	
<b>REPORT PROFILE</b>				
G4-28	Reporting period		Section 1 Reporting Structure / p. 4	
G4-29	Previous report		Section 1 Reporting Structure / p. 4	
G4-30	Reporting cycle		Section 1 Reporting Structure / p. 4	
G4-31	Contact details	Publishing Information / p. 217	Publishing Information / p. 52	

## GENERAL STANDARD DISCLOSURES

General Standard Disclosures	Standard Disclosure Title	Section / page in the Covestro Annual Report 2016	Section / page in the Covestro GRI Supplementary Report 2016	Comment
G4-32	"In accordance" option, GRI Content Index, Reference to the External Assurance Report	Report of Independent Auditors of the Consolidated Financial Statements / p. 201 et seqq.	Section 1 Reporting Structure / p. 4; Independent Practitioner's Limited Assurance Report / p. 50 et seqq.	
G4-33	External assurance	Report of Independent Auditors of the Consolidated Financial Statements / p. 201 et seqq.	Section 1 Reporting Structure / p. 4; Independent Practitioner's Limited Assurance Report / p. 50 et seqq.	
<b>GOVERNANCE</b>				
G4-34	Governance structure	Section 23 Governance / p. 116 et seqq; section 3 Management / p. 58 et seqq.		
G4-35	Process for delegating authority	Section 23 Governance / p. 116 et seqq; section 3 Management / p. 58 et seqq.		
G4-36	Executive-level responsibility	Section 23 Governance / p. 116 et seqq; section 3 Management / p. 58 et seqq.		
G4-38	Composition of highest governance body	Section 23 Governance / p. 116 et seqq.		
G4-39	Chair of highest governance body	Section 23 Governance / p. 116 et seqq.		
G4-40	Nomination and selection processes for highest governance body	Section 23 Governance / p. 116 et seqq.		
G4-41	Conflicts of interest	Section 23 Governance / p. 116 et seqq.		
G4-42	Role of highest governance body in development and approval of the organization's strategy	Section 23 Governance / p. 116 et seqq.		
G4-48	Highest position that approves the sustainability report			CEO
G4-51	Remuneration policies for highest governance body and senior executives	Section 25 Compensation Report / p.121 et seqq; section 5 Employees / p. 62 et seqq.		

## GENERAL STANDARD DISCLOSURES

General Standard Disclosures	Standard Disclosure Title	Section / page in the Covestro Annual Report 2016	Section / page in the Covestro GRI Supplementary Report 2016	Comment
ETHICS AND INTEGRITY				
G4-56	Codes of conduct and codes of ethics	Section 2 Strategy / p. 56 et seqq.; section 3 Management / p. 58 et seqq.; section 23 Governance / p. 116 et seqq.; section 24 Compliance / p. 120	Section 2 Strategy / p. 5; section 13 Compliance / p. 38	
G4-57	Mechanisms for seeking advice on ethical and lawful behavior	Section 24 Compliance / p. 120	Section 13 Compliance / p. 38	
G4-58	Internal and external mechanisms for reporting concerns about unethical or unlawful behavior	Section 24 Compliance / p. 120	Section 13 Compliance / p. 38	

## 14.2 Specific Standard Disclosures

## SPECIFIC STANDARD DISCLOSURES

Specific Standard Disclosures	Standard Disclosure Title	Section / page in the Covestro Annual Report 2016	Section / page in the Covestro GRI Supplementary Report 2016	Comment
CATEGORY: ECONOMIC				
MATERIAL ASPECT: ECONOMIC PERFORMANCE				
G4-DMA	Disclosure on management approach		Section 3 Sustainability Management / p. 16	
G4-EC1	Direct economic value generated and distributed		Section 3 Sustainability Management / p. 16	
MATERIAL ASPECT: PROCUREMENT PRACTICES				
G4-DMA	Disclosure on management approach	Section 6 Procurement / p. 65 et seqq.	Section 3 Sustainability Management / p. 15	
G4-EC9	Proportion of spending on local suppliers at significant locations of operation		Section 6 Procurement / p. 22	
CATEGORY: ENVIRONMENTAL				
MATERIAL ASPECT: ENERGY				
G4-DMA	Disclosure on management approach	Section 2 Strategy / p. 56 et seqq.; section 3 Management / p. 58 et seqq.; section 11 Environmental Protection / p. 73 et seqq.; section 21 Opportunities and Risks Report / p. 99 et seqq.	Section 3 Sustainability Management / p. 13; section 11 Environmental Protection / p. 30 et seqq.	



## SPECIFIC STANDARD DISCLOSURES

Specific Standard Disclosures	Standard Disclosure Title	Section / page in the Covestro Annual Report 2016	Section / page in the Covestro GRI Supplementary Report 2016	Comment
G4-EN3	Energy consumption within the organization	Section 11 Environmental Protection / p. 73 et seqq.	Section 11 Environmental Protection / p. 30 et seqq.	
G4-EN5	Energy intensity	Section 11 Environmental Protection / p. 73 et seqq.	Section 11 Environmental Protection / p. 30 et seqq.	
G4-EN6	Reduction of energy consumption		Section 11 Environmental Protection / p. 30 et seqq.	
<b>MATERIAL ASPECT: WATER</b>				
G4-DMA	Disclosure on management approach	Section 3 Management / p. 58 et seqq.; section 11 Environmental Protection / p. 73 et seqq.	Section 3 Sustainability Management / p. 13; section 11 Environmental Protection / p. 33	
G4-EN8	Total water withdrawal by source		Section 11 Environmental Protection / p. 33	
G4-EN10	Percentage and total volume of water recycled and reused		Section 11 Environmental Protection / p. 33	
<b>MATERIAL ASPECT: EMISSIONS</b>				
G4-DMA	Disclosure on management approach	Section 2 Strategy / p. 56 et seqq.; section 3 Management / p. 58 et seqq.; section 11 Environmental Protection / p. 73 et seqq.; section 21 Opportunities and Risks Report / p. 99 et seqq.	Section 3 Sustainability Management / p. 14; section 11 Environmental Protection / p. 30 et seqq.	
G4-EN15	Direct greenhouse gas (GHG) emissions (Scope 1)		Section 11 Environmental Protection / p. 32	
G4-EN16	Energy indirect greenhouse gas (GHG) emissions (Scope 2)		Section 11 Environmental Protection / p. 32	
G4-EN18	Greenhouse gas (GHG) emissions intensity		Section 11 Environmental Protection / p. 32	Disclosure as CO <sub>2</sub> -equivalent of specific GHG
G4-EN19	Reduction of greenhouse gas (GHG) emissions	Section 11 Environmental Protection / p. 73 et seqq.	Section 11 Environmental Protection / p. 32	
G4-EN21	NO <sub>x</sub> , SO <sub>x</sub> , and other significant air emissions		Section 11 Environmental Protection / p. 32	

## SPECIFIC STANDARD DISCLOSURES

Specific Standard Disclosures	Standard Disclosure Title	Section / page in the Covestro Annual Report 2016	Section / page in the Covestro GRI Supplementary Report 2016	Comment
<b>MATERIAL ASPECT: EFFLUENTS AND WASTE</b>				
G4-DMA	Disclosure on management approach	Section 3 Management / p. 58 et seqq.; section 11 Environmental Protection / p. 73 et seqq.; section 21 Opportunities and Risks Report / p. 99 et seqq.	Section 3 Sustainability Management / p. 14	
G4-EN23	Total weight of waste by type and disposal method		Section 11 Environmental Protection / p. 35	
<b>MATERIAL ASPECT: COMPLIANCE</b>				
G4-DMA	Disclosure on management approach	Section 11 Environmental Protection / p. 73 et seqq.; section 24 Compliance / p. 120	Section 13 Compliance / p. 38	
G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	(-)	(-)	In 2016, 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>MATERIAL ASPECT: TRANSPORT</b>				
G4-DMA	Disclosure on management approach	Section 10 Safety / p. 71 et seqq.	Section 10 Safety / p. 28	
G4-EN30	Significant environmental impacts of transporting products and other goods and materials for the organization's operations, and transporting members of the workforce	Section 10 Safety / p. 71 et seqq.	Section 10 Safety / p. 28	
<b>MATERIAL ASPECT: SUPPLIER ENVIRONMENTAL ASSESSMENT</b>				
G4-DMA	Disclosure on management approach	Section 6 Procurement / p. 65 et seqq.; section 21 Opportunities and Risks Report / p. 99 et seqq.	Section 6 Procurement / p. 22	
G4-EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken	Section 6 Procurement / p. 65 et seqq.	Section 6 Procurement / p. 22 et seqq.	

## SPECIFIC STANDARD DISCLOSURES

Specific Standard Disclosures	Standard Disclosure Title	Section / page in the Covestro Annual Report 2016	Section / page in the Covestro GRI Supplementary Report 2016	Comment
CATEGORY: SOCIAL				
SUB-CATEGORY: LABOR PRACTICES AND DECENT WORK				
MATERIAL ASPECT: EMPLOYMENT				
G4-DMA	Disclosure on management approach	Section 2 Strategy / p. 56 et seqq.; section 5 Employees / p. 62 et seqq.; section 21 Opportunities and Risks Report / p. 99 et seqq.	Section 3 Sustainability Management / p. 13 et seqq.; section 5 Employees / p. 18 et seqq.	
G4-LA1	Total number and rates of new employee hires and employee turnover by age group, gender and region		Section 5 Employees / p. 20	
MATERIAL ASPECT: OCCUPATIONAL HEALTH AND SAFETY				
G4-DMA	Disclosure on management approach	Section 2 Strategy / p. 56 et seqq.; section 10 Safety / p. 71 et seqq.; section 21 Opportunities and Risks Report / p. 99 et seqq.	Section 3 Sustainability Management / p. 13; section 10 Safety / p. 27	
G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	Section 10 Safety / p. 71 et seqq.	Section 10 Safety / p. 27	A breakdown by gender is not recorded for reasons of data protection.
MATERIAL ASPECT: TRAINING AND EDUCATION				
G4-DMA	Disclosure on management approach	Section 5 Employees / p. 62 et seqq.; section 21 Opportunities and Risks Report / p. 99 et seqq.	Section 3 Sustainability Management / p. 13 et seqq.; section 5 Employees / p. 18 et seqq.	
G4-LA10	Programs for skills management and lifelong learning	Section 5 Employees / p. 62 et seqq.	Section 5 Employees / p. 20	
MATERIAL ASPECT: DIVERSITY AND EQUAL OPPORTUNITY				
G4-DMA	Disclosure on management approach	Section 5 Employees / p. 62 et seqq.; section 21 Opportunities and Risks Report / p. 99 et seqq.	Section 5 Employees / p. 18	

## SPECIFIC STANDARD DISCLOSURES

Specific Standard Disclosures	Standard Disclosure Title	Section / page in the Covestro Annual Report 2016	Section / page in the Covestro GRI Supplementary Report 2016	Comment
G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	Section 5 Employees / p. 62 et seqq.; section 23 Governance / p. 116 et seqq.	Section 5 Employees / p. 18	Minority group membership is not recorded for legal reasons.
<b>MATERIAL ASPECT: SUPPLIER ASSESSMENT FOR LABOR PRACTICES</b>				
G4-DMA	Disclosure on management approach	Section 6 Procurement / p. 65 et seqq.; section 21 Opportunities and Risks Report / p. 99 et seqq.	Section 3 Sustainability Management / p. 15; section 6 Procurement / p. 22 et seqq.	
G4-LA15	Significant actual and potential negative impacts for labor practices in the supply chain and actions taken	Section 6 Procurement / p. 65 et seqq.	Section 6 Procurement / p. 22	
<b>SUB-CATEGORY: HUMAN RIGHTS</b>				
<b>MATERIAL ASPECT: NON-DISCRIMINATION</b>				
G4-DMA	Disclosure on management approach	Section 5 Employees / p. 62 et seqq.; section 24 Compliance / p. 120	Section 5 Employees / p. 18; section 13 Compliance / p. 38	
G4-HR3	Total number of 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>MATERIAL ASPECT: FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING</b>				
G4-DMA	Disclosure on management approach	Section 5 Employees / p. 62 et seqq.; section 6 Procurement / p. 65 et seqq.; section 24 Compliance / p. 120	Section 5 Employees / p. 18; section 6 Procurement / p. 22; section 13 Compliance / p. 38	
G4-HR4	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	Section 5 Employees / p. 62 et seqq.; section 6 Procurement / p. 65 et seqq.; section 24 Compliance / p. 120	Section 5 Employees / p. 18; section 6 Procurement / p. 22; section 13 Compliance / p. 38	In 2016, no significant cases were reported using formal grievance mechanisms. There was no high risk exposure in 2016 to the sites as 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.

## SPECIFIC STANDARD DISCLOSURES

Specific Standard Disclosures	Standard Disclosure Title	Section / page in the Covestro Annual Report 2016	Section / page in the Covestro GRI Supplementary Report 2016	Comment
<b>MATERIAL ASPECT: SUPPLIER HUMAN RIGHTS ASSESSMENT</b>				
G4-DMA	Disclosure on management approach	Section 6 Procurement / p. 65 et seqq.	Section 3 Sustainability Management / p. 15; section 6 Procurement / p. 22	
G4-HR11	Significant actual and potential negative human rights impacts in the supply chain and actions taken	Section 6 Procurement / p. 65 et seqq.; section 21 Opportunities and Risks Report / p. 99 et seqq.	Section 6 Procurement / p. 22 et seqq.	
<b>MATERIAL ASPECT: HUMAN RIGHTS GRIEVANCE MECHANISMS</b>				
G4-DMA	Disclosure on management approach	Section 5 Employees / p. 62 et seqq.; section 6 Procurement / p. 65 et seqq.; section 24 Compliance / p. 120	Section 13 Compliance / p. 38	
G4-HR12	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms	(-)	(-)	For reasons of confidentiality, we do not make statements concerning the type and scope of the grievances reported.
<b>SUB-CATEGORY: SOCIETY</b>				
<b>MATERIAL ASPECT: ANTI-CORRUPTION</b>				
G4-DMA	Disclosure on management approach	Section 24 Compliance / p. 120	Section 13 Compliance / p. 38	
G4-SO3	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified		Section 13 Compliance / p. 38	
<b>MATERIAL ASPECT: ANTI-COMPETITIVE BEHAVIOR</b>				
G4-DMA	Disclosure on management approach	Section 24 Compliance / p. 120	Section 13 Compliance / p. 38	
G4-SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	(-)	(-)	No actions were reported through internal reporting in 2016.
<b>MATERIAL ASPECT: COMPLIANCE</b>				
G4-DMA	Disclosure on management approach	Section 24 Compliance / p. 120	Section 13 Compliance / p. 38	

**SPECIFIC STANDARD DISCLOSURES**

Specific Standard Disclosures	Standard Disclosure Title	Section / page in the Covestro Annual Report 2016	Section / page in the Covestro GRI Supplementary Report 2016	Comment
G4-SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	(-)	(-)	In 2016, no significant administrative or court-ordered sanctions (fines, non-monetary sanctions) for non-compliance with laws and regulations were reported through internal reporting.
<b>MATERIAL ASPECT: SUPPLIER ASSESSMENT FOR IMPACTS ON SOCIETY</b>				
G4-DMA	Disclosure on management approach	Section 6 Procurement / p. 65 et seq.; section 21 Opportunities and Risks Report / p. 99 et seqq.	Section 3 Sustainability Management / p. 15; section 6 Procurement / p. 22	
G4-SO10	Significant actual and potential negative impacts on society in the supply chain and actions taken	Section 6 Procurement / p. 65 et seqq.	Section 6 Procurement / p. 22 et seqq.	
<b>SUB-CATEGORY: PRODUCT RESPONSIBILITY</b>				
<b>MATERIAL ASPECT: CUSTOMER HEALTH AND SAFETY</b>				
G4-DMA	Disclosure on management approach	Section 9 Product Stewardship / p. 69 et seqq.; section 21 Opportunities and Risks Report / p. 99 et seqq.; section 24 Compliance / p. 120	Section 3 Sustainability Management / p. 12; section 9 Product Stewardship / p. 26; section 13 Compliance / p. 38	
G4-PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes		Section 9 Product Stewardship / p. 26	In 2016, no significant incidents were reported through internal reporting.
<b>MATERIAL ASPECT: PRODUCT AND SERVICE LABELING</b>				
G4-DMA	Disclosure on management approach	Section 9 Product Stewardship / p. 69 et seqq.	Section 3 Sustainability Management / p. 12; section 9 Product Stewardship / p. 26	

## SPECIFIC STANDARD DISCLOSURES

Specific Standard Disclosures	Standard Disclosure Title	Section / page in the Covestro Annual Report 2016	Section / page in the Covestro GRI Supplementary Report 2016	Comment
G4-PR3	Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant products and service categories subject to such information requirements	Section 9 Product Stewardship / p. 69 et seqq.		
G4-PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes		Section 9 Product Stewardship / p. 26	In 2016, no significant incidents were reported through internal reporting.
<b>MATERIAL ASPECT: MARKETING COMMUNICATIONS</b>				
G4-DMA	Disclosure on management approach	Section 9 Product Stewardship / p. 69 et seqq.	Section 3 Sustainability Management / p. 12; section 9 Product Stewardship / p. 26	
G4-PR6	Sale of banned or disputed products	Section 9 Product Stewardship / p. 69 et seqq.	Section 9 Product Stewardship / p. 26	
<b>MATERIAL ASPECT: COMPLIANCE</b>				
G4-DMA	Disclosure on management approach	Section 9 Product Stewardship / p. 69 et seqq.; section 24 Compliance / p. 120	Section 3 Sustainability Management / p. 12; section 13 Compliance / p. 38	
G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	(-)	(-)	In 2016, no significant administrative or court-ordered sanctions (fines, non-monetary sanctions) for non-compliance with laws and regulations concerning the provision and use of products and services were reported through internal reporting.

# Independent Practitioner's Limited Assurance Report

## To Covestro AG, Leverkusen

PricewaterhouseCoopers AG Wirtschaftsprüfungsgesellschaft has performed a moderate assurance engagement on the GRI- Report of Covestro AG and issued an independent assurance report, authoritative in German language, which has been translated as follows:

We have been engaged to perform a limited assurance engagement on the sustainability information marked with „✓“ in the GRI Report 2016 (hereafter the "GRI Report") of Covestro AG, Leverkusen, (hereafter the "Company") for the period 1 January 2016 to 31 December 2016.

## Management's Responsibility

The Company's Management is responsible for the preparation and presentation of the GRI Report in accordance with the criteria as set out in the G4 Sustainability Reporting Guidelines of the Global Reporting Initiative (GRI) (hereafter the "GRI-Criteria") and for the selection of the information to be assessed.

This responsibility includes the selection and application of appropriate methods to prepare the Sustainability Report as well as the use of assumptions and estimates for individual sustainability disclosures which are reasonable in the circumstances. Furthermore, the responsibility includes designing, implementing and maintaining systems and processes relevant for the preparation of the GRI Report, which is free of material misstatements due to intentional or unintentional errors.

## Audit Firm's Independence and Quality Control

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

The 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 Institut der Wirtschaftsprüfer ("Institute of Public Auditors in Germany; IDW"): Requirements to quality control for audit firms ("Entwurf eines IdW Qualitätssicherungsstandards 1 „Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis" (IdW EQS 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 an opinion on the sustainability information marked with „✓“ in the GRI Report based on our work performed.

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

We conducted our work in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): "Assurance Engagements other than Audits or Reviews of Historical Financial Information" published by IAASB. This Standard requires that we plan and perform the assurance engagement to obtain limited assurance whether any matters have come to our attention that cause us to believe that the sustainability information marked with „✓“ in the GRI Report has not been prepared, in all material respects, in accordance with the GRI-Criteria.

In a limited assurance engagement the evidence-gathering procedures are more limited than for a reasonable assurance engagement and therefore significantly less assurance is obtained than in a reasonable assurance engagement. The procedures selected depend on the practitioner's judgement. This includes the assessment of the risks of material misstatements of the sustainability information marked with „✓“ in the GRI Report with regard to the GRI-Criteria.



Within the scope of our work we performed amongst others the following procedures:

- Inquiries of personnel involved in the preparation of the Report regarding the preparation process and the underlying internal control system
- Inventory of the processes and inspection of the systems and processes that are implemented to collect, calculate, analyze, verify and aggregate the environmental and safety performance data as well as sample testing;
- Performance of site visits at:
  - Baytown, USA
  - Sites on the Lower Rhine, Germany
- Analytical procedures on selected sustainability information of the GRI Report
- Assessment of the presentation of selected sustainability information in the GRI Report regarding the sustainability performance

## Conclusion

Based on our limited assurance engagement, nothing has come to our attention that causes us to believe that the sustainability information marked with „✓“ in the GRI-Report of the Company for the period 1 January 2016 to 31 December 2016 has not been prepared, in all material respects, in accordance with the GRI-Criteria.

## Emphasis of Matter – Recommendations

Without qualifying our conclusion above, we make the following recommendations for the further development of the Company's sustainability management and sustainability reporting:

- Further development and further formalization of internal controls and systems for non-financial indicators particularly at decentralized level, as well as increasing implementation of automated system interfaces and controls.

## Restriction on Use and Distribution

We issue this report on the basis of the engagement agreed with Company. The review has been performed for purposes of Company and is solely intended to inform Company about the results of the review. The report is not intended for any third parties to base any (financial) decision thereon. We do not assume any responsibility towards third parties.

Essen, February 16, 2017  
PricewaterhouseCoopers  
Aktiengesellschaft  
Wirtschaftsprüfungsgesellschaft

Hendrik Fink  
Wirtschaftsprüfer  
(German Public Auditor)

ppa. Juliane v. Clausbruch

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**Project manager and contact  
for questions relating to the content  
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