ANNUAL REPORT 2016

Covestro Group Key Data

	2015	2016	Change
	€ million	€ million	%
Core volume growth[1, 2]	+2.7%	+7.5%	
Sales	12,082	11,904	–1.5
Change in sales			
Volume	+2.6%	+5.0%	
Price	–7.7%	–5.2%	
Currency	+7.8%	–1.3%	
Portfolio	0.0%	0.0%	
Sales by region			
EMLA[3]	5,357	5,126	–4.3
NAFTA[4]	3,356	3,169	–5.6
APAC[5]	3,369	3,609	+7.1
EBITDA[6]	1,419	2,014	+41.9
Adjusted EBITDA[7]	1,641	2,014	+22.7
EBIT[8]	680	1,331	+95.7
Adjusted EBIT[9]	942	1,331	+41.3
Financial result	(175)	(196)	–12.0
Net income[10]	343	795	>100
Operating cash flow[11]	1,473	1,786	+21.2
Cash outflows for additions to property, plant, equipment and intangible assets	509	419	–17.7
Free operating cash flow[12]	964	1,367	+41.8
Net financial debt[13, 16]	2,211	1,499	–32.2
ROCE[14]	+9.5%	+14.2%	
Employees (in FTE)[15, 16]	15,761	15,579	–1.2

1 Core volume growth refers to the core products in the Polyurethanes, Polycarbonates and Coatings, Adhesives, Specialties segments. It is calculated as the percentage change in externally sold volumes in thousand tons compared with the prior year. Covestro also takes advantage of business opportunities outside its core business, for example the sale of raw materials and by-products such as hydrochloric acid, sodium hydroxide solution and styrene. These transactions are not included in core volume growth.
2 Reference values calculated based on the definition of the core business effective March 31, 2016
3 EMLA: Europe, Middle East, Africa and Latin America (excl. Mexico) region
4 NAFTA: United States, Canada and Mexico region
5 APAC: Asia and Pacific region
6 EBITDA: EBIT plus depreciation and amortization
7 Adjusted EBITDA: EBITDA before special items
8 EBIT: income after income taxes plus financial result and income tax expense
9 Adjusted EBIT: EBIT before special items
10 Net income: income after income taxes attributable to the stockholders of Covestro AG
11 Operating cash flow: cash flow from operating activities according to IAS 7
12 Free operating cash flow: operating cash flow less cash outflows for additions to property, plant, equipment and intangible assets
13 Excluding obligations for pensions and other post-employment benefits
14 ROCE: The return on capital employed is calculated as the ratio of adjusted operating result after taxes to capital employed. The capital employed is the capital used by the company. It is the sum of noncurrent and current assets less noninterest-bearing liabilities such as trade accounts payable.
15 Employees calculated as full-time equivalents (FTE)
16 As of December 31, 2016 compared with December 31, 2015

To make the world a brighter place

PUSHING BOUNDARIES

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About This Report

Forward-Looking Statements

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

Rounding

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

Percentage Deviations

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

Equal Treatment

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

Sustainability

Further information about sustainability can be found in our GRI Supplementary Report on our website at **www.covestro.com.**

Key

References to websites

↗ Cross-references within the Annual Report

This Annual Report was published in German and English on February 20, 2017. Only the German version is binding.

Highlights in 2016

Numerous innovations introduced, highly efficient new facilities opened, successes on the capital market – 2016 was a year of premieres and highlights for Covestro in terms of products, production, finance and employees alike.

- New large-scale facilities for coating raw materials and polycarbonate in Shanghai (China)
- Industrial manufacture of new foam precursor containing CO_2 in Dormagen (Germany)
- Pilot plant for recycling saline process wastewater in Krefeld-Uerdingen (Germany)

- Wide acceptance of new corporate identity
- Promotion of a Group-wide culture of innovation
- Positioning as an attractive employer

- Numerous product innovations in key areas including automotive, energy, and construction
- High level of customer interest at international fairs such as K 2016
- Groundbreaking partnerships in the fields of research and sustainable development

- Successful business development and stock performance
- First Annual Stockholders' Meeting following stock market listing
- Inclusion in significant international stock indices

"Pushing the boundaries to make the world a brighter place": Chair of the Board of Management Patrick Thomas believes that Covestro is optimally positioned to achieve this and is optimistic about the development of the business in 2017.

Dear Stockholders,

Helping electric cars gain more ground, breathing new life into wind energy and finding alternatives to the raw material crude oil: these are just three examples of many that demonstrate what we were able to accomplish last year with new materials and fresh ideas, and they underscore our goal of pushing the boundaries to make the world a brighter place. These and many of our other efforts contributed to making 2016 a successful year for our company in every respect.

This was our first full fiscal year as an independently listed company – a time of premieres and highlights. Over the past twelve months, we have firmly established

Covestro in its new identity as a key player on the market and in the world's financial centers. We've shown our customers and investors that we have what it takes: a strong and efficient production base coupled with the agility and the sense of purpose of a start-up, fuelled by 80 years of history.

From a business perspective as well, 2016 proved to be phenomenal for Covestro. We can look back on a record year for all our key indicators, including adjusted EBITDA for 2016 which rose by 22.7 percent over the previous year, growing to €2.0 billion. We were even able to boost core volumes by 7.5 percent owing primarily to increased demand in all segments.

We were also very successful in reaching our other financial goals. As proof of our financing strength, free operating cash flow exceeded last year's total and reached €1.4 billion. The same was true for profitability: return on capital employed (ROCE) amounted to 14.2 percent – a value significantly higher than last year.

Share price nearly doubled

This very good business development was also reflected in the share price, which was €65.18 at the end of 2016 – nearly twice the amount at the close of trading of the previous year when we made our debut on the stock market. Thanks to this increase, the Covestro share not only became the most successful stock in the MDAX, it also performed better than MSCI Global Standard Germany and STOXX® Europe 600 Chemicals, two relevant international benchmark indices that added our company in 2016.

In addition to the growth in share price, our stockholders will again benefit from an attractive dividend. After distributing €0.70 a share for the previous reporting year, we intend to distribute €1.35 a share for this reporting year.

But 2016 was more than just a year of financial and business successes. More than ever before, Covestro has stepped up its efforts to deliver answers to the greatest challenges of our time, challenges that include climate change, fossil-fuel shortages, increasing mobility and urban expansion. We also see considerable potential in the coming years for profitable growth and clear opportunities for our value proposition: to provide key industries with innovative polymer materials, technologies and application solutions that protect the environment, benefit society and create value.

For this reason, we have anchored sustainability extensively within the company and set ourselves a series of challenging long-term goals. We will, for example, continue to significantly lower greenhouse gas emissions per metric ton of product. The new production facilities we commissioned in Germany and China in 2016 will also contribute to reaching this goal. After all, they are particularly efficient and conserve resources.

CO_2 as a new raw material

One invention that we developed and brought to the market is also contributing to the conservation of fossil raw materials such as crude oil: the use of carbon dioxide for plastics production, which is an innovation in the industry. The first CO_2-based products – foam components for mattresses and upholstered furniture – were delivered at the end of 2016 from a new facility.

The Solar Impulse mission, the first piloted flight around the world using only solar energy, also demonstrates our power to innovate and our commitment to sustainability. Our goal is to assist clean technologies in achieving breakthroughs. Without the range of new Covestro products such as a highly efficient insulating material, breakthroughs like these would not have been possible.

Such innovations will continue to shape Covestro well into the future. They are the result of working hand-in-hand with our customers and partners in large research centers in Germany, the United States and China. Our understanding of innovation permeates the entire company. We want to foster the wealth of ideas and creativity of our employees and empower them to push boundaries. Our values – be curious, courageous and colorful – give life to our work, and they guided our approximately 15,600 employees as they made outstanding contributions during the year. I would like to thank them very much for that on behalf of the entire Board of Management.

This momentum will carry us as we move forward into the new year, one in which we will build on the business successes of 2016. We anticipate a low-to-mid-single-digit percentage increase in core volumes. Our target for free operating cash flow is slightly above the average of the last three years. In terms of ROCE, we expect its value to slightly exceed the 2016 level.

We will continue to do all we can to provide the materials and solutions essential to today’s daily life – from fuel-efficient vehicles and energy-efficient buildings to cutting-edge electronic devices and safe medical equipment. ‘Making the world a brighter place’: this goal will guide us in 2017 as well.

Warmest regards,

Patrick Thomas
Chief Executive Officer

"Covestro wants to help master global challenges and make the world a brighter place with its innovative and sustainable products."

PATRICK THOMAS, CHAIR OF THE BOARD OF MANAGEMENT

Plastics fair K 2016 in Düsseldorf (Germany), October 2016: Thomas (right) with staff at the Covestro stand.

"Covestro continually pursues sustainable innovations. They are the foundation of our profitable growth."

DR. MARKUS STEILEMANN, BOARD MEMBER RESPONSIBLE FOR INNOVATION

Launch of the collaborative project "Power-to-X" at the Jülich Research Center, Germany, October 2016: Steilemann (left) with German Federal Research Minister Prof. Dr. Johanna Wanka (right) and Thomas Rachel, State Secretary from the Federal Ministry of Education and Research (center). Prof. Dr. Ernst Schmachtenberg, rector of RWTH Aachen University, is in the background.

"Covestro has performed outstandingly since its stock market listing. We want to continue our profitable growth and pay our shareholders attractive dividends."

FRANK H. LUTZ, CHIEF FINANCIAL OFFICER

Presentation of the Corporate Finance Award to Covestro in Frankfurt (Germany), July 2016: Lutz (center) during a panel discussion with Christian Zorn, Member of the Board of Morgan Stanley Bank AG (left), and Claus Döring, editor-in-chief of the Börsen-Zeitung (right).

"We don't want just to manufacture products. We're driven by the desire to make our processes and production facilities even safer, more efficient and more sustainable."

DR. KLAUS SCHÄFER, BOARD MEMBER RESPONSIBLE FOR PRODUCTION AND TECHNOLOGY

Inspection of the HDI plant in Leverkusen (Germany), December 2016: Schäfer takes a personal tour of the coating raw materials production area.

To make the world a brighter place

PUSHING BOUNDARIES

Climate change, the transformation of energy systems, increasing mobility, the growth of cities – the world is facing major challenges on many fronts.

Covestro is helping overcome them thanks to its innovative, sustainable materials and technologies for use in many spheres of modern life.

We want to make the world a brighter place and are pushing the boundaries of what is possible.


CO2

PUSHING BOUNDARIES

EFFICIENT MOBILITY

Autonomous driving, electric drives and connectivity: the automobile is entering a new stage of evolution. The way we travel could change significantly over the next decade.

This calls for a fresh approach to design, lightweight construction and efficiency. Innovative plastics are part of the solution. Covestro is working to make the automobile of the future more individual, economic and powerful with innovative materials and production processes, ranging from the bodywork to the lighting of the car.


PORTS TEC

A hotbed of ideas: students at Sweden's Umeå University are working to develop design concepts for the automobiles of the future under the guidance of Professor Demian Horst.

The stylus moves purposefully over the display, enhancing the precision and structure of the drawing with every stroke. The clear outline of a car emerges from the initial rough sketch, and Fredrik Ausinsch eagerly awaits a reaction to his work. In just a few minutes, the young man has committed to virtual paper the results of weeks of creative brainstorming alongside his fellow students at the Umeå Institute of Design.

The students are part of a joint project launched in 2014 by Covestro and Umeå University in northern Sweden with the aim of developing new ideas for vehicle design and functionality to satisfy the dreams of future drivers.

Project leader Demian Horst is visibly impressed with the results. "Design is becoming ever more important in automotive engineering, since manufacturers are desperate to find unique selling points," says the professor. "At the same time, we designers are being presented with more and more options in the form of new materials and applications. We can pursue completely new approaches in partnership with Covestro."

A glance at the small workshop next door shows exactly what he means. In addition to a host of mind maps, sketches and drawings on the walls, it contains numerous 3-D models made from all kinds of materials – wood, metal, and especially plastics such as polycarbonate and polyurethane, in which Covestro specializes.

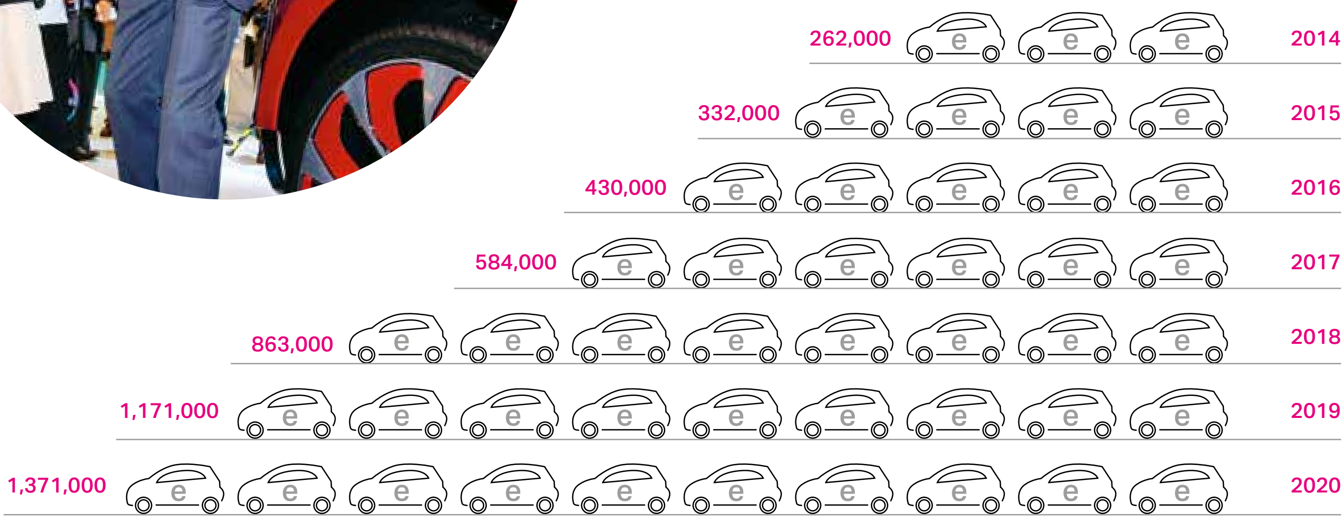
Material meets design

The models don't bear much resemblance to today's designs, because requirements are changing with the advent of new technologies such as autonomous driving and electromobility. Anyone looking for a conventional radiator grill on Fredrik Ausinsch's drawing will be disappointed, because a seamless surface can now be created using high-performance plastic polycarbonate (see "Design and lightness"), replacing the steel and other materials used to date.

"HIGH-TECH PLASTICS PROVIDE THE OPPORTUNITY FOR NEW CREATIVE SCOPE IN VEHICLES."

Jochen Hardt, Covestro

Global annual production of electric vehicles



Source: LMC Automotive

Alternative to the combustion engine: cars with electric and hybrid drive systems are gaining in importance the world over.

Covestro's automotive expert Jochen Hardt never stops being excited about the collaboration he enjoys with these creative young designers: "Automobiles are increasingly all about individual design and emotions. Our high-tech plastics provide the opportunity for new creative scope, and even we are impressed by how the design experts exploit these opportunities."

Ideas from Umeå Institute of Design have resulted in the development of a prototype for the future design of autonomous electric vehicles that was exhibited at Covestro's stand at the world's biggest plastics fair, K 2016 in Düsseldorf (Germany). One of the vehicle's notable features is its wrap-around polycarbonate glazing instead of windows made of glass. The pillars are completely invisible, so that the occupants enjoy an unobstructed 360° view.

An idea becomes reality

A "wow" effect is also triggered by the seamless bodywork design: there's not a groove or joint in sight. Here too, the design concept has become reality. The result is not only haptically attractive and aesthetically appealing, but also particularly efficient: fewer joints means less drag, and less drag means less energy consumption and ultimately a greater range. And that's a major plus, since its relatively low radius is currently one of the main obstacles to the general acceptance and spread of electromobility. And there's another way in which polycarbonate helps save electricity: it offers insulating properties that protects the vehicle's occupants from excess heat or cold, so less strain is placed on the heating and air conditioning systems, which are powered by the battery in an electric car.

The concept also includes new raw material developments such as a coating hardener, 70 percent of whose carbon content is biomass-based. Another hardener enables plastic automotive parts to be coated at low temperatures, thereby saving energy. A range of other promising developments is also in the pipeline for the future: for example, thanks to the new technology, plastic, composite and metal parts can be coated together for the first time, representing another great advance in efficiency. →

Covestro products for the car of the future

Wrap-around glazing:

a better view, improved aerodynamics, good insulating properties, much lighter than glass

Seamless surfaces:

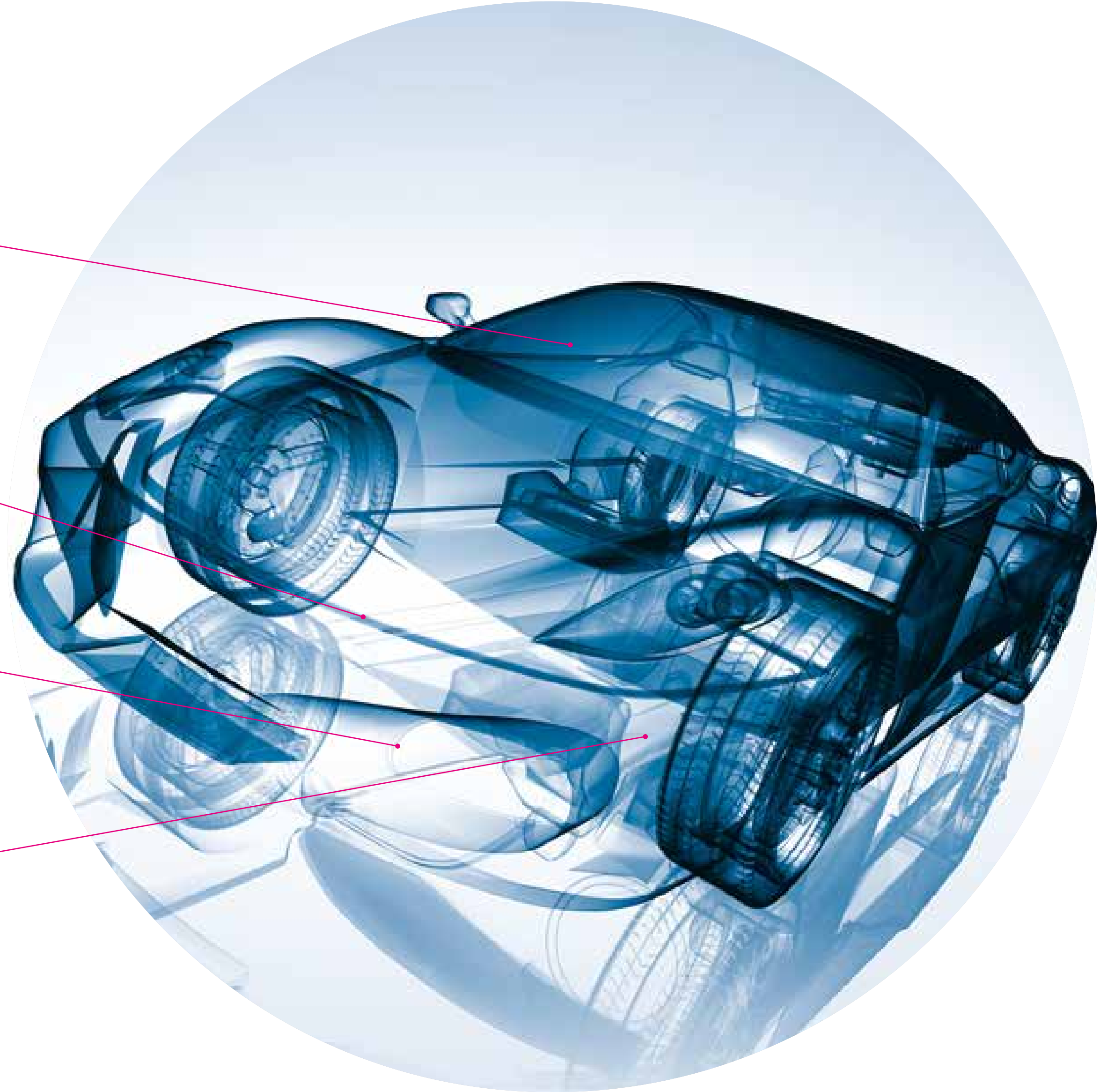
less drag

Holographic films:

integration of a wide range of light functions

New coating hardeners:

allow coating at low temperatures, content partly based on biomass



"Tomorrow's mobility will be completely different: autonomous, electrical, digital. The automobile will integrate itself in its design and function into this changed lifestyle," says Covestro expert Hardt. This is particularly true of electric vehicles, whose importance is likely to increase strongly around the globe. By the fall of 2016, over 500,000 plug-in hybrids (vehicles equipped with both plug connectors and combustion engines) had been sold in the United States. Some analysts expect that the target of having one million electric vehicles on the road in the United States could be reached by 2018, two years earlier than planned.

"Tomorrow's mobility will be completely different."

Sunny California leads the way: over 1.5 million zero-emission automobiles will be driven here by 2025. This will only be possible thanks to the intelligent use of innovative materials such as polycarbonate. Covestro is involved in a number of e-mobility projects here. The company has several plants and research and development facilities in the United States, which is also an important market for its other activities and products in the region.

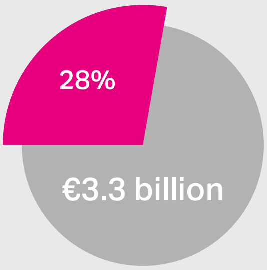
Covestro has always played an innovative role in the development of the automotive industry: 50 years ago, it produced the first all-plastic automobile, the prototype of which caused a sensation at the 1967 plastics fair. The first polycarbonate headlamp was launched in 1982, followed 16 years later by the first rear window made – for the Smart – from this transparent and unbreakable material. And polyurethane foam has long been used in car seats, too.

The mobility sector now accounts for a significant share of sales at Covestro. The company is in close contact with major automobile manufacturers and suppliers around the globe. One of these is HELLA, an international automotive supplier working to develop lighting concepts of the future at its headquarters in Lippstadt (Germany).

The right frame: polycarbonate supports mobile devices.

Design and lightness

The PCS segment



Making automobiles more efficient and innovative is just one of many options that polycarbonate enables. This transparent, high-performance material is light and robust, can be molded into any shape and processed with ease. Polycarbonate is thus not only used in the manufacture of cars and trains, but can also be found in numerous other industries and everyday products such as laptops, safety helmets and medical equipment. In the construction industry, the material is used in stadium roofing and the like.

Covestro produces polycarbonate in the form of granules and semi-finished products as well as blended with other plastics. In 2016 the Polycarbonates (PCS) segment accounted for sales of some €3.3 billion, around 28% of the Group total.

COVESTRO HAS ALWAYS PLAYED AN INNOVATIVE ROLE IN THE DEVELOPMENT OF THE AUTOMOTIVE INDUSTRY.

The company has set up a pitch-dark, 140-meter covered light tunnel for this purpose and uses it to test headlamps and rear lamps in terms of functionality, impact and – last but not least – styling.

"For a long time, safety – seeing well and being clearly visible – was the most important driver of automotive lighting technology," says Kamislav Fadel, Head of HELLA's Business Division Lighting. "However, design and styling have been gaining in significance over recent years. When buying a car, people have long since started considering more than just technical features. The look of the headlamps matters, too."

Design is becoming more important

This development began with the advent of xenon headlamps. These were known to move up and down briefly when first switched on, even though there was no technical necessity for this feature: it was merely intended to provide a feeling of interaction with the vehicle. A design gimmick, in other words. Xenon was succeeded by LED technology, and design and styling, termed "light signature", became ever more important as the use of LEDs heralded a wide range of potential developments.

The latest trend is known as holographic technology – and Covestro and HELLA have been working on it since 2012. The aim is to offer unobtrusive, space-saving and compact lighting technology. And it has been achieved, if the concept car at the fair stand in Düsseldorf is anything to go by: the LEDs are difficult to spot when they are switched off. When switched on, they generate images on the prototype's bodywork, or even floating in front of it – in this case, the logos of Covestro and HELLA. Brand symbols or individual lettering are also conceivable. This 3-D effect is produced with the help of a special polycarbonate film. →

Light as an individualizing feature: effectiveness and design requirements go hand in hand in the case of electric cars in particular.

THE QUESTION “IS IT FEASIBLE?” IS NOW ASKED LESS AND LESS FREQUENTLY, THANKS TO MODERN PLASTICS.

Another film developed by Covestro is used at the rear of the vehicle, allowing both the direction indicator and the tail light functions to be generated. Thus a wide range of light functions can be integrated in the body parts in space-saving fashion, creating new options when it comes to using light as a design element.

A three-part light guide spans the entire front of the vehicle as a continuous lighting strip, with the two outer parts creating the direction indicator lights as well as daytime running lights which can be dimmed to position lighting. The middle light guide is responsible for the continuous daytime running light and position light signature.

All these functions can be animated and customized. The car could instruct the vehicle behind to “stop", for example, or indicate to pedestrians that it is safe to cross the road at a crosswalk.

“The automobile of the future will be less of a commodity and more of an interactive companion,” says Steffen Pietzonka, Head of Marketing at HELLA’s Business Division Lighting. “The car will recognize its owner and welcome him. It might even recognize his state of mind and adapt the atmosphere inside the vehicle to suit his mood.”

The new freedom accorded to designers certainly doesn’t end with the car’s outer shell. Innovative plastics have also created new options for the interior. For example, polyurethane-coated components that require no post-processing can be manufactured using a special injection molding process. Transparent or opaque, matte or glossy, in various colors, scratch-resistant, with sharp or rounded edges – the interior can be customized to meet almost every customer requirement. In addition, the single-stage manufacture and coating process has the potential to achieve massive savings in terms of logistics expenditure and energy consumption.

Automobiles are becoming lighter

Another major advantage is the significant reduction in the weight of the components, since plastic is, of course, much lighter than metal. New manufacturing methods also help: foam molding reduces the density of plastic parts, and thus their weight, by up to 30 percent.

Technology used to be the stumbling block when it came to design and manufacture: it defined what was possible and what was not. But times are changing, and the question “Is it feasible?” is now asked less and less frequently, thanks to modern plastics. Development times are also becoming ever shorter. Years used to elapse between the first idea for an automobile and its market launch, but this period could be reduced to mere months in the future.

Circumnavigation of the globe using nothing but solar energy

The flying laboratory

The ultralight aircraft Solar Impulse has the wingspan of a jumbo jet, yet weighs no more than a standard automobile. In 2016, this slender single-seater equipped with 17,000 solar cells completed the first manned circumnavigation of the globe without burning a single drop of fuel. Bertrand Piccard and André Borschberg from Switzerland staged this spectacular feat to prove what can be achieved with renewable energy and clean technologies if you are determined enough – and have the right partners.

A partner like Covestro: the 40,000-kilometer flight over four continents and two oceans would not have been possible without various Covestro high-tech materials – including a highly efficient insulating material. Solar Impulse acted as a flying laboratory for Covestro, supplying valuable insights into new products and potential applications during its trip.

We spoke to Paige Kassalen, a member of Covestro's sales staff in the United States:

You represented the company on the Solar Impulse project. What made it such a special personal experience?
You only get that kind of opportunity once in a lifetime. And now I know that we ourselves can change the boundary between what is possible and what is impossible. I had the privilege of getting to know passionate and inspiring people who really impressed me.

What part of that task did you particularly enjoy?
I'm a person with an extremely positive attitude on life. I like spreading optimism and reminding my colleagues of what really matters in our company – namely, that all our work at Covestro ultimately serves to make the world a brighter place. Sometimes people lose sight of the big picture in their day-to-day business.

Apart from the actual circumnavigation of the globe, what impressed you most about Solar Impulse?
The intensive collaboration! Solar Impulse was initially just an idea. The team behind it had to find partners with the deep dedication and particular expertise to make this idea a reality. And we discovered that, thanks to cooperation and the exchange of knowledge, we were able to achieve so much more than we ever thought possible.

That prospect generates euphoria among the Umeå University students. The shorter the development times, the more ideas they will be able to implement – it's a perfect situation for any designer. "New technologies and materials are rewriting the laws of automotive design," says Demian Horst. "In the future, we'll see greater variety and more individuality on our streets."

So it's not surprising that the students in Umeå sense that they are going places. Their curiosity and creative energy are palpable. Fredrik Ausinsch's screen is now displaying another drawing that resembles an automobile in some ways, but not at all in others. Where's the driver? And is there any way of distinguishing the front from the rear? "Modern plastics give you the freedom to experiment with completely new concepts," says the young man, adding with a grin: "And we're ready!"

PUSH BOUNDARIES
PUSHING

CLEAN ENERGY

The future belongs to renewable energies. Wind power alone could theoretically satisfy the world's entire energy needs. But for the available potential to be tapped to a greater degree, this clean method of power generation must be economically as well as ecologically sound.

Covestro is paving the way with its innovative materials for rotors, masts and cables – and its own research center. The main focus is on China, the global leader in wind power.

Helping wind power get off the ground: prototype of a rotor blade with an innovative interior. Jirabhat Lerlertwanich (large photo) and her colleagues developed the specimen at Covestro's research center in Shanghai (small photo) in collaboration with partners.

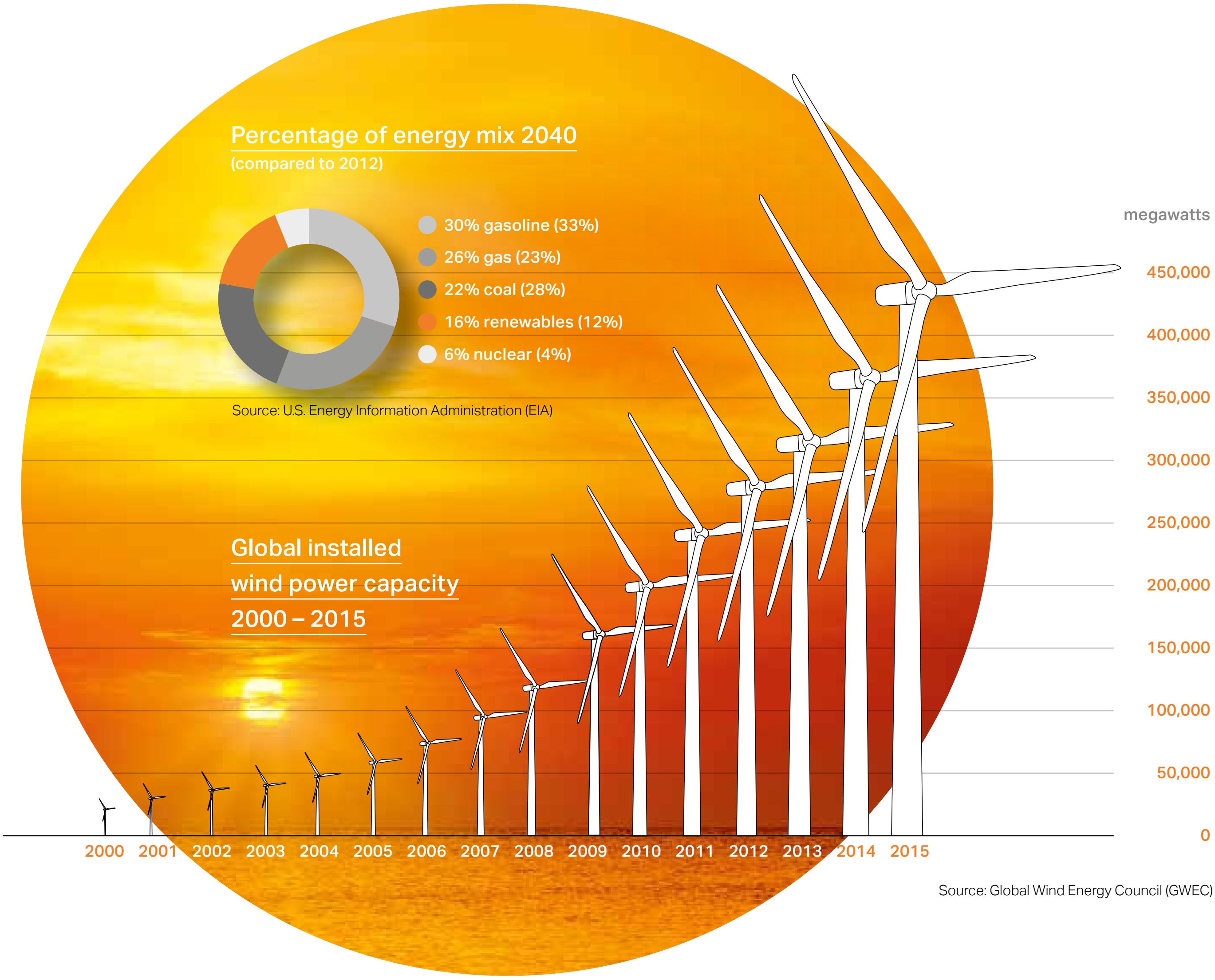
"OUR NEW MATERIAL MAKES ROTOR BLADES CONSIDERABLY MORE STABLE AND DURABLE."
Jirabhat Lerlertwanich, Covestro

The dazzlingly white, elegantly curved object stretches majestically across the grass, tapering sharply at the end like a giant's spear. This exotic structure seems out of place among the box-like, purpose-built premises in this industrial district of Shanghai. And it doesn't actually belong here at all: its successors, at any rate, are destined to operate high off the ground. If everything continues to plan, the rotor blade on the grass will become the forebear of a new generation of windmills.

That's according to Jirabhat Lerlertwanich, Development Manager at the Polymer Research & Development Center, one of three Covestro global research centers. The prototype, over 37 meters in length and weighing six metric tons, glistens invitingly in front of the building in the morning sun as Lerlertwanich runs her hand proudly over its surface. "But what's really special is what's going on inside," she reveals. "We've developed a new material to make rotor blades much more stable and durable, which is critical for their use."

Lerlertwanich is referring to a liquid polyurethane resin that acts as a type of adhesive for the reinforcing glass fibers inside the blade, and now competes with the conventional epoxy resins used for such purposes to date. The new material has every chance of success: it flows more easily and wets the glass fibers better. It also cures much more quickly. In short, it saves both time and money. This is an important factor when it comes to improving the competitiveness of wind power, since the rotor blades account for around one quarter of the total cost of new wind turbines.

In manufacturing products such as the new resin, Covestro is lending its support to one of the major issues of the future – the long-term transition from fossil fuels like coal and gas to sustainable and environmentally friendly energy sources such as sun, water, geothermal energy and wind. A model study by the Lawrence Livermore National Laboratory in the United States has shown that wind power alone could theoretically more than satisfy the world's entire energy needs. Yet according to the International Energy Agency, just 2.5 percent of global energy demands are covered by wind power to date.



However, wind power is growing at a tremendous rate around the world. At 500 gigawatts, the global installed capacity is now over 70 times greater than it was just two decades ago, with another 64 gigawatts – or some 15 percent – added in 2016 alone, according to the Global Wind Energy Council.

China leads the way by a clear margin, with capacities currently in excess of those of the entire European Union. The country is pressing ahead with the development of wind power on a grand scale – particularly offshore – with a view to cutting coal-based power generation. Due to its preponderance of power plants fired by fossil fuels, China has become the world's biggest producer of greenhouse gases such as CO_2, resulting in horrendous air pollution that regularly causes clouds of smog to envelop the city of Shanghai, home to 20 million people.

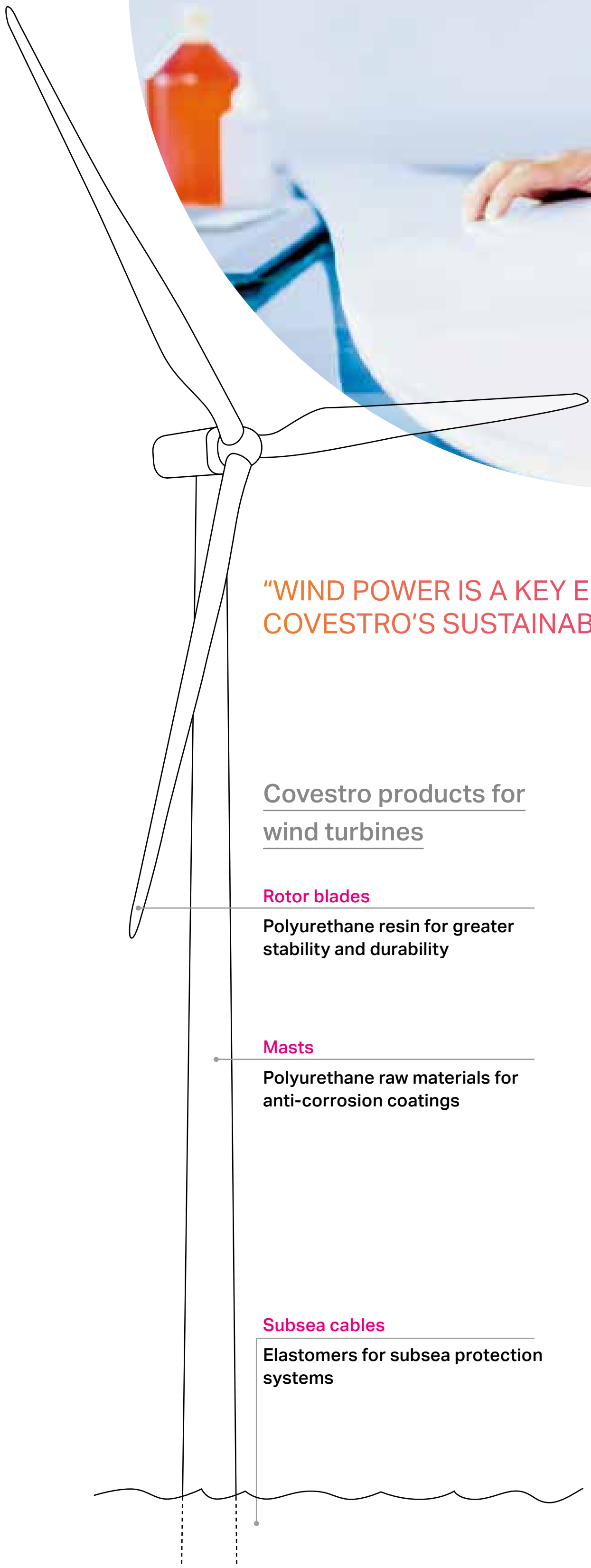
Greater efficiency

In the battle of coal versus wind, there can be only one winner from an environmental point of view. But the position is reversed when it comes to economic efficiency: here, wind turbines still lag behind conventional power plants by some distance. Their manufacturing and maintenance costs will have to fall considerably before wind power can catch up, especially since several of the many countries ostensibly committed to delivering renewable energies have reduced state subsidies for such projects.

This is where experts like Jirabhat Lerlertwanich in Shanghai come in – or, about 8,000 kilometers away, Kim Klausen in Otterup, a small community on the Danish island of Funen. Its flat farmlands are home to the Covestro Global Wind Competence Center, which coordinates the company's global wind power activities. "Wind power is a key element in Covestro's sustainability concept. Not only do we work on optimizing rotor blades, we also develop innovative materials to protect wind turbines from the elements of nature," explains Klausen, who is Head of the Center. →

A sharp eye: Covestro expert Kim Klausen inspects a rotor blade made with Covestro materials. He heads the Wind Energy Competence Center operated by Covestro in the Danish community of Otterup (below).

"WIND POWER IS A KEY ELEMENT IN COVESTRO'S SUSTAINABILITY CONCEPT."
Kim Klausen, Covestro



Here as well, Covestro relies on teamwork in its bid to develop marketable products around the globe: experts from various disciplines including application development, marketing and sales were involved in developing the polyurethane resin designed to help wind power get off the ground.

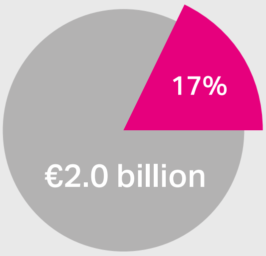
Teamwork is the name of the game

But cooperation on the project is even more wide-ranging: the vacuum infusion process used to introduce the resin into the blades was provided by German plant manufacturer HÜBERS. The resin bonds with glass fibers were made by the Chinese company Chongqing Polycomp International Corp. (CPIC), and the prototype was manufactured at the Shanghai FRP Research Institute. "Covestro has a strong research team and great innovative power," says CPIC's Chief Engineer Yuan Yao. "We are working together to drive forward the use of polyurethane in rotor blades."

Admittedly, the prototype is only designed to output 1.5 megawatts and is relatively short compared with the industry standard. But what counts is something else: Covestro has demonstrated that the new resin is suitable for use in industrial manufacturing. Kim Klausen sums up: "The industry has relied predominantly on epoxides to date, but it is now on the verge of establishing the potential and cost benefits of polyurethane as a synthetic resin."

Protection and beautification

The CAS segment



Protecting wind turbines from the elements is just one of many jobs performed by coatings formulated with raw materials from Covestro. Such coatings also protect and enhance the appearance of automobiles, bridges, buildings, floors, furniture and much more. In addition, the Coatings, Adhesives, Specialties (CAS) segment manufactures precursors for adhesives and sealants as well as high-quality films and elastomers.

Specialty materials for the cosmetics, textile and medical industries, among others, round off the portfolio. Altogether, CAS supplies more than 2,300 products to over 4,300 customers in more than ten industries. In 2016, the segment achieved sales of around €2.0 billion, representing approximately 17% of Group sales.

Puts a shine on floors and much more: coatings made from Covestro's raw materials offer a wide range of benefits. Among other things, their curing times are much shorter than those of conventional coating systems.

Elsewhere, polyurethanes have long established themselves as a raw material for high-quality coatings designed to protect wind turbines from the elements. This is another highly significant development in the industry: not only do the up to 200-meter high tubular steel towers need to be protected against rust, the rotors are also extremely sensitive. In gale-force winds, raindrops can act as projectiles, particularly at the blade tips. Exposure to aggressive salt water is also a factor in the case of offshore wind parks.

Covestro's Coatings, Adhesives, Specialties segment (CAS – see "Protection and beautification") has responded to this challenge by developing Pasquick™, a polyurethane-based coating technology. Its USP is that there is one less layer of coating to apply, while curing times are also reduced compared with conventional processes.

Effective protection

"The durability and high quality of the corrosion protection it offers is on a par with that of conventional three-coat systems," says Covestro expert Thomas Bäker. It's therefore no surprise to learn that Covestro's technology is being used by leading manufacturers such as the Enercon Group, one of the world's largest producers of turbine components such as towers, generators and engine nacelles.

Beyond the turbines themselves, the subsea cables used for transport of the power generated by offshore wind parks back to shore also need to be protected. These cables are particularly susceptible to damage since they are constantly at the mercy of heavy underwater currents. Here, components made of Covestro elastomers offer reliable protection. Unlike the previous technology used, these components reduce the installation workload considerably and make the entire process safer – thus saving further time and costs when installing and connecting wind turbines. →

Thick cables are used for shore transport of the power generated by offshore plants. Material from Covestro protects them from the underwater elements – and will soon be doing so in China, too.

Tekmar Energy Ltd. in northern England is a leading manufacturer of protection systems for subsea cables. It has important customers virtually on its doorstep: the UK currently boasts almost half of the global installed offshore capacity with over 5,000 megawatts. But China, in particular, is catching up fast, and is planning to reach 10,000 megawatts of offshore capacity within the next three to five years in support of its government's drive to transform the energy sector with the transition to low-carbon, clean sources of power.

Tekmar supplies cable protection systems for the connections within the windparks in the China Sea and now relies exclusively on Covestro products in the process. Tekmar CEO James Ritchie: "We look forward to collaborating with Covestro. Its resources and facilities in Shanghai and around the globe will help us both to tap the growing Chinese market."

Asia is a key region

Indeed Asia, and China in particular, is a key region for Covestro. It is home to the company's Polymer Research & Development Center, in which Development Manager Lerlertwanich and around 220 colleagues are working hard on innovations for the fields of renewable energies, transport and construction.

Covestro also operates a number of facilities in China. One of the largest is situated just outside Shanghai. Here, all the major products – including the high-performance plastic polycarbonate as well as polyurethane and CAS raw materials – are manufactured at a complex the size of more than 200 soccer fields. As at all its sites around the globe, Covestro sets standards here in safety, efficiency and environmental compatibility.

One example is the large-scale plant for coating raw materials opened in Shanghai in 2016, where the components for the company's anti-corrosion coating are also manufactured. The last stage in the process uses significantly less solvent and energy than conventional processes, thus reducing the CO_2 footprint in production by up to 70 percent overall.

Halving energy consumption

Covestro wants to help others save resources and reduce emissions, yet given the company's considerable consumption of electricity, steam, water and petrochemical raw materials, it is also determined to improve its own record. The aim is to halve the 2005 level of energy consumption per metric ton of product by 2030. The same applies to greenhouse gas emissions, which should be halved by 2025 (see "The energy-saving 60").

Cooperation is a major factor here, too, as evidenced by the development of the rotor blade at Covestro's research center in Shanghai. This has impressed Berlin-based WINDnovation Engineering Solutions, a leading turbine blade designer. "We intend to optimize rotor blade design further, exploiting the benefits of polyurethanes to the full," emphasizes Managing Director Dr. Roland Stoer.

This is music to the ears of Jirabhat Lerlertwanich and her colleagues at Covestro. "We are planning to manufacture additional prototypes, once again in collaboration with partners," says the Development Manager, squinting into the sunshine as she reaches over once more to stroke the long white blade on the grass. ■

Energy-efficient production

The energy-saving 60

In 2016, Covestro was once again able to improve energy efficiency in production and reduce specific greenhouse gas emissions. State-of-the-art processes played their part in this achievement: for instance, the company has started to equip its chlorine production plants with particularly energy-saving electrolysis modules. The STRUCTese™ system developed by Covestro has also helped cut energy consumption, ensuring that energy-intensive production facilities require as little energy as possible over the long term.

We spoke to Matthias Böhm, who is in charge of energy efficiency at Covestro:

What does STRUCTese™ do?
The unique thing about the system is that it calculates the individual energy consumption per plant online on an ongoing basis and makes energy losses transparent. This gives our plant operators optimum control over production and helps them keep controllable consumption to a minimum at all times. The management system has now been installed in 60 plants in Europe, Asia and America that are responsible for using the most energy, and more plants are set to follow.

What are the benefits for Covestro?
Overall, STRUCTese™ helps Covestro save more than 1.65 million megawatt hours of primary energy per annum. The energy consumption per plant quickly falls by one tenth on average, and this has helped reduce carbon dioxide emissions by over 470,000 metric tons per annum.

What are the benefits for others?
STRUCTese™ can be licensed by other companies – and some have already done so. We also regularly share our know-how and experience in networks and at global conferences. If this system were used on a large scale by the chemical industry, the energy revolution in Germany, which relies heavily on energy efficiency, would take a significant step forward.

PUSHING BOUNDARIES

NEW RAW MATERIALS

Fossil resources such as crude oil are becoming increasingly scarce, and processing them harms the environment. It's time to rethink our approach. In the search for alternatives, carbon dioxide is showing promise as a new raw material for the chemical and plastics industry.

Covestro is leading the way in this respect: thanks to a groundbreaking innovation, it has now started manufacturing foam components using this greenhouse gas. As a result, it is now possible for the first time for consumers to purchase mattresses and upholstered furniture made from CO_2. And this is just the start – more products based on carbon dioxide will follow in the future.

Delivery gets under way: the first tank truck containing some 18 metric tons of a new foam component made from CO_2 leaves the Covestro site in Dormagen near Cologne (Germany).

"TODAY WE'RE DEMONSTRATING THAT WE CAN USE THE WASTE GAS CO_2 AS A RAW MATERIAL FOR SPECIFIC MARKET-READY PRODUCTS."
Dr. Karsten Malsch, Covestro

On this cold, damp December day, it's business as usual – with one small difference. Rain and temperatures barely above zero have brought traffic to a standstill in North Rhine-Westphalia in the west of Germany. Udo Küppers turns up the heating in the driver's cab of his truck. It's all in a day's work for him. Küppers, who lives in Cologne (Germany), has been transporting precursors and intermediates for plastics all over Europe for the past 30 years. Every year he covers more than 70,000 kilometers, the equivalent of almost two circuits of the globe.

Another 1,000 kilometers will be added on his next trip from Chempark Dormagen to the small Swedish town of Gislaved. He has driven to more unusual places in the past, but this particular job is anything but routine. That's because of today's freight: Udo Küppers' tank truck is about to be loaded with a precursor for flexible foam made partly from CO_2. The greenhouse gas is about to make its global debut as a raw material.

Project manager Dr. Karsten Malsch is waiting at the filling station in Dormagen, clad in a thick jacket. The rain is pattering onto his safety helmet, and white clouds of breath are billowing from his mouth and nose. Although the conditions are far from ideal, he is determined not to miss the moment when the first truckload of foam components containing CO_2 leaves Covestro's new plant – the first of its kind anywhere in the world. "We've worked a long time for this moment. Today we're demonstrating that we can use the waste gas CO_2 as a raw material for specific market-ready products."

Substitute for crude oil

The day's events in Dormagen mark a huge advance for the chemical industry, which continues to be based predominantly on fossil raw materials such as crude oil. Plastics production accounts for between four and six

A professional consultation: Covestro researcher Dr. Christoph Gürtler (left) and university professor Walter Leitner inspect a foam sample made from CO_2 at the CAT Catalytic Center in Aachen (Germany).

percent of the entire annual output of crude oil. But oil supplies are limited: oil extraction and processing consume vast amounts of energy and generate emissions on a grand scale.

Scientists have consequently been working on alternatives for several decades. Solutions based on renewable raw materials such as sugar and starch have hitherto been considered the most promising and now account for a 13 percent share in the German market (see “Coating made from maize”). But the current focus is increasingly on CO_2: like oil, it contains carbon – the chemical symbol for which is “C”. Carbon forms the basis for all life on earth and is also the most important building block for plastics. The benefits of using CO_2 are evident: unlike oil, it is available in almost unlimited quantities.

The solution – filtering waste gas to harness the “C” in CO_2 – would appear to be an obvious one, but what sounds simple is in fact complex, particularly since carbon dioxide, as an end product of combustion, is extremely inert and slow to enter into combinations with other materials. For over fifty years, researchers from around the globe have tried unsuccessfully to achieve a real breakthrough in terms of its technical exploitation.

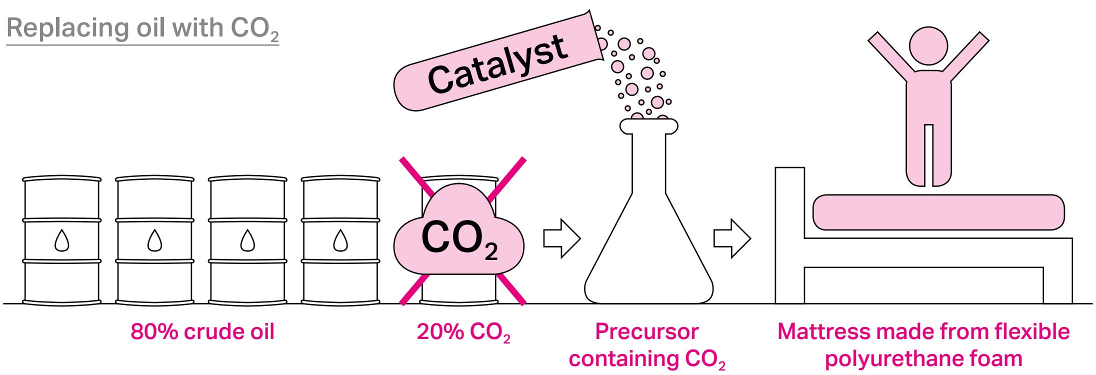
A research problem solved

“A high-energy partner is required in order to be able to use the CO_2 efficiently – and the linking of this mismatched pair must be steered precisely in the right direction,” says Walter Leitner, Professor of Technical Chemistry and Petrochemistry at RWTH Aachen University. “Otherwise, more CO_2 is ultimately emitted than can be harnessed and there’s no positive sustainable effect.” For this reason, the idea was long dismissed as a fascinating flight of fancy, filed away for future reference.

Then, in 2008, Covestro joined forces with RWTH Aachen University to cut the Gordian Knot. To this end, the two partners established the CAT Catalytic Center in Aachen (Germany). Its laboratories and technical service centers are used to conduct basic application-oriented research, and they have now become a place where young scientists from around the globe work to develop building blocks and processes for the polymer industry.

“First we had to find a suitable catalyst to trigger and control the reaction without much energy input,” explains Dr. Christoph Gürtler, Head of Catalysis Research at Covestro. The search for the ‘needle in the haystack’ got underway. Hundreds of laboratory experiments were conducted before a promising zinc-based candidate emerged. It was the long-awaited eureka moment: “The catalyst had the desired effect, and we knew we’d succeeded,” recalls Gürtler. →

Replacing oil with CO_2

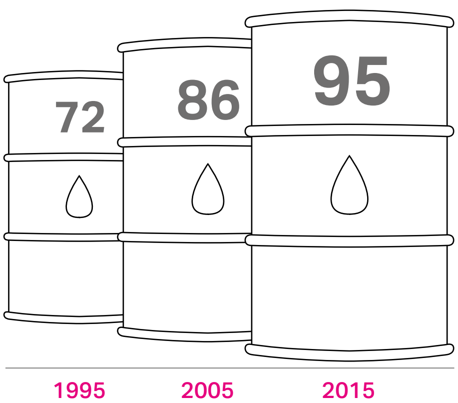


Thanks to the right catalyst and a new process, the greenhouse gas CO_2 has become a useful raw material. It now makes up 20% of a precursor for flexible polyurethane foam produced by Covestro: the foam is subsequently used to manufacture products such as mattresses.

Industrial production: Covestro can manufacture 5,000 metric tons of CO_2-based polyol a year in these new facilities in Dormagen, Germany. The plant is dominated by the custom-built chemical reactor weighing 25 metric tons.

Global oil consumption

in millions of barrels per day



Crude oil consumption is increasing even though oil supplies are limited. It is therefore important that the chemical industry develops new resources.

Source: BP Statistical Review of World Energy 2016

This catalyst is now used in the manufacture of polyol, a precursor for polyurethane foam with a CO_2 content of around 20 percent – and the reason why Udo Küppers has driven his truck to Dormagen on this momentous day. This 20 percent also represents the amount of crude oil saved. Life-cycle analyses have shown that the new raw material is also associated with an overall reduction in energy requirements and lower CO_2 emissions. The carbon footprint of the process is over 15 percent better than that of the entirely oil-based conventional manufacturing process.

This represented a real breakthrough for the plastics industry – and a breakthrough in the transition to the use of alternative raw materials. The next milestones soon followed. At the start of 2011, a pilot plant came on stream at Covestro's headquarters in Leverkusen (Germany), enabling large quantities of the CO_2-based polyol – a transparent, viscous chemical – to be manufactured and tested for the first time.

High quality

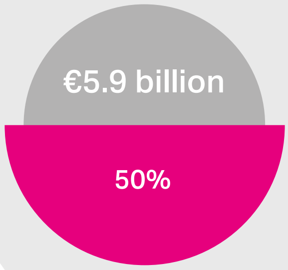
The new product has been highly successful: "The quality of our innovative polyols was outstanding from the outset," reports Gürtler. The same can be said of the material produced from them: flexible polyurethane foam designed especially for use in mattresses and upholstered furniture. A proven material for decades (see "Comfort and efficiency"), the only difference now is that it is made in part from CO_2 instead of crude oil.

Rigid polyurethane foam is one of the world's best insulating materials and is used in refrigerators as well as other products.

Comfort and efficiency

The PUR segment

Carbon dioxide as a replacement for crude oil: polyurethanes are being reinvented yet again in their 80-year history. Covestro manufactures the key components isocyanates and polyether polyols – the raw materials for rigid and flexible polyurethane foam – in its biggest segment, Polyurethanes (PUR).



Flexible foam is used primarily to make products such as mattresses, car seats and upholstered furniture more comfortable, while rigid polyurethane is one of the best insulating materials. It delivers great energy efficiency as an insulator in refrigerators as well as residential and industrial buildings. Products such as these helped the segment achieve sales of around €5.9 billion in 2016, making up 50% of the Group total.

"THE USE OF CARBON DIOXIDE AS A RAW MATERIAL IS AN IMPORTANT STEP AS WE MOVE TOWARD A SUSTAINABLE FUTURE." Thomas Rachel, German Federal Ministry of Education and Research

The next milestone came in mid-2016 with Covestro's launch of industrial production at its custom-built Dormagen plant. A big Covestro team consisting of engineers and production experts took around two years to construct this gigantic labyrinth of valves, pipes, fittings and tanks.

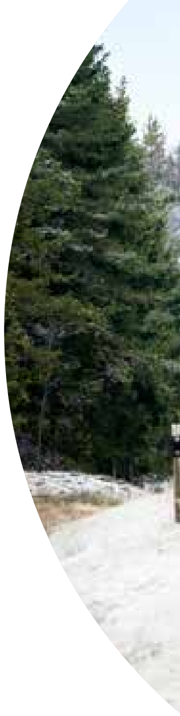
Up to 5,000 metric tons of the new polyol, marketed by Covestro under the brand name cardyon™, can be manufactured there every year. One reason for choosing the plant in Dormagen was that CO_2 is readily available as a waste product produced by a neighboring chemical company. This plant on the Rhine is one of four major Covestro sites in Europe – a key region for the company alongside Asia and North America.

The prospects extend far beyond the Dormagen plant, however. The positive effects of the new technology increase exponentially when it is scaled to world-scale format – that is, annual production capacity of 100,000 metric tons and more – and used to manufacture various additional products. "These could well be the next steps," says project manager Malsch. "We can also imagine licensing the technology to other companies, enabling them to use CO_2 as an alternative raw material too."

Contribution to sustainability

This would act as a major lever for the entire chemical and plastics industry, boosting its sustainability. On the one hand, the sector uses comparatively large amounts of energy and raw materials, so innovative technologies that save electricity, gas, oil, water and emissions would have a particularly strong knock-on effect. On the other hand, chemistry forms the starting point for numerous value chains and its products influence many important downstream sectors.

The political world has also recognized this potential: the European Union in particular promotes and demands sustainable technologies and places them high on its agenda with projects such as "enCO$_2$re" (enabling CO_2 re-use). Universities throughout Europe are working on such schemes alongside Covestro. →



Biomass as a further alternative to crude oil

Coating made from maize

Making direct use of CO_2 as a raw material is just one of the approaches followed by Covestro with a view to reducing its dependence on fossil raw materials such as crude oil, and making its products as sustainable as possible. The company is working intensively on the use of plant biomass, which contains CO_2 absorbed by plants via photosynthesis during growth.

Covestro's portfolio includes a coating hardener with a biomass-based carbon content of 70 percent. It is derived from fodder maize, which is not in direct competition with the production of human foodstuffs. This new bio-based material, which can be used in vehicle coatings, among other things, is qualitatively just as good as conventional products based on crude oil and has a lower CO_2 footprint for good measure.

We spoke to Dr. Natalie Bittner, a researcher into new technologies at Covestro:

How important are alternative raw materials in the chemical industry?
The chemical and plastics industry continues to be based largely on petrochemical feedstocks. Thanks to efficient processes, new technologies and the use of alternative raw materials such as biomass and CO_2, we can save on fossil fuels, reduce emissions and improve our energy footprint, thereby helping to conserve our planet.

What is the benefit to customers?
Manufacturers who use bio-based products such as those from Covestro can improve their CO_2 footprints significantly and position themselves in the market as pioneers for sustainable materials.

What is Covestro's long-term goal?
We want to lead the way in the field of alternative raw materials. It is already theoretically possible to use biomass to produce basic raw materials that are critical to our needs. We also want to reduce our dependence on fossil resources even more and make our processes more efficient. We are already in the process of identifying innovative solutions for all of these things.

With its energy revolution and its phase-out of nuclear power, Germany is certainly not lagging behind when it comes to ambition. "The use of carbon dioxide as a raw material is an important step as we move toward a sustainable future. The German Federal government is promoting it with a view to expanding the chemical industry's raw material base and opening up new avenues to sustainability," emphasized Thomas Rachel, State Secretary from the German Federal Ministry of Education and Research, which closely supports Covestro's activities in this field.

Initiatives such as 'Carbon2Chem', which aims to use emissions from steel production in the manufacture of chemicals, demonstrate the scale of the topic. It is hoped that 20 million metric tons of such emissions will be usable in chemical processes like Covestro's in the future, thereby making the German steel industry sustainable. Universities and a number of major German companies, including Covestro, of course, are collaborating to bring this about.

The topic of alternative raw materials also plays an important role in customer industries. For instance, RECTICEL, a leading manufacturer of polyurethane comfort products in Europe, followed Covestro's research on the use of CO_2 with great interest: "We have carried out an intensive joint evaluation which confirmed that this new raw material could be manufactured in large quantities and to a quality that satisfied our requirements," says Jan Löfving, who is responsible at RECTICEL for the Nordics and Asia. "We didn't hesitate to get involved, since sustainable innovations like this one are exactly what our group strategy is about."

Driving through the forests of Sweden: the truck with the CO_2-based Covestro product en route to the RECTICEL plant in Gislaved, which manufactures polyurethane foam used in mattresses. This process starts with a liquid, coming from a mixing head.

"WE PUT SUSTAINABILITY AT THE CORE OF ALL OUR ACTIVITIES. COVESTRO'S NEW CO_2-BASED POLYOL PERFECTLY FITS INTO OUR SUSTAINABLE INNOVATION STRATEGY." Jan Löfving, RECTICEL

Behind him, blocks of foam are being transported on long conveyor belts stretching through a vast hall in the high-tech RECTICEL works at Gislaved. They will be cut, portioned, molded, pulled apart, assembled, covered and packaged – partly fully automatically, partly by hand – before being shipped all over the globe as mattresses.

Producing mattress foam from CO_2 is just the first step for Covestro. The company's ambitions go much further: the carbon dioxide content of precursors will be increased where that makes sense. Elastomers with a 25 percent CO_2 content have already been produced in laboratory trials, for instance. "It's always a balancing act," says catalysis expert Gürtler. "We have to make sure that the quality of the end product is not impaired and that the process doesn't become uneconomical."

Extending the product range

The company plans to manufacture more and more products using CO_2, above and beyond flexible foam. Elastomers, for example, can be used to produce seals and hoses for use in automobiles. Another promising development is the use of CO_2 in the manufacture of rigid and molded polyurethane foam. The latter is used in car seats, while rigid foam is an excellent insulating material for buildings and refrigerators alike.

So CO_2 appears to be well on the way to becoming an all-around plus in the plastics industry. Following the company's initial success with its polyol flexible foam, everyone is working hard to achieve this objective: Christoph Gürtler and Karsten Malsch in Leverkusen, Professor Leitner and his fellow researchers at the CAT Catalytic Center in Aachen, and dozens of other chemists, laboratory workers, engineers and enthusiasts from numerous other disciplines the world over.

And let's not forget Udo Küppers, who is still driving his truckload of CO_2 polyol through Sweden as dawn starts to break. The darkness is slow to recede as he trundles along on almost deserted roads lined on both sides by glistening frost-covered forests. Just as the sun emerges from behind the steel-gray clouds, Küppers reaches his destination – RECTICEL in Gislaved. His truck is unloaded a couple of hours later, and soon afterwards the first mattress containing CO_2 rolls off the production line. Greenhouse gas as a useful raw material – it's a dream come true at long last.

Dr. Richard Pott heads Covestro's twelve-member Supervisory Board, which advises and oversees the Board of Management.

Dear Stockholders,

During the reporting period, the Supervisory Board of Covestro AG performed its duties with due care in accordance with the law, the Articles of Incorporation, and the rules of procedure. During fiscal 2016, it monitored the conduct of the company's business by the Board of Management on a regular basis with the aid of detailed written and oral reports received from the Board of Management, and also acted in an advisory capacity. The discussions between the Supervisory Board and Board of Management were always constructive and were always conducted in the spirit of openness and trust.

The Supervisory Board Chair was in regular contact with the Board of Management outside of Supervisory Board meetings and remained informed about current developments regarding the company's business performance and material transactions. In addition, the Chair of the Supervisory Board was in close contact with the Chair of the Board of Management to discuss important questions and decisions one on one. The full Supervisory Board was informed in detail about the content of these discussions no later than during the next meeting. In this way the Supervisory Board was kept continuously and fully informed about the company's intended business strategy, corporate planning (including financial, investment, and human resources planning), earnings performance, the state of the business, and the situation in the company and the Group (including the risk situation, risk management, and compliance).

Where Board of Management decisions or actions required the approval of the Supervisory Board during the reporting period, whether by law, or under the Articles of Incorporation or the rules of procedure, the draft resolutions were inspected and thoroughly discussed by the members at the meetings of the full Supervisory Board, sometimes after preparatory work by the committees, or approved on the basis of documents circulated to the members. The Supervisory Board was always directly involved in decisions of material importance to the company. It discussed at length the business trends described in the reports from the Board of Management and the prospects for the development of the Covestro Group as a whole, the individual business areas, and the regions. The Supervisory Board also assured itself that the actions of the Board of Management were lawful, due and proper, and appropriate.

Changes to the composition of the Supervisory Board during the fiscal year

Michael Mostert stepped down from the Supervisory Board on September 27, 2016. By way of a resolution dated September 12, 2016, the Local Court of Cologne appointed Frank Werth as his successor with effect from September 28, 2016.

Meetings of the full Supervisory Board and member attendance

In fiscal year 2016, the Supervisory Board held a total of four regular meetings, which were also attended by all members of the Board of Management except where issues were discussed that required them to be absent.

The average attendance rate by Supervisory Board members at the meetings of the full Supervisory Board and of its committees held in 2016 was over 90%. No member of the Supervisory Board attended fewer than half of the meetings of the full Supervisory Board and of the committees to which they belonged.

Specifically, attendance at the meetings of the Supervisory Board and its committees by the members of the Supervisory Board was as follows:

Name	Meeting attendance (including committee meetings)	Attendance rate (%)
Dr. Richard Pott (Chair)	11/11	100
Ferdinando Falco Beccalli	3/4	75
Dr. Christine Bortenlänger	4/4	100
Johannes Dietsch	10/11	91
Dr. Thomas Fischer	7/7	100
Peter Hausmann	7/8	87
Petra Kronen (Vice Chair)	11/11	100
Irena Küstner	6/8	75
Michael Mostert (until September 27, 2016)	2/2	100
Prof. Dr. Rolf Nonnenmacher	7/8	87
Regine Stachelhaus	4/4	100
Sabine Wirtz	4/4	100
Frank Werth (since September 28, 2016)	2/2	100
Average attendance rate		**93**

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

Continuing education was a key component of the activities of the Supervisory Board and its members during the reporting period. Highlights were a two-day informational event on the topics of production and innovation in the Group's various business units, and a training session for Supervisory Board members on corporate governance and compliance in the context of the entry into force of the new Market Abuse Regulation.

Principal topics discussed by the Supervisory Board

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

At its meeting on February 22, 2016, the Supervisory Board addressed the financial statements of Covestro AG and the consolidated financial statements of the Covestro Group for fiscal 2015, the proposal for the use of the distributable profit, as well as the agenda for the 2016 Annual Stockholders' Meeting. In addition, the Supervisory Board reviewed the risk report, which sets out the most significant risks for the Group and current developments in this connection, as well as the relevant countermeasures. The organization, processes, and effectiveness of the Group-wide compliance management system were also discussed. Finally, the Supervisory Board set the variable compensation for the members of the Board of Management for fiscal 2015 based on target attainment.

The Supervisory Board meeting on May 3, 2016 focused on the upcoming first Annual Stockholders' Meeting of Covestro AG.

At its meeting on September 29, 2016, the Supervisory Board primarily dealt with questions on the status of the strategy development and Board of Management matters, with a particular focus on the structured creation of a process for filling Board of Management positions in the future.

At its meeting on December 8, 2016, the Supervisory Board discussed at length the review on the appropriateness of Board of Management compensation including long-term compensation for the period 2017–2020. After detailed examination, the Supervisory Board also approved the 2017 budget proposed by the Board of Management as well as the financial planning presented for the years 2018 and 2019. The Supervisory Board additionally approved the proposed financial framework for fiscal 2017. Furthermore, the Supervisory Board addressed in depth the proposal submitted by the Audit Committee concerning the appointment of the auditor for fiscal 2018. Finally, the Supervisory Board resolved to submit an unqualified declaration of conformity with the German Corporate Governance Code and to initiate the first efficiency audit of its work in 2016.

Committees of the Supervisory Board

In the past fiscal year, the Supervisory Board once again had four committees set up for the purpose of exercising its duties efficiently. The committees prepared resolutions by the full Supervisory Board and provided information on other topics to be discussed by this body. Moreover, certain decision-making powers of the Supervisory Board were assigned to the committees to the extent legally permissible. The Supervisory Board currently has a Presidial Committee, an Audit Committee, a Human Resources Committee, and a Nominations Committee. The tasks and responsibilities of the committees are described in greater detail in "Corporate Governance" and "Committees of the Supervisory Board." The current composition is shown in the "Further Information" section under "Governance Bodies."

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

In 2016, the **Presidial Committee** was not required to convene in its capacity as the mediation committee.

The **Audit Committee** held four meetings in 2016. The Chief Financial Officer was present at each meeting. Auditor representatives attended two of the four meetings and reported in detail on the audit of the financial statements of Covestro AG and consolidated financial statements of the Covestro Group as well as the review of the half-yearly financial report. The auditor declared to the Audit Committee that no circumstances exist that could lead to the assumption of prejudice on their part. The Audit Committee obtained the required statement of independence of the auditor, reviewed its qualification, and issued a corresponding recommendation to the Supervisory Board concerning the appointment of the auditor for fiscal 2016 at the 2016 Annual Stockholders' Meeting. Other areas of focus were as follows:

At its meeting held on February 19, 2016, the Audit Committee addressed the consolidated financial statements of the Covestro Group and the financial statements of Covestro AG, including the proposal for the use of the distributable profit and the remaining sections of the annual report for fiscal year 2015. It also discussed at length the report by Corporate Audit, significant legal cases and current compliance issues, as well as the review on the effectiveness of the accounting process, the internal control system, and the risk management system.

As at every meeting, the latest quarterly financial statements, the report by Corporate Audit, as well as the company's risk and compliance situation were discussed in detail at the meeting on April 22, 2016. The committee also addressed the tax situation as well as the Group's tax strategy. Finally, the Audit Committee discussed the tender process for the financial statement audit for fiscal 2018.

Alongside the regular agenda items, the meeting held on July 25, 2016 mainly dealt with the future areas of focus for the audit taken from the updated risk analysis, as well as the effectiveness and quality of the financial statement audit. The Audit Committee also noted the result of the audit of the 2015 financial statements and consolidated financial statements as well as the accompanying Group management report for fiscal 2015 performed by the Financial Reporting Enforcement Panel (FREP). The responsible FREP chamber did not identify any accounting errors for fiscal 2015. In addition, the Audit Committee again addressed the tender for the financial statement audit for fiscal 2018.

At its meeting on October 24, 2016, the Audit Committee discussed current financial reporting and risk management, the audit findings and audit planning presented by Corporate Audit, and legal and compliance issues. Finally, it also addressed the results of the tender for the financial statement audit and formulated a proposal for the election of the auditor for fiscal 2018.

In the interest of continual dialog and information exchange, the Chair of the Audit Committee was in regular contact with the Chief Financial Officer, and also met twice with the auditor and the head of Corporate Audit outside of committee meetings.

The **Human Resources Committee** held a total of three meetings in the reporting year on February 22, September 29, and December 8, 2016. The individual meetings addressed questions relating to target attainment by members of the Board of Management, the development of a process for filling Board of Management positions in the future, Board of Management compensation, the organization of the Board of Management, as well as human resources development for Covestro's senior management.

The **Nominations Committee** did not meet in 2016.

Financial statements/audits

The financial statements of Covestro AG were prepared according to the requirements of the German Commercial Code (HGB) and Stock Corporation Act (AktG). The consolidated financial statements of the Covestro Group were prepared according to the German Commercial Code and the International Financial Reporting Standards (IFRSs) as adopted by the European Union (EU). The combined management report was prepared according to the German Commercial Code. The auditor, PricewaterhouseCoopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft, Essen, has audited the financial statements of Covestro AG, the consolidated financial statements of the Covestro Group, and the combined management report. The conduct and results of the audit are explained in the auditor's reports. The auditor finds that Covestro has complied, as appropriate, with the German Commercial Code, the German Stock Corporation Act and/or the IFRS regulations as adopted by the EU, and issues unqualified opinions on the financial statements of Covestro AG and the consolidated financial statements of the Covestro Group. The financial statements of Covestro AG, the consolidated financial statements of the Covestro Group, the combined management report, and the audit reports were submitted to all members of the Supervisory Board. They were discussed in detail by the Audit Committee and at a meeting of the full Supervisory Board. The auditor submitted a report on both occasions and was present during the discussions.

The Supervisory Board examined the financial statements of Covestro AG, the proposal for the use of the distributable profit, the consolidated financial statements of the Covestro Group, and the combined management report. It had no objections and thus concurred with the result of the audit.

The Supervisory Board approved the financial statements of Covestro AG and the consolidated financial statements of the Covestro Group prepared by the Board of Management. The financial statements of Covestro AG are thus confirmed. The Supervisory Board is in agreement with the combined management report and, in particular, with the assessment of the future development of the enterprise. It also concurs with the dividend policy and the decisions concerning earnings retention by the company. It assents to the proposal for the use of the distributable profit, which provides for payment of a dividend of 1.35 euro per share.

Audit of the related parties report by the Board of Management

As of the end of fiscal 2016, Bayer AG held around 64% of the shares in Covestro AG. There is no control and/or profit and loss transfer agreement between the two companies. For this reason, the Board of Management prepared a report on the company's relationships with related companies in fiscal 2016 in accordance with Section 312 of the German Stock Corporation Act (related parties report) and submitted this to the Supervisory Board in a timely manner. The related parties report was audited by the company's auditor, which issued the following report in accordance with Section 313, Paragraph 3 of the German Stock Corporation Act:

"In accordance with our mandate, we have audited the report by the Board of Management pursuant to Section 312 of the German Stock Corporation Act in respect of the relationships with related companies in accordance with Section 313 of the German Stock Corporation Act for the period from January 1 to December 31, 2016. Since the definitive result of our audit led to no reservations, we hereby issue the following report in accordance with Section 313, Paragraph 3, Sentence 1 of the German Stock Corporation Act:

After due consideration and assessment, we confirm that

1. the actual information in the report is correct, and
2. the company's consideration in the legal transactions described in the report was not inappropriately high."

The related parties report and the auditor's report were submitted to the Audit Committee and the Supervisory Board for their review. No objections were raised as a result. There were also no objections to the declaration by the Board of Management at the end of the related parties report. It concurred with the result of the audit of the related parties report conducted by the auditor.

Corporate governance and declaration of conformity

During the reporting year, the Supervisory Board again addressed the German Corporate Governance Code in depth and, together with the Board of Management, submitted an unqualified declaration of conformity in accordance with Section 161 of the German Stock Corporation Act in December 2016 based on the Code as amended on May 5, 2015, and unchanged as against 2016. The declaration of conformity was subsequently made permanently available to stockholders on the company's website.

Expression of appreciation for the Board of Management and employees

The Supervisory Board would like to thank the Board of Management and all employees for their outstanding dedication and hard work in 2016. We wish you success on our company's future path toward growth.

Leverkusen, February 17, 2017

For the Supervisory Board

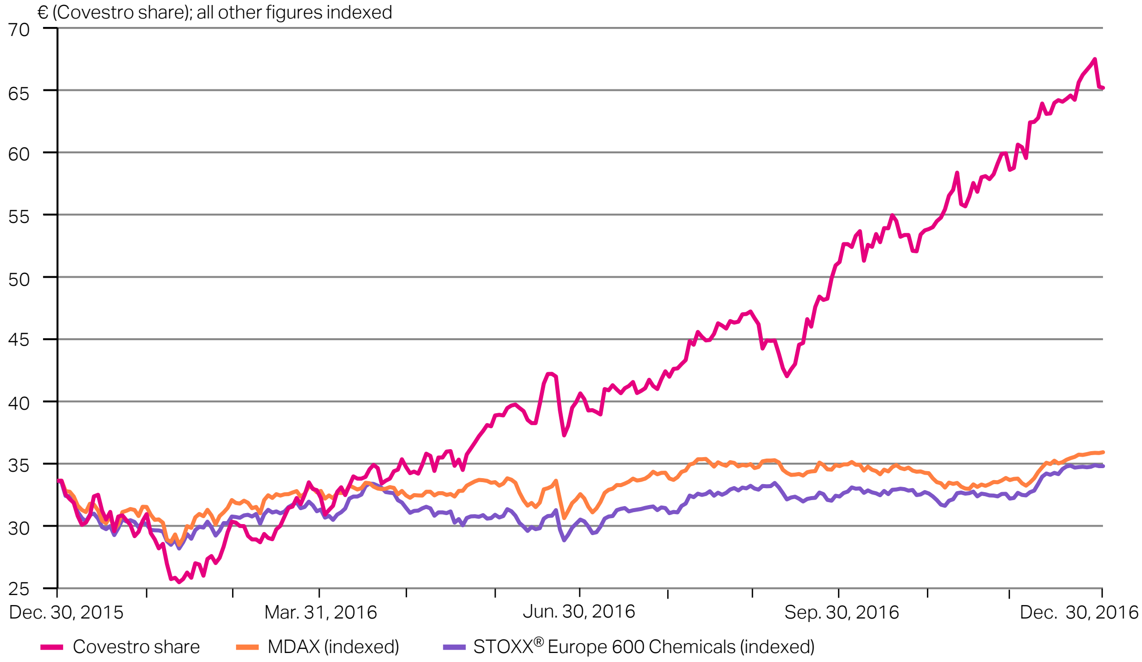
Dr. Richard Pott

Chair

COVESTRO ON THE CAPITAL MARKET

Covestro on the Capital Market

Performance of Covestro Stock Versus Market in Fiscal Year 2016



Covestro closing price Xetra®; source: Bloomberg

Stock price nearly doubled

Covestro's first full year on the stock market was very successful. The company's stock finished the year at a Xetra® closing price of €65.18, falling just below the high for the year of €67.50 reached shortly before that on December 28, 2016. The low for the year was a closing price of €25.48 on February 11, 2016. This represents a gain in 2016 of +93.8% over the 2015 closing price of €33.64. Including the dividend of €0.70 per share paid out in May 2016 this represents a stock performance (with dividend reinvestment) of +97.7% for the year as a whole.

At the end of the reporting year, Covestro's market capitalization stood at €13.2 billion. The average daily trading volume was around 0.5 million shares. In the MDAX ranking, the company therefore came in 6th in terms of trading volume and 11th in terms of market capitalization at year-end 2016. At the end of 2015, Covestro ranked 29th and 23rd, respectively.

The Board of Management and the Supervisory Board of Covestro AG will propose a dividend of €1.35 per share to the Annual Stockholders' Meeting on May 3, 2017. This represents a dividend yield of 2.1% based on the closing price for Covestro stock on December 30, 2016.

Inclusion in additional international stock indices

After being included in the MDAX stock index in 2015, the company was added to the STOXX® Europe 600 index family and corresponding sector indices as of April 1, 2016, to the MSCI Global Standard Germany index on June 1, 2016, and to the FTSE Global Equity Index Series as of June 20, 2016. Covestro is therefore featured in key German and international stock indices of major importance for many equity funds and investors. In December 2016, Covestro qualified for inclusion in the FTSE4Good global sustainability index. Participation in these indices makes Covestro's stock even more visible to international investors.

Sponsored American depositary receipt (ADR) program launched

Launching a Level 1 sponsored ADR program will make it easier for Covestro to provide global investors access to its stock. The Covestro ADR has been traded under the symbol COVTY on the U.S. OTC market since December 1 2016. This allows the company to contact registered depositary receipt investors directly. Financial services provider Bank of New York Mellon was named the depositary bank for the sponsored ADR program.

Successful bond placement

Covestro was also able to raise its profile for a broad group of investors on international debt capital markets. In the first quarter of 2016, the company set up a "debt issuance programme" and successfully placed its first bonds totaling €1.5 billion on March 3, 2016.

Balanced analyst coverage

In 2016, a number of additional financial analysts decided to cover Covestro stock for a total of 19 investment firms reporting on the company's stock at the end of the year. A buy recommendation was issued by seven analysts, five gave neutral assessments, and seven advised investors to sell. The median share price target was €57 at year end.

Covestro Share at a Glance

Capital stock	€202,500,000
Outstanding shares (closing date)	202,500,000
Market capitalization (closing date)	€13.2 billion
Share class	No-par ordinary bearer shares
ISIN	DE0006062144
WKN	606214
Ticker symbol	1COV
Reuters symbol	1COV.DE
Bloomberg symbol	1COV GY
Market segment	Regulated market
Transparency level	Prime Standard
Sector	Chemicals
Index	MDAX
Dividend per share (paid on May 4, 2016)	€0.70
Year-end closing price (December 30, 2015)	€33.64
Year-end closing price (December 30, 2016)	€65.18
High (December 28, 2016)	€67.50
Low (February 11, 2016)	€25.48
Average daily turnover (millions of shares)	0.5
Stock price performance	+93.8%
Stock price performance (with dividend reinvestment)	+97.7%

Covestro Xetra® closing prices; source: Bloomberg

Combined Management Report of the Covestro Group and Covestro AG as of December 31, 2016

COMBINED MANAGEMENT REPORT

Fundamental Information about the Group

1. Structure

Business model

Covestro is among the leading global suppliers of high-tech polymer materials and application solutions developed for these materials for many areas of modern life. We produce precursors for polyurethane foams and the high-performance plastic polycarbonate in addition to raw materials for coatings, adhesives and sealants as well as specialty products, including high-quality films. Covestro also manufactures precursors such as chlorine and by-products like styrene.

Our products are used in various sectors around the globe, particularly the automotive, construction, wood processing and furniture, and electrical and electronics industries. Other sectors include sports and leisure, cosmetics, health and the chemical industry itself. We closely monitor the industries and segments in which Covestro does business, and work hand-in-hand with customers and other business and scientific partners in developing our products, technologies and application solutions.

Shares in Sales 2016 in our Key Customer Industries

Automotive/ Transportation	Construction	Wood processing/ Furniture	Electrical/ Electronics	Chemicals	Sports/Leisure/ Cosmetics/ Medical and more
					
20%	17%	16%	11%	8%	28%

Key growth drivers in the polymer industry are global challenges such as climate change, increasing mobility, urban expansion, and the resulting increase in awareness of environmental issues. These will lead to higher demand for renewable energies, energy-efficient means of transportation, and sustainable and affordable housing, among other things. Covestro aims to help meet this demand with long-lasting, light, environmentally friendly and cost-effective materials, which in many cases are suitable replacements for conventional materials such as steel and glass.

Organization and sites

The Covestro Group has been legally and financially independent since September 1, 2015. Covestro AG, the parent company of the Covestro Group, is headquartered in Leverkusen (Germany), and has been listed at the stock exchange in Germany since October 6, 2015. As of December 31, 2016, Bayer AG held around 64% of the shares in Covestro AG, and the free float was approximately 36%.

See section 7 "Production"

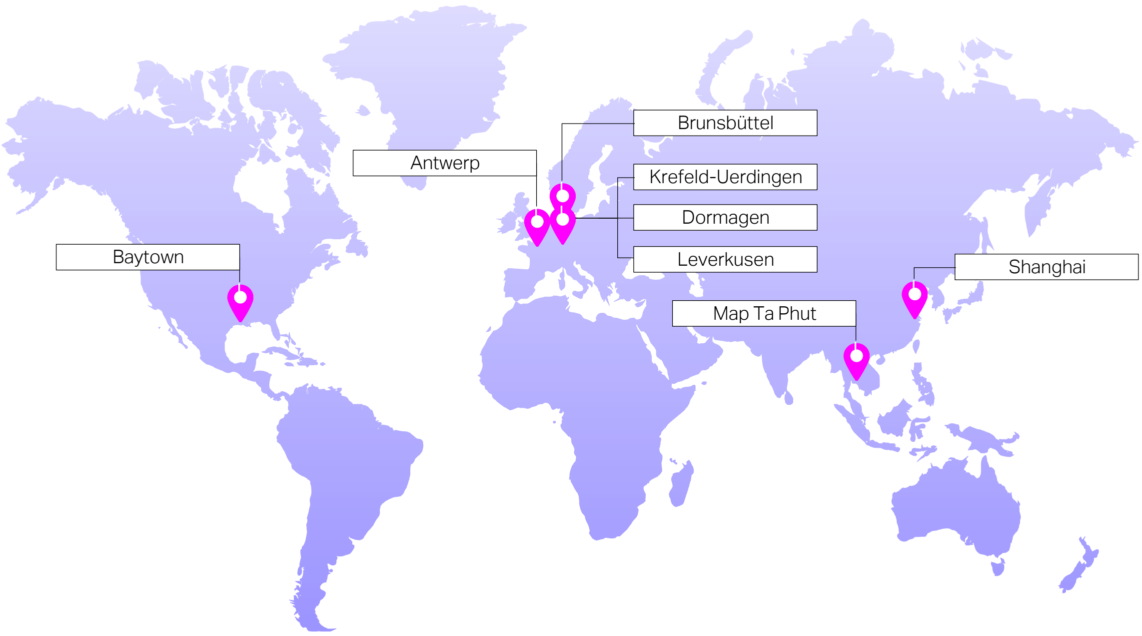
Covestro has around 30 production facilities worldwide. The eight largest sites with world-scale production facilities are located in Germany, Belgium, China, Thailand and the United States. Additionally, there are a number of smaller sites providing tailor-made solutions and services to customers. The company also operates research laboratories, technical service centers and sales offices.

In line with its product portfolio, Covestro is divided into three operational segments: Polyurethanes, Polycarbonates and Coatings, Adhesives, Specialties. There is a central unit in addition to these segments that is home to the administrative functions.

See section 23 "Governance"

The four-member Board of Management of Covestro AG manages the operational businesses and defines and monitors corporate targets. The twelve-member Supervisory Board advises and oversees the Board of Management.

Production Sites of Covestro with World-Scale Facilities



Segments

Polyurethanes

In the Polyurethanes (PUR) segment, Covestro primarily develops, produces and markets three chemical precursors for the manufacture of polyurethane foams and thermoplastic polyurethanes: toluene diisocyanate (TDI), diphenylmethane diisocyanate (MDI) and polyether polyols. Flexible polyurethane foam is used in products such as mattresses, upholstered furniture and car seats, thus making day-to-day life more comfortable. Rigid polyurethane foam is used mostly as an efficient insulating material for buildings and refrigeration appliances. It thus contributes to reducing energy consumption. Thermoplastic polyurethanes are used in diverse product groups such as clothing, mobile electronic devices and sports equipment.

Covestro was one of the top suppliers in the global polyurethane industry once again in 2016. Production is spread across 18 facilities in Europe, America and Asia. In addition, the company has 12 systems houses for supplying customized polyurethane systems.

Polycarbonates

The Polycarbonates (PCS) segment develops, manufactures and markets the high-performance plastic of the same name. Available as granules, composite materials and semi-finished products, this versatile material is used in a wide variety of products such as vehicles, buildings, electrical and electronic devices, and medical equipment.

In 2016, Covestro was again one of the world's top suppliers of polycarbonate. The Polycarbonates segment has five world-scale production facilities in Europe, America and Asia. Polycarbonate-based blends, composite materials and sheets are manufactured at a total of 12 sites.

Coatings, Adhesives, Specialties

The Coatings, Adhesives, Specialties (CAS) segment is among the world's leading suppliers of aliphatic and aromatic isocyanates and their derivatives as well as polyurethane dispersions. These are required for the production of coatings, adhesives, sealants and specialty products. The latter comprise elastomers, high-quality films and raw materials for cosmetics, textiles and medical products. These materials serve to protect, bond, seal or functionalize a wide variety of surfaces. The main areas of application are automotive and transportation, infrastructure and construction, wood processing and furniture.

CAS production is spread across 14 facilities in Europe, America and Asia. In addition, the segment operates nine technical service centers supplying customized solutions.

2. Strategy

Corporate values

Covestro's corporate culture is based on three key values, or C^3, which guide us and are reflected in the thoughts and actions of everyone in the Covestro Group.

Curious

We are proud of our past, but we are not defined by it. We are never comfortable with the status quo or with how we have always done things. Our curiosity drives us to listen to our customers and suppliers and respond with creative and unexpected solutions.

We are responsive to what is happening around us and believe that speed and flexibility will give us an advantage over our competitors. We are open to new ideas and hungry for progress.

Curiosity is the engine that drives us.

Courageous

We look towards the future and see opportunities where others see limitations. Where others ask "why?" we reply "why not?" Our courage permeates our entire business – from partnerships to business models.

We stand on a foundation of knowledge and experience that allows us to act courageously and push the boundaries of innovation.

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

Colorful

In a corporate world that can often be dull and uninspiring, we are colorful. We are optimistic and resourceful and use every color in our palette to create solutions that inspire our customers and partners.

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

We value strong customer, supplier and employee relationships and believe that humanity helps us to create a rainbow of opportunities.

Strategic goals and activities

See section 2 in the GRI Supplementary Report

Covestro creates innovative products, solutions and technologies to help tackle global challenges like climate change, resource scarcity and population growth, and make the world more livable. Our activities must be useful to society and reduce environmental impacts while also creating economic value. We continue to be systematically focused on innovation and sustainability, and on the continuous optimization of production and cost structures.

Utilizing growth potential

Long-term profitable growth is Covestro's stated goal. We expect the segments of the polymer industry in which Covestro does business to continue to grow faster than the global economy in the years ahead. We aim to benefit from this expected industry growth by providing innovative and sustainable projects, technologies and application solutions to meet customer needs.

Promoting sustainability

Sustainability is a key issue that defines operations along the entire value chain – from the procurement of raw materials and energy through production, distribution and sales, to the use of our products and their disposal or recycling. Absolute priority is given to the safety of our processes and the health and well-being of our employees.

Specifically, we have set five long-term goals:

- We want to align our research and development projects to UN Sustainable Development Goals (SDGs).
- In procurement, we aim to ensure that all suppliers fulfill our sustainability requirements as well.
- We plan to further significantly reduce specific greenhouse gas emissions in production.

- We would like our products to improve the living conditions of people in underserved markets in particular.
- We commit to using the element carbon, which is vital for our products, as intelligently as possible so as to derive the greatest possible benefit.

Boosting our innovative capability

Through focused research and development, we aim to maintain and expand our position in the global competitive arena. Accordingly, we make every effort to update our existing products, technologies and solutions, and develop new, related applications. We always make sure that the effects of our activities are sustainable. Moreover, we continually work on improving our production and business processes.

Efficient production

We continuously optimize our plants and manufacturing processes to permanently boost profitability and resource efficiency. This requires taking steps such as regularly reviewing the structure of our production base. In 2016, we decided to reopen a closed plant at the Brunsbüttel site in Germany that had manufactured the flexible foam precursor TDI and retool it for production of MDI. This will approximately double the capacity for this rigid foam component there. We are also continually working on improving the efficiency, safety and environmental friendliness of our facilities and plants by implementing measures to enhance processes and organization.

See section 7 in the GRI Supplementary Report

Competitive costs

Covestro is continuously working to improve efficiency and effectiveness across the company and thus ensure competitive cost structures. It is our goal to continue to rank among the cost leaders in our industry sector. We aim to achieve this, for example, by operating state-of-the-art production facilities that use resources efficiently and by further improving our service functions and IT infrastructure.

Segments

Polyurethanes

In the Polyurethanes (PUR) segment, our aim is to profit from the continued demand for polyurethanes, which is expected to grow at an above-average pace compared with the global economy, by supplying the required raw materials. In particular, a strong presence in strategically important core markets such as the construction industry and in application areas not yet fully developed (e.g., wind energy) will contribute to accelerating growth.

Moreover, with a view to increasing efficiency, Covestro is constantly examining opportunities for collaborating with other companies and for further optimizing production plants and sites. Since the segment's products are largely standardized, cost management, product and process innovation, and business model development are critical.

Polycarbonates

With its extensive applications expertise and global focus, the Polycarbonates (PCS) segment is in a good position to benefit from further demand for polycarbonates. We expect this market to grow faster than the global economy.

Covestro is seeking to further extend its technological leadership in polycarbonates, particularly with a view to growing in high-end customer and application segments. Innovative fiber-reinforced composite materials are one focus here. At the same time, the segment is optimizing its production processes in order to maintain its very good cost position.

Coatings, Adhesives, Specialties

In the Coatings, Adhesives, Specialties (CAS) segment we aim to secure and build our position in the main area of business: the production of raw materials for coatings and adhesives. To this end, we are working to achieve the highest possible level of vertical integration, customer-centric innovation and selective capacity expansions.

In the specialties business, we are targeting accelerated growth on the basis of our strong technological expertise and our formulation know-how, which allow us to develop new applications for our materials.

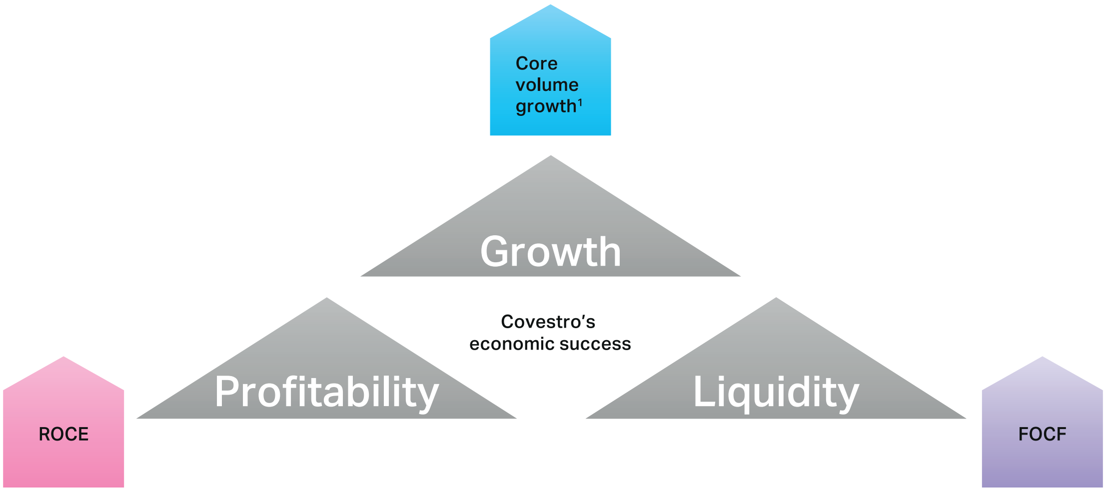
3. Management

Our management system is aligned with our corporate goal of growing profitably for the long term. The Board of Management, the main decision-maker for the company, is responsible for our global business and approving the planning derived from our corporate strategy. In order to plan, steer and monitor the development of our business, we use steering parameters which enable a comprehensive and holistic evaluation of the company's business performance.

Business performance

The Covestro Group assesses business performance using key management indicators in the areas of growth, profitability and liquidity. Growth of the Covestro Group is also measured in terms of core volume growth[1]. In contrast to sales, this indicator is less influenced by raw material prices or currency effects.

Covestro's Key Management Indicators



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

Income after income taxes plus financial result, income tax expense, and depreciation and amortization (EBITDA) is the other indicator used to assess the operating profitability of Covestro and its reporting segments. If the results contain expenses and income classified as special items, the figure will be adjusted for these effects. This gives a clear picture of the results of operations which is comparable over time.

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

These management metrics also come into play in the Group's bonus system which applies uniformly to all staff – from the Board of Management to employees under collective bargaining agreements. The three factors of growth, profitability and liquidity each account for one-third of the final assessment and bonus calculation

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

formula. As a result, all employees whose personal efforts contribute to Covestro's overall positive performance can share in the company's success.

Sustainability management

Sustainability is an integral part of the Group's strategy and governance. We want to do our part to preserve the environment (planet) and advance society (people), while creating economic value (profit). These three pillars of sustainable development – people, planet, profit – are the foundation of many activities and processes as well as our relationship with our stakeholders. To underscore its identity as a sustainably operating company, in September 2015 Covestro signed up to the UN Global Compact and adopted its ten internationally recognized principles. A progress report was submitted in August 2016. We are also committed to the industry-led Responsible Care initiative and are involved in global sustainability forums such as the World Business Council for Sustainable Development (WBCSD). Once a year, we issue a report following a recognized sustainability reporting standard by providing supplementary sustainability information in a separate publication in addition to this Annual Report.

Our principles are enshrined in internal policies and guidelines. They provide concrete guidance on important issues such as value creation, sustainability, innovation, people, compliance, and health, safety, environment and quality (HSEQ). These policies and guidelines embody Covestro's commitment to developing solutions that are of value for all stakeholders, promoting sustainable development, advancing innovation, motivating staff, and creating an attractive workplace for talented employees. Moreover, we strive to continually improve our occupational safety and health, environmental performance, energy efficiency and quality activities while strictly adhering to all legal requirements and voluntary commitments.

These policies also include a code of conduct for suppliers and important guidelines for protecting human rights. Based on HSEQ policy, an integrated management system was implemented throughout the Group in compliance with internationally recognized standards governing occupational safety (OHSAS 18001), the environment (ISO 14001), energy (ISO 50001) and quality (ISO 9001). Global and local operating procedures for the relevant processes implement our policies at the operations level throughout the company and are accessible to all employees on the Covestro intranet.

Strategic alignment

In the first half of 2016, Covestro presented a new set of goals for the entire Group to be achieved by 2025. These goals are aligned with the sustainability agenda and corporate values. In addition, important topics of the integrated management system like key environmental factors are continually analyzed both globally and regionally. In the HSEQ units, targets are agreed and regularly reviewed using defined performance indicators. Based on the results, action plans and measures are updated to enable further improvements.

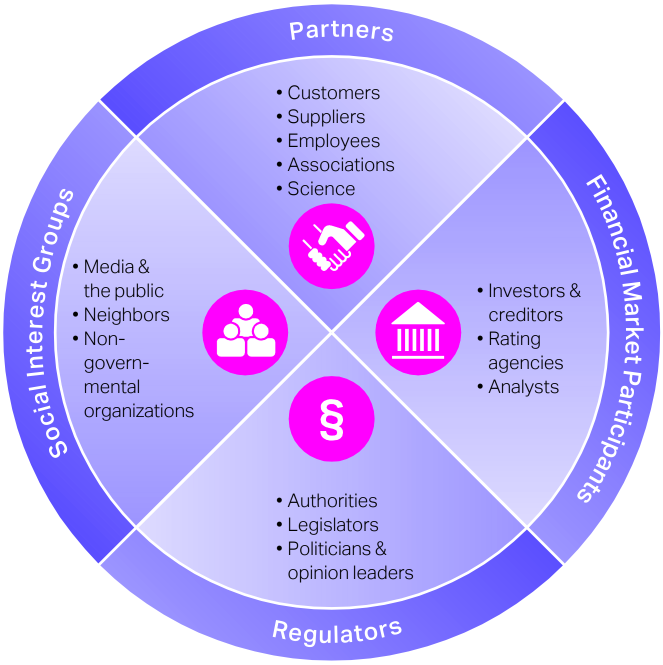
See section 2 in the GRI Supplementary Report

Binding Group regulations aimed at meeting HSEQ targets are accessible to all employees in an internal Group database. Compliance with these Group regulations is checked during internal audits conducted annually. In addition, issues and action plans as well as target achievement are monitored in a management review.

Our stakeholders evaluate the company not only in terms of legal aspects but also with regard to behavior in line with sustainable and ethical principles. Our stakeholders are our business partners, with whom we work closely on a daily basis; financial market participants, who judge our performance; regulators, with whom we discuss changes in our company and in the legal framework within which we operate; and societal stakeholders, whose acceptance and interest in the company is necessary for us. We continually analyze the interests, expectations and requirements of our key stakeholders (materiality analysis) to identify major sustainability issues for our target program.

See sections 3 and 12 in the GRI Supplementary Report

Covestro's Main Stakeholders



In 2016, the materiality analysis identified the following sustainability issues as particularly vital to Covestro:

- Innovations
- Product stewardship
- Attractivity as an employer
- Health and safety in operations
- Resource- and energy-efficient operations
- Partnering for scalable solutions
- Reduced emissions and waste in operations
- Business ethics
- Sustainable procurement

Operational management

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

Sustainability Management at Covestro

	Sustainability Community	HSEQ[1] Community
Direction and guidance for the sustainability agenda	• CEO • Sustainability department	• Chief Industrial Operations Officer • Central function HSEQ
Development and definition of targets and initiatives	Sustainability, Marketing & Sales (SMS) Council	Global Process Owner Council Quality, Environment & Safety Manager Meeting Safety Council
Implementation and monitoring in functions and business segments	• Segment sustainability officers • Regional sustainability representaives • Regional SMS teams	• Officers appointed by management for occupational safety, environmental, energy and quality mangement • HSEQ officers in business segments and regions

[1] Health, Safety, Environment and Quality

4. Innovation

For Covestro, innovation is a core element of strategy and part of our identity. Our understanding of innovation is broad, so we see great potential for creativity throughout the company beyond conventional research and development activities, and view innovation as something that should concern every employee.

In pursuing our goal to maintain and build on our position in global competition, we work tirelessly at all levels on innovation and improvements, not just regarding products, and manufacturing and processing procedures, but also with a view to our application areas, business models and business processes. We draw on decades of experience and demonstrable success in these endeavors.

By managing innovation systematically throughout the Group, we ensure that our ongoing activities and our project pipeline always satisfy the needs of our customers, user industries and ultimately the consumer markets.

See section 4 in the GRI Supplementary Report

In the long term, we have decided to align our research and development portfolio with UN Sustainable Development Goals in conformity with our corporate goal of making the world a brighter place.

In fiscal 2016, our research and development expenses amounted to €259 million after totaling €257 million in the previous year. Around 1,016 people[2] worked in Covestro's global research and development network as of December 31, 2016, most of them at major innovation centers in Leverkusen (Germany), Pittsburgh (United States) and Shanghai (China). Through its global presence, Covestro is able to respond to regional market trends and customer requirements.

Alongside the company's close cooperation with customers, global collaboration with scientific institutions, start-ups and academic spin-offs is also very important. Covestro's long-standing partners in Germany include RWTH Aachen University, while in China the company maintains a close alliance with Tongji University, among others, and in the United States supports research activities at renowned universities. We also take unconventional approaches and utilize innovative forms of collaboration to find and generate new inspiration. For instance, we organized the Covestro Makeathon, a one-week workshop for design students, in Münster (Germany), in spring 2016. This event allowed students to discover new and unexpected applications for plastics. The best ideas were presented at the plastics trade show K 2016 in Düsseldorf (Germany), in October 2016.

[2] Employees calculated as full-time equivalents (FTE)

Segments

See section "Pushing Boundaries"

Polyurethanes

In the Polyurethanes segment, one of our aims is to steadily improve the flame-retardant and insulating properties of polyurethane foams. Research activities also concentrate on lightweight composite materials.

Moreover, we are seeking alternatives to petrochemicals, and for this reason are further pursuing the use of carbon dioxide as a raw material. Covestro has developed a new type of polyol containing 20% CO_2 for use as a component in flexible polyurethane foam. That saves the corresponding amount of crude oil. In 2016, we began producing the polyol on an industrial scale in a new facility at the site in Dormagen (Germany) which has a production capacity of 5,000 metric tons per year. The CO_2 used is a waste product from a neighboring chemical company.

We additionally transfer our product and technological expertise to new markets and application areas. In the wind energy segment, a new polyurethane resin is helping to simplify and accelerate the manufacture of rotor blades. These blades are also more stable and durable than the ones produced using the usual epoxy resin.

Polycarbonates

In the Polycarbonates segment, we are developing products including new polycarbonate-based composite materials and customized products tailored to meet increasingly complex customer requirements. The key here is lowering the weight of our materials while improving their energy efficiency and safety, and expanding design possibilities.

In 2016, for example, we debuted a new design concept for electric cars created in cooperation with design students and industry partners. The concept features numerous innovations including polycarbonate wrap-around glazing of the passenger compartment.

In addition, we aim to continuously improve technologies and manufacturing processes with a view to the environment and efficiency. We have been testing a new procedure for reusing saline process wastewater since 2016. Pilot plants were commissioned in Krefeld-Uerdingen (Germany) and Shanghai (China) for this purpose. This new technology allows us to save considerable amounts of salt and water each year in the chlor-alkali electrolysis process.

Coatings, Adhesives, Specialties

The Coatings, Adhesives, Specialties segment serves a number of specialized markets in which expertise and innovation are critical factors.

In 2016, we continued to develop technologies including our innovative polyaspartics, which are used for floor coatings as well as to protect steel structures such as bridges and wind turbines from corrosion. These new materials reduce the number of coats needed and significantly shorten drying times.

Our process innovation focus is on making production more flexible, lowering operating costs and limiting the environmental effects of our manufacturing processes. In 2016, we commissioned a new large-scale plant for manufacturing HDI, a raw material for coatings, at our site in Shanghai (China). Thanks to the gas-phase technology developed by Covestro, this facility is particularly safe and efficient, especially when it comes to resource use.

5. Employees

Shaping our corporate culture and values

The personal efforts and commitment of all employees are the key to Covestro's success. Every employee has both the freedom and a mandate to take a curious, courageous and colorful approach to doing business in line with our corporate values. This means using agile and unconventional thinking, effective communication, transparent and current information, and constructive and open feedback to push the limits of what is possible. Our overarching goal is to empower all employees to work to their full potential.

Headcount

Employees by Corporate Function[1]

	Dec. 31, 2015	Dec. 31, 2016
	in FTE	in FTE
Production	9,988	9,830
Marketing and distribution	3,528	3,463
Research and development	1,005	1,016
General administration	1,240	1,270
Total	**15,761**	**15,579**
Employees in vocational training	404	457

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

See notes 8 and 21 in the notes to the consolidated financial statements

See section 5 in the GRI Supplementary Report

As of December 31, 2016, Covestro had 15,579 employees worldwide. At the reporting date, the Group also had 457 employees in vocational training worldwide, 446 of whom were in Germany.

Hiring and retaining highly qualified employees

We want to be known worldwide as an attractive employer so that our company can retain highly qualified employees as well as hire new talent in an increasingly tight labor market.

Our employer branding proposition “WE MAKE the world a brighter place” is based on the company’s purpose and our C³ values. As a company with a particular focus on innovation and sustainability, our efforts in this regard build on our strong team spirit and the far-reaching career opportunities we provide. This corporate culture is also reflected in our current “Pushing Boundaries” campaign: Covestro as a company pushes boundaries for our stakeholders and society thanks to our outstanding employees. For each individual employee, this can mean critically questioning the status quo, attempting something new, or addressing customer and market needs in a more focused way. Covestro supports employees in their personal and professional development and, in addition to attractive compensation, offers staff a respectful, collaborative and inspiring working environment along with a full range of health promotion.

In all countries in which we do business, we use our employer branding proposition to actively conduct HR marketing: We showcase our qualities as an employer on our website and the relevant social media channels, maintain close contact with leading universities, attend career fairs, and directly interact with both students and experienced professionals to make them aware of the wide variety of opportunities available at Covestro.

In addition to the training options we offer in Germany, each year we bring in students to take part in numerous challenging professional internships worldwide. This gives them insight into our company’s operations as well as personal experience with Covestro as an employer.

See section 5 in the GRI Supplementary Report

Promoting employees and their development

Ensuring that our company can change and grow requires well-trained and motivated employees. We believe in the concept of lifelong learning and make sure that all employees receive continuing education and training in all phases of their careers to keep current and expand their knowledge and skills. Our development programs and activities are guided by our corporate values: curious, courageous and colorful. Numerous opportunities for in-person and virtual training are offered worldwide under the “Coversity” name (“Covestro” plus “university”).

Further broken down into a Functional Campus, a Project Campus and a Leadership Campus with a clear focus on the relevant target group, “Coversity” provides all employees throughout the world a variety of opportunities for professional and personal development. In addition to the areas already mentioned, we are now offering our employees the opportunity for self-directed learning for the first time: The new “iLearn” virtual campus provides all employees with continuing education regardless of the time or place and in accordance with their individual professional and personal needs.

We also encourage employees to pursue external training options. If employees require external training for their jobs, the cost is borne by the company, and employees receive time off of work for the duration of the training. Moreover, we support the pursuit of academic degrees both financially and timewise, for example in the form of work-study options, leaves of absence and sabbaticals.

In the area of People Development, we have implemented a competency model with clearly defined core and leadership skills that serve as a reference in all fields of employee leadership. This ensures that managers and employees are using the same vocabulary and uniform criteria when assessing performance. Performance assessments run throughout the entire calendar year and are conducted as an ongoing dialog between supervisors and their direct reports. Development Dialogues are held regularly to discuss personal strengths and development needs as well as career perspectives.

Compensating employees transparently and competitively

Covestro combines a base salary reflecting the duties of a position with performance-related compensation components and extensive additional benefits into a fair and internationally competitive pay package about which employees are informed transparently. In all countries, the amount of the base salary depends on regional market conditions. For employees exercising management functions and professional staff with no subordinates, the base salary is determined using a job evaluation conducted without considering the individuals in the positions and is based on an internationally recognized evaluation method. We promptly recognize outstanding conduct, commitment and performance by all employees with a view to our values.

See note 21 in the notes to the consolidated financial statements

Every year, we enable our employees to participate in the success of the company with a uniformly calculated bonus payment. In 2016, we additionally launched the Covestment stock participation program in which all employees in Germany can acquire Covestro shares at a discount. We plan to gradually roll out the program in other countries in which Covestro operates. A stock-based compensation program called "Prisma" has also been available for the top management level since 2016.

Simplifying strategy and processes

When Covestro began operating independently, the personnel structures and processes in place were tailored to its former corporate structure. We are now transitioning into an organization with flat and flexible structures to streamline taking action and making decisions. Our system environment is being simplified and modernized to adapt to the way our organization functions and to optimally support the work of our employees. A state-of-the-art human resources system is also being implemented to keep us competitive.

See section 5 in the GRI Supplementary Report

Promoting diversity and inclusion

Diversity is at the heart of our corporate culture and is also expressed in our values. We support a working environment in which a wide variety of skills, talents, backgrounds and beliefs are welcomed and treated with respect. Our goal is to promote unconventional thinking, creative ideas and open-mindedness. In the Diversity & Inclusion (D&I) program, employees from all units work together to develop global action plans for Covestro as a whole and for individual areas of responsibility.

Working conditions

The health, safety and professional and personal dedication of our employees are extremely important to us. In this context, we adhere strictly to the law as well as to internal and external guidelines and agreements. We also offer our employees optimal working conditions so they can always be successful in a changing working environment. Our employees' lives are multifaceted, so we give them the opportunity to balance their professional interests and private concerns, such as family matters. In many countries, we exceed our legal obligations. At our main sites in Europe, the United States and Asia, we offer solutions such as flexible working hours, part-time working and working from home if this is compatible with operational requirements.

A direct dialog with our employees is also particularly important to us and includes informing our staff about any changes at the company promptly and extensively, and in compliance with national and international notification duties.

Our social responsibility as a company and an employer is based on our corporate values and our unreserved commitment to supporting and fostering human rights in our sphere of influence. At Covestro, social responsibility also includes ensuring safe working conditions and therefore creating an environment in which employees can work and move internationally without fear. We support our employees by providing training to prepare for business trips, including information such as what to do in emergencies. Our sustainable human resources policy 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, nearly all our employees worldwide either have statutory health insurance or can obtain health insurance through the company.

In addition, Covestro actively encourages awareness of healthy lifestyles, especially in view of the challenges facing us as a result of demographic change and the raising of the retirement age in many countries.

See section 13 in the GRI Supplementary Report

Workplace health management is in place at all levels of the company and is expanding offerings in response to employee surveys. The intention is to ensure that employees have access to adequate and affordable health offerings such as sports programs, regular medical check-ups, help in overcoming illness and on-site medical care. The nature and scope of the health promotion programs differ around the world depending on the level of development and access to national health systems. In many places, the company's voluntary social welfare provision includes measures to prevent illness, whereas in other locations this is required by law.

6. Procurement

Our procurement function ensures the timely, global supply of goods and services at suitable market conditions, in the required quality and in accordance with Covestro's ethical and ecological standards. The principles of our procurement policy are set down in a directive that is binding on all employees throughout the Covestro Group. Procurement at Covestro is centrally steered and managed by the Procurement unit.

In 2016, goods and services were procured from some 15,700 (previous year: some 15,100) suppliers in 74 (previous year: 69) countries for approximately €8.1 billion (previous year: €8.2 billion).

Main procurement products

The main precursors for our products are petrochemical substances such as benzene, toluene, propylene/propylene oxide, phenol and acetone. In addition to such petrochemical feedstocks, the operation of our production facilities also requires large amounts of energy, mostly in the form of electricity and steam.

In 2016, petrochemicals accounted for a procurement spend of €2.5 billion (previous year: €2.4 billion). This is equivalent to approximately 44% of our total expenditures for raw materials and energies, which amounted to around €5.7 billion (previous year: €5.3 billion). Important raw materials are procured on the basis of long-term supply agreements and an active supplier management to minimize procurement risks such as supply shortages or substantial price fluctuations.

In steam and electricity generation, we aim for market-based price indexing, a diversification of fuels and a mix of external procurement and captive production to minimize the price fluctuation risk for energies. Regular sustainability and quality audits of our suppliers ensure compliance with internal and external standards.

Covestro procures critical raw materials such as chlorine and propylene oxide from within the Group or through joint ventures in order to reduce the dependency on external supply sources.

Sustainability in supplier management

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

Furthermore, Covestro is a member of "Together for Sustainability" (TfS), a joint initiative undertaken by the chemical industry now numbering 19 companies. It aims to harmonize the assessment and auditing of suppliers worldwide. Covestro supports the TfS principles concerning the areas of ethics, employee rights, health and safety and the environment, as well as the associated management systems.

Covestro has set ambitious and measurable targets to be reached by 2025 aimed at systematically promoting sustainability in supplier management. For instance, all suppliers accounting for a repeat purchasing value exceeding €100,000 are assessed and must comply with Covestro's sustainability standards. In the year under review, around 98% of our purchasing value is attributable to these suppliers. All other suppliers must also agree to comply with our Code of Conduct as soon as they accept our contracts and orders. We also work with our key suppliers to improve their sustainability performance, which has been incorporated into our sustainability goals.

Evaluating the sustainability performance of our suppliers

Covestro regularly verifies compliance with the specified sustainability standards through online assessments and on-site audits of suppliers. They are assessed in the areas of environmental protection, working conditions, social responsibility, fair business practices and sustainable procurement. Covestro conducts the on-site supplier audits – based on the TfS sustainability criteria – together with external, independent auditors accredited by TfS.

All told, 614 suppliers were reviewed by Covestro by the end of 2016. Of these, 529 were assessed online and 85 were audited. In the reporting period, 308 online assessments and 29 audits were completed. These include assessments initiated by Covestro and others shared via TfS.

See section 6 in the GRI Supplementary Report.

Of the 614 suppliers reviewed, 409 met our defined sustainability requirements. Around 51% of our total purchasing value is attributable to these suppliers.

In prioritizing the suppliers for these assessments, we consider a combination of country and material risks as well as strategic importance in accordance with our Group targets. The country and material group risk scales we use for our risk analysis are provided by external auditors.

All online assessments and audits are comprehensively analyzed and documented so that – should results be unsatisfactory – specific improvement measures can be defined together with the suppliers. The corrective measures established together with the suppliers in 2016 mainly related to the areas of environmental protection, occupational safety and fair business practices.

In 2016, critical results were recorded for four suppliers (1% of those assessed), prompting Covestro to implement measures ranging from specific action plans to reducing its spend. In the reporting year, Covestro had no cause to terminate a business relationship because the assessment revealed an unsatisfactory sustainability performance or a serious sustainability deficit.

Training measures and dialog on the issue of sustainability

Comprehensive understanding of the significance of sustainability in the supply chain is also important for our own procurement specialists. Covestro therefore provides Group-wide training to help them implement our sustainability requirements. Dialog and close collaboration are essential in enabling suppliers to successfully comply with Covestro's sustainability requirements. For them too, we offer a range of training and dialog opportunities as the basis for building reliable relationships that enable us to identify and eliminate any obstacles to collaboration at an early stage.

Verification of management processes

All the processes discussed here are described in standard operating procedures and are incorporated in Covestro's management system. They are subject to ongoing review and continuous improvement and are regularly verified and certified on a global basis by both internal and external audits.

7. Production

Covestro operates around 30 production sites in Europe, Asia and the United States, eight of which are world scale. The latter are large-capacity production facilities that serve particularly to ensure efficient and reliable supply to customers across the globe. We additionally operate smaller production plants in selected countries that include systems houses that supply customized polyurethane systems, as well as plants where we compound polycarbonate granules to meet specific customer requirements or manufacture polycarbonate sheets. Additionally, the company operates regional production facilities for derivatives of the Coatings, Adhesives, Specialties segment and for high-performance polycarbonate and thermoplastic polyurethane specialty films and elastomers. This strong customer focus enables Covestro to deliver quickly, provide flexible customer service and market products competitively.

Sites

The eight largest production facilities are outlined in the following table:

See section 7 in the GRI Supplementary Report

Key Production Sites

Site	Main activity
Leverkusen (Germany)	Production for Coatings, Adhesives, Specialties; chlorine production
Krefeld-Uerdingen (Germany)	Production for Polycarbonates and Polyurethanes (MDI); chlorine and CO production
Dormagen (Germany)	Production for Polyurethanes (TDI, polyether polyols) and Coatings, Adhesives, Specialties; chlorine and nitric acid production
Brunsbüttel (Germany)	Production for Polyurethanes (MDI); chlorine and CO production
Antwerp (Belgium)	Production for Polyurethanes (polyether polyols) and Polycarbonates
Baytown (United States)	Production for Polyurethanes (MDI, TDI); Polycarbonates; Coatings, Adhesives, Specialties; chlorine production
Shanghai Chemical Industry Park (China)	Production for Polyurethanes (MDI, TDI); Polycarbonates; Coatings, Adhesives, Specialties; chlorine production
Map Ta Phut (Thailand)	Production for Polycarbonates and Coatings, Adhesives, Specialties; CO production

Quality management

Covestro has very high expectations when it comes to the quality of the raw materials it uses and sets standards for their processing into high-tech plastics and polyurethane precursors. A quality management system has been implemented for this purpose that is certified to the international standard ISO 9001. In terms of total energy consumption, 99% of all of Covestro's business activities worldwide are certified. They are regularly evaluated in internal and external audits.

In September 2015, the new ISO 9001:2015 and ISO 14001:2015 standards were published. Covestro aims to be certified to the new standards toward the end of 2017. A project team tasked with meeting this goal was formed in early 2016. It is integrating the requirements stipulated by the revised standards into the existing integrated management system.

Capital expenditures for property, plant and equipment

We invest continuously in our global production network in order to maintain our production facilities and their infrastructure, to optimize manufacturing processes and to expand capacities in line with market developments. Innovative and environmentally friendly production processes are employed to ensure ongoing technological optimization.

See section 7 in the GRI Supplementary Report

In recent years, Covestro has invested heavily in state-of-the-art production facilities, thus boosting the company's competitiveness on production volumes, quality, efficiency and safety for the long term. In the reporting year, cash outflows for capital expenditures totaled €419 million and were primarily used for maintaining and optimizing production facilities and for expanding capacity in the Polyurethanes, Polycarbonates and Coatings, Adhesives, Specialties segments. The principal strategic capital expenditures for property, plant and equipment in the operational reporting segments during the past two years are listed in the following table:

Strategic Capital Expenditures by Segment

Segment	Description
Capital expenditures 2016:	
Polyurethanes	Capacity expansion of the MDI plant in Brunsbüttel (Germany) Commissioning of a production line for CO_2-based polyols in Dormagen (Germany)
Polycarbonates/Coatings, Adhesives, Specialties	Continuation and finalization of capital investment projects from 2014 onward - Doubling of polycarbonate production capacity in Shanghai (China) - Doubling of HDI (aliphatic isocyanate) production capacity in Shanghai (China)
Capital expenditures 2015:	
Polyurethanes	Construction of a production line for CO_2-based polyols in Dormagen (Germany)
Polycarbonates/Coatings, Adhesives, Specialties	Continuation of capital investments from 2014 onward - Doubling of polycarbonate production capacity in Shanghai (China) - Doubling of HDI (aliphatic isocyanate) production capacity in Shanghai (China)

8. Distribution and Logistics

Distribution

Covestro has a regional distribution and marketing structure. Each operational reporting segment manages the distribution and marketing of its products, both through its own distribution organization and through trading houses and local distributors which are primarily responsible for business with small customers. Major customers with global operations are serviced directly by our key account managers. The sale and marketing of certain chemical by-products, such as hydrochloric acid, are managed centrally within the Covestro Group whereas the sale of other by-products, for example styrene, is the responsibility of the respective operational segment.

In marketing our products through regional and local distribution channels, three regional Supply Chain Centers for the EMLA, NAFTA and APAC regions serve as the central interface to customers. This is where all information streams come together – from order acceptance to dispatch planning, delivery and complaint acceptance. This organization enables us to process orders particularly smoothly and swiftly. We make use of channels such as e-commerce platforms for handling orders. Our customers can check the status of their orders at any time through the Order@Covestro online information platform.

See section 8 in the GRI Supplementary Report

We keep a line open to our customers in the interest of continually adapting our products and our services to meet customer needs. In order to ensure a high level of customer satisfaction, error-free distribution is our foremost quality target. Customer satisfaction worldwide is systematically analyzed. To this end, we regularly evaluate customer complaints that are entered and processed in a global management system. Customer evaluations are also a factor. We also request feedback from our customers from which we 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.

Transportation and packaging

The transportation of our products to customers is handled by logistics service providers that are selected and evaluated according to stringent safety, environmental and quality criteria. Alongside the protection of people and the environment, delivery reliability is particularly important. The preferred mode of transportation is rail or intermodal – in other words using a combination of different modes of transportation. When selecting the mode of transportation, we also consider resource efficiency and seek to minimize associated CO_2 emissions. Customers are supplied from close-to-production warehouses, wherever permitted by transportation times and delivery reliability. In the case of longer distances, goods are temporarily stored in regional distribution centers and then dispatched at short notice.

Sustainable sourcing is also becoming increasingly important in packaging. The responsible unit has implemented measures to address this, including establishing a procedure in the packaging procurement process to review whether and to which the extent used or refurbished – instead of new – packaging can be used. An example of the application of this approach is the establishment of post-consumer regrind (PCR) plastic drums for waste transportation. PE (Polyethylene) drums from newly produced material are replaced by drums made of recycled PE. As a result, fewer raw materials are used and emissions are reduced.

9. Product Stewardship

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

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

See section 9 in the GRI Supplementary Report

Management of product stewardship

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

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

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

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

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

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

Finally, we produce the legally required material safety data sheets, technical information sheets and labeling for the chemicals. In this, we go beyond what is required by also compiling these documents for chemicals that are not subject to this legal obligation. This process is applied for all product groups.

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

The optimization of products and processes is basically a continuous task of the chemical industry, and is integral to our commitments as part of the Responsible Care initiative. We are also actively involved in the further development of scientific risk assessment through our work in associations and initiatives.

International associations such as the European Chemical Industry Council (CEFIC), the International Council of Chemical Associations (ICCA) and the Organisation for Economic Co-operation and Development (OECD), as well as initiatives such as the European Centre for Ecotoxicology and Toxicology of Chemicals (ECETOC), are working to evolve the scientific assessment of chemicals and research new testing methods. Moreover, they monitor implementation of legal regulations. Covestro is actively involved in industry association activities, including as part of the ICCA's Long-Range Research Initiative. We also endorse the initiatives of the World Health Organization (WHO) and the EU for improving health and the environment, for example with the further development of human biomonitoring through an alliance with the German Chemical Industry Association (Verband der Chemischen Industrie, VCI) and the German Federal Ministry of the Environment.

Implementation of regulations and voluntary programs pertaining to chemicals

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

Substances registered according to REACH are assessed by regulators. This can result, for example, in additional testing requirements, new risk management measures or inclusion in the REACH authorization procedure. A number of Covestro substances are also affected by this procedure, which restricts the use of particularly hazardous substances or can lead to their replacement or prohibition.

By 2020, Covestro intends to conclude the global assessment of hazard potential for all substances used in quantities exceeding one metric ton per annum. In this way we exceed statutory requirements and ensure that substance assessments comparable to those meeting the high standards of REACH or the TSCA will also be applied at Covestro sites that are not subject to these regulations. The relevant procedure is established in the Group Regulation "Substance Information and Availability."

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

Support for the Global Product Strategy

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

Substances that are the subject of public debate

Covestro is following the scientific discussion about the chemical bisphenol A (BPA), a feedstock for various plastics. Critics are concerned that health risks could result for users if traces of BPA are released from products. As documented by numerous scientifically valid studies, we are convinced that BPA can be safely used in its existing areas of application, particularly in applications involving contact with food. This assessment is consistent with evaluations by the authorities responsible for food safety in Europe, the United States, Australia, Japan and other countries. In cooperation with the PlasticsEurope association, the American Chemistry Council (ACC) and the China Petroleum and Chemical Industry Federation (CPCIF), we are working to make the discussion more objective based on all the scientific data. Covestro is itself actively involved in the debate, providing information to customers and the public through associations and the Covestro website.

10. Safety

Safety and the continual improvement of our safety culture are Covestro's highest priorities and key aspects of corporate responsibility. Among our primary goals are preventing injuries, disruptions at plants and accidents during transportation as well as safeguarding the health of all employees in the workplace and during work-related activities. Detailed rules and specific controls are instrumental in meeting these goals as are safe production processes, plants and transportation. The focus is equally on protecting the environment and the well-being of everyone who comes into contact with our products.

Integrated management system

Responsibility for health and safety is directly assumed by the Group's Board of Management in the context of the integrated management system. The company's utmost priority is taking preventive measures to protect employees, suppliers and service providers and ensuring uninterrupted operations. Processes are in place worldwide with detailed rules about how to handle incidents that have occurred or near-misses. These rules govern the safety of production facilities and manufacturing processes, the investigation of accidents and environmental and transportation incidents, health screening and occupational safety, and emergency management at Covestro. The rules regarding occupational health and safety stipulated by international standards such as Occupational Health and Safety Assessment Series (OHSAS) 18001 comprise the minimum requirements applicable worldwide and are supplemented with additional guidelines (or rules) on an ongoing basis. The ultimate goal is to prevent accidents and incidents during day-to-day business as well as during transportation that could affect people or the environment. Moreover, we offer support to our customers, for example by providing training on the safe handling of our products in and outside of our facilities.

Occupational health and safety

According to American Chemistry Council (ACC) standards, Covestro's accident rates are already low, and we work tirelessly to keep our current and future accident rates as low as possible in line with our motto "Nothing we do is worth getting hurt for." In 2016, we began analyzing all near-misses for the potential risk of a serious accident they pose. As part of a continual improvement process, we documented and systematically reviewed all events, including very minor incidents and near-misses in addition to accidents and product leaks. Improvement measures will be derived from this information and implemented as necessary. The results of the cause analysis and the corrective measures taken are published Group-wide to improve employees' safety awareness. As a result, each process is subject to ongoing monitoring to enable appropriate measures to be put in place for the future.

See section 10 in the GRI Supplementary Report

In addition, Covestro documents workplace accidents involving the company's own staff and third-party employees (contractors) requiring medical treatment beyond first-aid measures as part of the recordable incident rate (RIR) statistic. This measures the number of accidents per hours worked (worldwide standard of 200,000 hours).

Work-related Accidents

	2015	2016
Lost time recordable incident rate (LTRIR[1])		
of which Covestro employees	0.19	0.20
of which contractor employees[2]	0.12	0.16
Recordable incident rate (RIR[3])		
of which Covestro employees	0.34	0.31
of which contractor employees[2]	0.20	0.37
Fatal injuries (total)	0	0
of which Covestro employees	0	0
of which contractor employees[2]	0	0

[1] LTRIR: Number of workplace accidents resulting in at least one day of lost time per 200,000 working hours
[2] Employees working for third parties whose accidents occurred on our company premises and under Covestro supervision; the required working hours to calculate the injury rates for these employees were partly estimated.
[3] RIR: Number of workplace accidents per 200,000 working hours

Promoting safety awareness among employees is essential for minimizing hazards during day-to-day operations. In 2016, for the eighth consecutive year, Covestro therefore called on all employees to submit suggestions for improving safety and apply for the annual internal CEO Safety Award. All of the ideas were evaluated by an expert jury from outside the company, and the winners were presented with their awards by the Chair of the Covestro Board of Management (CEO) Patrick Thomas. An example of successful implementation of an employee suggestion is the "Not a Single Drop" initiative in plant safety, the idea that received the CEO Safety Award in 2015.

This program raises awareness about leaks of chemicals from our facilities. Our production facilities have received materials on this topic they can use to raise awareness among their employees for leaks of even the smallest amounts of chemicals. The focus is on discussing events in other units and improving the participants' own performance by including all relevant individuals (e.g., contractors in the logistics units).

Process and plant safety

See section 10 in the GRI Supplementary Report

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

Rate of Plant Safety Incidents

	2015	2016
LoPC IR[1]	0.68	0.79

[1] Loss of Primary Containment Incident Rate

Every LoPC incident as well as minor and near-miss incidents are carefully analyzed to determine their causes, and the results and corrective actions taken are publicized throughout the Group. The criteria (e.g., very small quantity or nonhazardous material leaks) were selected so that even material and energy leaks that have no impact on employees, neighbors or the environment are systematically recorded. This contributes to maintaining the integrity of our facilities.

Environmental and transportation incidents

See section 10 in the GRI Supplementary Report

Side by side with continuous improvement of process and plant safety and safety in the workplace, we are constantly working on making the transportation of our products safer. We report all incidents at all sites operated by Covestro worldwide in line with our internal guidelines. These are documented according to defined criteria such as leaked load, hazardous material class, personal injury and blocked transportation routes. In the case of substances with a high hazard potential, we voluntarily record all leaks of 50 kg or more. It does not matter whether the substance was being transported by Covestro or by a third-party service provider. In the interest of evaluating and improving transportation safety, we have launched additional measures including a seven-point plan and tank farm assessments for unloading processes at the customer's location.

In 2016, almost 900,000 documented transportation movements were initiated by Covestro via road, rail, waterways and air travel. Eight incidents were reported of which one was classified as an environmental incident and seven were classified as transportation incidents.

11. Environmental Protection

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

Integrated management system

Among other efforts, we have established an integrated HSEQ management system to implement our ambitious resource efficiency and emission reduction plans. Global minimum standards were determined in the form of rules and regulations that comply with internationally recognized standards and rules such as ISO 9001 (quality management), ISO 14001 (environmental management) and ISO 50001 (energy management). Each year, we analyze and evaluate the effects of our activities on the environment. This is embedded in our HSEQ directive. From our environmental performance assessment, we derive measures to reduce and minimize environmental impacts. Globally applicable process and workflow descriptions help us implement these throughout the Group.

Adherence to processes and workflows is regularly checked through internal audits and external certifications. The insights we gain from these are incorporated into our annual management assessment. As a result, every process is subject to ongoing monitoring and is updated as required. In 2016, we began adapting our existing HSEQ management system to the updated requirements of the revised ISO 9001:2015 and ISO 14001:2015 standards. By the end of 2017, we aim to have our integrated management system certified to the new ISO standards.

The energy management system we introduced in 2008 was recertified to ISO 50001 for the fifth time at the German sites. Specific targets in line with the aforementioned ISO standards have been defined, and are regularly reviewed and assessed during audits.

Energy consumption

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

See section 11 in the GRI Supplementary Report

The use of energy and materials and the level of greenhouse gases emitted are directly proportional to the quantity of materials we produce. In 2016, total energy consumption in the Group remained steady around the prior-year level, despite a 5.5% increase in production volumes. The equivalent primary energy consumption for a given production volume (energy efficiency) improved 5.9%. This positive trend is attributable to factors including our ongoing efficiency improvement program and the global energy management system.

Energy Consumption in the Covestro Group

	2015	2016
Equivalent primary energy consumption[1] (in TJ)	72,570	71,981
Production volume[2] (in million metric tons)	13.20	13.92
Energy efficiency[3] (in MWh per metric ton)	**1.53**	**1.44**

[1] Sum of all individual energy figures translated into primary energy at our main production sites, which account for more than 95% of our energy consumption
[2] Sum of the in-spec key products at our main production sites, which account for more than 95% of our energy consumption
[3] Quotient of equivalent primary energy and in-spec production volume at our main production sites

Of particular note is the fact that Covestro began to equip its chlorine production facilities with more energy-efficient, new-generation electrolysis components in the year under review in addition to successfully completing other efforts to improve energy efficiency. This is being accomplished during the regular repair and maintenance cycles. In September 2016, for instance, the switch to electrolyzers was finished at the Krefeld-Uerdingen site in Germany. The entire chlorine production process there has now been modernized. These measures also have the medium-term goal of reducing the amount of electricity used specifically for electrolysis at other German sites in Leverkusen and Dormagen. This effort is expected to reduce the amount of electricity used specifically for electrolysis by about 5% in the medium term at the sites in Leverkusen, Dormagen and Krefeld-Uerdingen.

Covestro's products also help our customers conserve energy, and none more than the components used in the manufacture of insulation for buildings and refrigeration appliances.

Greenhouse gas emissions

See section 11 in the GRI Supplementary Report

Along with governments around the world, nongovernmental organizations and other private-sector companies, Covestro supports implementation of the results of the 21st UN Climate Change Conference, which took place in Paris at the end of 2015, and is committed to the sustainability goals of the United Nations.

Covestro calculates greenhouse gas emissions according to internationally recognized standards (Greehouse Gas Protocol, GHG Protocol). The calculations include both direct emissions from the burning of fossil fuels and indirect emissions from the procurement and consumption of energy generated outside the company such as electricity, heating or refrigeration energy. In addition to CO_2, all other relevant greenhouse gases are documented as well.

Covestro's goal is to reduce specific greenhouse gas emissions, i.e. the CO_2 emissions per metric ton of product manufactured, by 50% by 2025 compared with 2005 benchmarks. In 2016, these specific emissions totaled 0.406 metric tons of CO_2 equivalents. This figure is down 40.9% from 2005 and 3.6% lower than in 2015.

Group Greenhouse Gas Emissions

	2005	2015	2016
Specific greenhouse gas emissions (metric tons of CO_2 equivalents per metric ton of production volume[1])	0.687	0.421	0.406

[1] Total greenhouse gas emissions (Scope 1 and 2, GHG Protocol) at the main production sites, which are responsible for more than 95% of our energy consumption (total of 5.65 million metric tons of CO_2 equivalents in 2016) divided by the in-spec production volume

This positive development is largely due to improved energy efficiency in production. Moreover, Covestro develops products whose manufacture results in lower CO_2 emissions than that of conventional products. For example, in 2016 Covestro commissioned a plant at the Dormagen site for the production of a new type of foam component that makes it possible to replace one-fifth of the petrochemical raw materials required with a corresponding volume of CO_2, thereby improving the facility's carbon footprint.

Water, effluents and waste

See section 11 in the GRI Supplementary Report

Covestro requires clean water for production, but this is a challenge in many parts of the world. We work to ensure that our water usage does not lead to water shortages for the local population and other problems. Such issues are regularly identified and assessed in environmental analyses and action steps are defined, if required. In our production activities, we endeavor to use water several times and to recycle it. Covestro primarily generates wastewater from once-through cooling systems and production. All wastewater is subject to strict monitoring and analysis according to the applicable legal regulations before it is discharged into disposal channels.

Covestro's manufacturing processes are generally very efficient when it comes to the use of materials, so only relatively little waste is produced as a result. Systematic waste management additionally minimizes material consumption and disposal volumes as much as possible. Safe disposal channels with separation according to the type of waste and economically expedient recycling processes serve this purpose. Production fluctuations, building demolition and refurbishment, and land remediation also influence waste volumes and recycling paths.

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

In parallel, Covestro strives to reduce the waste produced when our products are used. This is accomplished by means including participation in associations such as PlasticsEurope. We embrace initiatives like Zero Pellet Loss (ZPL). The goal here is preventing the loss of plastic pellets on the way from production to the finished article at our customers' locations. At the relevant Covestro sites, ZPL measures are overseen by employees tasked with this job. Covestro also began integrating customers and logistics service providers into this initiative in 2016.

Report on Economic Position

12. Economic Environment

At 2.5%, global economic growth trailed that of the previous year. U.S. economic performance came in below the previous year and expectations. Key factors in this regard were anemic growth in the first six months due to the extended inventory cycle and continuing weak exports in view of the strong dollar and overall weakness of the global economy. Despite political and economic uncertainties in Europe, the economy of the region grew by 1.9% as expected, bolstered by a weak euro and continued expansiveness in the European Central Bank's monetary policy. China continued to record a high, though less robust, rate of growth. Positive stimuli for the world economy came mainly from the expansionary monetary policies of central banks in the industrialized countries and the price of oil, which remained relatively low.

Economic Environment

	Growth[1] 2015	Growth[1] 2016
	%	%
World	**+2.8**	**+2.5**
European Union	+2.2	+1.9
of which Germany	+1.5	+1.8
United States	+2.6	+1.6
Asia	+4.8	+4.7
of which China	+6.9	+6.7

[1] Real growth of gross domestic product, source: IHS (Global Insight), as of January 2017

Main Customer Industries[3]

In fiscal 2016, automotive production worldwide was up around 5%. The main driver of this development was a massive increase in demand for compact cars in China spurred by tax incentives which led to double-digit growth there. Growth in North America and Western Europe was solid, but Latin America and Eastern Europe continued to face major challenges.

The global construction sector again performed better in 2016 than the year before. Growth of just over 2% was attributable chiefly to the ongoing recovery in Western and Eastern Europe and positive performance in China. A stable investment climate boosted growth in North America. In contrast, the industry continued to shrink in Latin America.

The global electrical/electronics industry expanded by some 3% in 2016. The positive trend of continued growth (around 5%) in emerging economies stood in contrast to considerably weaker growth of roughly 2% in the industrialized countries.

The furniture industry worldwide grew by approximately 3% in 2016, slower than in the previous year. Whereas growth rates continued to be positive in North America and Europe, the industry in South America suffered a noticeable decline. In Asia, market growth slowed somewhat due to decreasing consumer spending and growing price pressure in particular, but continued to be positive on the whole.

[3] Covestro's estimate based on the following sources: LMC Automotive Limited, B+L, CSIL (Centre for Industrial Studies), ZVEI (Zentralverband Elektrotechnik- und Elektronikindustrie e.V.)

13. Business Development Covestro Group

Covestro Group Key Data

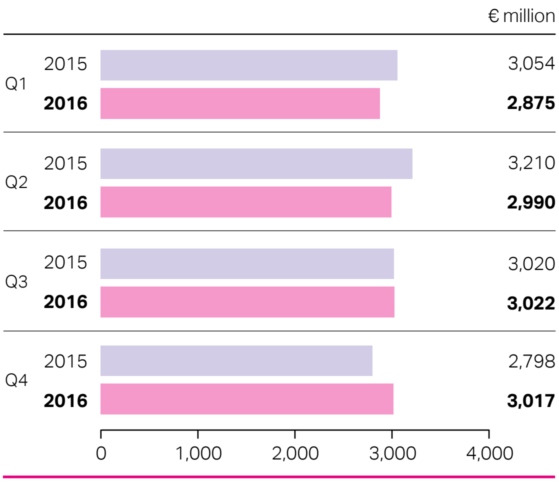
	4th quarter 2015	4th quarter 2016	Change	2015	2016	Change
	€ million	€ million	%	€ million	€ million	%
Core volume growth[1]	**+3.0%**	**+4.8%**		**+2.7%**	**+7.5%**	
Sales	**2,798**	**3,017**	**+7.8**	**12,082**	**11,904**	**–1.5**
Change in sales						
Volume	+1.5%	+3.8%		+2.6%	+5.0%	
Price	–12.4%	+4.6%		–7.7%	–5.2%	
Currency	+4.8%	–0.6%		+7.8%	–1.3%	
Portfolio	0.0%	0.0%		0.0%	0.0%	
Sales by region						
EMLA	1,217	1,197	–1.6	5,357	5,126	–4.3
NAFTA	785	784	–0.1	3,356	3,169	–5.6
APAC	796	1,036	+30.2	3,369	3,609	+7.1
EBITDA	**132**	**390**	**>100**	**1,419**	**2,014**	**+41.9**
Adjusted EBITDA	**256**	**390**	**+52.3**	**1,641**	**2,014**	**+22.7**
EBIT	**(80)**	**221**	**.**	**680**	**1,331**	**+95.7**
Adjusted EBIT	**59**	**221**	**>200**	**942**	**1,331**	**+41.3**
Financial result	**(32)**	**(32)**	**–**	**(175)**	**(196)**	**–12.0**
Net income	**(84)**	**124**	**.**	**343**	**795**	**>100**
Operating cash flow	**550**	**610**	**+10.9**	**1,473**	**1,786**	**+21.2**
Cash outflows for additions to property, plant, equipment and intangible assets	**157**	**203**	**+29.3**	**509**	**419**	**–17.7**
Free operating cash flow	**393**	**407**	**+3.6**	**964**	**1,367**	**+41.8**
Net financial debt[2]	**2,211**	**1,499**	**–32.2**	**2,211**	**1,499**	**–32.2**
ROCE				**+9.5%**	**+14.2%**	

[1] Reference values calculated based on the definition of the core business effective March 31, 2016
[2] As of December 31, 2016, compared with December 31, 2015

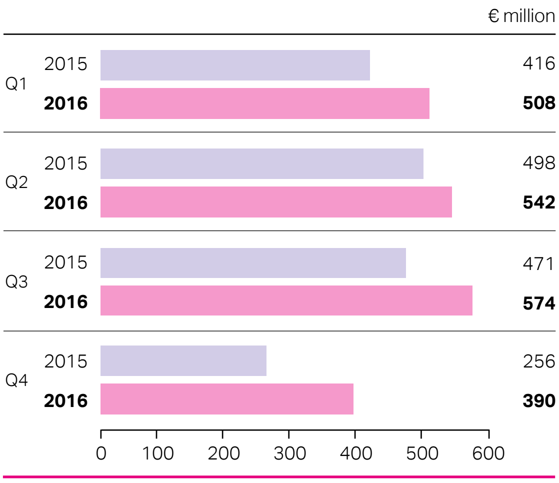
The Group's core volumes (in kilotons) in 2016 as a whole rose over the prior-year period, by 7.5%. This was mainly the result of increases in Polycarbonates and Polyurethanes, which reported robust growth rates of 10.3% and 7.7%, respectively. In the Coatings, Adhesives, Specialties segment, core volumes remained at the previous year's level despite the contractual termination of trading activities as expected.

In 2016, Group sales dropped by 1.5% compared with the prior-year period to €11,904 million (previous year: €12,082 million). Sales in the Polyurethanes segment decreased by 2.6% to €5,927 million (previous year: €6,088 million). In contrast, the Polycarbonates segment raised sales by 4.0% to €3,298 million (previous year: €3,172 million). Sales of Coatings, Adhesives, Specialties were down by 2.5% to €2,040 million (previous year: €2,093 million). Covestro was able to expand volumes in all three reporting segments. The Polycarbonates segment saw the sales volume increase sharply. A net decline in selling prices had a negative impact on sales. This price drop is chiefly due to lower raw material prices. Moreover, exchange rate movements had a negative effect of 1.3% on Group sales.

Covestro Group Quarterly Sales



Covestro Group Quarterly Adjusted EBITDA



The Group's adjusted EBITDA was up 22.7% to €2,014 million for the year as a whole compared with €1,641 million in the prior-year period. There were no special items which necessitated adjustments in the past fiscal year (previous year: minus €222 million). Higher margins and an increase in volumes were the primary reason for the improvement in earnings.

In the Polyurethanes segment, adjusted EBITDA grew by 41.2% to €881 million (previous year: €624 million). The Polycarbonates segment's adjusted EBITDA rose by 25.7% to €704 million (previous year: €560 million). At €500 million, adjusted EBITDA in the Coatings, Adhesives, Specialties segment also exceeded the prior-year level (previous year: €491 million).

In fiscal 2016, the Covestro Group improved EBIT by 95.7% to €1,331 million (previous year: €680 million). No items of income or expense were recognized as special items during the reporting period (previous year: minus €262 million).

Taking into account a financial result of minus €196 million (previous year: minus €175 million), income before income taxes more than doubled over the prior-year period to €1,135 million (previous year: €505 million). After tax expense of €329 million (previous year: €153 million), income after income taxes was €806 million (previous year: €352 million). After noncontrolling interests, net income amounted to €795 million (previous year: €343 million).

In fiscal 2016, operating cash flow was up 21.2% to €1,786 million (previous year: €1,473 million). The key reason for the boost was a significant improvement in EBITDA. This contrasted with a decrease in funds released from working capital and higher income tax payments.

In the reporting year, free operating cash flow rose to €1,367 million (previous year: €964 million) due to improved operating cash flow and lower cash outflows for additions to property, plant, equipment and intangible assets.

Covestro earned a premium on its capital costs in 2016. The ROCE of 14.2% (previous year: 9.5%) was well over the weighted average cost of capital (WACC) of 6.9% (previous year: 7.2%), and the value contribution of the Group is therefore positive at €487 million (previous year: €159 million).

13.1 Target Attainment

Target Attainment 2016

	2015	Forecast 2016[1]	Adjusted Forecast[2]	Target Attainment 2016
Core volume growth	+2.7%	Mid-single-digit percentage increase	Mid- to high-single-digit percentage increase	+7.5%
Free operating cash flow	€964 million	At a high level, above the average for past years	Above the level for 2015	€1,367 million
ROCE	+9.5%	Premium on the cost of capital (but lower than in 2015)	ROCE with premium on the cost of capital (significantly above the 2015 level)	+14.2%

[1] Published on February 23, 2016 (2015 Annual Report)
[2] Published on October 25, 2016 (Interim Report as of September 30, 2016)

Fiscal 2016 was a very successful year for Covestro, and the company achieved all the objectives it had set.

Core volume growth, at 7.5%, confirmed our forecast. The Polyurethanes and Polycarbonates segments, which saw significant volume growth in all three regions, were the main drivers of this development. Expectations were also exceeded in terms of the sharp increase in free operating cash flow compared with the previous year. The Polycarbonates and Coatings, Adhesives, Specialties segments in particular made a strong showing with significant increases. Additionally, we earned a premium on our capital costs in 2016. At 14.2%, ROCE was substantially higher than the cost of capital of 6.9%.

See section 20.2 “Forecast for Key Data” for projections of key data

In 2017, we will continue to measure Covestro’s economic success on the basis of growth, profitability and cash flow contribution. To this end, core volume growth, return on capital employed and free operating cash flow became integral elements of all planning, management and control processes at the start of 2016.

13.2 Return on Capital Employed

Value management

The foremost objective of the Covestro Group is to steadily increase enterprise value. Value is generated if Group earnings exceed the cost of capital. Covestro uses return on capital employed (ROCE) as the central value-based management metric.

See section 18 “Alternative Performance Measures“

Calculation of the return on capital employed and value contribution

ROCE measures profitability and is calculated as the ratio of the operating result (EBIT) after taxes (NOPAT= net operating profit after taxes) to the average capital employed. In cases where EBIT includes income and expenses classified as special items, it is adjusted for these effects. Taxes are determined by multiplying the effective tax rate by adjusted EBIT. If ROCE exceeds the weighted average cost of capital (WACC), the company is earning a premium on its cost of capital.

The absolute value generation of the company is measured by the metric value contribution. This is the difference between NOPAT and the cost of capital. The latter is calculated by multiplying the average capital employed by WACC. A positive value contribution means that value has been generated. At the beginning of 2016, ROCE as the main value management indicator became an integral part of all Covestro’s planning, management and control processes.

Covestro Value Management Indicators at a Glance

	2015	2016
	€ million	€ million
NOPAT	654	945
Average capital employed	6,883	6,641
WACC	+7.2%	+6.9%
ROCE	+9.5%	+14.2%
Value contribution	159	487

14. Business Development by Segment

14.1 Polyurethanes

Polyurethanes Key Data

	4th quarter 2015	4th quarter 2016	Change	2015	2016	Change
	€ million	€ million	%	€ million	€ million	%
Core volume growth[1]	**+4.6%**	**+2.5%**		**+1.8%**	**+7.7%**	
Sales	**1,385**	**1,540**	**+11.2**	**6,088**	**5,927**	**–2.6**
Change in sales						
Volume	+2.7%	+0.3%		+2.1%	+5.2%	
Price	–20.0%	+11.6%		–12.4%	–6.4%	
Currency	+4.2%	–0.7%		+7.2%	–1.4%	
Portfolio	0.0%	0.0%		0.0%	0.0%	
Sales by region						
EMLA	583	576	–1.2	2,631	2,477	–5.9
NAFTA	453	442	–2.4	1,956	1,810	–7.5
APAC	349	522	+49.6	1,501	1,640	+9.3
EBITDA	**(22)**	**176**	**.**	**487**	**881**	**+80.9**
Adjusted EBITDA	**63**	**176**	**>100**	**624**	**881**	**+41.2**
EBIT	**(157)**	**80**	**.**	**26**	**489**	**.**
Adjusted EBIT	**(55)**	**80**	**.**	**201**	**489**	**>100**
Operating cash flow	**407**	**403**	**–1.0**	**863**	**842**	**–2.4**
Cash outflows for additions to property, plant, equipment and intangible assets	**80**	**96**	**+20.0**	**209**	**211**	**+1.0**
Free operating cash flow	**327**	**307**	**–6.1**	**654**	**631**	**–3.5**

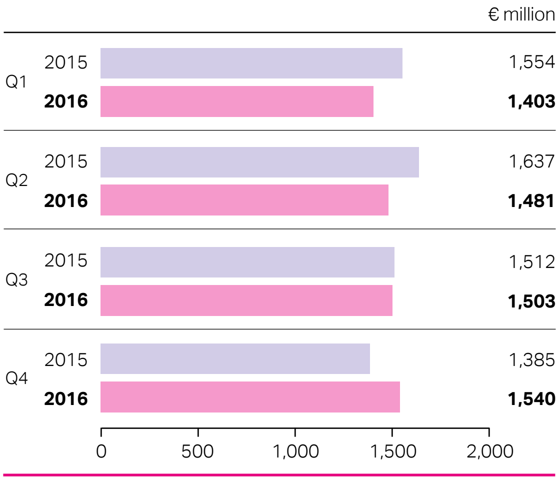
[1] Reference values calculated based on the definition of the core business effective March 31, 2016

In 2016 as a whole, core volumes in Polyurethanes rose by 7.7% over the prior-year period. The main factor in this development was the significant increase in the MDI product group. The TDI product group also saw a sharp rise in core volume growth, while the polyether polyols product group's core volume grew slightly. All three regions contributed to the positive trend in Polyurethanes.

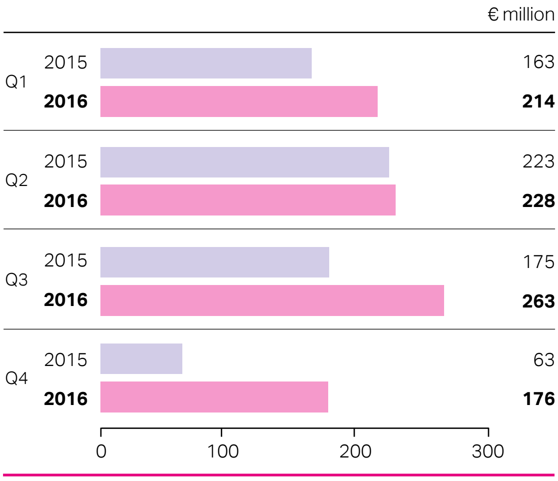
Polyurethanes sales of €5,927 million were down by 2.6% (previous year: €6,088 million). The development of total volumes sold had a positive effect of 5.2% on sales. Selling prices at Polyurethanes were down 6.4% on the prior year. In a global environment marked by declining raw material prices, prices dropped considerably in the NAFTA and EMLA regions, whereas selling prices were marginally higher in the APAC region. The effects of exchange rate movements were negative on the whole.

The EMLA region's sales decreased by 5.9% to €2,477 million (previous year: €2,631 million), principally because of much lower selling prices and only slightly higher volumes. In the NAFTA region, sales were down 7.5% to €1,810 million (previous year: €1,956 million). Higher volumes stood in contrast to a significant decline in selling prices and the somewhat negative effects of exchange rate changes. The APAC region's sales rose by 9.3% to €1,640 million (previous year: €1,501 million) due to much higher sales volumes and marginally increased selling prices.

**Polyurethanes
Quarterly Sales**



**Polyurethanes
Quarterly Adjusted EBITDA**



Adjusted EBITDA increased 41.2% over the prior-year period, growing to €881 million (previous year: €624 million). There were no special items which necessitated adjustments in fiscal 2016 (previous year: minus €137 million). Improvements in the margins of the TDI and MDI product groups had a positive effect on earnings. Higher sales volumes, particularly in the APAC region, also played a part in the earnings increase.

EBIT advanced to €489 million (previous year: €26 million). No items of income or expense were recognized as special items during the reporting period (previous year: minus €175 million).

Free operating cash flow totaled €631 million, down 3.5% from the prior-year period (previous year: €654 million). EBITDA increased in contrast to a large amount of cash tied up in working capital.

14.2 Polycarbonates

Polycarbonates Key Data

	4th quarter 2015	4th quarter 2016	Change	2015	2016	Change
	€ million	€ million	%	€ million	€ million	%
Core volume growth[1]	**+0.5%**	**+12.8%**		**+5.1%**	**+10.3%**	
Sales	**759**	**833**	**+9.7**	**3,172**	**3,298**	**+4.0**
Change in sales						
Volume	–0.3%	+13.2%		+4.6%	+10.0%	
Price	–3.9%	–2.6%		–2.6%	–4.3%	
Currency	+6.5%	–0.9%		+10.4%	–1.7%	
Portfolio	0.0%	0.0%		0.0%	0.0%	
Sales by region						
EMLA	268	270	+0.7	1,134	1,137	+0.3
NAFTA	185	207	+11.9	765	788	+3.0
APAC	306	356	+16.3	1,273	1,373	+7.9
EBITDA	**122**	**142**	**+16.4**	**558**	**704**	**+26.2**
Adjusted EBITDA	**123**	**142**	**+15.4**	**560**	**704**	**+25.7**
EBIT	**70**	**93**	**+32.9**	**374**	**507**	**+35.6**
Adjusted EBIT	**70**	**93**	**+32.9**	**376**	**507**	**+34.8**
Operating cash flow	**179**	**178**	**–0.6**	**328**	**570**	**+73.8**
Cash outflows for additions to property, plant, equipment and intangible assets	**39**	**70**	**+79.5**	**190**	**128**	**–32.6**
Free operating cash flow	**140**	**108**	**–22.9**	**138**	**442**	**>200**

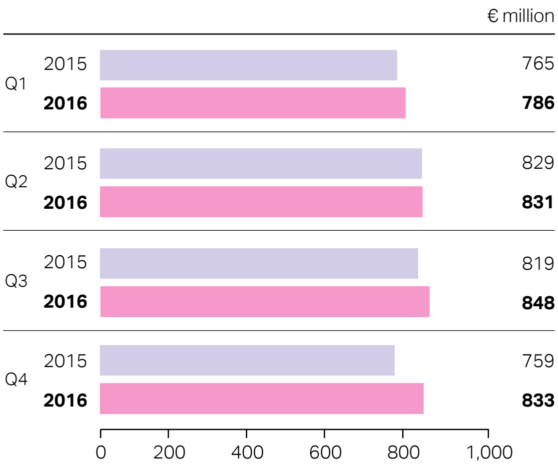
[1] Reference values calculated based on the definition of the core business effective March 31, 2016

In 2016 as a whole, core volumes in the Polycarbonates segment were up 10.3% over the prior-year period. Nearly all customer industries and all three regions contributed to the volume growth, particularly APAC.

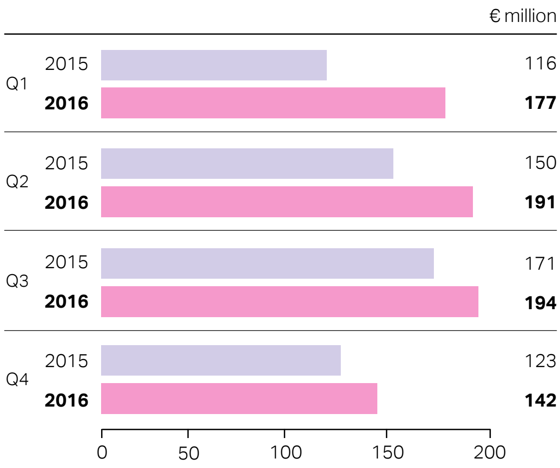
In the Polycarbonates segment, sales climbed by 4.0% in the full year 2016 to €3,298 million (previous year: €3,172 million). The increase in total volumes sold had a positive effect of 10.0% on sales. The APAC and NAFTA regions in particular were able to significantly increase volumes. Selling prices were down 4.3% overall compared with the previous year, with all regions experiencing declines due to lower raw material prices. Exchange rate developments also had a slightly negative impact on sales.

All told, sales in the EMLA region totaled €1,137 million, hovering near the prior-year level of €1,134 million. Slightly higher volumes balanced out the effect of lower selling prices on account of declining raw material prices. Sales in the NAFTA region rose by 3.0% to €788 million (previous year: €765 million). A sharp increase in volumes more than offset the slightly negative price trend and marginally negative currency effects in the region. The APAC region grew sales by 7.9% to €1,373 million (previous year: €1,273 million). Substantial volume growth overshadowed the minimal decline in selling prices and negative currency effects.

Polycarbonates
Quarterly Sales



Polycarbonates
Quarterly Adjusted EBITDA



Adjusted EBITDA in the Polycarbonates segment increased 25.7% over the prior-year period, growing to €704 million in 2016 (previous year: €560 million). There were no special items which necessitated adjustments in the reporting period (previous year: minus €2 million). The increase was mainly the result of higher volumes and improved margins.

EBIT rose by 35.6% to €507 million (previous year: €374 million). No items of income or expense were recognized as special items in the fiscal year under review (previous year: minus €2 million).

Free operating cash flow grew more than threefold compared with the previous year, to €442 million (previous year: €138 million). Key reasons for this were an improvement in EBITDA, an increase in cash released from other working capital and a decrease in cash outflows for additions to property, plant, equipment and intangible assets.

14.3 Coatings, Adhesives, Specialties

Coatings, Adhesives, Specialties Key Data

	4th quarter 2015	4th quarter 2016	Change	2015	2016	Change
	€ million	€ million	%	€ million	€ million	%
Core volume growth[1]	**–0.2%**	**0.0%**		**+2.6%**	**–0.3%**	
Sales	**477**	**481**	**+0.8**	**2,093**	**2,040**	**–2.5**
Change in sales						
Volume	0.0%	+2.4%		+2.1%	+0.6%	
Price	–2.2%	–1.7%		–1.1%	–2.4%	
Currency	+5.0%	+0.1%		+7.6%	–0.7%	
Portfolio	0.0%	0.0%		0.0%	0.0%	
Sales by region						
EMLA	229	217	–5.2	1,043	1,006	–3.5
NAFTA	112	109	–2.7	486	456	–6.2
APAC	136	155	+14.0	564	578	+2.5
EBITDA	**83**	**83**	**–**	**484**	**500**	**+3.3**
Adjusted EBITDA	**84**	**83**	**–1.2**	**491**	**500**	**+1.8**
EBIT	**60**	**59**	**–1.7**	**397**	**411**	**+3.5**
Adjusted EBIT	**60**	**59**	**–1.7**	**406**	**411**	**+1.2**
Operating cash flow	**155**	**126**	**–18.7**	**426**	**420**	**–1.4**
Cash outflows for additions to property, plant, equipment and intangible assets	**38**	**36**	**–5.3**	**107**	**79**	**–26.2**
Free operating cash flow	**117**	**90**	**–23.1**	**319**	**341**	**+6.9**

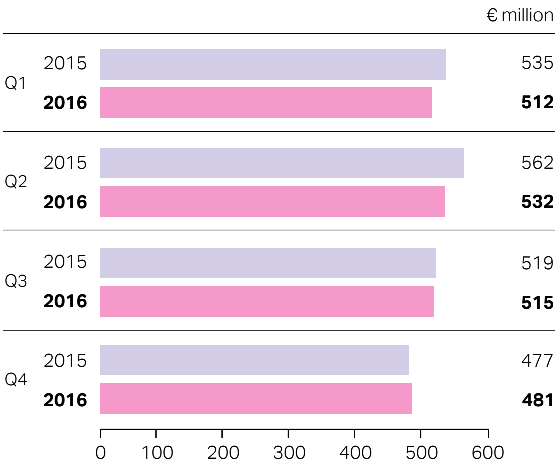
[1] Reference values calculated based on the definition of the core business effective March 31, 2016

In the Coatings, Adhesives, Specialties segment, core volumes remained at the previous year's level for 2016 as a whole despite the expected contractual termination of trading activities. Adjusted for this effect, core volume growth would have been slightly positive. Core volumes decreased somewhat in the NAFTA region, while they remained stable in EMLA and rose a little in APAC.

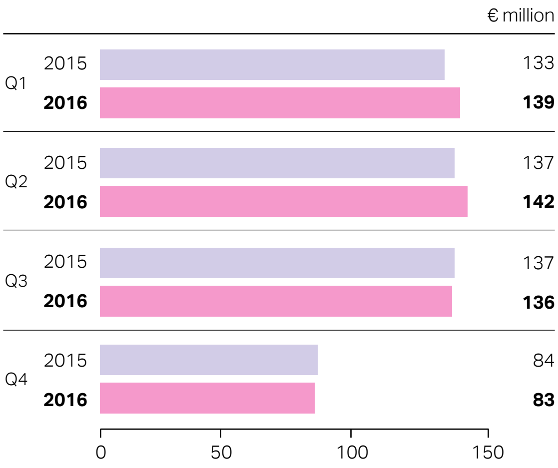
Sales of Coatings, Adhesives, Specialties were down by 2.5% to €2,040 million (previous year: €2,093 million). The decline was chiefly due to the expected contractual termination of trading activities, whereas lower selling prices were largely balanced out by higher sales volumes.

The EMLA region's sales decreased 3.5% to €1,006 million (previous year: €1,043 million), principally because of a marginal decline in selling prices. The NAFTA region also saw sales reduced, by 6.2% to €456 million (previous year: €486 million). This was due to a minor downturn in volumes and slightly negative currency effects. The APAC region saw sales increase by 2.5% to €578 million (previous year: €564 million). The volumes sold here were much higher than in the previous year whereas average selling prices were down somewhat. Unfavorable exchange rate developments had a slightly negative impact on sales.

Coatings, Adhesives, Specialties Quarterly Sales



Coatings, Adhesives, Specialties Quarterly Adjusted EBITDA



Adjusted EBITDA increased 1.8% over the prior-year period, growing to €500 million (previous year: €491 million). There were no special items which necessitated adjustments in the fiscal year under review (previous year: minus €7 million). Low selling prices were mostly balanced out by higher sales volumes. A decline in raw material prices had a positive impact on EBITDA.

EBIT rose by 3.5% to €411 million (previous year: €397 million). No items of income or expense were recognized as special items in fiscal 2016 (previous year: minus €9 million).

Free operating cash flow increased by 6.9% to €341 million (previous year: €319 million).

15. Results of Operations

Covestro Group Summary Income Statement

	2015	2016	Change
	€ million	€ million	%
Sales	12,082	11,904	–1.5
Cost of goods sold	(9,438)	(8,611)	–8.8
Selling expenses	(1,257)	(1,323)	+5.3
Research and development expenses	(257)	(259)	+0.8
General administration expenses	(480)	(451)	–6.0
Other operating expenses (–) and income (+)	30	71	>100
EBIT	**680**	**1,331**	**+95.7**
Financial result	**(175)**	**(196)**	**–12.0**
Income before income taxes	**505**	**1,135**	**>100**
Income taxes	(153)	(329)	>100
Income after income taxes	**352**	**806**	**>100**
of which attributable to noncontrolling interest	9	11	+22.2
of which attributable to Covestro AG stockholders (net income)	**343**	**795**	**>100**

Group sales in the reporting year dropped by 1.5% to €11,904 million (previous year: €12,082 million).

The cost of goods sold declined by 8.8% to €8,611 million (previous year: €9,438 million) due to lower raw material costs. In the previous year, this figure included special items for restructuring measures of €197 million. The ratio of the cost of goods sold to sales decreased to 72.3% (previous year: 78.1%).

Selling expenses rose by 5.3% to €1,323 million (previous year: €1,257 million), yielding a ratio of selling expenses to sales of 11.1% (previous year: 10.4%). Research and development expenses were almost unchanged at €259 million (previous year: €257 million). The ratio of research and development expenses to sales was 2.2% (previous year: 2.1%). These funds were mainly deployed in accessing new areas of application for our products and in optimizing process technologies and products.

General administration expenses declined by 6.0% to €451 million (previous year: €480 million). In the previous year, expenses amounting to €131 million were recognized as special items in general administration expenses. Most of this figure was attributable to special items for restructuring measures. Other operating income exceeded other operating expenses by €71 million (previous year: €30 million). The key factor here was an insurance reimbursement for a 2012 loss. In 2015, other operating income and expenses included extraordinary income of €68 million.

EBIT for the reporting year increased by 95.7% to €1,331 million (previous year: €680 million), thus improving much more strongly than sales. As a consequence, Covestro achieved an EBIT margin of 11.2% (previous year: 5.6%).

The financial result of minus €196 million (previous year: minus €175 million) was influenced mainly by the exchange loss of minus €75 million (previous year: minus €40 million), which reflects the cost of hedging exchange rate risks. Including the financial result, income before income taxes rose by 124.8% to €1,135 million (previous year: €505 million). Despite the increased income tax expense of €329 million (previous year: €153 million) resulting from higher earnings, net income after taxes and income attributable to noncontrolling interests was up by 131.8% to €795 million (previous year: €343 million).

Calculation of EBIT/EBITDA

Alongside the key indicators of core volume growth, return on capital employed (ROCE) and free operating cash flow (FOCF), Covestro also determines EBIT and EBITDA. EBITDA allows the comparison of operating performance over time since it is not affected by depreciation, amortization, impairment losses or impairment loss reversals. In cases where EBIT and EBITDA include income and expenses classified as special items, they are adjusted for these effects. This provides for a better assessment and improved comparability of operating performance over time. In the reporting year, no special items were recognized. The special items from the reference period are listed in the table below.

See section 18 "Alternative Performance Measures"

Depreciation, amortization and impairments for 2016 as a whole decreased by 7.6% to €683 million (previous year: €739 million). They comprised €641 million (previous year: €696 million) in depreciation and impairments of property, plant and equipment and €42 million (previous year: €43 million) in amortization and impairments of intangible assets. No impairment loss reversals were recognized in either the reporting or prior-year period. In fiscal year 2015, €40 million in depreciation, amortization and impairment losses were recognized as special items.

Special Items Reconciliation

	EBIT 4th quarter 2015	EBIT 4th quarter 2016	EBIT 2015	EBIT 2016	EBITDA 4th quarter 2015	EBITDA 4th quarter 2016	EBITDA 2015	EBITDA 2016
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Before special items	59	221	942	1,331	256	390	1,641	2,014
Polyurethanes	(102)	–	(175)	–	(85)	–	(137)	–
Polycarbonates	–	–	(2)	–	(1)	–	(2)	–
Coatings, Adhesives, Specialties	–	–	(9)	–	(1)	–	(7)	–
Others/Consolidation	(37)	–	(76)	–	(37)	–	(76)	–
Total special items	**(139)**	**–**	**(262)**	**–**	**(124)**	**–**	**(222)**	**–**
of which cost of goods sold	(98)	–	(197)	–	(84)	–	(157)	–
of which selling expenses	–	–	(1)	–	–	–	(1)	–
of which research and development expenses	–	–	(1)	–	–	–	(1)	–
of which general administration expenses	(38)	–	(131)	–	(37)	–	(131)	–
of which other operating income/expenses	(3)	–	68	–	(3)	–	68	–
After special items	(80)	221	680	1,331	132	390	1,419	2,014

16. Financial Position

Covestro Group Summary Statement of Cash Flows[1]

	4th quarter 2015	4th quarter 2016	2015	2016
	€ million	€ million	€ million	€ million
EBITDA	**132**	**390**	**1,419**	**2,014**
Income taxes paid	(51)	(159)	(194)	(418)
Change in pension provisions	4	11	(21)	8
(Gains) losses on retirements of noncurrent assets	3	–	(13)	1
Changes in working capital/other noncash items	462	368	282	181
Net cash provided by (used in) operating activities	**550**	**610**	**1,473**	**1,786**
Cash outflows for additions to property, plant, equipment and intangible assets	(157)	(203)	(509)	(419)
Free operating cash flow	**393**	**407**	**964**	**1,367**
Net cash provided by (used in) investing activities	**(216)**	**(373)**	**(380)**	**(1,042)**
Net cash provided by (used in) financing activities	**(147)**	**(151)**	**(645)**	**(1,122)**
Change in cash and cash equivalents due to business activities	**187**	**86**	**448**	**(378)**
Cash and cash equivalents at beginning of period	**424**	**175**	**201**	**642**
Change in cash and cash equivalents due to exchange rate movements	31	6	(7)	3
Cash and cash equivalents at end of period	**642**	**267**	**642**	**267**

[1] Presentation changed to provide more relevant information pursuant to IAS 1.41 et seqq.

Operating cash flow increased by 21.2% to €1,786 million (previous year: €1,473 million). Improved EBITDA was the main factor in the increase. A year-on-year decrease in funds released from working capital and higher income tax payments had the opposite effect. After deduction of cash outflows for additions to property, plant, equipment and intangible assets, free operating cash flow totaled €1,367 million (previous year: €964 million).

Net cash outflow for investing activities in 2016 totaled €1,042 million (previous year: €380 million). This figure mainly comprises cash outflows for additions to property, plant, equipment and intangible assets of €419 million (previous year: €509 million) and the €450 million in euro-denominated government bonds acquired in September 2016 that were transferred to pension plan assets (Metzler Trust e.V.) in a noncash transaction in December 2016. In addition, surplus cash of €150 million was invested in short-term investments.

Net cash outflow for the Covestro Group's financing activities in 2016 amounted to €1,122 million (previous year: €645 million). Borrowings of €1,793 million (previous year: €4,241 million) stood in contrast to repaid debt of €2,727 million (previous year: €6,310 million). Moreover, Covestro AG distributed dividends for the first time in May 2016 for a total of €142 million.

Net Financial Debt[1]

	Dec. 31, 2015	Dec. 31, 2016
	€ million	€ million
Bonds	–	1,494
Liabilities to banks	482	133
Liabilities under finance leases	298	265
Liabilities from derivatives	31	33
Other financial liabilities	2,070	6
Positive fair values of hedges of recorded transactions	(27)	(15)
Financial liabilities	**2,854**	**1,916**
Cash and cash equivalents	(642)	(267)
Current financial assets	(1)	(150)
Net financial debt	**2,211**	**1,499**

[1] Net financial debt is not defined in the International Financial Reporting Standards and is calculated as shown in this table.

Net financial debt decreased by €712 million in fiscal 2016 to €1,499 million (previous year: €2,211 million). Cash inflows from bond placement and from operations were used to distribute dividends and to repay in full the loan liabilities in respect of Bayer Antwerpen NV, Diegem (Belgium). In addition, the aforementioned acquisition of €450 million in government bonds with a short remaining maturity and their subsequent contribution to the pension fund (Metzler Trust e.V.) reduced cash and cash equivalents. Additionally, €150 million was invested in short-term investments, and liabilities to banks were repaid.

Financial Management

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

Covestro AG currently holds a Baa2 investment-grade rating with a stable outlook from rating agency Moody's Investors Service, London (United Kingdom).

In the first quarter of 2016, Covestro AG established a Debt Issuance Program with a total volume of €5,000 million as a framework to facilitate obtaining flexible financing from the capital market. The company is thus in the position to issue fixed- and variable-rate bonds as well as to undertake private placements.

Under the program, Covestro AG successfully placed three bonds with a total volume of €1,500 million on March 3, 2016. The bonds comprise two fixed-rate tranches with terms until October 2021 (a coupon of 1.00% and a volume of €500 million) and September 2024 (a coupon of 1.75% and a volume of €500 million) and a variable-rate tranche with a volume of €500 million, a term until March 2018 and a coupon of 0.60 percentage points above the three-month Euribor. All three bonds also received a Baa2 rating from Moody's Investors Service.

The liquidity acquired in this way was used particularly to refinance the loans from Bayer Antwerpen NV, Diegem (Belgium). The loan amount of €2,060 million remaining as of December 31, 2015, was repaid in full during the first half of 2016. In September 2015, Covestro AG concluded a syndicated multicurrency term and revolving credit facilities agreement (facilities agreement) for €2,700 million with a consortium of banks. In the course of the successful bond placement in March 2016, Covestro AG dissolved the term loan facility of €1,200 million that was part of this facilities agreement, as planned. The multicurrency revolving credit facility of €1,500 million with a term until September 2021 and a one-year extension option remains in place. No loans had been drawn against this syndicated credit facility as of December 31, 2016.

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

As a global enterprise, the Covestro Group is exposed to financial opportunities and risks which are continuously monitored within the context of financial management. Derivative financial instruments are used to minimize risks.

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

17. Net Assets

Covestro Group Summary Statement of Financial Position

	Dec. 31, 2015	Dec. 31, 2016
	€ million	€ million
Noncurrent assets	6,294	5,966
Current assets	4,237	4,268
Total assets	**10,531**	**10,234**
Equity	**3,612**	**4,216**
Noncurrent liabilities	2,355	3,544
Current liabilities	4,564	2,474
Liabilities	**6,919**	**6,018**
Total equity and liabilities	**10,531**	**10,234**

Total assets declined by €297 million from €10,531 million as of December 31, 2015, to €10,234 million as of December 31, 2016.

Noncurrent assets dropped from €328 million to €5,966 million (previous year: €6,294 million), and accounted for 58.3% of total assets. The change is attributable primarily to the reduction in property, plant and equipment by €279 million. Current assets were up €31 million to €4,268 million (previous year: €4,237 million), and their ratio to total assets was 41.7% (previous year: 40.2%). Cash and cash equivalents decreased, while trade accounts receivable and other financial assets increased.

Equity as of December 31, 2016, increased by €604 million to €4,216 million (previous year: €3,612 million). The equity ratio at the reporting date was 41.2% (previous year: 34.3%). Higher income after income taxes outweighed the remeasurement of pension obligations due to a lower interest rate and the dividend distribution in May 2016, which had the effect of reducing equity.

Liabilities were down €901 million to €6,018 million as of the reporting date (previous year: €6,919 million). Provisions for pensions and other post-employment benefits decreased by €253 million. Noncurrent financial liabilities rose €1,422 million to €1,796 million (previous year: €374 million), largely due to Covestro issuing bonds for the first time. Current financial liabilities decreased by €2,372 million to €135 million (previous year: €2,507 million). This change is attributable mostly to the repayment in full of the loans from Bayer Antwerpen NV, Diegem (Belgium), totaling €2,060 million.

Net Defined Benefit Liability for Post-employment Benefits

	Dec. 31, 2015	Dec. 31, 2016
	€ million	€ million
Net defined benefit liability for post-employment benefits	**1,462**	**1,208**

The net defined benefit liability for post-employment benefits (pension obligations less plan assets) decreased by €253 million in the reporting year to €1,208 million (previous year: €1,462 million). This was due to the transfer of €450 million in government bonds to plan assets (Metzler Trust e.V.), which stood in contrast to the upward effect of pension obligations due to lowering of the discount rate.

18. Alternative Performance Measures

Covestro uses alternative performance measures (APMs) to assess the performance of the Group which are not defined in the International Financial Reporting Standards (IFRSs). The calculation methods and reconciliation of the sales and earnings APMs to the figures reported in the financial statements are presented below.

The APMs relevant to the Covestro Group are EBITDA, return on capital employed (ROCE), free operating cash flow (FOFC) and net financial debt. Covestro uses ROCE to assess profitability in the context of the company's internal management system. EBITDA and adjusted EBITDA are also calculated as an additional indicator of profitability. FOCF is a measure of liquidity that indicates the company's ability to generate a cash surplus and finance its activities. Net financial debt gauges the Group's financial condition and financing requirements.

18.1 EBIT and EBITDA

EBIT is equal to income after income taxes plus financial result and income taxes expense. EBITDA is EBIT plus amortization and impairment losses on intangible assets and depreciation and impairment losses on property, plant and equipment, less impairment loss reversals. In order to facilitate a more accurate assessment of business operations over time, these two indicators are adjusted for special items. The special items comprise effects that are nonrecurring or do not regularly recur or attain similar magnitudes, for instance resulting from site closures, the integration of acquired businesses and events outside of our ordinary activities. No items of income or expense were recognized as special items in 2016.

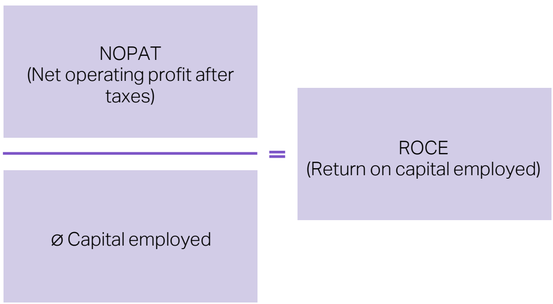
Calculation of (Adjusted) EBITDA

	2015	2016
	€ million	€ million
Sales	**12,082**	**11,904**
Cost of goods sold	(9,438)	(8,611)
Gross profit	**2,644**	**3,293**
Selling expenses	(1,257)	(1,323)
Research and development expenses	(257)	(259)
General administration expenses	(480)	(451)
Other operating income	128	126
Other operating expenses	(98)	(55)
EBIT	**680**	**1,331**
Special items	262	–
(Adjusted) EBIT	**942**	**1,331**
Depreciation, amortization and impairments	739	683
EBITDA	**1,419**	**2,014**
Special items (other than depreciation, amortization and impairment losses/loss reversals)	222	–
(Adjusted) EBITDA	**1,641**	**2,014**

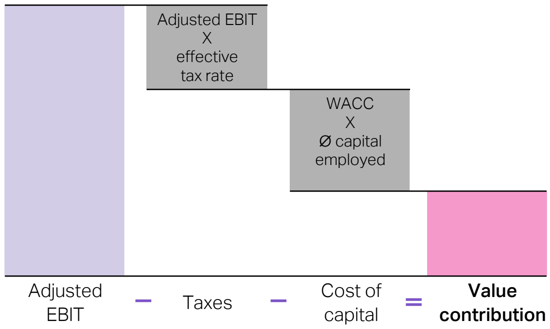
18.2 Return on Capital Employed (ROCE)

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

Calculation of the Return on Capital Employed



Calculation of the Value Contribution



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

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

NOPAT is the operating result after taxes adjusted for special items, if necessary. Taxes are determined by multiplying the effective tax rate by (adjusted) EBIT.

Calculation of the Net Operating Profit After Taxes and Value Contribution

	2015	2016
	€ million	€ million
EBIT	680	1,331
Special items	262	–
(Adjusted) EBIT	**942**	**1,331**
Effective tax rate[1]	+30.3%	+29.0%
Taxes[2]	(288)	(386)
NOPAT	**654**	**945**
WACC	+7.2%	+6.9%
Average capital employed	6,883	6,641
Cost of capital[2]	(495)	(458)
Value contribution	**159**	**487**
ROCE	**+9.5%**	**+14.2%**

[1] The calculation of the effective tax rate is presented in Note 10 “Taxes”
[2] The figures for 2015 are based on unrounded numbers. For this reason, the reported values deviate in some cases from the calculations according to commercial principles.

Calculation of average capital employed

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

Calculation of Average Capital Employed

	Dec. 31, 2015	Dec. 31, 2016
	€ million	€ million
Goodwill	261	264
Other intangible assets	132	97
Property, plant and equipment	4,934	4,655
Investments accounted for using the equity method	227	230
Other noncurrent financial assets[1]	17	9
Other receivables[2]	319	341
Deferred taxes[3]	230	187
Inventories	1,783	1,721
Trade accounts receivable	1,486	1,674
Claims for income tax refunds	16	119
Gross capital employed	**9,405**	**9,297**
Other provisions[4]	(737)	(886)
Other liabilities[5]	(185)	(207)
Deferred tax liabilities[6]	(181)	(157)
Trade accounts payable	(1,403)	(1,536)
Income tax liabilities	(56)	(73)
Capital employed	**6,843**	**6,438**
Average capital employed for 2016	**6,641**	

[1] Other noncurrent financial assets were adjusted for non-operating and financial assets.
[2] Other receivables were adjusted for non-operating and financial receivables.
[3] Deferred taxes were adjusted for deferred taxes from defined benefit plans and similar obligations.
[4] Other provisions were adjusted for provisions for interest payments.
[5] Other liabilities were adjusted for non-operating and financial liabilities.
[6] Deferred tax liabilities were adjusted for deferred tax liabilities from defined benefit plans and similar obligations.

Calculation of the cost of capital

WACC reflects the expected return on the company's capital comprising both equity and debt. The cost of equity factors used in WACC are calculated by addition of the risk-free interest rate and the risk premium for an equity investment. Covestro uses the returns on long-term German government bonds as the risk-free interest rate. We derive this risk premium from capital market information for comparable listed companies. The cost of debt factors are calculated by addition of the risk-free interest rate and a risk premium on debt capital that Covestro calculates using the financing costs of comparable companies, less the tax benefit of interest incurred on borrowed capital. Calculation of the cost of capital generally has a long-term perspective; short-term fluctuations are evened out. The capital cost factor for the Covestro Group was 6.9% in fiscal 2016 (previous year: 7.2%).

18.3 Free Operating Cash Flow (FOCF)

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

Calculation of Free Operating Cash Flow

	2015	2016
	€ million	€ million
EBITDA	**1,419**	**2,014**
Income taxes paid[1]	(194)	(418)
Change in pension provisions	(21)	8
(Gains) losses on retirements of noncurrent assets	(13)	1
Changes in working capital, other noncash items[1]	282	181
Net cash provided by (used in) operating activities	**1,473**	**1,786**
Cash outflows for additions to property, plant, equipment and intangible assets	(509)	(419)
Free operating cash flow	**964**	**1,367**

[1] Presentation changed to provide more relevant information pursuant to IAS 1.41 et seqq.

18.4 Net Financial Debt

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

Net Financial Debt

	Dec. 31, 2015	Dec. 31, 2016
	€ million	€ million
Bonds	–	1,494
Liabilities to banks	482	133
Liabilities under finance leases	298	265
Liabilities from derivatives	31	33
Other financial liabilities	2,070	6
Positive fair values of hedges of recorded transactions	(27)	(15)
Financial liabilities	**2,854**	**1,916**
Cash and cash equivalents	(642)	(267)
Current financial assets	(1)	(150)
Net financial debt	**2,211**	**1,499**

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

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

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

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

The provisions of the Accounting Directive Implementation Act (BilRUG) and of the Act Implementing the Mortgage Credit Directive and Amending Commercial Rules must be applied for the first time in 2016.

19.1 Results of Operations

Covestro AG Summary Income Statement in Accordance with the German Commercial Code

	Aug. 21 – Dec. 31, 2015	Jan. 1 – Dec. 31, 2016
	€ million	€ million
Income from investments in affiliated companies	231	589
Interest result	1	(2)
Other financial income (expense)	(17)	(12)
Net sales	9	27
Cost of services provided	(9)	(24)
General administration expenses	(10)	(56)
Other operating income	–	3
Other operating expenses	(7)	(27)
Result from ordinary activities/profit	**198**	**498**
Income taxes	(17)	(44)
Net income	**181**	**454**
Allocation to other retained earnings	(39)	(181)
Retained earnings brought forward from prior year	–	–
Distributable profit	**142**	**273**

The prior year comprises the abbreviated fiscal year from August 21, 2015, to December 31, 2015. The previous year's figures in the income statement are therefore comparable only to a limited degree with those of the reporting period under review (January 1, 2016, to December 31, 2016).

Covestro AG posted net income of €454 million in the 2016 fiscal year. This is attributable primarily to income from investments in affiliated companies of €589 million, which stemmed solely from the control and profit and loss transfer agreement with Covestro Deutschland AG.

General administration expenses totaling €56 million mainly consisted of personnel expenses for the employees of the holding company. Other operating expenses of €27 million primarily included noncurrent provisions. Other financial expenses of €12 million in the reporting year included mostly bank fees and similar expenses. These include fees for the provision of lines of credit, one-time fees associated with issuing bonds, and amortization of the discount on the bonds issued. Other income and expense items had no notable effect on earnings. Income before income taxes was €498 million and resulted in income taxes of €44 million. An allocation of €181 million was made to other retained earnings, leaving a distributable profit of €273 million.

19.2 Net Assets and Financial Position

Covestro AG Summary Statement of Financial Position in Accordance with the German Commercial Code

	Dec. 31, 2015	Dec. 31, 2016
	€ million	€ million
ASSETS		
Noncurrent assets	**1,766**	**1,766**
Intangible assets, property, plant and equipment	–	–
Financial assets	1,766	1,766
Current assets	**3,608**	**5,484**
Receivables from subsidiaries	3,577	5,383
Other assets	31	101
Cash and cash equivalents, marketable securities	–	–
Total assets	**5,374**	**7,250**
EQUITY AND LIABILITIES		
Equity	**5,302**	**5,614**
Provisions	**45**	**72**
Liabilities	**27**	**1,564**
Bonds	–	1,500
Payables to subsidiaries	21	43
Other liabilities	6	21
Total equity and liabilities	**5,374**	**7,250**

The total assets of Covestro AG as of December 31, 2016, were €7,250 million. The asset and financial position of Covestro AG is dominated by its role as a holding company in managing the subsidiaries and financing corporate activities. This is primarily reflected in the levels of financial assets (24.4% of total assets) and of the receivables from, and payables to, Group companies (74.2% of total assets).

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

Property, plant, equipment and intangible assets were of secondary importance. Including the deferred charges, other receivables reflected in current assets amounted to €18 million. These, too, were of secondary importance in relation to total assets. Other assets of €83 million mainly included income tax and VAT receivables.

Covestro AG was financed by equity in the amount of €5,615 million (previous year: €5,302 million), for an equity ratio of 77.4% (previous year: 98.7%). The decline in the equity ratio is attributable to the company's first bond issue with a total volume of €1,500 million on March 3, 2016. Along with the syndicated credit facility arranged in September 2015, the bonds are the Covestro Group's main source of long-term outside financing. Additional cash was provided to Covestro Deutschland AG in the form of an additional loan through intragroup financing. This results in an equivalent year-on-year increase in receivables from subsidiaries.

Moreover, the payment of dividends for fiscal 2016 in the amount of €142 million reduced equity.

Provisions amounting to €72 million and other liabilities (including the aforementioned bonds) of €1,564 million stood in contrast to equity.

Provisions were made up of provisions for pensions and other post-employment benefits (€3 million), tax provisions (€16 million) and other provisions (€53 million). The increase in other provisions is attributable to the recognition of a provision in connection with the Contribution, Indemnification and Post-formation Agreement.

The bonds mature as follows according to their terms: €1,000 million in one to five years; €500 million after 2021. All other remaining liabilities are due in less than one year.

Report on Future Perspectives and on Opportunities and Risks

20. Report on Future Perspectives

20.1 Economic Outlook

Economic Outlook

	Growth[1] 2016	Growth[1] forecast 2017
	%	%
World	**+2.5**	**+2.8**
European Union	+1.9	+1.6
of which Germany	+1.8	+1.9
United States	+1.6	+2.3
Asia	+4.7	+4.7
of which China	+6.7	+6.5

[1] Real growth of gross domestic product, source: IHS (Global Insight), as of January 2017

The global economy will probably grow more quickly in 2017 than in the previous year. Key factors here include the still-expansionary monetary policy pursued by central banks, and the announced or ongoing stimulus plans in the United States and China.

We anticipate growth in the European Union to be weaker than in the previous year at 1.6%. The uncertain political situation in 2017 in particular will have an adverse impact: In addition to the possible departure of the United Kingdom from the European Union and the failure of a referendum in Italy to reform the constitution, elections are scheduled in France, Germany and the Netherlands. In contrast, the European Central Bank is likely to continue to support the economy in the EU with an expansive monetary policy, and the weaker euro is expected to stimulate exports.

We expect the U.S. economy to improve in 2017, primarily because the negative effects of the prior year, such as inventory corrections and the shaky energy sector, will have considerably less influence or none at all. The positive economic trend in the United States will also be reinforced by possible tax cuts and economic stimulus.

China's economy should continue to perform relatively well in 2017, expanding at a slightly slower pace than in 2016. Growth will be buoyed by the ongoing stimulus plan, but existing surplus industrial capacity and weaker growth in the Chinese automotive industry will have the opposite effect.

Main Customer Industries[4]

In 2017, we anticipate a considerably lower rate of growth in the global automotive industry than in the previous year, principally due to the announced reduction in tax incentives in China and the resulting decline in demand. Our global growth forecast for this year is around 2%.

The pace of growth in the global construction sector should increase slightly year-on-year from 2% to 3% in 2017. A continuation of the recovery in Europe, a stable investment climate in North America, and the ongoing positive trend in Asia will contribute to this development. In Latin America, we think growth rates will continue to be negative.

In the global electrical/electronics industry, we expect slightly increased growth of around 4% worldwide in 2017. As in the previous year, the growth of approximately 5% in the emerging economies will be generated primarily in Asia, whereas the industrialized countries will expand only moderately at roughly 2%.

[4] Covestro's estimate based on the following sources: LMC Automotive Limited, B+L, CSIL (Centre for Industrial Studies), ZVEI (Zentralverband Elektrotechnik- und Elektronikindustrie e.V.)

In the global furniture industry, we also project marginally higher growth of 3% to 4% worldwide in 2017. We anticipate a robust increase in demand in North America from which furniture manufacturers in Asia should also benefit. Growth in the European furniture industry will slow somewhat, whereas the situation in Latin America should ease up significantly.

20.2 Forecast for Key Data

Forecast

	2016	Forecast 2017
Core volume growth	+7.5%	Low-to-mid-single-digit percentage increase
Free operating cash flow	€1,367 million	Slightly above the average of the last three years
ROCE	+14.2%	Slightly above the 2016 level

Covestro Group

The following forecast for the 2017 fiscal year is based on the business development described in this Annual Report and takes into account the potential risks and opportunities.

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

In fiscal 2017, free operating cash flow is expected to be slightly above the average of the last three years. We expect free operating cash flow above the average of the last three years for the Polycarbonates segment and for this figure to hover around the average of the last three years for the Polyurethanes and Coatings, Adhesives, Specialties segments.

In 2017, we expect ROCE to slightly exceed the 2016 level.

Covestro AG

The earnings of Covestro AG, as the parent company of the Covestro Group, largely comprise the earnings of that company's subsidiaries. The earnings of the subsidiaries in Germany, especially Covestro Deutschland AG, are transferred to Covestro AG under profit and loss transfer agreements. The earnings of Covestro AG are therefore expected to reflect the positive business development anticipated in the Covestro Group. Based on these factors, we expect Covestro AG to report a distributable profit that will again enable our stockholders to adequately participate in the Covestro Group's earnings for fiscal 2017. We aim to increase the dividend annually, or at least to keep it at the previous year's level. The Board of Management and the Supervisory Board are proposing a dividend of €1.35 per share for the 2016 fiscal year to the Annual Stockholder's Meeting.

21. Opportunities and Risks Report

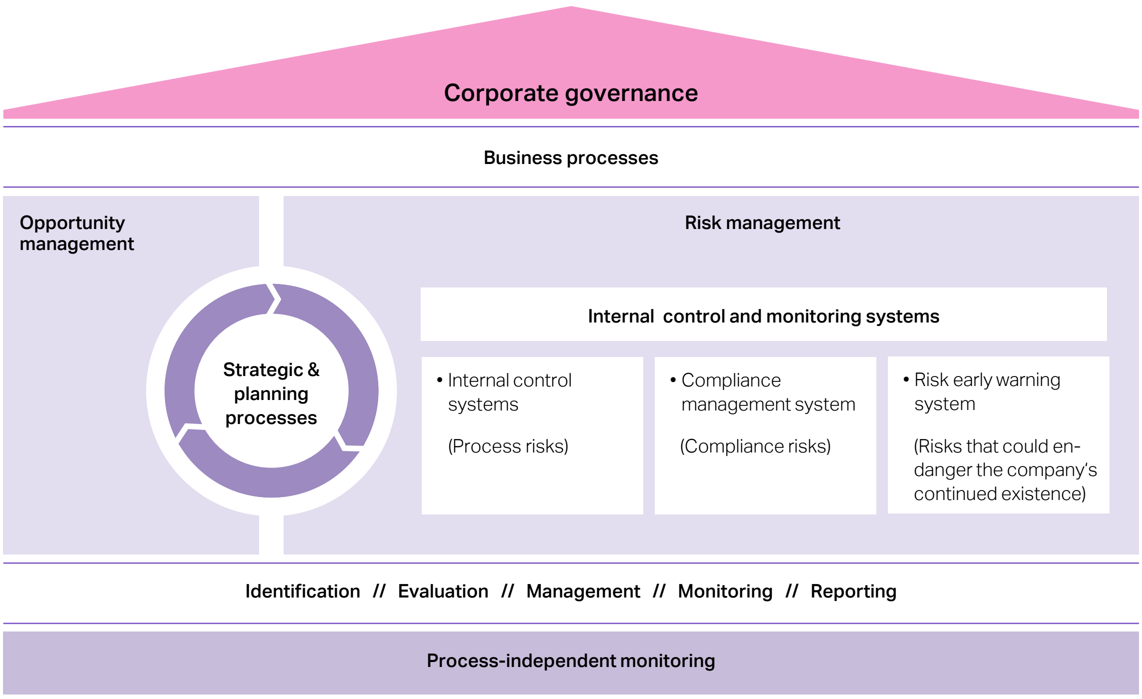
Risk management is integral to Covestro's Group-wide corporate governance system.

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

21.1 Group-wide Opportunities and Risk Management System

Corporate governance forms the basis for sustainable growth and economic success. This includes the ability to systematically identify and take advantage of opportunities while avoiding risks to the company's success.

Corporate Governance



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

To enable the Board of Management and the Supervisory Board to monitor material business risks as legally required, the following systems are in place: an internal control system ensuring proper and effective financial reporting pursuant to Section 289, Paragraph 5 and Section 315, Paragraph 2, No. 5 of the German Commercial Code (HGB); a compliance management system; and a risk early warning system pursuant to Section 91, Paragraph 2 of the German Stock Corporation Act (AktG).

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

The various systems are described below.

Internal control system for (Group) accounting and financial reporting (Report pursuant to Section 289, Paragraph 5 and Section 315, Paragraph 2, No. 5 of the German Commercial Code)

The purpose of our internal control system (ICS) is to ensure proper and effective accounting and financial reporting in accordance with Section 289, Paragraph 5 and Section 315, Paragraph 2, No. 5 of the German Commercial Code.

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

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

The management of each Covestro Group company holds responsibility for implementing the ICS standards at the local level. Using Bayer's and Covestro's own shared service centers, the Covestro Group companies prepare their financial statements locally and transmit them with the aid of a data model that is standardized throughout the Covestro Group and based on the Group accounting directive. This ensures the regulatory compliance of the consolidated financial statements.

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

The Board of Management of Covestro AG has confirmed the criteria and the effective functioning of the internal control system for accounting and financial reporting for fiscal 2016.

Compliance management system

Our compliance risk management system is designed to identify and systematically prevent potential violations before they happen. It thus contributes significantly to the integration of compliance into our business. Compliance risks are identified, evaluated, and analyzed as part of Group-wide opportunity and risk management. The Group's compliance risks are assessed quarterly. Measures to mitigate these risks are defined on the basis of this assessment. Our employees around the world regularly participate in face-to-face and web-based training to increase risk awareness, ensure the successful implementation of risk mitigation measures, and promote the creation of a global compliance culture. This holistic system enhances the systematic and preventive identification, evaluation, and prevention of risks.

The compliance risk management system is already used across the entire Group to prevent breaches of antitrust law, corruption, and violations of foreign trade and payments legislation. Our compliance regulations and processes are regularly reviewed with a view to continuous improvement. We refined the concept and focused more strongly on risk in the reporting year.

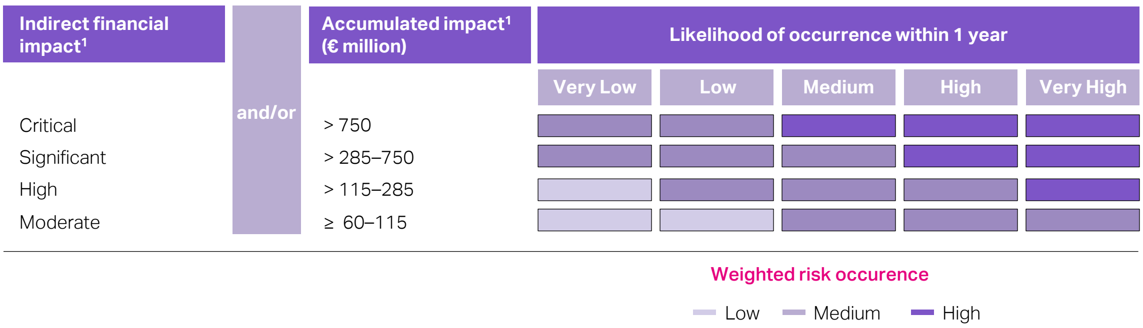
Risk early warning system
(Report pursuant to Section 91, Paragraph 2 of the German Stock Corporation Act)

Covestro implemented a structured process for the early identification of any potentially disadvantageous developments that could have a material impact on the company or endanger its continued existence. This process satisfies the legal requirements regarding an early warning system for risks pursuant to Section 91, Paragraph 2 of the German Stock Corporation Act. A central unit defines, coordinates, and monitors the framework and standards for this risk early warning system.

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

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

Rating Matrix



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

Criteria of the Classification of Indirect Financial Impact

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

Process-independent monitoring

The effectiveness of our management systems is audited and evaluated at regular intervals by the Corporate Audit unit, which performs an independent and objective audit function focused on verifying compliance with laws and directives. Corporate Audit also supports the company in achieving its goals by systematically evaluating the efficiency and effectiveness of governance, risk management, and control processes and helping to improve them. The selection of audit targets follows a risk-based approach. Corporate Audit performs its tasks according to internationally recognized standards and delivers reliable audit services. A report on the internal control system and its effectiveness is presented annually to the Audit Committee of the Supervisory Board.

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

In addition, the external auditor, as part of their audit of the annual financial statements, assesses the basic suitability of the early warning system for identifying at an early stage any risks that could endanger the company's continued existence so that suitable countermeasures can be taken. The auditor also regularly reports to the Board of Management and the Supervisory Board on the results of the audit and any weaknesses identified in the internal control system. Furthermore, the audit of the compliance management system in accordance with Auditing Standard 980 of the Institute of Public Auditors in Germany (IDW) commenced in fiscal 2016. Audit outcomes are also taken into account in the continuous improvement of our management processes.

21.2 Opportunities and Risks

Overall assessment of opportunities and risks

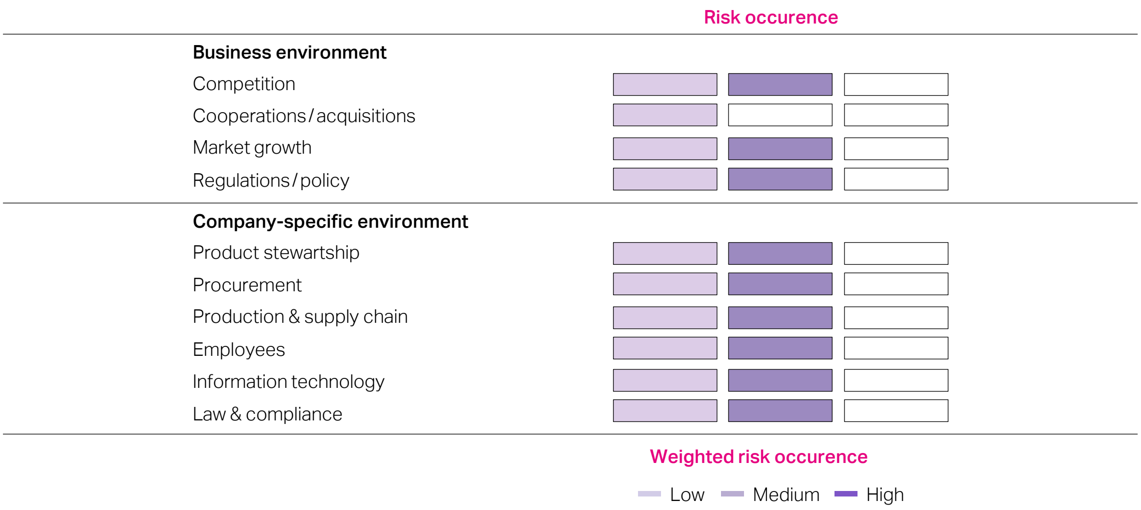
Overall, the opportunities and risks facing the Group have not changed as against the previous year. The risks reported in the following do not endanger the company's continued existence. Nor could we identify any risk interdependencies that could combine to endanger the company's continued existence.

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

21.2.1 Opportunities and Risks in General and in the Company's Business Environment

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

Risk Categories



Business environment

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

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

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

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

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

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

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

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

Innovation

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

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

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

The finite nature of natural resources and efforts to protect the climate are boosting the demand for innovative products and technologies that reduce resource consumption and lead to lower emissions. This trend is being reinforced by increasingly stringent regulatory requirements and growing consumer awareness for the need to use resources sustainably. Covestro is therefore developing new materials that help to raise energy efficiency and reduce emissions. For example, the company's polyurethane is used in the construction industry for thermal insulation, giving a positive energy balance, while its polycarbonate is used in the automotive industry to reduce vehicle weight.

Product stewardship

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

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

Procurement

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

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

Production and supply chain

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

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

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

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

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

Employees

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

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

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

Information technology

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

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

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

Law and compliance

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

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

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

Legal proceedings currently considered to involve material risks are described in Note 26 under "Legal Risks."

21.2.2 Financial Opportunities and Risks

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

The section below presents the financial risks material to the Covestro Group – independent of their likelihood of occurrence – including risks with a potential loss of less than €60 million.

Liquidity risk

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

Foreign currency opportunities and risks

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

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

A value-at-risk approach is used to manage foreign currency exposures arising from planned receivables and liabilities. Anticipated foreign currency exposures were not hedged in the reporting year since they did not exceed the limit defined for the Group. They will be rehedged using forward exchange contracts if the foreign currency risk increases significantly.

Interest-rate opportunities and risks

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

Credit risks

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

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

Risk to pension obligations from capital market developments

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

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

Takeover-relevant Information

Explanatory report pursuant to Section 289, Paragraph 4 and Section 315, Paragraph 4 of the German Commercial Code (HGB)

Composition of the capital stock

The capital stock of Covestro AG amounted to €202,500,000 as of December 31, 2016, and is composed of 202,500,000 no-par value bearer shares. Each share confers equal rights and one vote at the Stockholders' Meeting.

Investments in the capital exceeding 10% of total voting rights

At the closing date, Bayer AG held an interest of approximately 64%. We have received no notification nor are we otherwise aware of other direct or indirect investments in the capital equal to or exceeding 10% of the voting rights.

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

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

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

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

Authorized capital

Provisions of the Articles of Incorporation concerning an authorized capital are entered in the commercial register of Covestro AG. With the approval of the Supervisory Board and until October 2, 2020, the Board of Management may use the authorized capital to increase the capital stock by up to a total of €101,250,000. New shares may be issued against cash contributions and/or contributions in kind. If the authorized capital is used to issue shares in return for cash contributions, stockholders must normally be granted subscription rights. However, the Board of Management is authorized – with the consent of the Supervisory Board – to exclude subscription rights for stockholders:

(a) Where the subscription ratio gives rise to fractional amounts.

(b) To the extent necessary to grant holders or creditors of bonds (including jouissance rights) with warrants or conversion rights or obligations issued by the company or its Group companies the right to subscribe to new shares to the extent to which they would be entitled after exercise of their warrants or conversion rights, or performance of their exercise or conversion obligations.

(c) If the capital is increased by granting shares against contributions in kind.

(d) If the new shares are issued at a price that is not significantly below the stock market price and the total interest in the capital stock attributable to the new shares for which subscription rights are excluded pursuant to Section 186, Paragraph 3, Sentence 4 of the German Stock Corporation Act does not exceed 10% of the existing capital stock either on the date this authorization takes effect or the date it is utilized. The sale of own shares shall count towards this limit if they are sold during the term of this authorization and subscription rights are disapplied pursuant to Section 71, Paragraph 1, No. 8, Sentence 5 in conjunction with Section 186, Paragraph 3, Sentence 4 of the German Stock Corporation Act. Further, shares issued or to be issued to service bonds (including jouissance rights) with warrants or conversion rights or obligations shall also count toward this limit where such bonds or jouissance rights were issued during the term of this authorization and stockholders' subscription rights were excluded in analogous application of Section 186, Paragraph 3, Sentence 4 of the German Stock Corporation Act.

(e) To issue a scrip dividend in which stockholders are given the option of contributing their dividend entitlements to the company (either in full or in part) as a noncash contribution in return for the granting of new shares in the company out of the authorized capital.

Conditional capital

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

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

Acquisition and use of the own shares

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

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

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

The acquisition may only take place via the stock exchange or by means of a public purchase offer and must satisfy the principle of equal treatment of stockholders (Section 53a of the German Stock Corporation Act). If the acquisition takes place via the stock exchange, the purchase price paid by the company (excluding transaction costs) may neither exceed, nor be lower than, the company's share price, as determined by the opening auction in XETRA® trading (or a comparable successor system) on the Frankfurt Stock Exchange on the trading day, by more than 10%. If the acquisition takes place by means of a public purchase offer, the offer price paid by the company (excluding transaction costs) may neither exceed, nor be lower than, the company's share price, as determined by the closing auction in XETRA® trading (or a comparable successor system) on the Frankfurt Stock Exchange on the last trading day before the publication of the purchase offer, by more than 10%. If the total number of the shares tendered in response to a public purchase offer exceeds the offer volume, purchases may be made in proportion to the number of shares tendered (tender ratios); in addition, preferential acceptance of small numbers of shares (up to 50 shares per stockholder), as well as rounding in accordance with commercial principles to avoid notional share fractions, may be provided for. Any further stockholder tender rights are disapplied to this extent.

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

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

1.3 The Board of Management is authorized to also sell the own shares acquired under the above authorization in a manner other than via the stock exchange or via an offer to all stockholders, provided that the sale takes place against cash consideration and at a price which, at the date of sale, is not significantly lower than the market price for the same class of shares in the company. This authorization concerning the use of shares is restricted to shares whose proportionate interest in the capital stock may not in total exceed 10% of the capital stock either at the date when this authorization becomes effective or, if this amount is lower, at the date when the present authorization is exercised. The upper limit of 10% of the capital stock is reduced by the proportionate interest in the capital stock which is attributable to those shares which are issued or sold while disapplying subscription rights under or in accordance with Section 186, Paragraph 3, Sentence 4 of the German Stock Corporation Act on or after September 1, 2015. The upper limit of 10% of the capital stock is further reduced by the proportionate interest in the capital stock which is attributable to those shares which are to be issued to service bonds with warrants or conversion rights or obligations, provided that these bonds are issued while disapplying subscription rights in application of Section 186, Paragraph 3, Sentence 4 of the German Stock Corporation Act, with the necessary modifications, on or after September 1, 2015.

1.4 The Board of Management is authorized to transfer the own shares acquired under the above authorization to third parties, provided this is done for the purpose of acquiring companies, parts of companies, equity interests in companies, or other assets, or to effect business combinations.

1.5 The Board of Management is authorized to retire the own shares acquired under the above authorization without a further resolution by the Stockholders' Meeting. The shares may also be retired without reducing the capital by adjusting the proportionate interest of the remaining no-par value shares in the capital stock of the company. In this case, the Board of Management is authorized to amend the number of no-par value shares in the Articles of Incorporation.

1.6 The Board of Management is authorized to use the own shares acquired as a result of the above-mentioned authorization to pay a scrip dividend.

1.7 The Board of Management may only use the authorizations in 1.3, 1.4 and 1.6 with the consent of the Supervisory Board. Moreover, the Supervisory Board can determine that the measures taken by the Board of Management on the basis of this Stockholders' Meeting resolution may only be implemented with its consent.

1.8 Overall, the above authorizations concerning the use of shares may be utilized on one or several occasions, individually or together, in relation to partial volumes of the own shares or all own shares held in total.

2. Authorization for acquisition using derivatives

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

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

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

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

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

3. Authorization to issue convertible bonds, warrant bonds and/or profit-participation rights and to disapply subscription rights to these convertible bonds, warrant bonds and/or profit participation certificates

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

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

3.2 Currency; issue by Group companies

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

3.3 Conversion rights/obligations; conversion ratio

In the case of bonds with conversion rights, creditors may exchange their bonds for shares of the company in accordance with the terms of the bond. The proportionate interest in the capital stock upon conversion into shares may not exceed the nominal value or a lower issue price for the bond with conversion rights. The conversion ratio is the nominal value of a bond with conversion rights divided by the conversion price for a share in the company. This applies analogously if the price of the bond with conversion rights is lower than the nominal value. The conversion ratio may be rounded up or down to the nearest whole number. Moreover, an additional cash payment may be determined. It may also be determined that fractions are aggregated and/or paid out in cash. The terms of the bond may provide for a fixed or variable conversion ratio. The terms of the bond may also specify a conversion obligation. Moreover, they may entitle the company to grant the creditors of bonds with conversion rights upon or before maturity shares in the company in full or partial place of the cash amount due (company's substitution right). The terms of the bond may also authorize the company to compensate by cash in full or in part any difference between the nominal value of the bond with conversion rights and the product of the conversion ratio and a price for the share at the time of conversion that is to be specified in the terms of the bond. The share price used in the calculation in accordance with the preceding sentence must be at least 80% of the share price relevant for the lower limit of the conversion price in accordance with the following No. 3.6.

3.4 Warrants/exercise obligations

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

3.5 Granting of new or existing shares; cash payment

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

3.6 Conversion/exercise price

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

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

3.7 Other terms of the bond

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

3.8 Subscription rights; disapplying subscription rights

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

3.8.1 For fractions.

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

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

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

Material conditional agreements

One of the material agreements containing a clause for the event of a change of control pertains to a syndicated credit facility with a bank consortium.

In September 2015, Covestro AG concluded a syndicated multicurrency term and revolving credit facilities agreement (facilities agreement) for €2,700 million with a consortium of banks. In the course of the successful bond placement in March 2016, Covestro AG dissolved the term loan facility of €1,200 million that was part of this facilities agreement, as planned. The multicurrency revolving credit facility of €1,500 million with a term until September 2021 and a one-year extension option remains in place. No loans had been drawn against this syndicated credit facility as of December 31, 2016. In the event of a change of control, defined as the acquisition of more than 50% of the voting shares by a third party not associated with the Bayer Group or by a consortium of third parties, the participating banks are entitled to terminate the credit facility and demand repayment of any loans that may have been granted up to that time.

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

Declaration by the Board of Management Concerning Related Companies

Bayer AG holds around 64% of the shares in Covestro AG. There is no control and/or profit and loss transfer agreement between these two companies. For this reason, the Board of Management of Covestro AG prepared a report on the company's relationships with related companies in accordance with Section 312 of the German Stock Corporation Act (related parties report) for the period from January 1, 2016, to December 31, 2016. The related parties report was audited by the company's auditor.

At the end of related parties report, the Board of Management made the following declaration concerning relationships with related companies:

"The Board of Management declares that Covestro AG, under the conditions known to the Board of Management at the time at which legal transactions were made, received an appropriate consideration for every legal transaction. No measures in the interest or at the instigation of the controlling company or its affiliated companies have been taken or refrained from."

Corporate Governance Report

This Corporate Governance Report also constitutes the report pursuant to Section 3.10 of the German Corporate Governance Code.

22. Declaration of Conformity[5] (in accordance with the German Corporate Governance Code)

Declaration by the Board of Management and Supervisory Board

concerning the German Corporate Governance Code (May 5, 2015 version) pursuant to Section 161 of the German Stock Corporation Act

Under Section 161 of the German Stock Corporation Act, the Board of Management and the Supervisory Board of Covestro AG are required to issue an annual declaration that the company has been, and is, in compliance with the recommendations of the Government Commission on the German Corporate Governance Code ("Code") as published by the Federal Ministry of Justice in the official section of the Federal Gazette (Bundesanzeiger). Deviations from the recommendations have to be explained and disclosed with the annual declaration of conformity ("Comply or Explain"). The Covestro shares have been admitted to the regulated market of the Frankfurt Stock Exchange (Frankfurter Wertpapierbörse) on October 5, 2015. The company has released the first annual declaration in December 2015.

With respect to the past, present and future corporate governance practices at Covestro AG, the following declaration refers to the recommendations in the May 5, 2015 version of the Code.

Pursuant to Section 161 of the German Stock Corporation Act, the Board of Management and the Supervisory Board of Covestro AG hereby declare as follows:

1. The company has been in compliance with the recommendations of the Code since the last annual declaration in December 2015.
2. The company will comply with all recommendations of the Code.

Leverkusen, December 2016

For the Board of Management:

Patrick Thomas   Frank H. Lutz

For the Supervisory Board:

Dr. Richard Pott

[5] Not part of the audited management report

23. Governance[6]

This declaration on corporate governance includes the separate declaration for Covestro AG pursuant to Section 289a, Paragraph 1 and for the Covestro Group pursuant to Section 315, Paragraph 5 of the German Commercial Code (HGB).

Covestro places great importance on responsible corporate governance.

In the reporting year, the Board of Management and Supervisory Board again addressed the question of compliance with the German Corporate Governance Code. The resulting declaration of conformity was issued in December 2016 and posted on Covestro's website.

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

Covestro AG also conforms to all the suggestions contained in the German Corporate Governance Code.

Duties and activities of the Board of Management

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

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

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

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

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

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

[6] Not part of the audited management report

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

For information on the division of responsibility of Board of Management members, see "Further Information", "Governance Bodies"

As the Board of Management comprises only four members, no committees have been established.

Promotion of equal participation of women and men in leadership positions

The German Law on equal participation of women and men in leadership positions in the private and public sectors of May 24, 2015, requires certain companies in Germany to define target quotas for appointing women to their Supervisory Boards, and Boards of Management and the two management levels below, and to establish dates by which this quota is to be achieved in each case. The companies concerned were required to have defined their targets and implementation periods by September 30, 2015. By law, the first implementation period must end no later than June 30, 2017. Up to five years may exist between this and the subsequent implementation period. The law envisages an exception for the proportion of women and men on the Supervisory Boards of companies like Covestro AG which are both listed and codetermined. In these cases, mandatory minimum quotas of 30% women and 30% men already apply.

The Supervisory Board of Covestro AG decided on a target quota of at least 0% for women on the Board of Management of Covestro AG and an implementation period through June 30, 2017. This reflects the current situation.

The Board of Management of Covestro AG decided pursuant to Section 76, Paragraph 4 of the German Stock Corporation Act on target quotas for the proportion of women in the first and second management levels below the Board of Management of at least 10% and at least 20%, respectively. Both targets should be achieved by June 30, 2017. These targets apply both to Covestro AG and the Covestro Group.

Supervisory Board: oversight and control functions

The 12-member Supervisory Board advises and oversees the Board of Management. Under the German Codetermination Act, half the members of the Supervisory Board are elected by the stockholders and half by the company's employees. The Supervisory Board is directly involved in decisions on matters of fundamental importance to the company, regularly conferring with the Board of Management on the strategic alignment of Covestro AG and the Covestro Group, and on the implementation status of the business strategy. The Chair of the Supervisory Board coordinates its work and presides over the meetings.

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

The Supervisory Board discussed the new requirements stipulated by Section 100, Paragraph 5 of the German Stock Corporation Act. Most Supervisory Board members possess extensive knowledge of the chemical or polymer industries in which Covestro does business. This industry knowledge was acquired by the members either through their jobs or the requisite continuing education.

Committees of the Supervisory Board

The Supervisory Board currently has the following committees:

Presidial Committee: This comprises the Chair and Vice Chair of the Supervisory Board along with a further stockholder representative and a further employee representative. The Presidial Committee serves primarily as the mediation committee pursuant to the German Codetermination Act. It has the task of submitting proposals to the Supervisory Board on the appointment of members of the Board of Management if the necessary two-thirds majority is not achieved in the first vote at a plenary meeting. Certain decision-making powers in connection with capital measures, including the power to amend the Articles of Incorporation, have also been delegated to this committee.

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

Supervisory Board relating to the confirmation of the financial statements, the approval of the consolidated financial statements and the use of the distributable profit.

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

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

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

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

Please see the Report of the Supervisory Board for detailed information about the work of the Supervisory Board and its committees.

Objectives for the composition of the Supervisory Board

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

The following objectives for composition apply:
The Supervisory Board shall not include more than two former members of the company's Board of Management. Supervisory Board members may not perform executive functions or consulting activities for major competitors of the company or any Group company, and they must not be exposed to other significant conflicts of interest. The Supervisory Board has also resolved that 75% of its members and more than half of the stockholder representatives on the Supervisory Board are to be independent.

At least 30% of the Supervisory Board members shall be women and at least 30% shall be men.

Absent special circumstances, a Supervisory Board member shall not serve more than three full terms of office and shall not hold office beyond the end of the next Annual Stockholders' Meeting following his or her 68th birthday.

Taking into account the specific situation and international operations of Covestro and its affiliated companies, the Supervisory Board shall strive to ensure sufficient diversity among its members. Moreover, at least three members should have managerial experience in an international enterprise.

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

Implementation status of the objectives

The Supervisory Board has several members with international business experience and an international background. The objectives pertaining to age limits, length of service and independence are being met.

The Chair of the Supervisory Board, Dr. Richard Pott, who was elected to serve until the Annual Stockholders' Meeting in 2020, was a member of the Board of Management of Bayer AG until 2013. One member of the Supervisory Board, Johannes Dietsch, is currently Chief Financial Officer of Bayer AG. However, neither Richard

Pott nor Johannes Dietsch has any personal or business relationship with the company or a governance body of the company that in the opinion of the Supervisory Board gives rise to a material conflict of interest of more than a temporary nature.

The mandatory minimum quotas of 30% women and 30% men on the Supervisory Board beginning January 1, 2016, were already achieved in fiscal 2015.

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

Members of the Board of Management and Supervisory Board and their close relatives are legally required to disclose all transactions involving the purchase or sale of Covestro securities where such transactions total €5,000 or more in a calendar year. Covestro publishes details of such transactions immediately on its website and also notifies the German Federal Financial Supervisory Authority accordingly. This information is provided to the company register for archiving. The following transactions in fiscal 2016 were reported to Covestro AG

Securities Transactions by Members of the Board of Management or Supervisory Board

Date/ Place	Name/ Function	Financial instrument	ISIN	Transaction	Price/ Currency	Quantity	Total transaction volume[2]
Jan. 21, 2016/ Xetra®	Dr. Markus Steilemann, Board of Management	Shares	DE0006062144	Purchase	€31.59	1,000	€31,590.93
Feb. 26, 2016/ Xetra®	Dr. Christine Bortenlänger, Supervisory Board	Shares	DE0006062144	Purchase	€27.56	230	€6,338.80
Mar. 24, 2016/ Xetra®	Dr. Richard Pott, Supervisory Board	Shares	DE0006062144	Purchase	€31.69	868	€27,507.09
Mar. 24, 2016/ Xetra®	Johannes Dietsch, Supervisory Board	Shares	DE0006062144	Purchase	€31.69	424	€13,436.64
Mar. 24, 2016/ Xetra®	Dr.-Ing. Thomas Fischer, Supervisory Board	Shares	DE0006062144	Purchase	€31.69	238	€7,542.27
Mar. 24, 2016/ Xetra®	Regine Stachelhaus, Supervisory Board	Shares	DE0006062144	Purchase	€31.69	238	€7,542.27
Mar. 24, 2016/ Xetra®	Sabine Wirtz, Supervisory Board	Shares	DE0006062144	Purchase	€31.69	198	€6,274.66
Mar. 24, 2016/ Xetra®	Prof. Dr. Rolf Nonnenmacher, Supervisory Board	Shares	DE0006062144	Purchase	€31.69	630	€19,962.18
July 29, 2016/ Xetra®	Dr. Markus Steilemann, Board of Management	Shares	DE0006062144	Purchase	€41.63	3,000	€124,886.93
Nov. 7, 2016	Sabine Wirtz, Supervisory Board	Shares	DE0006062144	Purchase[1]	€54.72	33	€1,800.00
Nov. 7, 2016	Dr.-Ing. Thomas Fischer, Supervisory Board	Shares	DE0006062144	Purchase[1]	€54.72	66	€3,600.00

[1] Acquisition as part of the “Covestment” stock participation program
[2] The price per share and number of shares are rounded according to commercial principles. Rounding differences therefore result when the total volume is calculated using exact mathematical values.

Information filed with the company by members of the Board of Management and Supervisory Board shows that, on the closing date for the financial statements, their total holdings of Covestro AG stock or related financial instruments were equivalent to less than 1% of the issued stock.

Common values and leadership principles

See section 2 "Strategy"

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

Systematic risk management

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

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

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

Detailed reporting

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

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

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

Covestro additionally provides information at regular news conferences and analysts' meetings. The company uses the internet as a platform for the timely disclosure of information, including the dates of major publications and events, such as the annual report, interim financial reports and the Annual Stockholders' Meeting.

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

24. Compliance

Covestro manages its businesses in an ethically responsible way and in compliance with the statutory and regulatory requirements of the countries in which it operates.

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. In the interest of identifying violations of internal and external guidelines, Covestro has set up a whistleblowing tool. Employees can internally report potential compliance violations to the Compliance Officer, or use a hotline and email address accessible worldwide that also permits anonymous reports.

The Chief Compliance Officer is in charge of all compliance activities at Covestro, and in this function reports directly to the Board of Management. A central Compliance department coordinates compliance activities throughout the Covestro Group. A Compliance Committee chaired by the CFO of Covestro AG was set up and met five times in 2016. The Compliance Committee is the top-level decision-making body on compliance issues. Its responsibilities include the following: exercising a Group-wide compliance governance function, initiating and approving compliance-related rules and approving the annual training plan. A local Compliance Officer has been appointed for each country in which Covestro has employees. This person serves as a local point of contact for employees on all questions regarding legally and ethically correct conduct in business situations. The country organizations also have local compliance committees.

25. Compensation Report

The Compensation Report describes the essential features of the compensation system for the members of the Board of Management and the Supervisory Board of Covestro AG and explains the compensation of the individual members. The report conforms to the requirements of the German Commercial Code, including the principles of German Accounting Standard No. 17 (DRS 17) and to the recommendations of the German Corporate Governance Code as amended on May 5, 2015. It also complies with the International Financial Reporting Standards (IFRSs).

When comparing the compensation of the Board of Management and Supervisory Board with figures from previous years, it should be noted that the information in the 2015 Compensation Report refers to the reporting period from September 1, 2015, to December 31, 2015. On September 1, 2015, the control and profit and loss transfer agreement between Covestro Deutschland AG (formerly Bayer MaterialScience AG) and Bayer AG was terminated. Covestro Deutschland AG has been a subsidiary of Covestro AG since then. It was at this time that the Covestro Group was founded under the new parent company Covestro AG.

25.1 Compensation of the Board of Management

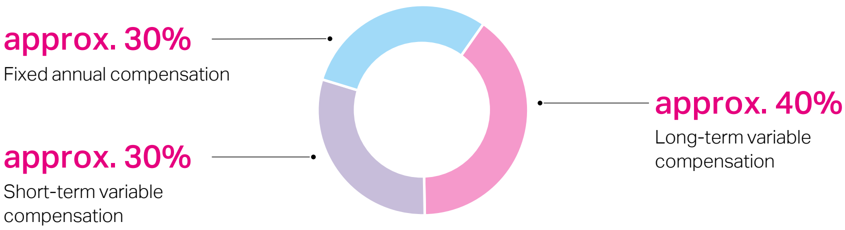
Objectives

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

Compensation structure

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

Board of Management Compensation Structure (German Commercial Code)[1]



[1] Excluding fringe benefits and pension entitlements

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

The individual performance-related components are capped at the grant date. To comply with the recommendation of the German Corporate Governance Code, a cap has also been agreed for the compensation as a whole (total of the annual fixed compensation and the variable components). The cap is 1.8 times the respective target compensation (total compensation for a Board of Management member at 100% target attainment) and is determined annually by the Supervisory Board when the fixed compensation is set. In the context of the compensation structure outlined here, the target compensation therefore amounts to 3.3 times the fixed compensation. The maximum total compensation is therefore 5.9 times the fixed compensation.

The members of the Board of Management also receive pension entitlements for themselves and their surviving dependents.

Non-performance-related components

Fixed annual compensation

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

Fringe benefits

Fringe benefits mainly comprise a company car with driver or the use of the company carpool, payments toward the cost of security equipment, and reimbursement of the cost of annual health screening examinations. They are reported at cost or the amount of the pecuniary advantage gained.

Performance-related components

Short-term variable compensation

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

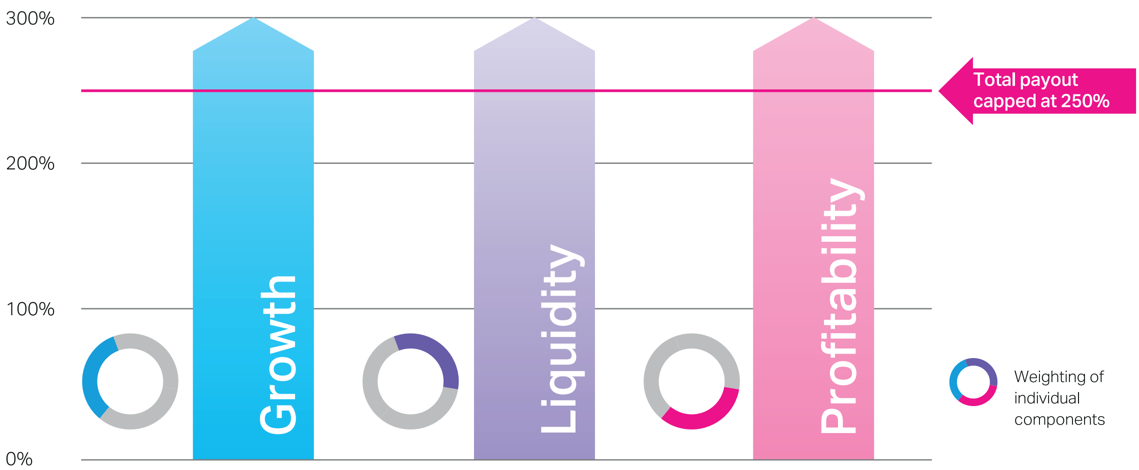
In fiscal 2016, the Group-wide "Covestro Profit Sharing Plan" was introduced, that also applies to the members of the Board of Management. It consists of a short-term variable compensation based solely on the attainment of financial targets. The system will be based on the same performance indicators used to steer the company. In the new system, one-third each of the payout will be based on target attainment in respect of growth (core volume growth), liquidity (free operating cash flow) and profitability (ROCE). In 2015, the Supervisory Board defined the global target values for minimum, 100% and maximum attainment of each target.

KPI Target Attainment

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

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

Component of Short-Term Variable Compensation



Long-term stock-based compensation

Aspire

For three years in total, the members of the Board of Management will still be participating in the ongoing performance periods (2013–2016, 2014–2017 and 2015–2018 tranches) of the "Aspire" long-term stock-based compensation program whose terms were set by Bayer. The payments made under this program are based on the Aspire Target Opportunity, which is a contractually agreed percentage of fixed annual compensation. Depending on the performance of Bayer stock, both in absolute terms and relative to the EURO STOXX 50® benchmark index, participants are granted an award of between 0% and 300% of their individual Aspire Target Opportunity at the end of the respective performance period. The payout/performance matrix according to the absolute and relative development of Bayer's share price is explained at http://www.investor.bayer.de/securedl/425.

In order to break the link between the payout and the development of Bayer's share price, which can no longer be materially influenced by the members of the Board of Management, the Supervisory Board decided in 2015 that the average price of Bayer stock and the benchmark index calculated from the closing prices for the last 30 trading days of 2015 would be used as the closing price for all current tranches and that the payout amount would be frozen accordingly. In January 2016 this resulted and in January 2017 this will result in a payout for the 2012–2015 and 2013–2016 tranches of a distribution totaling 300% of the target value in each case. In January 2018 (2014–2017 tranche), the payout will be 170% of the target value. The target value for the 2015–2018 tranche was reduced to 8/12 of the full value (pro rata for the period from January to August 2015). This was compensated for by increasing the target value for the first tranche of Covestro's own Prisma long-term compensation program launched in 2016 by 4/12. For the 2015–2018 Aspire tranche, however, the relevant average price as of year end 2015 remained below the required minimum hurdle. As a result, there will be no payout for this tranche.

Prisma

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

The payout is determined by calculating two factors: The TSR factor (total stockholder return) is the return

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

See note 21 in the notes to the consolidated financial statements

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

Pension entitlements (retirement and surviving dependents' pensions)

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

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

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

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

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

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

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

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

Benefits upon termination of service on the Board of Management

Post-contractual noncompete agreements

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

Change of control

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

Early termination of service on the Board of Management

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

Unfitness for work

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

Compensation of the Board of Management for the fiscal year

The following paragraphs report the compensation of the Board of Management of Covestro AG for the fiscal year 2016. The members of the Board of Management of Covestro AG are the same as the members of the Board of Management of Covestro Deutschland AG, which became a subsidiary of Covestro AG on September 1, 2015. Compensation is not paid for the members' work on the Board of Management of Covestro Deutschland AG.

In the 2016 reporting period, the aggregate compensation for the members of the Board of Management of Covestro AG totaled €14,957 thousand, comprising €3,001 thousand in non-performance-related components and €7,074 thousand in performance-related components. The pension service cost (German Commercial Code) amounted to €965 thousand.

The following table shows the total compensation of the individual members of the Board of Management who served in 2016 according to the German Commercial Code and DRS 17.

Total Board of Management Compensation (German Commercial Code) in Fiscal Year 2016

	Fixed annual compensation	Fringe benefits	Short-term variable compensation	Long-term variable compensation[1]	Aggregate compensation	Pension service cost[2]
	€ thousand	€ thousand	€ thousand	€ thousand	€ thousand	€ thousand
Patrick Thomas (Chair)	1,050	81	2,624	1,811	5,566	369
Frank H. Lutz	680	21	1,700	1,173	3,574	240
Dr. Klaus Schäfer	550	54	1,375	949	2,928	177
Dr. Markus Steilemann	550	15	1,375	949	2,889	179
Total	**2,830**	**171**	**7,074**	**4,882**	**14,957**	**965**

[1] Fair value when granted
[2] Including company contribution to Bayer Pensionskasse VVaG or Rheinische Pensionskasse VVaG

The following table shows the total compensation of the individual members of the Board of Management who served during the reporting period from September 1 to December 31, 2015, according to the German Commercial Code and DRS 17.

Total Board of Management Compensation (German Commercial Code) for the Reporting Period from September 1 to December 31, 2015

	Fixed annual compensation	Fringe benefits	Short-term variable compensation	Aggregate compensation	Pension service cost[1]
	€ thousand	€ thousand	€ thousand	€ thousand	€ thousand
Patrick Thomas (Chair)	317	97	811	1,225	121
Frank H. Lutz	227	7	525	759	78
Dr. Klaus Schäfer	183	34	333	550	58
Dr. Markus Steilemann	183[2]	230[3]	333	746	55
Total	**910**	**368**	**2,002**	**3,280**	**312**

[1] Including company contribution to Bayer Pensionskasse VVaG or Rheinische Pensionskasse VVaG
[2] Payment was made outside Germany in local currency on the basis of a theoretical net salary in Germany.
[3] Benefits in kind and other benefits for Dr. Steilemann include expenses associated with an international assignment, e.g., payment of rental costs in line with customary local rates.

Fixed annual compensation

The fixed annual compensation of Board of Management members was not adjusted in 2016. In the 2016 reporting period, it totaled €2,830 thousand for all members.

Short-term variablecompensation

In 2016, the total short-term variable compensation for all the members of the Board of Management totaled €7,074 after deduction of the solidarity contribution. The solidarity contribution is made by all employees of the companies covered by the respective agreements with the employee representatives to help safeguard jobs at the German sites. For the 2016 reporting period, the contribution amounted to 0.02% of each member's Covestro PSP award. By resolution of the Supervisory Board, this is also withheld from the Board of Management.

Long-term stock-based compensation (Aspire and Prisma)

The total compensation according to the German Commercial Code includes long-term stock-based compensation (Prisma) with a fair value when granted of €4,882 thousand.

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

Provisions of €4,359 thousand were established for the Aspire and Prisma entitlements of the members of the Board of Management serving as of December 31, 2016.

Stock-based Compensation (IFRSs) for 2016

	Patrick Thomas (Chair)	Frank H. Lutz (Finance and Labor Director)	Dr. Klaus Schäfer (Production and Technology)	Dr. Markus Steilemann (Innovation)	Total
	€ thousand	€ thousand	€ thousand	€ thousand	€ thousand
Stock-based compensation entitlements earned in the reporting period[1]	1,250	610	535	497	2,892
Change in value of existing entitlements in the reporting period[2]	–	–	–	–	–
Total	**1,250**	**610**	**535**	**497**	**2,892**

[1] Long-term variable compensation from newly earned entitlements includes the Aspire program from the years 2013, 2014 and 2015 and the Prisma program from 2016, because this compensation was earned over a period of four fiscal years. It is stated at its pro-rata fair value in 2016.
[2] The previous entitlements from the Aspire programs have been frozen on the basis of the 2015 closing price and will therefore no longer change.

Aspire Program Compensation (IFRSs) for the Reporting Period from September 1, to December 31, 2015

	Patrick Thomas (Chair)	Frank H. Lutz (Finance and Labor Director)	Dr. Klaus Schäfer (Production and Technology)	Dr. Markus Steilemann (Innovation)	Total
	€ thousand	€ thousand	€ thousand	€ thousand	€ thousand
Stock-based compensation entitlements earned in the reporting period[1]	233	14	53	30	330
Change in value of existing entitlements in the reporting period[2]	155	6	35	20	216
Total	**388**	**20**	**88**	**50**	**546**

[1] The newly earned entitlements are derived from the 2012, 2013, 2014 and 2015 tranches of the Aspire program because this compensation was earned over a period of four fiscal years. It is stated at its pro-rata fair value in 2015.
[2] This line shows the change in the value of the entitlements already earned in 2012, 2013 and 2014.

Pension entitlements

The pension service cost recognized for the members of the Board of Management in the reporting year was €965 thousand according to the German Commercial Code, while the current service cost for pension entitlements recognized according to IFRSs was €1,298 thousand.

The service cost and the settlement or present value of the pension obligations attributable to the individual members of the Board of Management are shown in the following table.

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

Pension Entitlements (German Commercial Code and IFRSs) in Fiscal Year 2016

	German Commercial Code		IFRSs	
	Pension service cost[1]	Settlement value of pension obligations as of December 31	Service cost for pension entitlements	Present value of defined pension obligation as of December 31
	€ thousand	€ thousand	€ thousand	€ thousand
Patrick Thomas (Chair)	369	3,137	456	4,432
Frank H. Lutz	240	314	335	535
Dr. Klaus Schäfer	177	1,888	242	3,202
Dr. Markus Steilemann	179	575	265	1,217
Total	**965**	**5,914**	**1,298**	**9,386**

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

Pension Entitlements (German Commercial Code and IFRSs) for the Reporting Period from September 1 to December 31, 2015

	German Commercial Code		IFRSs	
	Pension service cost[1]	Settlement value of pension obligations as of December 31	Service cost for pension entitlements	Present value of defined pension obligation as of December 31
	€ thousand	€ thousand	€ thousand	€ thousand
Patrick Thomas (Chair)	121	2,784	154	3,514
Frank H. Lutz	78	106	114	146
Dr. Klaus Schäfer	58	1,864	82	2,735
Dr. Markus Steilemann	55	421	86	778
Total	**312**	**5,175**	**436**	**7,173**

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

25.2 Disclosures Pursuant to the Recommendations of the German Corporate Governance Code

The following tables show the compensation and fringe benefits paid for the 2016 reporting period or the prior-year period, including the maximum and minimum achievable variable compensation, and the allocation of compensation for the reporting period or the prior-year period in the line with the recommendations in the May 5, 2015, version of the German Corporate Governance Code.

Compensation and Benefits Granted for Fiscal Year 2016

	Patrick Thomas (Chair)			Frank H. Lutz (Finance and Labor Director)			Dr. Klaus Schäfer (Production and Technology)			Dr. Markus Steilemann (Innovation)		
€ thousand	Target value	Min.	Max.	Target value	Min.	Max.	Target value	Min.	Max.	Target value	Min.	Max.
Fixed annual compensation	1,050	1,050	1,050	680	680	680	550	550	550	550	550	550
Fringe benefits	81	81	81	21	21	21	54	54	54	15	15	15
Total fixed compensation	**1,131**	**1,131**	**1,131**	**701**	**701**	**701**	**604**	**604**	**604**	**565**	**565**	**565**
Short-term variable compensation	1,050	–	2,625	680	–	1,700	550	–	1,375	550	–	1,375
Long-term stock-based compensation (2016–2019 Prisma tranche)	1,811[1]	–	3,640	1,173[1]	–	2,357	949[1]	–	1,907	949[1]	–	1,907
Total	**3,992**	**1,131**	**7,396**	**2,554**	**701**	**4,758**	**2,103**	**604**	**3,886**	**2,064**	**565**	**3,847**
Benefit expense	456	456	456	335	335	335	242	242	242	265	265	265
Total compensation	**4,448**	**1,587**	**7,852**	**2,889**	**1,036**	**5,093**	**2,345**	**846**	**4,128**	**2,329**	**830**	**4,112**

[1] Fair value when granted

Compensation and Benefits Granted for the Reporting Period from September 1 to December 31, 2015

	Patrick Thomas (Chair)			Frank H. Lutz (Finance and Labor Director)			Dr. Klaus Schäfer (Production and Technology)			Dr. Markus Steilemann (Innovation)		
€ thousand	Target value	Min.	Max.	Target value	Min.	Max.	Target value	Min.	Max.	Target value	Min.	Max.
Fixed annual compensation	317	317	317	227	227	227	183	183	183	183[1]	183[1]	183[1]
Fringe benefits	97	97	97	7	7	7	34	34	34	230[2]	230[2]	230[2]
Total fixed compensation	**414**	**414**	**414**	**234**	**234**	**234**	**217**	**217**	**217**	**413**	**413**	**413**
Short-term variable compensation	350	–	933	227	–	605	183	–	488	183	–	488
Total	**764**	**414**	**1,347**	**461**	**234**	**839**	**400**	**217**	**705**	**596**	**413**	**901**
Benefit expense	154	154	154	114	114	114	82	82	82	86	86	86
Total compensation	**918**	**568**	**1,501**	**575**	**348**	**953**	**482**	**299**	**787**	**682**	**499**	**987**

[1] Payment was made outside Germany in local currency on the basis of a theoretical net salary in Germany.
[2] Benefits in kind and other benefits for Dr. Steilemann include expenses associated with an international assignment, e.g., payment of rental costs in line with customary local rates.

Allocation of Compensation in/for Fiscal Year 2016

	Patrick Thomas (Chair)	Frank H. Lutz (Finance and Labor Director)	Dr. Klaus Schäfer (Production and Technology)	Dr. Markus Steilemann (Innovation)
	€ thousand	€ thousand	€ thousand	€ thousand
Fixed annual compensation	1,050	680	550	550
Fringe benefits	81	21	54	15
Total	**1,131**	**701**	**604**	**565**
Short-term variable compensation	2,624	1,700	1,375	1,375
Long-term stock-based compensation (2012–2015 Aspire tranche)[1]	946	–	217[2]	93[2]
Total	**4,701**	**2,401**	**2,196**	**2,033**
Benefit expense	456	335	242	265
Total compensation	**5,157**	**2,736**	**2,438**	**2,298**

[1] The Aspire tranche was paid out for a performance period that mostly occurred prior to the start of the Board of Management term.
[2] Payment was made in part outside Germany in local currency on the basis of a theoretical net value in Germany.

Allocation of Compensation for the Reporting Period from September 1 to December 31, 2015

	Patrick Thomas (Chair)	Frank H. Lutz (Finance and Labor Director)	Dr. Klaus Schäfer (Production and Technology)	Dr. Markus Steilemann (Innovation)
	€ thousand	€ thousand	€ thousand	€ thousand
Fixed annual compensation	317	227	183	183[1]
Fringe benefits	97	7	34	230[2]
Total	**414**	**234**	**217**	**413**
Short-term variable compensation	811	525	333	333
Total	**1,225**	**759**	**550**	**746**
Benefit expense	154	114	82	86
Total compensation	**1,379**	**873**	**632**	**832**

[1] Payment was made outside Germany in local currency on the basis of a theoretical net salary in Germany.
[2] Benefits in kind and other benefits for Dr. Steilemann include expenses associated with an international assignment, e.g., payment of rental costs in line with customary local rates.

25.3 Compensation of the Supervisory Board

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

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

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

The members of the Supervisory Board have given a voluntary pledge that they will each purchase Covestro shares for 25% of their fixed compensation, including any compensation for committee membership (before taxes), and hold these shares for as long as they remain members of the Supervisory Board. This does not apply to members who transfer at least 85% of their fixed compensation to the Hans Böckler Foundation in accordance with the rules of the German Trade Union Confederation or whose service or employment contract with a company requires them to transfer such compensation to that company. If less than 85% of the fixed compensation is transferred, the voluntary pledge applies to the portion not transferred. By voluntarily pledging to invest in and hold Covestro shares, the Supervisory Board members reinforce their interest in the long-term, sustainable success of the company.

Compensation of the Supervisory Board for the fiscal year

The following tables outline the components of each Covestro AG Supervisory Board member's compensation for the 2016 reporting period or the prior-year period.

Compensation of the Members of the Supervisory Board of Covestro AG for 2016

	Fixed compensation	Attendance fee	Total
	€ thousand	€ thousand	€ thousand
Ferdinando Falco Beccalli	100	3	103
Dr. Christine Bortenlänger	100	4	104
Johannes Dietsch	145	8	153
Dr.-Ing. Thomas Fischer	120	4	124
Peter Hausmann	145	7	152
Petra Kronen (Vice Chair)	150	8	158
Irena Küstner	125	6	131
Michael Mostert[1]	74	2	76
Prof. Dr. Rolf Nonnenmacher	150	7	157
Dr. Richard Pott (Chair)	300	8	308
Regine Stachelhaus	120	4	124
Sabine Wirtz	100	4	104
Frank Werth[2]	26	2	28
Total	**1,655**	**67**	**1,722**

[1] Member of the Supervisory Board until September 27, 2016
[2] Member of the Supervisory Board since September 28, 2016

Compensation of the Members of the Supervisory Board of Covestro AG for the Reporting Period from September 1 to December 31, 2015

	Fixed compensation	Attendance fee	Total
	€ thousand	€ thousand	€ thousand
Ferdinando Falco Beccalli[1]	25	3	28
Dr. Christine Bortenlänger[1]	25	2	27
Johannes Dietsch (Vice Chair until Sept. 30, 2015)	49	6	55
Dr.-Ing. Thomas Fischer[1]	30	3	33
Peter Hausmann[1]	37	3	40
Petra Kronen[1] (Vice Chair since Oct. 1, 2015)	38	3	41
Irena Küstner[1]	32	3	35
Michael Mostert[1]	25	3	28
Prof. Dr. Rolf Nonnenmacher	46	6	52
Dr. Richard Pott (Chair)	100	6	106
Regine Stachelhaus[1]	30	3	33
Sabine Wirtz[1]	25	3	28
Total	**462**	**44**	**506**

[1] Member of the Supervisory Board since October 1, 2015

In addition to their compensation as members of the Supervisory Board, those employee representatives who are employees of Covestro Group companies receive compensation unrelated to their service on the Supervisory Board. The total amount of such compensation was €503 thousand (reporting period from September 1 to December 31, 2015: €144 thousand).

No compensation was paid or benefits granted to members of the Supervisory Board for personally performed services such as consulting or agency services. The company has purchased insurance for the members of the Supervisory Board to cover their personal liability arising from their service on the Supervisory Board.

25.4 Other Information

There were no advances or loans to members of the Board of Management or the Supervisory Board outstanding as of either December 31, 2015, or December 31, 2016.

Consolidated Financial Statements
of Covestro AG as of December 31, 2016

CONSOLIDATED FINANCIAL STATEMENTS

Covestro Group Consolidated Income Statement

	Note	2015	2016
		€ million	€ million
Net sales		**12,082**	**11,904**
Cost of goods sold		(9,438)	(8,611)
Gross profit		**2,644**	**3,293**
Selling expenses		(1,257)	(1,323)
Research and development expenses		(257)	(259)
General administration expenses		(480)	(451)
Other operating income	6	128	126
Other operating expenses	7	(98)	(55)
EBIT[1]		**680**	**1,331**
Equity-method loss		(10)	(20)
Interest income		4	5
Interest expense		(89)	(53)
Other financial result		(80)	(128)
Financial result	**9**	**(175)**	**(196)**
Income before income taxes		**505**	**1,135**
Income taxes	10	(153)	(329)
Income after income taxes		**352**	**806**
of which attributable to noncontrolling interest		9	11
of which attributable to Covestro AG stockholders (net income)		343	795
		€	€
Basic earnings per share[2]	**11**	**2.21**	**3.93**
Diluted earnings per share[2]	**11**	**2.21**	**3.93**

[1] EBIT = income after income taxes plus financial result and income tax expense
[2] Weighted average number of no-par voting shares of Covestro AG in issue: 202,500,000 (previous year: 154,897,260)

Covestro Group Consolidated Statement of Comprehensive Income

	Note	2015	2016
		€ million	€ million
Income after income taxes		**352**	**806**
Remeasurements to the net defined benefit liability for post-employment benefit plans	20	66	(138)
Income taxes	10	(8)	43
Other comprehensive income from remeasurements of the net defined benefit liability for post-employment benefit plans		**58**	**(95)**
Other comprehensive income that will not be reclassified subsequently to profit or loss		**58**	**(95)**
Changes in fair values of derivatives designated as cash flow hedges	24	(4)	–
Reclassified to profit or loss		2	–
Income taxes	10	–	–
Other comprehensive income from cash flow hedges		**(2)**	**–**
Changes in fair values of available-for-sale financial assets	24	–	(1)
Reclassified to profit or loss		–	1
Income taxes	10	–	–
Other comprehensive income from available-for-sale financial assets		**–**	**–**
Changes in exchange differences recognized on translation of operations outside the eurozone		144	36
Reclassified to profit or loss		–	–
Other comprehensive income from exchange differences		**144**	**36**
Other comprehensive income that may be reclassified subsequently to profit or loss		**142**	**36**
Effects of changes in scope of consolidation		**6**	**–**
Total other comprehensive income[1]		**206**	**(59)**
of which attributable to noncontrolling interest		–	1
of which attributable to Covestro AG stockholders		206	(60)
Total comprehensive income		**558**	**747**
of which attributable to noncontrolling interest		9	12
of which attributable to Covestro AG stockholders		549	735

[1] Total changes recognized outside profit or loss

Covestro Group Consolidated Statement of Financial Position

	Note	Dec. 31, 2015	Dec. 31, 2016
		€ million	€ million
Noncurrent assets			
Goodwill	12	261	264
Other intangible assets	12	132	97
Property, plant and equipment	13	4,934	4,655
Investments accounted for using the equity method	14	227	230
Other financial assets	15	40	31
Other receivables	18	60	41
Deferred taxes	10	640	648
		6,294	**5,966**
Current assets			
Inventories	16	1,783	1,721
Trade accounts receivable	17	1,486	1,674
Other financial assets	15	33	171
Other receivables	18	277	316
Claims for income tax refunds		16	119
Cash and cash equivalents		642	267
		4,237	**4,268**
Total assets		**10,531**	**10,234**
Equity	**19**		
Capital stock of Covestro AG		203	203
Capital reserves of Covestro AG		4,908	4,908
Other reserves		(1,515)	(922)
Equity attributable to Covestro AG stockholders		**3,596**	**4,189**
Equity attributable to noncontrolling interest		16	27
		3,612	**4,216**
Noncurrent liabilities			
Provisions for pensions and other post-employment benefits	20	1,462	1,209
Other provisions	21	309	319
Financial liabilities	22	374	1,796
Income tax liabilities	10	–	36
Other liabilities	23	29	26
Deferred taxes	10	181	158
		2,355	**3,544**
Current liabilities			
Other provisions	21	429	569
Financial liabilities	22	2,507	135
Trade accounts payable		1,403	1,536
Income tax liabilities	10	56	37
Other liabilities	23	169	197
		4,564	**2,474**
Total equity and liabilities		**10,531**	**10,234**

Covestro Group Consolidated Statement of Cash Flows

	Note	2015	2016
		€ million	€ million
Income after income taxes		352	806
Income taxes		153	329
Financial result		175	196
Income taxes paid[1]		(194)	(418)
Depreciation, amortization and impairments		739	683
Change in pension provisions		(21)	8
(Gains)/losses on retirements of noncurrent assets		(13)	1
Decrease/(increase) in inventories		213	73
Decrease/(increase) in trade accounts receivable		172	(171)
(Decrease)/increase in trade accounts payable		(270)	123
Changes in other working capital, other noncash items[1]		167	156
Net cash provided by (used in) operating activities	**27.1**	**1,473**	**1,786**
Cash outflows for additions to property, plant, equipment and intangible assets		(509)	(419)
Cash inflows from sales of property, plant, equipment and other assets		42	6
Cash outflows for noncurrent financial assets[1]		(101)	(19)
Cash inflows from noncurrent financial assets[1]		173	4
Cash outflows for acquisitions less acquired cash		(14)	–
Interest and dividends received		6	7
Cash inflows from/(outflows for) other current financial assets[1]		23	(621)
Net cash provided by (used in) investing activities	**27.2**	**(380)**	**(1,042)**
Capital contribution from Bayer AG		1,855	–
Capital contribution from IPO		1,485	–
Financial transactions with the Bayer Group		(1,806)	–
Cash outflows for profit transfer to Bayer AG		(5)	–
Dividend payments and withholding tax on dividends		(12)	(143)
Issuances of debt		4,241	1,793
Retirements of debt		(6,310)	(2,727)
Interest paid		(93)	(45)
Net cash provided by (used in) financing activities	**27.3**	**(645)**	**(1,122)**
Change in cash and cash equivalents due to business activities		**448**	**(378)**
Cash and cash equivalents at beginning of year		**201**	**642**
Change in cash and cash equivalents due to exchange rate movements		(7)	3
Cash and cash equivalents at end of year		**642**	**267**

[1] Presentation changed to provide more relevant information pursuant to IAS 1.41 et seqq. For additional information, please see Note 27.

Covestro Group Consolidated Statement of Changes in Equity

					Accumulated other comprehensive income						
	Capital stock of Covestro AG	Capital reserves of Covestro AG	Retained earnings incl. total income		Currency translation	Fair value of available for sale financial assets	Cashflow hedges	Revaluation surplus	Equity attributable to Covestro AG stockholders	Equity attributable to noncontrolling interest	Equity
	€ million	€ million	€ million		€ million	€ million	€ million	€ million	€ million	€ million	€ million
Dec. 31, 2014			**1,427**		**340**	**–**	**2**	**1**	**1,770**	**17**	**1,787**
Contribution to capital stock from Bayer AG	140								140		140
Cash contribution from Bayer AG		1,715							1,715		1,715
Capital increase from IPO[1]	63	1,427							1,490		1,490
Contribution in kind of shares of Covestro Deutschland AG from Bayer AG		1,766	(1,766)						–		–
(Profit) / loss transfer to Bayer AG			(5)						(5)		(5)
Dividend payments			(7)						(7)	(6)	(13)
Other changes			(2,055)					(1)	(2,056)	(4)	(2,060)
Income after income taxes			343						343	9	352
Other comprehensive income			64		144	–	(2)		206	–	206
Total comprehensive income			**407**		**144**	**–**	**(2)**		**549**	**9**	**558**
Dec. 31, 2015	**203**	**4,908**	**(1,999)**		**484**	**–**	**–**	**–**	**3,596**	**16**	**3,612**
Dec. 31, 2015	**203**	**4,908**	**(1,999)**		**484**	**–**	**–**	**–**	**3,596**	**16**	**3,612**
Dividend payments			(142)						(142)	(1)	(143)
Other changes			–					–	–	–	–
Income after income taxes			795						795	11	806
Other comprehensive income			(95)		35	–	–		(60)	1	(59)
Total comprehensive income			**700**		**35**	**–**	**–**		**735**	**12**	**747**
Dec. 31, 2016	**203**	**4,908**	**(1,441)**		**519**	**–**	**–**	**–**	**4,189**	**27**	**4,216**

[1] After deduction of transaction costs and deferred taxes

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS OF THE COVESTRO GROUP

Principles and Methods

1. General Information

Covestro AG is a stock exchange-listed corporation headquartered at Kaiser-Wilhelm-Allee 60, 51373 Leverkusen (Germany), (Covestro AG). The consolidated financial statements of Covestro AG for the period ended December 31, 2016, cover Covestro AG and its subsidiaries, joint arrangements and associated companies. They have been prepared according to the International Financial Reporting Standards (IFRSs) of the International Accounting Standards Board, London (United Kingdom), (IASB), as endorsed by the European Union and in effect at the reporting date, the Interpretations (IFRICs) of the IFRS Interpretations Committee (IFRS IC) and the Interpretations published by the Standing Interpretations Committee (SIC), as well as the additional requirements of German commercial law pursuant to Section 315a, Paragraph 1 of the German Commercial Code (HGB) for the exempting IFRS consolidated financial statements.

The declaration pertaining to the German Corporate Governance Code pursuant to Section 161 of the German Stock Corporation Act (AktG) has been issued and made available to stockholders. It is reproduced in section 22 of the management report.

As explained in the consolidated financial statements as of December 31, 2015, the predecessor accounting approach was applied in these Financial Statements in accordance with the rules on business combinations under common control. We utilized the option of presenting the comparative information required under IFRSs as if the legal transfers of the business activities had already previously taken place.

If certain items in the income statement, statement of comprehensive income, statement of financial position, statement of cash flows and statement of changes in equity of the Covestro Group are condensed for the sake of clarity, this is explained in the notes. The income statement has been prepared using the cost-of-sales method. Assets and liabilities are classified by maturity. They are classified as current if they mature within one year or within the normal business cycle of the companies included in the Covestro Group or are held for sale. Inventories and trade accounts receivable and payable are consistently presented as current. Deferred tax assets and deferred tax liabilities and pension provisions are consistently presented as noncurrent.

The consolidated financial statements are drawn up in euros. Amounts are stated in millions of euros (€ million) except where otherwise indicated.

Exchange rates

In the reporting period, the following exchange rates were used for the major currencies of relevance to the Covestro Group:

Closing Rates for Major Currencies

		Closing Rates	
€1/		2015	2016
BRL	Brazil	4.31	3.43
CNY	China	7.06	7.35
HKD	Hong Kong	8.44	8.18
INR	India	72.02	71.59
JPY	Japan	131.07	123.40
MXN	Mexico	18.91	21.77
USD	United States	1.09	1.05

Average Rates for Major Currencies

		Average Rates	
€1/		2015	2016
BRL	Brazil	3.64	3.84
CNY	China	6.97	7.36
HKD	Hong Kong	8.60	8.59
INR	India	71.14	74.33
JPY	Japan	134.28	120.06
MXN	Mexico	17.56	20.62
USD	United States	1.11	1.11

2. Effects of New Financial Reporting Standards

2.1 Financial Reporting Standards Applied for the First Time in the Reporting Period

IFRS Pronouncement (published on)	Title	Effective for annual periods beginning on or after
Amendments to IFRS 11 (May 6, 2014)	Accounting for Acquisitions of Interests in Joint Operations	January 1, 2016
Amendments to IAS 16 and IAS 38 (May 12, 2014)	Clarification of Acceptable Methods of Depreciation and Amortisation	January 1, 2016
Amendments to IAS 16 and IAS 41 (June 30, 2014)	Agriculture: Bearer Plants	January 1, 2016
Amendments to IAS 27 (August 12, 2014)	Equity Method in Separate Financial Statements	January 1, 2016
Annual Improvements to IFRS (September 25, 2014)	2012–2014 Cycle	January 1, 2016
Amendments to IAS 1 (December 18, 2014)	Disclosure Initiative	January 1, 2016
Amendments to IFRS 10, IFRS 12 and IAS 28 (December 18, 2014)	Investment Entities: Applying the Consolidation Exception	January 1, 2016

The first-time application of these financial reporting standards either had no impact or no material impact on the presentation of the Covestro Group's net assets, financial position and results of operations.

IFRS 14 (Regulatory Deferral Accounts), which was published by the IASB on January 30, 2014, was to have been applied for the first time from January 1, 2016. As it has not yet been endorsed by the European Union, the standard has not been applied to date. The changes are not expected to have an impact on the presentation of the Covestro Group's net assets, financial position and results of operations.

2.2 Published Financial Reporting Standards That Have not yet Been Applied

The IASB and the IFRS IC have issued the following standards, amendments to standards, exposure drafts of standards and interpretations whose application has not yet been mandatory to date. The application of these IFRS standards is conditional upon their endorsement by the European Union.

IFRS Pronouncement (published on)	Title	Effective for annual periods beginning on or after
Endorsed by the EU		
IFRS 15 (May 28, 2014)	Revenue from Contracts with Customers	January 1, 2018
Amendments to IFRS 15 (September 11, 2015)	Effective Date of IFRS 15	January 1, 2018
IFRS 9 (July 24, 2014)	Financial Instruments	January 1, 2018
Not yet endorsed by the EU		
Amendments to IFRS 10 and IAS 28 (September 11, 2014)	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture	Deferred indefinitely
IFRS 16 (January 13, 2016)	Leases	January 1, 2019
Amendments to IAS 12 (January 19, 2016)	Recognition of Deferred Tax Assets for Unrealised Losses	January 1, 2017
Amendments to IAS 7 (January 29, 2016)	Disclosure Initiative	January 1, 2017
Amendments to IFRS 15 (April 12, 2016)	Clarifications to IFRS 15 – Revenue from Contracts with Customers	January 1, 2018
Amendments to IFRS 2 (June 20, 2016)	Classification and Measurement of Share-based Payment Transactions	January 1, 2018
Amendments to IFRS 4 (September 12, 2016)	Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts	January 1, 2018
Annual Improvements IFRS (December 8, 2016)	2014–2016 Cycle	January 1, 2017/January 1, 2018
IFRIC Interpretation 22 (December 8, 2016)	Foreign Currency Transactions and Advance Consideration	January 1, 2018
Amendments to IAS 40 (December 8, 2016)	Transfers of Investment Property	January 1, 2018

The financial reporting standards whose application could influence the presentation of the Covestro Group's net assets, financial position and results of operations are outlined in greater detail below. The Covestro Group is currently evaluating the impact these standards will have and does not currently intend to begin applying them early.

On May 28, 2014, the IASB issued **IFRS 15 (Revenue from Contracts with Customers)**. According to IFRS 15, an entity must recognize the expected consideration for goods or services as revenue as soon as control over the goods passes to the customer or the services are rendered. There are five steps to revenue recognition. In step 1, the contract with the customer is identified. In step 2, the distinct performance obligations in the contract are identified. In step 3, the transaction price is determined. In step 4, this transaction price is allocated to the distinct performance obligations. In step 5, revenue is recognized either over time or at a point in time. IFRS 15 replaces IAS 11 (Construction Contracts), IAS 18 (Revenue), IFRIC 13 (Customer Loyalty Programmes), IFRIC 15 (Agreements for the Construction of Real Estate), IFRIC 18 (Transfers of Assets from Customers) and SIC-31 (Revenue – Barter Transactions Involving Advertising Services). On September 11, 2015, an amendment was published postponing the date of mandatory application by one year until January 1, 2018. Moreover, on April 12, 2016, the IASB issued an amendment to IFRS 15 entitled "Clarifications to IFRS 15 – Revenue from Contracts with Customers." This pronouncement mainly clarifies certain IFRS 15 rules regarding the identification of performance obligations in contracts, principal versus agent considerations, and licensing. Furthermore, it also amends the rules regarding the first-time application of IFRS 15. As the analysis is still ongoing and certain topics require closer examination, it is not possible at the current time to make any specific statements concerning the materiality of the impact of IFRS 15 on the Covestro Group's presentation of its net assets, financial position and results of operations.

On July 24, 2014, the IASB published the final version of **IFRS 9 (Financial Instruments)**. The new standard contains rules on categorizing and measuring financial assets and financial liabilities. IFRS 9 defines three instead of four measurement categories for financial assets, with classification to be based partly on the company's business model and partly on the characteristics of the contractual cash flows from the respective financial asset. In the case of equity investments that are not held for trading, an entity may irrevocably opt at initial recognition to recognize future changes in their fair value outside profit or loss in the statement of comprehensive income. Furthermore, hedge accounting rules were reviewed with the aim of achieving a closer link between risk management activities and the reporting of hedging instruments in the financial statements. This involves additional disclosures in the notes. IFRS 9 also includes new rules for the recognition of impairments on financial instruments. This new impairment model is based on the principle of accounting for expected losses. As the analysis is still ongoing and certain issues require closer examination, it is not possible at the current time to make any specific statements concerning the materiality of the impact of IFRS 9 on the Covestro Group's presentation of its net assets, financial position and results of operations.

On January 13, 2016, the IASB published IFRS 16 (Leases), a new standard for recognizing leases which replaces IAS 17 (Leases), IFRIC 4 (Determining whether an Arrangement Contains a Lease), SIC-15 (Operating Leases – Incentives) and SIC-27 (Evaluating the Substance of Transactions Involving the Legal Form of a Lease). While IFRS 16 basically retains the previous accounting rules for lessors, only one accounting model is now envisaged for use by lessees. This requires a lessee to capitalize a right-of-use asset and to recognize a corresponding lease liability, unless a lease has a term of less than 12 months or the underlying asset is of low value. The right-of-use asset reflects a lessee's right to use the asset being leased. The lease liability recognizes the lessee's obligation to make contractual lease payments.

In addition, the IASB issued amendments to IAS 12 (Income Taxes) under the title "Recognition of Deferred Tax Assets for Unrealised Losses" on January 19, 2016. These amendments clarify in particular that unrealized losses associated with debt instruments measured at fair value result in deductible temporary differences provided the tax base exceeds the carrying amount. The amendments also contain clarifying rules pertaining to taxable profits associated with deductible temporary differences.

On January 29, 2016, the IASB issued amendments to IAS 7 (Statement of Cash Flows) under the title "Disclosure Initiative." The amendments extend the existing requirements under IAS 7 to disclose information about changes to liabilities from financing activities. These include both liabilities and financial assets for which cash flows have been reported in "Net cash provided by (used in) financing activities" in the past or will be reported there in the future. Insofar as they are relevant, the following changes must be recorded: changes to the net cash provided by (used in) financing activities; changes from obtaining or losing control over subsidiaries or other business operations; the impact of currency effects; changes in fair value; and other changes.

On June 20, 2016, the IASB published amendments to IFRS 2 (Share-based Payment) entitled "Classification and Measurement of Share-based Payment Transactions." The amendments clarify the effects of vesting and nonvesting conditions on the measurement of cash-settled share-based payments. They provide additional guidance on classifying equity-settled share-based payment transactions for which tax must be withheld and accounting for modifications to the terms and conditions of share-based payment transactions that change the classification from cash-settled share-based payment transactions to equity-settled share-based payment transactions.

On December 8, 2016, the IASB published "Annual Improvements to IFRS Standards 2014-2016 Cycle." The amendments address details of the recognition, measurement and disclosure of business transactions and serve to standardize terminology. They consist mainly of editorial changes to existing standards. These Annual Improvements amended IFRS 1 (First-time Adoption of International Financial Reporting Standards), IFRS 12 (Disclosure of Interests in Other Entities) and IAS 28 (Investments in Associates and Joint Ventures).

On December 8, 2016, the IFRS IC also published IFRIC Interpretation 22 (Foreign Currency Transactions and Advance Consideration). This interpretation clarifies the date to be used for determining the exchange rate when a transaction includes the receipt or payment of advance consideration in a foreign currency prior to first-time recognition of the associated asset, expense or income. In these cases, the interpretation specifies this as the date of initial recognition of a nonmonetary asset or nonmonetary liability as a result of prepayment.

3. Accounting Policies and Valuation Principles

Covestro's consolidated financial statements are based on the principle of the historical cost of acquisition, construction or production, with the exception of the items reflected at fair value, such as available-for-sale financial assets and derivatives.

In preparing the consolidated financial statements, Covestro management has to make assumptions and estimates to a certain extent that may substantially impact the presentation of the Covestro Group's net assets, financial position and results of operations. Such estimates, assumptions or the exercise of discretion mainly relate to the following areas: the useful life of noncurrent assets, the discounted cash flows used for impairment testing to be conducted at least annually, purchase price allocations, the assessment of the amount of deferred tax assets recoverable in future periods as well as the recognition of provisions, for example for litigation-related expenses, pensions and other employee benefits, taxes, environmental compliance and remediation costs, sales allowances and product liability. In addition, Covestro's management must decide which information is relevant for readers of the IFRS consolidated financial statements and should be included in the notes.

Consolidation

As of December 31, 2016, the direct and indirect subsidiaries of Covestro AG were fully consolidated in accordance with the principles of IFRS 10 (Consolidated Financial Statements). In addition, joint arrangements as defined by IFRS 11 (Joint Arrangements) were classified as joint operations and consolidated proportionately, or classified as joint ventures and accounted for in the consolidated financial statements in the same way as associated companies using the equity method in accordance with IAS 28 (Investments in Associates and Joint Ventures). For additional information, please see Note 5.1.

Joint operations and joint ventures

Joint operations and joint ventures are based on joint arrangements. A joint arrangement is deemed to exist if Covestro AG, through a contractual agreement, indirectly or directly jointly controls an activity together with at least one third party. Joint control is only deemed to exist if decisions regarding the relevant activities require the unanimous consent of the parties sharing control.

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets and obligations for the liabilities relating to the arrangement. The Covestro Group recognizes the share of assets, liabilities, revenues and expenses relating to its interest in a joint operation in accordance with its rights and obligations.

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement. Joint ventures are accounted for using the equity method.

Associates over which Covestro AG has significant influence on, generally through an ownership interest between 20% and 50%, are also accounted for using the equity method.

Companies that do not have a material impact on the Covestro Group's net assets, financial position and results of operations, either individually or in aggregate, are accounted for at cost of acquisition less any impairment losses, because their fair value cannot be determined from a stock exchange or other market price or by discounting reliably determinable cash flows.

Currency translation

The financial statements of the individual companies for inclusion in the consolidated financial statements are prepared in their respective functional currencies. The majority of consolidated companies carry out their activities autonomously from a financial, economic and organizational point of view, and their functional currencies are therefore the respective local currencies.

In the separate financial statements of the foreign companies, receivables and liabilities in currencies other than the respective functional currency are translated at closing rates. Related exchange differences are recognized in profit or loss and recorded as exchange gains or losses under other financial result.

In the consolidated financial statements, the assets and liabilities of Covestro companies outside the eurozone at the start and end of the reporting period are translated into euros at closing rates. All changes occurring during the year and all income and expense items and cash flows are translated into euros at average rates. The components of equity are translated at the historical exchange rates.

Net sales and other operating income

All revenues derived from the selling of products or rendering of services or from licensing agreements are recognized as sales. Other operational revenues are recognized as other operating income. Product sales are recognized in profit or loss when

- the significant risks and rewards of ownership of the goods have been transferred to the customer,
- the Covestro Group retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold,
- the amount of revenue and costs incurred or to be incurred can be measured reliably, and
- it is sufficiently probable that the economic benefits associated with the transaction will flow to the Covestro Group.

As a rule, the transfer of the significant rewards and risks of ownership of the goods takes place at the same time as the transfer of legal title to the customer or at a time during the transport operation when Covestro is no longer responsible for the insurance. The transfer of legal ownership is aligned to the agreed dispatch and transport conditions.

Sales are stated net of sales taxes, other taxes and sales deductions at the fair value of the considerations received or to be received. Sales deductions are estimated amounts for rebates, cash discounts and similar sales allowances. They are deducted at the time the sales are recognized, and appropriate provisions are recorded. Sales deductions are estimated primarily on the basis of historical experience, specific contractual terms and future expectations of sales development. It is unlikely that factors other than these could materially affect sales deductions in the Covestro Group. Adjustments to provisions for rebates and similar sales allowances established in prior periods were of secondary importance for income before income taxes in the reporting period.

Research and development expenses

Research and development expenses are incurred in the Covestro Group for in-house research and development activities as well as research and development collaborations and alliances with third parties.

Research costs cannot be capitalized. Development costs, on the other hand, must be capitalized according to closely defined conditions. An intangible asset must be recognized if there is reasonable certainty of receiving future cash flows that will cover an asset’s carrying amount. Since Covestro’s development projects are often subject to uncertainties, the conditions for the capitalization of development costs are not normally satisfied.

Income taxes

Income taxes comprise the taxes levied on taxable income in the individual countries along with changes in deferred tax assets and liabilities that are recognized in profit or loss. The income taxes recognized are reflected at the amounts likely to be payable or reimbursable under the statutory regulations in force, or already enacted in relation to future periods, at the end of the reporting period.

As a rule, deferred taxes are recognized in profit or loss. However, if deferred taxes relate to items recognized outside profit or loss in equity, they, too, are recognized outside profit or loss.

The probability that deferred tax assets resulting from temporary differences, tax credits or loss carryforwards can be utilized in the future is the subject of forecasts by the individual companies regarding the future earnings situation in the respective Covestro companies and other parameters.

Deferred tax liabilities are recognized on planned dividend payments by subsidiaries. Where no dividend payment is planned for the foreseeable future, no deferred tax liability is recognized on the difference between the proportionate net assets according to IFRSs and the tax base of the carrying amount of the investment in the subsidiary.

The expected effects of uncertain tax positions are reflected at probable value in the consolidated financial statements.

Goodwill

Goodwill is not amortized. Its carrying amount is subjected to impairment testing annually or more often if there is any indication of possible impairment. Detailed explanations of impairment testing can be found under "Procedure used in global impairment testing and its impact." Once an impairment loss has been recognized on goodwill, it cannot be reversed in subsequent periods.

Other intangible assets

An "other intangible asset" is an identifiable nonmonetary asset without physical substance, other than goodwill (such as software or rights). Other intangible assets are recognized at the cost of acquisition or generation. Those with a determinable useful life are amortized accordingly on a straight-line basis over a period of up to 20 years, except where their actual depletion demands a different amortization pattern. Determination of the expected useful lives of other intangible assets is based on estimates of the period for which they will generate cash flows.

Property, plant and equipment

Property, plant and equipment are carried at the cost of acquisition or construction and depreciated by the straight-line method over the expected useful life. An impairment loss is recognized in addition if an asset's recoverable amount falls below its carrying amount.

If the construction phase of property, plant or equipment extends over a period of 12 months or more, the interest incurred on borrowed capital up to the date of completion is capitalized as part of the cost of acquisition or construction in accordance with IAS 23 (Borrowing Costs).

Costs for regular, comprehensive maintenance work (such as the major overhaul of a technical facility) are capitalized as a separate component if they satisfy special recognition criteria.

The following depreciation periods are applied throughout the Covestro Group:

Useful Life of Property, Plant and Equipment

Buildings	20 to 50 years
Infrastructure	10 to 20 years
Storage tanks and pipelines	10 to 20 years
Plant installations	6 to 20 years
Machinery and equipment	6 to 12 years
Furniture and fixtures	4 to 10 years
Vehicles	5 to 8 years
Computer equipment	3 to 5 years
Laboratory and research facilities	3 to 5 years

Significant asset components with different useful lives are accounted for and depreciated separately.

When assets are sold, closed down or scrapped, the difference between the net proceeds and the net carrying amount of the assets is recognized as a gain or loss in other operating income or expenses, respectively.

Impairment of other intangible assets and property, plant and equipment

If there are indications that an individual item of intangible assets or property, plant and equipment may be impaired, the recoverable amount is compared to the carrying amount. If the recoverable amount is less than the carrying amount, an impairment loss is recognized for the difference. If the reasons for a previously recognized impairment loss no longer apply, the impairment loss is reversed provided that the reversal does not cause the carrying amount to exceed the original (amortized) cost of acquisition or generation.

Both depreciation or amortization and impairment losses are recognized in the functional cost in line with the use of the relevant asset.

Financial assets

Financial assets comprise loans and receivables, acquired equity and debt instruments, cash and cash equivalents, and derivatives with positive fair values.

They are recognized and measured in accordance with IAS 39 (Financial Instruments: Recognition and Measurement). Accordingly, financial assets are recognized in the consolidated financial statements if the Covestro Group has a contractual right to receive cash or other financial assets from another entity. Regular-way purchases and sales of financial assets are generally posted on the settlement date. Financial assets are initially recognized at fair value plus transaction costs. If these assets are to be carried at amortized cost for the purposes of subsequent measurement, the transaction costs are accounted for as deferred expense using the effective interest method. However, the transaction costs incurred for the purchase of financial assets held at fair value through profit or loss are expensed immediately. Upon first-time recognition, each financial asset is assigned to one of the categories prescribed in IAS 39. Subsequent measurement takes place according to the measurement rules for the respective category, as described below.

"Financial assets at fair value through profit or loss" comprise those financial assets that are held for trading. This category also includes the receivables from other derivatives not used in hedge accounting that are included in other financial assets, in addition to embedded derivatives in some cases. Changes in the fair value of financial assets in this category are recognized in profit or loss when the increase or decrease in fair value occurs.

"Loans and receivables" are nonderivative financial assets with fixed or determinable payments that are not quoted in an active market. They are accounted for at amortized cost using the effective interest method. This category comprises trade accounts receivable, the loans and receivables included in other financial assets, the additional financial receivables reflected in other receivables, and cash and cash equivalents. Interest income from items assigned to this category is determined using the effective interest method.

"Available-for-sale financial assets" are those nonderivative financial assets that are not assigned to any of the above categories. They mainly include equity instruments, such as shares, and debt instruments not to be held to maturity that are included in other financial assets. After their first-time recognition, "available-for-sale financial assets" are measured at fair value and any unrealized gains or losses are recognized outside profit or loss in other comprehensive income. These are only reclassified to profit or loss if the assets are sold or if there are objective indications of impairment, in which case the accumulated loss is recognized in profit or loss. An objective indication of impairment is a significant or prolonged decrease in the fair value of an equity instrument to below its acquisition cost. Previously recognized impairment losses are reversed if the reasons for them no longer apply. Impairment loss reversals for equity instruments are recognized outside profit or loss, while those for debt instruments are recognized in profit or loss. Where possible, a fair value for equity securities is derived from market data. Those financial assets for which no market price is available and whose fair value cannot be reasonably estimated are recognized at cost less any impairment losses.

If there are substantial and objective indications of a decline in the value of "loans and receivables" or "available-for-sale financial assets," an impairment test is performed. Indications of possible impairment include a high probability of insolvency, a significant deterioration in credit standing, a material breach of contract, operating losses reported by a company over several years, a reduction in market value, the financial restructuring of the debtor, or the disappearance of an active market for the asset.

In the case of "loans and receivables," an impairment test is performed in which the carrying amount is compared to the present value of the expected future cash flows, discounted at the original effective interest rate. If the carrying amount exceeds the present value, an impairment loss is recognized for the difference between the two amounts. If the reasons for previously recognized impairment losses no longer apply, the impairment losses are reversed, provided that this does not cause the carrying amounts to exceed the amortized cost of acquisition.

Financial assets are derecognized when contractual rights to receive cash flows from the financial assets expire or the financial assets are transferred together with all material benefits and risks.

Inventories

Inventories are recognized at their cost of acquisition or production (production-related full cost) – calculated by the weighted-average method – or at their net realizable value, whichever is lower. The net realizable value is the estimated selling price in the ordinary course of business less estimated cost to complete and selling expenses.

Cash and cash equivalents

Cash and cash equivalents comprise cash, checks received, and balances with banks. Cash equivalents are highly liquid short-term financial investments that are subject to an insignificant risk of changes in value, are easily convertible into a known amount of cash, and have a maturity of three months or less from the date of acquisition or investment.

Provisions for pensions and other post-employment benefits

Within the Covestro Group, post-employment benefits are provided under defined contribution and defined benefit plans. In the case of defined contribution plans, the company pays contributions to publicly or privately administered pension plans on a mandatory, contractual or voluntary basis. Once the contributions have been paid, the company has no further payment obligations. The regular contributions constitute expenses for the year in which they are due and as such are included in the functional cost items, and thus in income after income taxes plus financial result and income tax expense (EBIT). All other post-employment benefit systems are defined benefit plans, which may be either unfunded, i.e. financed by provisions, or funded, i.e. financed through pension funds.

The present value of the defined benefit obligations and the resulting expense are calculated in accordance with IAS 19 (Employee Benefits) by the projected unit credit method. The future benefit obligations are valued by actuarial methods and spread over the entire employment period on the basis of specific assumptions regarding beneficiary structure and the economic environment. These relate mainly to the discount rate, future salary and pension increases, variations in health care costs, and mortality rates.

The discount rates used are calculated from the yields of high-quality corporate bond portfolios in specific currencies with cash flows approximately equivalent to the expected disbursements from the pension plans. The uniform discount rate derived from this interest rate structure is thus based on the yields, at the closing date, of a portfolio of corporate bonds with at least an AA or AAA rating whose weighted residual maturities approximately correspond to the duration necessary to cover the entire benefit obligation.

The fair value of plan assets is deducted from the present value of the defined benefit obligation for pensions and other post-employment benefits to determine the net defined benefit liability. Plan assets in excess of the benefit obligation are reflected in other receivables, subject to the asset ceiling specified in IAS 19. Comprehensive actuarial valuations for all major plans are performed annually as of December 31.

The balance of all income and expenses relating to defined benefit plans, except the net interest on the net liability, is recognized in EBIT. The net interest is reflected in the financial result.

The effects of remeasurements of the net defined benefit liability are reflected in other comprehensive income. They consist of actuarial gains and losses, the return on plan assets and changes in the effects of the asset ceiling, less the respective amounts included in net interest for the last two components. Deferred taxes relating to the effects of remeasurements are also recognized in other comprehensive income.

Other provisions

Other provisions are measured in accordance with IAS 37 (Provisions, Contingent Liabilities and Contingent Assets) or, where applicable, IAS 19. Where the cash outflow to settle an obligation is expected to occur after one year, the provision is recognized at the present value of the expected cash outflow. Claims for reimbursements from third parties are separately reflected in other receivables if their realization is virtually certain.

If the projected obligation declines as a result of a change in the estimate, the provision is reversed by the corresponding amount and the resulting income recognized in the operating expense item(s) in which the original charge was recognized.

To enhance the information content of the estimates, certain provisions that could have a material effect on the net assets, financial position and results of operations are selected and tested for their sensitivity to changes in the underlying parameters using sensitivity analysis. To reflect uncertainty about the likelihood of the assumed events actually occurring, the impact of a five-percentage-point change in the probability of occurrence is examined in each case.

Provisions for environmental protection are recorded if future cash outflows are likely to be necessary to ensure compliance with environmental regulations or to carry out remediation work, such costs can be reliably estimated, and no future benefits are expected from such measures.

Estimating the future costs of environmental protection and remediation involves many uncertainties, particularly with regard to the status of laws, regulations and the information available about conditions in the various countries and at the individual sites. Significant factors in estimating the costs include previous experiences in similar cases, the conclusions in expert opinions obtained regarding existing environmental programs, current costs, and new developments affecting costs. Also taken into consideration are management's interpretation of current environmental laws and regulations, the number and financial position of third parties that may become obligated to participate in any remediation costs on the basis of joint liability, and the remediation methods likely to be deployed. Changes in these assumptions could impact future reported results.

Taking into consideration experience gained to date regarding environmental matters of a similar nature, Covestro's management believes the existing provisions to be adequate based upon currently available information. Given the businesses in which the Covestro Group operates and the difficulties inherent in accurately estimating liabilities for environmental protection, it remains possible that material additional costs will be incurred beyond the amounts accrued. It may transpire during remediation work that additional expenditures are necessary over an extended period and that these exceed existing provisions and cannot be reasonably estimated.

Provisions for restructuring only cover expenses that arise directly from restructuring measures, are necessary for restructuring and are not related to future business operations. Such expenses include severance payments to employees and compensation payments in respect of rented property that can no longer be used.

Restructuring measures may include the sale or termination of business units, site closures, relocations of business activities or fundamental reorganizations of business units. The respective provisions are established when a detailed restructuring plan has been drawn up, resolved upon by the responsible decision-making level of management and communicated to the employees and/or their representatives. Provisions for restructuring are established at the present value of future disbursements.

Trade-related provisions are recorded mainly for the granting of rebates, discounts and similar sales allowances.

As a global enterprise, the Covestro Group is exposed to numerous legal risks for which **provisions for litigations** must be established under certain conditions – particularly in the areas of product liability, competition and antitrust law, patent disputes, tax law, environmental law and compliance issues such as corruption and export control.

Litigation and other judicial proceedings often raise complex issues and are subject to many uncertainties and complexities including, but not limited to, the facts and circumstances of each particular case, the jurisdiction in which each suit is brought and differences in applicable law. The outcomes of currently pending and future proceedings generally cannot be predicted. Judgment in court proceedings, regulatory decisions or the conclusion of a settlement may result in the Covestro Group incurring charges for which no accounting measures have been taken for lack of reasonable estimate or which exceed established provisions and insurance coverage.

The Covestro Group considers the need for accounting measures in respect of pending or future litigations, and the extent of any such measures, on the basis of the information available to its legal department and in close consultation with legal counsel acting for the Covestro Group.

Where it is more likely than not that such a litigation will result in an outflow of resources that is already reasonably estimable, a provision for litigation is recorded in the amount of the present value of the expected cash outflows. Such provisions cover the estimated payments to the plaintiffs, court and procedural costs, attorney costs and the cost of potential settlements.

It is often impossible to reliably determine the existence of a present obligation or reasonably estimate the probability that a potential outflow of resources will result from a pending or future litigation. Due to the special nature of these litigations, provisions generally are not established until initial settlements allow an estimate of potential amounts or judgments have been issued. Provisions for legal defense costs are established if it is probable that material costs will have to be incurred for external legal counsel to defend the company's legal position.

Internal and external legal counsels evaluate the current status of the material legal risks of the Covestro Group at the end of each reporting period. The need to establish or adjust a provision and the amount of the provision or adjustment are determined on this basis. Adjusting events are reflected up to the date of preparation of the consolidated financial statements.

The status of the material legal risks is described in Note 26.

Personnel-related provisions are mainly those recorded for variable one-time payments, individual performance awards, long-service awards, severance payments in connection with early retirement arrangements, surpluses on long-term accounts and other personnel costs.

Obligations under stock-based compensation programs that provide for awards payable in cash are also included here. The compensation of the Board of Management of Covestro AG and of managerial employees includes stock-based compensation components that are earned with lock-up periods and are reflected in profit or loss as personnel expenses in line with the consideration paid in the performance period. They are evaluated using a subscription price model at the time of granting and at each reporting date in accordance with IFRS 2 (Share-based Payment).

Miscellaneous provisions included those for other liabilities, product liability and provisions for guarantees.

Financial liabilities

Financial liabilities comprise primary financial liabilities and negative fair values of derivatives.

Primary financial liabilities are initially recognized in the consolidated financial statements at fair value, taking into account any transaction costs if Covestro has the contractual obligation to transfer cash or other financial assets to another party. In subsequent periods, such liabilities are measured at amortized cost using the effective interest method.

Financial liabilities are derecognized when the contractual obligation is discharged or canceled, or has expired.

Other receivables and liabilities

Grants and subsidies from third parties that serve to promote investment are reflected in the statement of financial position under other liabilities and amortized to income over the useful lives of the respective investments.

Derivatives

Derivatives – such as forward exchange contracts – are used to mitigate the risk of fluctuations in exchange rates. Derivatives are recognized at the trade date.

Contracts concluded in order to receive or deliver nonfinancial goods for the company’s own purposes are not accounted for as derivatives but treated as pending transactions. Where embedded derivatives are identified that are required to be separated from the pending transactions, they are accounted for separately. To take advantage of market opportunities or cover possible peak demand, a nonmaterial volume of transactions may be entered into for which the possibility of immediate resale cannot be excluded. Such transactions are allocated to separate portfolios upon acquisition and accounted for as derivatives according to IAS 39.

Derivatives are carried at fair value. Positive fair values at the end of the reporting period are reflected in financial assets, negative fair values in financial liabilities. Changes in the fair values of transactions in nonfinancial goods accounted for according to IAS 39 relate to embedded derivatives that were not designated as hedging instruments but classified as stand-alone derivatives that had to be separated from their host contracts. Changes in the fair values of these derivatives are recognized directly in profit or loss in the other operating result. Changes in the fair values of forward exchange contracts and currency options serving as hedging instruments for items in the statement of financial position are recognized as exchange gains or losses in the financial result. Changes in forward exchange contracts used to hedge forecasted transactions in foreign currencies are recognized in the other operating result, as are changes in the fair values of embedded derivatives.

The income and expense reflected in the financial result pertaining to the derivatives and the underlying transactions are recorded separately. Income and expense are not offset.

Leasing

Leases are classified as either finance or operating leases. Leasing transactions that transfer substantially all the risks and rewards incidental to ownership of the leased asset to the lessee are treated as finance leases.

Where the Covestro Group is the lessee in a finance lease, the leased asset is capitalized at the lower of the fair value of the asset and the present value of the minimum lease payments at the beginning of the lease term and simultaneously recognized under financial liabilities. The minimum lease payments are divided into the interest portion and the principal portion of the remaining obligation, which is determined using the effective interest method. The leased asset is depreciated by the straight-line method over the shorter of its estimated useful life or the lease term.

Acquisition accounting

Acquired businesses are accounted for using the acquisition method, which requires that the assets acquired and liabilities assumed be recorded at their respective fair values on the date control is obtained. Ancillary acquisition costs are recognized as expenses in the periods in which they occur.

Procedure used in global impairment testing and its impact

Global impairment testing is performed at the level of cash-generating units. A cash-generating unit is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. The Covestro Group regards its strategic business entities as cash-generating units and subjects them to global impairment testing. The cash-generating units usually constitute the first financial reporting level below the reportable segments.

Cash-generating units are globally tested if there is an indication of possible impairment. Those to which goodwill is allocated are tested at least annually.

In the case of impairment, the resulting expense is reflected for goodwill in other operating expenses and for other assets in the functional item of the income statement in which the depreciation or amortization of the respective assets is recognized. The same applies to income from impairment loss reversals. However, reversals of goodwill are not permissible.

The recoverable amount is generally determined on the basis of the fair value less costs of disposal, taking into account the present value of the future cash flows as market prices for the individual units are not normally available. The forecasts of future cash flows generally have a planning horizon of three to five years and are based on the Covestro Group's current planning. Forecasting involves making assumptions, based on internal Group estimates and external sources, especially regarding future selling prices, sales volumes, costs, market growth rates, economic cycles and exchange rates. Where the recoverable amount is the fair value less costs of disposal, the cash-generating unit is measured from the viewpoint of an independent market participant. Cash flows beyond the planning period are determined on the basis of long-term business expectations using the respective individual growth rates derived from market information. The measurement of fair value less costs of disposal is based on unobservable inputs (Level 3).

The net cash inflows are discounted at the weighted average cost of capital (WACC), which is calculated as the weighted average cost of equity and cost of debt. To take into account the risk and return profile of the Covestro Group, an after-tax cost of capital is calculated and a specific capital structure is defined by benchmarking against comparable companies in the same industry sector ("peer group"). The cost of equity corresponds to the return expected by stockholders, while the cost of debt is based on the conditions on which the peer group can obtain long-term financing. Both components are derived from capital market information.

The growth rates for the terminal value applied for impairment testing in 2015 and 2016 and the capital cost factors used to discount the expected cash flows are shown in the following table:

Impairment Testing Parameters

	Growth rate		After-tax cost of capital	
	2015	2016	2015	2016
	%	%	%	%
Diphenylmethane Diisocyanate (MDI)	+2.0	+2.0	+6.1	+5.4
Toluene Diisocyanate (TDI)	+2.0	+2.0	+6.1	+5.4
Polyether polyols	0.0	0.0	+6.1	+5.4
Polycarbonates (PCS)	+2.0	+2.0	+6.1	+5.4
Base & Modified Isocyanates (BMI)	+2.0	+2.0	+6.1	+5.4
Resins (RES)	+2.0	+2.0	+6.1	+5.4
Specialty Films (SF)	+2.0	+2.0	+6.1	+5.4

No impairment losses were recognized on goodwill in the reporting period on the basis of the update of the global annual impairment testing of the cash-generating units. In the fiscal year, impairment losses on intangible assets and property, plant and equipment amounted to €14 million (previous year: €67 million). Details are provided in Notes 12 and 13. No impairment losses were reversed in either 2016 or the previous year.

Although the estimates of the useful lives of certain assets, assumptions concerning the macroeconomic environment and developments in the industries in which the Covestro Group operates, and estimates of the discounted future cash flows are believed to be appropriate, changes in assumptions or circumstances could require changes in the analysis. This could lead to additional impairment losses in the future or – except in the case of goodwill – to reversals of previously recognized impairment losses if developments are contrary to expectations.

The sensitivity analysis for cash-generating units to which goodwill is allocated was based on a 10% reduction in the future free operating cash flow, a 10% increase in the WACC or a one-percentage-point reduction in the long-term growth rate. It showed that no impairment loss would need to be recognized in any cash-generating unit. This applies analogously for other deviations from the assumptions used in impairment testing that were deemed possible.

4. Segment and Regional Reporting

The Board of Management of Covestro AG, as the chief operating decision maker of the Covestro Group, allocates resources to the operating segments and assesses their performance. The reportable segments and regions are identified, and the disclosures selected, in line with the internal financial reporting system (management approach). These are based on the same accounting policies as described for the Covestro Group in Note 3.

As of December 31, 2016, the Covestro Group comprises three reportable segments with the following activities:

Polyurethanes

The Polyurethanes segment develops, produces and markets high-quality precursors for polyurethanes. These precursors are isocyanates (TDI, MDI) and polyether polyols. Flexible polyurethane foam is used primarily in the furniture and automotive industries (e.g., cushions, mattresses, automobile seats); rigid foam is used in particular as insulating material in the construction industry and in refrigeration chains. The segment operates production facilities worldwide as well as systems houses for formulating and supplying customized polyurethane systems.

Polycarbonates

The Polycarbonates segment develops, produces and markets the high-performance plastic polycarbonate in the form of granules and semifinished products (sheets). The material is used primarily in the automotive industry (e.g., in the passenger compartment and for vehicle lighting) and in the construction industry (e.g., for roof structures). It is also used in the electrical and electronics industry (e.g., for connector housings, computer cases and DVDs), the medical technology sector and the lighting industry (e.g., for LED components). The Covestro Group produces polycarbonate all around the world and processes it at compounding centers to meet specific customer requirements.

Coatings, Adhesives, Specialties

The Coatings, Adhesives, Specialties segment develops, produces and markets raw materials for coatings, adhesives and sealants as well as specialties – primarily for polyurethane systems. They include polymer materials and aqueous dispersions based on the isocyanates HDI and IPDI, which are produced at facilities located throughout the world. The main areas of application are automotive and transportation, infrastructure and construction, wood processing and furniture. The specialties comprise elastomers, high-quality films and raw materials for the cosmetics, textiles and health care sectors.

Business activities that cannot be allocated to any of the aforementioned segments are reported under **"All other segments."** The external sales from these activities are mainly based on by-products of chlorine production and use.

The costs of Corporate Center functions and higher or lower expenses for long-term stock-based compensation arising from fluctuations in the performance of Covestro AG stock are presented in the segment reporting as **"Corporate Center and reconciliation."**

The segment data are calculated as follows:

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

- EBITDA is the EBIT as reported in the income statement plus amortization and impairment losses on intangible assets and depreciation and impairment losses on property, plant and equipment, less impairment loss reversals.

- EBIT, EBITDA, adjusted EBIT and adjusted EBITDA are not defined in the International Financial Reporting Standards. The special items comprise effects that are nonrecurring or do not regularly recur or attain similar magnitudes. Adjusted EBIT and adjusted EBITDA are intended to give a clear picture of the results of operations and ensure their comparability over time. Adjusted EBITDA is used to assess the profitability of the reportable segments. There were no special items in fiscal year 2016, so adjusted EBIT and adjusted EBITDA in this period are equivalent to EBIT and EBITDA, respectively.

- Free operating cash flow is the operating cash flow less cash outflows for intangible assets and property, plant and equipment.

- Working capital comprises inventories plus trade accounts receivable and less trade accounts payable.

The following tables show the segment reporting data for fiscal year 2016 and as of December 31, 2016, respectively:

Key Data by Segment[1]

				Other/Consolidation		
	Polyurethanes	Polycarbonates	Coatings, Adhesives, Specialties	All other segments	Corporate Center and reconciliation	Covestro Group
	€ million	€ million	€ million	€ million	€ million	€ million
2016						
Net sales	5,927	3,298	2,040	639	–	11,904
Core volume growth	+7.7%	+10.3%	–0.3%			+7.5%
(Adjusted) EBITDA	881	704	500	11	(82)	2,014
(Adjusted) EBIT	489	507	411	6	(82)	1,331
Free operating cash flow	631	442	341	7	(54)	1,367
Cash outflows for intangible assets and property, plant and equipment	211	128	79	1	–	419
Depreciation, amortization and impairments	(392)	(197)	(89)	(5)	–	(683)
of which impairment losses	(12)	(2)	–	–	–	(14)
Research and development expenses	(100)	(75)	(84)	–	–	(259)
2015						
Net sales	6,088	3,172	2,093	729	–	12,082
Core volume growth	+1.8%	+5.1%	+2.6%			+2.7%
Adjusted EBITDA	624	560	491	33	(67)	1,641
Adjusted EBIT	201	376	406	26	(67)	942
Free operating cash flow	654	138	319	49	(196)	964
Cash outflows for intangible assets and property, plant and equipment	209	190	107	3	–	509
Depreciation, amortization and impairments	(461)	(184)	(87)	(7)	–	(739)
of which impairment losses	(58)	(4)	(5)	–	–	(67)
Research and development expenses	(99)	(68)	(78)	(8)	(4)	(257)

[1] No further presentation of intersegment transfers is provided. These are neither reported separately to, nor do they influence the EBIT and EBITDA reported to the Board of Management of Covestro AG.

Working Capital by Segment

	Dec. 31, 2015	Dec. 31, 2016
	€ million	€ million
Polyurethanes	918	948
Polycarbonates	494	477
Coatings, Adhesives, Specialties	373	378
Total of reportable segments	**1,785**	**1,803**
All other segments	86	63
Corporate Center	(5)	(7)
Working capital	**1,866**	**1,859**
of which inventories	1,783	1,721
of which trade accounts receivable	1,486	1,674
of which trade accounts payable	(1,403)	(1,536)

Information by geographical area

The following table shows information by geographical area. The EMLA region consists of Europe, the Middle East, Africa and Latin America except Mexico, which together with the United States and Canada forms the NAFTA region. The APAC region includes Asia and the Pacific region. The "Consolidation" column shows the elimination of interregional sales.

Regional Reporting

	EMLA	NAFTA	APAC	Con-solidation	Total
	€ million	€ million	€ million	€ million	€ million
2016					
Net sales (external) by market	5,126	3,169	3,609	–	11,904
Net sales (external) by point of origin	5,106	3,222	3,576	–	11,904
Interregional sales	691	529	138	(1,358)	–
2015					
Net sales (external) by market	5,357	3,356	3,369	–	12,082
Net sales (external) by point of origin	5,340	3,411	3,331	–	12,082
Interregional sales	734	543	136	(1,413)	–

The following table provides a breakdown by countries of external sales by market and of intangible assets as well as property, plant and equipment:

Net Sales (External) by Market and Intangible Assets and Property, Plant and Equipment by Country

	Net sales (external) – by market	Intangible assets and property, plant and equipment
	€ million	€ million
2016		
Germany	1,547	1,142
United States	2,611	1,159
China	2,163	1,954
Other	5,583	761
Total	**11,904**	**5,016**
2015		
Germany	1,645	1,125
United States	2,748	1,124
China	1,875	2,358
Other	5,814	720
Total	**12,082**	**5,327**

Information on major customers

Revenues from transactions with a single customer in no case exceeded 10% of Covestro Group sales in fiscal 2016 or the previous year.

Reconciliation

The following tables show the reconciliation of (adjusted) EBITDA of the segments to income before income taxes of the Group.

Reconciliation of Segments' (Adjusted) EBITDA to Group Income Before Income Taxes

	2015	2016
	€ million	€ million
(Adjusted) EBITDA of reportable segments	1,675	2,085
(Adjusted) EBITDA of all other segments	33	11
(Adjusted) EBITDA of Corporate Center	(67)	(82)
(Adjusted) EBITDA	**1,641**	**2,014**
(Adjusted) depreciation, amortization and impairment losses of reportable segments	(692)	(678)
(Adjusted) depreciation, amortization and impairment losses of all other segments	(7)	(5)
(Adjusted) depreciation, amortization and impairment losses of Corporate Center	–	–
(Adjusted) depreciation, amortization and impairment losses	**(699)**	**(683)**
(Adjusted) EBIT of reportable segments	983	1,407
(Adjusted) EBIT of all other segments	26	6
(Adjusted) EBIT of Corporate Center	(67)	(82)
(Adjusted) EBIT	**942**	**1,331**
Special items of reportable segments	(186)	–
Special items of all other segments	–	–
Special items of Corporate Center	(76)	–
Special items	**(262)**	**–**
EBIT of reportable segments	797	1,407
EBIT of all other segments	26	6
EBIT of Corporate Center	(143)	(82)
EBIT	**680**	**1,331**
Financial result	(175)	(196)
Income before income taxes	**505**	**1,135**

5. Changes in the Scope of Consolidation

5.1 Scope of Consolidation and Investments

As of December 31, 2016, the scope of consolidation comprised Covestro AG and 49 (previous year: 48) consolidated companies.

The Covestro Group holds 100% of the voting rights in the fully consolidated subsidiary Bayer Pearl Polyurethane Systems L.L.C, Dubai (United Arab Emirates), pursuant to a contractual agreement with the noncontrolling stockholders.

Pure Salt Baytown LLC, Houston (United States), (Pure Salt LLC) is included as a structured entity. The Covestro Group obtains all the evaporated salt needed for its production operations at Baytown (United States), from Pure Salt LLC. This comprises most of that company's production capacity. The variable and fixed costs of Pure Salt LLC are reimbursed by Covestro in accordance with a contractually agreed mechanism. Moreover, the Covestro Group is obliged to finance one-time operating expenses and guarantees the liabilities of Pure Salt LLC to banks. As of December 31, 2016, the guaranteed liabilities amounted to €12 million (previous year: €17 million). Pure Salt LLC is dependent to a high degree on Covestro (e.g., through approval requirements), which means that Covestro can indirectly enforce its interests in respect of this company.

The scope of consolidation includes the joint operation LyondellBasell Covestro Manufacturing Maasvlakte V.O.F, Rotterdam (Netherlands), as of December 31, 2016, which is unchanged from the previous year. Pursuant to IFRS 11 (Joint Arrangements), Covestro's shares of this company's assets, liabilities, revenues and expenses are included in the consolidated financial statements in accordance with Covestro's rights and obligations. The main purpose of LyondellBasell Covestro Manufacturing Maasvlakte V.O.F, Rotterdam (Netherlands), is the joint production of propylene oxide (PO) for Covestro and its partner Lyondell.

Additionally, two (previous year: two) associated companies and one joint venture (previous year: one) are accounted for in the consolidated financial statements using the equity method.

Seven (previous year: six) subsidiaries and one (previous year: one) associated company that in aggregate are immaterial to the Covestro Group's net assets, financial position and results of operations are not consolidated but recognized at cost. The immaterial subsidiaries each accounted for no more than 0.1% of Group sales, equity or total assets.

Covestro AG is included in the consolidated financial statements of Bayer AG, Leverkusen (Germany), (Bayer AG). The consolidated financial statements of Bayer AG present the top tier of consolidation and are submitted to the Federal Gazette (Bundesanzeiger). The consolidated financial statements of Covestro AG cover the smallest group of companies consolidated and are also submitted to the Federal Gazette.

Details of subsidiaries and affiliated companies pursuant to Section 313 of the German Commercial Code (HGB) are shown in the following tables. The first table shows fully consolidated companies.

Fully Consolidated Companies

Company name	Place of business	Covestro's interest
		%
EMLA		
Bayer Pearl Polyurethane Systems FZCO	Dubai (United Arab Emirates)	51
Bayer Pearl Polyurethane Systems L.L.C	Dubai (United Arab Emirates)	49[1]
Covestro (France) SNC	Fos-sur-Mer (France)	100
Covestro (Tielt) NV	Tielt (Belgium)	100
Covestro A/S	Otterup (Denmark)	100
Covestro B.V.	Foxhol (Netherlands)	100
Covestro Brunsbüttel Energie GmbH	Brunsbüttel (Germany)	100
Covestro Darmstadt GmbH	Darmstadt (Germany)	100
Covestro Deutschland AG	Leverkusen (Germany)	100
Covestro Elastomers SAS	Romans-sur-Isère (France)	100
Covestro First Real Estate GmbH	Monheim (Germany)	100
Covestro GmbH	Leverkusen (Germany)	100
Covestro Indústria e Comércio de Polímeros Ltda.	São Paulo (Brazil)	100
Covestro International SA	Fribourg (Switzerland)	100
Covestro NV	Antwerp (Belgium)	100
Covestro Oldenburg GmbH & Co. KG	Oldenburg (Germany)	100
Covestro Polyurethanes B.V.	Nieuwegein (Netherlands)	100
Covestro S.p.A.	Milan (Italy)	99
Covestro S.r.l.	Milan (Italy)	100
Covestro Second Real Estate GmbH	Monheim (Germany)	100
Covestro UK Limited	Cheadle (United Kingdom)	100
Covestro, S.L.	Barcelona (Spain)	100
Epurex Films GmbH & Co. KG	Bomlitz (Germany)	100
MS Global AG	Köniz (Switzerland)	100
MS Holding B.V.	Nieuwegein (Netherlands)	100
OOO Covestro	Moscow (Russia)	100
Thermoplast Composite GmbH	Markt Bibart (Germany)	100
NAFTA		
Covestro International Trade Services Corp.	Wilmington (United States)	100
Covestro LLC	Pittsburgh (United States)	100
Covestro PO LLC	New Martinsville (United States)	100
Covestro S.A. de C.V.	Mexico City (Mexico)	100
Pure Salt Baytown LLC	Houston (United States)	0[2]
APAC		
Covestro (Hong Kong) Limited	Hong Kong (China)	100
Covestro (India) Private Limited	Thane (India)	100
Covestro (Shanghai) Management Co., Ltd.	Shanghai (China)	100
Covestro (Taiwan) Ltd.	Kaohsiung City (Taiwan)	95.5
Covestro (Thailand) Co., Ltd.	Bangkok (Thailand)	100
Covestro (Viet Nam) Company Limited	Ho Chi Minh City (Vietnam)	100
Covestro Far East (Hong Kong) Limited	Hong Kong (China)	100
Covestro Japan Ltd.	Tokyo (Japan)	100
Covestro Korea Corporation	Seoul (South Korea)	100
Covestro Polymers (China) Co., Ltd.	Shanghai (China)	100
Covestro Polymers (Qingdao) Co., Ltd.	Qingdao (China)	100
Covestro Polymers (Shenzhen) Co., Ltd.	Shenzhen (China)	100
Covestro Pty Ltd	Cheltenham (Australia)	100

[1] Fully consolidated subsidiary pursuant to IFRS 10.B39
[2] Fully consolidated structured entity according to IFRS 10.B8 in conjunction with B19 (b) and (c) and other substantial rights of Covestro

Company name	Place of business	Covestro's interest
		%
Guangzhou Covestro Polymers Co., Ltd.	Guangzhou (China)	100
PT Covestro Polymers Indonesia	Jakarta (Indonesia)	99.9
Sumika Covestro Urethane Company, Ltd.	Amagasaki (Japan)	60

The following joint operation was included in the consolidated financial statements in line with Covestro's shares of its assets, liabilities, revenues and expenses:

Joint Operation

Company name	Place of business	Covestro's interest
		%
LyondellBasell Covestro Manufacturing Maasvlakte V.O.F	Rotterdam (Netherlands)	50

The following associated companies and joint ventures are accounted for in the consolidated financial statements using the equity method:

Associates and Joint Ventures Accounted for Using the Equity Method

Company name	Place of business	Covestro's interest
		%
Associates		
Paltough Industries (1998) Ltd.	Kibbuz Ramat Yochanan (Israel)	25
PO JV, LP	Wilmington (United States)	39.4
Joint ventures		
DIC Covestro Polymer Ltd.	Tokyo (Japan)	50

The following subsidiaries were reflected in the consolidated financial statements at amortized cost due to their immateriality:

Immaterial Subsidiaries

Company name	Place of business	Covestro's interest
		%
CleanTech NRW GmbH	Leverkusen (Germany)	100
Covestro Polímer Anoním Şírketí	Istanbul (Turkey)	100
Covestro Polymers (Tianjin) Co., Ltd.	Tianjin (China)	100
Covestro Verwaltungs GmbH Oldenburg	Oldenburg (Germany)	100
Covestro (Slovakia) Services s.r.o	Bratislava (Slovakia)	100
Epurex Films Geschäftsführungs-GmbH	Bomlitz (Germany)	100
Shanghai Baulé Polyurethane Technology Co., Ltd.	Shanghai (China)	100

The following associated company was accounted for in the consolidated financial statements at cost due to its immateriality:

Immaterial Associate

Company name	Place of business	Covestro's interest
		%
Technology JV, L.P.	Wilmington (United States)	50

The following domestic subsidiaries availed themselves in fiscal year 2016 of certain exemptions granted under Section 264, Paragraph 3 or Section 264b of the German Commercial Code (HGB) regarding the preparation, auditing and publication of financial statements:

German Exempt Subsidiaries

Company name	Place of business	Covestro's interest
		%
Covestro Darmstadt GmbH	Darmstadt (Germany)	100
Covestro GmbH	Leverkusen (Germany)	100
Covestro Oldenburg GmbH & Co. KG	Oldenburg (Germany)	100
Epurex Films GmbH & Co. KG	Bomlitz (Germany)	100

5.2 Acquisitions and Divestitures

No reportable acquisitions or divestitures were made in the 2016 fiscal year.

Notes to the Income Statement

6. Other Operating Income

Other operating income was comprised as shown in the following table:

Other Operating Income

	2015	2016
	€ million	€ million
Reversals of unutilized provisions	1	10
Gains from derivatives	19	4
Reversal of impairment losses on receivables	3	3
Gains on retirements of noncurrent assets	1	2
Miscellaneous operating income	27	107
Other operating income without special items	**51**	**126**
Special items	77	–
Total	**128**	**126**

Gains from derivatives in 2016 resulted from embedded derivatives.

The miscellaneous operating income for the reporting period included insurance reimbursements amounting to €32 million, a reimbursement for contract termination of €27 million and indirect tax refunds for previous years totaling €19 million. In addition, compensation of €12 million was received from Bayer AG in relation to the legal independence of Covestro. The remaining amount consisted of a large number of individually immaterial items.

The special items in 2015 mainly comprised a reimbursement from Bayer AG for the termination of the agreement on the joint use of Bayer trademarks.

7. Other Operating Expenses

Other operating expenses were comprised as shown in the following table:

Other Operating Expenses

	2015	2016
	€ million	€ million
Losses from derivatives	(29)	(9)
Impairment losses on receivables	(17)	(8)
Losses on retirements of noncurrent assets	(7)	(3)
Miscellaneous operating expenses	(37)	(35)
Other operating expenses without special items	**(90)**	**(55)**
Special Items	(8)	–
Total	**(98)**	**(55)**

Losses from derivatives in 2016 resulted from embedded derivatives.

In 2015 and 2016, miscellaneous operating expenses consisted of a large number of individually immaterial items.

8. Personnel Expenses and Employee Numbers

Personnel Expenses

	2015	2016
	€ million	€ million
Salaries	(1,319)	(1,569)
Social expenses and expenses for pensions and other benefits	(310)	(326)
of which for defined contribution pension plans	(84)	(90)
of which for defined benefit and other pension plans	(81)	(90)
Total	**(1,629)**	**(1,895)**

The increase of €266 million in personnel expenses was mainly due to the increase in headcount described below and an increase in variable payments due to higher target achievement.

Average Number of Employees

	2015	2016
Production	9,896	9,901
Marketing and distribution	3,550	3,482
Research and development	968	1,017
General administration	956	1,275
Total	**15,370**	**15,675**
Employees in vocational training	251	407

The number of employees on either permanent or temporary contracts is stated in full-time equivalents, with part-time employees included on a pro-rated basis in line with their contractual working hours. The figures do not include employees in vocational training.

9. Financial Result

9.1 Result From Investments in Affiliated Companies

The main components of the result from investments in affiliated companies were the €24 million (previous year: €23 million) equity-method loss from the associated company PO JV, LP, Wilmington (United States), and the total €4 million (previous year: €13 million) of equity-method gains from joint ventures. Further details of the companies accounted for using the equity method are given in Note 14.

9.2 Net Interest Expense

The net interest expense in fiscal 2016 amounted to minus €48 million (previous year: minus €85 million). Interest and similar expenses totaled €53 million (previous year: €89 million). Interest expenses primarily resulted from Covestro AG loans, from liabilities to banks issued by the subsidiary Covestro Polymers (China) Co., Ltd., Shanghai (China), and from interest expenses from finance leases.

9.3 Other Financial Result

The other financial result was comprised as shown in the following table:

Other Financial Result

	2015	2016
	€ million	€ million
Expenses		
Interest portion of interest-bearing provisions	(38)	(43)
Exchange loss	(40)	(75)
Miscellaneous financial expenses	(2)	(10)
Total	**(80)**	**(128)**

The interest portion of interest-bearing provisions comprised €41 million (previous year: €35 million) in interest expense for pension and other post-employment benefit provisions plus €2 million (previous year: €3 million) in effects of interest expense and interest rate fluctuations for other provisions and corresponding overfunding.

10. Taxes

The breakdown of tax expenses by type is shown in the table below:

Income Taxes

	2015	2016
	€ million	€ million
Income taxes paid or accrued	(379)	(327)
Deferred taxes	226	(2)
from temporary differences	173	29
from tax loss carryforwards and tax credits	53	(31)
Total	**(153)**	**(329)**

The deferred tax assets and liabilities were allocated to the items in the statements of financial position as shown in the table below:

Deferred Tax Assets and Liabilities

	Dec. 31, 2015		Dec. 31, 2016	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
	€ million	€ million	€ million	€ million
Intangible assets	79	(27)	63	(25)
Property, plant and equipment	164	(276)	161	(276)
Financial assets	6	(68)	–	(82)
Inventories	30	(41)	33	(9)
Receivables	2	(48)	4	(8)
Provisions for pensions and other post-employment benefits	412	(48)	464	(83)
Other provisions	81	(18)	127	(18)
Liabilities	156	–	120	(2)
Tax loss carryforwards	55	–	21	–
Tax credits	–	–	–	–
Total	**985**	**(526)**	**993**	**(503)**
of which noncurrent	827	(478)	946	(490)
Offsetting	(345)	345	(345)	345
Recognition	**640**	**(181)**	**648**	**(158)**

Of the total tax loss carryforwards of €87 million (previous year: €315 million), an amount of €76 million (previous year: €210 million) is expected to be usable within a foreseeable period. The decrease in loss carryforwards was mainly due to the use of existing loss carryforwards in the reporting year and tax reassessments for prior years. Deferred tax assets of €21 million (previous year: €55 million) were recognized for the amount of loss carryforwards expected to be usable.

The use of €11 million (previous year: €105 million) of tax loss carryforwards was subject to legal or economic restrictions. Consequently, no deferred tax assets were recognized for this amount. If these tax loss carryforwards had been fully usable, further deferred tax assets of €3 million (previous year: €29 million) would have been recognized.

No material tax credits were recorded in either the reporting year or the prior year.

Unusable tax loss carryforwards will expire as shown in the table below:

Expiration of Unusable Tax Loss Carryforwards

	Tax loss carryforwards	
	Dec. 31, 2015	Dec. 31, 2016
	€ million	€ million
Within one year	–	–
Within two years	66	–
Within three years	–	–
Within four years	8	–
Within five years	9	–
Thereafter	22	11
Total	**105**	**11**

In 2016, subsidiaries that reported losses for the reporting year or the previous year recognized net deferred tax assets totaling €128 million (previous year: €163 million) from temporary differences and tax loss carryforwards. These assets were considered to be unimpaired because the companies concerned were expected to generate taxable income in the future.

Deferred tax liabilities of €9 million were recognized in the reporting year (previous year: €1 million) for planned dividend payments by subsidiaries. Deferred tax liabilities were not recognized for temporary differences on €623 million (previous year: €493 million) of retained earnings of subsidiaries because the Covestro Group is able to control the timing of the difference reversal and the temporary differences will not reverse in the foreseeable future.

The reported tax expense of €329 million for 2016 (previous year: €153 million) was €12 million higher (previous year: difference of €0 million) than the expected tax expense of €317 million (previous year: €153 million) that would have resulted from applying an expected weighted average tax rate to the pre-tax income of the Covestro Group. This average rate, derived from the expected tax rates of the individual Group companies, was 27.9% in 2016 (previous year: 30.3%). The effective tax rate was 29.0% (previous year: 30.3%).

The reconciliation of expected to actual income tax expense and of the expected to the effective tax rate for the Covestro Group is shown in the following table:

Reconciliation of Expected to Actual Income Tax Expense

	2015		2016	
	€ million	%	€ million	%
Expected income tax expense and expected tax rate	**153**	**+30.3**	**317**	**+27.9**
Reduction in taxes due to tax-free income	(8)	–1.6	(15)	–1.3
First-time recognition of previously unrecognized deferred tax assets on tax loss carryforwards	(2)	–0.4	(9)	–0.8
Use of tax loss carryforwards on which deferred tax assets were not previously recognized	(10)	–2.0	(13)	–1.1
Increase in taxes due to non-tax-deductible expenses	10	+2.0	18	+1.6
Existing tax loss carryforwards on which deferred tax assets were previously recognized but which are unlikely to be usable	16	+3.2	–	–
Tax income (–) and expenses (+) relating to other periods	1	+0.2	23	+2.0
Tax effects of changes in tax rates	4	+0.8	–	–
Other tax effects	(11)	–2.2	8	+0.7
Actual income tax expense and effective tax rate	**153**	**+30.3**	**329**	**+29.0**

11. Earnings per Share

Earnings per share are calculated according to IAS 33 (Earnings per Share) as the relationship of the Group's income after income taxes (net income) for the fiscal year to the weighted average number of no-par voting shares of Covestro AG in issue. For the period prior to the establishment of Covestro AG in 2015, 140,000,000 shares were used as the basis for calculating earnings per share. The company has had 202,500,000 shares since the IPO on October 6, 2015.

Earnings per Share

	2015	2016
	€ million	€ million
Income after income taxes	352	806
of which attributable to noncontrolling interest	9	11
of which attributable to Covestro AG stockholders (net income)	343	795
	Shares	Shares
Weighted average number of no-par voting shares of Covestro AG	154,897,260	202,500,000
	€	€
Basic earnings per share	2.21	3.93
Diluted earnings per share	2.21	3.93

Notes to the Statement of Financial Position

12. Goodwill and Other Intangible Assets

Changes in Intangible Assets in 2016

	Acquired goodwill	Patents and technologies	Marketing and distribution rights	Production rights	Software	Other rights	Advance payments	Total
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Cost of acquisition or generation, December 31, 2015	**261**	**38**	**110**	**97**	**136**	**327**	**14**	**983**
Transactions with the Bayer Group	–	–	–	–	–	–	–	–
Acquisitions	–	–	–	–	–	–	–	–
Capital expenditures	–	–	1	–	1	2	4	8
Retirements	–	–	–	–	(3)	(12)	–	(15)
Transfers	–	–	2	–	10	–	(12)	–
Exchange differences	3	–	1	1	–	4	1	10
Cost of acquisition or generation, December 31, 2016	**264**	**38**	**114**	**98**	**144**	**321**	**7**	**986**
Accumulated amortization and impairment losses, December 31, 2016	–	19	81	89	132	304	–	625
Carrying amounts, December 31, 2016	**264**	**19**	**33**	**9**	**12**	**17**	**7**	**361**
Amortization and impairment losses in 2016	–	2	8	4	8	20	–	42
Amortization	–	2	8	4	8	11	–	33
Impairment losses	–	–	–	–	–	9	–	9

In 2016, impairment losses of €9 million were recognized on intangible assets (previous year: €0 million). These mainly comprise the write-down of a distribution right in the Polyurethanes reporting segment no longer in existence due to the mutually agreed early termination of a long-term supplier relationship. No impairment losses were reversed either in the reporting period or in the reference period.

The impairment testing procedure for goodwill and other intangible assets is explained under “Procedure used in global impairment testing and its impact” in Note 3.

Changes in Intangible Assets in 2015

	Acquired goodwill	Patents and technologies	Marketing and distribution rights	Production rights	Software	Other rights	Advance payments	Total
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Cost of acquisition or generation, December 31, 2014	**243**	**17**	**111**	**98**	**129**	**1,099**	**6**	**1,703**
Transactions with the Bayer Group	–	–	–	–	3	–	–	3
Acquisitions	7	18	–	–	–	–	–	25
Capital expenditures	–	–	–	–	2	–	14	16
Retirements	–	–	(6)	–	(4)	(867)	–	(877)
Transfers	–	–	2	(2)	5	–	(5)	–
Exchange differences	11	3	3	1	1	95	(1)	113
Cost of acquisition or generation, December 31, 2015	**261**	**38**	**110**	**97**	**136**	**327**	**14**	**983**
Accumulated amortization and impairment losses, December 31, 2015	–	16	73	85	126	290	–	590
Carrying amounts, December 31, 2015	**261**	**22**	**37**	**12**	**10**	**37**	**14**	**393**
Amortization and impairment losses in 2015	–	2	9	4	13	15	–	43
Amortization	–	2	9	4	13	15	–	43
Impairment losses	–	–	–	–	–	–	–	–

Goodwill that is of material significance for the Covestro Group was allocated to the following cash-generating units at the end of the reporting period:

Material Goodwill by Cash-Generating Unit

	Cash-generating unit	Goodwill
Reporting segment		€ million
PUR	MDI	73
PUR	Polyether polyols	24
PCS	PCS	124
CAS	BMI	30
CAS	Resins	10

In 2016, there were no transactions involving a transfer of goodwill between the cash-generating units.

13. Property, Plant and Equipment

Changes in Property, Plant and Equipment in 2016

	Land and buildings	Plant installations and machinery	Furniture, fixtures and other equipment	Construction in progress and advance payments	Total
	€ million	€ million	€ million	€ million	€ million
Cost of acquisition or construction, December 31, 2015	**3,194**	**11,237**	**493**	**582**	**15,506**
Transactions with the Bayer Group	–	–	–	–	–
Acquisitions	–	–	–	–	–
Capital expenditures	20	91	18	287	416
Retirements	(18)	(116)	(22)	–	(156)
Transfers	84	290	24	(398)	–
Exchange differences	(3)	15	(4)	(3)	5
Cost of acquisition or construction, December 31, 2016	**3,277**	**11,517**	**509**	**468**	**15,771**
Accumulated depreciation and impairment losses, December 31, 2016	1,928	8,768	420	–	11,116
Carrying amounts, December 31, 2016	**1,349**	**2,749**	**89**	**468**	**4,655**
Depreciation and impairment losses in 2016	97	508	36	–	641
Depreciation	97	503	36	–	636
Impairment losses	–	5	–	–	5

Changes in Property, Plant and Equipment in 2015

	Land and buildings	Plant installations and machinery	Furniture, fixtures and other equipment	Construction in progress and advance payments	Total
	€ million	€ million	€ million	€ million	€ million
Cost of acquisition or construction, December 31, 2014	**2,972**	**10,428**	**434**	**819**	**14,653**
Transactions with the Bayer Group	51	22	22	–	95
Acquisitions	–	1	–	–	1
Capital expenditures	53	155	26	264	498
Retirements	(66)	(282)	(25)	(21)	(394)
Transfers	73	437	18	(528)	–
Exchange differences	111	476	18	48	653
Cost of acquisition or construction, December 31, 2015	**3,194**	**11,237**	**493**	**582**	**15,506**
Accumulated depreciation and impairment losses, December 31, 2015	1,836	8,324	409	3	10,572
Carrying amounts, December 31, 2015	**1,358**	**2,913**	**84**	**579**	**4,934**
Depreciation and impairment losses in 2015	100	545	34	17	696
Depreciation	92	504	33	–	629
Impairment losses	8	41	1	17	67

In the reporting year, borrowing costs of €3 million (previous year: €15 million) were capitalized as components of the cost of acquisition or construction of qualifying assets, applying an average interest rate of 1.4% (previous year: 2.5%).

Leasing

Capitalized property, plant and equipment include assets with a total net value of €294 million (previous year: €334 million) held under finance leases. They comprise plant installations and machinery with a carrying amount of €188 million (previous year: €217 million), buildings with a carrying amount of €31 million (previous year: €36 million) and other property, plant and equipment with a carrying amount of €75 million (previous year: €81 million). The cost of acquisition or cost of construction of these assets as of the closing date totaled €578 million (previous year: €599 million). For information on the liabilities arising from finance leases, see Note 22.

In 2016, rental payments of €96 million (previous year: €76 million) were made for assets leased under operating leases as defined in IAS 17 (Leases). An overview of the maturities of payment obligations under operating leases can be found in Note 25.

Lease payments for property, plant and equipment of €17 million are expected to be received in the following year from operating leases as defined in IAS 17 (Leases), not including investment property as outlined below. Lease payments totaling €26 million are expected to be received in 2018–2021, and lease payments totaling €10 million after 2021.

Investment property

The fair values of investment property are mainly determined using the income approach based on internal valuations for buildings and developed sites, and using the market comparison approach for undeveloped sites.

The total carrying amount of investment property as of December 31, 2016, was €45 million (previous year: €32 million), and its fair value totaled €274 million (previous year: €163 million). The rental income from investment property was €30 million (previous year: €2 million), and the operating expenses directly allocable to this property amounted to €14 million (previous year: €1 million). Operating expenses for investment property not generating any rental income stood at €3 million (previous year: €0 million).

Rental income from the leasing of investment property stemmed in part from contracts for hereditary building rights and leases granted by the Covestro Group, including those with Currenta GmbH & Co. OHG, Leverkusen (Germany), and its subsidiaries. These contracts with a weighted average remaining term of 24 years relate to space used by companies and contractual partners in the chemical industry at production sites in Germany. Based on current rental prices, around €12 million in compensation will be received annually from these long-term contracts for the use of this space in the coming years.

14. Investments Accounted for Using the Equity Method

An overview of the investments accounted for using the equity method can be found in Note 5.1. The two following tables contain summarized data from the income statement and statement of financial position of the associate PO JV, LP, Wilmington (United States), which is accounted for using the equity method, and show the respective amounts recognized in the financial statements of the Covestro Group.

In 2000, the polyols business and parts of the propylene oxide (PO) production operations of Lyondell Chemicals were acquired with the objective of ensuring access to patented technologies and safeguarding the long-term supply of PO, a starting product for polyurethanes. As part of this strategy, a company was established to jointly produce PO (PO JV, LP, Wilmington (United States), in which Covestro continues to hold a 39.4% interest). Covestro benefits from fixed long-term supply quotas/volumes of PO from this company's production.

Income Statement Data of PO JV, LP, Wilmington (United States)

	2015	2016
	€ million	€ million
Net sales	1,695	1,659
Net loss after taxes	(56)	(53)
Share of net loss after taxes	(23)	(24)
Share of total comprehensive income after taxes	**(23)**	**(24)**

Data from the Statements of Financial Position of PO JV, LP, Wilmington (United States)

	Dec. 31, 2015	Dec. 31, 2016
	€ million	€ million
Noncurrent assets	475	469
Equity	475	469
Share of equity	**201**	**202**
Other	(3)	(4)
Carrying amount	**198**	**198**

The item "Other" mainly comprised differences arising from adjustments of data to Covestro's uniform accounting policies, purchase price allocations and their amortization in profit or loss.

The following table contains the income statement data and the carrying amount of the other associates accounted for using the equity method:

Income Statement Data and Carrying Amounts of Other Investments Accounted for Using the Equity Method

	2015	2016
	€ million	€ million
Income after taxes	9	13
Share of income after taxes	3	4
Share of total comprehensive income after taxes	**3**	**4**
Carrying amount	**29**	**32**

15. Other Financial Assets

The other financial assets were comprised as follows:

Other Financial Assets

	Dec. 31, 2015		Dec. 31, 2016	
	Total	Of which current	Total	Of which current
	€ million	€ million	€ million	€ million
Loans	16	2	164	152
Investments in nonconsolidated subsidiaries and other equity investments	6	–	6	–
Receivables from derivatives	44	30	24	18
Receivables under lease agreements	7	1	8	1
Total	**73**	**33**	**202**	**171**

Loans included bank deposits of €150 million (previous year: €0 million) with terms of more than three months at the time of deposit.

Receivables from derivatives included currency forward contracts of €15 million (previous year: €27 million) and embedded derivatives of €9 million (previous year: €17 million). Further information is given in Note 24.

Interests in nonconsolidated companies as of the closing date totaled €5 million (previous year: €5 million) and were recognized as available-for-sale financial assets.

There were no unimpaired other financial assets significantly past due on either December 31, 2016, or in the previous year. No significant impairment losses or impairment loss reversals were recognized on financial assets in profit or loss in either 2015 or 2016.

Receivables under lease agreements relate to finance leases where Covestro is the lessor and the economic owner of the leased assets is the contractual partner. These receivables comprised expected lease payments of €39 million (previous year: €38 million), including €31 million (previous year: €31 million) in interest. Of the expected lease payments, €1 million (previous year: €1 million) is due within one year, €2 million (previous year: €2 million) within the following four years, and €36 million (previous year: €35 million) in subsequent years.

16. Inventories

Inventories were comprised as follows:

Inventories

	Dec. 31, 2015	Dec. 31, 2016
	€ million	€ million
Raw materials and supplies	415	501
Work in process, finished goods and goods purchased for resale	1,368	1,219
Advance payments	–	1
Total	**1,783**	**1,721**

In fiscal year 2016, impairment losses on inventories amounting to €30 million (previous year: €23 million) and impairment loss reversals of €23 million (previous year: €11 million) were recognized in profit or loss in the cost of goods sold.

17. Trade Accounts Receivable

Trade accounts receivable were comprised as follows:

Trade Accounts Receivable

	2015	2016
	€ million	€ million
Trade accounts receivable (before impairments)	1,533	1,723
Accumulated impairment losses	(47)	(49)
Carrying amount, December 31	**1,486**	**1,674**
of which noncurrent	–	–

Changes in impairment losses on trade accounts receivable were as follows:

Impairments of Trade Accounts Receivable

	2015	2016
	€ million	€ million
Accumulated impairment losses, January 1	**(43)**	**(47)**
Impairment losses in the reporting period	(12)	(7)
Impairment loss reversals or utilization	6	6
Exchange differences	2	(1)
Accumulated impairment losses, December 31	**(47)**	**(49)**

Trade accounts receivable amounting to €1,671 million (previous year: €1,482 million) were not impaired. Of this amount, €149 million (previous year: €203 million) was past due or due immediately on the closing date.

The gross carrying amount of impaired trade accounts receivable was €52 million (previous year: €51 million). The impairment losses recognized on these assets totaled €49 million (previous year: €47 million), resulting in a net carrying amount of €3 million (previous year: €4 million).

The unimpaired receivables were deemed to be collectible on the basis of established credit management processes and individual assessments of customer risks. The impairment losses recognized included an appropriate allowance for the default risk as of the end of each reporting period.

A further €44 million of receivables (previous year: €46 million) was secured mainly by letters of credit.

The amounts of impaired and past-due trade accounts receivable are summarized in the following table:

Impaired and Past-Due Trade Accounts Receivable

		Of which neither impaired nor past due at the closing date	Of which unimpaired but past due at the closing date				Of which impaired at the closing date
	Carrying amount		up to 3 months	3–6 months	6–12 months	more than 12 months	
	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Dec. 31, 2016	**1,674**	**1,522**	**141**	**4**	**2**	**2**	**3**
Dec. 31, 2015	1,486	1,279	190	7	4	2	4

18. Other Receivables

As in the prior year, no impairment losses were recognized on other receivables, which were comprised as follows:

Other Receivables

	Dec. 31, 2015		Dec. 31, 2016	
	Total	Of which current	Total	Of which current
	€ million	€ million	€ million	€ million
Other tax receivables	180	162	204	198
Deferred charges	70	63	67	62
Reimbursement claims	2	2	2	2
Net defined benefit asset	–	–	1	–
Receivables from employees	4	4	7	6
Miscellaneous receivables	81	46	76	48
Total	**337**	**277**	**357**	**316**

The miscellaneous receivables included an advance payment by Covestro Polymers (China) Co., Ltd., Shanghai (China), to Shanghai Chlor-Alkali Chemical Co., Ltd., Shanghai (China), in the amount of €23 million (previous year: €29 million), which will be offset against monthly purchases. Other receivables included €52 million (previous year: €65 million) in financial receivables. Of this amount, €6 million (previous year: €6 million) was past due or due immediately on the closing date.

The amounts of impaired and past-due financial receivables included in other receivables are summarized in the following table:

Impaired and Past-Due Other Financial Receivables

		Of which neither impaired nor past due at the closing date	Of which unimpaired but past due at the closing date				Of which impaired at the closing date
	Carrying amount		up to 3 months	3 – 6 months	6 – 12 months	more than 12 months	
	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Dec. 31, 2016	**52**	**46**	**5**	**–**	**1**	**–**	**–**
Dec. 31, 2015	65	59	3	1	1	1	–

19. Equity

The individual components of equity and changes in equity in 2015 and 2016 are presented in the Covestro Group consolidated statement of changes in equity.

Capital stock

The capital stock of Covestro AG on December 31, 2016, was unchanged at €203 million, divided into 202,500,000 no-par value bearer shares, and was fully paid up. Each share confers the right to one vote.

Authorized and conditional capital

The authorized capital and conditional capital as of December 31, 2016, were comprised as follows:

Authorized and Conditional Capital

	€ million	Purpose
Authorized capital 2015[1]	101	Increase in capital stock against cash contributions and/or contributions in kind (by October 2, 2020)
Conditional capital 2015[1]	1,500	Issue of warrants or conversion rights (by August 31, 2020)

[1] Requires Supervisory Board approval

Neither the authorized capital nor the conditional capital has been utilized to date.

Capital reserves

Covestro AG still has capital reserves of €4,908 million.

Dividend

The distributable dividend is determined based on the distributable profit reported in the financial statements of Covestro AG prepared in accordance with the German Commercial Code (HGB). The dividend proposed for the 2016 fiscal year amounts to €1.35 per share, or a total distribution of €273 million, and depends on authorization by the stockholders at the Annual Stockholders' Meeting. It is therefore not recognized as a liability in the consolidated financial statements.

Equity attributable to noncontrolling interest

The equity attributable to noncontrolling interest mainly relates to the equity of Bayer Pearl Polyurethane Systems FZCO, Dubai (United Arab Emirates), Sumika Covestro Urethane Company, Ltd., Amagasaki (Japan), and Covestro (Taiwan) Ltd., Kaohsiung City (Taiwan).

The changes in equity attributable to noncontrolling interest are presented in the following table:

Components of Noncontrolling Interest in Equity

	2015	2016
	€ million	€ million
January 1	**17**	**16**
Changes in equity not recognized in profit or loss		
Exchange differences on translation of operations outside the eurozone	(1)	1
Other changes in equity	(3)	–
Dividend payments	(6)	(1)
Changes in equity recognized in profit or loss	**9**	**11**
December 31	**16**	**27**

20. Provisions for Pensions and Other Post-employment Benefits

Provisions for pensions and other post-employment benefits were recognized for defined benefit obligations. The expenses for defined contribution obligations are shown in Note 8. The net defined benefit liability for post-employment benefit plans was accounted for as follows:

Net Defined Benefit Liability Reflected in the Statement of Financial Position

	Pensions		Other post-employment benefits		Total	
	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2016
	€ million	€ million	€ million	€ million	€ million	€ million
Provisions for pensions and other post-employment benefits	**1,312**	**1,052**	**150**	**157**	**1,462**	**1,209**
of which Germany	1,148	903	–	–	1,148	903
of which other countries	164	149	150	157	314	306
Net defined benefit asset	**–**	**1**	**–**	**–**	**–**	**1**
of which Germany	–	1	–	–	–	1
of which other countries	–	–	–	–	–	–
Net defined benefit liability	**1,312**	**1,051**	**150**	**157**	**1,462**	**1,208**
of which Germany	1,148	902	–	–	1,148	902
of which other countries	164	149	150	157	314	306

The expenses for defined benefit plans and for other post-employment benefits included the components described as follows:

Expenses for Defined Benefit Plans

	Pension plans						Other post-employment benefit plans	
	Germany		Other countries		Total		Other countries	
	2015	2016	2015	2016	2015	2016	2015	2016
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Current service cost	55	64	15	15	70	79	3	3
Past service cost	8	9	–	–	8	9	–	–
Plan settlements	–	–	–	(1)	–	(1)	–	–
Service cost	**63**	**73**	**15**	**14**	**78**	**87**	**3**	**3**
Interest expense from defined benefit obligation	60	66	24	27	84	93	6	6
Interest income from plan assets	(36)	(37)	(19)	(21)	(55)	(58)	–	–
Net interest	**24**	**29**	**5**	**6**	**29**	**35**	**6**	**6**
Total expenses	**87**	**102**	**20**	**20**	**107**	**122**	**9**	**9**

In 2016, a total of €138 million (previous year: minus €66 million) in effects of remeasurements of the net defined benefit liability was also recognized in other comprehensive income. Of this amount, €141 million (previous year: minus €51 million) related to pension obligations and minus €3 million (previous year: minus €15 million) to other post-employment benefit obligations.

The changes in the net defined benefit liability for post-employment benefit plans were as follows:

Changes in Defined Benefit Obligation

	2015			2016		
	Germany	Other countries	Total	Germany	Other countries	Total
	€ million	€ million	€ million	€ million	€ million	€ million
January 1	**2,392**	**890**	**3,282**	**2,552**	**868**	**3,420**
Acquisitions	–	–	–	–	–	–
Changes relating to carve out	228	(64)	164	3	–	3
Current service cost	55	18	73	64	18	82
Past service cost	8	–	8	9	–	9
(Gains)/losses from plan settlements	–	–	–	–	(1)	(1)
Net interest	60	30	90	66	33	99
Net actuarial (gain)/loss	(159)	(43)	(202)	277	11	288
of which due to changes in financial assumptions	(149)	(39)	(188)	260	30	290
of which due to changes in demographic assumptions	–	(12)	(12)	–	(12)	(12)
of which due to experience adjustments	(10)	8	(2)	17	(7)	10
Employee contributions	7	1	8	7	1	8
Payments due to plan settlements	–	(1)	(1)	–	–	–
Benefits paid out of plan assets	(19)	(29)	(48)	(21)	(44)	(65)
Benefits paid by the company	(20)	(8)	(28)	(22)	(7)	(29)
Exchange differences	–	74	74	–	27	27
December 31	**2,552**	**868**	**3,420**	**2,935**	**906**	**3,841**
of which other post-employment benefits	–	151	151	–	157	157

Changes in Fair Value of Plan Assets

	2015			2016		
	Germany	Other countries	Total	Germany	Other countries	Total
	€ million	€ million	€ million	€ million	€ million	€ million
January 1	**1,318**	**576**	**1,894**	**1,405**	**556**	**1,961**
Acquisitions	–	–	–	–	–	–
Changes relating to carve out	142	(51)	91	1	–	1
Net interest	36	19	55	37	21	58
Return or (expense) on plan assets excluding amounts recognized as interest result	(111)	(25)	(136)	118	32	150
Employer contributions	32	18	50	487	17	504
Employee contributions	7	1	8	7	1	8
Payments due to plan settlements	–	(1)	(1)	–	–	–
Benefits paid out of plan assets	(19)	(29)	(48)	(21)	(44)	(65)
Plan administration cost paid out of plan assets	–	–	–	(1)	–	(1)
Exchange differences	–	48	48	–	20	20
December 31	**1,405**	**556**	**1,961**	**2,033**	**603**	**2,636**
of which other post-employment benefits	–	1	1	–	–	–

Effects of the Asset Ceiling

	2015			2016		
	Germany	Other countries	Total	Germany	Other countries	Total
	€ million	€ million	€ million	€ million	€ million	€ million
January 1	**–**	**–**	**–**	**1**	**2**	**3**
Acquisitions	–	–	–	–	–	–
Changes relating to carve out	–	–	–	–	–	–
Remeasurement of asset ceiling	1	2	3	(1)	1	–
Exchange differences	–	–	–	–	–	–
December 31	**1**	**2**	**3**	**–**	**3**	**3**
of which other post-employment benefits	–	–	–	–	–	–

Development of the Net Defined Benefit Liability

	2015			2016		
	Germany	Other countries	Total	Germany	Other countries	Total
	€ million	€ million	€ million	€ million	€ million	€ million
January 1	**1,074**	**314**	**1,388**	**1,148**	**314**	**1,462**
Acquisitions	–	–	–	–	–	–
Changes relating to carve out	86	(13)	73	2	–	2
Current service cost	55	18	73	64	18	82
Past service cost	8	–	8	9	–	9
(Gains)/losses from plan settlements	–	–	–	–	(1)	(1)
Net interest	24	11	35	29	12	41
Net actuarial (gain)/loss	(159)	(43)	(202)	277	11	288
(Return) or expense on plan assets excluding amounts recognized as interest result	111	25	136	(118)	(32)	(150)
Remeasurement of asset ceiling	1	2	3	(1)	1	–
Employer contributions	(32)	(18)	(50)	(487)	(17)	(504)
Employee contributions	–	–	–	–	–	–
Payments due to plan settlements	–	–	–	–	–	–
Benefits paid out of plan assets	–	–	–	–	–	–
Benefits paid by the company	(20)	(8)	(28)	(22)	(7)	(29)
Plan administration cost paid out of plan assets	–	–	–	1	–	1
Exchange differences	–	26	26	–	7	7
December 31	**1,148**	**314**	**1,462**	**902**	**306**	**1,208**
of which other post-employment benefits	–	150	150	–	157	157

The pension obligations pertained mainly to Germany (76%; previous year: 75%) and the United States (20%; previous year: 21%). In Germany, current employees accounted for about 64% (previous year: 63%), retirees or their surviving dependents for about 30% (previous year: 31%), and former employees with vested pension rights for about 6% (previous year: 6%) of entitlements under defined benefit plans. In the United States, current employees accounted for about 39% (previous year: 40%), retirees or their surviving dependents for about 56% (previous year: 53%), and former employees with vested pension rights for about 5% (previous year: 7%) of entitlements under defined benefit plans.

The actual income on the assets of defined benefit plans for pensions or other post-employment benefits amounted to €208 million (previous year: minus €81 million) and €0 million (previous year: €0 million), respectively.

The following table shows the defined benefit obligations for pensions and other post-employment benefits along with the funded status of the funded obligations:

Defined Benefit Obligation and Funded Status

	Pension obligations		Other post-employment benefit obligations		Total	
	2015	2016	2015	2016	2015	2016
	€ million	€ million	€ million	€ million	€ million	€ million
Defined benefit obligation	**3,269**	**3,684**	**151**	**157**	**3,420**	**3,841**
of which unfunded	52	65	150	156	202	221
of which funded	3,217	3,619	1	1	3,218	3,620
Funded status of funded obligations						
Overfunding	–	4	–	–	–	4
Underfunding	1,257	987	–	1	1,257	988

Pension entitlements and other post-employment benefit obligations

The Covestro Group provides retirement benefits for most of its employees, either directly or by contributing to privately or publicly administered funds. The way these benefits are provided varies according to the legal, tax and economic conditions of each country, the benefits generally being based on employee compensation and years of service. The obligations relate both to existing retirees' pensions and to pension entitlements of future retirees.

Funded pension plans exist for employees in various countries. In principle, the most appropriate investment strategy is determined for each of the Covestro Group's defined benefit pension plans based on the risk structure of the obligations (especially demographics, the current funded status, the structure of the expected future cash flows, interest sensitivity, biometric risks, etc.), the regulatory environment and the existing level of risk tolerance or risk capacity. A strategic target investment portfolio is then developed in line with the plan's risk structure, taking capital market factors into consideration. Further determinants are risk diversification, portfolio efficiency and the need for both a country-specific and a global risk/return profile centered on ensuring the payment of all future benefits. In principle, as the capital investment strategy for each pension plan is developed individually in light of the plan-specific conditions listed above, the investment strategies for different pension plans may vary considerably. For example, the proportion of plan assets invested in equities is greater with the non-German pension plans than with the plans domiciled in Germany. The investment strategies are generally aligned less toward maximizing absolute returns and more toward the reasonable assurance of financing pension commitments over the long term. For plan assets, stress scenarios are simulated and other risk analyses (such as value at risk) are undertaken with the aid of risk management systems.

Bayer-Pensionskasse VVaG, Leverkusen (Germany), (Bayer-Pensionskasse VVaG), is by far the most significant of the pension plans. It has been closed to new members since January 1, 2005. This legally independent fund is regarded as a life insurance company and is therefore subject to the German Insurance Supervision Act. The benefit obligations covered by Bayer-Pensionskasse VVaG comprise retirement, surviving dependents' and disability pensions. It constitutes a multi-employer plan, to which the active members and their employers contribute. The company contribution is a certain percentage of the employee contribution. This percentage is the same for all participating employers and is set by agreement between the plan's executive committee and supervisory board, acting on a proposal from the responsible actuary. It takes into account the differences between the actuarial estimates and the actual values for the factors used to determine liabilities and contributions. Only Bayer AG may adjust the company contribution in agreement with the plan's executive committee and supervisory board, acting on a proposal from the responsible actuary. The plan's liability is governed by Section 1, Paragraph 1, Sentence 3 of the German Law on the Improvement of Occupational Pensions (BetrAVG). This means that if the pension plan exercises its right under the articles of association to reduce benefits, each participating employer has to make up the resulting difference. Covestro is not liable for the obligations of other participating employers, even if they cease to participate in the plan.

Pension entitlements for people hired in Germany on or after January 1, 2005, are granted via Rheinische Pensionskasse VVaG, Leverkusen. Future pension payments from this plan are based on contributions and the return on plan assets; a guaranteed interest rate applies.

Since October 2015, another important pension provision vehicle is Metzler Trust e.V., Frankfurt am Main, (Metzler Trust e.V.). This covers further retirement provision arrangements for German employees of the Covestro Group, such as deferred compensation, pension obligations and components of other direct commitments.

The defined benefit pension plans in the United States have been frozen for some years, and no significant new entitlements can be earned under these plans. The assets of all the U.S. pension plans are held by a master trust for reasons of efficiency. The applicable regulatory framework is based on the Employee Retirement Income Security Act (ERISA), which includes a statutory 80% minimum funding requirement to avoid benefit restrictions. The actuarial risks, such as investment risk, interest rate risk and longevity risk, remain with the company.

After transfer of the assets attributable to the Covestro Group's obligations to Metzler Trust e.V. in Germany and the U.S. defined benefit pension plans to corresponding Covestro vehicles in 2015, no separate asset-liability management review was performed. The previous investment strategy was largely adopted. In 2016, a concept for managing the risk associated with pension and other post-employment benefit obligations (asset-liability matching) was developed for the company's direct commitments in Germany. First, the actuarial obligations were analyzed and updated. Then statistical methods were applied to this information to determine an investment strategy that would ensure a suitable risk-return profile. The factors considered here included expected returns for the various asset classes and anticipated balance sheet volatility.

The changes in the investment strategy were subsequently implemented by third-party asset managers. Covestro will further update the risk management concept as needed. The investment strategy for the U.S. defined benefit pension plan was also confirmed in 2016.

The other post-employment benefit obligations outside Germany are mainly related to retirees' health care benefit payments in the United States. The fair value of the plan assets to fund pensions and other post-employment benefit obligations was as follows:

Fair Value of Plan Assets as of December 31

	Pension obligations				Other post-employment obligations	
	Germany		Other countries		Other countries	
	2015	2016	2015	2016	2015	2016
	€ million	€ million	€ million	€ million	€ million	€ million
Plan assets based on quoted prices in active markets						
Real estate and special real estate funds	–	–	24	25	–	–
Equities and equity funds	256	330	160	170	–	–
Callable debt instruments	–	–	3	12	–	–
Noncallable debt instruments	112	556	131	139	–	–
Bond funds	259	284	145	165	–	–
Derivatives	4	2	–	–	–	–
Cash and cash equivalents	17	41	26	11	1	–
Other	–	–	–	2	–	–
	648	**1,213**	**489**	**524**	**1**	**–**
Plan assets for which quoted prices in active markets are not available						
Real estate and special real estate funds	97	112	–	4	–	–
Equities and equity funds	15	19	–	–	–	–
Callable debt instruments	285	295	–	–	–	–
Noncallable debt instruments	341	375	–	–	–	–
Bond funds	–	–	–	–	–	–
Derivatives	–	–	–	–	–	–
Other	19	19	66	75	–	–
	757	**820**	**66**	**79**	**–**	**–**
Total plan assets	**1,405**	**2,033**	**555**	**603**	**1**	**–**

The fair value of plan assets in Germany included no real estate leased by Covestro Group companies nor Covestro AG shares or bonds held through investment funds. The other plan assets comprise mortgage loans granted, other receivables and qualified insurance policies.

Risks

The risks from defined benefit plans arise partly from the defined benefit obligations and partly from the investment in plan assets. The risks lie in the possibility that higher direct pension payments will have to be made to the beneficiaries and/or that additional contributions will have to be made to plan assets in order to meet current and future pension obligations.

Demographic/biometric risks

Since a large proportion of the defined benefit obligations comprises lifelong pensions or surviving dependents' pensions, longer claim periods or earlier claims may result in higher benefit obligations, higher benefit expense and/or higher pension payments than previously anticipated.

Investment risks

If the actual return on plan assets were below the return anticipated on the basis of the discount rate, the net defined benefit liability would increase, assuming there were no changes in other parameters. This could happen as a result of a drop in share prices, increases in market rates of interest, default of individual debtors or the purchase of low-risk but low-interest bonds, for example.

Interest rate risks

Declining capital market interest rates, especially for high-quality corporate bonds, would increase the defined benefit obligation. This effect would be at least proportionately offset by the ensuing increase in the market values of the debt instruments held in plan assets.

Measurement parameters and their sensitivities

The bond portfolio consists exclusively of high-quality corporate bonds with a rating of at least AA or AAA. The portfolio does not include any government-guaranteed or secured bonds. The following weighted parameters were used to measure the pension obligations as of December 31 and the expense for pensions and other post-employment benefits in the respective reporting year.

Parameters for Benefit Obligations

	Germany		Other countries		Total	
	2015	2016	2015	2016	2015	2016
	%	%	%	%	%	%
Pension obligations						
Discount rate	2.60	2.00	3.78	3.51	2.85	2.30
Projected future salary increases	3.00	2.75	3.57	3.37	3.15	2.90
Projected future benefit increases	1.75	1.50	4.17	4.24	2.30	2.05
Other post-employment benefit obligations						
Discount rate	–	–	4.10	3.80	4.10	3.80

In Germany, the Heubeck 2005 G mortality tables were used, in the United States as of 2014 the RP-2014 Combined Healthy Mortality Tables. The parameters for measuring the benefit expense are the same as those used to measure the benefit obligations in the most recent annual financial statements.

The parameter sensitivities were computed by expert actuaries based on a detailed evaluation similar to that performed to determine the net defined benefit liability. Altering individual parameters by 0.5 percentage points (mortality by 10% per beneficiary) while leaving the other parameters unchanged would have impacted pension and other post-employment benefit obligations as of the end of fiscal year 2016 as follows:

Sensitivity Analysis of Benefit Obligations

	Germany		Other countries		Total	
	Increase	Decrease	Increase	Decrease	Increase	Decrease
	€ million	€ million	€ million	€ million	€ million	€ million
Pension obligations						
0.5 percentage points change in discount rate	(289)	336	(41)	45	(330)	381
0.5 percentage points change in projected future salary increases	33	(31)	4	(4)	37	(35)
0.5 percentage points change in projected future benefit increases	172	(155)	2	(1)	174	(156)
10% change in mortality	(80)	89	(17)	19	(97)	108
Other post-employment benefit obligations						
0.5 percentage points change in discount rate	–	–	(10)	11	(10)	11
10% change in mortality	–	–	(4)	4	(4)	4

Sensitivity Analysis of Benefit Obligations (2015)

	Germany		Other countries		Total	
	Increase	Decrease	Increase	Decrease	Increase	Decrease
	€ million	€ million	€ million	€ million	€ million	€ million
Pension obligations						
0.5 percentage points change in discount rate	(246)	285	(40)	44	(286)	329
0.5 percentage points change in projected future salary increases	29	(27)	4	(4)	33	(31)
0.5 percentage points change in projected future benefit increases	148	(134)	2	–	150	(134)
10% change in mortality	(67)	74	(16)	17	(83)	91
Other post-employment benefit obligations						
0.5 percentage points change in discount rate	–	–	(9)	10	(9)	10
10% change in mortality	–	–	(3)	4	(3)	4

Provisions are also set up for the obligations, mainly of the U.S. subsidiary, to provide post-employment benefits in the form of health care cost payments to retirees. The valuation of health care costs was based on the assumption that they will increase at a rate of 7% (previous year: 7%), which should gradually decline to 5% (previous year: 5%) by 2023. The following table shows the impact on other post-employment benefit obligations and total benefit expense of a one percentage point change in the assumed cost increase rates.

Sensitivity Analysis of Health Care Cost Increases

	2015		2016	
	Increase of one percentage point	Decrease of one percentage point	Increase of one percentage point	Decrease of one percentage point
	€ million	€ million	€ million	€ million
Impact on other post-employment benefit obligations	18	(15)	16	(14)

Employer contributions made or expected

The following payments or transfers correspond to the employer contributions made or expected to be made to funded benefit plans.

Employer Contributions Made or Expected

	Germany				Other countries			
	2015	2016 expected	2016	2017 expected	2015	2016 expected	2016	2017 expected
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Pension obligations	32	30	487	34	18	20	17	18
Other post-employment benefit obligations	–	–	–	–	–	–	–	–
Total	**32**	**30**	**487**	**34**	**18**	**20**	**17**	**18**

Pensions and other post-employment benefits payable in the future from funded and unfunded plans are estimated as follows:

Future Benefit Payments

	Payments out of plan assets				Payments by the company			
	Pensions		Other post-employment benefits		Pensions		Other post-employment benefits	
	Germany	Other countries	Other countries	Total	Germany	Other countries	Other countries	Total
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
2017	23	33	–	56	24	5	6	35
2018	24	34	–	58	26	5	7	38
2019	26	35	–	61	28	5	7	40
2020	29	37	–	66	31	6	8	45
2021	32	38	–	70	33	6	8	47
2022–2026	202	207	1	410	199	32	45	276

The weighted average term of the pension obligations is 22.0 years (previous year: 21.1 years) in Germany and 12.2 years (previous year: 12.6 years) in other countries. The weighted average term of the obligations for other post-employment benefits in other countries is 12.0 years (previous year: 12.0 years).

21. Other Provisions

Changes in the various provision categories in 2016 were as follows:

Changes in Other Provisions

	Taxes	Environmental protection	Restructuring	Trade-related commitments	Litigations	Personnel commitments	Miscellaneous	Total
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
December 31, 2015	**26**	**45**	**74**	**59**	**7**	**510**	**17**	**738**
Additions	9	4	3	106	2	564	19	707
Utilization	(13)	(3)	(7)	(92)	–	(380)	(14)	(509)
Reversal	(12)	–	(4)	(7)	(3)	(25)	(5)	(56)
Interest cost	–	–	–	–	–	3	–	3
Exchange differences	(1)	2	–	–	–	4	–	5
December 31, 2016	**9**	**48**	**66**	**66**	**6**	**676**	**17**	**888**
thereof long-term	3	45	64	22	5	175	5	319

Taxes
Provisions for taxes comprise provisions for other types of taxes amounting to €6 million (previous year: €21 million).

Environmental protection
Provisions for environmental protection mainly related to the rehabilitation of contaminated land and recultivation of landfills as well as water protection measures at sites in the United States and Spain.

Restructuring
As of December 31, 2016, provisions for restructuring included €31 million (previous year: €39 million) for severance payments and €35 million (previous year: €35 million) for other restructuring expenses, which mainly comprise other costs related to the closure of production facilities.

Personnel commitments
Provisions for personnel commitments were up mainly due to the increase in headcount and an increase in variable one-time payments due to higher target achievement.

Stock-based programs

The long-term incentive programs of the Covestro Group entail commitments offered collectively to different groups of employees. As required by IFRS 2 (Share-based Payment) for compensation systems involving cash settlement, awards to be made under the stock-based programs are covered by provisions in the amount of the fair value of the obligations existing as of the date of the financial statements vis-à-vis the respective employee group. All resulting valuation adjustments are recognized in profit or loss.

Effective January 1, 2016, Covestro established a new long-term compensation program named Prisma for the 2016–2019 performance period. In addition, Covestro retained the Bayer Group's Aspire stock-based compensation programs explained in more detail in the following section. Due to the legal separation from the Bayer Group, a binding closing price was determined for these incentive programs for Covestro employees, effective December 31, 2015. However, the vesting phase will continue until 2018.

The following table shows the fair value of the provisions for the various programs:

Fair Value of the Provisions for Stock-based Compensation Programs

	Prisma	Aspire I	Aspire II	Total
	€ million	€ million	€ million	€ million
December 31, 2016	**15**	**17**	**48**	**79**

The value of the Aspire tranches that were fully earned at the end of 2016, resulting in payments at the beginning of 2017, was €35 million (previous year: €29 million).

The net expense for all stock-based compensation programs was €32 million (previous year: €31 million), including €2 million for the Covestment stock participation program described below in greater detail (previous year: €1 million for the BayShare stock participation program).

The fair value of obligations under the Prisma program was calculated using the Monte Carlo simulation method on the basis of the following key parameters pertaining to the reporting date:

Monte Carlo Simulation Parameters

	2016
Risk-free interest rate	–0.22%
Stock price volatility	+26.63%
STOXX® Europe 600 Chemicals volatility	+18.24%
Correlation between stock price and STOXX® Europe 600 Chemicals	0.76

For the Aspire I and Aspire II long-term incentive programs, the fair value of the obligation was calculated based on a Monte Carlo simulation in previous years and until these programs were locked in 2015.

Long-term compensation program (Prisma)

Prisma is a stock-based compensation program for senior executives and other managerial employees. A percentage of the employee's annual base salary – based on his/her position – is defined as a target for variable payments (Prisma target opportunity). Depending on the absolute performance of Covestro stock, including the dividends paid out (total shareholder return), and the stock's performance relative to the STOXX® Europe 600 Chemicals benchmark index, both during a four-year performance period, participants will be granted an award of up to 200% of their individual Prisma target opportunity at the end of the program. For the performance period ending on December 31, 2019, payment of the award will be made in January 2020 on the basis of the performance of Covestro stock, based on the initial price at the start of the performance period through to the final price determined as the average price for the last 30 days of stock exchange trading in 2019.

Long-term compensation program for senior executives (Aspire I)

Senior executives were entitled to participate in Aspire I on the condition that they purchased a certain number of Bayer shares – determined for each individual according to specific guidelines – and retained them for the full term of the program. A percentage of the executive's annual base salary – based on his/her position – was defined as a target for variable payments (Aspire target opportunity). Depending on the performance of Bayer stock, both in absolute terms and relative to the EURO STOXX 50® benchmark index during a four-year performance period, participants were granted an award of up to 300% of their individual Aspire target opportunity. For the 2013–2016 performance period that ended on December 31, 2016, payment of the award was made at the beginning of January on the basis of the performance of Bayer stock, based on the initial price in January 2013 through to the final price determined as the average price for the last 30 days of trading in 2015 and defined in advance as the binding final Bayer stock price for all ongoing performance periods. A payout of 100% is guaranteed for all tranches.

Long-term compensation program for middle management (Aspire II)

Aspire II was offered for other executives, i.e. mid-level managers and managerial employees. It corresponds in principle with the Aspire I program but did not require a personal investment in Bayer shares. Furthermore, the amount of the award was based entirely on the absolute performance of Bayer stock. The maximum award was 250% of each manager's Aspire target opportunity. As for Aspire I, payment of the award for the 2013 program was made at the start of January on the basis of the performance of Bayer stock, based on the initial price in January 2013 through to the final price determined as the average price for the last 30 days of trading in 2015 and defined in advance as the binding final Bayer stock price for all ongoing performance periods. As for Aspire I, an award payout of 100% is guaranteed.

Stock participation program (Covestment)

Under the 2016 stock participation program known as Covestment, employees of Covestro AG and participating Group companies in Germany could invest a fixed amount of their compensation in Covestro shares, which Covestro supplemented through an employer subsidy. The discount granted in 2016 was 30% of the subscription amount and is set every year. The total individual investment amount was capped at €1,800 or €3,600, depending on the employee's position; a maximum of €1,200 applies to employees in vocational training. Employees were able to acquire Covestro shares at the volume-weighted average price on four trading days in November 2016. Around 126,600 total shares were purchased by employees under the Covestment program. These shares are subject to a lock-up period until December 31, 2017.

22. Financing and Financial Liabilities

In the first quarter of 2016, Covestro AG established a “Debt Issuance Programme” with a volume of €5,000 million as a framework to facilitate obtaining flexible financing from the capital market. The company is thus in the position to issue fixed- and variable-rate bonds as well as to undertake private placements.

Under the program, Covestro AG successfully placed its first bonds with a total volume of €1,500 million on March 3, 2016. The bonds comprise two fixed-rate tranches with terms until October 2021 (a coupon of 1.00% and a volume of €500 million) and September 2024 (a coupon of 1.75% and a volume of €500 million) and a variable-rate tranche with a volume of €500 million, a term until March 2018 and a coupon of 0.60 percentage points above the three-month Euribor. All three bonds received a Baa2 rating from Moody’s Investors Service, London (United Kingdom).

The liquidity acquired in this way was used particularly to refinance the loans from Bayer Antwerpen NV, Diegem (Belgium), which are reported under other financial liabilities. The remaining loan amount of €2,060 million was repaid in full during the first half of 2016. In September 2015, Covestro AG concluded a syndicated multicurrency term and revolving credit facilities agreement (facilities agreement) for €2,700 million with a consortium of banks. In the course of the successful bond placement in March 2016, Covestro AG dissolved the term loan facility of €1,200 million that was part of this facilities agreement, as planned. The multicurrency revolving credit facility of €1,500 million with a term until September 2021 remains in place. No loans had been drawn against this syndicated credit facility as of December 31, 2016.

Financial liabilities were comprised as follows:

Financial Liabilities

	Dec. 31, 2015		Dec. 31, 2016	
	Total	Of which current	Total	Of which current
	€ million	€ million	€ million	€ million
Bonds	–	–	1,494	–
Liabilities to banks	482	384	133	72
Leasing liabilities	298	30	265	31
Liabilities from derivatives	31	29	33	32
Other financial liabilities	2,070	2,064	6	–
Total	**2,881**	**2,507**	**1,931**	**135**

Maturities of Financial Liabilities

	Dec. 31, 2015		Dec. 31, 2016
Maturity	€ million	**Maturity**	€ million
2016	2,507	2017	135
2017	66	2018	564
2018	65	2019	49
2019	50	2020	33
2020	33	2021	529
2021 or later	160	2022 or later	621
Total	**2,881**	**Total**	**1,931**

The financial liabilities of the Covestro Group are mainly unsecured.

Finance leases

Lease payments totaling €356 million (previous year: €393 million), including €91 million (previous year: €95 million) in interest, are to be made under finance leases to the respective lessors in future years. The liabilities under finance leases mature as follows:

Leasing Liabilities

	Dec. 31, 2015				Dec. 31, 2016		
	Lease payments	Interest component	Leasing liabilities		Lease payments	Interest component	Leasing liabilities
Maturity	€ million	€ million	€ million	Maturity	€ million	€ million	€ million
2016	48	18	30	2017	48	17	31
2017	46	16	30	2018	46	15	31
2018	44	14	30	2019	44	13	31
2019	43	12	31	2020	43	11	32
2020	43	10	33	2021	41	9	32
2021 or later	169	25	144	2022 or later	134	26	108
Total	**393**	**95**	**298**	**Total**	**356**	**91**	**265**

Other

As of December 31, 2016, the Covestro Group had credit facilities at its disposal totaling €1,633 million (previous year: €3,187 million), of which €133 million (previous year: €482 million) was used and €1,500 million (previous year: €2,705 million) was unused and thus available for borrowing on an unsecured basis. Further information on the accounting for liabilities from derivatives is given in Note 24.

23. Other Liabilities

Other liabilities were comprised as follows:

Other Liabilities

	Dec. 31, 2015		Dec. 31, 2016	
	Total	Of which current	Total	Of which current
	€ million	€ million	€ million	€ million
Other tax liabilities	67	67	110	109
Deferred income	15	10	13	10
Grants and subsidies received from governments	11	2	8	1
Liabilities to employees	34	34	34	34
Liabilities for social expenses	17	17	16	16
Accrued interest on liabilities	9	9	13	13
Miscellaneous liabilities	45	30	29	14
Total	**198**	**169**	**223**	**197**

The miscellaneous liabilities included €6 million (previous year: €8 million) in liabilities from derivatives.

24. Financial Instruments

24.1 Financial Instruments by Category

The following tables show the carrying amounts and fair values of financial assets and liabilities by category of financial instrument. The line items "Other receivables," "Trade accounts payable" and "Other liabilities" contain both financial instruments and nonfinancial assets or liabilities (such as other tax receivables or liabilities and advance payments for services to be received in the future).

Carrying Amounts of Financial Instruments According to IAS 39 and Their Fair Values

	Dec. 31, 2016				
		Valuation according to IAS 39			
	Carrying amount	Carried at amortized cost	Fair value recognized outside profit or loss	Fair value recognized in profit or loss	Fair value
	€ million	€ million	€ million	€ million	€ million
Assets					
Trade accounts receivable	1,674				
Loans and receivables	1,674	1,674			1,674
Other financial assets	202				
Loans and receivables	164	164			164
Available-for-sale financial assets	6	5	1		6
Derivatives that do not qualify for hedge accounting	24			24	24
Receivables under finance lease agreements[1]	8				16
Other receivables	357				
Loans and receivables	52	52			52
Nonfinancial assets	305				
Cash and cash equivalents	267				
Loans and receivables	267	267			267
Liabilities					
Financial liabilities	1,931				
Carried at amortized cost	1,633	1,633			1,703
Derivatives that do not qualify for hedge accounting	33			33	33
Liabilities under finance lease agreements[1]	265				303
Trade accounts payable	1,536				
Carried at amortized cost	1,516	1,516			1,516
Nonfinancial liabilities	20				
Other liabilities	223				
Carried at amortized cost	36	36			36
Carried at fair value (nonderivative)	–				
Derivatives that do not qualify for hedge accounting	6			6	6
Nonfinancial liabilities	181				

[1] Valuation in accordance with IAS 17

Carrying Amounts of Financial Instruments According to IAS 39 and Their Fair Values

					Dec. 31, 2015
		Valuation according to IAS 39			
	Carrying amount	Carried at amortized cost	Fair value recognized outside profit or loss	Fair value recognized in profit or loss	Fair value
	€ million	€ million	€ million	€ million	€ million
Assets					
Trade accounts receivable	1,486				
Loans and receivables	1,486	1,486			1,486
Other financial assets	73				
Loans and receivables	16	16			17
Available-for-sale financial assets	6	5	1		6
Derivatives that do not qualify for hedge accounting	44			44	44
Receivables under finance lease agreements[1]	7				18
Other receivables	337				
Loans and receivables	65	65			65
Nonfinancial assets	272				
Cash and cash equivalents	642				
Loans and receivables	642	642			642
Liabilities					
Financial liabilities	2,881				
Carried at amortized cost	2,552	2,552			2,573
Derivatives that do not qualify for hedge accounting	31			31	31
Liabilities under finance lease agreements[1]	298				364
Trade accounts payable	1,403				
Carried at amortized cost	1,386	1,386			1,386
Nonfinancial liabilities	17				
Other liabilities	198				
Carried at amortized cost	45	45			45
Carried at fair value (nonderivative)	4			4	4
Derivatives that do not qualify for hedge accounting	8			8	8
Nonfinancial liabilities	141				

[1] Valuation in accordance with IAS 17

The fair values of financial instruments are determined and reported in accordance with IFRS 13 (Fair Value Measurement) on the basis of the fair value hierarchy described below:

Level 1 covers fair values determined on the basis of unadjusted prices which exist in active markets.

Level 2 comprises fair values determined on the basis of parameters which are observable in an active market.

Level 3 applies to fair values determined using parameters whose input factors are not based on observable market data.

The following table shows the assignment of the financial instruments to the three-level fair value hierarchy:

Fair Value Hierarchy of Financial Instruments

	Fair value Dec. 31, 2015	Level 1	Level 2	Level 3	Fair value Dec. 31, 2016	Level 1	Level 2	Level 3
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Financial assets carried at fair value								
Available-for-sale financial assets	1	1			1	1		
Derivatives that do not qualify for hedge accounting	44		27	17	24		15	9
Financial assets not carried at fair value								
Receivables under lease agreements	18			18	16			16
Financial liabilities carried at fair value								
Derivatives that do not qualify for hedge accounting	39		31	8	39		33	6
Other liabilities carried at fair value (non-derivative)	4			4	–			
Financial liabilities not carried at fair value								
Bonds	–				1,556	1,556		
Other financial liabilities	2,937		2,937		450		450	

During the fiscal year, no transfers were made between the levels of the fair value hierarchy.

Because of the generally short maturities of cash and cash equivalents, trade accounts receivable and payable, and other receivables and liabilities, their carrying amounts do not significantly differ from the fair values.

Interests in nonconsolidated companies are categorized as available-for-sale financial assets. These equity instruments are recognized at cost because their fair value cannot be determined from a stock exchange or other market price or by discounting reliably determinable cash flows. The fair values of other remaining assets categorized as available-for-sale financial assets correspond to quoted prices in active markets (Level 1).

The fair values stated for noncurrent financial assets and liabilities are the present values of the respective future cash inflows or outflows. These were determined by discounting the cash flows at a closing-date interest rate observable on the market that takes into account the term of the assets or liabilities and the creditworthiness of the contractual party. For this reason, they are assigned to Level 2 of the fair value hierarchy.

The fair values of derivatives for which no publicly quoted market prices existed were determined using valuation techniques based on observable market data as of the end of the reporting period (Level 2). Credit value adjustments and debt value adjustments are determined to allow for the contracting party's credit risk as well as Covestro's own credit risk. The currency forward contracts were measured individually at their forward rates or forward prices on the closing date. These depend on spot rates or prices including time spreads.

Fair values measured using unobservable inputs are categorized within Level 3 of the fair value hierarchy. The fair values of noncurrent leasing receivables, reported for information purposes, were calculated on the basis of interest curves observable in the market. Additionally, a discount for cash flows that are very far in the future was applied as an unobservable factor.

The financial assets and liabilities recognized at fair value based on individual unobservable inputs (Level 3) solely comprise embedded derivatives. These are separated from their respective host contracts, which are generally sales or purchase agreements relating to the operational business. The embedded derivatives cause the cash flows from the contracts to vary with fluctuations in exchange rates, commodity prices or other prices, for example. The internal measurement of embedded derivatives is mainly performed using the discounted cash flow method, which is based on unobservable inputs. These include planned sales and purchase volumes, and prices or price indices derived from market data.

The table below shows the reconciliation of Level 3 financial instruments for fiscal 2016:

Changes in the Net Amount of Financial Assets and Liabilities Recognized at Fair Value Based on Unobservable Inputs

	2016
	€ million
Net carrying amounts, Jan. 1	**5**
Gains (losses) recognized in profit or loss	(7)
of which related to assets/liabilities recognized in the statement of financial position	(6)
Gains (losses) recognized outside profit or loss	–
Additions of assets (liabilities)	–
Settlements of (assets) liabilities	5
Reclassifications	–
Net carrying amounts, Dec. 31	**3**

Gains and losses from Level 3 financial instruments recognized in profit or loss result primarily from embedded derivatives and are reported in other operating expenses or income.

Income, expense, gains and losses on financial instruments can be assigned to the following categories in accordance with IAS 39 (Financial Instruments: Recognition and Measurement):

Net Result by Measurement Category in Accordance with IAS 39

	2015	2016
	€ million	€ million
Loans and receivables	67	3
of which net interest	4	3
Held-to-maturity financial assets	–	–
of which net interest	–	–
Available-for-sale financial assets	1	(1)
of which net interest	–	–
Assets held for trading	(71)	(42)
of which net interest	–	–
Liabilities carried at amortized cost	(143)	(99)
of which net interest	(88)	(52)

In the reporting period, losses from available-for-sale financial assets of €1 million (previous year: €0 million) were reclassified to profit or loss.

Master netting arrangements exist for derivatives, but these did not satisfy, or only partially satisfied, the offsetting criteria of IAS 32 (Financial Instruments: Presentation) as of the closing date and in the previous year. Settlement on a net basis is therefore only enforceable in the event of breach of contract by, or insolvency of, one of the contracting parties.

24.2 Financial Risk Management and Information on Derivatives

Capital management

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

Moody's Investors Service, London (United Kingdom), currently assigns Covestro AG an investment-grade rating of Baa2 with stable outlook. Covestro uses the debt ratios published by prominent credit rating agencies in managing its capital and pursues a conservative debt policy along with a balanced financing portfolio. This is based for the most part on bonds, syndicated credit facilities and bilateral loan agreements.

Currency risks

Currency opportunities and risks for the Covestro Group result from changes in exchange rates and the related changes in the value of financial instruments (including receivables and payables) and of anticipated payment receipts and disbursements in foreign currencies. Material receivables and payables in liquid currencies from operating and financial activities are generally fully hedged through forward exchange contracts. At the closing date, the nominal volume of the forward exchange contracts used to hedge currency risk amounted to €2,757 million (previous year: €3,571 million). A value-at-risk approach is used to manage foreign currency exposures arising from planned receivables and liabilities. Anticipated foreign currency exposures were not hedged in 2016 since they did not exceed the limit defined for the Group. They will be rehedged using forward contracts if the foreign currency risk increases significantly. The extent of the currency risk is represented below by a sensitivity analysis.

The currency risk shown in the sensitivity analysis results from the following:

- The unsecured portion of receivables and payables in nonfunctional currencies
- Unsecured bank deposits and liabilities to banks in nonfunctional currencies
- Currency risks from embedded derivatives

Sensitivities were determined based on a hypothetical scenario in which the euro depreciates by 10% against all other currencies compared with the year-end exchange rates. Under this scenario, the estimated hypothetical gains recognized in profit or loss as of December 31, 2016, would have been €8.9 million (previous year: loss of €2.6 million). The table below shows the distribution of these effects among the individual currencies:

Sensitivity by Currency

	2015		2016
Currency	€ million	Currency	€ million
CNY	(4.9)	CNY	7.3
USD	2.5	USD	0.9
THB	(0.8)	HKD	(0.4)
Other	0.6	Other	1.1
Total	**(2.6)**	**Total**	**8.9**

Liquidity risk

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

The liquidity risks to which the Covestro Group was exposed from its financial instruments comprised obligations for interest and repayment installments on financial liabilities and payment obligations arising from derivatives. The following tables show the maturity structure of the nondiscounted contractually agreed payments arising from these line items:

Maturity Analysis of Financial Liabilities and Derivative Financial Instruments

	Carrying amount	Contractual cash flows					
	Dec. 31, 2016	2017	2018	2019	2020	2021	after 2021
	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Financial liabilities							
Bonds	1,494	12	514	14	14	514	526
Liabilities to banks	133	76	36	19	–	–	9
Remaining liabilities	271	48	46	44	44	41	141
Trade accounts payable	1,516	1,515	1	–	–	–	–
Other liabilities							
Accrued interest on liabilities	13	13	–	–	–	–	–
Remaining liabilities	23	14	–	–	–	–	9
Liabilities from derivatives							
Derivatives that do not qualify for hedge accounting	39	33	1	1	2	1	1
Receivables from derivatives							
Derivatives that do not qualify for hedge accounting	24	18	2	2	1	1	1
Loan commitments	–	208	–	–	–	–	–

	Carrying amount	Contractual cash flows					
	Dec. 31, 2015	2016	2017	2018	2019	2020	after 2020
	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Financial liabilities							
Bonds	–	–	–	–	–	–	–
Liabilities to banks	482	387	39	37	18	–	10
Remaining liabilities	2,368	2,111	46	44	43	43	175
Trade accounts payable	1,386	1,386	–	–	–	–	–
Other liabilities							
Accrued interest on liabilities	9	9	–	–	–	–	–
Remaining liabilities	40	32	–	–	–	–	8
Liabilities from derivatives							
Derivatives that do not qualify for hedge accounting	39	31	1	1	3	1	2
Receivables from derivatives							
Derivatives that do not qualify for hedge accounting	44	30	3	3	2	2	4
Loan commitments	–	208	–	–	–	–	–

In addition to the primary financial liabilities and derivative financial instruments, there was an obligation under certain conditions to make a loan of €208 million (previous year: €208 million) to the effective initial fund of Bayer-Pensionskasse VVaG, which may result in payments by Covestro AG in subsequent years. This is reflected in the loan commitments shown in the table above. Further information is given in Note 25.

In this analysis, foreign currencies were translated at the closing rates. Derivative financial instruments are reported at net amounts.

Interest rate risks

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

A sensitivity analysis based on our net floating-rate receivables and payables position at year end 2016, taking into account the interest rates relevant for our receivables and payables in all principal currencies, produced the following result: A hypothetical increase of 100 basis points, or one percentage point, in these interest rates (assuming constant currency exchange rates) would have raised our interest expense by €5.9 million (previous year: €2.4 million).

Raw material price risks

The Covestro Group requires significant quantities of energy and petrochemical feedstocks for its production processes. Procurement prices for energy and raw materials may fluctuate significantly. Important raw materials are procured on the basis of long-term supply agreements and an active supplier management to minimize substantial price fluctuations. In steam and electricity generation, we aim for market-based price indexing, a diversification of fuels and a mix of external procurement and captive production to minimize the price fluctuation risk for energies. During the past fiscal year, derivative financial instruments were not used to hedge raw material price risks.

25. Contingent Liabilities and Other Financial Commitments

Contingent liabilities

The following warranty and guarantee contracts as well as other contingent liabilities existed at the end of the reporting period:

Contingent Liabilities

	Dec. 31, 2015	Dec. 31, 2016
	€ million	€ million
Warranties	4	2
Other contingent liabilities	16	7
Total	**20**	**9**

In connection with the Contribution, Indemnification and Post-formation Agreement between Bayer AG and Covestro AG, arrangements were made to settle possible claims for taxes. These may result in corresponding cash outflows at Covestro.

Other financial commitments

The other financial commitments were as follows:

Other Financial Commitments

	Dec. 31, 2015	Dec. 31, 2016
	€ million	€ million
Operating leases	405	378
Orders already placed for started or planned investment projects	76	117
Loan commitment to Bayer-Pensionskasse VVaG	208	208
Total	**689**	**703**

The nondiscounted future minimum lease payments relating to operating leases were as follows:

Operating Leases

	Dec. 31, 2015		Dec. 31, 2016
Maturing in	€ million	**Maturing in**	€ million
2016	73	2017	77
2017	59	2018	59
2018	48	2019	46
2019	41	2020	41
2020	38	2021	34
2021 or later	146	2022 or later	121
Total	**405**	**Total**	**378**

Obligations from leases classified as operating leases relate mainly to leases for real estate and logistics infrastructure.

In cases where pension obligations allocable to the Covestro Group are funded through pension institutions for which Bayer is liable, it is contractually ensured that Covestro participates in funding measures that serve to guarantee adequate funding status and/or adequate solvency capital of these pension institutions for the long term. To this end, Covestro AG agreed to grant Bayer-Pensionskasse VVaG an interest-bearing loan of up to €208 million for the effective initial fund as required.

26. Legal Risks

As a global enterprise, the Covestro Group is exposed to numerous legal risks, particularly in the areas of product liability, competition and antitrust law, patent disputes, tax law, environmental law and compliance issues such as corruption and export control. The outcome of any current or future proceedings cannot be predicted. It is therefore possible that legal judgments or regulatory decisions or future settlements could give rise to expenses that are not covered, or not fully covered, by insurers' compensation payments and could significantly affect the earnings of the Covestro Group.

Legal proceedings currently considered to involve material risks are outlined below. The legal proceedings referred to do not necessarily represent an exhaustive list:

Carbon monoxide pipeline from Dormagen to Krefeld-Uerdingen

The carbon monoxide pipeline is intended to connect the chemical production sites at Dormagen and Krefeld-Uerdingen and complement the network already existing between Dormagen and Leverkusen. The aim is to ensure a safe and reliable supply of carbon monoxide to and across all sites. Although the pipeline was almost completed by the end of 2009, it cannot currently be put into operation because of court proceedings and an ongoing planning amendment procedure. Following confirmation by the Düsseldorf Administrative Court in 2011 that there were no grounds to challenge the material aspects of the planning permission decision, in particular the safety of the materials used and the legal conformity of the relevant pipeline act (Rohrleitungsgesetz), the plaintiffs and the regional government against which legal proceedings had been instituted lodged appeals before the Higher Administrative Court in Münster. In 2014, the Münster Higher Administrative Court raised no objections in principle to the safety and routing of the pipeline, but questioned the constitutionality of the pipeline act which forms the legal basis for the project. The decision on the constitutionality of the pipeline act was then a matter for the German Federal Constitutional Court. The Covestro Group did not share the doubts of the Münster Higher Administrative Court as to the constitutionality of the pipeline act and believed there were good prospects for putting the pipeline into operation. On December 21, 2016, the German Federal Constitutional Court dismissed the constitutionality question referred to it by Münster Higher Administrative Court as inadmissible and confirmed the legal opinion of the Covestro Group. Münster Higher Administrative Court must now return to considering the facts of the appeal.

Litigation in the United States

On September 14, 2016, Covestro LLC, Pittsburgh (United States), – amongst three other defendants – was served with a lawsuit filed by a law firm for a plaintiff in California Federal Court. This has since been transferred to a federal court in Washington D.C. by agreement of the parties involved. This action seeks financial damages due to fines allegedly enforceable and due by the defendants to the United States Environmental Protection Agency because they withheld information about the health risks associated with the manufacture and use of TDI, MDI and PMDI. The U.S. government declined to intervene and proceed with the claims itself despite sufficient opportunity to do so under the applicable laws. It is therefore now up to the law firm to proceed with the claims asserted on behalf of the government. Violations of the Toxic Substances Control Act (TSCA) and False Claims Act (FCA) are asserted. Covestro considers the action to be without merit and will therefore defend the claims using all legal means.

The two legal proceedings described below were brought to a conclusion in 2016:

Carbon monoxide pipeline from Dormagen to Leverkusen

In 2014, an action was brought against the Cologne Regional Administration before the Administrative Court in Cologne in which the individual plaintiff demanded that approval for operation of the carbon monoxide pipeline between Dormagen and Leverkusen be revoked. The plaintiff fears acute danger to nearby residents on account of alleged safety deficiencies. The Covestro Group pointed out that the safety of the pipeline had been demonstrated by an expert opinion of the German Technical Inspection Association (Technischer Überwachungsverein, TÜV). The action has since been finally dismissed as inadmissible.

Reimbursement of the costs of CO_2 (carbon dioxide) certificates obtained by LyondellBasell Covestro Manufacturing Maasvlakte V.O.F, Rotterdam (Netherlands)

In 2013, following unsuccessful negotiations, the company Utilities Centre Maasvlakte Leftbank B.V., Rotterdam (Netherlands), (UCML), a Uniper Group company, asserted a claim for reimbursement against the joint venture LyondellBasell Covestro Manufacturing Maasvlakte V.O.F, Rotterdam (Netherlands), (LCMM). UCML was claiming the cost of CO_2 certificates that UCML had to purchase under the EU emissions trading system in order to perform its supply agreement with LCMM. The Covestro Group, as a partner in the joint venture, would have borne 50% of any liability for potential reimbursement claims against LCMM. The parties have since terminated the arbitration proceedings by mutual agreement in the second quarter of 2016.

Other Information

27. Notes to the Statement of Cash Flows

As in the prior year, there were no restrictions on the use of cash and cash equivalents.

In 2016, the presentation of the statement of cash flows was changed as follows to provide more relevant information pursuant to IAS 1.41 et seqq.

Until 2015, income taxes paid or accrued were reported in the statement of cash flows. The amount of tax paid in accordance with IAS 7.35 was disclosed separately in the Notes. From 2016 onward, the income taxes paid will only be reported in the statement of cash flows and not separately in the Notes.

Furthermore, cash inflows from/outflows for noncurrent financial assets were presented as a net item until 2015. Starting in 2016, gross cash inflows and gross cash outflows are reported separately as per IAS 7.21.

In addition, the classification of cash flows from financial assets was improved in 2016. Until 2015, these had been included in cash inflows from/outflows for noncurrent financial assets. Because these are mainly current cash flows, this item will be presented in cash inflows from/outflows for other current financial assets from 2016 onward.

The prior-year figures were adjusted in each case.

27.1 Net Cash Provided by (Used in) Operating Activities

The net cash of €1,786 million (previous year: €1,473 million) provided by operating activities comprises the cash surplus from operating activities and reflects the changes in working capital and other noncash transactions.

The €313 million (21.2%) year-on-year increase in net cash provided by operating activities was chiefly the result of a €651 million increase in EBIT. A decrease in cash inflows from working capital and higher income tax payments (€224 million) had the opposite effect.

The €450 million transfer of government bonds to Metzler Trust e.V. was a noncash transaction and therefore did not result in a cash outflow from operations.

27.2 Net Cash Provided by (Used in) Investing Activities

Net cash outflow for investing activities in 2016 amounted to €1,042 million (previous year: €380 million).

The increase was primarily due to the purchase of European government bonds with a nominal volume of €450 million in the course of investing surplus liquidity. Another €150 million was invested in short-term bank deposits in the fourth quarter of 2016.

In December, the government bonds (€450 million) were transferred to Metzler Trust e.V. The transfer was a noncash transaction and therefore did not result in a cash inflow from investing activities.

No acquisitions were made in 2016. Disbursements for acquisitions in 2015 totaled €14 million for the acquisition of Thermoplast Composite GmbH, Markt Bibart (Germany).

27.3 Net Cash Provided by (Used in) Financing Activities

In 2016, there was a net cash outflow of €1,122 million (previous year: €645 million) for financing activities. Net loan repayments amounted to €934 million (previous year: €2,069 million). New financing mainly comprises the net cash inflow of €1,493 million from the bonds successfully placed in the first quarter of 2016. Repayments include the repayment in full of the Bayer Group loan in the amount of €2,060 million.

In May 2016, dividends totaling €142 million were paid to Covestro AG stockholders for the first time.

28. Related Companies and Persons

28.1 Related Companies

Related entities as defined in IAS 24 (Related Party Disclosures) are those legal entities that are able to exert influence on Covestro AG and its subsidiaries or over which Covestro AG or its subsidiaries exercise control or have a significant influence. They include, in particular, Bayer AG which, as defined in IAS 24, is classified as the ultimate controlling company on account of its approximately 64% interest in Covestro AG, the Bayer AG subsidiaries which are not part of the Covestro scope of consolidation, nonconsolidated subsidiaries, joint ventures, associated companies and post-employment benefit plans.

Receivables from and Liabilities to Related Parties

	Dec. 31, 2015		Dec. 31, 2016	
	Receivables	Liabilities	Receivables	Liabilities
	€ million	€ million	€ million	€ million
Bayer AG	2	14	1	4
Bayer Group companies	51	2,243	25	133
Nonconsolidated subsidiaries and associates	1	4	4	7
Joint ventures	1	–	1	–
Associates	4	–	4	1

Sales and Purchases of Goods and Services to/from Related Parties

	2015		2016	
	Sales of goods and services	Purchases of goods and services	Sales of goods and services	Purchases of goods and services
	€ million	€ million	€ million	€ million
Bayer AG	12	34	15	14
Bayer Group companies	80	863	75	509
Nonconsolidated subsidiaries and associates	36	3	34	4
Joint ventures	7	–	4	–
Associates	13	609	11	551

Transactions with Bayer AG and its subsidiaries

The sale of products and goods and other typical business activities result in revenues with Bayer AG and its subsidiaries.

The **goods and services received** mainly comprise operational goods and service transactions, leasing and services performed for Covestro by the Bayer Group through its service companies Bayer Business Services GmbH, Leverkusen (Germany), and Currenta GmbH & Co. OHG, Leverkusen (Germany), (Currenta) and their subsidiaries.

Of the goods and services received by Covestro from Bayer Group companies in 2016, services accounted for €472 million (previous year: €773 million). A meaningful comparison with the previous year is possible only to a limited extent because certain services were provided in the first half of 2015 by units of Bayer Group companies or their employees that were transferred to the Covestro Group in the course of its economic and legal independence.

The services provided by the service companies are primarily services in the areas of information technology, accounting and HR administration (Bayer Business Services), and services connected with the Chempark sites operated by Currenta, which are used jointly by Covestro and the Bayer Group. The services obtained from Currenta mainly comprise energy supplies, maintenance services, environmental services, and logistics and infrastructure. The latter include in particular basic site infrastructure at the Chempark sites (e.g., electricity networks, pipeline systems, site railway networks, harbor installations, wastewater treatment plants and security services).

Covestro also uses some insurance services provided by the wholly owned Bayer subsidiary Pallas Versicherung AG, Leverkusen (Germany).

The services provided and received also include leasing agreements concluded with the Bayer Group in which Covestro figures as both the lessor and the lessee. In the previous year, they additionally included a reimbursement totaling €57 million from Bayer AG for termination of the agreement on the joint use of Bayer trademarks.

The goods and services provided by associated companies result from the ongoing operating business with PO JV, LP, Wilmington (United States). Further details on these business relationships are given in Note 14.

Receivables from and payables to related parties mainly comprise leasing and financing matters, trade in goods and services and other transactions. No impairment losses were recorded on receivables from related parties in either 2016 or the previous year.

The year-on-year reduction in liabilities to Bayer Group companies was primarily the result of the restructuring of debt described in Note 22.

28.2 Related Persons

Related persons as defined in IAS 24 are those natural persons who, on account of their function in the Covestro Group, are responsible for Covestro's global business operations. These persons include the corporate officers of Covestro AG, who are the members of the Board of Management and Supervisory Board.

Compensation of the corporate officers

Total compensation of €16,010 thousand (previous year: €12,509 thousand) was paid to the corporate officers in fiscal 2016, including the compensation of the Supervisory Board amounting to €1,722 thousand (previous year: €736 thousand).

This compensation is shown below.

Board Members Compensation According to IFRSs

	2015	2016
	€ thousand	€ thousand
Total short-term compensation	10,452	11,798
Total stock-based compensation (long-term incentive)	1,297	2,914
Service cost for pension entitlements earned in the respective year	760	1,298
Aggregate compensation (IFRSs)	**12,509**	**16,010**

Provisions of €12,536 thousand (previous year: €9,257 thousand) were recognized for the short-term variable cash compensation and long-term stock-based cash compensation for the members of the Board of Management serving as of December 31, 2016. The present value of the defined benefit pension obligations for the current members of the Board of Management was €9,386 thousand (previous year: €7,173 thousand).

From 2016, the members of the Board of Management are entitled to participate in the Prisma long-term stock-based compensation program, as long as they are employed by the Covestro Group, and acquire for their own account and hold an individually defined number of Covestro shares as specified by the guidelines.

The compensation of the Supervisory Board is exclusively non-performance-related. In addition to their compensation as members of the Supervisory Board, those employee representatives who are employees of Covestro Group companies receive compensation unrelated to their service on the Supervisory Board. The total amount of such compensation was €503 thousand (previous year: €476 thousand). Pension obligations for employee representatives on the Supervisory Board amounted to €2,172 thousand (previous year: €2,559 thousand).

There were no advances or loans to members of the Board of Management or the Supervisory Board outstanding as of December 31, 2016, or at any time during 2016 or the previous year.

29. Audit Fees

The following fees were recognized as expenses for the services provided by PricewaterhouseCoopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft (PwC AG WPG):

Audit Fees

	PwC AG WPG	
	2015	2016
	€ million	€ million
Financial statements auditing	2	2
Audit-related services and other audit work	1	–
Total	**3**	**2**

The fees for the auditing of financial statements mainly comprise those for the audits of the consolidated financial statements of the Covestro Group and the financial statements of Covestro AG and its subsidiaries in Germany.

30. Events After the End of the Reporting Period

No events have occurred since January 1, 2017, that we expect to have a material impact on the net assets, financial position and results of operations of the Covestro Group.

Leverkusen, February 14, 2017

Covestro AG

The Board of Management

Responsibility Statement

To the best of our knowledge, and in accordance with the applicable reporting principles for financial reporting, the consolidated financial statements give a true and fair view of the net assets, financial position and results of operations of the Covestro Group, and the group management report, which has been combined with the management report of Covestro AG, includes a fair review of the development and performance of the business and the position of the Covestro Group and Covestro AG, together with a description of the principal opportunities and risks associated with the expected development of the Covestro Group and Covestro AG.

Leverkusen, February 14, 2017
Covestro AG
The Board of Management

Patrick Thomas (Chair) | Frank H. Lutz | Dr. Klaus Schäfer | Dr. Markus Steilemann

INDEPENDENT AUDITOR'S REPORT

To Covestro AG, Leverkusen

Report on the Audit of the Consolidated Financial Statements

Audit Opinion on the Consolidated Financial Statements

We have audited the consolidated financial statements of Covestro AG, Leverkusen (Germany), and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at December 31, 2016, and the consolidated income statement, the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the financial year from January 1, to December 31, 2016, and notes to the consolidated financial statements, including a summary of significant accounting policies.

According to § (Article) 322 Abs. (paragraph) 3 Satz (sentence) 1 zweiter Halbsatz (second half sentence) HGB ("Handelsgesetzbuch": German Commercial Code), we state that, in our opinion, based on the findings of our audit, the accompanying consolidated financial statements comply, in all material respects, with IFRS, as adopted by the EU, and the additional requirements of German commercial law pursuant to § 315a Abs. 1 HGB and give a true and fair view of the net assets and financial position of the Group as at December 31, 2016, as well as the results of operations for the financial year from January 1, to December 31, 2016, in accordance with these requirements.

According to § 322 Abs. 3 Satz 1 erster Halbsatz HGB, we state that our audit has not led to any reservations with respect to the propriety of the consolidated financial statements.

Basis for Audit Opinion on the Consolidated Financial Statements

We conducted our audit in accordance with § 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW), and additionally consider the International Standards on Auditing (ISA). Our responsibilities under those provisions and standards, as well as supplementary standards, are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements" section of our report. We are independent of the Group entities in accordance with the provisions under German commercial law and professional requirements, and we have fulfilled our other German ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from January 1, to December 31, 2016. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our audit opinion thereon, and we do not provide a separate audit opinion on these matters.

In our view, the key audit matters were as follows:

(A) Recoverability of goodwill and assets with determinable useful lives
(B) Provisions for pensions
(C) Provisions and obligations

Our presentation of these key audit matters has been structured as follows:

(1) Matter and issue
(2) Audit approach and findings
(3) Reference to further information

A Recoverability of goodwill and assets with determinable useful lives

A.1 Matter and issue

In the consolidated financial statements, a total amount of € 5.0 billion has been reported under the line items "Goodwill", "Other intangible assets" and "Property, plant and equipment" of the consolidated statement of financial position. While goodwill must be tested for impairment ("impairment test") on an annual basis or if there are indications that goodwill may be impaired, such a test needs only to be carried out for other non-current assets with determinable useful lives if there are indications that these assets may be impaired ("triggering events"). The Company has identified certain indicators, which are monitored and in case of negative development cause an impairment test. In an impairment test, the carrying amount of the affected asset or cash-generating unit is compared against the higher of the value in use and the fair value less costs of disposal. In general, the Company conducts the test in a first step based on the fair value less costs of disposal. The basis of measurement is usually the present value of future cash flows from the affected asset or cash-generating unit, to which the respective assets must be assigned. The present value is determined using the discounted cash flow method. Thereby, the Group's three-year planning, which was prepared by the management and approved by the supervisory board, serves as a starting point and is carried forward until such time as operational stability has been achieved. The discount rate used is the weighted average cost of capital for the relevant cash-generating unit. The result of this measurement depends to a large extent on management's assessment of future cash inflows and the discount rate used, and is therefore subject to considerable uncertainty. In addition, the methodological requirements of the impairment test are subject to continual regulatory development, which as a consequence results in continually increasing complexity of measurement models.

A.2 Audit approach and findings

We satisfied ourselves as to the appropriateness of the future cash inflows used in the measurement by, inter alia, comparing this data with the current budgets in the three-year planning prepared by the management and approved by the supervisory board, and reconciling it against general and sector-specific market expectations. With the knowledge that even relatively small changes in the discount rate applied can have material effects on the value of goodwill calculated in this way, we also focused our testing on the parameters used to determine the discount rate applied, and evaluated the measurement model. Furthermore, supplemental to the analyses performed by the Company, we carried out sensitivity analyses and found that the relevant goodwill and other non-current assets with determinable useful lives are sufficiently covered by the discounted future cash flows. Overall, we consider the measurement parameters and assumptions used by management to be in line with our expectations.

A.3 Reference to further information

The Company's disclosures pertaining to non-current assets are contained in sections 3, 12 and 13 of the notes to the consolidated financial statements.

B Provisions for pensions

B.1 Matter and issue

Within the consolidated financial statements, pension provisions amounting to €1.2 billion has been reported, comprising the net amount of the present value of the obligations under defined-benefit plans, amounting to €3.8 billion, and the fair value of the plan assets, amounting to €2.6 billion. The majority of these provisions relates to old-age and transitional pension commitments in Germany and the United States of America. Obligations from defined-benefit pension plans are measured in accordance with the projected unit credit method in accordance with IAS 19. This requires in particular that assumptions be made as to long-term salary and pension trends and average life expectancy. Furthermore, the discount rate applied as of the balance sheet date must be determined by reference to market yields on high-quality corporate bonds with matching currencies and terms which are consistent with the expected maturities of the obligations. Changes to these actuarial assumptions are recognized in other comprehensive income as actuarial gains or losses. Plan assets are recognized at their fair value. From our point of view, these matters were of particular importance, as recognition and measurement of these material items are to a large extent based on management's estimates and assumptions. Furthermore, the line item "pension provisions" is potentially factored into ratios relevant to the Group's rating regarding Group's indebtedness; this means that the measurement of pension obligations materially affects compliance with the requirements set by the rating agencies.

B.2 Audit approach and findings

As part of our audit, we evaluated the actuarial reports obtained by the relevant Group entities. Given the specific peculiarities of the actuarial valuations, we received assistance from pension specialists. Among other things, we checked the numerical data, the actuarial parameters, the calculation of the provisions as well as the presentation in the consolidated statement of financial position and the notes to the consolidated financial statements based on the actuarial reports. Our audit of the fair value of the plan assets was carried out on the basis of respective bank and fund confirmations as well as expert valuations which were available to us and which we had evaluated. On the basis of our audit procedures, we verified that these items, which are significant in amount, were recognized and measured appropriately and that the disclosures in the notes in accordance with IAS 19 were complete.

B.3 Reference to further information

The disclosures about pension provisions are contained in section 20 of the notes to the consolidated financial statements.

C Provisions and obligations

C.1 Matter and issue

As a worldwide operating manufacturer of polymer-based materials, Covestro AG is exposed to a variety of risks. The recognition and measurement of € 1.0 billion in current and non-current provisions in Covestro AG's consolidated financial statements for legal, environmental and warranty risks, tax risks as well as obligations from personnel measures, restructuring and other agreements are highly dependent on estimates and assumptions by the management. In light of this background and due to the amounts of these material items, we consider these matters to be of particular importance.

C.2 Audit approach and findings

With the knowledge that estimated values result in an increased risk of material misstatements within the consolidated financial statements and that the management's measurement decisions have a direct and significant effect on consolidated income, we assessed the appropriateness of the carrying amounts. With respect to recognition and measurement of obligations, we evaluated, among other things, the current agreements, social plans, cost estimates – partly obtained from third parties – as well as the existence of constructive obligations. In doing so, we were able to satisfy ourselves that the estimates applied and the assumptions made by the management were sufficiently documented and supported to justify the recognition and measurement of the material provisions and other obligations where judgment was involved.

C.3 Reference to further information

The Company's disclosures pertaining to provisions and obligations are contained in sections 21, 25 and 26 of the notes to the consolidated financial statements.

Other Information

Management is responsible for the other information. The other information comprises

- the Corporate Governance Report according to section 3.10 of the German Corporate Governance Code,
- the Corporate Governance Statement pursuant to § 289a HGB and § 315 Abs. 5 HGB, as well as
- other parts of the annual report of Covestro AG, Leverkusen (Germany), for the financial year ended on December 31, 2016, which were not subject of our audit.

Our audit opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information, and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation of the consolidated financial statements, which comply with IFRS, as adopted by the EU, and the additional German legal requirements applicable under § 315a Abs. 1 HGB, and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. Furthermore, management is responsible for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group’s ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

The supervisory board is responsible for overseeing the Group’s financial reporting process for the preparation of the consolidated financial statements.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objective is to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor’s report that includes our audit opinion on the consolidated financial statements. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with § 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW), under additional consideration of the ISA, will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with § 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW), under additional consideration of the ISA, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group’s internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or the Group management report or, if such disclosures are inadequate, to modify our audit opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the net assets and financial position as well as the results of operations of the Group in accordance with IFRS, as adopted by the EU, and the additional German legal requirements applicable under § 315a Abs. 1 HGB.

- Obtain sufficient and appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an audit opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our report on the audit of the consolidated financial statements unless law or regulation precludes public disclosure about the matter.

Other Legal and Regulatory Requirements

Report on the Audit of the Group Management Report

Audit Opinion on the Group Management Report

We have audited the group management report of Covestro AG, Leverkusen (Germany), which is combined with the Company’s management report, for the financial year from January 1, to December 31, 2016.

In our opinion, based on the findings of our audit, the accompanying group management report as a whole provides a suitable view of the Group's position. In all material respects, the group management report is consistent with the consolidated financial statements, complies with legal requirements and suitably presents the opportunities and risks of future development.

Our audit has not led to any reservations with respect to the propriety of the group management report.

Basis for Audit Opinion on the Group Management Report

We conducted our audit of the group management report in accordance with § 317 Abs. 2 HGB and German generally accepted standards for the audit of management reports promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW). We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management and Those Charged with Governance for the Group Management Report

Management is responsible for the preparation of the group management report, which as a whole provides a suitable view of the Group’s position, is consistent with the consolidated financial statements, complies with legal requirements, and suitably presents the opportunities and risks of future development. Furthermore, management is responsible for such policies and procedures (systems) as management determines are necessary to enable the preparation of a group management report in accordance with the German legal requirements applicable under § 315 Abs. 1 HGB and to provide sufficient and appropriate evidence for the assertions in the group management report.

The supervisory board is responsible for overseeing the Group’s financial reporting process for the preparation of the group management report.

Auditor's Responsibilities for the Audit of the Group Management Report

Our objective is to obtain reasonable assurance about whether the group management report as a whole provides a suitable view of the Group’s position as well as, in all material respects, is consistent with the consolidated financial statements as well as the findings of our audit, complies with legal requirements, and suitably presents the opportunities and risks of future development, and to issue an auditor’s report that includes our audit opinion on the group management report.

As part of an audit, we examine the group management report in accordance with § 317 Abs. 2 HGB and German generally accepted standards for the audit of management reports promulgated by the IDW. In this connection, we draw attention to the following:

- The audit of the group management report is integrated into the audit of the consolidated financial statements.
- We obtain an understanding of the policies and procedures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these policies and procedures (systems).

- We perform audit procedures on the prospective information presented by management in the group management report. Based on appropriate and sufficient audit evidence, we hereby, in particular, evaluate the material assumptions used by management as a basis for the prospective information and assess the reasonableness of these assumptions as well as the appropriate derivation of the prospective information from these assumptions. We are not issuing a separate audit opinion on the prospective information or the underlying assumptions. There is a significant, unavoidable risk that future events will deviate significantly from the prospective information.

- We are also not issuing a separate audit opinion on individual disclosures in the group management report; our audit opinion covers the group management report as a whole.

Responsible Auditor

The auditor responsible for the audit is Dietmar Prümm.

Essen, February 15, 2017

PricewaterhouseCoopers
Aktiengesellschaft
Wirtschaftsprüfungsgesellschaft

Petra Justenhoven Wirtschaftsprüferin (German Public Auditor)	Dietmar Prümm Wirtschaftsprüfer (German Public Auditor)

FURTHER INFORMATION

Governance Bodies

Supervisory Board

The Supervisory Board comprises the following members:

Name/Function	Membership in the Supervisory Board	Position	Memberships on other Supervisory Boards
Dr. Richard Pott (Chair)	Member of the Supervisory Board since August 2015	• Former Member of the Board of Management and Labor Director of Bayer AG	• Chair of the Supervisory Board of Covestro Deutschland AG • Member of the Supervisory Board of Freudenberg SE • Member of the Supervisory Board of SCHOTT AG
Petra Kronen (Vice Chair)	Member of the Supervisory Board since October 2015	• Chair of the Works Council of Covestro at the Uerdingen site • Chair of the General Works Council of Covestro • Vice Chair of Covestro-European Forum • Employee of Covestro Deutschland AG	• Vice Chair of the Supervisory Board of Covestro Deutschland AG • Member of the Supervisory Board of Bayer AG • Member of the Supervisory Board of Bayer Beistandskasse
Ferdinando Falco Beccalli	Member of the Supervisory Board since October 2015	• Chair of the Board of Falco Enterprises AG	• Member of the Supervisory Board of Covestro Deutschland AG • Chair of the Supervisory Board of ENAV S.p.A.
Dr. Christine Bortenlänger	Member of the Supervisory Board since October 2015	• Executive Member of the Board of Deutsches Aktieninstitut e.V.	• Member of the Supervisory Board of Covestro Deutschland AG • Member of the Supervisory Board of OSRAM GmbH • Member of the Supervisory Board of OSRAM Licht AG • Member of the Supervisory Board of SGL Carbon SE • Member of the Supervisory Board of TUV SÜD AG
Johannes Dietsch	Member of the Supervisory Board since August 2015	• Member of the Board of Management of Bayer AG	• Member of the Supervisory Board of Covestro Deutschland AG • Chair of the Supervisory Board of Bayer Business Services GmbH • Chair of the Supervisory Board of Bayer CropScience AG (since May 1st, 2016)
Dr.-Ing. Thomas Fischer	Member of the Supervisory Board since October 2015	• Chair of the Managerial Employees' Committee of Covestro Deutschland AG • Manager of Covestro Deutschland AG	• Member of the Supervisory Board of Covestro Deutschland AG • Member of the Supervisory Board of Bayer AG • Member of the Supervisory Board of Bayer-Pensionskasse VVaG
Peter Hausmann	Member of the Supervisory Board since October 2015	• Member of the Executive Committee of the German Mining, Chemical and Energy Industrial Union (IG BCE)	• Member of the Supervisory Board of Covestro Deutschland AG • Member of the Supervisory Board of Henkel AG & Co. KGaA • Member of the Supervisory Board of Continental AG • Vice Chair of the Supervisory Board of 50Hertz Transmission GmbH • Vice Chair of the Supervisory Board of Vivawest GmbH • Vice Chair of the Supervisory Board of Vivawest Wohnen GmbH
Irena Küstner	Member of the Supervisory Board since October 2015	• Chair of the Works Council of Covestro at the Leverkusen site • Chair of the Group Works Council of Covestro • Vice Chair of the General Works Council of Covestro • Employee of Covestro Deutschland AG	• Member of the Supervisory Board of Covestro Deutschland AG
Michael Mostert	Member of the Supervisory Board until September 2016	• Employee of the German Mining, Chemical and Energy Industrial Union (IG BCE)	• Member of the Supervisory Board of Covestro Deutschland AG (until September 2016)
Prof. Dr. Rolf Nonnenmacher	Member of the Supervisory Board since August 2015	• Certified Accountant	• Member of the Supervisory Board of Covestro Deutschland AG • Member of the Supervisory Board of Continental AG • Member of the Supervisory Board of ProSiebenSat.1 Media SE
Regine Stachelhaus	Member of the Supervisory Board since October 2015	• Former Member of the Board of Management and Labor Director of E.ON AG	• Member of the Supervisory Board of Covestro Deutschland AG • Member of the Supervisory Board of SPIE GmbH • Member of the Supervisory Board of METRO AG (since February 2017) • Director of SPIE SA, France • Non-executive director of ComputaCenter plc, United Kingdom
Frank Werth	Member of the Supervisory Board since September 2016	• District Manager of the German Mining, Chemical and Energy Industrial Union (IG BCE) – district Leverkusen	• Member of the Supervisory Board of Covestro Deutschland AG (since September 2016)
Sabine Wirtz	Member of the Supervisory Board until February 2017	• Substitute Member of the Works Council of Covestro at the Leverkusen site • Chemical Laboratory Technician of Covestro Deutschland AG	• Member of the Supervisory Board of Covestro Deutschland AG
Marc Stothfang	Member of the Supervisory Board since February 2017	• Chair of the Works Council of Covestro at the Brunsbüttel site • Chair of Covestro-European Forum • Employee of Covestro Deutschland AG	

Members of Committees

Presidial Committee/ Mediation Committee	Nominations Committee	Audit Committee	Human Resources Committee
Dr. Richard Pott (Chair)	Dr. Richard Pott	Prof. Dr. Rolf Nonnenmacher (Chair)	Dr. Richard Pott (Chair)
Peter Hausmann	Regine Stachelhaus	Johannes Dietsch	Johannes Dietsch
Petra Kronen		Peter Hausmann	Dr.-Ing. Thomas Fischer
Regine Stachelhaus		Petra Kronen	Petra Kronen
		Irena Küstner	
		Dr. Richard Pott	

Board of Management

Name	Position	Areas of responsibility	Memberships on other supervisory boards
Patrick Thomas	Chair of the Board of Management	• Sustainability • Strategy • Communications • Corporate Audit • Corporate Office • Polycarbonates • Coatings, Adhesives, Specialties • Human Resources	• Non-executive director BG Group plc, United Kingdom (until February 15, 2016)
Frank H. Lutz	Member of the Board of Management Labor Director	• Finance • Taxes • Accounting • Controlling • Law, Intellectual Property & Compliance • Information Technology • Portfolio and Project Management • Investor Relations	• Member of the Supervisory Board of Nordex SE (until May10, 2016)
Dr. Klaus Schäfer	Member of the Board of Management	• Production & Technology • Engineering • Investment Coordination & Analysis • Health, Safety, Environment • Procurement • Basic Chemicals	
Dr. Markus Steilemann	Member of the Board of Management	• Innovation • Polyurethanes	

Glossary

A

Adjusted EBIT
Earnings after income taxes plus financial result and income tax expense before special items

Adjusted EBITDA
Adjusted EBIT plus depreciation and amortization of property, plant and equipment, and intangible assets before special items

AktG/German Stock Corporation Act
Regulates the legal provisions pertaining to German stock corporations

APAC
Comprises all countries in the Asia and Pacific region in which Covestro is active

C

Capital employed
Capital employed is the sum of noncurrent and current assets less non-interest-bearing liabilities such as trade accounts payable.

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

Covestment
Stock participation program in which all employees in Germany can acquire Covestro shares at a discount

D

DCGK/German Corporate Governance Code
A set of regulations compiled by the Government Commission on the German Corporate Governance Code in respect of responsible corporate governance, which contains recommendations and suggestions for the management and oversight of listed corporations in Germany

DRS/German Accounting Standards
Pronouncements of the German Accounting Standards Committee e.V., which substantiate the HGB requirements in reference to the application of the Group accounting principles

Due diligence
Investigation and analysis of a company, especially in respect of its economic, legal, tax and financial position

E

Earnings per share
Net income divided by the weighted average number of shares in the reporting period

EBIT/earnings before interest and taxes
Income after income taxes plus financial result and income tax expense

EBITDA/earnings before interest, taxes, depreciation and amortization
EBIT plus depreciation and amortization of property, plant and equipment, and intangible assets

EHS/environment, health and safety
Environment, health and safety

EMLA
Comprises all countries in Europe, the Middle East, Africa and Latin America (excluding Mexico) in which Covestro is active

EURO STOXX 50®
A European stock index that tracks the performance of the 50 most important and most actively traded companies in the euro zone

F

FOCF/free operating cash flow
Operating cash flow (pursuant to IAS 7) less cash outflows for additions to property, plant and equipment, and intangible assets

G

GHG Protocol/Greenhouse Gas Protocol
International accounting system for greenhouse gas emissions developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD)

GPS/Global Product Strategy
Initiative of the International Council of Chemical Associations (ICCA) with the aim of anchoring uniform global standards for product safety in the chemical industry

GRI/Global Reporting Initiative
Guidelines for the preparation of sustainability reports by companies, governments and nongovernmental organizations (NGOs)

H

HDI/hexamethylene diisocyanate
A chemical compound from the class of aliphatic isocyanates, primarily used in polyurethane coating systems

HGB/German Commercial Code
Comprises much of the German accounting legislation

HSEQ/Health, Safety, Environment, Quality
Health, safety, environment and quality

hexamethylene diisocyanate
A chemical compound from the class of aliphatic isocyanates, primarily used in polyurethane coating systems

HGB/German Commercial Code
Comprises much of the German accounting legislation

HSEQ/Health, Safety, Environment, Quality
Health, safety, environment and quality

I

IAS/International Accounting Standards
International accounting standards as endorsed by the European Union

IASB/International Accounting Standards Board
The International Accounting Standards Board is an independent, private-sector body that develops and approves the International Financial Reporting Standards (IFRSs).

ICS/internal control system
Internal control system to ensure compliance with directives by means of technical and organizational rules

IFRS/International Financial Reporting Standard
International accounting standards as endorsed by the European Union

IPDI/isophorone diisocyanate
A chemical compound from the class of aliphatic isocyanates, primarily used in polyurethane coating systems

L

LoPC/loss of primary containment
Leaks of chemicals in amounts above defined thresholds leaking from their primary containers, such as pipelines, pumps, tanks and drums

LTRIR/lost time recordable incident rate
Rate of the reportable workplace accidents to days of absence

M

MDI/diphenylmethane diisocyanate
A chemical compound from the class of aromatic isocyanates, primarily used in polyurethane foams

N

NAFTA
Region comprising the United States, Canada and Mexico in which Covestro is active

Net financial debt
Interest-bearing liabilities (excluding pension obligations) less liquid assets

Net income
Income after income taxes attributable to the stockholders

NOPAT/net operating profit after taxes
Adjusted operating result (adjusted EBIT) after taxes

P

PMDI/Polymeric diphenylmethane diisocyanate
A chemical compound from the class of aromatic isocyanates, primarily used in polyurethane foams

PO/Propylene oxide
A chemical compound from the class of epoxies used in the production of polyurethanes

PRISMA
Prisma is a stock-based compensation program with a four-year performance period for senior executives and other managerial employees.

PSP/Profit Sharing Plan
Covestro PSP is the Group's short-term variable compensation system. It is based exclusively on the target achievement of the relevant Covestro performance indicators (core volume growth, FOCF, ROCE).

R

REACH Regulation
Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No. 1907/2006 which came into force in 2007 and harmonizes EU chemicals legislation

"Responsible Care" initiative
Initiative by the German Chemical Industry Association (VCI) aimed at continuously improving health, environmental protection and safety in its member companies

RIR/recordable incident rate
Total number of workplace accidents per 200,000 working hours

ROCE/return on capital employed
The ratio of adjusted operating result after taxes to capital employed

S

Stakeholders
Internal and external interest groups which are directly or indirectly impacted by the company's corporate activities and/or may be so in the future

STOXX® Europe 600 Chemicals
A sector index provided by STOXX®. The STOXX® Europe 600 is comprised of 600 companies from 18 countries across Europe.

T

TDI/toluene diisocyanate
A chemical compound from the class of aromatic isocyanates, primarily used in polyurethane foams and coating systems

U

UN Global Compact
The world's largest responsible corporate governance initiative; the member companies undertake to implement ten universal principles and regularly document their progress.

V

Value contribution
The difference between the adjusted operating result after taxes and the cost of capital. A positive value contribution means that value has been generated.

VCI/Verband der Chemischen Industrie – German Chemical Industry Association
German chemical industry association

W

WACC/weighted average cost of capital
Weighted average cost of capital reflecting the expected return on the company's equity and debt capital

World-scale plants
Covestro defines world-scale plants in terms of their production capacity in kilotons per year:

- TDI plants from 300 kilotons per year
- MDI plants from 400 kilotons per year
- Polyether polyol plants from 300 kilotons per year
- Polycarbonate plants with individual production lines from 100 kilotons per year

Segment Information 4th Quarter

	Polyurethanes		Polycarbonates		Coatings, Adhesives, Specialties		Others/Consolidation		Covestro Group	
	4th quarter 2015	4th quarter 2016	4th quarter 2015	4th quarter 2016	4th quarter 2015	4th quarter 2016	4th quarter 2015	4th quarter 2016	4th quarter 2015	4th quarter 2016
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Sales	**1,385**	**1,540**	**759**	**833**	**477**	**481**	**177**	**163**	**2,798**	**3,017**
Change in sales										
Volume	+2.7%	+0.3%	–0.3%	+13.2%	0.0%	+2.4%	+2.8%	–6.1%	+1.5%	+3.8%
Price	–20.0%	+11.6%	–3.9%	–2.6%	–2.2%	–1.7%	–7.2%	–1.9%	–12.4%	+4.6%
Currency	+4.2%	–0.7%	+6.5%	–0.9%	+5.0%	+0.1%	+2.2%	+0.1%	+4.8%	–0.6%
Portfolio	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Core volume growth[1]	**+ 4.6%**	**+ 2.5%**	**+ 0.5%**	**+ 12.8%**	**-0.2%**	**0.0%**			**+ 3.0%**	**+ 4.8%**
Sales by region										
EMLA	583	576	268	270	229	217	137	134	1,217	1,197
NAFTA	453	442	185	207	112	109	35	26	785	784
APAC	349	522	306	356	136	155	5	3	796	1,036
EBITDA	**(22)**	**176**	**122**	**142**	**83**	**83**	**(51)**	**(11)**	**132**	**390**
Adjusted EBITDA	**63**	**176**	**123**	**142**	**84**	**83**	**(14)**	**(11)**	**256**	**390**
EBIT	**(157)**	**80**	**70**	**93**	**60**	**59**	**(53)**	**(11)**	**(80)**	**221**
Adjusted EBIT	**(55)**	**80**	**70**	**93**	**60**	**59**	**(16)**	**(11)**	**59**	**221**
Depreciation, amortization, impairment losses and impairment loss reversals	**135**	**96**	**52**	**49**	**23**	**24**	**2**	**–**	**212**	**169**
Operating cash flow	**407**	**403**	**179**	**178**	**155**	**126**	**(191)**	**(97)**	**550**	**610**
Cash outflows for additions to property, plant, equipment and other intangible assets	**80**	**96**	**39**	**70**	**38**	**36**	**–**	**1**	**157**	**203**
Free operating cash flow	**327**	**307**	**140**	**108**	**117**	**90**	**(191)**	**(98)**	**393**	**407**

[1] Reference values calculated based on the definition of the core business effective March 31, 2016

Segment Information Full Year

	Polyurethanes		Polycarbonates		Coatings, Adhesives, Specialties		Others/Consolidation		Covestro Group	
	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Sales	**6,088**	**5,927**	**3,172**	**3,298**	**2,093**	**2,040**	**729**	**639**	**12,082**	**11,904**
Change in sales										
Volume	+2.1%	+5.2%	+4.6%	+10.0%	+2.1%	+0.6%	+0.2%	–6.0%	+2.6%	+5.0%
Price	–12.4%	–6.4%	–2.6%	–4.3%	–1.1%	–2.4%	–3.8%	–6.1%	–7.7%	–5.2%
Currency	+7.2%	–1.4%	+10.4%	–1.7%	+7.6%	–0.7%	+3.6%	–0.2%	+7.8%	–1.3%
Portfolio	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Core volume growth[1]	**+1.8%**	**+7.7%**	**+5.1%**	**+10.3%**	**+2.6%**	**–0.3%**			**+2.7%**	**+7.5%**
Sales by region										
EMLA	2,631	2,477	1,134	1,137	1,043	1,006	549	506	5,357	5,126
NAFTA	1,956	1,810	765	788	486	456	149	115	3,356	3,169
APAC	1,501	1,640	1,273	1,373	564	578	31	18	3,369	3,609
EBITDA	**487**	**881**	**558**	**704**	**484**	**500**	**(110)**	**(71)**	**1,419**	**2,014**
Adjusted EBITDA	**624**	**881**	**560**	**704**	**491**	**500**	**(34)**	**(71)**	**1,641**	**2,014**
EBIT	**26**	**489**	**374**	**507**	**397**	**411**	**(117)**	**(76)**	**680**	**1,331**
Adjusted EBIT	**201**	**489**	**376**	**507**	**406**	**411**	**(41)**	**(76)**	**942**	**1,331**
Depreciation, amortization, impairment losses and impairment loss reversals	**461**	**392**	**184**	**197**	**87**	**89**	**7**	**5**	**739**	**683**
Operating cash flow	**863**	**842**	**328**	**570**	**426**	**420**	**(144)**	**(46)**	**1,473**	**1,786**
Cash outflows for additions to property, plant, equipment and other intangible assets	**209**	**211**	**190**	**128**	**107**	**79**	**3**	**1**	**509**	**419**
Free operating cash flow	**654**	**631**	**138**	**442**	**319**	**341**	**(147)**	**(47)**	**964**	**1,367**

[1] Reference values calculated based on the definition of the core business effective March 31, 2016

Quarterly Overview

	1st quarter 2015	2nd quarter 2015	3rd quarter 2015	4th quarter 2015	1st quarter 2016	2nd quarter 2016	3rd quarter 2016	4th quarter 2016
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Sales	**3,054**	**3,210**	**3,020**	**2,798**	**2,875**	**2,990**	**3,022**	**3,017**
Polyurethanes	1,554	1,637	1,512	1,385	1,403	1,481	1,503	1,540
Polycarbonates	765	829	819	759	786	831	848	833
Coatings, Adhesives, Specialties	535	562	519	477	512	532	515	481
Core volume growth[1]	**+1.7%**	**+6.7%**	**–0.6%**	**+3.0%**	**+8.5%**	**+7.7%**	**+9.1%**	**+4.8%**
EBITDA	**393**	**439**	**455**	**132**	**508**	**542**	**574**	**390**
Polyurethanes	153	195	161	(22)	214	228	263	176
Polycarbonates	116	149	171	122	177	191	194	142
Coatings, Adhesives, Specialties	131	135	135	83	139	142	136	83
Adjusted EBITDA	**416**	**498**	**471**	**256**	**508**	**542**	**574**	**390**
Polyurethanes	163	223	175	63	214	228	263	176
Polycarbonates	116	150	171	123	177	191	194	142
Coatings, Adhesives, Specialties	133	137	137	84	139	142	136	83
EBIT	**206**	**267**	**287**	**(80)**	**340**	**364**	**406**	**221**
Polyurethanes	31	92	60	(157)	117	124	168	80
Polycarbonates	73	104	127	70	127	142	145	93
Coatings, Adhesives, Specialties	111	113	113	60	119	119	114	59
Adjusted EBIT	**251**	**327**	**305**	**59**	**340**	**364**	**406**	**221**
Polyurethanes	63	121	72	(55)	117	124	168	80
Polycarbonates	73	105	128	70	127	142	145	93
Coatings, Adhesives, Specialties	113	115	118	60	119	119	114	59
Financial result	**(41)**	**(46)**	**(56)**	**(32)**	**(78)**	**(45)**	**(41)**	**(32)**
Income before income taxes	**165**	**221**	**231**	**(112)**	**262**	**319**	**365**	**189**
Income after taxes	**118**	**154**	**161**	**(81)**	**184**	**233**	**261**	**128**
Net income	**115**	**152**	**160**	**(84)**	**182**	**230**	**259**	**124**
Operating cash flow	**184**	**360**	**379**	**550**	**124**	**316**	**736**	**610**
Cash outflows for additions to property, plant, equipment and intangible assets	**94**	**130**	**128**	**157**	**47**	**79**	**90**	**203**
Free operating cash flow	**90**	**230**	**251**	**393**	**77**	**237**	**646**	**407**

[1] Reference values calculated based on the definition of the core business effective March 31, 2016

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Financial Calendar

Q1 2017 Interim Report	**April 25, 2017**
Annual Stockholders' Meeting 2017	**May 3, 2017**
Half-Year Financial Report 2017	**July 25, 2017**
Q3 2017 Interim Report	**October 24, 2017**
Annual Report 2017	**February 20, 2018**

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