Borealis Annual Report 2017

BOREALIS

Keep Discovering

Cover image: Air view of Borealis' production location in Stenungsund, Sweden

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What we do and how we do it

The results of what we do

Reviewing 2017

Borealis at a glance

2nd largest polyolefin (PO) producer in Europe

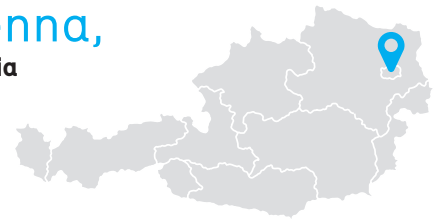
About 6,600* employees

*Full-time equivalents

Joint Venture Borouge operates world's largest integrated PO site in Ruwais, United Arab Emirates

EUR 7.6 billion sales revenue in 2017

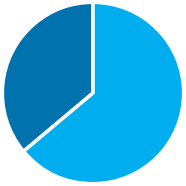
Head office in Vienna, Austria



EUR 1.1 billion net profit for 2017

Production and sales of polyolefins and base chemicals

Ownership structure



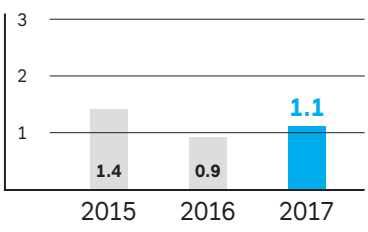
36% OMV, Austria

64% Mubadala, United Arab Emirates

Operates in over 120 countries on 5 continents

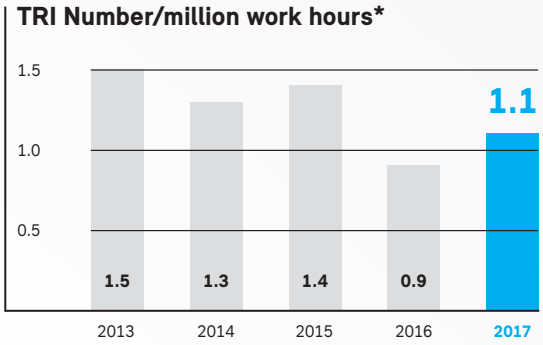
Total TRI frequency

Occupational safety performance



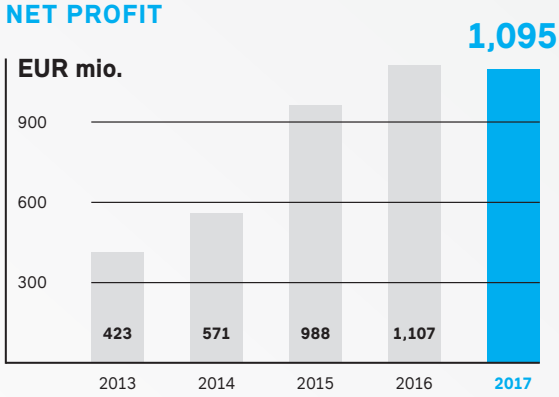
The year 2017 at a glance

OCCUPATIONAL SAFETY PERFORMANCE

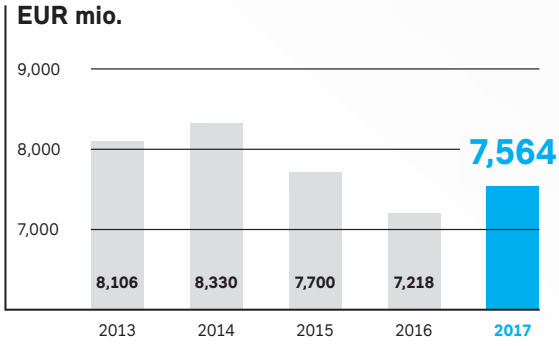


*Includes own employees and contractors

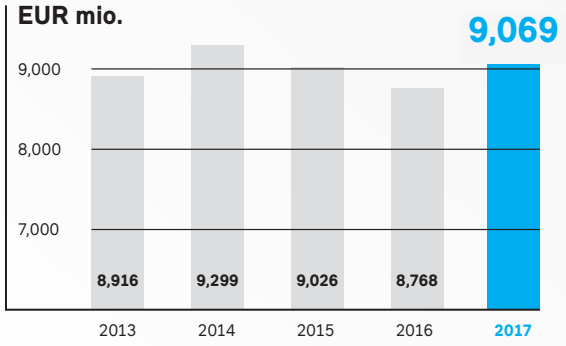
NET PROFIT



NET SALES

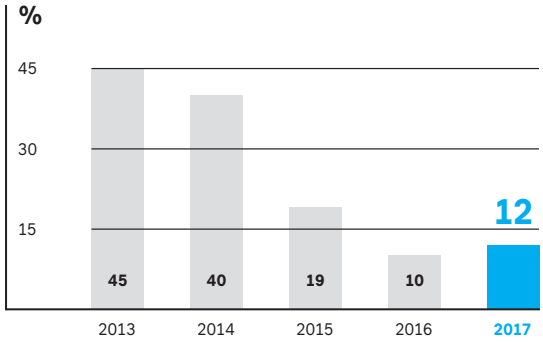


TOTAL SALES*

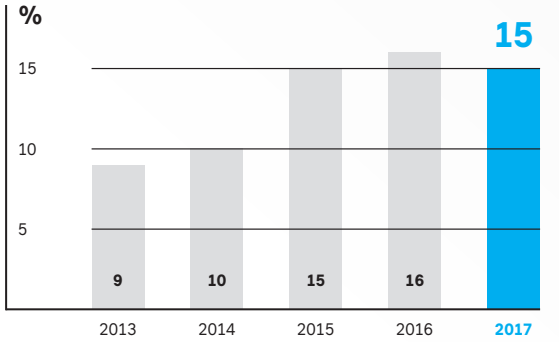


*Total net sales of Borealis and pro-rata sales of at equity consolidated companies

GEARING



ROCE



2017 Milestones

1.
Safety first: unwavering focus on Goal Zero results in a TRI rate of 1.1 in 2017

2.
Net profit of EUR 1,095 million in 2017

3.
Framework agreement signed with ADNOC to advance the project Borouge 4 and PP5, the new Borstar® polypropylene plant in Ruwais, UAE

4.
Feasibility study for construction of world-scale dehydrogenation plant in Kallo moves to front end engineering and design (FEED) phase

5.
Memorandum of Understanding signed with NOVA Chemicals and Total to build new, 1,000 kilotonne-per-annum (ktpa) ethane cracker and 625 ktpa Borstar® polyethylene plant in Texas, US

6.
Announcement of plans to build dedicated automotive polypropylene compounding plant in North Carolina, US

7.
Completion of five major plant turnarounds, three of which were free of TRIs

8.
Consolidation of industry leadership in promoting the circular economy for polyolefins

9.
Inauguration of refurbished Grand-Quevilly quay in France, a key infrastructure investment to grow Fertilizers

10.
Global launch of pioneering solar umbrella brand Quentys™

11.
Launch of Borstar® Bimodal Terpolymer Technology and flagship brand Anteo™, a new family of linear low-density polyethylene packaging grades

12.
Borlink™ extruded high voltage direct current technology sets another energy transmission world record at 640 kV

Statement of the Supervisory Board

In 2017, Borealis achieved the second best financial result in its history, supported by favourable polyolefin market conditions and a strong contribution from Borouge. At the same time, Borealis achieved a satisfactory safety performance well within world class parameters, which however deteriorated slightly compared to 2016. With the ultimate goal of zero accidents, safety is, and always will be, the top priority for Borealis.

The very strong financial result was achieved in a market environment of economic growth, increasing commodity prices and continuing geopolitical uncertainty.

The annual average feedstock price increase in 2017 exceeded the annual average Brent Crude oil price increase of 22% versus 2016; in contrast, polyolefin prices only showed a moderate price increase in 2017 versus 2016, resulting in lower integrated polyolefin industry margins, which also had its impact on the Borealis integrated polyolefin margins. The Base Chemicals segment delivered a lower result compared to 2016 due to a continued weak fertilizer business environment and lower olefins production volume as a result of turnarounds executed in 2017. The record financial result of Borouge in 2017 led to an improved profit contribution to the Borealis result in comparison to 2016.

Phase of growth and global outreach

In March 2017, Borealis and NOVA Chemicals signed an agreement to form a joint venture with Total. Key aspects of the joint venture include building a new 1,000 kilotonne per annum (ktpa) ethane cracker in Port Arthur, Texas, and a new 625 ktpa Borstar® PE plant in Bayport, Texas. It will also include owning and operating Total's existing Bayport polyethylene facility, with a total capacity of 400 ktpa. The ethane cracker and Borstar PE plant are planned to start-up in late 2020. The project enables first-time use of the proprietary Borstar PE process technology in the Americas and provides competitive export access to markets outside of North America.

In North Carolina (US), Borealis will invest in a dedicated automotive polypropylene compounding plant. This investment is the most recent step in implementing the expansion strategy in this business area and will, together with Borouge, help to serve its automotive customers on a global basis. The plant is scheduled to become commercially operational in early 2019 and will complement the existing Borealis Automotive Compounding assets located in New Jersey.

In September 2017, Borealis announced that it will move to the front end engineering and design (FEED) phase for a new, world-scale propane dehydrogenation plant, after successfully concluding the pre-FEED phase. The facility is planned to be located at the existing Borealis production site in Kallo, Belgium. The final investment decision is expected to be taken in the third quarter of 2018. The start-up of the plant is scheduled for the beginning of 2022. The planned PDH plant has a targeted annual production capacity of 740 ktpa, making it one of the largest and most efficient facilities in the world.

Further investments in Borouge

The Abu Dhabi National Oil Company (ADNOC) and Borealis have signed a framework agreement under which the companies will advance two key projects that will expand both ADNOC and Borealis downstream petrochemicals business. Under the agreement, Borouge moved to the pre-FEED stage for the construction of the Borouge 4 complex, which encompasses a world-scale, mixed feedstock cracker, using existing feedstock available in Abu Dhabi and downstream derivatives units for both polyolefin and non-polyolefin products. The proposed Borouge 4 complex is slated to come on stream around 2023 and will be integrated with ADNOC Refining's refinery. Simultaneously, Borouge commenced engineering, procurement and construction (EPC) tendering for an additional polypropylene plant (PP5) based on the proprietary Borealis Borstar® technology.

Launch of flagship brand Anteo™

In October 2017, Borealis and Borouge launched Anteo™, a new family of linear low-density polyethylene (LLDPE) packaging grades for the global packaging market. As a major breakthrough in polymer design enabled by the Borealis Borstar® Bimodal Terpolymer (BBT) Technology, the Anteo portfolio now completes the full solution offer for high performance, multilayer flexible packaging applications for the global market. Anteo is produced by Borouge at the Ruwais facility in the United Arab Emirates (UAE).

Strong safety performance and corporate social responsibility

Borealis realised a strong safety performance in 2017. The Total Recordable Injuries (TRI) rate increased slightly from 0.9 in 2016 to 1.1 in 2017. While Borealis was not able to achieve the ultimate goal of zero accidents in 2017, it took significant steps in regard to process safety. Focus on safety will continue in all areas of Borealis operations, and the goal of zero accidents for both employees and contractors will remain the number one priority.

Borealis and Borouge continued their strong commitment to corporate social responsibility through initiatives like Water for the World and the Borealis Social Fund. Launched in 2007, Water for the World aims to secure access to safe water and adequate sanitation around the world, while the Borealis Social Fund continues to support multiple social welfare projects in Europe, Asia and the Middle East. Throughout 2017, a number of significant donations were made by way of this fund.

Continued strong financial performance

Building on the record year of 2016, Borealis realised its second-best ever financial result in 2017. The result was driven by a strong contribution from Polyolefins, which benefitted from healthy industry margins in 2017.

The contribution from Base Chemicals was lower compared to 2016 but still solid. Fertilizer results were negatively impacted by continued oversupply, depressed prices, and operational challenges, resulting in a lower sales volume compared to 2016. The year-on-year increase in the Borouge contribution to the Borealis financial result was a further key element of the overall robust financial results in 2017.

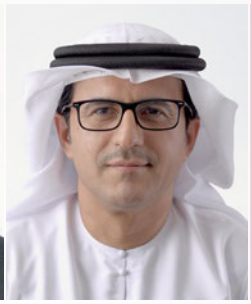
Strong foundation as the leading provider of chemical and plastic solutions

Borealis' management and its employees remain committed to being the leading provider of chemical and plastic solutions. Borealis' success is based on the four pillars of innovation, operational excellence, commercial excellence and safety. Thanks to its investments and acquisitions, Borealis is well positioned to continue to grow and build on the very strong financial results achieved in the past years. The global geopolitical situation remains challenging, and its impact on the economic climate is uncertain. By staying committed to the company's mission of being the leading provider of chemical and plastic solutions that create value for society, both the Supervisory Board and Borealis management are confident that Borealis will again deliver solid results in 2018.

Supervisory Board

SUHAIL MOHAMED FARAJ AL MAZROUEI
Chairman

RAINER SEELE
Vice Chairman



MUSABBEH AL KAABI
Board Member

KHALIFA AL SUWAIDI
Board Member

MANFRED LEITNER
Board Member

CEO Interview with Mark Garrett

"In creating value through innovation, we've been able to push the limits of what is physically possible, and stretch the rules of physics even further."

Mark Garrett, Chief Executive

From your perspective as Borealis CEO, how would you sum up the year 2017?

I'd have to say that, overall, 2017 was another very good year. Our financial performance was very satisfactory, with a net profit of almost EUR 1.1 billion. Due to our heavy investment programme and, as a result, our increasing capital employed, our return on capital is slightly lower than last year. However we invest for the long term and expect to see improving returns after the investment programmes are complete. If we look back on the past ten years we can be truly proud of our financial performance. During this period Borealis generated an increase in shareholder value of 270%. This beats all comparison companies, from BASF to DOW, PetroChina, Exxon, and several others.

Is this parameter the only one that stands out?

No, it's just one measure that shows how well we've performed over the years. Another would be our cumulative net profit after tax of around EUR 6 billion. I doubt any other company in Austria has achieved the same cumulative net profit in this ten-year time period, especially considering that most had either significant losses and/or write-offs at some stage in the last ten years.

We are now transitioning into a new phase of growth and global outreach, with a huge and exciting portfolio of major growth projects over the next five to six years. Starting in the United Arab Emirates (UAE): our framework agreement with ADNOC (Abu Dhabi National Oil Company) entails building the new "PP5" polypropylene plant in Borouge, which will add another half million tonnes of capacity per year; and "Borouge 4" – the next stage of design and construction of the massive Borouge complex.

In North America, we are expanding our footprint by way of a joint venture with Total and NOVA Chemicals. As announced earlier this year, together we plan to build a new ethane cracker as well as a new Borstar® polyethylene (PE) facility in Bayport, Texas. We have also publicised our plans to build a dedicated automotive compounding plant in North Carolina, the most recent step in implementing our expansion strategy in this business area. We're currently evaluating several interesting prospects in Eastern Europe and China, where we'd also like to establish a firmer foothold. Also in Europe we're exploring the feasibility of increasing our polypropylene (PP) capacity. This would be in parallel with our world-scale dehydrogenation plant construction project in Kallo, Belgium, which has just entered the FEED (front end engineering and design) phase.

In other words: We have a phase of growth behind us, a phase of growth ahead of us, and a brief lull over the next two or three years in terms of volume growth whilst we focus on executing our new projects.

How long do you think the current 'top of the cycle' phase in European polyolefins may last?

It is already coming to an end. Major capacity is now coming online in North America after having been delayed by an unusually severe hurricane season. North American exports to Europe will likely depress our prices a bit. But we hope that improved performance in Fertilizers will compensate to a certain extent the price pressure in Polyolefins. Prices are starting to stabilise in the fertilizer market. Borealis' Fertilizers didn't have a good year in 2017, due to decreased production volumes and some pricing opportunities that were missed. Yet, Fertilizers would have the potential to make EUR 200 million in a year if we could achieve Operational Excellence – running our plants reliably – and Commercial Excellence – selling the product well. The idea behind having a portfolio such as ours is indeed that, at times, one business area will compensate for another in the full knowledge that our businesses are cyclical.

In terms of innovation, 2017 was an exciting year for Borealis. Which highlights would you single out?

Undoubtedly, for everyone here at Borealis – and even for those who no longer work here – the biggest innovation highlight of 2017 is Anteo™, a family of linear low-density polyethylene (LLDPE) grades which we launched simultaneously in Austria, UAE and China at the end of October. John Taylor, a former CEO of Borealis, told me ten years ago, back when I joined the company, that the "Holy Grail" of the industry would be to find a bimodal, single-site polymer. So with the launch of Anteo, which is based on our Borstar Bimodal Terpolymer Technology (BBT), I sent a message to John that we had in fact cracked the Holy Grail of the polyolefins industry!

What makes this new technology brand Anteo so special?

It allows for better – not only better, but exceptional – flexibility in polymer design. The unique combination of Borstar bimodality and the advanced catalyst system enables us to provide a truly superior full solution that completes our offer for flexible packaging: these high performing bimodal polyethylene resins show outstanding mechanical performance in flexible packaging together with exceptional processing behaviour. This allows for lower energy consumption during extrusion. These are just some of the advantages that we can now bring into the market. But Anteo is only the most recent of the year's highlights: We also launched Quentys™, our flagship solar brand, earlier in 2017. We are particularly excited about the step change innovations based on Quentys that are making solar applications more reliable, long-lasting and affordable. We've also gone from strength to strength with Borlink™, having set yet another new world record of 640 kilovolt for extruded high voltage direct current cable technology. In creating value through innovation, we've been able to push the limits of what is physically possible, and stretch the rules of physics even further than people expected.

In 2016, post-consumer recyclers mtm plastics and mtm compact were acquired. Since then, how has Borealis consolidated its activities in the area of the circular economy and sustainability?

We have intensified our efforts to promote the circular economy and implement its principles. This is a long-term project for us because we are certain that the circular economy and sustainability will continue to grow in importance over the next 20 to 30 years. And we believe – and it is not due to societal pressure, but rather out of conviction – that plastics are simply too valuable to throw away. It is simply not acceptable to have plastics discarded as litter, floating in marine environments, or accumulating in landfills. We can give plastics a new life through recycling. We are supporting legislation that encourages recycling today, and even more so in future. This is why we are investing in this area.

Clearly, if you look at global trends, and how the world is evolving, polyolefins have a powerful role to play in a global economy that is transforming to become more circular, and more sustainable. Sustainability was made a cornerstone of Borealis' corporate strategy in 2016, and we already have the ideal product portfolio to help make the economy more circular and sustainable. For example, automobile manufacturers aim to build lighter vehicles: we have glass-fibre reinforced and carbon-fibre reinforced PP. Amazon builds thousands of drones in California to deliver all their products, so they need more PP – and we have the global capacity to deliver. Demand for electrification increases, utilities need superior cables based on our technology. Or households willingly embrace renewable energy sources: Quentys products help make solar energy more reliable and more feasible on a broader scale, because it brings down costs. Perhaps most crucially: a growing world population must be fed more efficiently – we offer better food packaging solutions, and also more effective fertilizers.

Are there other important achievements or events in 2017 that should be highlighted?

Indeed. Around this time in 2016, we were gearing up for the largest number of more or less simultaneous and quite massive turnarounds that the company had ever undertaken. One year later, we have completed a very intense year with five planned turnarounds although unfortunately with four TRIs (safety incidents), whereby three of the turnarounds themselves were completely TRI-free. The engineering team deserves praise for a job well done. Due in part to the large number of turnarounds – and the TRIs involved – Borealis as a group hasn't been able to achieve our ultimate goal of zero accidents, but we are making good progress and we have also taken significant steps in regard to process safety. Delivering on Goal Zero will be an ongoing challenge, as more and more plants lead to more and more turnarounds, but we are confident that our engineering community is up to the task.

Another highlight of the year was the robust response rate of our Group-wide People Survey. I am very pleased that 83% of our people played an active role in making us a better learning organisation. We are in the process of analysing the results in order to develop specific actions that further strengthen our work culture.

"With the launch of Anteo, we have cracked the Holy Grail of the polyolefins industry."

Mark Garrett, Chief Executive

On both a personal and executive board level, the change of ownership this year has required some adjustment. Since becoming CEO myself, I've worked with three OMV CEOs, three ADNOC CEOs, and four IPIC/Mubadala CEOs. We have always been able to establish very good working relationships with our owners and partners and I believe this is a real strength.

In November 2017, Philippe Roodhooft joined the Borealis Executive Board as 'Executive Vice President Middle East & Growth Projects'. We recreated this position that we had intentionally not filled for a couple of years because we believe it will be vital if we want to successfully execute the major growth projects in Borealis' portfolio.

Looking to 2018 and beyond, what is the wider industry perspective?

As far as the Borealis Group is concerned, the industry is in a pretty good place. Taking a closer look at olefins and polyolefins: We have a 150-million-tonne industry that is growing at around 4% to 5% a year. If for simplicity's sake we say 5% growth, this means we need 7.5 million tonnes of extra capacity each year.

That translates into three new Borouge 3s (Borouge 3 plant extensions) a year! The world probably can't build three Borouge 3s a year, so what ultimately happens is that capacity comes on in "clumps" as it is doing right now in North America. This puts a huge strain on engineering resources and can spell disaster for some projects – sort of the petrochemicals equivalent of the Berlin airport or the Elbphilharmonie. Yet whether a project goes smoothly or not, that new capacity comes on eventually. And then everybody has to digest that for a couple of years. Then capacity growth slows down, the market picks up again – and then the next clump arrives. What we at Borealis try to do is to come in between the clumps. We managed to do so with Borouge 2 and Borouge 3. We are confident that we can do the same with the additional polypropylene plant PP5, the Borouge 4 expansion, and with our planned North American joint venture with Total and NOVA Chemicals in the years to come. There will be no shortage of work, that much is certain, and it will be a while before we see sales and margins kick in from these major projects. Yet I'm very, very pleased that we have some exciting projects on the way.

The year 2017 in review

Over the past two decades, Borealis has transformed itself from a European plastics manufacturer to a leading global provider of innovative polyolefin and chemical solutions. Building on a sturdy foundation of Polyolefins, Base Chemicals, and its joint venture, Borouge, Borealis continues to expand its footprint in Europe, Asia, the Middle East, and the Americas.

In November, Philippe Roodhooft was appointed Executive Vice President Middle East and Growth Projects. With many major growth projects in the Borealis portfolio, a fully dedicated EVP looking after the Middle East and global growth projects has become vital. In 2017, Borealis announced a number of new international growth projects, including a major joint venture with Total and NOVA Chemicals to build a new ethane cracker and Borstar® polyethylene plant in Texas, US. Other major international growth projects announced in 2017 are detailed below.

As a leading industry innovator, Borealis not only cultivates proprietary technologies like Borstar®, but proactively identifies and develops new growth opportunities in a variety of business areas, particularly in the circular economy. The year 2017 was a stellar one in terms of innovation in the name of enhanced sustainability, with the launch of the pioneering solar umbrella brand Quentys™ and the flagship brand Anteo™. Following the 2016 acquisition of leading German plastics recycler mtm plastics, Borealis has consolidated its industry leadership in this area by intensifying its commitment to mechanical recycling, design for recycling, and the development of post-consumer polyolefin recyclates.

Despite ongoing market and political instability across the globe, Borealis produced strong financial results in 2017, with a net profit of EUR 1,095 million. Borealis successfully completed five major turnarounds in the course of the year. Approximately EUR 320 million were invested in the completion of all scheduled turnarounds as well as related projects such as major maintenance activities on crackers. Given this record number of turnarounds, the 2017 Total Recordable Injuries (TRI) rate of 1.1 is excellent, and world-class in the industry. Yet because the rate still falls short of the company's ultimate goal of zero injuries, Borealis launched a number of new initiatives in 2017 to drive safety performance in order to reach this goal.

Polyolefins

Borealis Polyolefins demonstrated a consistent, solid performance in 2017 thanks to healthy integrated polyolefin margins in Europe, despite some market disruptions due to major weather events such as Hurricane Harvey in North America.

In 2017, the Borealis Value Creation through Innovation strategy in Polyolefins was on clear display, starting with the announcement in April that a new world record of 640 kilovolt for extruded high voltage direct current cable technology had been achieved with a cable system based on Borlink™ LS4258DCE and Borlink™ LE0550D. In May, the launch of the umbrella solar brand Quentys™ signalled the start of a new era in solar energy. Solutions based on Quentys, such as the ICOSOLAR® CPO 3G, a co-extruded polypropylene (PP) solar backsheet, have the potential to revolutionise the global industry by increasing the efficiency and affordability of solar. October saw the launch of Anteo™, a new family of linear low-density polyethylene packaging grades. As a major breakthrough in polymer design enabled by Borstar® Bimodal Terpolymer technology, the Anteo portfolio now completes the full offer for high-performance, multilayer flexible packaging applications for the global market.

Investment in existing and future Polyolefins assets in order to enable growth and maintain industry leadership was another hallmark of 2017. In November, Borealis announced a nine-month feasibility study to evaluate potential polypropylene (PP) capacity increase by way of debottle-necking three Borealis plants in Belgium. If approved, this major investment would guarantee a reliable platform for stable and long-term growth in PP. In May, plans were announced to build a dedicated automotive compounding plant in North Carolina (US) for the production of PP compounds in the Daplen™ family of PP thermoplastic olefins, and the Fibremod™ range of PP short glass fibre-reinforced materials. With operations to commence in 2019, the plant will augment existing US assets.

Borealis and Borouge

A continued strong profit contribution from Borouge, the Borealis joint venture with the Abu Dhabi National Oil Company (ADNOC) in the UAE, has been key to overall robust financial results in 2017.

Since the start of the Borouge joint venture in 1998, total production volumes have been steadily increasing. Thanks to the successful start-up of Borouge 3 in 2016, current annual production is 4.5 million tonnes of polyolefins. In July, Borealis and ADNOC signed a framework agreement aimed at expanding Borouge's annual petrochemical production to a total of 11.4 million tonnes by 2025. First, the agreement covers tendering of the engineering, procurement and construction of a fifth Borstar PP plant – so-called PP5 – in the existing Borouge complex. Once operational in or around 2020, it would provide an additional 0.5 million tonnes per year. Second, the agreement calls for moving to the pre-FEED (front end engineering and design) phase in the construction of Borouge 4. Scheduled to come on stream around 2023, this new complex would include a world-scale, mixed feedstock cracker using existing feedstock available in Abu Dhabi, as well as downstream derivatives units for both polyolefin and non-polyolefin products.

Base Chemicals

The various businesses that make up Base Chemicals exhibited mixed performance in 2017. **Hydrocarbons & Energy** performed robustly, with solid results driven by healthy integrated polyolefin margins in Europe. Lower production volumes of ethylene and propylene in comparison to 2016 were the result of two major turnarounds in Kallo, Belgium, and Porvoo, Finland.

Borealis has affirmed its long-term commitment to maintaining its position as an innovative European supplier of propylene and PP by successfully concluding the pre-FEED phase in the construction of a new, world-scale propane dehydrogenation plant at the existing Borealis production site in Kallo. The FEED phase that commenced in June 2017 is the last step leading to the final investment decision expected in the third quarter of 2018. If the project is approved, the plant – which would be one of the world's largest and most efficient – should come on stream around the beginning of 2022.

In **Melamine**, strong melamine prices brought about good industry margins and thus a very satisfactory overall performance in 2017.

In 2017, Borealis **Fertilizers** continued its slump as global demand for fertilizers remained low in the face of oversupply and depressed prices. However, there are indications that prices in this highly cyclical segment may now be rising. Within Borealis Fertilizers, issues involving operational reliability, sales and operational planning compounded the effects of the challenging market environment. Yet Borealis is well positioned to capitalise on market recovery thanks to ongoing efforts to improve the cost and energy efficiency of existing production infrastructure. For one, it has expanded its facilities, such as the Grand-Quevilly quay in France. As a key component of the Company's infrastructure growth agenda, this newly refurbished export hub can now service new and differentiated markets, including specialty products for international customers.

A three-year project was brought to a successful close in March with the inauguration of the first Borealis L.A.T warehouse in Bulgaria, which adds significant storage and sales volumes for the fertilizer business. Borealis also became the 100% owner of Bulgarian fertilizer holding company Feboran EOOD, thereby expanding its presence in South Eastern Europe.

About Borealis

Executive Board

MARKKU KORVENRANTA

Executive Vice President, Base Chemicals

MARK TONKENS

Chief Financial Officer

MARK GARRETT

Chief Executive

MARTIJN ARJEN VAN KOTEN

Executive Vice President Operations, Projects & Technical Support and Health, Safety & Environment

ALFRED STERN

Executive Vice President, Polyolefins and Innovation & Technology

PHILIPPE ROODHOOFT was appointed Executive Vice President Middle East and Growth Projects on 1 November 2017.

Mission and Strategy

CONTINUITY COMBINED WITH THE FLEXIBILITY TO SEIZE NEW OPPORTUNITIES

Our mission

To be **THE** leading provider of innovative plastics, chemical and fertilizer solutions that create value for society.

Our strategy

We will

- Grow our PO business with a focus on **advanced applications** and **differentiated products,** strengthen our European base and ensure cost competitiveness from feedstock to customer.
- Pursue excellence and optimise **Borouge** in the Middle East and Asia, including **leveraging into Europe.**
- Continue to maximise the value of **Base Chemicals**, with a focus on **growth in Fertilizers** and **strengthening the cracker asset base** with increased feedstock flexibility.
- Realise **growth opportunities** in other geographies/related businesses.
- Pursue **operational excellence** and a **Goal Zero** mindset.
- Achieve a step change in **innovation.**
- Exceed in serving our customers with a focus on **quality** and **reliable execution**.
- Continue to develop our cross-cultural **organisational capability** and a **learning organisation**.
- **Drive sustainability,** explore and realise business opportunities from the **circular economy**.

Outperform financially

11%+
average return on capital employed (ROCE) after tax

40–60%
debt to equity ratio

Our Values

Responsible

We are leaders in Health, Safety and the Environment

We are good neighbours wherever we operate

We do business according to high ethical standards

Respect

We involve people and communicate in a straightforward way

We work together – helping and developing each other

We are 'One Company' – building on diversity

Exceed

Our customers' and owners' success is our business

We win through commitment and innovation

We deliver what we promise – and a little bit more

Nimblicity™

We are fit, fast and flexible

We create and capture opportunities

We seek the smart and simple solutions

Borealis worldwide

Borealis Locations

Head Office
Borealis AG
Wagramer Strasse 17–19
A-1220 Vienna, Austria
Tel. +43 1 22 400 300
Fax +43 1 22 400 333
www.borealisgroup.com
info@borealisgroup.com

Customer Service Centres
Austria, Belgium, Brazil, Finland, Turkey, United States

Production Plants
Austria, Belgium, Brazil, Finland, France, Germany, Italy, Sweden, The Netherlands, United States

Innovation Centres
Austria, Finland, Sweden

Sales Offices/Representative Offices
Argentina, China, Colombia, Czech Republic, Hong Kong, Morocco, Poland, Russia, South Africa, Spain, UAE, UK

Borealis L.A.T Locations
Austria, Bulgaria, Croatia, Czech Republic, France, Greece, Hungary, Romania, Serbia, Slovakia

Borealis Rosier Locations
Belgium, The Netherlands

Borouge Locations

Head Offices
Abu Dhabi (UAE), Singapore

Innovation Centre
UAE

Production Plants
China, UAE

Sales Offices/Representative Offices
China, India, Indonesia, Japan, Singapore, Thailand, UAE, Vietnam

Logistics Hubs
China, Singapore, UAE

The purpose of this visualisation is of representational nature only. Though it was prepared with the greatest possible attention to detail, simplified illustrations may have been applied.

Corporate Governance

Principles and Structure

Good corporate governance is the foundation upon which Borealis builds trusting relationships with customers, business partners and other key stakeholders.

Borealis' principles for good corporate governance are based on the Group's core Values of Responsible, Respect, Exceed and Nimblicity™. These principles run through the Group at all levels, starting at the top with the Borealis Supervisory Board. The Supervisory Board governs the Borealis Group and consists of members of the two companies that own Borealis, Mubadala and OMV.

The Supervisory Board currently comprises the chairperson, the vice-chair and three additional Board members. It has established an Audit Committee and a Remuneration Committee and delegated respective responsibilities to those sub-committees. The Supervisory Board met six times in 2017, and will meet five times in 2018. The Audit and Remuneration Committees have at least two regular meetings planned.

The Supervisory Board appoints the members of the Borealis Executive Board who manage Borealis' business activities. The six Executive Board members lead their respective areas of responsibility and hold monthly meetings to align on recent activities and decide on strategic matters and key investments.

Borealis Management System

The Borealis Management System (BMS) documents the Group's governance, including its standards and ways of working, and is applicable to all Borealis affiliates. It encompasses Borealis Group policies, procedures, instructions, process descriptions, as well as committee and meeting charters.

The BMS is a combination of the Group BMS and local BMSs, which are implemented at each Borealis location and specify the local way of working. The Group Policies and all other governance documents are managed in the Company's BMS and are available in a centrally controlled document management database.

These policies and governance documents are revised at least every three years and have defined electronic approval workflows. To ensure Group documents are also applied in Borealis' locations and subsidiaries, each location synchronises changes to the Group BMS with its local BMS, in the local language. This ensures that all employees have immediate access to the latest approved documents, without any language barrier.

The ten Group Policies are:

1. Authority Schedule
2. Commercial Policy
3. Communication Policy
4. Ethics Policy
5. Innovation Policy
6. People Policy
7. Project Policy
8. Quality Policy
9. Responsible Care Policy
10. Risk Management Policy

Borealis Group Policies include the Authority Schedule owned by the Chief Executive Officer (CEO). This defines how authority is delegated in all business and functional areas and establishes approval levels delegated to senior management in key processes, such as internal control systems and risk management processes.

Each Group Policy is owned by the Chief Executive Officer (CEO) or Chief Financial Officer (CFO) and is issued by the Executive Vice President (EVP), (Senior) Vice President (SVP) or Director responsible for compliance with the policy throughout the Group. Any change to a Group Policy must be approved by either the CEO or CFO as the policy owner, and subsequently by the Borealis Supervisory Board.

The Borealis Management System

Policies	**10 Group Policies** define how Borealis works
Procedures handbooks	**About 30 Procedures/Handbooks** provide specific guidance, connecting key processes, organisational purpose/scope and setup.
Processes	Processes provide **detailed guidance** on the execution of activities on group, business or location level.
Instructions	Instructions provide **detailed guidance** on the execution of activities on group, business or location level.

Fig. 1: The Borealis Management System is the basis for Borealis' governance

Key Committees & Forums

In addition to regular Executive Board meetings, Borealis has several committees to provide governance and ensure continuous improvement in defined areas.

Executive Board members also oversee one or more cross-functional committees managing social and environmental matters, such as Product Stewardship, Responsible Care®, Quality Management or Energy & Emissions. Examples of these committees are outlined below.

The **Quality Committee**, chaired by Borealis' CFO, sets the Group's quality management priorities and drives implementation of all quality management programmes and initiatives. The committee evaluates the effectiveness and efficiency of the integrated management system each year and develops continuous improvement actions. In particular, the committee discusses market requirements, customer feedback and changes to industry standards, as input for improvement programmes.

The **Energy & CO_2 Committee** is Borealis' governing body for energy and carbon management. It develops and implements Group-wide energy and emission targets, strategies and guidelines, and measures performance using key performance indicators (KPIs). The committee is headed by the EVP Operations and Health, Safety & Environment (HSE), with representatives from relevant businesses and functions.

The Borealis **Responsible Care® Committee** comprises all the Executive Board members and is chaired by the Chief Executive. The committee oversees implementation of the Group's Responsible Care® policy and programmes and monitors overall HSE performance against KPIs. The committee also assesses any serious HSE incidents to help avoid future risk to human safety and the environment.

The **Product Stewardship Committee** is chaired by the Director Health, Safety and Environment (HSE) and manages the use of high-risk chemicals and has a crucial role in ensuring chemical safety at Borealis and across the entire value chain. The committee brings together experts from across the Group, including product stewardship, ethics, innovation, technology, all Borealis' business sectors, and operations ensuring that its risk assessments take a holistic perspective and consider market needs, legal and technological requirements and stakeholder views. The committee updates the Borealis Banned Substances List and selects the substances to be evaluated within the Borealis Risk Matrix, which is a proprietary ranking tool to evaluate risks in detail. These assessments enable Borealis to identify, mitigate and manage the risks posed by hazardous chemicals.

The **Audit Coordination Forum**, headed by the Director of Internal Audit and Risk Management, coordinates the separate audits carried out by the HSE, Quality, and Internal Audit and Risk Management departments, in order to align their audit approach.

The Group-level **Process Safety Committee** is chaired by the EVP Operations and HSE. The Committee's members are directors and departmental leaders from all relevant operational streams: Safety, Plant Availability and Turnaround, Operations, Polyolefins and Base Chemicals, Technical Development and Engineering. The Committee meets monthly and is a key driver of Borealis' process safety performance and programmes. It steers the Group's process safety Goal Zero roadmap, reviews progress and provides input regarding priorities, key activities and performance measures. In addition to the Group-level committee, each production location also has its own Process Safety Sub-Committee, chaired by a nominee appointed by local management. Its members come from different areas in the location and include a member of the Process Safety Group to ensure cross-learning and a link to Group developments. The Sub-Committees meet quarterly to enhance the location's process safety performance, in line with Borealis' overall process safety goals.

Sustainability Governance

The Executive Board is Borealis' highest governance body for sustainability. It approves the Group's overall sustainability strategy and any associated major changes. It also reviews the Group's strategy implementation and performance annually, gives guidance on major topics and approves the Group's position on key sustainability issues. The Executive Board has delegated the routine management of economic, environmental and social topics to senior executives and the respective functions.

Sustainability issues and potential risks related to social and environmental matters may be identified through a variety of sources, including experts in Borealis' functions, the Executive Board and external stakeholders. During the past year, Borealis has developed a process to capture stakeholder input in a more systematic way and to ensure potential risks and opportunities are identified. This is currently being implemented across the Group. Findings are managed as part of the Group's risk management process and routinely reviewed, depending on the level of risk, either by the Executive Board or by relevant committees or functional meetings.

The Head of Sustainability and EU Affairs leads the development of the Group's sustainability strategy and reports to the Senior Vice President Strategy & Group Development who reports directly to the CEO. Key functions and committees responsible for managing social and environmental aspects, such as the Group Experts for Energy & Emissions, help to develop the strategy, define its deliverables and implement it. The Head of Sustainability and EU Affairs and his team also assist business groups and area managers with implementing the sustainability strategy through capability building, expertise and consultancy, and by developing tools.

In addition, Borealis has established a Sustainability Advisory Team (SAT). The SAT reviews progress and provides guidance on objectives, deliverables and key projects, proposes targets, identifies gaps and proposes new areas of involvement. It consists of senior management representatives from key areas such as the Polyolefins and Base Chemicals Business, HSE, Innovation & Technology, Procurement, Human Resources and Communications.

Risk Management

Borealis' Risk Management Policy is owned by the CFO. Its objective is to establish sound risk management practices in all business areas and in all places where Borealis operates.

Borealis applies the "three lines of defence" approach to risk management. This recognises that each line of defence has a distinct role in identifying, assessing and mitigating risk, and overseeing the effectiveness of these processes. It ensures that risk management is embedded in Borealis' daily business, rather than being a standalone process.

The three lines of defence are:

1. Operational management, which is responsible for maintaining effective internal controls and for carrying out risk and control procedures on a day-to-day basis.

2. Risk management and compliance functions, which ensure that the first line of defence is well designed and working effectively.

3. Internal audit, which provides independent and comprehensive assurance about the effectiveness of governance, risk management and internal controls, including how well the first and second lines of defence are achieving their risk management objectives.

This risk management process ensures that all parts of the Group routinely identify and assess their risks, including environmental and social risks, and develop and implement appropriate mitigating actions. Key risks across the Group are periodically discussed on a Group-wide level and consolidated to produce the Group's overall risk landscape. Executive Board members review these key risks each quarter, validate the risk tolerance levels, monitor the implementation of mitigating actions and ensure they are integrated into strategic planning. This approach also ensures that risk management is a key part of the Group's decision-making process, for example for investments and capital allocation.

While every Borealis employee is responsible for managing risk within his or her own area of activity, the Executive Board owns the Group-wide risk landscape and frequently reports on it to the Supervisory Board. The Supervisory Board reviews the effectiveness of Borealis' risk management practices and processes, the Group's risk exposure and the effectiveness of mitigating actions. The Supervisory Board delegates some of these responsibilities to the Audit Committee.

Internal Control Systems and Audits

Borealis has established a system of internal controls, in line with EU regulations. These controls assess the robustness of the Group's systems and processes, and support monitoring, management and reporting of related risks. The system of internal control is owned by the CEO and senior management. The Audit Committee is responsible for monitoring its effectiveness.

Borealis identifies core processes, drawing on guidance from external auditing firms. Internal controls are then defined for these processes and require control owners to complete self-assessments. Internal Audit supports and monitors these self-assessments to ensure compliance, while external auditors assess the effectiveness of the internal controls.

Borealis has an independent Internal Audit function, headed by the Director of Internal Audit and Risk Management who reports directly to the Audit Committee. The Audit Committee reviews the effectiveness of Internal Audit and Risk Management and approves the annual internal audit plan. All audit results are reported to and discussed by the Audit Committee.

An international team of internal auditors performs regular risk-based audits, in accordance with Institute of Internal Auditors standards. In 2017, more than 20 audits and special investigations as well as internal control reviews for key processes were carried out. The audits covered all Business Groups, as well as Group functions. Audit areas encompassed compliance, operations, strategic and financial topics, including enterprise risk management (ERM), ethics and management control, procurement, strategy execution and innovation. Prevention, risk management and process safety related audits were also conducted in Borealis' operations, as part of the HSE area.

Compliance

Compliance with Borealis' integrated management system is regularly reviewed, by monitoring performance indicators and conducting internal audits. Management system reviews are also performed annually at Group level by the Executive Board and at location level by the respective location leadership team.

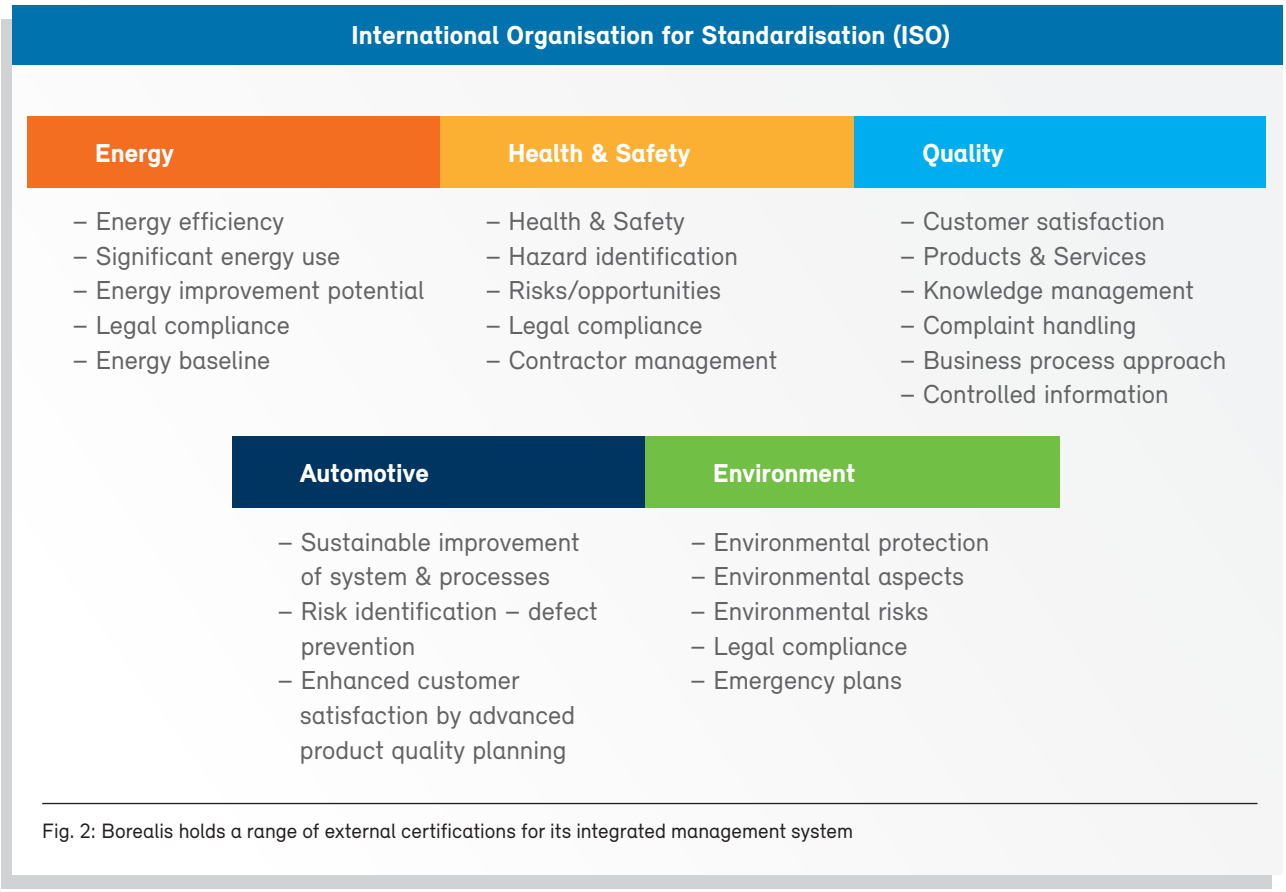


Fig. 2: Borealis holds a range of external certifications for its integrated management system

Borealis has committed to comply with certain external standards. This compliance is assured via the relevant ISO standard certifications. These include ISO 9001 (quality management system), ISO 14001 (environmental management system), OHSAS/ISO 18001 (safety management system) and ISO 50001 (energy management system). ISO TS 16949 (quality management system for automotive suppliers) applies to plants manufacturing products for the automotive industry, while Fertilizer Europe certifies the fertilizer business for selected locations.

Borealis' locations at Burghausen, Piesteritz, Grandpuits, Grand-Quevilly and Stenungsund are certified for ISO 50001 already. Borealis' goal is for the entire Group to be certified by end of the second quarter 2018, supporting its commitment to sustainability. An overview of certified locations and the related scope is published on borealisgroup.com.

Managing customer satisfaction

In addition to external certifications, a number of Borealis' customers audit selected locations as part of their supplier qualification and review process. Borealis uses these audits as a key source for continuous improvement initiatives. In 2017, more than 30 customer audits have been conducted at Borealis locations.

In case customers are not satisfied with the products and services delivered, Borealis manages this feedback in a well-defined formalised customer complaint handling process to restore quality and customer confidence, irrespective of whether the root cause for the customer complaint lies within Borealis or not. Every complaint is registered, investigated and addressed individually, and seen as an opportunity to learn and implement sustainable improvements. In addition, regular customer satisfaction surveys are leveraged as a source for continuous improvement.

Ethics & Compliance

> "There is no right way to do the wrong thing. Doing business ethically is a vital contribution to our good reputation and continued success. We all want to work for a company of which we can be proud."
>
> **Mark Garrett,** Chief Executive

Management approach

Maintaining the highest standard of integrity is essential for securing the trust of customers and helps mitigate the risk of financial and reputational damage. Borealis' commitment to ethical business conduct is strongly reflected in its core Values, Responsibility, Respect, Exceed and Nimblicity™.

The compliance and ethics function is headed by the Group Compliance and Ethics Officer who reports directly to the Chief Legal and Procurement Officer and also has a reporting line to the Audit Committee. The Audit Committee receives an annual report on compliance and ethics issues. The Compliance & Ethics Officer and Data Protection Manager reports to the Group Compliance and Ethics Officer who are further supported by a comprehensive network of more than 60 Ethics Ambassadors, from different functions and locations. Based on the principles of a state of the art compliance system, the Compliance and Ethics function has both a preventive and a controlling role, acting on prevention, risk mitigation, reaction and lessons learned in Borealis.

Borealis Ethics Policy

The Borealis Ethics Policy constitutes Borealis' commitment to ethical business conduct and compliance with applicable national and international laws and regulations. It applies to all Borealis employees, managers and temporary workers. Borealis' contractors and other business partners are requested to commit to adhere to the Borealis Ethics Policy or to have their own policies in place which are comparable to the standard of Borealis' policy. Eligible Borealis suppliers must in addition adhere to a recently developed Responsible Sourcing Policy. The Borealis Ethics Policy is available in 18 languages and is publicly accessible to all employees in print and online form and to the public on the Borealis website, as is the Responsible Sourcing Policy.

ETHICS AND COMPLIANCE PROGRAMME

The Borealis Ethics Policy also encourages employees to report any unethical behaviour. Any Borealis employee who violates the rules or does not report violations they have witnessed or suspect, will face disciplinary consequences including, where appropriate, termination of employment. Any failure to comply with the Ethics Policy by Borealis' business partners, including its customers and suppliers, may lead to termination of the business relationship.

Key aspects of the Ethics Policy are:

– **Corruption and Bribery**: Before entering into a relationship with business partners from countries which are considered to be high-risk according to Transparency International's Corruption Perception Index, Borealis conducts a compliance clearance review. This review is supported by an IT-based application provided by Thomson Reuters which verifies legal entities and associated individuals. Borealis will only proceed with the business relationship if the review shows no negative results. In any other case, Borealis either ends the business relationship or conducts thorough due diligence.

Borealis' anti-corruption and anti-bribery rules include not accepting or tolerating any kind of facilitation payments. Borealis also strictly prohibits offering, giving or accepting gifts or anything of value, in order to obtain or grant an improper business advantage. Any gift or hospitality in connection with Borealis' business activities must have a legal and reasonable business purpose. No employee or person acting on Borealis' behalf can accept gifts and hospitality worth more than EUR 100 over a twelve-month period, unless in exceptional circumstances this is approved by a Vice President or member of the Borealis Executive Board, and registered in the Borealis Gift and Hospitality Register.

Borealis ensures that all employees receive regular training and observe anti-bribery and anti-corruption requirements at all times.

– **Human Rights**: Borealis does not accept any form of harassment, bullying, discrimination, disrespect or exploitation of employees or any other form of violation of human rights. Borealis expects all of its suppliers, customers and other business partners to strictly observe and comply with human rights laws.

During 2017, Borealis updated its Ethics and Compliance policies and training programme, in order to comply with the UK Modern Slavery Act. Borealis is committed to acting ethically and with integrity in all its business dealings and relationships, and to improving its practices to combat slavery and human trafficking. It is also committed to implementing and enforcing effective systems and controls, to ensure modern slavery is not taking place anywhere in its own business or in any of its supply chains.

As part of its initiative to identify and mitigate risks related to modern slavery, Borealis is putting in place systems to identify, assess and monitor potential risk areas in its supply chains, mitigate these risks and protect whistleblowers.

› See chapter procurement & supply chain.

– **Competition**: Borealis is committed to healthy, lawful, equitable and ethical competition between companies. The Group applies appropriate policies to ensure full compliance with applicable competition laws in all of the jurisdictions where it does business. Borealis also puts special focus on antitrust and competition requirements in its compliance training and workshops.

– **Compliance & Risk Assessment**: In late 2017, Borealis began to prepare an in-depth global compliance and ethics risk assessment, including human rights. The results of this assessment will help to identify focus areas and whether any measures need to be taken to mitigate any identified risks.

Borealis, to the best of its knowledge, has not been involved in any violation of anti-corruption, anti-trust or competition law, human rights or data privacy restrictions during the year 2017. Consequently, no penalties, fines or other permanent sanctions were imposed on Borealis and no legal action was initiated against Borealis or any Borealis employee for non-compliance with these legal requirements.

Ethics Training

Borealis employs a network of Ethics Ambassadors to promote an ethical culture in all its locations. The Ethics Ambassadors, together with the Borealis' Compliance and Ethics team, conduct regular in-person compliance and ethics training. This includes training for new employees, as well as tailored compliance workshops for employees who work in risk-exposed areas.

During their first few weeks of employment, all Borealis employees must complete an e-learning based code of conduct course named "CodeOne". Managerial staff (including group-level experts) and other eligible employees must complete an annual certification requiring them to confirm their awareness of and compliance with the Ethics Policy and to disclose knowledge of any violation of its terms. In 2017, 96% of the eligible Borealis employees were certified.

Depending on their roles and responsibilities, employees are regularly required to complete further e-learning or in-person training, to address the specific risks associated with their job. In 2017, the Borealis Compliance and Ethics team put a special focus on anti-corruption and competition law training through interactive in-person sessions.

An e-learning course called "Mutual Respect in the Workplace", which focused on non-discrimination and sexual harassment, was first rolled out to eligible groups of employees in 2015. In 2017, this training was rolled out to a much wider audience.

Around 10,700 e-learning courses (various employees have completed more than one training, depending on their position and functional area) were completed by employees, leading to a 77% completion rate.

› Figure 4 shows the detailed numbers of eligible employees and completed courses per course type in 2017.

Members of the group	Trainings to be completed	Category
– Ethics Ambassadors	– CodeOne – Combating Bribery in Business – Ethical Leadership: Anti-Corruption – Ethical Sales and Fair Competition – Financial Integrity and Fraud – Global Information Security: Safeguarding Company Information – Mutual Respect	A
– Managerial staff (including group-level experts)	– CodeOne – Ethical Leadership: Anti-Corruption – Ethical Sales and Fair Competition – Mutual Respect – Information Safeguarding – Financial Integrity: Fraud Prevention	B
All non-managerial staff in the following functions: – Sales – Trading – Procurement – Customer Service – Marketing & Product Management – Finance and Tax – R&D	– CodeOne – Ethical Sales and Fair Competition – Combating Bribery in Business – Mutual Respect – Information Safeguarding – Financial Integrity: Fraud Prevention	C
– All assistants – Accountants	– CodeOne – Mutual Respect – Information Safeguarding – Financial Integrity: Fraud Prevention	D
– All other employees not included in category A, B, C, D or E	– CodeOne – Mutual Respect – Information Safeguarding	E

Fig. 3: Training allocation matrix

E-learning course	Eligible employees	Employees trained	Completion %
Global Information Security: Safeguarding Company Information	4,680	4,287	91.6%
CodeOne	3,584	1,794	50.1%
Mutual Respect (EU)	3,372	2,895	85.9%
Financial Integrity and Fraud	1,510	1,403	92.9%
Combating Bribery in Business	266	244	91.7%
Ethical Sales and Fair Competition	250	220	88.0%
Ethical Leadership: Anti-Corruption	152	135	88.8%
Total	**13,814**	**10,978**	**79.5%**

Fig. 4: Ethics & Compliance e-learning courses held in 2017

Whistleblowing

The Borealis QuestionLine was introduced to enable individuals inside and outside Borealis to report witnessed or suspected violations of the Borealis Ethics Policy. All reports are reviewed, kept strictly confidential and handled with professional care and diligence.

To file a report, employees can contact their manager, HR, local Ethics Ambassador or the Compliance and Ethics team, or report to a dedicated Compliance phone number or email.

Reports can be done anonymously, in which case Borealis guarantees to respect the anonymity of the reporter and will not investigate his or her identity. Borealis does not accept any retaliation against any reporter of alleged compliance incidents.

Compliance and Ethics cases

During 2017, more than 200 reports, questions and comments were directed to Compliance and Ethics. In most cases the Compliance and Ethics team was contacted directly by colleagues. Approximately 30% of these were related to bribery risk assessments, 20% to data protection, 15% to ethical behaviour, 15% to training and e-learning, 10% to gifts and hospitality clarifications, 5% to customer clearance and 5% to other requests. Nine of these 200 requests resulted in an internal investigation. Two of the investigations substantiated or partially substantiated misconduct, four investigations did not substantiate misconduct but identified failures in our processes, one investigation did not substantiate any allegation and two investigations are ongoing.

Our People

Borealis' Human Resources (HR) organisation provides support and guidance to leaders and employees regarding their people related needs, such as recruitment and on-boarding, organisational and individual development, and compensation and benefits matters, throughout the various stages of employment.

Reporting to the CEO, the Vice President (VP) HR identifies how HR can best support the Group's overall strategy and initiatives and, together with the HR leadership team, ensures that relevant tools and resources are available to the Group.

Overall HR Governance is laid down in the Borealis HR Handbook and managed through the Borealis People Policy, a number of HR Group process descriptions, procedures and operative instructions. These cover areas such as performance management, including bonuses and development, the Borealis Incentive Plan and succession or talent management. The Borealis Management System (BMS) collates all these documents in one system. Documents are reviewed and updated if needed and at least every third year.

Following the appointment of the new VP HR in 2016, Borealis began to reorganise HR, with the new organisation becoming effective in February 2018. The aim of this reorganisation is to provide an even better and more impactful HR contribution to leaders, leadership teams and employees at all levels in Borealis. This change will deliver substantial improvements to drive Borealis' HR Strategy, which focuses on developing a learning organisation, supporting the needs of a growing company and leveraging the benefits and opportunities of digitalisation.

The new Borealis HR Organisation will consist of two parts:

1. HR Business Partners, which will provide improved HR support, with a focus on coaching and challenging leaders at all levels on their leadership behaviour, supporting them in performance management and organisational change, and using HR data to provide leadership teams with more impactful consulting on people and teams.

2. HR Services Partners, which will provide HR operational services to employees and leaders across the Group. HR Services Partners will be established in most Borealis locations and will be steered centrally, to ensure a "one-company" approach.

Employee Dialogue

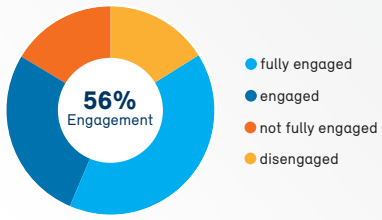
The Borealis Performance and Development System, myPDS, is available throughout Borealis. It facilitates regular developmental dialogues, covering performance feedback and goal setting, as well as career aspiration, mobility and development. Documentation is mainly in the myPDS electronic tool, although some parts of the organisation are not yet using this system.

The Borealis People Survey, which takes place every second year, is another very important tool for receiving feedback from employees and for evaluating Employee Engagement. With the switch to our new People Survey provider, we have implemented a new Engagement model, switched from a 5-point to a 6-point scale and shortened our questionnaire. We did this with the objective to strive for Excellence, to gain more insight into what we need to focus on to build an even better Borealis and, based on the very good results in the last years, the need to challenge ourselves more than in the past.

The People Survey is Borealis' key tool for measuring the effectiveness of its people management approach and ultimately "Building a better Borealis", which is the official tagline of the People Survey. It serves as a starting point for managers and their teams to define concrete improvement actions, linked to employee engagement, satisfaction, management-employee relationships and the work environment. The results of the People Survey are also reflected in the Group Scorecard, where the People Action KPI for 2017 is directly linked to the response rate, while in years without People Survey, this KPI focuses on the follow up of the related actions.

83% of all Borealis employees took the opportunity to have their say, which is an excellent result, and a slight improvement (+1% percentage points) compared to the last People Survey in 2014. The result on Engagement at Borealis group level is 56%, which is equal to the European chemical industry benchmark. 81% of all employees agree or strongly agree to the comment "I know and understand our Values", with another 16% slightly agreeing. Respect and Responsible continue to be our strongest values. All organisational units will discuss their results in the teams to create a common understanding and to define together at least one action derived from their results.

Borealis' continuous efforts to be an attractive employer was recognised for this by external rankings. In 2017, Borealis was ranked as "top employer" in Austria in the chemistry & pharma industry segment. This quantitative ranking was based on a joint survey by the Austrian weekly economic magazine Trend and the social media platforms Kununu and Xing.



Fully engaged	16%
Engaged	40%
Not fully engaged	27%
Disengaged	16%

Fig. 5: 2017 People Survey engagement score

In Finland, Borealis was voted among larger companies as a "top employer" for summer students in a survey among 6,000 summer students organised by T-Media and Taloudellinen tiedotustoimisto TAT (Economic information sharing agency TAT).

One of the four Borealis core values is Respect. This value includes respecting employees who wish to organise themselves and be represented by unions or works councils. Collective labour agreements (CLAs) exist in most countries where Borealis operates and each CLA defines the employee coverage. Some countries with fewer than 100 employees do not currently have a CLA. In total, 88% of Borealis' employees worldwide are covered by CLAs.

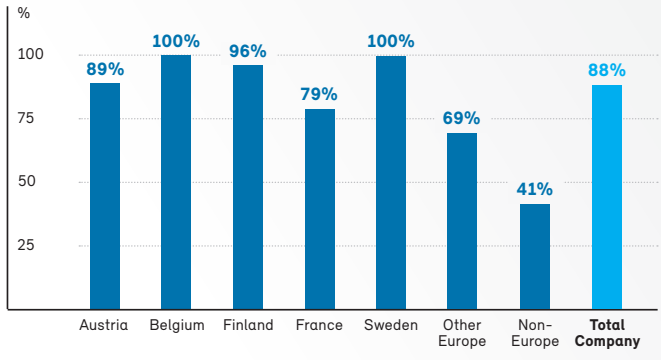


Fig. 6: Percentage of employees covered by collective labour agreement

The Corporate Co-operation Council (CCC) is another important dialogue platform between employees and employee representatives. It is a forum for exchanging information between the works councils in the various Borealis locations, top management and owners. In June 2017, the CCC celebrated its 100th meeting, held in the Borealis location in Porvoo, Finland. HR topics addressed by the CCC during 2017 included the new People Survey, "Work environment and Workplace of the Future", and "Values and Value Refresh". This is an important initiative to respond to increased needs for intuitive and easy to use HR information system applications.

Gender Diversity and Equal Opportunity

Currently, only about 20% of Borealis' employees are female. This reflects the proportion of women who have, in the past, chosen an education and career in the technical and science sector, which is average in the chemical industry. However, the ratio of women joining Borealis, especially in more technical roles, but also managerial roles shows a slightly better overall ratio especially in the younger age groups.

Borealis is continuously working to encourage more women to join its workforce and to take on more

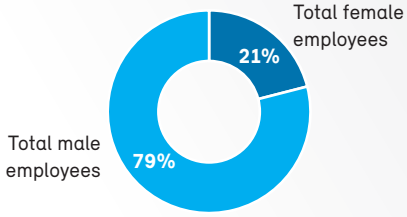
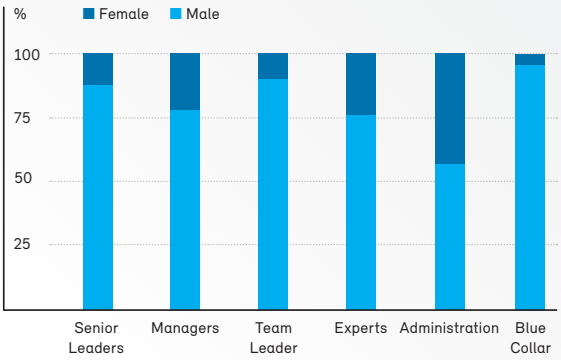
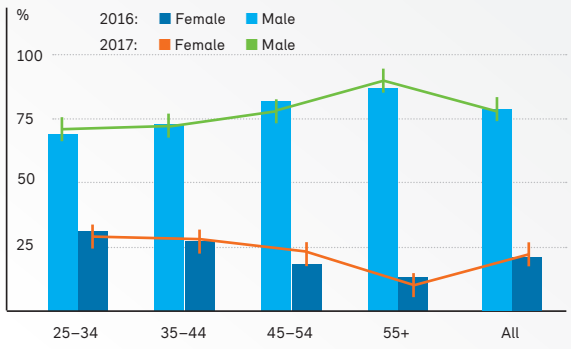


Fig. 7: Overview of total female/male employees



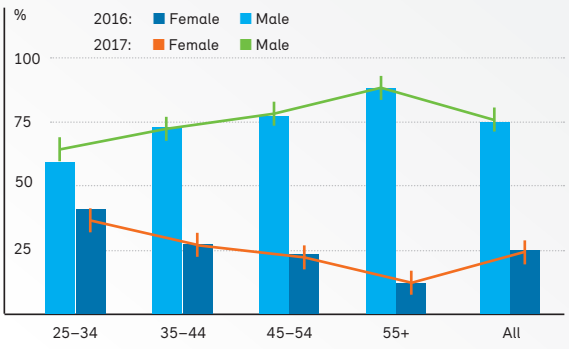
Category	Female	Male
Senior Leaders	12%	88%
Managers	22%	78%
Team Leaders	10%	90%
Experts	24%	76%
Administration	43%	57%
Blue Collar	4%	96%

Fig. 9: Overview of female/male per employee category



	2016		2017	
Manager	Female	Male	Female	Male
25–34	31%	69%	29%	71%
35–44	27%	73%	28%	72%
45–54	18%	82%	22%	78%
55+	13%	87%	10%	90%
All	21%	79%	22%	78%

Fig. 8: Percent female and male employees per age group in employee category 'manager'



	2016		2017	
Expert	Female	Male	Female	Male
25–34	41%	59%	36%	64%
35–44	27%	73%	28%	72%
45–54	23%	77%	22%	78%
55+	12%	88%	12%	88%
All	25%	75%	24%	76%

Fig. 10: Percent female and male employees per age group in employee category 'expert'

responsibilities. Borealis HR actively engages with national institutions such as universities and chemical schools, to promote Borealis and the chemical industry as an attractive employer for women and to increase women's interest in a technical career path. In 2016, Borealis launched a Group-wide Wellbeing programme, which includes a focus on work-life balance, with the aim of providing more flexible work arrangements. In addition, Borealis facilitates and supports an internal network at top management level which aims to support women who aspire to a management career.

Remuneration

Borealis is committed to providing fair and transparent reward packages for all employees, whether full- or part-time. Every employee reward package consists of a base salary and an incentive compensation. Individual performance can influence the size of the reward package.

Each reward package is based on the systematic evaluation of roles, using an external evaluation methodology linked to Borealis' internal grading structure. This requires up-to-date role descriptions which define core activities and responsibilities. The reward package is evaluated regularly, in light of national market data and developments. This approach ensures the reward package is competitive both internally and externally.

Borealis' reward evaluation processes are gender neutral by design, with all positions evaluated and placed into a Company grading system, and each grade having a country specific pay range. The employee position within a grade pay range is monitored both at a country level and at a Group level, to control overall pay equality. In some countries, the Group has started to share this aggregated gender pay analysis with its employees. During 2018, further work will be done on these analyses in order to consolidate them into a Group-level report and make the results available in the Annual Report. An annual merit review process allows management to adjust pay, for example for inflation or performance reasons, and enables each country to request funds for eliminating any pay gaps among employee groups. Employees are also entitled to information about how their salary compares to the respective market.

Additional benefits aligned to local markets are offered, such as subsidised lunches, access to or subsidised gym membership, health and dental care insurance and company pension plans, on top of the national social security system. The benefits and, where applicable, the level of subsidy are aligned with the Group's ambition to promote a healthy lifestyle, taking into account local market practice and national taxation rules.

The annual People Day process is a mandatory event that Borealis undertakes each year. Its purpose is to identify the high potentials among employees and it is therefore integral to each business group's organisational review. It is also the prime activity for diversity monitoring, assessing whether gender diversity has improved and proposing initiatives for promoting underrepresented employee groups. People Day starts at a business unit or location, followed by the business group and finally the Executive Board. The process is carried out by the respective management teams, facilitated by the assigned HR Business Partner.

Training and People Development

To attract and retain a highly skilled, qualified and diverse work force, it is essential to offer meaningful careers and the means to unlock people's potential. The Group-wide Borealis Talent Management Process focuses on attracting, identifying, promoting and grooming talented people for leadership and expert positions using different programmes, Leadership Talent Management Programmes (since 2010), Expert Talent Programmes (since 2013) and a Graduate Recruitment Programme established in 2016.

The Learning Solution is an IT platform promoting continuing education and training. It is linked to the Borealis Business Academy (BBA), an online educational platform that offers training programmes for employees. The BBA's offering ranges from introductory courses for newcomers to advanced courses for experienced staff.

Increasing employees' sustainability awareness and competence

One aim of Borealis' sustainability strategy is to build the Group's sustainability capabilities and culture. Together with the IMD Business School, which is ranked first in executive leadership, Borealis has developed an online training programme called "Building Business Sustainability" (BBS), which launched during 2017. Seventy key Borealis and Borouge employees were trained in 2017, in two sessions, lasting eight weeks each. BBS helps participants to explore how the business can successfully address sustainability as a key strategic issue, how a business can create value and how to engage stakeholders to collaborate in building a sustainable society. In 2018, this learning programme will become part of the Group's standard training.

Improving Human Resources Information System Platform

One of Borealis HR's most important decisions in 2017 was to start implementing a new and more user-friendly Global Human Resources Information System. This three-year project will create IT solutions that will help employees and leaders make better use of important HR processes, such as recruitment and onboarding, learning and development, and performance and compensation.

The enhanced learning tool, which will be available in January 2018, will allow the 200 employees in Borealis' people development community (such as HR practitioners, technical trainers and training module owners) to capture in one place all employee learning needs, solutions, planning, tracking and follow-up. Employees and leaders will be able to schedule a multitude of learning events from catalogues through our existing self-service functionalities, ensuring compliance with workplace required training as well as developing their own competences for possible future career moves.

Analysis of Borealis' Employee Base

In 2017, around 6,800 employees worked for Borealis on a permanent (99%) or temporary (1%) basis. Additionally, about 100 leasing employees, mainly in Austria, and some 300 summer workers, job students, apprentices and interns supported this work force. All employees (excluding emploees of mtm plastics GmbH, mtm compact GmbH and all Rosier subsidiaries) are documented in SAP and leasing employees, who are currently documented outside SAP, will be included in 2018. In figures 11 and 12, people who have worked for Borealis for less than three months are excluded, as are trainees and apprentices.

Definitions

- Austria, Belgium, Finland, France and Sweden are our significant locations of operation with more than 500 employees each. All other European production or sales locations are summarised under Other Europe (see fig. 11).
- Non-Europe covers all production or sales locations outside Europe (see fig. 12).
- Limited (temporary) contracts include full-time and part-time contracts (see fig. 11).
- Leavers refers to employee resignations (see fig. 12).
- Percent hires and leavers is based on employee changes during the year in the respective category (e.g. 100 employees with 10 new hires is 10% new hires – see fig. 12).
- Employee category grade (see fig. 9) refers to the internal role classifications system (grade 1 to 21).
- Employee category (see fig. 9):
  - Senior Leaders: all line managers grade 16 and above
  - Managers: all line managers grade 12 to grade 15
  - Team Leaders: all line manager grade 11 and below
  - Experts: all non-line managers grade 10 and above
  - Administration (white collar employees): non-line managers grade 1 to grade 9
  - Blue collar employees: non-line managers grade 1 to grade 9

› Personnel cost and retirement provisions are stated in the financial section of this report.

		Male				Female				Total			
		Full time	Part time	Temp	**Total**	Full time	Part time	Temp	**Total**	Full time	Part time	Temp	**Total**
Austria	**EEs**	1,443	41	6	1,490	292	133	11	436	1,735	174	17	1,926
	%	97	3	0	77	67	31	3	23	90	9	1	–
Belgium	**EEs**	674	149	17	840	127	86	9	222	801	235	26	1,062
	%	80	18	2	79	57	39	4	21	75	22	2	–
Finland	**EEs**	718	8	18	744	168	7	11	186	886	15	29	930
	%	97	1	2	80	90	4	6	20	95	2	3	–
France	**EEs**	755	3	1	759	128	16	7	151	883	19	8	910
	%	99	0	0	83	85	11	5	17	97	2	1	–
Sweden	**EEs**	702	30	12	744	207	9	5	221	909	39	17	965
	%	94	4	2	77	94	4	2	23	94	4	2	–
Other Europe	**EEs**	502	75	7	584	94	41	3	138	596	116	10	722
	%	86	13	1	81	68	30	2	19	83	16	1	–
Non-Europe	**EEs**	230	0	1	231	38	2	0	40	268	2	1	271
	%	100	0	0	85	95	5	0	15	99	1	0	–
Total	**EEs**	**5,024**	**306**	**62**	**5,392**	**1,054**	**294**	**46**	**1,394**	**6,078**	**600**	**108**	**6,786**
	%	**93**	**6**	**1**	**79**	**76**	**21**	**3**	**21**	**90**	**9**	**2**	
Borealis AG (also included in Austria above)	**EEs**	106	1	1	108	89	18	6	113	195	19	7	221
	%	98	1	1	49	79	16	5	51	88	9	3	–

Fig. 11: Overview of employee contracts (EEs)

	Total Group		**Austria**		**Belgium**		**Finland**		**France**		**Sweden**		**Other Europe**		**Non Europe**	
all data in %	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M
hires <25	30	18	14	9	0	32	67	17	71	13	25	33	100	22	0	67
hires 25–34	11	9	8	7	8	16	5	6	16	9	10	5	26	12	33	12
hires 35–44	5	3	2	2	1	0	6	2	7	1	5	2	15	6	25	11
hires 45–54	2	2	1	1	0	1	2	1	8	2	0	0	0	5	13	14
hires ≥55	0	1	0	0	0	0	0	0	0	1	0	1	0	3	0	0
hires age not disclosed	18	23	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total as % of all employees	**6**	**4**	**4**	**3**	**2**	**3**	**5**	**3**	**11**	**3**	**4**	**2**	**12**	**6**	**23**	**13**
leavers <25	9	19	14	20	0	16	0	7	14	53	0	14	0	22	0	0
leavers 25–34	5	3	4	4	3	0	2	1	8	2	4	4	11	9	0	0
leavers 35–44	4	2	3	1	3	2	1	3	7	3	4	2	7	6	0	0
leavers 45–54	2	2	3	2	1	1	1	1	5	3	3	1	0	5	0	0
leavers ≥55	5	8	5	20	0	3	11	1	0	15	3	1	36	6	0	0
leavers age not disclosed	18	17	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total as % of all employees	**4**	**4**	**4**	**6**	**2**	**2**	**3**	**2**	**6**	**6**	**3**	**2**	**8**	**6**	**0**	**0**

Fig. 12: Overview of employee contracts turnover (in %)

Sustainability

Borealis defines sustainability as the ability to understand the consequences of the Group's activities and decisions on the triple bottom line, or "3Ps": People, Planet and Profit. The 3Ps are equally important and must all be considered in every decision the Group takes. Applying the "rule of the 3Ps" will ensure that Borealis takes responsible and fact-based decisions, fosters true sustainability and avoids green-washing.

To ensure its decisions consider all of the 3Ps, Borealis has included sustainability aspects in its major policies and decision processes. For example, the Group's innovation portfolio and investment projects are now evaluated according to their contribution to the 3Ps.

Responsibility

Responsibility has always underpinned how Borealis does business. The Group's commitment to sustainability is rooted in its core values (Responsible, Respect) and its vision and mission "to be THE leading provider of innovative plastics, chemical and fertilizer solutions that create value for society."

Borealis recognises its responsibility to protect the health and safety of all employees and to offer them career development and fair remuneration. Borealis is also committed to conducting its business ethically and to ensuring production processes and products are safe for people and the environment. As well as reflecting Borealis' Core Values, this approach is laid down in the Group's Ethics Policy and its commitment to Responsible Care®.

Business Imperative

Business is increasingly affected by the growing complexity of social, environmental and economic challenges. These include new and more demanding regulations, political, economic and social instability, and the need to respond to rising stakeholder expectations. Borealis also needs to sustainably manage constrained resources, such as finite feedstock

Responsible Care®

Borealis is committed to implementing the guidelines of the Responsible Care® Global Charter, which is the chemical industry's voluntary initiative aimed at continuous improvement in health, safety and environmental (HSE) performance. The guidelines contained in the charter, such as efficient use of natural resources and efforts to avoid the production of waste, are also among the central principles guiding Borealis.

Through Responsible Care®, Borealis commits to:

- A corporate leadership culture which proactively supports safe chemical management through the global Responsible Care initiative.
- Safeguarding people and the environment by continuously improving the HSE performance and security of Borealis' facilities, processes and technologies, and by driving continuous improvement in chemical product safety and stewardship throughout the supply chain.
- Strengthening chemicals management systems by participating in the development and implementation of lifecycle-oriented, science- and risk-based chemical safety legislation and best practices.
- Influencing business partners to promote the safe management of chemicals within their own operations.
- Engaging stakeholders, understanding and responding to their concerns and expectations for safer operations and products, and communicating openly on Borealis' performance.
- Contributing to sustainability through improved performance, expanded economic opportunities and the development of innovative technologies and other solutions to societal challenges.

Responsible Care

and energy, as well as controlling its emissions and preventing pollution. Minimising its environmental impact also enables Borealis to be more resilient and efficient, to reduce costs and mitigate long-term business risks.

New challenges are also emerging. For example, there is increasing public concern about the potential for chemicals to harm people and the environment. It is Borealis' responsibility to fully understand the potential risks of certain chemicals, to closely follow the latest scientific findings and potentially replace these chemicals with improved alternatives.

Business Opportunity

Sustainability also means ensuring the Group is profitable. Responding to social challenges and stakeholder expectations helps Borealis to innovate and discover growth opportunities. Many Borealis products and solutions address the United Nations Sustainable Development Goals, such as access to water and sanitation, energy, food and healthcare, as well as reducing climate change and increasing resource efficiency.

Borealis sees clear business opportunities in addressing emerging challenges, such as the need to reduce plastic waste and increase recycling rates. In 2016, Borealis therefore announced its ambition to be an active participant in enabling a circular economy of plastics. Important milestones on this journey were, for example, the acquisition of two post-consumer waste recycling companies in Germany (mtm plastics GmbH and mtm compact GmbH), the partnership with the Ellen McArthur Foundation and the launch of the Polyolefins Circular Economy Platform.

Materiality Assessment

Defining materiality aspects and boundaries is key to define a company's focus areas in its sustainability strategy. It is a continuous process and takes place across Borealis, at the plant, location and business group levels. To provide a basis for developing the Group's sustainability strategy, Borealis carried out a materiality assessment at Group level back in 2013.

This was a three-step process:

1. Identification of materiality issues

In 2012, Borealis prepared a comprehensive survey which was rolled out during 2013 to more than 500 stakeholders, including customers, brand owners, suppliers, academics, non-governmental organisations, investors, representatives of the local communities, regulatory authorities and the media. This formed the basis for the development of the company's first group wide sustainability strategy. In order to refine findings and get better guidance on specific actions needed, in the following years the company conducted focus interviews with key stakeholders per business segments with special focus on Consumer Packaging as well as risk and issue assessments at plant level.

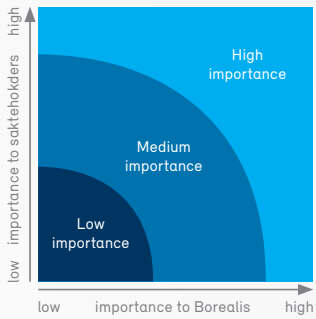
This process was further formalised during 2017 and will be integrated into the Borealis Management System early 2018.

Medium importance

- Sustainability in the supply chain
- Transparent documentation & reporting
- Community & social engagement

Low importance

- Biodiversity
- Water availability & quality



High importance

- Energy efficiency
- Climate change mitigation
- Pollution prevention
- Resource efficiency
- Waste prevention
- Eco-design & innovation
- Occupational health & safety
- Process safety
- Product safety/consumer protection
- Working conditions & labor practices
- Employee development & retention
- Ethical business practices

Online Survey 2013	500+ external and internal stakeholders
One to one interviews 2015/2016	20+ focused interviews Consumer Packaging and Fertilizers
Internal review	Expert views, gap analysis, mega trend analysis, current portfolio & strategies, internal risk & opportunity assessment, impact assessment

Fig. 13: The process and key findings of Borealis' materiality assessment

2. Prioritisation of materiality issues
In the second step, the lessons from these stakeholder engagement activities were complemented by internal expert reviews of Borealis' current portfolio, strategies and potential gaps, and aligned with the results of the Group's risk and opportunity analysis.

3. Building the Borealis sustainability strategy
Based on the findings of this assessment, the Group built its sustainability strategy and roadmap, clustering the issues into three focus areas, reported in this publication:

– Circular Economy
– Energy & Climate
– Health & Safety

These focus areas clearly respond to the main external stakeholder concerns: use of finite resources, plastic waste and the safety of chemicals, as well as the Group's ambition to foster sustainable development at the operational level and throughout the value chain. For each of these focus areas, Borealis has defined projects with clear targets and milestones.

In its Annual Report, Borealis reports in detail on topics identified as high importance and provides a higher-level overview of those identified as moderate and low importance.

During 2018, Borealis will embark on an update of the materiality assessment. This will give the Group a more granular understanding. The assessment will also include a systematic impact analysis and clearly identify the scope and boundary of materiality issues. This will give Borealis the information it requires to continue to refine and focus its sustainability strategy.

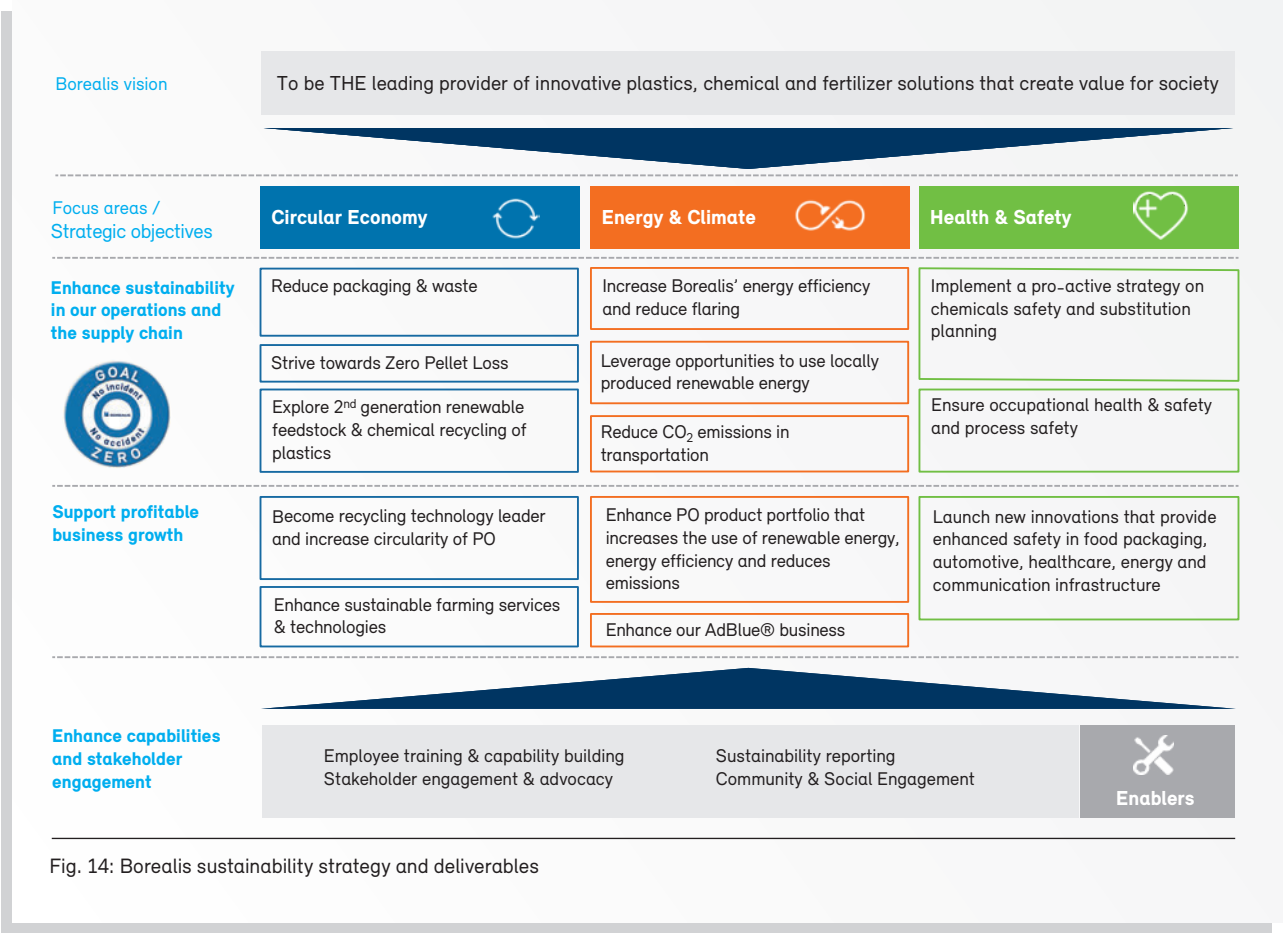


Fig. 14: Borealis sustainability strategy and deliverables

Stakeholder Engagement

Collaborating with internal and external stakeholders is intrinsic to Borealis' ability to create value through innovation and is anchored in the Group's commitment to Responsible Care®. Stakeholder dialogue also helps Borealis to learn about their concerns and expectations, to better anticipate business risks and opportunities, and to develop the right solutions to respond to them. Borealis is therefore committed to regular and open communication with stakeholders and to responding to their concerns.

Borealis' business activities involve a diverse and complex range of stakeholders at a global, national and regional level. Mapping and prioritising Borealis' stakeholders is a continuous and dynamic process. In 2012, Borealis carried out a Group-level stakeholder mapping which provided the basis for the stakeholder groups shown below. In 2015 and 2016, a stakeholder mapping and related issue and risk assessment was also rolled out in all major locations. In addition, individual departments carried out stakeholder mapping for specific market segments, such as consumer packaging and mineral fertilizer.

During 2017, Borealis decided to bring these activities under one umbrella and developed a "one-company approach" to map and identify key stakeholders, based on defined criteria and ranked according to the degree that the stakeholder and Borealis impact each other.

Fig. 15: Borealis' group-wide process for stakeholder engagement

A process will be approved and integrated into the Borealis Management System in early 2018. It will then be implemented across all key departments and locations who will perform stakeholder mapping for each of their business segments and locations.

A complete overview consolidated on Group level of key topics of concern raised by these stakeholders cannot be given in this report until the group-wide process as described above has not been implemented across the entire Group.

Borealis' stakeholders groups

(in alphabetical order)

Academia and science

Borealis has ongoing research and development (R&D) collaborations with leading universities, and regularly participates in symposia, working groups and advisory committees, and supports research studies.

Customers

Dialogue is actively driven through face-to-face meetings, customer visits to Borealis, customer feedback and satisfaction surveys, trade fair activities and customer conferences, product launch events, and many other channels. Most importantly, Borealis partners with selected key customers, to jointly develop new products and solutions.

Employees

Employees receive regular evaluation and feedback from their line manager within the framework of the Borealis performance management system. Borealis also has a biennial employee survey, regular town hall meetings, an annual Executive Board tour to all locations, engagement walks by management and many other channels.

General public

Borealis interacts with the general public through events such as Open Door Days at Borealis' plants, and through the dialogue with representatives such as consumer associations.

Governments and regulators
Interactions take place at a variety of levels and through different channels, such as face-to-face meetings, participation in workshops organised, for example, by the European Commission, responses to public consultations, and in 2017 specifically a speech given by Borealis' executive management at the European Parliament.

Industry and trade associations
Borealis is an active member, and has leadership positions in, numerous national, European and international associations, as well as industry, trade and networking organisations and their affiliated working groups.

› Read more at the end of this chapter.

Investors & capital providers
Borealis regularly holds Bankers & Investors Days, with the next one planned to take place during the first half of 2018. Borealis also actively participates in relevant treasury, funding and investor relations forums and associations.

Local communities
Borealis maintains an ongoing dialogue with communities in which it has production facilities, through channels best suited to local needs. These include face-to-face meetings with community representatives, regular newsletters and Open Door Days.

Media
Borealis frequently interacts with the media via established channels, including media interviews and events, press releases and the news section of the Borealis website.

Non-governmental Organisations (NGOs)
Borealis regularly participates in symposia, conferences, trade fairs and workshops, is a member of associations and alliances, and collaborates with NGOs on specific projects.

Owners
There are regular Supervisory Board meetings and owners' controllers meetings, as well as individual face-to-face interactions at executive level, project level (for example, where working on joint projects) or expert level, to exchange experiences or use synergies.

Suppliers and contractors
The Group has a continuous interface with suppliers and contractors through the Borealis Supplier Relationship Management programme, as well as regular face-to-face meetings and annual industry conventions for experience exchange and relationship management.

Works councils
There are regular meetings of the Corporate Co-operation Council (CCC), a dialogue platform between employee representatives, works councils and top management.

Stakeholder engagement highlights 2017

NGOs
In 2017, Borealis participated in risk dialogue sessions organised by the Austrian Environmental Protection Agency (EPA) and the Austrian radio station Ö1. The sessions are a platform for networking and exchange between academia, government, industry and the public. The aim is to build bridges, support opinion forming and actively participate in society's discussion of the challenges it faces and possible solutions. The topics in 2017 included sustainability, green chemistry and endocrine disruptors.

Academia
The development of Quentys™ encapsulant film for photovoltaic modules demonstrates the benefits of Borealis' R&D partnerships with academia. Through a network of external institutes, experts and partners, Borealis built a strong team with sound expertise and application knowledge and the necessary infrastructure. These external contributions significantly supported the development of Quentys which offers a step change in production cost efficiency for module makers while increasing power output, lifetime performance and the reliability of the modules.

Funding and Investor Relations
Borealis collaborates with a group of around 20 core banks and a number of strong relationships with specialty finance and supranational institutions. The Group's funding needs have grown as it has increased its global activities and developed new businesses. During 2017, Borealis further developed its investor relations activities, including improvements to the investor relations website.

The aim is to enhance information access for banks and investors, as well as other key stakeholders such as regulatory bodies, business partners, customers, suppliers and other industry participants.

The Corporate Co-operation Council (CCC)

The CCC celebrated its 100th meeting in 2017. It includes 15 employee representatives from European countries in which Borealis has production plants. Members are nominated by the local plants and the Chairman and Vice-Chairman rotate every year. In addition, two members of the Executive Board, the Vice President of Human Resources and the Head of Communications, attend the meetings. Four meetings are held each year. Business, financial and HSE updates are fixed items on the agenda, with sufficient time allotted for open discussion. This enables the employee representatives to address topics that are relevant to discuss with management.

Ministerial and official visits to Borealis

Borealis hosted several senior ministerial and official visits during the year. In January 2017, His Excellency, Ambassador of the UAE Hamad Al Kaabi visited Borealis' Innovation Headquarters in Linz, Austria. In July 2017, the Swedish Prime Minister Stefan Löfven visited the Borealis production location in Stenungsund, Sweden. The subjects covered included the investments made and planned by Borealis, the Group's circular economy activities and the challenges chemical companies are facing, such as climate change. In October 2017, Flemish Minister-President Geert Bourgeois and the Belgian ambassador to Austria, Willem Van de Voorde together with a high-level Belgian delegation visited the Borealis Head Office in Vienna. They met Chief Financial Officer Mark Tonkens, to discuss Borealis' plans for a final study of a new, world-scale propane dehydrogenation plant in Kallo, Belgium.

Polyolefin customer satisfaction survey

The Polyolefin (PO) Customer Loyalty Programme is a valuable source of customer insight. It uses a quarterly e-survey to collect feedback from approximately 1,200 customers worldwide. The average response rate is meaningful, at 30% to 35%. The Customer Satisfaction Index (CSI) summarises Borealis' performance on topics such as innovation, sales, technical services, supply chain and products. It ranges from one to ten, with a target of eight. In 2017, the average CSI was 8.22, well above the target level, showing that Borealis is a top performer in the PO industry. This was confirmed by Polymer Comply Europe granting Borealis the prize of "Best Polymer Producers Awards for Europe 2017, Category: Delivery Reliability" in June 2017. The main driver for improving the CSI was service in the supply chain. To ensure Borealis stays the supplier of choice in the PO industry, actions have been taken to improve customer satisfaction.

Fertilizer customer satisfaction survey

Every two years, Borealis' Fertilizer business surveys around 3,900 customers. The questions cover a wide range of topics, from product quality and order processing to claim handling and safety standards. The response rate on the most recent survey was 19.3%. The results showed clear improvement in all areas, with the customer service centre and payment processing scoring 95% satisfied or very satisfied. Areas for improvement included focusing on high product quality and managing customer complaints.

Customer collaboration

Borealis' work with its customer ABB shows the benefits of long-term customer collaboration. Extruded high voltage direct current (HVDC) cables are used for energy transmission. Rising demand for energy means these cables are being used at ever higher voltages, putting significant demands on cable insulation systems. To successfully transmit above 320 kV, an innovative solution needed to be developed. The project combined Borealis' expertise in areas such as materials with ABB's complementary expertise, which includes large scale cable extrusion and testing. The outcome was Borlink™, an extruded HVDC technology which set a world record for transmission of 640 kV. The high level of trust and mutual understanding between Borealis and ABB, developed over decades, significantly contributed to this success.

Public Affairs

Borealis' ambition is to enable policymakers to shape legislation that supports truly sustainable development. This requires well-informed policymakers at both national and EU levels. Borealis therefore engages with policymakers to share its expertise and positions, and to support the development of sustainable legislation and programmes.

Two Borealis employees support these efforts: the Head of Sustainability and EU Affairs, based in Brussels, and the Group Public Affairs Director, located in Austria. In addition, Borealis' experts at Group and regional levels liaise with national and EU policymakers on a case by case basis.

In line with the Group's Ethics Policy, Borealis does not join political parties or make financial contributions to them or their candidates. However, Borealis holds dialogues with policymakers and opinion leaders, in accordance with EU Transparency Register guidelines. The areas of activity and the total monetary value of dedicated resources are reported in the EU Transparency Register (Borealis AG identification number 24298121313-54).

During 2017, Borealis was actively engaged in supporting policy developments at EU and national levels in three important areas: Energy & Climate, the Circular Economy Package and the new Fertilizers Regulation.

EU Circular Economy Package

The Circular Economy Package was one of the largest policy activities of the EU and of high relevance to Borealis in 2017. Equally, it is vital for society, as creating a circular economy will make the EU's economy more sustainable and competitive. Three elements of the package were particularly significant to Borealis and its industry: the Strategy on Plastics, the Waste Directive and the Fertilizer Regulation.

Borealis attended many multi-stakeholder workshops at the European Commission, to provide industry insight and tangible solutions for the Strategy on Plastics.

Borealis' suggestions for improving the circularity of plastics include preferring mechanical recycling for the near future; the need for a transparent and standardised method for calculating targets on recycled plastics; and the need to ramp-them up, have separate collection of all plastic items and scale-up recycling facilities. Borealis has also proposed an annually rising landfill tax and clear rules for Extended Producers Responsibility (EPR) schemes.

The European Commission recognised Borealis' leadership in the circular economy. Alfred Stern, Borealis' Executive Vice President for Polyolefins, was invited to present the Group's vision during the opening plenary session of the stakeholder conference held in September.

New Fertilizers Regulation

The Fertilizers Regulation from 2003 ensures free movement in the single market mainly for conventional, non-organic fertilizers, typically extracted from mines or produced chemically. The aim of the new Fertilizers Regulation is to create a level playing field between mineral and organic fertilizers, to support the development of a safe circular economy around these products. This will create new market opportunities for innovative companies, while reducing waste, energy consumption and environmental damage. Borealis actively engaged in supporting the European Commission's legislative proposal at EU and Member State level. Borealis provided its views on a better regulation which ensures that all sustainability aspects are considered and that the industry will be able to implement the new rules in practice. Markku Korvenranta, Borealis' Executive Vice President for Base Chemicals, shared the industry's views on the new regulation during an important multi-stakeholder event at the European Parliament which aimed to capture the inputs of stakeholders to improve the legislation.

Borealis' contribution was important for properly defining a mineral fertilizer and what its specifications should be.

Memberships

Borealis is an active member or has leadership positions in numerous national, European and global associations, as well as in industry, trade and networking organisations and their affiliated working groups. This enables Borealis to take part in policy debates, to exchange expertise and experience, and to monitor trends and developments. Memberships also enable Borealis to support industry efforts to implement programmes such as the European Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), to promote best practices and enhanced standards, and to contribute constructively to the development of a more sustainable society.

Membership engagement highlights in 2017

Polyolefins Circular Economy Platform (PCEP)
Borealis encouraged the creation of the PCEP which was launched in October 2016 by PlasticsEurope, European Plastic Converters and European Plastic Recyclers. The platform brings together all members of the value chain for the first time, combining a unique set of competences. The aim is to work together to remove bottlenecks and overcome barriers to a circular economy in Polyolefins, with a focus on consumer packaging. During 2017, six working groups were established, covering areas such as tools to allow products to be designed with circularity in mind, and improving collection and sorting systems, to generate higher quality recycling feedstock.

Ellen MacArthur Foundation – The New Plastics Economy (NPEC)
Borealis joined the NPEC in 2016 and is now contributing to several collaborative "Pioneer Projects". These projects aim to overcome issues that one organisation cannot address in isolation and find new solutions for a plastics system that works. For example, Project Barrier is developing a protocol to define "recycling-ready" for flexible high-barrier plastic packaging. Project Holy Grail will lay out a common vision for the use of tracers and watermarks to facilitate sorting and enhance plastic packaging recycling. Project Lodestar aims to design a blueprint for an 'all plastics' sorting and recycling plant which will enable more than 90% recycling of post-use plastic.

Project CEFLEX
Project CEFLEX is a collaborative initiative created in 2017, following on from the REFLEX (UK) and F.I.A.C.E. (EU) projects. The ambition is to make flexible packaging even more relevant to the circular economy. With over 40 stakeholder companies and associations, including Borealis, CEFLEX represents all parts of the flexible packaging value chain. CEFLEX has established seven interlinked work streams in which members are collaboratively working towards developing a collection, sorting and reprocessing infrastructure for post-consumer flexible packaging across Europe. This process is supported by the development and application of robust design guidelines for flexible packaging, due for completion by 2020, and the identification and specification of the end-of-cycle infrastructure needed to collect, sort and recycle it.

Fire Safe Europe (FSEU)
In 2016 Borealis joined FSEU, a unique alliance of fire experts, fire fighters, European associations and international companies. Its mission is to improve fire safety in buildings for European citizens. As Borealis is a provider of construction product solutions, improvements to the EU Construction Products Regulation present an opportunity to provide innovative solutions that contribute to increased fire safety. After FSEU brought the issue to the attention of Members of the European Parliament in 2017, the European Commission launched a study to evaluate the need to regulate smoke toxicity.

List of organisations and associations of which Borealis is a member
(in alphabetical order; list not exhaustive)

- APA (Aromatics Producer Association, a sector group within Petrochemicals Europe)
- CEFIC (European Chemical Industry Council)
- CEFLEX (A Circular Economy for Flexible Packaging)*
- C.I.R.A. (Cercle Investor Relations Austria)
- Cool Farm Alliance
- ECMA (European Catalyst Manufacturers Association, sector group within CEFIC)
- Ellen MacArthur Foundation "The New Plastics Economy" (NPEC)
- EMPA (European Melamine Producer Association)
- EPCA (The European Petrochemical Association)
- Essenscia (Belgium, Federation for Chemistry and Life Sciences industries)
- Europacable (as associated industry partner).
- EUROPEN (European Organisation for Packaging and the Environment, active in task force on food waste). Borealis is board member representing the plastic packaging producers in the board
- FARM REACH Consortium
- Fertilizers Europe
- FSEU (Fire Safe Europe)
- IFA (International Fertilizer Industry Association)
- IPLOCA (International Pipe Line & Offshore Contractors Association)
- IV (Vereinigung der Österreichischen Industrie, the Federation of Austrian Industries)
- IVA (Industrie Verband Agra, German agrochemical industry association)
- Kemianteollisuusry (The Finnish Chemical Industry Federation)
- LOSG (Lower Olefins Sector Group, a sector group within Petrochemicals Europe)
- MPPE (MedPhamPlast Europe)
- PCEP (Polyolefins Circular Economy Platform)*
- Petrochemicals Europe (petrochemicals industry sector within CEFIC)
- PlasticsEurope
- PRE (Plastics Recyclers Europe)
- TEPPFA (The European Plastic Pipes and Fittings Association)
- UNIFA (Union des Industries de la Fertilisation, the association of the French fertilizer industry)
- VDT (Verband Deutscher Treasurer e.V.)
- WBCSD (World Business Council for Sustainable Development)
- WKO (Wirtschaftskammer Österreich, the Austrian Federal Economic Chamber)
- WPC (World Plastics Council)

* joined in 2017

Circular Economy

The importance of the circular economy

As the global population grows, demand for plastics will increase. If the current linear economy model continues, where plastic products are made, used and disposed of, this will lead to growing volumes of plastic waste and environmental pollution, while putting pressure on the planet's limited resources. The solution is to transition to a circular economy, where plastics are reused and recycled, and made using renewable feedstock. A circular economy decouples economic growth from resource constraints.

Borealis sees the circular economy as a business imperative and, moreover, strongly believes that the circular economy model will also support its growth ambitions. In particular, the circular economy principles of reusing products where possible, recycling plastic waste and maximising resource efficiency present clear business opportunities for Borealis. The circular economy is therefore one of the three focus areas in the Group's sustainability strategy, alongside Energy & Climate and Health & Safety.

› See the Sustainability Strategy chapter.

This focus on the circular economy should result in informed decisions throughout Borealis.

To help identify and realise these new growth opportunities, Borealis has established a Circular Economy Solutions team within its Polyolefins (PO) business. This team focuses on designing for recyclability (see fig. 16) and on mechanical recycling of post-consumer plastic waste which Borealis has identified as the area where it can have the largest impact. Over the past few years, the Group has therefore been actively advancing its recycling and sustainability efforts, in line with its sustainability strategy which has PO recycling as one of its cornerstones. However, Borealis is also exploring other opportunities, such as chemical recycling.

The challenges for the industry

Plastics companies could produce more recycled plastic products if more raw materials were available that could be recycled economically. However, even in Germany as one of the leading countries with a Circular Economy waste regime, recycling efficiency for plastic packaging is only 30%, because of market disruptions caused by, for example, landfilling, incineration, exports and insufficient sorting.

One of the biggest issues preventing greater recycling of plastics is that many products which use plastic are not designed to be recycled. In flexible packaging, for example, multiple layers of different materials are often used. This makes separating and recycling the plastic layers extremely difficult. The challenge is to create packaging using only one material, while maintaining or even improving the packaging's performance.

To prevent plastic waste going to landfill or incineration, it needs to be collected separately from other waste streams. However, cheap local landfilling and the ability to recover energy by burning municipal waste reduce the incentive to separate and collect plastic waste. The planned landfill ban by 2030, which is part of the European Commission's Circular Economy Package, will change this situation only if it is strictly enforced in all EU member states and if the construction of new incinerators is averted. This will require economic incentives or penalties to encourage recycling, with incineration of separated plastics seen as a last resort and only when they cannot be recycled in an eco-efficient way.

Easing restrictions on transporting plastic waste would also help to increase recycling rates within the EU. At present, the Waste Shipment Directive stops plastic waste moving freely between member states and even from one region to another within the same country. As per 1 January 2018, the Chinese Government has eased one major burden for recyclers by banning most plastic waste imports from Europe. With the European market now flooded with quantities formerly exported to Asia, European recyclers can choose their input qualities without fear of being cut off from supplies.

Creating and enforcing a legal framework that promotes a reliable supply of feedstock for recycling, and provides incentives for industry to use recycled materials, is a necessary condition for the circular economy.

Clear rules and stringent execution by Extended Producer Responsibility schemes (EPR-schemes like the Green Dot in Germany, Eco Emballages in France or Corepla in Italy) can give all actors in the value chain the right incentives to change their approach to corporate sustainability. Higher and more ambitious recycling targets for plastic packaging are also important for increasing recycling rates, but require transparent and standardised calculation methods. This would provide a common platform for objectively monitoring progress towards the circular economy and understanding the impact of improvement initiatives. The European Commission has integrated first steps in that direction into their plastic strategy paper. Also, in a new packaging waste law, Germany as a forerunner has lifted plastic packaging recycling rates from 36% to 58% (as of 2019) and 63% (as of 2023).

Improving the circularity of polyolefins

Borealis is helping to improve the circularity of polyolefins in a number of ways. The Group shows leadership by advocating the circular economy across the industry and by creating and participating in activities and platforms that drive recycling options and solutions. For example, Borealis initiated and currently chairs the Polyolefins in a Circular Economy Platform (PCEP), actively shares its expertise as a member of the New Plastics Economy (NPEC) project of the Ellen McArthur Foundation, and is a member of Project CEFLEX, an initiative to make flexible packaging more relevant to the circular economy.

› See the Stakeholder Engagement chapter for more information.

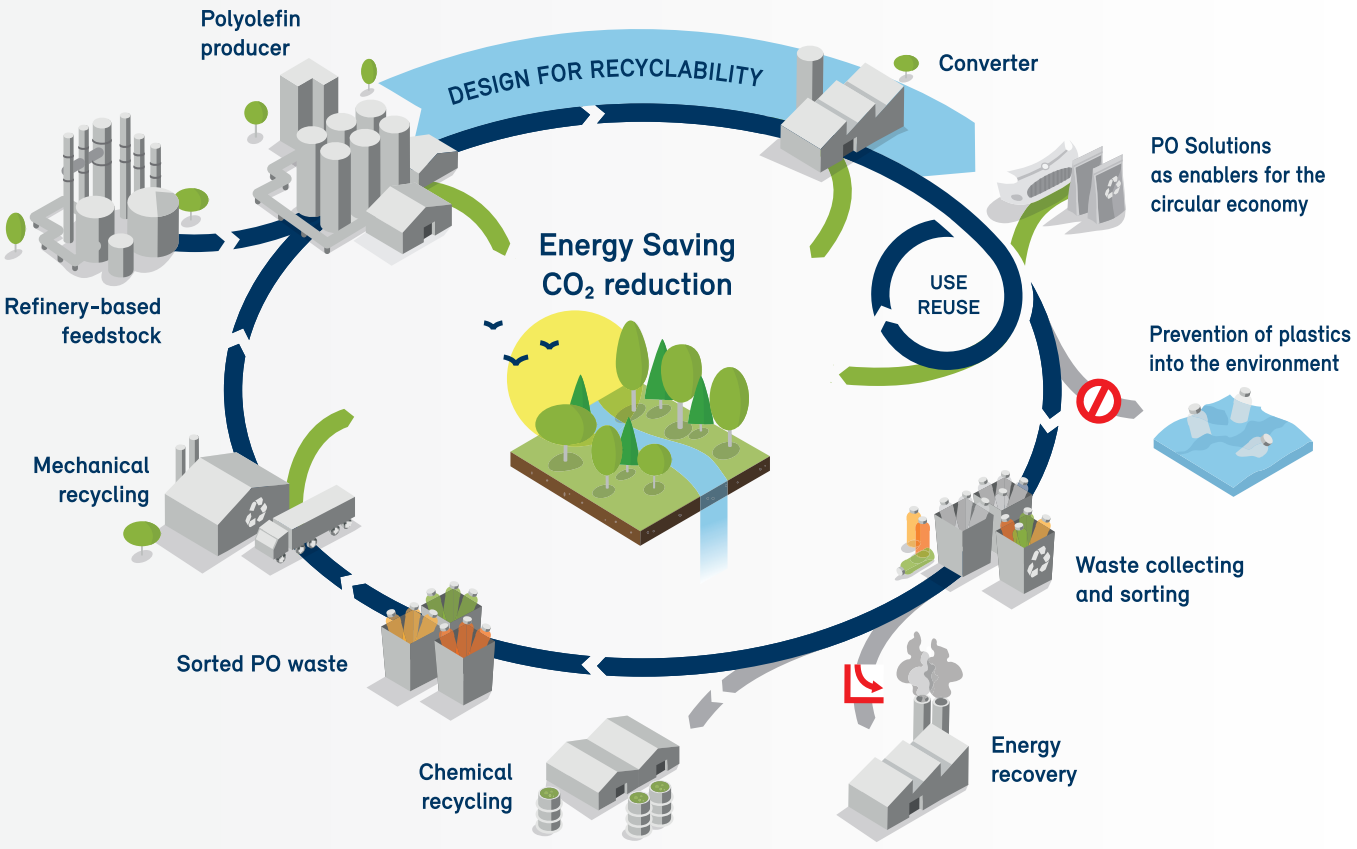


Fig. 16: Borealis' vision for a circular economy

Borealis plays an important role in supporting these goals including, for example, having expert representation in all six of PCEP's working Groups. These cover product design and quality standards; innovation for increased recycling of flexible packaging; developing end-use markets for PO recyclates; improving mechanical recycling and conversion technologies; driving collection and sorting of packing; and advocacy and awareness building.

PCEP, NPEC and Project CEFLEX aim to drive the circular economy by improving product design to make it easier to re-use or recycle, helping to develop common standards for sorting plastic waste, exploring new technologies to address the limitations of mechanical recycling, and developing after-use markets for recycled plastics.

The Group supports and encourages policy makers in the development of legislation that will advance the circular economy of plastics, in particular the European Commission's Strategy on Plastics. Borealis also looks to use its European recycling experience to develop an effective blueprint for the end-of-use phases for plastics that can be adopted in other parts of the world.

Within its own business, Borealis has already taken important steps towards increasing the circularity of plastics. Since 2014, the Group has offered high-end compound solutions to the automotive industry, consisting of 25% and 50% post-consumer recycled content. In 2016, Borealis strengthened its commitment to the circular economy by acquiring one of Europe's largest producers of post-consumer polyolefin recyclates – mtm plastics GmbH and mtm compact GmbH. This established Borealis as the industry leader in providing innovative solutions that address growing market requirements and that meet the market's expectations in terms of sustainability. The acquisition is a first step in discovering the possibilities of mechanical recycling and the Group intends to take further steps in this direction.

In addition, Borealis cooperates with a range of stakeholders, including customers, brand owners, retailers and waste management companies, to improve product design so that products are suitable for either reuse or recycling. The Group prototypes packaging concepts and creates proof of concept for each step in the value chain, including recyclability and performance of recyclate material. For example, Borealis' full polyethylene laminate solution can be recycled and processed into extruded film applications, opening up a broader spectrum of second life options. Another example is Daploy™ High Melt Strength (HMS) polypropylene, which is based on proprietary Borealis technology. This material is 100%-recyclable and suitable for a wide-range of applications where an improved environmental footprint is sought.

› For more details, see the Our business: polyolefins chapter.

Progressing the circular economy

Borealis recognises that the transition to a circular economy is a journey. The Group intends to further explore opportunities to increase the circularity of plastics, which may include moving beyond mechanical recycling.

In addition, Borealis has also begun to look at circular economy opportunities outside plastics. One example is its exploratory work and research on nutrients recycling through an innovation partnership with the Vienna waste management department (MA 48) to recover phosphorous from alternative secondary sources. This is one of the Group's contributions to implementing circular economy principles in its Fertilizer business.

Our Business

Borealis is a leading provider in the fields of polyolefins and base chemicals.

Borealis believes in progress. By driving ideas forward, Borealis aims to change the world for the better.

Borealis keeps discovering new applications and material solutions that address global challenges in the areas of climate, energy, food, health, water and sanitation, waste, and the mechanical recycling of polyolefins. As a reliable partner, Borealis creates ever more value for its customers and partners by developing new approaches, technologies and products.

Polyolefins

The polyolefin products manufactured by Borealis form the basis of many valuable plastics applications that are an intrinsic part of our daily lives. Advanced Borealis polyolefins have a role to play in saving energy along the value chain and promoting more efficient use of natural resources. Borealis works closely with its customers and industry partners to provide innovative and value-creating plastics solutions in a variety of industries and segments that make end products safer, lighter, more affordable and more sustainable.

Borealis provides services and products to customers around the world in collaboration with Borouge, a joint venture with the Abu Dhabi National Oil Company (ADNOC).

Industries Served

Automotive

Borealis is a leading supplier of innovative polyolefin plastic materials for engineering applications in the automotive industry.

Proprietary Borealis technologies are lighter weight replacement solutions for conventional materials like

Fig. 17: Industries served by Borealis' polyolefins applications

metal, rubber and engineering polymers. Borealis material solutions help facilitate lightweight construction and thus play an important role in reducing carbon emissions. For instance, over the lifespan of an automotive application like a bumper, eight kilogram (kg) of carbon emissions can be avoided by using one kg of polypropylene (PP) compounds.

Borealis grades with post-consumer recycled (PCR) plastics content meet growing industry and end-user demand for high quality materials that make better use of the planet's resources. By combining PCR and virgin material to produce high-end grades of consistent quality, fewer resources are used and less waste is generated over the lifetime of the product.

Borealis offers these leading-edge, lightweight polyolefins for a wide range of exterior, interior, and under-the-bonnet applications, including: bumpers, body panels, dashboards, door claddings, central consoles, pedal housings, cooling systems, battery trays and semi-structural body parts. Working closely with key value chain partners, Borealis continually develops novel materials for specific composite applications such as structural carriers.

Energy

Borealis is a leading provider of polyolefin compounds for the global energy industry.

Step-change innovations based on the Borlink™ technology make electricity power grids more robust and reliable, eliminate wastage, and help transport energy from renewable sources more efficiently, and over longer distances. The broad range of sophisticated solutions include extra high, high, and medium voltage solutions for energy transmission, and low voltage solutions for energy distribution cable applications.

Safer wires and cables for the solar, automotive, and construction industries are made possible by unique Borealis polymer manufacturing technologies. Borealis also has a proven track record of innovation in the area of flame retardant cables for these industries.

Borealis offers a comprehensive range of communications cables solutions for advanced data, copper multipair, fibre optic, and coaxial cables, all of which enhance the efficiency of data and communication networks.

Leading Borealis PP material solutions are used to produce capacitor film products. Exhibiting exceptional cleanliness standards, these materials help achieve outstanding electrical properties. Their consistent processing behaviour enables the production of extremely thin films.

Unique polymer and manufacturing technologies using Borlink, Visico™/Ambicat™, Borstar® and Casico™ allow Borealis to offer innovative compounds tailored to specific customer needs.

Borealis has recently expanded the scope of its endeavours in the energy sector. With the launch of the new flagship solar brand Quentys™ in 2017, Borealis began to revolutionise the global solar industry. Pioneering new products based on Quentys are making solar energy more effective and affordable. For example, the ICOSOLAR® CPO 3G, a co-extruded PP solar backsheet, boosts photovoltaic (PV) module output and reduces output decay. Borealis Polyolefin (BPO) encapsulant films improve the operational reliability of PV modules throughout product lifetime. This results in better cost efficiency and thus greater viability for solar power.

Pipes & Fittings

A trusted partner to the pipe industry for over 50 years, Borealis supplies advanced polyolefin pipe system materials to a wide range of projects and communities around the world.

By offering more durable and reliable pipes, Borealis' step change innovations continue to boost the sustainability of pipe networks by making them safer and more efficient. These improved networks also help eliminate wastage and loss whilst at the same time offering energy savings. Water and sanitation systems can be made more efficient and reliable by using proprietary Borealis materials. For example, when compared to conventional materials, modern polyethylene (PE) systems reduce water losses by a factor of eight. Trenchless technology reduces installation costs by up to 60%.

Using its proprietary Borstar® technology as a base, Borealis offers pipes used in many different industries: water and gas supply, waste water, drainage and sewage disposal, and plumbing and heating.

For the oil and gas industry, Borealis provides reliable and high-quality solutions from one end of the pipeline to the other, including multi-layer coating solutions for onshore and offshore oil and gas pipelines.

Consumer Products

With over 50 years' experience in the industry, Borealis is an innovative and reliable supplier of superior polyolefin plastic materials used in advanced packaging, fibre, and appliances.

Value-added packaging and fibre innovations play a role in safeguarding the quality and safety of consumer and industrial products, but also fulfil demand for enhanced functionality and convenience. Plastic food packaging, for example, helps protect and preserve food from farm to fork. Spoilage is avoided thanks to efficient filling systems and leak-resistant packaging. Food stays fresher longer, and less must be thrown away. What is more, the consumer has a wider range of choices when it comes to convenient and appealing packaging formats.

Superior and proprietary Borealis technologies, such as Borstar®, also make advanced applications possible in flexible packaging (including lamination film, shrink film, stand-up pouches); rigid packaging (caps and closures, bottles, thin wall and transport packaging); and non-woven and technical fibres (filtration systems, hygiene products, technical textiles).

Advanced PP solutions offered by Borealis make white goods (such as washing machines, refrigerators, air conditioning units and more); and small appliances (toasters, ventilators, power tools etc.) lighter yet more robust, more energy efficient yet visually appealing.

Healthcare

Borealis offers reliable solutions that add value to healthcare thanks to an impressive track record in Value Creation through Innovation, and close cooperation with customers.

The growing Bormed™ polyolefins portfolio offers superior technical performance for medical devices, pharmaceuticals, and diagnostic packaging. Borealis' innovations help make healthcare packaging and medical devices safer and more affordable whilst improving usability, a key criterion in today's ageing society.

Healthcare products that have all been enhanced by advanced polyolefins made by Borealis include, among others: medical devices, medical pouches, sachets, syringes, insulin injection devices, unbreakable transparent bottles, and single-dose eye drop dispensers.

Importantly, as global suppliers, Borealis and Borouge can ensure the security of supply, and provide technical support tailored to the specific and stringent requirements of the market.

Polymer Solutions

Borealis continually develops novel and performance-enhancing solutions such as polymer modifiers (plastomers and elastomers), foam solutions, and reinforced polyolefins for structural parts. These material solutions may be designed for new or existing applications.

In polymer modifiers, Borealis continues to expand its wide range of attractive solutions. The multitalented Queo™ brand helps bridge the performance gap between conventional plastics such as PE and conventional elastomers like ethylene propylene diene monomer. Queo makes it possible to meet or even surpass the most demanding requirements in sealing, flexibility, compatibility and processability.

Borealis' high melt strength (HMS), PP-based foamed products fulfil the varying and sophisticated needs of both converters and consumers in the packaging, automotive and construction industries. For example, foam solutions in packaging offer excellent recyclability, especially when compared to conventional alternatives. Furthermore, HMS PP foam also offers weight reduction, heat stability (for microwavable packaging) and good thermal insulation properties.

Borealis' reinforced polyolefins are novel, performance-enhancing material solutions. The wide range of PP compounds are globally available and help contribute to enhanced sustainability, for example through improved cost and energy efficiency.

Circular Economy Solutions

The Borealis Circular Economy Solutions team is dedicated to discovering new opportunities for long-term business growth in the areas of mechanical recycling and design for recyclability (DfR).

In a world of finite resources, the circular economy model offers a path to reinvent the economy in the interest of natural capital conservation and waste minimisation. A transition must be made from the linear model of "take-make-dispose" to the circular model of recycling, re-use, and DfR. For the polyolefins industry, this paradigm shift holds both opportunities and challenges. The move to the circular economy must be made as eco-efficiently as possible, but circularity must be the priority. It requires innovative material solutions and greater cooperation along the entire value chain.

As the first prime polyolefins producer to have acquired a plastics recycler, Borealis has proven its pioneering "Keep Discovering" mindset. Together, Borealis and its wholly owned subsidiary mtm plastics are leveraging their combined expertise and decades of experience to produce more high-quality plastic recyclates.

Over recent years, mechanical recycling has proven to be effective, and will likely remain the eco-efficient method of choice in the foreseeable future when implementing the principles of the circular economy. Borealis and mtm plastics are bundling their respective fields of know-how and experience – in polymer science, compounding and R&D on the one hand; and mechanical recycling, on the other – to explore the opportunities that arise when virgin producers and recyclers join forces.

The aim is to upscale recycling output; ensure the better availability of high-quality plastics recyclate for the European market; and ultimately, by enriching wherever possible the Borealis virgin polyolefins product portfolio with non-virgin polyolefin grades and to achieve increased polyolefins circularity.

Internal organisation

Within the internal organisational structure of Borealis Polyolefins, the **Industry Clusters** category includes diverse and wide-ranging applications in the mature industry segments of Automotive, Consumer Products, Energy, and Pipes & Fittings. **Advanced Products** manages so-called specialty products in the areas of Healthcare, Appliances & Structured Products, Concentrates & Polymer Modifiers (including Plastomers, Elastomers, Masterbatch), and Oil & Gas.

New Business Development

Dedicated to turning innovative ideas into new business, New Business Development first identifies new opportunities found in any and all areas of Borealis Polyolefins. After a systematic assessment which evaluates both market demand and unmet market needs, as well as any technical and/or commercial factors crucial to success, the new business opportunity is cycled into development. Once the project has achieved certain predefined goals, it is transitioned to the next level of Advanced Products, where development and growth of this emerging business continues.

New Business Development identifies and assesses entirely new opportunities and develops these accordingly. At present, the units Foam & High Melt Strength (HMS) Polypropylene (PP), Solar, and Emerging Markets are contained in New Business Development.

› For more information on Borealis Polyolefins: www.borealisgroup.com/polyolefins

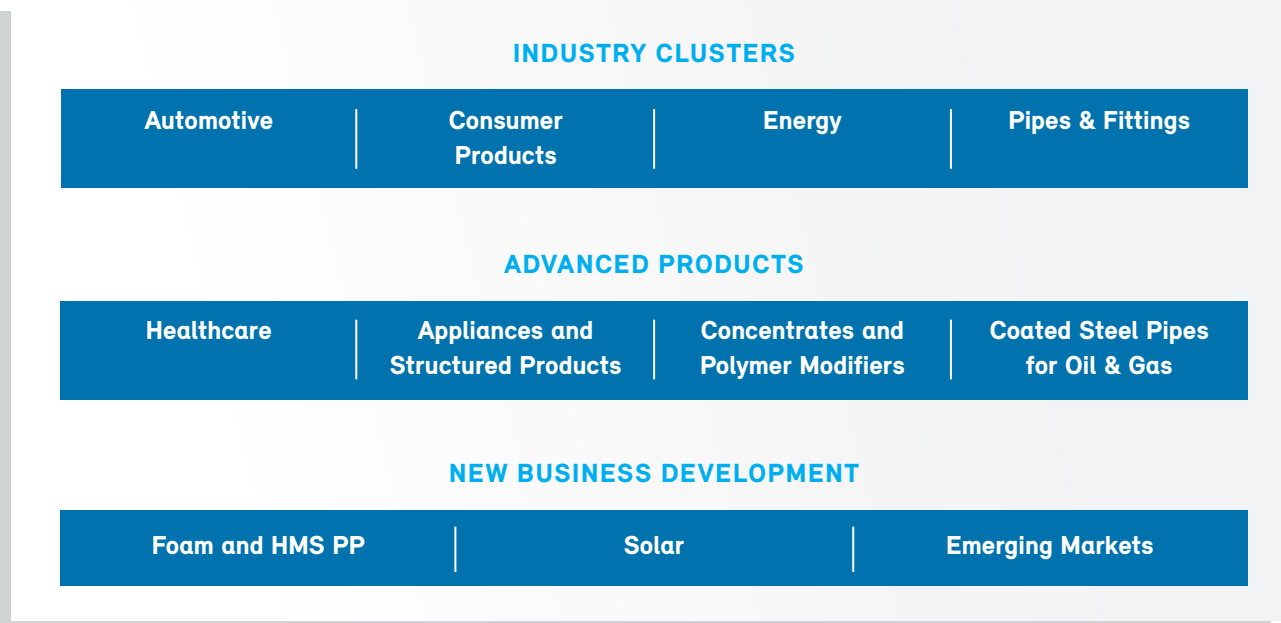


Fig. 18: Internal organisation of the Borealis Polyolefin business

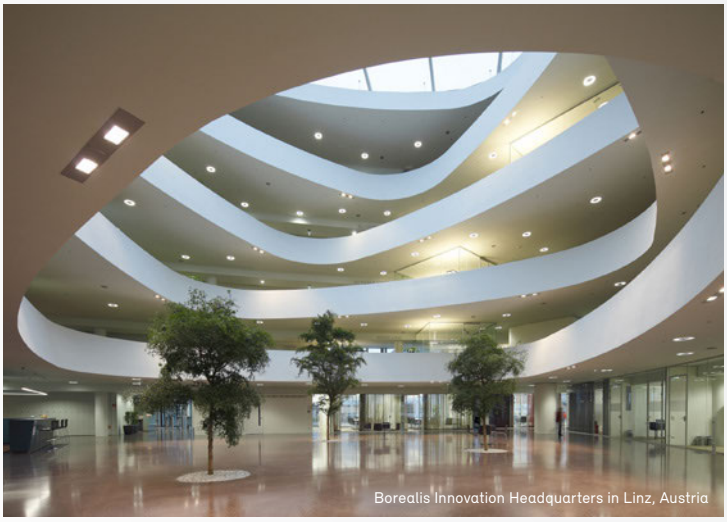
Innovation

The Value Creation through Innovation strategy sets Borealis apart from other companies in the industry. This is because the Borealis strategy does not focus on any one product or solution, but on the polyolefins value chain in its entirety. Together with Borouge, Borealis does more than offer products. It examines the entire life cycle of a product from start to finish: how it can be created, processed, deployed, and ultimately recovered or recycled.

At Borealis, the Visioneering Philosophy™ describes this drive towards Value Creation through Innovation. The Visioneering Philosophy is about pushing the boundaries of science to develop customer solutions with exceptional performance. This means understanding what the customer wants and leveraging the right competencies, tools and expertise to develop the best solution with a specific service level. True to this mission, Borealis works to address the challenges of society with smarter, more sustainable solutions for the future.

Over 500 employees are active members of the global Borealis innovation community. Borealis invests approximately 1.6% of its gross turnover in innovation R&D, for example in the development of catalysts, processes and products. This exceeds the industry norm.

Borealis has an extensive patent portfolio comprising around 1,600 patent families. On average, Borealis registers roughly 100 different patents each year which safeguard Borealis' proprietary technologies. These include the Borstar® technology, the Sirius catalyst technology, and the Borealis product portfolio of high-quality plastics developed in house. In 2017, Borealis filed 106 priority patent applications.


Borealis Innovation Headquarters in Linz, Austria

The beating heart of innovation at Borealis is best felt at its Innovation Headquarters (IHQ) in Linz, Austria, or at one of the two Innovation Centres in Stenungsund, Sweden, and Porvoo, Finland. While each facility engages in independent yet coordinated efforts, what all have in common is the shared pursuit of innovative solutions that provide added value for customers and end users.

At the IHQ Linz research facilities, the main R&D focus lies on polymer design and compound research for polymer applications in the energy, automotive, advanced packaging and healthcare industries. Another important focus is the surface aesthetics of plastics. The "Driving Tomorrow" initiative aims to reduce overall fuel consumption thanks to the use of lighter weight components in vehicles. The Borealis Sirius catalyst plant is also located in Linz.

In the Innovation Centre in Sweden, the focus is on polymer design, scientific services and R&D in the area of energy and infrastructure industry solutions.

With catalyst scale-up facilities and fully integrated Borstar® PE and PP pilot plant lines, the Borealis Innovation Centre in Finland is the site of advanced catalyst and process research, collaborating closely with both Finnish and international universities and research institutes.

The Borouge Innovation Centre in Abu Dhabi cooperates closely with Borealis' European Innovation Centres to explore enhanced infrastructure, automotive and advanced packaging application solutions.

Base Chemicals

At Borealis, the Base Chemicals business is a solid foundation to build upon. Borealis produces a wide range of base chemicals for use in numerous and diverse industries, including melamine, phenol, acetone, ethylene and propylene; and a wide range of fertilizers and technical nitrogen products. Borealis will continue to develop this profitable area with its unique feedstock capabilities, logistics and integration strengths.

The Borealis Base Chemicals business consists of three units: Hydrocarbons & Energy, Melamine, and Fertilizers.

Hydrocarbons & Energy

Borealis sources various feedstock such as naphtha, butane, propane and ethane from the oil and gas industry. Through its olefin units, it converts these into the building blocks of the chemical industry: ethylene, propylene and C4 hydrocarbons (petrochemical derivatives consisting of butanes, butylenes and butadienes), among others. Steam crackers in Finland, Sweden, and Abu Dhabi – the latter operated by Borouge – produce ethylene, propylene and C4 hydrocarbons, while propylene is also produced in a propane dehydrogenation plant in Kallo, Belgium. Feedstock and other olefins required for Borealis and Borouge polyolefin plants are either sourced from its owners, or purchased on the markets. A range of co-products from the steam cracking process, including butadiene, butene compounds, and pygas, are also sold on international markets.

Phenol, benzene, cumene, and acetone are produced in Finland, and sold mainly to the adhesive, fibre, epoxy resin and polycarbonate industries. In the Nordic and Baltic regions, Borealis is the leading producer of phenol, which is used in adhesives, construction materials, carpets, CDs, DVDs, mobile phones and household appliances. Acetone is commonly used in solvents for paints, acrylics, fibres and pharmaceuticals.

Melamine

As the second-largest producer of high-quality melamine in Europe, Borealis produces melamine at its plants in Linz, Austria, and at its facility in Piesteritz, Germany. Converted from natural gas, melamine has become an essential material for the global production of synthetic resins. Around 80% of Borealis' melamine production is destined for the wood-based panel industry, for example for decorative surface coatings of wood-based materials. In the manufacture of everyday objects used in the kitchen or around the house, melamine also plays an important role, for example as one component used to make handles for pots and pans.

Fertilizers

Efficient and effective use of fertilizers has become more essential than ever. The world's population is expected to rise from today's 7.6 billion to over 9.6 billion by 2050, and an increasing number of people will live in densely populated urban areas. As incomes in emerging nations rise, more meat is consumed and thus more grain to feed livestock must be produced. Biofuels also generate demand for increased yields. Because space for agricultural expansion is limited, yields must be optimised.

At the same time, in many nations there is a heightened environmental awareness of the need to promote fertilizers with low carbon footprints, maintain healthy soil environments, and reduce run-off from fields.

Already a leading fertilizer company in Europe, Borealis has ambitious growth plans in select markets around the globe to further expand its fertilizer business. This ambitious growth strategy is reflected in the major investments in its own assets and supply chain facilities, the enlargement of its portfolio, and the continuing expansion of its market presence.

Borealis produces and then distributes and supplies around five million tonnes of fertilizers and technical nitrogen products each year via its Borealis L.A.T distribution network. With more than 60 warehouses across Europe and an inventory capacity of over 700,000 tonnes, Borealis L.A.T promotes a broad fertilizer portfolio: nitrogen-based straight fertilizers; complex fertilizers – a combination of nitrogen (N), phosphate (P) and potassium (K) as well as speciality fertilizers; and a range of technical nitrogen products, from ammonia and ammonium nitrates to nitric acid and urea solutions. Non-European markets are serviced mainly via the Borealis Rosier distribution network.

Technology and Product Innovations

Anteo™: the new ingredient for complete success

Its simultaneous launch in October at three different locations across the globe generated buzz in the industry: Anteo™, the new flagship brand enabled by the proprietary Borstar® Bimodal Terpolymer Technology. The excitement surrounding this new family of linear low-density polyethylene (LLDPE) packaging grades for the global packaging market is grounded in its ability to offer exceptional flexibility when it comes to polymer design, and unique PE resins with superior processability. Other high performance-related attributes include stiffness, toughness, purity, outstanding sealability, and appealing optics.

- For more information, please visit: www.borealisgroup.com/anteo

Quentys™: empowering the solar industry

In the energy industry, Borealis and Borouge have long established themselves as leaders in Value Creation through Innovation. With the 2017 launch of the new solar umbrella brand Quentys™, Borealis has now entered the global solar industry. Pioneering new products based on Quentys are making solar energy more effective and affordable. For example, the ICOSOLAR® CPO 3G, a co-extruded polypropylene (PP) solar backsheet, boosts photovoltaic (PV) module output and reduces output decay. A second wave of new products developed in partnership with leading solar industry partners will be launched shortly.

Smart fertilization creates value for farmers

Now being rapidly adopted across the globe, smart farming technologies increase crop yields whilst ensuring optimal fertilizer application. This not only reduces fertilizer costs to farmers, but also helps avoid over-fertilization and excess run-off from fields. One way in which Borealis L.A.T promotes smart farming is with the N-Pilot®, a diagnostic tool for nitrogen management which has now been launched in many European countries. Using such smart tools in tandem with high-quality fertilizer helps implement the so-called "4Rs" in practice: the right product, right dose, right time, and right place.

The Borealis L.A.T collaboration with the Francisco Josephinum, an agricultural school and research institution in Wieselburg, Austria, includes field trials, precision agriculture and technology development.

Procurement and Supply Chain

To manufacture its products, Borealis purchases and sources feedstock, energy, raw materials, technical equipment, technical services, general business services and packaging materials, from around 10,000 vendors. Approximately 74% of the procurement volume relates to feedstock, utilities and energy, around 7% to technical procurement, 7% to raw materials and packaging, 6% to logistics and 6% to business and other services.

Purchasing of goods and services at Borealis follows a strict process, to ensure product quality and consistency, total cost and reliability of supply. The process also takes account of sustainability considerations, such as compliance with safety, environmental and ethics rules. After defining Borealis' needs, including scope and specifications, reviewing the supply market and defining the sourcing strategy, the process moves to supplier selection. This includes questionnaires and audits to be performed on-site.

Every year, Borealis defines a set of strategic suppliers, based on criteria such as turnover, innovation, impact on operability and potential for growth. The Group uses a supplier relationship management process for strategic suppliers which combines KPI-based performance management with supplier segmentation and professional knowledge of business risks. Activities with strategic suppliers can include top management meetings and common innovation programmes. On a monthly basis, Procurement monitors the performance of around 80 strategic suppliers, evaluating risks and taking mitigating actions where needed.

In 2017, Borealis implemented a Responsible Sourcing Policy (Code of Conduct) which has been communicated in writing to all raw material suppliers and is also available on the Group's website. The policy defines the Group's approach to key aspects of business ethics when sourcing, such as anti-corruption, compliance and child labour, as well as health, safety and the environment.

All existing raw material suppliers have been asked to confirm their commitment to the policy and must expect audits by Borealis focusing on social and environmental aspects, on top of the Group's commercial and quality related agenda. New suppliers will only be approved if they commit to Borealis' Procurement's Responsible Sourcing Policy. This programme assures that Borealis only involves suppliers which guarantee a sustainable business.

In addition, in 2017 Borealis joined the chemical industry's Together for Sustainability (TfS) initiative. TfS enables its members to implement sustainable procurement, by sharing the results of supplier audits and assessments performed by independent experts. This will support Borealis' approach to ensuring that environmental and social aspects in the supply chain are better monitored and continuously improved. Membership of TfS also gives Borealis access to a large database of previously screened suppliers, avoiding duplication of effort. As the 20th member of this initiative, Borealis will be among the leaders in sustainability and will contribute to improving the chemical industry through workshops reflecting the principles of "People – Planet – Profit".

Procurement activities have an important influence on Borealis' business performance. The Group looks to reduce total costs to a highly competitive level, by using sourcing tactics such as competitive bidding (tendering), professional negotiations, and pooling volumes with partners in the Mubadala family, namely OMV, Borouge, NOVA Chemicals and Cepsa. This has helped the Group to reduce costs by around EUR 91 million since 2014.

When purchasing goods and services, Borealis aims to get the best value by applying the Total Cost of Ownership philosophy. This requires the Group to consider the full costs it will incur during the lifetime of the product or service, rather than looking only at the up-front cost. When defining and adopting sourcing strategies, Borealis also considers market and technology intelligence and supplier innovation potential.

Procurement

Raw Materials and Packaging (RMP)

Two dedicated procurement teams source all RMP used for manufacturing polyolefins and fertilizers. Borealis sources RMP globally, primarily from suppliers in Europe, North America, Japan, China and Korea. The Group maintains an approved list of approximately 700 suppliers, which are categorised as high, medium or low strategic suppliers. High strategic suppliers are those on which Borealis spends at least EUR 2 million a year and which make an important contribution to the Group's current and future business success. They represent around 80% to 85% of the total yearly spend on RMP.

Growth in the polyolefin industry and greater focus on environmental issues in China, resulting in forced plant closures, has led to shortages in the supply of raw materials. Borealis' procurement teams are adapting to these changing conditions by focusing on longer-term contracting and improving supplier relationships to ensure security of supply and a sustainable business.

Sustainable supply can only be achieved by using suppliers committed to the Borealis Responsible Sourcing Policy. The Group does not see significant sustainability risks with major suppliers in North America and Europe, where most have implemented similar Codes of Conduct and may also be members of TfS. For 2018, Borealis plans to prioritise audits of suppliers in India, China and South-East Asia, to ensure compliance with its policy. Around 20% of raw materials are sourced from this region and are essential for the Polyolefin business.

Raw materials

Major raw materials for the Fertilizer business are phosphate and potash, which are used for a variety of products, such as calcium ammonium nitrate or nitrogen-phosphate-potassium fertilizer. Sulfuric acid is also used for fertilizer production. Borealis' Linz fertilizer plant takes advantage of the nearby OMV Schwechat refinery, where sulfuric acid is a by-product of a plant used to remove nitrogen oxides from heater exhaust gas. Around 30 kilotonnes of sulfuric acid can be directly used by Borealis, reducing cost and environmental impact.

Major material categories used to produce polyolefins are additives, co-monomers, carbon black and catalysts. Additives are needed in all products to stabilise the polymers against the impact of air, light and any remaining catalyst components. Catalysts enable polymerisation under even conditions and shape the final product properties. Carbon black is a necessary component for pipe and semicon grades.

Borealis sources several polymer additives which are produced using renewable feedstocks, such as palm oil or rapeseed oil. This covers around 25% of the total additive volume. Borealis also uses four recycled polypropylene grades as feedstock for the compounding plants in Europe and Brazil.

Packaging material

Packaging materials are needed for all solid products that Borealis delivers to customers. For semibulk packages, which are those containing between 450 kg and 1,200 kg of product, key packaging types include big bags and octabins. Fertilizers are mainly packed in big bags, which are woven from polyethylene or polypropylene. The Group's high-quality cable insulation polymer grades for high-voltage applications often use octabins – a type of cardboard packaging – with high-purity liners.

Borealis improves its polyolefin packaging material, by carefully balancing energy and material efficiency against cost and packaging quality. Quality is an important factor in avoiding issues, such as packaging waste and pellet spills. During the past few years, Borealis has increased material efficiency by reducing the thickness of form fill seal (FFS) material used for

Polyolefins	2017	2016	2015
Carton (kg)	13.39	13.82	13.87
Form fill seal (kg)	4.36	4.42	4.40
Big bags (kg)	3.91	3.90	3.86
Other materials (kg)	1.01	1.07	1.16
Total (kg)	**22.67**	**23.21**	**23.28**

Fertilizers	2017	2016	2015
Form fill seal (kg)	0.22	0.27	–
Big bags (kg)	0.59	0.68	–
Total (kg)	**0.82**	**0.95**	–

Fig. 19: Packaging consumption based on 1,000 kg produced material

25 kg bags, the main packaging type used for transportation of polyolefin, from 130 µm to 120 µm. In 2018, this will be further reduced to 110 µm, cutting FFS packaging consumption by another 8%.

Borealis has begun a project to achieve further quality improvements for octabins and is currently assessing several options. The intention is to achieve the required packaging quality through better paper, improved octabin design and super-clean inliners.

Technichal procurement

The technical procurement area encompasses all procurement related to investing in or maintaining Borealis' assets. This includes equipment, materials, services and spare parts, covering:

- static equipment, rotating equipment, automation, furnaces, pipe materials, valves, electrical equipment and logistic equipment,
- civil works, steel works, piping works, mechanical works, electrical and automation works, scaffolding, insulation and industrial cleaning; and
- facility management and waste management.

Borealis sources technical equipment globally. Services related to capital expenditure are also sourced globally (for example, engineering services for major investment projects) while maintenance services are sourced within Europe, as they require suppliers with permanent locations in the proximity of Borealis' sites. The supplier selection process is split into technical and commercial bid phases.

The technical supplier base covers 6,500 suppliers, from which Borealis has identified its strategic suppliers. These suppliers are subject to the corporate supplier relationship management programme, to drive continuous improvement for these relationships. The selection of strategic suppliers is done each year and proposed to the Procurement Strategy Board, where business sponsors from Operations are assigned. Supplier performance management takes place at the end of each contract or on a continuous basis, through the strategic supplier management programme. The Procurement Strategy Board is a forum for Procurement and Operations to define and prioritise strategic objectives related to scoping, execution and implementation of tenders that impact multiple locations and that aim to combine operational spend and capital expenditure.

In 2017, Borealis expanded its sourcing activities to the US, following the announcement of two major projects in the country. These were an agreement to form a joint venture with NOVA Chemicals and Total which will develop and own a new ethane cracker and Borstar® polyethylene facility in Texas, and the decision to construct a dedicated automotive polypropylene compounding line in North Carolina. Together, these growth projects represent more than EUR 1 billion in contract value for Borealis, which is a step change in activity for technical procurement. Projects in the US are primarily executed on a lump sum (fixed price) basis for engineering, procurement and construction (EPC) services.

Hydrocarbons (Feedstock & Cracker Products)

Borealis sources basic feedstock such as naphtha, butane, propane and ethane from the oil and gas industry and converts these into ethylene and propylene through its olefin units. Steam crackers in Finland and Sweden produce both ethylene and propylene, while propylene is also produced in a propane dehydrogenation plant in Kallo, Belgium.

Global sourcing of competitive feedstock and olefins is crucial for Borealis. A dedicated team of feedstock traders and product managers is therefore responsible for sourcing the whole Borealis feedstock range. Feedstock and olefins required for Borealis' plants are either sourced from Borealis' owners or purchased globally via strategic long-term supply agreements and short-term contracts, covering deliveries from the US, Russia and Europe.

Kt	2017	2016	2015	2014
Feedstock for Olefins	2,388	2,779*	2,517	2,805
Olefins for Polyolefin production	1,382	1,396*	1,412	1,398
Feedstock for Fertilizer production	1,431	1,159	1,396	–

Fig. 20: Feedstock sourced for production of olefins, polyolefins and fertilizers (kt)

* Adjusted figure (data reported in Annual Report 2016 was subject to a calculation error)

Borealis assures the selection of competitive and reliable suppliers. All of Borealis' counterparts for feedstock, cracker products and logistics services are thoroughly screened and vetted by the Borealis risk management department. The supplier portfolio contains key strategic suppliers whose performance is measured on a regular basis.

The main transport modes for the feedstock and cracker products are seagoing vessels, pipelines and rail. With its contracted ship-owners, Borealis tracks the fleet's safety performance and energy efficiency, and promotes the use of environmentally friendly bunker solutions. Some road transportation is used for phenol and acetone, with targets to increase lot sizes and the share of intermodal flows. During 2017, Borealis started to use its time charter vessel, Navigator Aurora, to source additional ethane from US-based shale gas for its flexible cracker in Stenungsund, Sweden.

In 2017, the Group sourced 2,388 kilotonnes (kt) of feedstock for its olefins production units (crackers and PDH unit) and 1,382 kt of olefins for its polyolefin units. This included ethane, propane, butane, liquified petroleum gas mix, naphtha, ethylene and propylene. The group sourced 1,431 kt of feedstock for fertilizer production, which includes natural gas as a raw material for the production of ammonia. Natural gas consumption for energy is reported in the chapter on Energy & Emissions.

Energy & Utilities (natural gas, power and utilities)
The Borealis Energy & Utilities Sourcing team secures competitive energy contracts for the Group's plants. It is responsible for the sourcing and risk management of electricity, natural gas, emission rights and utilities. The natural gas sourcing includes feedstock for the fertilizer business's steam methane reforming plants in France and Austria. The sourcing procedures are described in the Group's commercial policies.

The Group's energy contracts are generally spot indexed and contracted on a one- to three-year basis. Pricing risk is managed using financial risk instruments, as described in the trading policy. The delivery of energy commodities is managed in each country by the respective regulated transmission system operator. Utilities are sourced on a longer time horizon of ten to 15 years and very often within the context of petrochemical clusters, by pipelines from neighbouring industry. In some cases, where infrastructure is lacking, utilities are delivered by truck.

Borealis also pursues renewable energy initiatives. Four wind turbines supply the Kallo plant and Borealis also signed an agreement in 2017 with Bionerga Beringen to build a 150 kilotonne waste-to-energy plant at the Beringen location. This will deliver steam, electricity and other utilities to Borealis and will come online in 2019. The plant will provide the majority of the location's energy and utilities needs and will process gases that arise during production.

Logistic Suppliers

Borealis' Polyolefins and Fertilizers businesses transport a combined volume of up to 8 million tonnes of raw materials and finished products to the Group's sites or customers' premises each year. The main sustainability impacts of transporting these products and materials are potential accidents and spills, and greenhouse gas emissions (CO_2).

Borealis considers its logistics service providers to be part of Borealis and therefore requires them to adhere to the same standards of safety, ethics and environmental improvement. When Borealis awards logistics contracts, it applies almost equal weighting to cost, service and quality, safety, and sustainability.

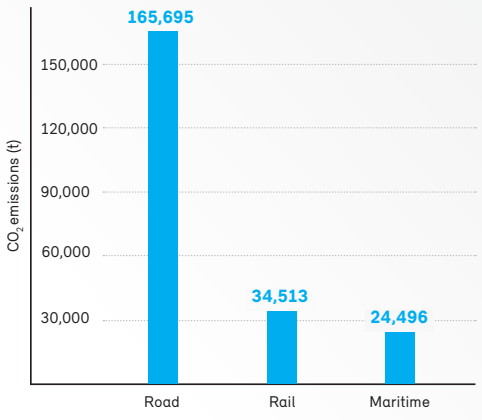
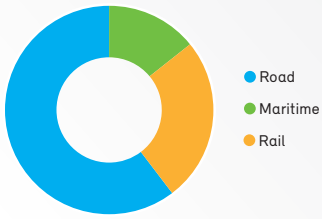
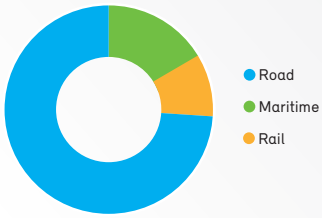


Fig. 21: Borealis' CO_2 emissions by mode of transport for polyolefins and fertilizer products in 2017 (t)



Road	2,022
Maritime	476
Rail	844

Fig. 22: Polyolefins transported volumes (kt) 2017



Road	2,864
Maritime	643
Rail	374

Fig. 23: Fertilizer transported volumes (kt) 2017

Borealis' Polyolefins business has approximately 120 providers of road transport, container transport, maritime transport, warehousing and on-site logistics services. The Group requires its polyolefins logistics suppliers to be Safety & Quality Assessment System (SQAS) certified and to have a proven track record of reducing their CO_2 emissions year on year. In the Fertilizer business, logistic service providers transporting dangerous liquid cargo are also required to have an SQAS certification. In both of its main businesses, Borealis uses a carrier performance rating system, which helps the Group to monitor service quality and follow-up on non-compliance. Safety incidents related to logistics service providers occurring within Borealis' production sites or warehouse locations as well as accidents which happen during the transportation are documented and investigated in Borealis risk register system.

Wherever possible and economically feasible, the Group seeks to transport products off-road via rail, barges or vessels. Even so, around 60% of Borealis' polyolefins and around 74% of its fertilizer products are transported by road.

In 2016, Borealis began to implement a tool to track the CO_2 emissions of its downstream transportation. Analysis of Polyolefin and Fertilizer transportation has shown that Borealis' downstream transportation produced 225 kilotonnes of CO_2 emissions. This excludes the emissions generated from transporting melamine products, which will be included in the next report. These calculations are based on the transport mode (trucks, train, barges, vessels or intermodal) as well as the transported volume and distance.

Around 30% of the transported volume in the Fertilizer business is collected by the customers (mostly by truck) and is therefore not included in the CO_2 emission calculation. Same applies also for polyolefin customers who collect the material themselves.

Sustainability Investments – Fertilizers

In October 2017, Borealis' Executive Board approved an investment project to debottleneck the material handling capabilities of the Group's French production site, Grand Quevilly. The investment relates to the bulk conveying of fertilizer products from the on-site warehouse to the quay of Grand Quevilly, which is approximately 1 km away. Borealis expects to export more than 300 kilotonnes of fertilizer products annually through this quay, over the coming years. These products are currently transported by truck and this will end completely with the installation of a conveyor belt. The project will improve Borealis' sustainability, by reducing the cost of logistics and cutting CO_2 emissions, while improving safety in the warehouse and at the quay.

Carrier Performance Rating System

The Carrier Performance Rating System (CPRS) is a SAP-based tool, which Borealis uses in its Polyolefins and Fertilizers businesses to:

- continuously monitor the quality and performance of carriers, based on criteria specific to Borealis' business;
- visualise carrier performance in a measurable and standardised way;
- observe how performance levels change over time; and
- counteract any quality issues identified.

If a transport incident (known as a deviation) occurs, it is entered into the CPRS system. All the departments and people involved are asked to collect and forward their observations of deviations and other issues. CPRS is based on around 50 different types of deviations which are important to Borealis and happen in daily business. These deviation types have been determined by the whole supply chain and are then grouped into five main areas relevant for transport quality. These are safety, loading performance, delivery performance, documents and information.

Transportation safety

Transportation safety is key for Borealis. The Group requires all its logistic partners to report the following accidents:

- any injury or fatality to their own personnel, as well as third parties;
- any damage to property of any party involved in the accident;
- all material damage while transporting Borealis' goods to the final customer;
- any public disruption; and
- any intervention by the emergency services.

Within 24 hours of an accident, the logistics partner must send a report to Borealis which includes information on the cause of the accident.

Preventing pellet spill during transportation is key to avoid pellets ending up in the environment and ultimately the ocean. Borealis is committed to achieving zero pellet loss in and around its operations and has set a range of measurements to achieve this.

Borealis has a truck driver manual in place at all sites which includes guidelines for safe loading and unloading of material. ECTA and CEFIT also provide comprehensive guidelines for safe loading and unloading of pellets in bulk. These have been communicated to all of Borealis' logistic service providers and shared with the Group's sales team, for communication to customers. The objective is to increase awareness regarding the safety, quality and environmental aspects of bulk unloadings.

Environmental Responsibility

Energy & Emissions

Energy

Management approach

Borealis recognises that emissions resulting from energy use are key contributors to climate change. The Group therefore aims to continuously reduce its energy footprint through greater energy efficiency, as well as by developing innovative solutions that save energy along the value chain. These solutions range from lightweight plastics to chemicals used for renewable energy solutions and accurate fertilizer dosing in farming.

Energy consumption accounts for a significant proportion of Borealis' total costs and for around 62% of its greenhouse gas (GHG) emissions. Flaring losses and N_2O emissions represent a further 10% of GHG emissions and process emissions from ammonia production represent 28%. Improving energy efficiency is therefore the most effective way to reduce the Group's direct carbon footprint and its energy costs, while increasing its competitiveness. Energy efficiency also reduces Borealis' reliance on public energy grids and improves the security of supply.

Borealis has an Energy & CO_2 Committee to lead its Group-wide energy management efforts. This is a standing committee of the Executive Board and is chaired by the Executive Vice President Operations, and Health, Safety & Environment.

› For more information, see the Governance section.

Borealis' Group-wide certification to ISO 9001 and ISO 14001 covers almost all locations and has energy as an integral part of the environmental management system. To further strengthen its energy management, in 2015 Borealis started to get prepared for certification of all its European entities in accordance with ISO 50001. Plants that process raw materials for the automotive industry are also certified and regularly audited to ISO/TS 16949. The full list of certificates can be found on Borealis' website.

Measuring energy consumption and efficiency

Borealis' main sources of energy are electricity, heat (primarily from steam), natural gas and fuel gas. The Group documents, tracks and follows up all sources of energy each month, for every location.

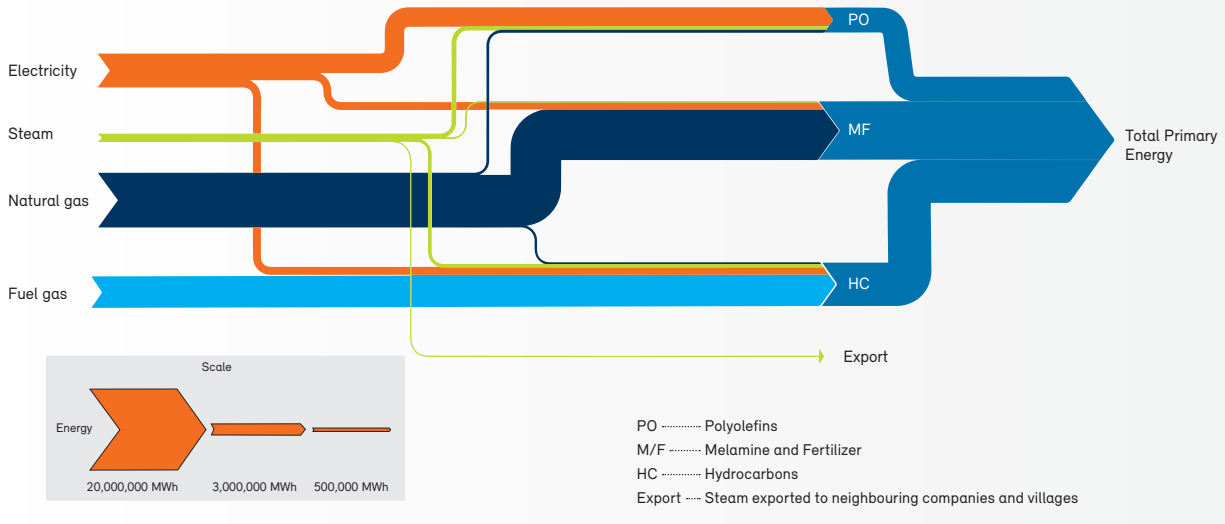


Fig. 24: Sankey diagramme showing energy flows at Borealis

The Sankey diagramme (Fig. 24) shows energy flows at Borealis, demonstrating the different energy sources for each production site and business division. In a Sankey diagramme, the width of each arrow is proportional to the respective quantity of energy. For reasons of commercial confidentiality, Borealis does not disclose specific data on energy consumption, broken down into the different sources.

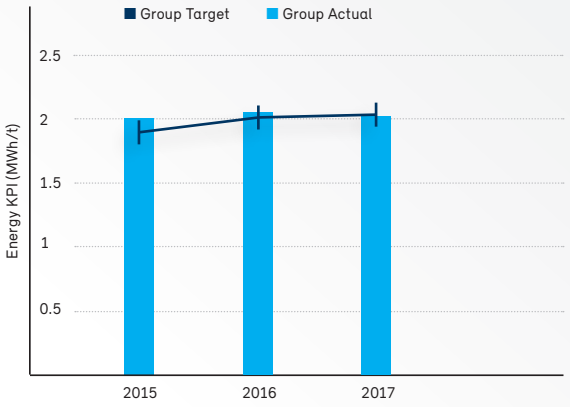
Data on all Borealis' energy consumption is collected as it is metered, then converted to the equivalent in primary energy using the Group's environmental data management tool. This allows Borealis to summarise different energy sources using one consumption figure, enabling comparability across plants and production lines and providing the Group with better information for identifying technological improvement opportunities.

Energy consumption is converted into primary energy as follows:

– Fuels (including natural gas): 100% conversion to energy, Factor 1
– Steam: 90% boiler efficiency, Factor 1.11
– Electricity: 40% efficiency, Factor 2.5

Energy efficiency, which is the number of MWh of primary energy divided by total production tonnes, can then be calculated using the formula:

$$\text{EnergyKPI}\left[\frac{\text{MWht}}{\text{t}}\right] = \frac{\text{Fuels[MWh]} + 1.11 \times \text{Steam[MWh]} + 2.5 \times \text{Electricity[MWh]}}{\text{Total plant production [t]}}$$



Year	Group Target	Group Actual
2015	1.90	2.00
2016	2.02	2.06
2017	2.04	2.03

Fig. 25: Development energy intensity indicator 2015–2017

2017 Performance

Borealis' ambition is to improve energy efficiency by 10% by 2020, using 2015 as a baseline. To achieve this target, Borealis has developed an energy roadmap, which is described below.

In 2017, Borealis' total primary energy consumption was 22,400 GWh compared to 24,100 GWh in 2016. The reason for this decrease in energy consumption are the execution of five major turnarounds, as well as an even stronger focus on energy consumption due to ISO 50001 implementation.

In 2018, focus will be on full implementation of ISO 50001 standards and the continuation of implementing the Borealis Energy Roadmap programme.

Borealis Energy Roadmap

In 2015, Borealis initiated a comprehensive energy roadmap, to drive progress towards achieving 10% energy efficiency improvements (or 2,400 GWh) in 2020 compared to 2015. The roadmap sets out a sequence of different activities, starting with establishing a baseline and followed by three levels of action known as levers, which will deliver increasing optimisation.

The Foundation:

The basis for any energy efficiency improvement is the implementation of and compliance with ISO 50001, combined with continuous leadership engagement from key teams.

In order to progress beyond this baseline, all Borealis locations run periodical energy screening programmes, often with a third party, to evaluate their energy performance and find energy improvement opportunities. This led to a number of improvement actions, with implementation starting in 2017 and continuing in 2018.

These actions are as follows:

– Lever 1

As a first step, Borealis is implementing tools, such as introducing an energy trend board, to run the plants in the ideal way.

– Lever 2

Running plants most effectively goes hand in hand with continual optimisation of plant design and control, and the implementation of improvement projects to remove potential barriers.

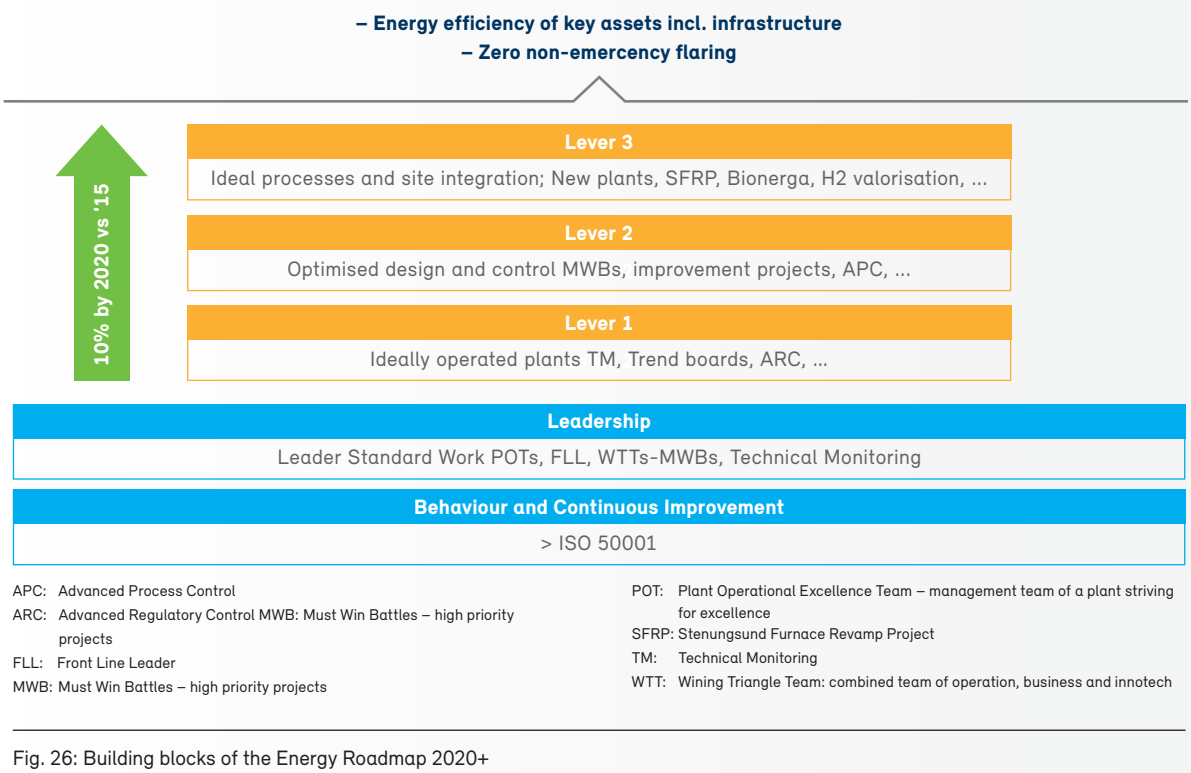


Fig. 26: Building blocks of the Energy Roadmap 2020+

– Lever 3
Another way to increase energy efficiency is to implement new technologies during periodical production line revamps, and to seek energy integration through industrial clusters.

There are a number of examples of Borealis' baseline and lever 1 initiatives. These include energy teams at each production location who drive the location's energy planning process, increase awareness, act as a forum for energy issues and ensure ISO 50001 compliance. Real-time tracking of energy performance is provided by trend boards which help operators to maintain a continuous focus on energy. Borealis has also improved performance evaluations at plant level. These are performed daily, weekly and monthly, with a detailed review each quarter focusing on deviations and improvement actions. The Energy KPI tool, which contains more than ten years of data on the performance of each plant, enables in-depth analysis of performance, to highlight deviations and identify areas for improvement.

The Group has also developed an "Energy Walk Curve" tool which is mandatory for each plant. The tool covers all factors that influence energy efficiency, including volume effects, feed and product mix effects, legal obligations and improvement projects. The Energy Walk Curves and other KPIs are compiled into a location energy plan which is regularly reviewed by the plant management. The Energy & CO_2 committee reviews energy plans for all locations over a three-year period.

Emissions to air

Management approach

Borealis' emissions to air result from its production processes and from combustion for energy generation.

These emissions comprise:

- CO_2 emissions from fuel combustion to produce heat;
- CO_2 emissions from reactors, cracker furnaces and ammonia production plants;
- CO_2 emissions from flaring in polyolefin plants and crackers;
- N_2O (nitrous oxide) emissions from nitric acid production plants;
- NO_x (nitrogen oxides) emissions created by the burners in steam boilers and furnaces;
- VOC (volatile organic compounds) fugitive emissions of hydrocarbons, occurring due to high pressure and temperature; and
- dust emissions from handling solid material in fertilizer plants.

Emissions to air have differing effects on the environment. For example, CO_2 and N_2O are GHGs and contribute to climate change. VOC emissions contribute to the generation of ground-level ozone, particularly in combination with traffic-generated emissions. NO_x emissions are also related to ozone generation and contribute to nitrogen ending up in soil and water. This in turn can lead to eutrophication, which is when a water body is enriched with excessive levels of nutrients.

For Borealis, the most relevant environmental impacts from emissions are the contribution to climate change at a global level, and the generation of ground-level ozone and eutrophication at a local level.

Emission management at Borealis is an integral part of the company's Health, Safety and Environment management system, which complies with the ISO 14001 standard.

› For more information, see the Water, Effluents and Waste section.

This means that the Group identifies its emissions and assesses and monitors risk. Borealis evaluates and implements control measures, depending on the significance of the emission and according to ISO 14001 standards and regulatory requirements.

Borealis operates a broad mix of continuous measurements, with external measurements on a daily, weekly, monthly or yearly basis. With all emissions, the Group follows its legal requirements and the stipulations in its permits, under all circumstances. In addition, Borealis has established its own requirements for measuring and following up key pollutants. Deviations from the norm are reported within the Borealis incident management system and then investigated and addressed through corrective actions. The approach depends on the magnitude of the emission's impact on the environment and the criticality.

Borealis uses Teams SR, an environment and energy data management and reporting software package. This ensures the traceability and transparency required for EU Emissions Trading System reporting. All Borealis production entities and office locations are connected to this tool.

High-risk items and proposals with significant potential for improvement are regularly discussed and addressed by senior management committees, such as the Energy & CO_2 Committee and the Responsible Care Committee.

CO_2 emissions

The absolute level of CO_2 equivalent emissions is related to Borealis' overall production volumes, and to the number of turnarounds, which imply flaring related CO_2 emissions from emptying storage and plants. The Group is committed to continuously improving its energy efficiency and thereby reducing its CO_2 equivalent emissions, while increasing production volume and ensuring plant reliability. This remains a challenging journey.

In 2017, Borealis had 4,210 kilotonnes of CO_2 equivalent emissions. This compares to 4,600 kilotonnes in 2016. These lower emissions result from smaller production volumes due to several turnarounds in 2017.

2017 Performance

Borealis uses a broad range of emission factors, which are a means to calculate the GHG emissions for a given source. Each EU member state has a national inventory of emission factors, which means that, for example, natural gas use in Austria would have the specific Austrian emission factor applied to it. Other emission factors are standard factors from scientific literature or are measured by a certified laboratory. All emission factors are permitted and approved by the relevant authorities

Nitrous oxide (N_2O) emissions

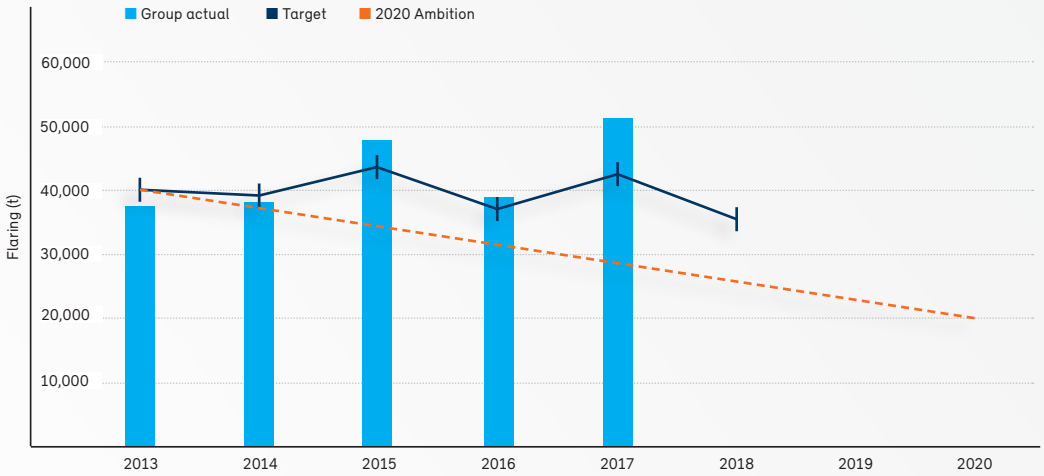
N_2O emissions from nitric acid plants decreased to 866 tonnes in 2017, compared to 1,207 tonnes in 2016. The improvement was mainly linked to the production balance promoting good plant performance, as well as to lower production volumes due to turnarounds.

Flaring

In addition to its energy efficiency target, Borealis has set itself the ambition of achieving zero non-emergency flaring by 2020. Flaring is a necessary safety measure used in refineries and petrochemical operations, in which excess gases which cannot be recovered or otherwise recycled are safely burned. However, the noise and emissions caused by flaring affect surrounding communities and flaring also incurs high costs for the Group. For example, shutting off and turning on the cracker in Porvoo, Finland, multiple times led to a cost of approximately EUR 10 million. One shutdown alone can already have a major impact, as was the case in Stenungsund during 2017.

Flaring occurs only in hydrocarbon and polyolefin plants, and not at production sites that produce

Flaring performance 2013 to 2017 – ambition 2020



Year	Group actual	Target	Ambition
2013	38,000	40,000	40,000
2014	38,000	39,100	37,143
2015	47,690	43,500	34,286
2016	38,700	36,925	31,429
2017	51,600	42,355	28,571
2018		34,200	25,714
2019			22,857
2020			20,000

Fig. 27: Flaring performance 2013–2017 and ambition 2020

fertilizers or melamine. It is very much incident driven and Borealis strives to reduce the need for it, by continuously improving its plants' operational performance and reducing the number of plant interruptions and incidents.

Flaring losses in 2017 were 51.6 kilotonnes, up from the 38.7 kilotonnes measured in 2016.

The increases in flaring in 2015 and in 2017 were caused by the turnarounds in Stenungsund and Porvoo during those years. In 2017 alone, the Group ran five turnarounds. These regular maintenance programmes inevitably lead to a higher amount of flaring, as plants or lines must be shut down, emptied and ramped up again, causing flaring.

Volatile organic compounds (VOC) emissions

In 2017, Borealis had VOC emissions of 3,333 tonnes, compared to 3,599 tonnes in 2016. Borealis has a goal of reducing its overall VOC emissions, by detecting and repairing leaks quickly. The reason for this decrease are the five major turnarounds executed during 2017, as well as less leaks after successful completion of all turnarounds.

Dust emissions

Dust emissions originating from the fertilizer production units in 2017 totaled to 477 tonnes, compared to 489 tonnes in 2016. The slight decrease is mainly due to improvement in quantification of dust emission.

Dust reduction and prevention is a focus for all Borealis operations and for improvement projects.

Dust emissions are continuously measured only in the Group's fertilizer locations, which are the main contributor. Borealis' polyolefin production plants monitor dust emissions using spot samples rather than on a continuous basis, which does not allow for an annual average to be calculated.

Nitrogen oxide (NO_x) emissions

NO_x emissions result from steam boilers and other incineration, such as thermal oxidisers, flaring and furnaces. Borealis measures most of its NO_x emissions, with the rest calculated by using a standardised emission factor. Absolute NO_x emissions in 2017 were 2891 tonnes, compared to 3,330 tonnes in 2016 mainly thanks to the production balance promoting good plant performance, as well as to lower production volumes due to turnarounds.

Ammonia (NH_3) emissions

Ammonia emissions in 2017 were 862 tonnes, compared to 909 tonnes in 2016. These emissions are a consequence of either failures during the ammonia production process or leaks during storage or transportation.

SO_x emissions

Borealis does not produce SO_x emissions as it only uses gaseous fuels (natural gas and hydrocarbons) where no sulfur is present.

Ozone Depleting Substances (ODS)

Borealis does not produce ODS emissions. In 2014, all equipments containing ODS were replaced by non-ODS, for example by using different cooling media such as propylene or ammonia.

Environmental compliance

Borealis complies with all relevant environmental laws, regulations, standards and other legal requirements, such as operational permits. This ensures the Group can continue to operate and is protected from fines, reputational damage and other associated cost related to impact mitigation. The Group reviews all cases of non-compliance and takes action to prevent them from recurring.

During 2017, two major incidents occurred:

At Borealis' operation in Stenungsund, Sweden, there was a disturbance at the cracker on 15 August 2017, resulting in black smoke from the flares and furnaces. This was caused by an external electrical failure and led to several complaints from neighbours. Borealis has reported the incident to the competent supervising authorities and shared in follow-up meetings the cause and the consequences, and shared the actions it had taken and planned to take.

Borealis' operation in Porvoo, Finland, had two flaring incidents which produced black smoke, with soot ending up on cars and surrounding streets. Borealis also received several complaints from neighbours about a bad smell which came from steam outlets at the top of the columns. In addition, the plant had to stop production due to black smoke from flaring, as a result of work done by an external company.

Water, Effluents and Waste

Management approach

Borealis is committed to implementing the guidelines of the Responsible Care® Global Charter, the chemical industry's voluntary commitment for continuous improvements in health, safety and environmental (HSE) performance. The Responsible Care Policy is owned by the CEO, who is responsible for compliance throughout the Group, and revised every three years. Its governance is supported by the Group's corporate risk and compliance processes.

› See more information in the Governance section.

A detailed and systematic environmental risk and opportunity assessment is done for every plant and location, at least every three years. The assessments are also performed if there have been major changes, near misses, incidents or accidents, or if potential improvements have been identified. The risk assessments are based on an evaluation of the legal framework and possible upcoming changes, any deviations from permit limits and stakeholder input.

Based on these assessments, HSE objectives and targets are defined and documented for each location. Clear responsibilities and timelines are agreed and reviewed at the Group HSE level twice a year. The consolidated outcomes, including HSE performance, are reported to the Responsible Care Committee and the Energy & CO_2 Committee.

As a result of the risk and opportunity assessments, Borealis determined that reducing CO_2 emissions and energy consumption are the main drivers of its performance improvement and have the biggest impact on the environment. These were therefore defined as key materiality issues and prioritised in the Group's environmental management.

› See more information in the Energy & Emissions chapter.

Water, waste and effluents also play a significant role in ensuring high-quality HSE management. As a consequence, they are included in the Group's HSE management process and are monitored as part of the environmental objective of each location.

Except for Ottmarsheim, all Borealis production locations are part of an ISO 14001 compliant environmental management system. Ottmarsheim is expected to be certified in 2018.

Water

Water is a natural resource needed for Borealis' operations. Industrial water is required for cooling, steam generation and product handling. Lower quantities of sanitary water are needed for consumption and cleaning, and service water for sanitary, cleaning and firefighting purposes.

Water consumption

The majority of the water Borealis uses in its operations (96.3%) is surface water, including from water bodies such as rivers and oceans. The remaining 3.7% is extracted from ground water (3.1%), rainwater collected (0.003%), waste water from another organisation (0.21%) and municipal water supplies or other water utilities (0.34%).

Water availability or scarcity varies by geographic area. Borealis has not identified any risk related to water in the locations in which it operates. Nevertheless, the environmental experts in each operation monitor water consumption, as part of the Group's continuous environmental monitoring programme and in order to comply with the permit level limits set by the respective local authorities. In almost all its operations, Borealis' water withdrawals are well below the permitted level. All the data are reported at the Group level.

Every five years, Borealis performs an in-depth environmental liability assessment in each location, where water consumption is a key element. Key aspects of this assessment include a check of the legal framework and possible upcoming changes to it, evaluation of the current consumption levels versus permit levels, and evaluation of the water stress index of all water bodies.

Water consumption	752 Mm^3
Surface water	96.29%
Ground water	3.15%
Water from 3rd party	0.21%
Municipal water	0.34%
Rain water	0.00%

Fig. 28: Borealis' sources of water consumption and locations of water discharge in 2017

Water discharge

Under the Industrial Emissions Directive of the European Union, Borealis is currently developing soil and groundwater baseline reports, together with national experts and the national authorities, to ensure it minimises its negative impact on water bodies. On a regular basis, national authorities evaluate Borealis' water use and wastewater discharge, in accordance with the Industrial Emission Directive and Water Framework Directive.

The volume and nature of wastewater generated depends on the type of production at Borealis' locations. Each production process uses specific chemicals, with the result that wastewater may contain nitrate and ammonium from fertilizer plants, hydrocarbons from crackers or solid material from polyolefin plants. Borealis therefore installs water treatment techniques that are appropriate for each plant's production process. These techniques can include filtration, neutralisation, osmosis, gravimetric and biological water treatment.

All Borealis locations are connected to wastewater treatment installations, consisting of internal treatment units, external plants, or both. Except for the location in Grandpuits, France, where Borealis discharges all of its water effluent into a special groundwater aquifer.

Each operation carefully monitors wastewater flows and contaminants to ensure that all parameters are within permitted levels, and reports this regularly to the respective authorities. Depending on the type and size of the operation, monitored emission parameters relate to, for example, chemical or biochemical oxygen demand, aromatics, hydrocarbons, nitrogen, phosphate and trace elements. The monitoring and analysis of wastewater discharge is currently done at a location level, without consolidation at a Group level.

Recycling and reusing water

To increase water use efficiency, Borealis seeks, whenever possible, to recover its process water or reuse wastewater as cooling water. For example, in some operations cooling towers use recycled water or rain water. This is not possible in all locations, as it depends on permit stipulations and on the water body.

As noted above, Borealis prioritises reductions in energy consumption and CO_2 emissions. As water consumption and energy use are linked due to the energy recovery from cooling water, the Group may therefore in some occasions decide to increase its water withdrawal in order to recover more energy.

2017 Performance

In 2017, Borealis' water withdrawal was 752 million m^3, compared to 724 million m^3 in 2016. Water withdrawal reported in the Annual Report for 2016 was 722 million m^3, with the difference resulting from newly acquired locations being added to the Group's HSE management system after the closing date for the 2016 report.

Solid waste

Borealis generates waste during production, short regular shut downs and through plant turnarounds and regular short shutdowns. Turnarounds are regularly scheduled events during which a plant is temporarily taken out of operation, to ensure asset integrity and process safety by carrying out important maintenance work and inspections. The most common types of waste produced in Borealis' operations include excavated soil, wastewater treatment sludge, solvents, mixed industrial waste and inert construction material. Borealis has waste management plans for each location, which are coordinated by local environmental experts. The Group only employs accredited contractors for handling its waste streams.

Borealis monitors waste production and implements control measures in all its operations, based on the requirements of regulations and ISO 14001 standards. The Group manages waste flows in all its locations by following the "4R" rules: reduce, reuse, recycle and recover. Borealis' overall aim is to avoid producing waste where possible. The Group has therefore implemented an integrated manufacturing process which recovers as much co-product as possible. For example, the CO_2 emitted by the ammonia production site in Linz, Austria, is now used in the production of urea at the same site. In the fertilizer production process, condensation from steam contains co-products as small particles which are extracted and reinjected into the process to minimise loss of resource. If a co-product cannot be reused and therefore becomes waste, the Group's preference is to recycle it, taking into account relevant regulations and environmental aspects.

2017 Highlights

In 2017, several locations began to assess the content of the Best Available Technology (BAT) reference document for Common Waste Water and Waste Gas Treatment/ Management Systems. This document details the techniques to prevent or, where this is not practicable, to reduce the environmental impact of operating installations. The project will continue until 2020.

Borealis also developed Contract Excellence for procurement. The purpose is to identify the important factors to be considered in procuring new waste contracts and during the partnership, in order to achieve waste contract excellence.

2017 Performance

In 2017, the Group's total waste volume was 59.6 kilotonnes, compared to 49 kilotonnes in 2016. Approximately 53% of Borealis' waste volume was recycled, 24% was recovered and 23% was disposed of, with 11% going to landfill and 12% receiving a different treatment.

In 2017, Borealis took another step towards effective waste management at all locations, by identifying areas of improvement to prevent waste production and by increasing waste recovery.

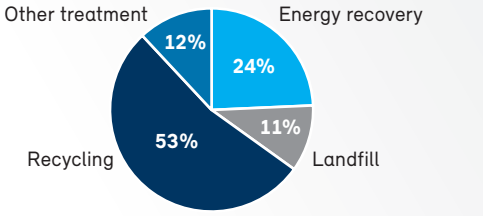


Fig. 29: Waste treatment

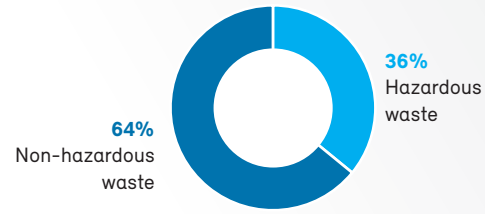


Fig. 31: Waste characterisation

Towards Zero Pellet Loss

Plastic pellets released unintentionally during the production process and transportation can end up in streams, rivers and oceans. Preventing spillage is a core responsibility for the industry. Borealis is committed to achieving zero pellet loss in and around its operations and was therefore an early signatory to Operation Clean Sweep® (OCS), an international programme initiated by the Society of the Plastics Industry and the American Chemistry Council and rolled out in Europe by PlasticsEurope. Borealis is also a signatory of the "Zero Pellet Loss Pakt" in Austria, similar to the OCS programme.

Achieving zero pellet loss is challenging and requires continuous leadership, effort, targeted and effective work practices and investment. Together with Total, Borealis has developed a comprehensive audit catalogue, covering the assessment of all factors leading to potential pellet loss. The assessment is based on 14 categories and a rating level of one to five (with one being the lowest score), leading to three maturity levels: basic containment, advanced and world class.

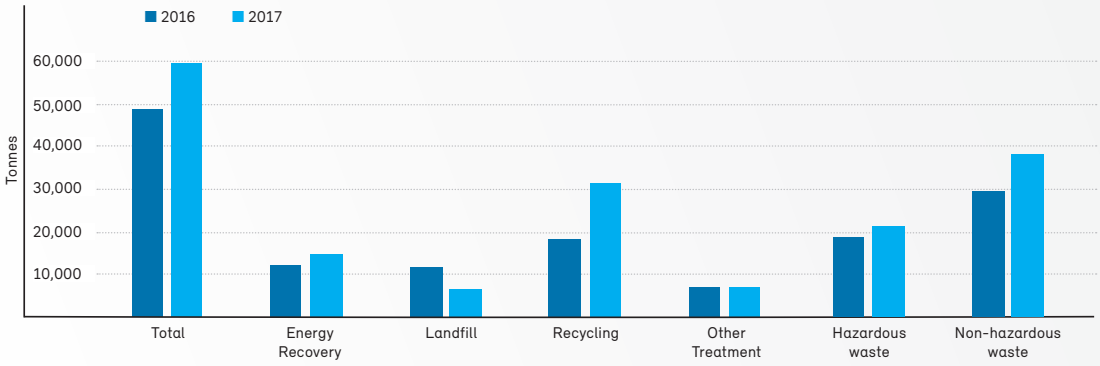


Fig. 30: Waste treatment comparison between 2016 and 2017 for all total waste, all treatments and the ratio of hazardous and non-hazardous waste

Borealis set itself the goal to reach or exceed level four at all sites. To understand its current performance and gaps, the Group assessed all its polymer sites during 2016 using this framework. This exercise revealed that the Group was meeting its ambition in only four of the 14 categories. As a consequence, intense work was done during 2017, especially on the sites that needed to catch up, with the result that by end of 2017, Borealis met or exceeded its ambition of level four at almost every site. Borealis' efforts were recognised by the Upper Austrian Industrial Association, with a Corona Award in Bronze for Corporate Social Responsibility. The improvement actions will continue throughout 2018.

As chair of the PlasticsEurope Marine Litter Solutions Working Group, Borealis also took a leading role in the development of the Plastics Europe "Operation Clean Sweep Report 2017". This report provides information on the implementation of the OCS programme by PlasticsEurope members and signatories to OCS in Europe. It describes the programme and how it is being implemented and provides insights into best practices. It aims to demonstrate that the OCS programme is effective and efficient and that the signatories to the OCS are making tangible progress. As such, the report is an important instrument for strengthening the industry's credibility, through more transparent and open information sharing.

Issue	Definition	2017	2016	2015	2014	2013
EU ETS CO_2 emissions	kilotonnes	4,210	4,600	4,270	4,250	2,480
N_2O emissions	tonnes	866	1207	978	1,160	159
Flaring losses	tonnes	51,600	38,700	47,690	38,000	38,000
VOC emissions	tonnes	3,333	3,599	3,055	3,250	3,660
NO_x emissions	tonnes	2,891	3,330	4,055	3,400	1,460
Dust emissions	tonnes	477	489	–[1]	–[1]	–[1]
NH_3 emissions	tonnes	862	909	–[1]	–[1]	–[1]
Primary energy consumption	GWh	22,400	24,100	22,600	31,400[5]	22,100[5]
Water consumption	m^3 (million)	752	724[2]	300	316	161
Waste generation	tonnes	59,590	49,036[3]	157,000	44,600	19,000

Definitions

EU Emission Trading Scheme (ETS) CO_2 emissions: All greenhouse gas emissions (GHG) as per the European ETS expressed in CO_2 equivalents (since 2009 this indicator has replaced the reporting of direct carbon dioxide emissions).

Nitrous Oxide (N_2O) emissions: Emissions of N_2O (also known as laughing gas) are generated by the production of nitric acid in the fertilizer plants. N_2O is a GHG with a global warming potential (GWP) 310 times higher than CO_2.

Flaring losses: All streams sent to the flare, except streams that assure a constant flame (e.g. fuel gases to pilot burners, fuel gas purges to flare lines for safety reasons, steam, nitrogen)

Volatile Organic Compound (VOC) emissions: Emission of all organic compounds (from C1 to Cn) with a vapour pressure of 0.01 kilopascal (kPa) or more at either room temperature or at actual temperature when processed. The quantification is based on measurements and estimates.

Nitrogen Oxide (NO_x) emissions: Emissions of all nitrogen oxides from all relevant sources, including flares. The emissions are quantified as NO_x. When NO_x measurements are not done, emission factors correlated to the fuel type and heating value are used.

Dust: Emission of dust from production of fertilizers.

NH_3 (Ammonia): Emissions of NH_3 from fertilizer plants, loading station and water treatment of fertilizer locations.

Primary energy consumption: Consumption of all energy vectors (i.e. fuels, electricity and steam). Electricity and steam are converted into primary energy with standard conversion factors of 40% (electricity) and 90% (steam).

Water consumption: Total amount of fresh water withdrawn from surface or groundwater sources for any type of usage (e.g. cooling, steam generation, cleaning, sanitation).

Waste generation: Generation of all waste at company locations during normal operation as well as during special projects. Any substance or object that is to be discarded is included in the definition of waste. Exceptions are atmospheric emissions, liquid effluents and by-products with commercial value.

Fig. 32: Key Environmental Performance Indicators[4]

[1] Reporting on dust and NH_3 as of 2016 onwards
[2] Adjusted figure (new locations could be added to the calculation only after closing date of the 2016 report)
[3] Adjusted figure (figure adjusted due to data upload error)
[4] Environmental data might be subject to minor adjustments due to ongonig audits and missing 3rd party data at the time of closing of this report
[5] Data reported until including the year 2014 included the consumption of gas used for the production of ammonia as a raw material

Social Responsibility

Occupational Health and Safety

Management Approach

Chemical operations involve highly flammable, toxic and hazardous substances that could pose a risk to people and the environment, in case they are not handled in the right way. In addition, safety incidents have a direct link to lost working time and damage to valuable assets, both of which are closely connected to the Group's profitability and performance. Health and safety therefore always come first at Borealis.

For many years, Borealis has achieved a world-class record in health and safety, but the Group needs to stay vigilant at all times and has adopted a Goal Zero journey in 2014, which aims to develop a zero-accident mindset. To keep its safety culture at the top of people's minds, Borealis constantly promotes the motto "If we can't do it safely, we won't do it at all."

The Responsible Care® charter sets Borealis' framework for excellence in health and safety. The Responsible Care® Committee, headed by the Chief Executive, monitors overall health and safety performance based on Key Performance Indicators (KPIs), reviews serious health and safety incidents, and initiates actions to improve performance. Performance at the different locations is discussed each month at meetings between the Health, Safety and Environment (HSE) team and the leadership team at the production locations.

› More information can be found in the Governance section.

Borealis proactively prevents accidents by developing risk management tools, implementing control measures, undertaking awareness campaigns and safety training, and conducting regular audits for both employees and contractors.

Learning from incidents is an important process. Every quarter, lessons learned from incidents are shared and discussed throughout the organisation. Borealis also coordinates emergency planning with external medical and public health experts, and implements detailed exposure controls as part of its corporate standards.

Regular engagement tours ensure dialogue between management, employees and contractors. The tours are designed to spot safety risks and encourage positive changes in daily work routines. They focus on effective employee-management dialogue, by using open questions and carefully listening to what is said, as well as what is not said. The aim is to truly engage employees in Borealis' Goal Zero journey. Each year, Borealis has more than 16,000 tours across its locations.

Meetings in Borealis commonly start with health and safety topics, and at many meetings, including special HSE workshops, it is a mandatory topic. In addition, at every Corporate Co-operation Council (CCC) meeting Health and Safety issues are a standard agenda point.

› See Governance section for more information on the CCC.

Rule 1: Working at height

Rule 2: Entry into confined spaces

Rule 3: Lifting operations and working under suspended loads

Rule 4: Working on potentially energised/ pressurised equipment

Rule 5: Exposure to traffic

Fig. 33: Borealis' Life Saving Rules

Borealis wants to develop its HSE culture from a calculative level (where safety is based on having systems in place to manage hazards) via a more proactive level (where safety leadership and values drive continuous improvement) towards a generative level, where health and safety becomes "how we do business". The ultimate goal is to create an accident-free workplace. Effective field leadership is a key enabler of success on this journey. In addition, each Borealis employee has a shared responsibility for others. "Care for my colleague" means encouraging employees to report incidents, actively participate in investigations and contribute to making Borealis safer for all.

Lifesaving rules were introduced in 2013 and refreshed in 2015 to make Borealis' employees aware of the biggest risks across the Group. These rules cover working at height, entry into confined spaces, lifting operations and working under suspended loads, working on potentially energised or pressurised equipment, and exposure to traffic.

Promoting employees' health and wellbeing

In an environment where working longer is a reality, wellbeing needs to be managed proactively across all generations, in order to secure a healthy, engaged and productive workforce. Higher levels of wellbeing lead to higher performance and less sick leave, which directly benefits Borealis' financial performance. Borealis targets a maximum sick leave rate of 3.2%.

The Borealis wellbeing concept sets common standards across all locations, enables sharing of best practices and builds on existing activities. The concept takes a holistic view of wellbeing and identifies four key areas for ensuring motivated and healthy employees. These are health, job engagement, competence, and work and private life balance.

Borealis promotes and protects its employees' health in several ways. The Group offers physical examinations and subsequent check-ups, periodic screenings and evaluations. Employees may also participate in voluntary health counselling programmes, to identify and monitor health problems. Detailed chemical exposure monitoring is carried out in accordance with local legislation.

The Group's employee health initiatives vary depending on local needs, but they typically include addressing issues such as back pain, blood pressure and weight management. Employees can receive on-site flu vaccinations, learn about stress prevention, find help to quit smoking and consult a psychologist. Borealis also encourages healthy eating by providing fresh fruit and healthy meals in many locations.

Borealis also conducts a Group-wide workplace health survey every five years, to evaluate hazards in operational and office environments. Alongside the prevention of health and safety risks, occupational illnesses and accidents, the health surveys place considerable focus on the psycho-social aspects of work and work-life balance.

2017 Highlights

During the year, Borealis extended training for front line leaders on the "social psychological impact on behaviour" to its more recently acquired locations. This training will run until the end of 2018. It focuses on behaviour, factors influencing behaviour and how to influence the unconscious mind to change behaviour. A similar Group-wide programme for middle management began at the end of 2016.

Borealis achieves continuous improvement through systematic learning. This includes creating training packages, to raise employees' competence in areas such as social psychology, office ergonomics, musculoskeletal disorder and use of hydraulic tools. In 2017, a new course for engineers was added to the Borealis Business Academy, focusing on the fact that safe design is the first step in creating a safe workplace.

Security received enhanced attention in 2017, and in view of the increased risk for terrorist attacks Group-wide security improvements were implemented, balancing technology investments with physical guarding.

2017 Performance

Total Recordable Injuries (TRI) per million working hours has been a Borealis Group Scorecard KPI for many years. Recordable injuries are those that require medical treatment, restrict work or result in lost working hours. Both Borealis employees and contractors are tracked. A TRI frequency of two or less is considered world class in the industry.

Borealis has set an ambitious target of a TRI frequency to 1.1 or less and continuously works towards zero TRI. In 2017, Borealis' TRI frequency was 1.1, compared with 0.9 in 2016. The TRI frequency for Borealis' employees was 0.9, against 0.8 in 2016, while that of its contractors remained on the same level of 1.3 compared to 2016. In total, 653 calendar days were lost due to lost time accidents compared to 669 days in 2016.

Since most of Borealis' activities are in Europe, a regional breakdown of TRI does not add value and is therefore not tracked. Borealis also does not track the split of TRI by gender as the number of female operators, technicians and contractors is relatively low and Borealis cannot observe any major differences in risks posed to each gender.

Borealis uses Synergi® as a central database for incident reporting and investigation across the Group. This enables Borealis to identify potential safety risks early, to investigate and mitigate them, and to install preventative measures in a timely manner.

Over the last ten years, two fatalities have occurred at Borealis' sites. In 2009, a contractor died after an unauthorised confined space entry. In 2015, an operator fell while descending stairs.

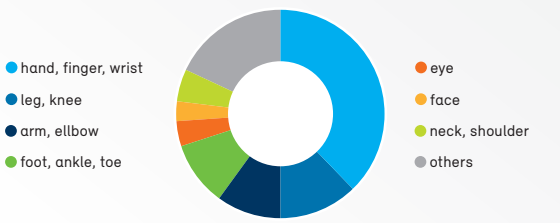
Fig. 35: "Need a hand?" poster rolled out in 14 languages as part of the Group-wide awareness campaign on hand and finger injuries

Analysis using Synergi showed that hands and fingers are the main body parts harmed in accidents. Borealis therefore launched a Group-wide awareness campaign in mid-2017, using all available communications channels (posters in 14 local languages, training sessions in toolbox trainings, screensaver). Impact gloves were introduced.

Slips, trips and falls still cause several TRI each year, despite Borealis running a number of health & safety campaigns over recent years. Although the nature of Borealis' business means there is high potential for exposure to chemicals, such incidents remain low.

The sick leave rate is another important occupational health indicator. The Borealis target of 3.2% or less is below the industry average in countries where the Group operates. Following a relatively poor performance in 2013, when the rate increased to 3.5%, Borealis introduced an expanded programme including more country-specific measures. This helped improve the rate to 3.3% in 2016 and stay at this level in 2017.

Part of the body harmed



Hand, finger, wrist	38%
Leg, knee	12%
Arm, ellbow	10%
Foot, ankle, toe	10%
Eye	4%
Face	3%
Neck, shoulder	5%
Others	18%

Fig. 34: Analysis of 1,049 injuries between 2015 and 2017

Process Safety

Borealis processes large quantities of flammable materials under high pressure and temperatures. In a worst-case scenario, leaks, fires or explosions could cause multiple fatalities, both inside and outside Borealis, as well as major environmental impacts. In turn, this could lead to substantial financial costs, serious reputational damage and even bankruptcy. Major incidents in the chemicals sector, which have included refinery fires and explosions at processing plants, demonstrate the need for continued vigilance in process safety.

The potential consequences of a serious incident mean that Borealis has a moral duty to invest in process safety and to properly design, maintain and operate its plants. As a member of the European Process Safety Centre, the Group also actively supports industry-wide efforts to enhance process safety.

Borealis has a dedicated Process Safety department which has developed tools that enhance risk identification. For example, an incident and fire severity rating tool ranks incidents as high, medium or low severity, or as a near miss. With these tools, every process safety incident is assessed, investigated and reviewed, and preventive actions are taken. The resulting actions are monitored at Group level.

The Process Safety Committee and Sub-Committees meet regularly to oversee Borealis' process safety performance and programme, steer the Group's process safety roadmap, review progress and provide guidance on priorities, key activities and performance measures.

› For more details, see the Governance section.

In 2015, Borealis introduced the Loss of Primary Containment Pyramid tool (see figure 36), which it further improved in 2017. A loss of primary containment is an unplanned or uncontrolled release of material from the device or container it is kept in. The tool supports the monitoring of incidents, and ensures they are investigated and that actions are completed in time, to prevent reoccurrence. The pyramid includes the performance of the safety critical processes designed to prevent incidents. This performance is measured using indicators such as the status of safety critical inspections, the testing of critical interlocks and the closure of actions.

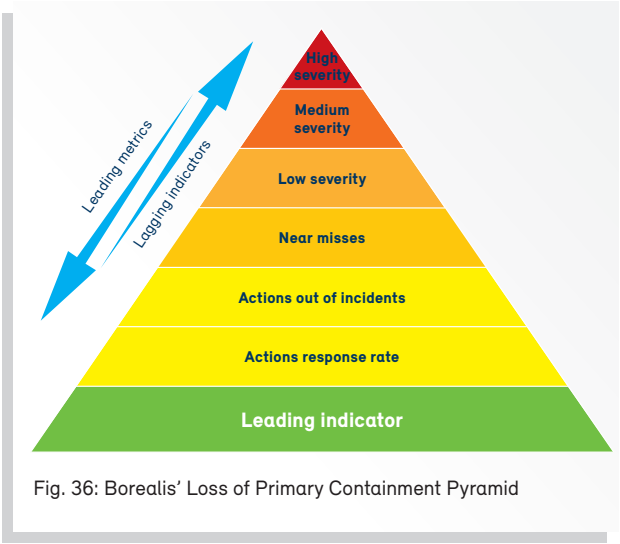


Fig. 36: Borealis' Loss of Primary Containment Pyramid

2017 Highlights

Safety Trainings

Borealis conducts process safety training and safety management courses throughout the Group. During 2017, Borealis organised two "Process Safety in Design" courses for engineers. In total, during 2015, 2016 and 2017, Borealis held 800 different sessions related to process safety, attended by approximately 1,000 employees.

Turnarounds to ensure asset integrity

In 2017, Borealis completed five turnarounds. The primary objective of a turnaround is to complete legal inspections to verify equipment integrity, thereby securing the plant's licence to operate. Turnarounds are also important for maintaining reliability and process safety, by overhauling equipment and carrying out repairs that are only possible when the plant is stopped. In addition, turnarounds are used to clean process equipment, replace catalysts and install equipment. Turnarounds take one to two months to complete and take place on a regular basis, with the frequency depending among other things on national legislation. In Polyolefins, for example, they occur every five to seven years.

In total, the turnarounds carried out in 2017 involved 600 different contractors who required thousands of safety training sessions. Turnarounds result in significant costs, with the five in 2017 incurring EUR 160 million in maintenance costs and a further EUR 160 million in capital expenditure.

Audits

During 2017, Borealis started its fourth cycle of safety audits for all plants. These audits are known as "Blue Audits" and they focus on operations, plant availability and engineering, environment, and health and safety. The Blue Audit scope has been extended and now also includes an audit on Operation Clean Sweep, a programme initiated to drive zero pellet loss from operations. In the current five-year audit cycle, all Borealis' acquisitions during the last few years in countries such as the Netherlands, France and Belgium were integrated into the audit process. Five Blue Audits were carried out in 2017, in Beringen (Belgium), Burghausen (Germany), Rosier (Belgium/The Netherlands), Grandpuits (France) and Geleen (The Netherlands). This represented 100% of the planned reviews for 2017 and covered 30% of all sites.

Goal Zero

To achieve its objective of recording zero accidents, in 2015 Borealis launched the Goal Zero programme, which is a key deliverable of the Group's sustainability strategy. As Borealis employees are encouraged to see Goal Zero as a journey to be taken together, the programme helps establish a collective health and safety mindset.

In addition, Borealis continued to roll out to all locations a standardised electronic work permit system, a standard alarm management tool and an electronic shift handbook. These systems enhance the risk assessment for performing a job in a petrochemical installation and identify all measures that need to be taken to complete the work safely.

Borealis also continued to review several critical process safety processes. These included the retrospective hazard review process which assesses the Group's installations based on all possible hazards. The assessments are completed every five years, as required by the Seveso directives.

Several critical safety processes were standardised in 2017 and minimum requirements were defined. These relate to physical isolation and "Lock Out Tag Out Test Out", a process that defines how to safely take out of service a certain technical part which needs maintenance, and how to put it back into service without triggering any process safety risks such as leaking gases.

2017 Performance

Borealis measures its process safety performance using two principal metrics:

- the number of reported low-, medium- and high-severity process safety incidents; and
- the process safety response rate, which is the percentage of corrective actions resulting from incident investigations that are completed within a defined time period.

Borealis is committed to ongoing reductions in the number of medium- and high-severity incidents and its ambition is Goal Zero. In 2017, the Group's target was therefore to have no high-severity incidents and a maximum of 16 medium-severity incidents, including fires. This represents a reduction of 20% against 2015, which was the start of Borealis' Goal Zero journey.

Borealis follows the recommendations of CEFIC and has developed a rating tool similar to the International standard API 754 (American Petroleum Institute). An incident is evaluated based on the hazard properties of the product, the quantity released, the location of the release (for example, into the atmosphere or through a safety system such as flare scrubbers), the volume that could have been released, how the preventive and mitigating barriers functioned, and the impact on people, planet and profit.

High-severity incidents are comparable to Tier 1 API 754 and include a large fire or explosion resulting in injuries or fatalities, and significant business loss and impact to the environment.

In 2017, one high-severity incident was reported. In Porvoo, Finland, a benzene tank overflowed into the sewer system, resulting in benzene entering the water treatment unit at the adjacent facility belonging to a neighbouring company and limiting access to its facilities due to excessive benzene emissions to the air from the basins of the water treatment unit. The incident and the recovery actions took place during a period of approximately two weeks. The spilled benzene was safely recovered and disposed. There was no substantial or permanent environmental impact, no one was hurt during the incident.

Medium-severity incidents are those resulting in a loss of containment, with medium consequences for people, planet and profit. This means limited possible injuries, easy to repair damage and a controllable environmental impact.

In 2017, 19 medium-severity incidents were reported. The incident with the highest rating in this category was a fire at Borealis' plant in Geleen. Due to internal corrosion, hexane leaked onto a pipeline with a heating medium, causing it to ignite and resulting in a small pool fire. The fast response of the emergency team limited the impact to the replacement of damaged electrical cables, but the incident resulted in a plant shut down of approximately seven weeks, with a corresponding loss of business.

Together, the incidents at Porvoo and Geleen cost Borealis several million Euros, further demonstrating the importance of process safety.

Low-severity incidents are those where substances are released but which result in a very low to zero impact.

In 2017, 735 low-severity process safety incidents were reported. As general process safety awareness increases due to Borealis' educational initiatives and campaigns, more low-severity incidents are being reported. Lessons learned from accidents are also being more actively shared throughout the Group.

Each incident is investigated and appropriate actions are defined, along with responsibilities and the due date for completion. The process safety response rate (PSRR) measures the number of actions closed against the number due to be closed, on a twelve-month rolling basis. In 2017, it remained the same at 97.9% (2017 target: 98%).

Taking into account the continued integration of newly acquired plants, maintaining this rate was a clear safety process achievement for Borealis. A total of 1,596 actions were implemented in response to high-, medium- and low severity incidents.

Issue	Definition	2017	2016	2015	2014	2013
Total Recordable Injuries (TRI)	number/million work hours	1.1	0.9	1.4	1.3	1.5
– TRI Borealis		0.9	0.8	1.0	0.9	1.4
– TRI Contractors		1.3	1.3	2.4	2.2	1.7
Fatalities		0	0	1	0	0
Sick leave rate[1]	% of total hours worked	3.3	3.3	3.2	3.1	3.5
Incident action completion rate	% of finalised action in due time	98.8	98.4	98	–	–
Response rate on process safety incidents	% actions completed on time	97.9	96.7	97.3	97	96
High severity incidents		1	0	0	0	1
Medium severity incidents		19	16	23	23	23

Definitions

Total Recordable Injuries (TRI): Accidents resulting in absence from work, the need to do a different type of work or any other case in which medical treatment is required. The frequency is calculated as the number of accidents per million working hours. Borealis' employees and contractors working on company premises are included in this calculation.

Sick leave rate: The sick leave rate indicates the amount of time employees were absent from work due to sickness or injury[1]. The overall sick leave rate is calculated as a percentage of the total number of planned working days in the current year.

Response rate of HSE incidents: Major or minor HSE incidents, near misses, unsafe acts and unsafe conditions that lead to, or can lead to, an accident of any kind are recorded, and decisions on actions for follow-up are made, establishing an approved case. Incident cases are closed once actions have been implemented. The response rate of HSE incidents is measured as the ratio (%) of approved and closed incident cases

Incident action completion rate: This monitoring parameter is focusing on action completion in due time. It is calculated on a monthly basis and is looking at the actions due in the past months for all incidents reported, regardless of their consequences, with a risk factor ≥8. The parameter represents the percentage of actions finalised in due time. The incident action completion rate includes all incidents reported on the incident management module including HSE, Quality and Operational incidents.

Response rate of process safety incidents: Process safety incidents of a certain severity or risk potential are recorded and investigated through root cause analysis. Corrective actions are defined to prevent re-occurrence. The response rate of process safety incidents is measured as the ratio (%) of corrective actions completed within a defined time period.

High-severity incidents: are incidents with significant consequences rated above 300 in Borealis' severity rating tool. No high-severity incidents were reported in 2016. There were also no high-severity spill incidents reported in 2016.

Medium-severity incidents: are those resulting in a loss of containment, with medium consequences towards people, planet and profit. There were 14 medium-severity incidents reported in 2016, a significant improvement on the 24 incidents in the previous year. This shows the clear effect of Borealis' intensive awareness campaign and the roll out of improved Process Safety processes. One example of a medium-severity incident was a pump failure in Kallo, Belgium. This resulted in the level of polyaromatic hydrocarbons in waste water being above the permitted thresholds. The authorities were notified immediately, the pump was repaired and additional preventive actions were agreed with the authorities, which are currently being implemented.

Low-severity incidents: are those with a release of substances but which result in a very low to zero impact, and which are rated below a severity factor of 130 in the Borealis rating severity tool. During 2016, 720 low-severity process safety incidents were reported. As general process safety awareness increases due to Borealis' educational initiatives and campaigns, more low-severity incidents are being reported. Accident learning is also being more actively shared throughout the Group.

Fig. 37: Health & Safety Performance Indicators

[1] Borealis' definition for sick leave rate differs slightly from the absentee rate defined by GRI ("absent from work because of incapacity of any kind, not just as the result of work-related injury or disease; excludes permitted leave absences such as holidays, study, maternity or paternity leave and compassionate leave")

Product Safety

Management approach

Chemical substances, or products containing them, can potentially pose certain risks to health, safety and the environment. These include negative health effects such as sensitisation, irritation or intoxication; physical hazards such as fires, explosions or exposure to dust; or environmental hazards such as bioaccumulation or persistence.

Borealis is committed to the principles of Responsible Care® and enforces high Product Stewardship standards, to ensure that its products do not pose a risk at any stage along the value chain. Borealis' Product Stewardship procedures cover the health, safety and environmental (HSE) aspects of a product throughout its lifecycle, from raw material sourcing, through the production process, conversion and use, to its recycling, recovery or disposal.

All new or changed products undergo mandatory HSE assessments and continuous monitoring, to ensure they are suitable for use in the countries where they are sold, and that they comply with all applicable legislation. This includes legislation on the evaluation and registration of chemicals, such as the Toxic Substances Control Act in the United States and REACH in the European Union. REACH is the European Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals. It is a comprehensive and stringent regulation on the production and use of chemical substances, and their potential impacts on both human health and the environment.

Other relevant legislation and regulations include the Globally Harmonised System (GHS) for the classification and labelling of hazardous chemicals, the Classification, Labelling and Packaging of substances and mixtures regulations (CLP) and, depending on use, any application-related legislation such as the EU framework regulation on food contact materials.

Borealis also closely monitors emerging legislative initiatives, so it can anticipate and take measures to maintain its products' legal compliance. According to the REACH principle of "no data equals no market", this is essential to sell any product worldwide. Borealis therefore incurs the significant costs of registration fees, data creation and external consultancy, to ensure compliance.

Controlling and approving raw materials

All incoming chemicals used in Borealis products are assessed using a sophisticated Incoming Material System before they are approved for use, initially by Group Product Stewardship (basic legal compliance) and additionally at each plant by local Product Stewardship (plant specific requirements and compliance with national or community related legislation). This system ensures that the procurement organisation does not purchase any substance before the Product Stewardship team has controlled and approved it. Once materials are approved for purchase, they are subject to Borealis' quality control to ensure they continue to comply with the agreed material properties.

All materials are documented, based on Borealis' knowledge of the exact composition of a raw material, or on detailed information about the material's hazardous constituents. Proper documentation of the raw materials used is a key element of high-quality Borealis product statements.

Borealis also regularly audits its raw material suppliers for compliance with, for example, their legal and hygiene requirements, with a special focus on new and strategic suppliers. The Group requires its suppliers to provide documentation for each raw material and to keep it up to date, including the information required by applicable national chemical inventory control laws, the CLP and REACH. This enables Borealis to issue the respective safety data sheets (SDSs) for its customers.

In addition to these measures, Borealis' production sites are subject to frequent external audits. For example:

- Sites that manufacture products with sensitive hygiene requirements are regularly audited by external expert organisations and customers. This includes products for use in drinking water, food contact, personal hygiene and medical applications, which represent about 50% of Borealis' polyolefin products.
- The fertilizer business is regularly inspected by local authorities. Every three years, Borealis must pass an external audit by Fertilizers Europe Product Stewardship, which covers the HSE and security aspects of the whole life cycle of fertilizers, from raw material to application.

– Urea feed grades are audited each year by the Feed Additives and Premixtures – Quality and Safety organisation.

Assessing chemical risks

The Group has adopted a hazardous chemicals strategy, which follows the precautionary principle of continuously assessing the risk potential of all substances used in Borealis products, to identify critical chemicals that need to be replaced by less hazardous alternatives or stopped. This includes all substances which were either already classified as substances of very high concern (SVHC) according to REACH and other comparable legislation around the world, or which fulfil the criteria to be considered as SVHC in the future. Examples include raw materials based on cadmium salts, polycyclic aromatic hydrocarbons or many poly-halogenated organic compounds.

This risk evaluation is done with the help of a tailor-made tool which ranks the substances according to their overall risk. The tool takes into account related HSE risk and regulatory aspects, evolving stakeholder concerns, the technical feasibility of substitution and the related financial consequences of doing so, such as the required innovation costs, approval costs and modifications to technical equipment.

Substances with the highest identified risk are further assessed by the Product Stewardship Committee, comprising members from business, innovation, ethics and operations.

› See more information in the Governance section.

Informing customers about product safety

Borealis provides information and support to its customers in a number of ways. These include documentation that covers REACH information, CLP classifications, and product information sheets which provide technical data such as physical properties and performance in application, recommendations for safe handling and storage, and specific guidance regarding product use.

Less than 10% of Borealis products have certain dangerous properties and therefore require a Safety Data Sheet (SDS). For all other products, Borealis issues a product safety information sheet (PSIS). After the full revision of all related SDSs and PSISs in 2015, to implement the revised GHS and CLP rules, Borealis now continually monitors the set of statements and keeps them up to date. All SDSs and PSISs are available to download on the Borealis website.

If product modifications could influence customers' safety or require additional testing of finished articles, Borealis informs customers or authorities in due time before it makes the modifications. Borealis also informs customers in advance when legislative changes have consequences for them.

In addition, Borealis offers training and education to customers. The Healthcare application segment is one of the most sensitive in terms of reliability, hygiene and product consistency. Sharing Borealis' expert product stewardship knowledge with value chain partners is therefore an important contribution to helping customers continuously meet the highest product quality standards. Borealis shares this knowledge via formal customer training sessions and through technical dialogues throughout the year. Borealis plants are also subject to regular customer audits.

In the Fertilizers area, Borealis offers education and awareness activities for farmers. This informs them about proper use of chemical fertilizers and how to avoid pollution of groundwater or soil.

Maintaining open and transparent communication

Open and transparent communication with stakeholders about the substances used in products is one of the cornerstones of Responsible Care®. Borealis takes this obligation very seriously. The Borealis website allows anyone to find information about the Borealis Banned Substances List, which contains more than 220 substances and substance groups that the Group has banned for use in its production processes and products. The website also includes examples of successful substitutions of hazardous chemicals and some position statements regarding "hot topics".

In 2017, eight new substances were added to the Borealis Banned Substances List, amongst others several cadmium salts and some perfluorinated compounds. In addition, azodicarbon-amide (ADCA), which is a respiratory sensitiser that could cause occupational asthma, was replaced with an alternative widely used in food, when Borealis launched the first ADCA free material solution for data cables in March 2017.

Borealis' representation in external expert groups

Borealis actively participates in industry associations and standardisation groups, to stay at the forefront of regulatory and public requirements. Borealis is a member of various chemical industry consortia and several European chemical industry council sector groups, including the Lower Olefins Sector Group, the Aromatics Producer Association, Fertilizers Europe and the European Melamine Producer Association. Borealis is also a member of Plastics Europe's working groups on food contact materials, and "European Drinking Water" on regulatory schemes for drinking water pipes and fittings.

Borealis is an active member of the REACH teams at CEFIC and PlasticsEurope and related national organisations. The Group works closely with its own experts, customers and suppliers, engages in experience exchange at REACH conferences and other activities, and assists small and medium-sized companies with meeting their REACH obligations.

Social Engagement

Businesses can only grow sustainably in a healthy environment and stable society. Borealis therefore considers investments in social welfare and development as a means to foster a stable society. In 2008, the Group established the Borealis Social Fund, which receives funding equal to a percentage of Borealis' profits. To increase the impact of its engagement and to align Borealis' corporate social responsibility (CSR) activities with its sustainability strategy, the Group has defined three areas of engagement:

1) **Education & Social Integration**, with the following focus:
   – nurturing interest in chemistry and science;
   – supporting the education system to meet future challenges; and
   – integrating marginalised, poor and underprivileged people.

2) **Water & Sanitation** (Water for the World), with the following focus:
   – providing access to safe water and sanitation;
   – supporting preservation of water resources; and
   – raising awareness and promoting best practices

3) **Waste & Resource Efficiency and Prevention of Marine Litter**, with the following focus:
   – supporting research and innovation;
   – improving waste management in emerging and developing countries, to prevent marine litter
   – raising awareness and encouraging behaviour change.

By selecting these three core areas, Borealis' CSR activities contribute to the following United Nations (UN) sustainable development goals (SDGs):

Education and Social Integration

Education

Young people's ideas, creativity and skills will determine the future of the economy and social development. Educational systems need to respond to this challenge and adopt a framework and practices that enable young people to develop the right skills. Stimulating enthusiasm for science and chemistry at an early age means that today's young and inquisitive minds will become tomorrow's leading scientists and innovators. Borealis therefore supports programmes that motivate children and young people to learn more about science and to consider a scientific career.

Borealis co-finances and provides technical expertise to experimental laboratories in the countries that are home to its Innovation Centres – Austria, Finland and

Sweden. The Johannes Kepler University (JKU) Open Lab in Linz, Austria, for example, is a hands-on laboratory for children and young adults, co-sponsored by Borealis and the province of Upper Austria. Guided by trained supervisors, young visitors can carry out experiments to experience and understand the exciting world of chemistry first-hand. During 2017, Borealis confirmed that it would continue this support and signed a new contract for the next five years. Borealis also supports the Molekylverkstan Science Centre in Stenungsund, Sweden, and the Gadolin Chemistry Lab in Helsinki, Finland.

"STaR" programme at the TGM school of technology in Vienna, Austria, sparks enthusiasm for science and technology among children and teens

For over 20 years, Borealis has supported the TGM plastics engineering programme. TGM is a Higher Technical Education Institute in Vienna, Austria, where students aged 14 and older receive a thorough education and training in seven different engineering subjects. This successful, long-term partnership involves financial support for term papers produced within the framework of the "diploma" programme for graduates. It also includes the annual Borealis Innovation Award ceremony which honours the most innovative graduates of each school year.

During 2017, Borealis and TGM began a new and expanded form of cooperation. The training and educational programme is called "Be a StaR", which stands for **S**cience, **T**echnology **a**nd **R**esearch. Targeted at children and teens aged eleven to 14, it aims to spark enthusiasm for technology and a spirit of discovery, and to stimulate interest in the natural sciences and technology. Students have the opportunity to take part in scientific workshops and are encouraged to explore on their own, by way of hands-on experiments in supervised environments. They can choose from a variety of workshop topics, such as testing recycling methods, inventing new dyes, or even cultivating their own slimes in test tubes. The exploratory and fun aspect of these exercises naturally encourages students to consider careers in technology-related fields. Six exciting work shops were held for school classes during the first academic year.

Emirates National School

Since 2002, the Emirates National School has offered world-class educational programmes, from day care centre through to grade twelve, to prepare students for post-secondary studies. Approximately 9,200 students were enrolled in the 2016–17 school year, at five campuses sharing a common curriculum. Borealis has supported the Emirates National School with funding for projects which support student learning. These projects included updating the school's science laboratories, which allowed the school to achieve IB Diploma Program Authorisation. This enables it to offer Standard and High Level classes in physics, biology, chemistry and environmental sciences, as well as College Board Advanced Placement classes in the same content areas. Borealis also sponsored the Model United Nations simulation programme for approximately 700 students in grade five to twelve, from different schools in Abu Dhabi.

StaR students at the TGM lab

Social Integration

The success of integration is largely dependent upon education and training, and therefore, within the refugee initiative of the same name, in 2017 Borealis and the Johannes Kepler University (JKU) in Linz, Austria, created and launched the "Borealis MORE" scholarship. The programme intends to close gaps where governmental support to asylum seekers is insufficient and shall enable applicants to commence or continue university studies in Austria. Scholarship allocations are dependent upon the fulfilment of various preconditions and the achievement of certain performance standards. During the university year 2017/18, twenty-three migrants will benefit from this financial aid.

In 2017, Borealis confirmed its continued long-term support to leading social organisations in the UAE, through the Borealis Social Fund:

Emirates Foundation
Founded in 2005 as an independent philanthropic organisation by the Government of the Emirate of Abu Dhabi, the Emirates Foundation seeks to improve the welfare of UAE youth. Working with partners from the private and public sector, it has developed and implemented a range of programmes and special projects for young people, aimed at promoting social inclusion, community engagement, leadership and empowerment.

One of its programmes is "Think Science". It aims to inspire, encourage and empower young people between the ages of 15 and 35 to study science and choose it as a career, in response to the UAE's demand for scientific talent. The programme has three interrelated layers: Competition, Ambassadors and Connect. Borealis has supported the Emirates Foundation through the Borealis Social Fund for many years and has hosted Think Science Ambassadors at the Borouge Innovation Centre in Abu Dhabi on more than one occasion. The Ambassadors were given an insight into the whole plastics value chain, including production, application segments and the plastics lifecycle. In November 2017, the Emirates Foundation invited strategic partners and Emirati youth to a special ceremony in Abu Dhabi. Borealis, among others, was honoured as a long-term partner and programme mentor for its instrumental role, guidance and support of the Foundation's mission to deliver impactful philanthropy.

Borealis was honoured as a long-term partner and programme mentor of the Emirates Foundation

Successful performance of Reem Al Blooshi – "Female speed skating team" – in Schladming

UAE Disabled Sports Federation
The UAE Disabled Sports Federation was established to promote better awareness of disabled people's needs and to encourage their active integration into society. The Federation supports athletes participating in a wide range of disciplines, who regularly compete in regional, national and international events. The athletes' achievements were rewarded when Abu Dhabi city won the right to host the Special Olympics World Games 2019, featuring 22 sports, including football, swimming, cycling, athletics, equestrian and powerlifting. In March 2017, the team took part in the 2017 Special Olympics in Styria, Austria, where Borealis representatives welcomed them and joined the final floor hockey game in Graz. The UAE team achieved 14 medals in total.

Water & Sanitation

Billions of people around the world lack access to clean water and adequate sanitation. Water for the World is a joint Borealis and Borouge initiative. It supports sustainable solutions for this global problem, by drawing on Borealis and Borouge's expertise and network of partners.

In 2017, the programme celebrated its tenth anniversary, having helped 800,000 people to access clean water and sanitation since its launch in 2007.

Providing access to safe and affordable drinking water for 50,000 people in Kenya

Innovative polyethylene (PE) pipes can play an important role in addressing the global water challenge. These pipes last three times longer than alternative low-quality pipes, suffer fewer breakages and need less maintenance. This means PE pipes are an excellent solution for avoiding water loss due to leakages and ensuring that residents receive clean water they can afford.

A two-year project to bring safe, affordable drinking water to more than 50,000 of the poorest residents in Nairobi, Kenya, was inaugurated in May 2017. The inauguration was attended by Philip Gichuki, Managing Director, Nairobi City Water & Sewerage Company, and Mr. Kimori, County Executive Committee Member for Water, Energy and Forestry at Nairobi City County. The initiative was co-funded by OFID (the OPEC Fund for International Development), the UK Government's Department for International Development and Borealis and Borouge through Water for the World. Water & Sanitation for the Urban Poor (WSUP) was responsible for implementation and project management.

The partners came together to improve drinking water supplies in Nairobi's Korogocho and Kahawa Soweto informal settlements. The initiative extended the existing network into the settlements, using high-quality PE pipes. This allowed pre-paid water dispensers to be installed, which are now providing water for as little as one tenth the price that consumers used to pay to water vendors.

Inauguration ceremony in Nairobi's Korogocho and Kahawa Soweto informal settlements

Based on the successful implementation of the project in Nairobi, Borealis has confirmed its continued support of WSUP for a planned follow-up project in the area of Maputo, Mozambique, to be started in 2018.

Making a life-changing difference for villagers in Malawi

To grow food, farmers need rainfall to water their crops. However, a severe drought in 2016 in Malawi resulted in a major food crisis in many parts of the country. With climate change further reducing

Polyethylene pipe drip irrigation installation in Malawi

Malawi's rainfall, the risk of future food shortages is rising. To address these problems, Malawian farmers are keen to adopt modern methods such as drip irrigation. These extremely water efficient PE pipe systems protect crops from drought and, combined with fertilizer, allow farmers to raise up to three harvests a year, instead of just one. But with national income per person of only USD 1 a day, the pumps, tanks and pipes required are too expensive. In response, Borealis is funding and organising an irrigation project in Chitomba, southern Malawi. This remote village is home to around 500 people, most of whom are subsistence farmers.

In an isolated area with little infrastructure, the system needs to be as simple, robust and as self-sufficient as possible. When complete, it will consist of two groundwater wells, pumps powered by solar energy made by photovoltaic (PV) panels using Borealis Quentys™ based on Borealis Visico encapsulant, and raised tanks to store water and feed the system, all connected by pipes using Borealis and Borouge PE materials.

The project will initially cover around two hectares, with an intention to extend it when the system proves successful.

Work in Malawi began in January 2017, when Borealis provided the first of two groundwater pumps manufactured by Grundfos. The project will contribute to breaking the cycle of poverty and lack of food and bring development to the people of Chitomba, by providing healthy nutrition, reducing sickness and allowing well-fed children to go to school.

Stopping the Tap on Ocean Plastics (Project STOP)

Marine Litter Prevention

The growing quantity of plastic leaking into the oceans has already reached a critical level, with more than 8 million tonnes entering every year. Ocean plastic leakage is a critical symptom of a linear take-make-dispose plastics packaging system. This costs the economy USD 80–120 billion annually through the lost material value and puts increasing pressure on the world's waste management systems.

Project STOP – Stopping the Tap on Ocean Plastics

In response, at the Our Ocean conference on 5–6 October 2017 in Malta, Borealis announced Project STOP (Stopping the Tap on Ocean Plastics). This is a EUR 4 million flagship initiative, jointly developed by Borealis and SYSTEMIQ, which aims to achieve zero plastic leakage to the environment, increased rates of plastic recycling, and social benefits for communities through improved public health and job creation.

During the summer of 2017, a feasibility and scoping study for the STOP project was carried out, followed by a waste characterisation study, a leakage assessment study and a household survey. The initiative will be driven and co-funded with local and global partners, and aims to launch a first city-partnership project in Indonesia in 2018.

Financial Report

Auditor's Report*

We draw attention to the fact that the English translation of this auditor's report according to Section 274 of the Austrian Commercial Code (UGB) is presented for the convenience of the reader only and that the German wording is the only legally binding version.

Report on the Consolidated Financial Statements

Audit Opinion

We have audited the consolidated financial statements of Borealis AG, Vienna, and its subsidiaries (the Group), which comprise the consolidated balance sheet as at 31 December 2017, the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated cash flow for the fiscal year then ended, and the notes to the consolidated financial statements.

In our opinion, the accompanying consolidated financial statements comply with legal requirements and give a true and fair view of the financial position of the Group as at 31 December 2017, and of its financial performance and cash flows for the year then ended in accordance with the International Financial Reporting Standards (IFRSs) as adopted by the EU and the additional requirements under Section 245a Austrian Commercial Code.

Basis for Opinion

We conducted our audit in accordance with Regulation (EU) No. 537/2014 (hereinafter EU Regulation) and Austrian generally accepted auditing standards. Those standards require the application of the International Standards on Auditing (ISAs). Our responsibilities under those provisions and 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 in accordance with Austrian Generally Accepted Accounting Principles and professional requirements and we have fulfilled our other 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 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 of the fiscal year. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

We have structured key audit matters as follows:
- Description
- Audit approach
- Reference to related disclosures

Tax litigations

Description

Several group companies of Borealis AG, Vienna, are currently subject to routine tax audits performed by their respective (national) tax authorities. In some of the audits, specific emphasis is put on business restructuring and transfer pricing. The most significant tax litigations relate to the reassessment of taxable income by the Finnish Tax Authorities (FTA) of:

- Borealis Technology OY, Finland, for 2008 and 2010. The reassessment decision results in an increased taxable income, leading to an additional requested payment in a total amount of EUR 297,000 thousand, consisting of additional income taxes, penalties and interests.
- Borealis Polymers OY, Finland, for 2009. According to the reassessment decision the taxable income increases by EUR 142,000 thousand, leading to an additional requested payment in a total amount of EUR 62,000 thousand, consisting of additional income taxes, penalties and interests.

The management of Borealis AG, Vienna, is of the opinion that the companies were and are in compliance with all applicable regulations. Given the preliminary nature of the proceedings, potential impacts, if any, cannot be currently reliably estimated.

Audit approach

We have discussed the individual legal matters with the internal tax department of Borealis AG, Vienna, and evaluated the information available so as to assess the likelihood of a negative outcome of the tax cases for the subsidiaries of Borealis AG, Vienna. In doing so, we have consulted with international transfer pricing experts within the PwC network. We have further confirmed the status of the cases with the legal representatives of Borealis AG, Vienna.

Our audit procedures included the assessment of the appropriateness of management's judgements and the appropriate accounting treatment in the consolidated financial statements as at 31 December 2017.

Reference to related disclosures

Management has disclosed this key audit matter under "9. Taxation" of the consolidated financial statements.

Responsibilities of Management and the Audit Committee for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted by the EU, and the additional requirements under Section 245a UGB, and 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 audit committee is responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the EU Regulation and with Austrian generally accepted auditing standards, which require the application of ISAs, will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with the EU Regulation and with Austrian generally accepted auditing standards, which require the application of ISAs, 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 risks 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, if such disclosures are inadequate, to modify our 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 achieves fair presentation.

– obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an 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 the audit committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the audit committee with a statement that we have complied with all 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 where applicable, related safeguards.

From the matters communicated with the audit committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on Other Legal and Regulatory Requirements

Comments on the Management Report for the Group
Pursuant to the Austrian Commercial Code, the management report for the Group is to be audited as to whether it is consistent with the consolidated financial statements and as to whether the management report for the Group was prepared in accordance with the applicable legal requirements.

Management is responsible for the preparation of the management report for the Group in accordance with the Austrian Commercial Code.

We conducted our audit in accordance with Austrian Standards on Auditing for the audit of the management report for the Group.

Opinion
In our opinion, the management report for the Group was prepared in accordance with the applicable legal requirements, includes accurate disclosures pursuant to Section 243a UGB and is consistent with the consolidated financial statements.

Statement
Based on the findings during the audit of the consolidated financial statements and due to the obtained understanding concerning the Group and its circumstances no material misstatements in the management report for the Group came to our attention.

Other information

Management is responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated financial statements, the management report for the Group and the auditor's report.

Our 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.

Additional Information in Accordance with Article 10 of the EU Regulation

We were appointed as auditor at the ordinary general meeting dated 23 February 2017. We were engaged by the supervisory board on 28 September 2017. We have audited the Group for an uninterrupted period since 2016.

We confirm that the audit opinion in the "Report on the Consolidated Financial Statements" section is consistent with the additional report to the audit committee referred to in Article 11 of the EU Regulation.

We declare that we did not provide any prohibited non-audit services (Article 5 (1) of the EU Regulation) and that we remained independent of the audited Group in conducting the audit.

Responsible Engagement Partner

Responsible for the proper performance of the engagement is Peter Pessenlehner, Austrian Certified Public Accountant.

Vienna, 15 February 2018

PwC Wirtschaftsprüfung GmbH

Peter Pessenlehner
Austrian Certified Public Accountant

* This report is a translation of the original report in German, which is solely valid. Publication and sharing with third parties of the consolidated financial statements together with our auditor's opinion is only allowed if the consolidated financial statements and the management report for the Group are identical with the German audited version. This audit opinion is only applicable to the German and complete consolidated financial statements with the management report for the Group. For deviating versions, the provisions of Section 281 (2) UGB apply.

Group Management Report

World-class safety performance

In 2017, Borealis reported a Total Recordable Injuries (TRI) frequency per million working hours of 1.1. While this rate is a slight deterioration versus the 0.9 posted in 2016, a TRI of less than two is considered world-class in the industry. In order to achieve the ultimate goal of zero accidents, Borealis took significant steps in 2017 to improve process safety and deliver an accident-free work environment for both employees and contractors. Borealis will continue to strive to reach this goal.

Very strong financial performance

Borealis achieved the second best financial result in its history in 2017, with a net profit of EUR 1,095 million, slightly below the record EUR 1,107 million in 2016. The result was driven by strong polyolefins margins. The base chemicals segment performed solidly, but contributed less in 2017 compared to the previous year. The improved Borouge contribution to the Borealis financial result, compared to 2016, was a further key element of the strong financial performance in 2017.

The Brent Crude oil price fluctuated from 45 to 67 USD/bbl in 2017, bottoming out around the middle of the year as oil markets reacted to oversupply and high inventory levels. Towards the end of 2017, the Brent Crude oil price rose, peaking at 67 USD/bbl, due in part to unusually cold weather in the US and China, as well as production interruptions in the North Sea and Libya. The annual average Brent Crude oil price of 55 USD/bbl in 2017 was up 22% from the average 45 USD/bbl in 2016. Feedstock price increases exceeded the upward development of the Brent Crude oil price. In contrast to higher feedstock prices, polyolefin prices showed only a moderate increase in 2017 versus 2016. Polyolefin prices peaked at the beginning of the second quarter of 2017, but fell in the second half of the year. In 2017, polyethylene prices averaged 2% lower compared to 2016, while polypropylene prices averaged 12% higher in 2017 than in 2016.

Borealis saw the sales volume of its European-produced polyolefins decrease by 1% in 2017, while the European polyolefins market continued its growth at 2% compared to 2016. The market share of 13% in 2017 was slightly lower than the previous year's 14%. Fertilizer sales volumes decreased by 9% in 2017 compared to 2016. Despite the lower fertilizer sales volumes, the European market share remained unchanged at 7% in 2017.

In 2017, polyolefin industry margins started to retreat from the record levels reached in 2016, but remained healthy. Despite year-on-year increased feedstock costs, polyolefin prices showed a moderate increase in 2017 versus 2016. As a result, olefin and polyolefin industry margins declined versus last year. The profit contribution delivered from the polyolefins business segment was strong, but lower compared to last year.

In fertilizer, global oversupply and depressed prices throughout 2017 kept industry margins low; overall, margins were down slightly from 2016. Calcium Ammonium Nitrate (CAN) fertilizer sales prices hit a low in the third quarter of 2017, but rebounded towards the end of the year. Lower production volumes and lower price realisation further impacted the Borealis fertilizer business result, leading to a 2017 performance below expectations.

Return on capital employed (ROCE) after tax of 15% in 2017 remained substantially above the company's target of 11% through the cycle and was only 1 percentage point below 2016. This decrease reflects the slightly lower business result combined with an increased average capital employed, the latter driven by a high level of investment in growth projects and turnarounds in 2017. The completion of ongoing investment programmes, as well as the focus on operational and commercial excellence, will enable Borealis to continue to realise the targeted ROCE level of 11% through the cycle.

In 2017, Borealis net debt increased by EUR 140 million. This resulted in a gearing ratio of 12% at the end of 2017, compared to 10% at the end of 2016. This gearing level is below the target gearing of 40–60%. Borealis benefits from a well-diversified financing portfolio and a balanced maturity profile. Going forward, the company will maintain access to a wide range of funding options, including capital markets and bank funding as well as private placements.

Continuing the journey of sustainable global growth

Borealis continued to pursue a new phase of growth and global outreach. To ensure the successful execution of major growth projects, Philippe Roodhooft joined

the Executive Board as Executive Vice President Middle East & Growth Projects in November 2017.

In March 2017, Borealis and NOVA Chemicals signed an agreement to form a joint venture with Total.

Key aspects of the joint venture include building a new 1,000 kilotonne per annum (ktpa) ethane cracker in Port Arthur, Texas, and a new 625 ktpa Borstar® polyethylene (PE) plant in Bayport, Texas. Ownership and operation of Total's existing Bayport polyethylene facility, with a total capacity of 400 ktpa, is also included in the agreement. The start-up of both ethane cracker and Borstar PE plant is scheduled for late 2020. The joint venture will create significant synergies by enabling both a strong integration of the value chain as well as the first-time use of the proprietary Borstar PE process technology in the Americas. It will also provide competitive export access to markets outside of North America, and help meet the growing global demand for polyethylene.

Demonstrating its ongoing commitment to the global automotive industry, Borealis announced its decision to build a dedicated automotive polypropylene compounding plant in North Carolina, US. The new facility will help secure the position of Borealis as a local supplier to automotive OEMs and their Tier partners in North America. It will also bolster the strong position of both Borealis and Borouge in Europe, Brazil and China. The plant is scheduled to become commercially operational in early 2019 and will complement the existing Borealis Automotive compounding assets located in New Jersey, US, as well as the current production via tolling partners.

In September 2017, Borealis announced that it is moving into the front end engineering and design (FEED) phase for a new, world-scale propane dehydrogenation (PDH) plant, after successfully concluding the pre-FEED phase. Initial plans call for the facility to be located at the existing Borealis production site in Kallo, Belgium. The final investment decision is expected to be taken in the third quarter of 2018, with plant start-up anticipated for the beginning of 2022. The PDH plant is to have a targeted annual production capacity of 740 ktpa, making it one of the largest and most efficient facilities in the world. This investment is meant to make good on Borealis' long-term commitment to be the innovative polypropylene and propylene supplier which meets customer needs today, and in future.

Borealis is studying the feasibility of significantly increasing the capacity of its polypropylene (PP) plants in Europe in order to take full advantage of additional propylene supply from the new planned Borealis PDH plant in Kallo, Belgium. The feasibility study is evaluating a series of capacity increases through the debottlenecking of existing European PP assets, and initially targets the three PP plants operated by Borealis in Belgium. Final investment decisions are expected to be taken towards the end of 2018, with capacity increases coming on stream from the first quarter of 2020 to early 2022. The envisaged total capacity increase will be in the range of a new, world-scale PP plant.

Strengthening European assets

The solid Borealis foundation of European assets was further strengthened by a continuous focus within the organisation on achieving excellence in every aspect of Borealis' operations. Important steps were taken to further improve asset efficiency and reliability by way of investments, training, and knowledge sharing across locations. Further work is required to reach the desired level of reliability, especially in the fertilizer segment.

In 2017, Borealis successfully completed the largest number of turnarounds ever undertaken within one year: at Kallo, Belgium, Geleen, the Netherlands, Grandpuits, France, Schwechat, Austria, and Porvoo, Finland. Successful turnarounds are essential to ensure the safe, reliable and competitive operation of Borealis' assets in future. The five completed turnarounds were vital in order to secure and increase asset reliability and process safety by overhauling equipment and carrying out necessary repairs. While three of the turnarounds were free of TRIs, four turnaround-related TRIs were recorded in total over the course of the year.

Further investments in Borouge

In July 2017, the Abu Dhabi National Oil Company (ADNOC) and Borealis agreed to extend and expand Borouge's downstream petrochemicals business in Ruwais, UAE, by advancing two key projects. Under this framework agreement, Borouge will move to the pre-FEED stage for the construction of the Borouge 4 complex, which encompasses a world-scale, mixed feedstock cracker using existing feedstock available in Abu Dhabi, and downstream derivatives units for both polyolefin and non-polyolefin products. The proposed Borouge 4 complex will be integrated with ADNOC Refining's refinery and is scheduled to come on stream around 2023. The companies also simultaneously agreed to commence engineering, procurement and construction (EPC) tendering for an additional polypropylene plant (PP5) based on the

proprietary Borealis Borstar® technology. The plant will add value to the surplus propylene available from ADNOC Refining's new PDH unit.

Commitment to R&D and innovation

Borealis' commitment to innovation is firm. Over 500 employees work in the R&D organisation, which includes the Innovation Headquarters in Linz, Austria, and two Innovation Centres in Stenungsund, Sweden, and Porvoo, Finland. The Borealis Open Innovation ecosystem means that research efforts support innovation in all Borealis business areas and groups, and projects are conducted in close collaboration with key customers and numerous other partners.

In April 2017, Borealis and Borouge announced a new world record of 640 kilovolt (kV) for extruded high voltage direct current (HVDC) cable technology. As a global leading innovator, Borealis builds on over 15 years of operational experience in extruded HVDC materials and on its proprietary Borlink™ technology to set ever higher standards in proven system performance. This new step-change in electrical performance and record-breaking voltage level has been made possible through the unique properties of tailored polymers based on Borlink, in combination with the high levels of chemical and physical cleanliness of these compounds.

The new solar umbrella brand, Quentys™, will help exploit the full potential of solar energy by making solar applications more affordable, reliable, and durable. It was launched by Borealis and Borouge in May 2017. Borealis and Borouge are leveraging their decades of experience in the energy sector and forming new strategic partnerships along the entire solar value chain in order to deliver step-change innovations to the market.

In October 2017, Borealis and Borouge launched Anteo™, a new family of linear low density polyethylene (LLDPE) packaging grades for the global packaging market. Anteo delivers easy processability at lower extruder pressure, better sealing integrity, and improved puncture resistance in combination with strong optics for enhanced shelf appeal. As a major breakthrough in polymer design enabled by the Borealis Borstar® Bimodal Terpolymer (BBT) Technology, the Anteo portfolio now completes the full solution offer for high performance, multilayer flexible packaging applications for the global market. Anteo is produced by Borouge at the Ruwais facility.

Improving energy efficiency

Borealis is committed to reducing its environmental footprint by lowering CO_2 emissions and increasing energy efficiency. Improving energy efficiency is the most effective way of reducing the company's direct carbon footprint, as well as cutting the company's energy costs. In 2014, Borealis established its ambitious Energy Roadmap, which highlights the key focus areas for Borealis until 2020–2021. The programme has identified, among other areas, the optimisation of equipment and process operations, technology changes, and site optimisation as the elements for success.

To sustain its energy step-change efforts, Borealis has initiated a Group-wide certification to ISO 9001 and ISO 14001, covering nearly all locations. Energy is an integral part of the environmental management system. To further strengthen its energy management, Borealis started to certify all its European entities in accordance with ISO 50001 in 2015. Plants that process raw materials for the automotive industry are also certified and regularly audited to ISO/TS 16949. The full list of certificates can be found on the Borealis website.

Changes to the Supervisory Board

Effective as of 14 April 2017, Musabbeh Al Kaabi, CEO of Petroleum & Petrochemicals platform, Mubadala Investment Company, and Khalifa Al Suwaidi, Executive Director of Refining and Petrochemicals within the Petroleum & Petrochemicals platform, Mubadala Investment Company, were appointed as Supervisory Board members. Musabbeh Al Kaabi and Khalifa Al Suwaidi succeeded Murtadha Al Hashmi and Rashed Saud Al Shamsi.

The 2017 People Survey

The Borealis People Survey is a very important vehicle for employee feedback. Among other things, it measures levels of employee engagement, and compares these to other companies in the chemical sector and beyond.

The survey questionnaire was overhauled completely in 2016 to include fewer questions and an improved response scale. The response rate to the new and improved 2017 survey, which was sent to employees in the fall of 2017, was 83%. This rate is excellent and a slight improvement over the previous survey cycle.

The "People Actions" derived from survey results are being developed in the first quarter of 2018 in the respective Business Groups and locations, and will be evaluated in 2018 by way of the People KPI in the Borealis Group scorecard.

Outlook to 2018

Management expects 2018 to be another good year for Borealis. Despite less favourable market conditions expected in polyolefins compared to 2017, Borealis is well positioned for the future thanks to the preparations taken in the past few years. Improvements in operational reliability and the establishment of a commercial and operational excellence mindset are embedded in the organisation. The committed investments in 2018 and beyond will further strengthen the three Borealis profit centres Polyolefins, Base Chemicals, and Borouge.

Driven by an improvement in market conditions and a targeted enhanced operational and commercial performance, the contribution from the fertilizer business is expected to improve. Significant new polyolefin capacity coming on stream in North America will result in increased exports into Europe. With European polyolefin prices coming under pressure, a declining contribution from the polyolefin business is expected. The profit contribution from Borouge to Borealis is expected to remain at the same level as in 2017.

Borealis' management believes that the company is in a strong position to take advantage of the opportunities that the current economic and market environments provide by maintaining their commitment to being the leading provider of chemical and innovative plastic solutions that create value for society.

Review of results

Sales

The European polyolefins industry saw an increase in total sales volumes of 2% in 2017, compared to a 1% increase in 2016. Borealis sold 3.6 million tonnes of polyolefins in 2017, a 2% decline versus 2016. Fertilizer sales reached 4.2 million tonnes, a decrease of 0.4 million tonnes versus 2016. Melamine sales volumes were 140 kilotonnes in 2017, unchanged from 2016.

Cost development

With the higher feedstock price environment the production costs increased in 2017 compared to 2016, despite overall lower sales volumes. Sales and distribution costs of EUR 673 million in 2017 increased from EUR 653 million in 2016; administration costs decreased by 4% to EUR 220 million. Research and development costs amounted to EUR 138 million in 2017, an increase of EUR 24 million from 2016. The number of full-time equivalent employees (FTE) as per year end 2017 was 6,619, an increase of 125 compared to last year.

Operating profit

Operating profit amounted to EUR 791 million compared to EUR 938 million in 2016. The decrease is due to lower contributions from both the Polyolefins and the Base Chemicals business segments compared to 2016.

Return on capital employed (ROCE)

The return on capital employed after tax decreased to 15%, compared to 16% in 2016, mainly as a result of the reduced operating profit.

Financial income and expenses

Net financial expenses amounted to EUR 66 million, a decrease from EUR 77 million in 2016, mainly due to lower interest expenses to finance institutions compared to 2016.

Taxes

Income taxes amounted to EUR 173 million, a decrease of EUR 68 million from tax charges of EUR 241 million in 2016. The reduced overall tax charge in 2017 was mainly due to a lower operating profit and the capitalisation of previously unrecognized tax losses due to improved profitability forecasts. Borealis paid income taxes in the amount of EUR 260 million in 2017, compared with EUR 82 million in 2016.

Net profit and distribution of dividend

The net profit for the year amounted to EUR 1,095 million, compared to a net profit of EUR 1,107 million in 2016. During 2017, Borealis distributed a dividend of EUR 750 million to its shareholders and EUR 1 million to non-controlling interest.

Financial position

Total assets/capital employed

At year-end, total assets and capital employed stood at EUR 9,395 and EUR 7,401 million, respectively, compared to EUR 9,932 and EUR 7,927 million at the end of 2016.

The solvency ratio was 66% at year-end 2017, compared to 64% at year-end 2016. The gearing ratio increased to 12% at year-end 2017, compared to 10% in 2016, as a result of the increased net debt and a decreased total equity.

Cash flows and liquidity reserves

Cash flow from operations was EUR 725 million, driven by solid operating profitability. Liquidity reserves, composed of undrawn, long-term committed credit facilities and cash balances, amounted to EUR 1,395 million at year-end 2017, compared to EUR 1,928 million at year-end 2016.

Net interest-bearing debt increased to EUR 790 million at year-end, up from EUR 651 million at the end of 2016. The change in net interest-bearing debt is analysed in the following table.

EUR million	2017	2016
Change of net interest-bearing debt		
Cash flow provided by operating activities	725	1,145
Capital expenditure	-505	-384
Acquisitions of and investments in other financial investments	-14	-2
Advanced payments for investments into associated companies and joint ventures	-72	0
Capital contributions to and financing of associated companies and joint ventures	-12	-6
Dividends/capital repayments of associated companies	479	144
Acquisition of subsidiaries net of cash	-12	-18
Other (mainly relating to foreign exchange differences)	22	-9
Dividends paid to equity holders and non-controlling interest	-751	-425
Total decrease/increase	**-140**	**445**

Capital expenditure

Investments in tangible fixed assets amounted to EUR 453 million in 2017, compared to EUR 333 million in 2016. The largest portion of the total investment relates to the upgrade and revamp of four cracker furnaces in Stenungsund, the upgrade of the steam cracker in Porvoo, the construction of a LPG cavern in Porvoo, and the site turnarounds in five locations.

HSE capital expenditure amounted to EUR 27 million, compared to EUR 20 million in 2016. Depreciation and amortisation amounted to EUR 393 million, compared to EUR 400 million in 2016.

Shareholders' equity

The shareholders' equity at year-end 2017 was EUR 6,365 million.

EUR million	2017	2016
Equity development		
Net result attributable to the parent	1,095	1,109
Exchange and fair value adjustment (net)	-475	115
Gross increase/decrease	619	1,224
Dividend paid	-750	-425
Contribution by shareholders	0	0
Net increase/decrease	-131	799
Opening equity	6,496	5,697
Ending equity	**6,365**	**6,496**

Risk

Borealis has a documented risk management process that ensures that all parts of the Group routinely identify and assess their risks and develop and implement appropriate mitigation actions. The company's overall risk landscape is periodically consolidated, reported and reviewed. Borealis distinguishes between strategic and operational risks.

Strategic risks are risks that may severely impact Borealis' strategy or reputation. In most cases, strategic risks are related to unfavourable long-term developments, such as market or industry developments, a change in the competitive environment, or a threat to the reputation of the Group.

Operational risks usually refer to unfavourable and unexpected short-term or mid-term developments, and include all risks that may have a direct impact on the Group's daily business operations. All operating risks are assessed according to documented guidelines and procedures that are administered by the respective business functions. The list below reflects some of the company's operational risks, but is not exhaustive:

Financial risks can be associated with liquidity, interest rate, foreign exchange rate, credit, commodity price, and insurance. The assessment of financial risk management is described in detail in note 16 of the consolidated financial statement. The Director Treasury & Funding and the General Counsel shall be responsible for reporting and for coordinating the management of all financial risks.

Health Safety and Environment risks are assessed according to the procedures and framework described in the Borealis Risk-Based Inspection Manual. The Director HSE shall be responsible for managing all HSE-related risks and shall report Borealis' HSE risk landscape periodically to the Executive Board.

Project related risks are assessed in Borealis' project approval process. The applicable key risks related to an individual project, including financial, market, technical, legal, patent infringement, strategic, operational, country risk, and political factors, are assessed. The risk assessment shall also reflect the probability that the project will be completed within the estimated time frame and with the estimated resource requirements as well as the probability that the key project objectives will be achieved. Project-related risks shall be managed by the Project Manager and reported to the Project Steering Committee.

Information security risk relates to confidentiality, integrity and availability of critical company information. The Director IT and the General Counsel support line managers with the assessment of information security risk and the development and implementation of risk mitigation actions.

The Executive Board periodically reviews the Group's key risks, defines the Group's risk tolerance levels, monitors the implementation of mitigation actions and reports the key risks and mitigation steps to the Supervisory Board. The Executive Board safeguards the integration of the risk assessment into the strategic planning.

The Supervisory Board is responsible for reviewing the effectiveness of Borealis' risk management practices and processes, the risk tolerance levels, the risk exposure of the Group, and the effectiveness of mitigation actions. The Supervisory Board delegates some of these responsibilities to the Audit Committee, which is a sub-committee of the Supervisory Board.

All Borealis employees shall be responsible for managing risk, within their authority, in their field of work to ensure that risk management is properly embedded in the organisation and is reflected in the day-to-day decision-making process.

		2017	2016	2015	2014
Health, Safety & Environment					
Total Recordable Injuries	number/million workhours	1.1	0.9	1.4	1.3
EU ETS CO_2 emissions	kilotonnes	4,210	4,600	4,270	4,250
Number of employees (Full-time equivalent)		6,619	6,494	6,266	6,290
Income and profitability					
Net sales	EUR million	7,564	7,218	7,700	8,330
Operating profit	EUR million	791	938	718	280
Operating profit as percentage of net sales	%	10	13	9	3
Net profit	EUR million	1,095	1,107	988	571
Return on capital employed, net after tax	%	15	16	15	10
Cash flow and investments					
Cash flow from operating activities	EUR million	725	1,145	1,103	428
Investments in tangible fixed assets	EUR million	453	333	336	370
Financial position					
Net interest-bearing debt	EUR million	790	651	1,096	1,798
Equity attributable to owners of the parent	EUR million	6,365	6,496	5,697	4,511
Gearing	%	12	10	19	40

Definitions

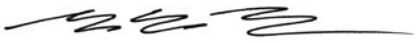
Capital employed	=	Total assets less non-interest-bearing debt
Return on capital employed	=	Operating profit, profit and loss from sale of operations, net result in associated companies plus interest income, after imputed tax, divided by average capital employed
Solvency ratio	=	Total equity less goodwill divided by total assets
Gearing ratio	=	Interest-bearing debt, including subordinated loans, less cash and cash equivalents divided by total equity
HSE	=	Health, Safety and Environment

Vienna, 15 February 2018

Executive Board:

Mark Garrett
Chief Executive

Mark Tonkens
Chief Financial Officer



Markku Korvenranta

Martijn Arjen van Koten

Philippe Roodhooft

Alfred Stern

Consolidated Financial Statements

Consolidated Income Statement

EUR thousand	2017	2016	Note
Net sales	**7,564,335**	**7,217,576**	1
Production costs	-5,750,863	-5,286,107	5, 12, 13
Gross profit	**1,813,472**	**1,931,469**	
Sales and distribution costs	-672,969	-652,650	5, 12, 13
Administration costs	-219,609	-229,870	5, 12, 13
R&D costs	-138,360	-114,303	2, 5, 12, 13
Other income	8,147	3,561	29
Operating profit	**790,681**	**938,207**	
Net results in associated companies and joint ventures after tax	542,985	487,347	7
Financial income	8,972	8,893	17
Financial expenses	-74,720	-86,368	17
Profit before taxation	**1,267,918**	**1,348,079**	
Taxes on income	-172,823	-240,694	9
Net profit for the year	**1,095,095**	**1,107,385**	
Attributable to:			
Non-controlling interest	426	-1,615	
Equity holders of the parent	1,094,669	1,109,000	

Consolidated Statement of Comprehensive Income

EUR thousand	2017	2016	Note
Net profit for the year	**1,095,095**	**1,107,385**	
Items that may be reclassified subsequently to the income statement			
Net gain/loss on translation of financial statements of foreign operations	-479,326	132,632	
Reclassifications during the period to the income statement	0	0	
Tax effect recognised in other comprehensive income	0	0	
Net gain/loss on long-term loans to foreign operations	-699	-2,275	18
Reclassifications during the period to the income statement	0	0	18
Tax effect recognised in other comprehensive income	175	569	
Net gain/loss on loans and financial contracts to hedge investments in foreign operations	14,779	-11,250	18
Reclassifications during the period to the income statement	0	0	18
Tax effect recognised in other comprehensive income	-8,745	2,813	
Fair value adjustments of cash flow hedges	41,667	53,789	18
Reclassifications during the period to the income statement	-10,917	5,063	18
Tax effect recognised in other comprehensive income	-4,070	-14,713	
Fair value adjustments of available for sale financial assets	-294	166	18
Reclassifications during the period to the income statement	0	0	18
Tax effect recognised in other comprehensive income	74	-42	
Items that will not be reclassified to the income statement			
Actuarial gains and losses	-27,840	-70,988	13
Tax effect recognised in other comprehensive income	-1,320	20,682	
Net income/expense recognised in other comprehensive income	**-476,516**	**116,446**	
Total comprehensive income	**618,579**	**1,223,831**	
Attributable to:			
Non-controlling interest	-849	125	
Equity holders of the parent	619,428	1,223,706	

Consolidated Balance Sheet

EUR thousand	31.12.2017	31.12.2016	Note
Assets			
Non-current assets			
Intangible assets	386,369	374,964	2, 3
Tangible assets			4
Production plants	2,651,411	2,536,914	
Machinery and equipment	31,504	30,647	
Construction in progress	236,518	270,449	
	2,919,433	2,838,010	
Investments in associated companies and joint ventures	3,398,341	3,772,758	7
Other investments	35,985	24,400	8, 27
Other receivables and other assets	45,736	35,579	8, 26, 27
Deferred tax assets	54,622	57,586	9
Total non-current assets	**6,840,486**	**7,103,297**	
Current assets			
Inventories	1,160,421	1,048,980	10
Receivables			
Trade receivables	574,021	541,066	25, 26, 27
Receivables from associated companies	76,242	80,205	26, 27, 30
Income taxes	17,831	21,300	
Other receivables and other assets	496,812	374,463	26, 27
Total receivables and other assets	1,164,906	1,017,034	
Cash and cash equivalents	229,062	762,421	
Total current assets	**2,554,389**	**2,828,435**	
Total assets	**9,394,875**	**9,931,732**	

Consolidated Balance Sheet

EUR thousand	31.12.2017	31.12.2016	Note
Total Equity and Liabilities			
Shareholders' equity			
Share capital and contributions by shareholders	1,599,397	1,599,397	11
Reserves	-92,472	382,769	
Retained earnings	4,858,157	4,513,488	
Shareholders' equity	6,365,082	6,495,654	
Non-controlling interest	16,825	18,704	
Total equity	**6,381,907**	**6,514,358**	
Liabilities			
Non-current liabilities			
Loans and borrowings	844,228	1,045,189	19, 20, 27
Deferred tax liabilities	198,842	189,889	9
Employee benefits	444,459	420,275	13
Provisions	65,465	58,552	14
Government grants	12,702	16,378	15
Other liabilities	16,464	17,761	20, 27
Non-current liabilities	**1,582,160**	**1,748,044**	
Current liabilities			
Loans and borrowings	174,936	367,811	19, 20, 27
Trade payables	797,849	722,262	20, 27, 30
Income taxes	81,083	169,673	
Provisions	3,572	7,708	14
Other liabilities	373,368	401,876	20, 27
Current liabilities	**1,430,808**	**1,669,330**	
Total liabilities	**3,012,968**	**3,417,374**	
Total equity and liabilities	**9,394,875**	**9,931,732**	

Consolidated Statement of Changes in Equity

EUR thousand	Share capital* and contributions by share-holders	Reserve for actuarial gains/losses recognised in equity	Hedging reserve	Reserve for unrealised exchange gains/losses and other**	Retained earnings	Total attributable to the equity holders of the parent	Non-controlling interest	Total equity
Balance as of 31 December 2015	**1,599,397**	**-140,366**	**-45,110**	**453,539**	**3,829,488**	**5,696,948**	**18,579**	**5,715,527**
Net profit for the year	0	0	0	0	1,109,000	**1,109,000**	-1,615	**1,107,385**
Other comprehensive income	0	-50,306	44,139	120,873	0	**114,706**	1,740	**116,446**
Total comprehensive income	0	-50,306	44,139	120,873	1,109,000	**1,223,706**	125	**1,223,831**
Dividend payments	0	0	0	0	-425,000	**-425,000**	0	**-425,000**
Balance as of 31 December 2016	**1,599,397**	**-190,672**	**-971**	**574,412**	**4,513,488**	**6,495,654**	**18,704**	**6,514,358**
Net profit for the year	0	0	0	0	1,094,669	**1,094,669**	426	**1,095,095**
Other comprehensive income	0	-29,160	26,680	-472,761	0	**-475,241**	-1,275	**-476,516**
Total comprehensive income	0	-29,160	26,680	-472,761	1,094,669	**619,428**	-849	**618,579**
Dividend payments	0	0	0	0	-750,000	**-750,000**	-1,030	**-751,030**
Balance as of 31 December 2017	**1,599,397**	**-219,832**	**25,709**	**101,651**	**4,858,157**	**6,365,082**	**16,825**	**6,381,907**

* Share capital of Borealis AG (parent company) amounts to EUR 300,000.00 (EUR 300,000.00)
** Reserves for unrealised exchange gains/losses and other include reserves relating to available for sale financial assets

Consolidated Cash Flow

EUR thousand	2017	2016	Note
Cash flows from operating activities			
Payments from customers	7,527,857	7,212,846	
Payments to employees and suppliers	-6,473,275	-5,905,647	
Interest received	1,057	1,302	17
Interest paid	-41,730	-56,919	17
Other financial expenses paid	-29,114	-24,305	17
Income taxes paid	-259,666	-81,779	9
	725,129	**1,145,498**	
Cash flows from investing activities			
Investments in tangible assets	-453,171	-333,090	4
Investments in intangible assets	-51,816	-50,459	3, 8
Advanced payments for investments into associated companies and joint ventures	-72,242	0	
Acquisitions of subsidiaries net of cash	-11,767	-18,272	6
Earn-out payments	-3,340	0	6
Acquisitions of and investments in other financial investments	-14,378	-1,796	
Dividends / capital repayments of associated companies	478,561	144,003	7
Capital contributions to and financing of associated companies and joint ventures	-12,546	-5,802	7
Proceeds from sale of tangible assets	0	2,250	
	-140,699	**-263,166**	
Cash flows from financing activities			
Non-current loans obtained	729	5,716	19
Current loans obtained	130,810	0	
Current loans repaid	-497,137	-249,336	19
Dividends paid to equity holders of the parent	-750,000	-425,000	
Dividends paid to non-controlling interest	-1,030	0	
	-1,116,628	**-668,620**	
Net cash flow of the period	**-532,198**	**213,712**	
Cash and cash equivalents as of 1 January	762,421	547,938	
Effect of exchange rate fluctuations on cash held	-1,161	771	
Cash and cash equivalents as of 31 December	**229,062**	**762,421**	

Notes to the Consolidated Financial Statements

Reporting entity
Borealis AG (the Company or Group) is a company domiciled in Austria. The address of the Company's registered office is Wagramer Strasse 17–19, 1220 Vienna, Austria. Borealis is a leading provider of chemical and innovative plastics solutions.

In the Polyolefins segment Borealis focuses on the application areas Energy, Automotive, Consumer Products, Pipe, New Business Development and Circular Economy Solutions.

Base Chemicals is the second segment and includes the following product ranges: melamine, phenol, acetone, ethylene, propylene, fertilizer and technical nitrogen.

Statement of compliance
The consolidated financial statements have been prepared in compliance with International Financial Reporting Standards issued by the IASB as adopted by the EU and additional Austrian disclosure requirements. The consolidated financial statements were authorised for issue by the Executive Board on 15 February 2018.

Basis of preparation

The consolidated financial statements are presented in Thousand Euro (EUR), rounded to the nearest thousand, hence rounding differences may arise. The consolidated financial statements are prepared on the historical cost basis except for the following assets and liabilities, which are stated at their fair value: derivative financial instruments, available for sale financial assets and investments held for trading. Recognised assets and liabilities that are hedged are stated at fair value in respect of the risk that is being hedged.

Consolidation principles
The consolidated financial statements include the financial statements of Borealis AG, the parent company, and all the companies over which it has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Companies in which the Group has significant influence (interest of 20% or more) but no control nor joint control are considered associated companies. A joint venture is a type of joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint venture. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

The consolidated financial statements are based on audited financial statements of the parent company and of each individual subsidiary. The consolidated financial statements have all been prepared in accordance with the Group's accounting policies. Items of a similar nature have been combined. Intra-group transactions (revenues and costs), unrealised intra-group profits, internal shareholdings, and intra-group balances have been eliminated.

Acquired subsidiaries, associated companies and joint ventures are included in the consolidated financial statements from the date of control or significant influence, respectively, and until control or significant influence ceases. A revaluation of the acquired net assets is made at the date of acquisition. Any remaining positive difference between the fair value of the assets and liabilities and the purchase consideration is capitalised as goodwill and subject to an annual impairment test. Any gain from a bargain purchase is recognised in the income statement. Investments in associated companies and investments in joint ventures are recorded under the equity method in the consolidated financial statements.

Significant accounting judgements, estimates and assumptions
The preparation of the Group's consolidated financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and the disclosure of contingent liabilities, at the end of the reporting period. However, uncertainty about these assumptions and estimates could result in outcomes that require a material adjustment to the carrying value of the asset or liability affected in future periods. The judgements, estimates and assumptions relate mainly to the useful life and impairment of intangible and tangible assets (note 3 and note 4), value of tax assets and liabilities and unused tax

losses (note 9), inventory impairment (note 10), actuarial assumptions for employee benefits (note 13), future cash-outflows for provisions (note 14), allowance for impairment in respect of trade receivables (note 26) and are included in the description of the respective note to the position.

Foreign currency

Transactions and balances
Monetary assets and liabilities denominated in foreign currencies have been translated into Euro (EUR) at the exchange rates quoted on the balance sheet date. Non-monetary items that are measured at historical cost in a foreign currency are translated using the exchange rate as at the date of transaction.

All foreign exchange related gains and losses, both realised and unrealised, are recorded as financial items in the income statement. However, the exchange adjustments arising from the following items are recognised in other comprehensive income: conversion of the net assets of foreign subsidiaries and associated companies as of 1 January using the closing rate on 31 December, translation of long-term intra-group receivables that are considered part of investments in subsidiaries or associated companies, conversion of long-term loans hedging net assets of foreign subsidiaries and associated companies or intra-group receivables considered part of investments in subsidiaries and associated companies, and conversion of the net income of foreign subsidiaries calculated at monthly rates to figures converted using the exchange rates applicable at the balance sheet date.

Group companies
Consolidated financial statements are presented in Euro (EUR), the functional currency of the parent.

Financial statements of foreign subsidiaries in functional currencies other than EUR have been translated at the exchange rates quoted on the balance sheet date for assets and liabilities. The income statements of foreign subsidiaries have been translated on the basis of monthly exchange rates. The exchange differences arising from the translation are recognised in other comprehensive income.

Income statement

Revenue recognition
Revenues from sales of goods are recognised in the income statement when the significant risks and rewards of ownership have been transferred to the buyer.

Net sales comprise sales invoiced during the year, excluding value-added tax and after deduction of goods returned, discounts and allowances.

Research and development
Research costs are charged to the income statement in the year they have been incurred.

Development costs relating to a definable product or process that is demonstrated to be technically and commercially feasible are recognised as an intangible asset to the extent that such costs are expected to be recovered from future economic benefits. The expenditure capitalised includes the costs of materials, direct labour and an appropriate proportion of overheads.

Other development costs not meeting these criteria are recognised in the income statement as an expense when incurred.

Results from associated companies and joint ventures
The proportionate share of the net profit or loss after tax of these companies is included in the consolidated income statement.

Financial income/expenses
Interest income and expenses are included in the income statement using the effective interest rate with the amounts relating to the financial year.

Financial income/expenses also include borrowing costs, costs incurred on finance leases, realised and unrealised gains and losses from exchange and price adjustments of financial instruments, investments and items in foreign currencies.

Taxes on income
The income tax charged to the income statement comprises expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted at the balance sheet date, adjusted for the change in deferred tax assets and liabilities for the year and for any tax payable in respect of previous years. Income tax that relates to items recognised in other comprehensive income is recognised in other comprehensive income as well.

Balance sheet

Intangible assets
Intangible assets are stated at cost, less accumulated amortisation and impairment losses.

Goodwill arising from an acquisition represents the excess of the purchase consideration over the fair value of the net identifiable assets acquired. Goodwill is not amortised but is subject to an annual impairment test.

Licences and patents acquired externally are stated at cost, less accumulated amortisation and impairment losses. Amortisation is calculated according to the straight-line method based on an estimated useful life of 3–10 years.

Capitalised development costs are stated at cost, less accumulated amortisation and impairment losses. Amortisation is charged to the income statement on a straight-line basis over the expected useful life of the asset of 3–10 years. Development costs not yet amortised are subject to an annual impairment test.

Costs to purchase and develop software for internal use are capitalised and amortised on a straight-line basis over 3–7 years.

Emission rights are reported as intangible assets. They are measured at cost, if purchased in the market, or at fair value, if received through government grants. A liability to return emission rights for actual emissions made is recognised as well.

Tangible assets
Tangible assets are valued at cost, less accumulated depreciation and impairment losses. Cost comprises purchase price, site preparation and installation. Day-to-day servicing expenses are not included in the cost of the assets. If certain conditions are met, the costs of major inspections and overhauls are recognised in the carrying value of the property, plant and equipment.

Production plants include land, buildings, related non-movable machinery and equipment. Assets held under finance leases are also included. Machinery and equipment are recognised at purchase price and any directly attributable costs.

Depreciation is made on a straight-line basis over the expected useful life of the components of the assets. The useful lives of major assets are determined individually, while the lives of other assets are in respect of groups of uniform assets. Land is not depreciated. Buildings are depreciated over 20–40 years, production facilities over 15–20 years and machinery and equipment over 3–15 years.

The determination of whether an arrangement is or contains a lease is based on the substance of the arrangement and classified to operating and finance lease in accordance with IAS 17. Assets leased under finance leases are recognised in the balance sheet and depreciated over the shorter of the lease period or useful life. The cost of assets leased under finance leases are stated at the lower of fair value and the present value of the future minimum lease payments at the time of acquisition.

The present value of the expected cost for the decommissioning of the asset after its use is included in the cost of the respective asset if the recognition criteria for a provision are met. The estimated future costs of decommissioning are reviewed annually and adjusted as appropriate. Changes in the estimated future costs or in the discount rate applied are added to or deducted from the cost of the asset. Borrowing costs directly attributable to the acquisition, construction or production of a qualifying asset are capitalised as part of the cost of that asset.

Impairment losses
The carrying values of both tangible and intangible assets, other than inventories, deferred tax assets and certain financial assets, are reviewed at each balance sheet date to determine whether there is any indication of impairment. If any such indication exists and for annual impairment tests of goodwill and intangible assets with an indefinite useful life, the asset's recoverable amount is estimated as the

greater of net selling price and value in use. An impairment loss is recognised whenever the carrying value of an asset or its cash-generating unit exceeds its recoverable amount. Impairment losses are recognised in the income statement. Production facilities clustered into technologically equivalent groups, e.g. polypropylene or cracker etc., are considered as cash generating units.

Leases
A lease is classified at the inception date as a finance lease or an operating lease. A lease that transfers substantially all the risks and rewards incidental to ownership to the Group is classified as a finance lease.

Finance leases are capitalised at the commencement of the lease at the inception date fair value of the leased property or, if lower, at the present value of the minimum lease payments. Lease payments are apportioned between finance charges and reduction of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are recognised in finance costs in the income statement.

A leased asset is depreciated over the useful life of the asset. However, if there is no reasonable certainty that the Group will obtain ownership by the end of the lease term, the asset is depreciated over the shorter of the estimated useful life of the asset and the lease term.

An operating lease is a lease other than a finance lease. Operating lease payments are recognised as an operating expense in the income statement on a straight-line basis over the lease term.

Non-current assets held for sale and discontinued operations
Non-current assets (or disposal groups comprising assets and liabilities) that are expected to be recovered primarily through sale rather than through continuing use are classified as held for sale. Immediately before classification as held for sale, the assets (or components of a disposal group) are re-measured in accordance with IFRS 5. Thereafter, generally the assets (or disposal group) are measured at the lower of their carrying value and fair value, less cost to sell. Any impairment loss on a disposal group is first allocated to goodwill, and then to remaining assets and liabilities on a pro rata basis, no loss is allocated to inventories, financial assets, deferred tax assets and employee benefit assets, which continue to be measured in accordance with the Group's accounting policies. Impairment losses on initial classification as held for sale and subsequent gains or losses on re-measurement are recognised in the income statement. Gains are not recognised in excess of any cumulative impairment loss.

Associated companies and joint ventures
Associated companies and joint ventures are accounted for using the equity method. The consolidated financial statements include the Group's share of the comprehensive income of equity accounted investees.

Cash and cash equivalents
Cash and cash equivalents comprise cash in bank and liquid short-term deposits.

Inventories
Inventories are stated at the lower of cost and net realisable value, taking into account future price developments. Costs incurred are based on the first in, first out principle (FIFO method), and comprise direct costs such as materials, utilities, salaries and wages, and a systematic allocation of fixed and variable production overhead costs. Valuation of raw materials and spare parts is based on the weighted average cost method.

Government grants
Government grants include grants for research and development as well as investment grants. Investment grants are recognised in the balance sheet as non-current liabilities and recognised as income over the useful life of the asset. Other grants are recognised in the income statement without offsetting the related cost.

Provisions
A provision is recognised if, as a result of a past event, the Group has a present legal or constructive obligation against third parties that can be estimated reliably and if it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions reflect the present value of future cash outflows. The cash flows are discounted at a current pre-tax rate that reflects the risks specific to the liability. The unwinding of the discount is expensed as incurred and recognised in the income statement as finance cost.

Deferred tax
Deferred tax assets and liabilities are computed individually for each company in accordance with the balance sheet liability method, providing for temporary differences between the carrying values of assets and liabilities for financial reporting purposes and the amounts used for tax purposes. Deferred tax is measured at the tax rates that are expected to be applied to the temporary differences when they reverse, based on the laws that have been enacted or substantively enacted at the balance sheet date.

A deferred tax asset is recognised only to the extent that it is probable that future taxable profits will be available, against which the temporary differences and unused tax loss carryforwards can be utilised within a period of five years, based on a three year business plan and a long-term projection for further two years. Deferred tax assets are reviewed at each reporting date and are remeasured to the extent that is probable to be realised.

The uncertain tax positions, for example tax disputes, are accounted for by applying the most likely amount. The most likely amount is the single most likely amount in a range of realistically possible options. The company evaluates the unit of account related to the uncertain tax positions on a case-by-case basis.

Reserves
A reserve has been established under the consolidated equity for unrealised exchange differences related to deferred foreign exchange gains and losses on intercompany loans, hedge loans and the equity of foreign operations. The hedging reserve contains fair value adjustments to financial instruments held for hedging purposes. The reserve for actuarial gains/losses recognised in equity contains the actuarial gains and losses on employee benefit plans.

Employee benefits

Defined contribution plans
Obligations for contributions to defined contribution plans are recognised as an expense in the income statement as incurred.

For defined contribution plans, the Group pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The Group has no further payment obligations once the contributions have been paid. The contributions are recognised as employee benefit expense when they are due. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in the future payments is available.

Defined benefit plans
The Group's net obligation in respect of defined benefit pension plans and other post-employment benefit plans is calculated separately for each plan by estimating the amount of future benefits that employees have earned in return for their service in the current and prior periods. The benefit is discounted to determine the present value of it, and the fair value of any plan assets is deducted. A qualified actuary, using the projected unit credit method, performed the calculation.

The discount rate used in the actuarial valuations is determined with a reference to long-term yields of AA-rated corporate bonds. In countries where no deep market for such bonds exists, market yield of government bonds is used.

The Group has the following plans in place: defined benefit pension plans, post-employment medical plans, severance plans and other long-term employee benefit plans. Pension plans in place are both funded and unfunded. The plan asset funds are kept predominantly in a form of insurance contracts.

The parameters of the pension promises vary from country to country; there are both plans open and closed to new entrants, contributory as well as non-contributory.

Post-employment medical plans cover the medical expenses mainly of retirees in Belgian companies. They are non-contributory and closed to new entrants. The expected costs of these benefits are accrued over the period of employment using the same accounting methodology as used for defined benefit pension plans.

Severance plans cover employees of Austrian companies who started their service before 1 January 2003. They are entitled to receive severance payments upon termination of their employment or on reaching their pension age. Furthermore, the Group operates severance plans in France, Italy and the United Arab Emirates. The benefits depend on the years of service and remuneration level. These plans are non-contributory and unfunded.

Other long-term employee benefits include jubilee schemes and pre-pension benefits. Jubilee schemes entitle the members to benefits in the form of a payment and/or additional paid holiday when reaching a defined time of service. These plans are non-contributory and unfunded.

All actuarial gains and losses relating to post-employment benefit plans are recognised in other comprehensive income. Actuarial gains and losses related to other long-term services are recognised in the income statement.

Past-service costs are recognised immediately in the income statement. Net interest expenses resulting from employee benefits are included in the consolidated income statement as part of the operating profit.

Fair value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either in the principal market for the asset or liability, or in the absence of a principal market, in the most advantageous market for the asset or liability.

The principal or the most advantageous market must be accessible to the Group. The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest. A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

The Group uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximising the use of relevant observable inputs and minimising the use of unobservable inputs.

For assets and liabilities that are recognised in the financial statements on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by re-assessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period. For the purpose of fair value disclosures, the Group has determined classes of assets and liabilities on the basis of the nature, characteristics and risks of the asset or liability and the level of the fair value hierarchy as explained in note 27.

Financial instruments

Purchases or sales of financial assets are recognised on the trade date, which is the date to which the Group commits to purchase or sell the assets.

Derivative financial instruments

In accordance with its treasury procedure, the Group uses derivative financial instruments only to reduce its exposure to foreign exchange, interest rate and commodity risks arising from operational, financing and investment activities. Derivatives that do not qualify for hedge accounting are accounted for as trading instruments.

Derivative financial instruments are recognised at fair value. Recognition of any resulting gain or loss depends on the nature of the item being hedged.

The fair value of interest rate swaps is the estimated amount that the Group would receive or pay to terminate the swap at the balance sheet date, taking into account current interest rates and the current creditworthiness of the swap counterparties. The fair value of forward exchange contracts is their quoted market price at the balance sheet date, being the present value of the quoted forward price. The fair value of feedstock and energy contracts is their quoted market price at the balance sheet date.

Cash flow hedges

Where derivative financial instruments are designated as a hedge of the variability in cash flows attributable to a recognised liability or receivable, a firm commitment or a highly probable forecasted transaction, the effective part of any gain or loss on the derivative financial instrument is recognised in other comprehensive income. When realised, the cumulative gains or losses are removed from the hedging reserve and recognised in the income statement together with the hedged transaction. When the firm commitment or forecasted transaction results in the recognition of a non-financial asset or liability, the cumulative gains or losses are removed from the hedging reserve and included in the initial measurement of the asset or liability.

The ineffective parts of any unrealised gains or losses are recognised in the income statement immediately. Any gain or loss arising from changes in the time value of the derivative financial instruments is excluded from the measurement of hedge effectiveness and is recognised in the income statement immediately.

When a hedging instrument or hedge relationship is terminated, but the hedged transaction is still expected to occur, the cumulative gain or loss at that point remains in equity and is recognised in accordance with the above policy when the transaction occurs. If the hedged transaction is no longer probable, the cumulative unrealised gain or loss in equity is recognised in the income statement immediately.

Hedge of monetary assets and liabilities

When derivative financial instruments are used to hedge the foreign exchange exposure of a recognised monetary asset or liability, no hedge accounting is applied, and any gain or loss on the hedging instruments is recognised in the income statement.

Fair value hedges

Where derivative instruments are designated as a hedge of an exposure to changes in fair value of a recognised asset or liability, the hedged item is adjusted for changes in fair value attributable to the risk being hedged with the corresponding entry in the income statement. When an unrecognised firm commitment is designated as a hedged item, the subsequent cumulative change in the fair value of the firm commitment attributable to the hedged risk is recognised as an asset or liability with a corresponding gain or loss recognised in the income statement. Gains or losses from re-measuring the associated derivative are also recognised in the income statement.

Hedge of net investment in foreign operation

Where a foreign currency liability hedges a net investment in a foreign operation and fulfils the requirements for hedge accounting, foreign exchange differences arising on translation of the liability are recognised in other comprehensive income.

Offsetting of financial instruments

Financial assets and financial liabilities can be offset and the net amount is reported in the consolidated balance sheet if there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis, or to realise the assets and settle the liabilities simultaneously.

Other investments and other assets

Other investments and other assets include available for sale financial assets and are valued at fair value or at cost if fair value cannot be reliably estimated. The changes of available for sale financial assets in their fair value are recognised in other comprehensive income.

Trade and other receivables

Receivables are stated at amortised cost, less impairment losses. For current receivables, it is assumed that the effect of the discounting is not material. Therefore, Borealis deems the carrying value to be equal to fair value. An impairment is made in case of indications that debtors are experiencing significant financial difficulties and where a decrease of future cash flows is expected. The carrying value of the asset is reduced through the use of an allowance account and the loss is recognised in the income statement. Receivables are written off when there is no realistic prospect of future recovery.

Trade and other payables

Payables are recorded at fair value and subsequently measured at amortised cost.

Loans and borrowings

Interest-bearing borrowings are recognised initially at fair value, less attributable transaction costs. Subsequent to initial recognition, interest-bearing borrowings are stated at amortised cost applying the effective interest method.

Cash flow statement

The consolidated cash flow statement shows the Group's cash flow provided by/used in operating, investing and financing activities. The cash flow from operating activities is calculated using the direct method. The cash flow from investing activities comprises payments made on the purchase and disposal of operations and the purchase and disposal of tangible and intangible as well as financial assets. The cash flow from financing activities comprises changes in the Group's share capital, as well as loans, repayments of principals of interest-bearing debt and payment of dividends. Cash and cash equivalents consist of cash and bank deposits.

Segment reporting

A segment is a distinguishable component of the Group that is engaged in business activities from which it may earn revenues and incur expenses whose operating results are regularly reviewed by the Executive Board (chief operating decision maker) and are taken to make decisions about resources to be allocated to the segment and assess its performance and for which separate financial information is available (reportable segment).

Moreover, a geographical segment is based on risks and rewards of a particular economic environment (geographic region). The Executive Board concluded to show also the net sales by geographical segment next to the reportable segment.

The Executive Board has identified two reportable segments:

Polyolefins – this part of the business manufactures and markets polyolefin products. Although the Automotive, Energy, Consumer Products, Pipe, and New Business Development operating segments provide separate reports on their performance, they have been aggregated into one reportable segment, as they have similar long-term growth rates and raw material economics, as well as demonstrate similarities in other aspects required by the Standard.

Base Chemicals – Borealis produces and markets a wide range of base chemicals, such as melamine, phenol, acetone, ethylene, propylene, fertilizer and technical nitrogen. The operating segments Hydrocarbons & Energy, Melamine and Fertilizer provide separate reports on their performance, but based on their similar economic characteristics, being similar average EBIT margins, growth rates and raw material economics, next to similarities in other aspects as required by the Standard, they have been aggregated into one reporting segment.

All other segments – Corporate, Middle East and Asia and Research & Development are not reportable segments, as they are either not separately included in the reports provided to the Executive Board or contain only results of the associated companies. The results of these operations are included in the Non-Allocated column (see note 1).

New accounting standards

Amended standards adopted by Borealis

In 2017, the following amendments of accounting standards became effective and have been adopted by Borealis, whereas effective means effective for annual periods beginning on or after that date (as endorsed by the EU):

Standards		IASB effective date	EU effective date
Amended Standards			
IAS 7	Disclosure Initiative	1 January 2017	1 January 2017
IAS 12	Recognition of Deferred Tax Assets for Unrealised Losses	1 January 2017	1 January 2017

IAS 7 Disclosure Initiative

The amendments to IAS 7 are intended to clarify the existing IAS 7 to improve information provided to users of financial statements about an entity's financing activities. The amendments to IAS 7 require disclosure of changes in liabilities arising from financing activities, see note 19.

IAS 12 Recognition of Deferred Tax Assets for Unrealised Losses

The amendments to IAS 12, Recognition of Deferred Tax Assets for Unrealised Losses, clarify how to account for deferred tax assets related to debt instruments measured at fair value.

The adoption of the amended standards stated above is included in the consolidated financial statements. This did not have a material impact on the financial position or performance of Borealis.

New and amended standards/interpretations not yet effective

A number of interpretations, new standards and amendments to standards are issued but not yet effective (as adopted by the EU). Borealis will adopt the standards on the effective date. Effective means effective for annual periods beginning on or after that date (as endorsed by the EU).

Standards/interpretations		IASB effective date	EU effective date
New Standards and Interpretations			
IFRS 9	Financial Instruments	1 January 2018	1 January 2018
IFRS 15	Revenue from Contracts with Customers including amendments to IFRS 15: Effective date of IFRS 15	1 January 2018	1 January 2018
IFRS 16	Leases	1 January 2019	1 January 2019
IFRS 17	Insurance contracts	1 January 2021	
IFRIC 22	Foreign Currency Transactions and Advance Consideration	1 January 2018	
IFRIC 23	Uncertainity over Income Tax Treatments	1 January 2019	
Amended Standards and Interpretations			
IFRS 4	Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts	1 January 2018	1 January 2018
IFRS 15	Clarifications to IFRS 15 Revenue from Contracts with Customers	1 January 2018	1 January 2018
Misc.	Annual Improvements to IFRS Standards 2014–2016 Cycle	1 January 2017/ 1 January 2018	
IAS 40	Transfers of Investment Property	1 January 2018	
IFRS 2	Classification and Measurement of Share-based Payment Transactions	1 January 2018	
IAS 28	Long-term Interests in Associates and Joint Ventures	1 January 2019	
IFRS 9	Prepayment Features with negative compensation	1 January 2019	
Misc.	Annual Improvements to IFRS Standards 2015–2017 Cycle	1 January 2019	

IFRS 9 Financial Instruments

IFRS 9 addresses the classification, measurement and de-recognition of financial assets and financial liabilities, introduces new rules for hedge accounting and a new impairment model for financial assets.

The Group has reviewed its financial assets and liabilities and is expecting the following impact from the adoption of the new standard on 1 January 2018:

Financial assets held by the Group include:

- equity instruments currently classified as AfS for which a fair value through other comprehensive income (FVOCI) election is available
- debt instruments currently classified as held-to-maturity and measured at amortised cost which meet the conditions for classification at amortised cost under IFRS 9

Accordingly, the Group does not expect the new guidance to impact the classification and measurement of these financial assets. However, gains or losses realised on the sale of financial assets at FVOCI will no longer be transferred to profit or loss on sale, but instead reclassified below the line from the FVOCI reserve to retained earnings. During the 2017 financial year, EUR 0 thousand of such gains were recognised in profit or loss in relation to the disposal of available for sale financial assets. Available-for-sale reserves of EUR 1,037 thousand, before tax, will be transferred to retained earnings. Borealis carries other investments, mainly in fully owned subsidiaries which are not consolidated on materiality basis, amounting to EUR 35,985 thousand. Borealis will start measuring these equity investments currently held at cost, at FVOCI and post a gain of EUR 8,909 thousand, before tax. There will be no impact on the Group's accounting for financial liabilities, as the new requirements only affect the accounting for financial liabilities that are designated at fair value through profit or loss and the Group does not have any such liabilities.

The derecognition rules have been transferred from IAS 39 Financial Instruments: Recognition and Measurement and have not been changed.

The new hedge accounting rules will align the accounting for hedging instruments more closely with the Group's risk management practices. As a general rule, more hedge relationships might be eligible for hedge accounting, as the standard introduces a more principles-based approach. The Group has confirmed that its current hedge relationships will qualify as continuing hedges upon the adoption of IFRS 9.

The new impairment model requires the recognition of impairment provisions based on expected credit losses (ECL) rather than only incurred credit losses as is the case under IAS 39. It applies to financial assets classified at amortised cost, debt instruments measured at FVOCI, contract assets under IFRS 15 Revenue from Contracts with Customers, lease receivables, loan commitments and certain financial guarantee contracts. Based on the assessments undertaken to date, the Group expects a small increase in the loss allowance for cash and cash equivalents, trade debtors, other debtors and debt investment held at amortised costs by EUR 618 thousand, before tax.

The new standard also introduces expanded disclosure requirements and changes in presentation. These are expected to change the nature and extent of the Group's disclosures about its financial instruments particularly in the year of the adoption of the new standard.

IFRS 15 Revenue from Contracts with Customers including amendments to IFRS 15: Effective date of IFRS 15

The IASB has issued with IFRS 15 a new standard for the recognition of revenue. This will replace IAS 18 which covers contracts for goods and services and IAS 11 which covers construction contracts.

The new standard is based on the principle that revenue is recognised when control of a good or service transfers to a customer.

Management has assessed the effects of applying the new standard on the Group's financial statements by reviewing representative sample of contracts of each segment, evaluating possible combinations of contracts, identifying and evaluating individual performance obligations, reviewing and evaluating determination of transaction price and of variable considerations, including their allocation to performance obligations, existence of incremental contract costs and other relevant aspects of the new standard. Management concludes that it has not identified any areas that will be affected.

IFRS 16 Leases

The IASB issued IFRS 16 Leases in January 2016. IFRS 16 sets out the principles for the recognition, measurement, presentation and disclosure of leases. The new standard brings most leases on-balance for lessees under a single model, eliminating the distinction between operating and finance leases. Lessor accounting remains largely unchanged and the distinction between operating and finance leases is retained. The standard will impact primarily the accounting for Borealis' operating leases. As at the reporting date, Borealis has non-cancellable operating lease commitments of EUR 218,507 thousand (see note 28). However, Borealis has not yet determined to what extent these commitments will result in the recognition of an asset and a liability for future payments and how this will affect the Group's profit and classification of cash flows. Some of the commitments may be covered by the exception for short-term and low-value leases and some commitments may relate to arrangements that will not qualify as leases under IFRS 16.

IFRS 17 Insurance contracts

IFRS 17 was issued in May 2017 as replacement for IFRS 4 Insurance Contracts. It requires a current measurement model where estimates are remeasured each reporting period. Contracts are measured using the building blocks of discounted probability-weighted cash flows, an explicit risk adjustment, and a contractual service margin ("CSM") representing the unearned profit of the contract which is recognised as revenue over the coverage period.

The standard allows a choice between recognising changes in discount rates either in the income statement or directly in other comprehensive income. The choice is likely to reflect how insurers account for their financial assets under IFRS 9.

An optional, simplified premium allocation approach is permitted for the liability for the remaining coverage for short duration contracts, which are often written by non-life insurers.

There is a modification of the general measurement model called the 'variable fee approach' for certain contracts written by life insurers where policyholders share in the returns from underlying items. When applying the variable fee approach the entity's share of the fair value changes of the underlying items is included in the contractual service margin. The results of insurers using this model are therefore likely to be less volatile than under the general model.

At this stage, Borealis is not able to estimate the impact of the new standard on the consolidated financial statements.

IFRIC 22 Foreign Currency Transactions and Advance Consideration

IFRIC 22 clarifies which exchange rate to use when reporting revenue transactions denominated in a foreign currency in accordance with IAS 21 The Effects of Changes in Foreign Exchange Rates, in cases where a customer has paid for the goods or services in advance and that payment is not refundable. Borealis does not expect a material impact of this amendment on the consolidated financial statements.

IFRIC 23 Uncertainty over Income Tax Treatments

The IAS issued IFRIC 23 Uncertainty over Income Tax Treatments in July 2017. IFRIC 23 clarifies the accounting for uncertainties in income taxes. Borealis does not expect a material impact of this amendment on the consolidated financial statements.

IFRS 4 Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts

The amendments to IFRS 4 Applying IFRS 9 Financial Instruments with IFRS 4 insurance Contracts address the concerns related to the misalignment of the effective dates of IFRS 9 and the future insurance contracts standard. Borealis does not expect a material impact of this amendment on the consolidated financial statements.

IFRS 15 Clarifications to IFRS 15 Revenue from Contracts with Customers

On 12 April 2016, the IASB issued amendments to IFRS 15, clarifying some requirements and providing additional transitional relief for companies that are implementing the new Standard. The amendments clarify how to identify a performance obligation in a contract; how to determine whether a company is a principal or an agent and how to determine whether the revenue from granting a licence should be recognised at a point in time or over time. In addition to the clarifications, the amendments include two additional reliefs to reduce cost and complexity for a company when it first applies the new Standard. At this stage, Borealis expects that the new standard will not have any significant impact on the consolidated financial statements.

Annual Improvements to IFRS Standards 2014–2016 Cycle

The IASB's annual improvements process deals with non-urgent, but necessary clarifications and amendments to IFRS. The annual improvements to IFRSs 2014–2016 cycle clarifies 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. Borealis does not expect a material impact of this amendment on the consolidated financial statements.

IAS 40 Transfers of Investmenty Property

The amendments to IAS 40 Transfers of Investment Property address the question whether property under construction can be transferred from inventory to investment property when there is an evident planned change in use. This standard is not expected to have any impact on the Group's consolidated financial statements.

IFRS 2 Classification and Measurement of Share-based Payment Transactions

The objective of the amendments to IFRS 2 is to provide guidance on three issues: the effects of vesting conditions on the measurement of a cash-settled share-based payment, the classification of share-based payment transactions with net settlement features for withholding tax obligations and the accounting for a modification to the terms and conditions of a share-based payment that changes the classification of the transaction from cash-settled to equity-settled. This amendment is not expected to have any impact on the Group's consolidated financial statements.

IAS 28 Long-term Interests in Associates and Joint Ventures

The IASB has published amendments to IAS 28 Investments in Associates and Joint Ventures which clarifies that long term interests in an associate or joint venture – to which the equity method is not applied – must be accounted for under IFRS 9 Financial Instruments. This shall include long term interests that, in substance, form part of the entity's net investment in an associate or joint venture. This amendment is not expected to have any impact on the Group's consolidated financial statements.

IFRS 9 Prepayment Features with negative compensation

The IASB has issued a narrow-scope amendment to IFRS 9 to enable companies to measure at amortised cost some prepayable financial assets with negative compensation. The assets affected that include some loans and debt securities would otherwise have been measured at fair value through profit or loss (FVTPL). This amendment is not expected to have any impact on the Group's consolidated financial statements.

Annual Improvements to IFRS Standards 2015–2017 Cycle

The IASB's annual improvements process deals with non-urgent, but necessary clarifications and amendments to IFRS.

The annual improvements to IFRSs 2015–2017 cycle clarifies IFRS 3 Business Combinations and IFRS 11 Joint Arrangements, IAS 12 Income Taxes and IAS 23 Borrowing Costs. Borealis does not expect a material impact of this amendment on the consolidated financial statements.

Amounts

All amounts are in EUR thousand unless otherwise stated. The amounts in parentheses relate to the preceding year.

1. Segment reporting

EUR thousand	Polyolefins 2017	Polyolefins 2016	Base Chemicals 2017	Base Chemicals 2016	Non-Allocated 2017	Non-Allocated 2016	Consolidated 2017	Consolidated 2016
Net sales by segment								
Total sales	5,082,113	4,812,592	5,256,465	5,010,127	132,842	211,288	10,471,420	10,034,007
Group internal sales	0	0	-2,907,085	-2,816,431	0	0	-2,907,085	-2,816,431
	5,082,113	**4,812,592**	**2,349,380**	**2,193,696**	**132,842**	**211,288**	**7,564,335**	**7,217,576**

Prices for Group inter-segment sales are based on monthly market prices for ethylene and propylene contracts.

Segment result								
Operating profit	605,507	719,561	366,008	402,206	-180,834	-183,560	790,681	938,207
Net result in associated companies and joint ventures	0	0	-331	0	543,316	487,347	542,985	487,347
Financial income/expenses					-65,748	-77,475	-65,748	-77,475
Taxes on income					-172,823	-240,694	-172,823	-240,694
Non-controlling interest					-426	1,615	-426	1,615
Net profit for the year attributable to equity holders of the parent							**1,094,669**	**1,109,000**
Other information								
Segment assets	3,061,743	3,180,960	2,694,994	2,361,010	3,638,138	4,389,762	9,394,875	9,931,732
thereof Austria	1,722,445	1,772,938	1,313,204	1,141,653	3,400,903	4,084,891	6,436,552	6,999,482
Segment liabilities	0	0	0	0	3,012,968	3,417,374	3,012,968	3,417,374
Investment in tangible assets	144,186	71,759	296,776	243,630	12,209	17,701	453,171	333,090
Depreciation and amortisation	153,692	149,647	165,880	197,678	73,299	52,401	392,871	399,726

Over 90% of the above relate to segment EU countries.

Net sales by geographic segment (by delivery destination)								
EU countries	3,622,644	3,399,199	2,087,791	1,942,921	48,060	116,926	5,758,495	5,459,046
thereof Austria	147,492	147,215	135,819	138,826	34,707	31,022	318,018	317,063
Non-EU countries in Europe	526,750	556,010	86,644	72,975	0	3,042	613,394	632,027
USA	177,075	162,019	24,709	28,979	734	1,505	202,518	192,503
Middle East and Asia	297,361	310,306	53,031	51,723	84,048	89,815	434,440	451,844
Other regions	458,283	385,058	97,205	97,098	0	0	555,488	482,156
	5,082,113	**4,812,592**	**2,349,380**	**2,193,696**	**132,842**	**211,288**	**7,564,335**	**7,217,576**

2. Research and development

At the end of the year, 515 FTEs were engaged in research and development, compared to 504 in 2016. The total cost of these activities amounted to EUR 138,360 thousand (EUR 114,303 thousand), including impairment charges (see note 5). Internal development costs amounting to EUR 26,023 thousand (EUR 29,157 thousand) were capitalised as intangible assets.

3. Intangible assets

	Goodwill		Development costs		Capitalised software		Others	
EUR thousand	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**
Cost								
As of 1 January	147,264	126,518	327,686	298,837	88,680	76,881	183,209	199,032
Exchange adjustments	-1,108	0	0	0	-56	54	-934	-800
Additions	0	0	32,223	29,765	7,978	6,923	34,409	31,217
Changes in consolidation scope	0	20,746	0	0	0	259	0	0
Other movements	-4,119	0	0	0	0	0	3,746	0
Disposals	0	0	0	0	-38,797	-374	-35,539	-47,179
Transfers	0	0	-142	-916	2,966	4,937	735	939
	142,037	**147,264**	**359,767**	**327,686**	**60,771**	**88,680**	**185,626**	**183,209**
Accumulated amortisation								
As of 1 January	0	0	190,864	176,615	60,215	49,925	120,796	110,627
Exchange adjustments	0	0	0	0	-29	22	-448	-162
Changes in consolidation scope	0	0	0	0	0	253	0	0
Disposals	0	0	0	0	-38,611	-271	-8,857	-3,229
Amortisation and impairment	0	0	16,708	14,249	10,902	10,286	15,341	13,560
Reversal of impairment	0	0	-5,049	0	0	0	0	0
	0	**0**	**202,523**	**190,864**	**32,477**	**60,215**	**126,832**	**120,796**
Carrying value as of 31 December	**142,037**	**147,264**	**157,244**	**136,822**	**28,294**	**28,465**	**58,794**	**62,413**

The line Other movements comprises EUR 3,746 thousand which were related to the fair value measurement of the assets and liabilities of mtm plastics GmbH, Niedergebra, Germany, and mtm compact GmbH, Fürstenwalde, Germany (hereafter together "mtm") within the transition period (see note 6). This fair value measurement in connection with the fair value measurement in the tangible assets and the deferred tax impact on these adjustments resulted in a reduction of goodwill relating to the acquisition of mtm in the amount of EUR 4,119 thousand.

The Group tests on an annual basis whether any impairment of goodwill is required. The recoverable amount of a cash-generating unit (CGU) is determined based on value in use calculations which require the

use of assumptions. The calculations use cash flow projections based on financial budgets covering a five-year period. Key assumptions of the forecasted cash flows are volumes sold and underlying industry margins. These are estimated based on industry reports and experience. Cash flows beyond the five-year period are extrapolated using the estimated growth rates stated below. These growth rates are consistent with forecasts included in industry reports specific to the industry in which each CGU operates. For all impairment tests performed, the recoverable amount was based on the value in use.

The allocated goodwill for each CGU as well as parameters influencing the calculation of the value in use can be seen in the following table:

Goodwill impairment test parameters 2017

Segment	Polyolefins				Base Chemicals
Cash generating unit	Polyethylene	Polypropylene	Recyclates	Brazil	Fertilizer & Melamine
Allocated goodwill in EUR thousand	50,687	22,000	16,627	5,348	47,375
Post tax discount rate	7.7%	7.7%	6.8%	9.8%	9.7%
Growth rate	1.2%	1.3%	2.0%	2.8%	1.5%

Goodwill impairment test parameters 2016

Segment	Polyolefins				Base Chemicals
Cash generating unit	Polyethylene	Polypropylene	Recyclates	Brazil	Fertilizer & Melamine
Allocated goodwill in EUR thousand	50,687	22,000	20,746	6,456	47,375
Post tax discount rate	8.6%	8.6%	n/a	11.5%	9.5%
Growth rate	1.2%	1.3%	n/a	3.4%	1.5%

Post tax discount rates (weighted average cost of capital) reflect specific risks relating to the relevant segments and the countries in which they operate.

Long-term growth rate is the weighted average growth rate used to extrapolate cash flows beyond the budget period. The rates are consistent with forecasts included in industry reports.

Additionally to the parameters above, sensitivities regarding discount rates and feedstock prices are taken into consideration. None of the calculated cases showed any need for an impairment.

Other intangible assets contain mainly patents and licences as well as emission rights.

Additions arising from internal development amounted to EUR 26,023 thousand (EUR 29,157 thousand). Intangible assets received by the way of government grant as allowances for emissions (EU Emissions Trading System) amounted to EUR 26,353 thousand (EUR 22,406 thousand). No additional emission rights were acquired from external parties. An equivalent of EUR 22,932 thousand (EUR 24,137 thousand) was returned to the respective EU ETS regulatory authorities for the emitted emissions in 2016. The carrying value of other intangible assets is in line with their fair value.

4. Tangible assets

EUR thousand	Production plants		Machinery and equipment		Construction in progress	
	2017	2016	2017	2016	2017	2016
Cost						
As of 1 January	6,541,470	6,318,613	150,119	143,448	270,449	244,509
Exchange adjustments	-67,737	-65,134	-613	-303	-1,644	-7,087
Additions	290,258	133,744	4,715	3,005	170,477	219,566
Changes in consolidation scope	0	13,152	0	1,155	0	2,410
Other movements	2,180	0	0	0	0	0
Disposals	-204,569	-38,340	-24,348	-1,739	-57	0
Transfers	196,309	179,435	2,839	4,553	-202,707	-188,949
	6,757,911	**6,541,470**	**132,712**	**150,119**	**236,518**	**270,449**
Accumulated depreciation						
As of 1 January	4,004,556	3,730,870	119,472	113,183	0	0
Exchange adjustments	-44,727	-47,207	-533	-319	0	0
Changes in consolidation scope	0	2,378	0	783	0	0
Disposals	-201,719	-35,738	-24,310	-1,553	0	0
Depreciation and impairment	348,390	354,253	6,579	7,378	0	0
	4,106,500	**4,004,556**	**101,208**	**119,472**	**0**	**0**
Carrying value as of 31 December	**2,651,411**	**2,536,914**	**31,504**	**30,647**	**236,518**	**270,449**

The figures for production plants include capitalised finance leases with a net value of EUR 1,231 thousand (EUR 800 thousand) comprising acquisition costs of EUR 1,592 thousand (EUR 3,413 thousand) and accumulated depreciation of EUR 361 thousand (EUR 2,613 thousand). The lease obligation is included in loans and borrowings (see note 19).

In 2017, borrowing costs amounting to EUR 3,832 thousand (EUR 2,449 thousand) have been capitalised, using an average interest rate of 2.8% (3.0%). The line other movements amounting to EUR 2,180 thousand relates to the fair value measurement of the assets and liabilities of mtm within the transition period (see note 6). There were no material additions to tangible assets that were not paid at the end of the reporting period.

Additions comprise major projects advanced in 2017, which relate to the upgrade and revamp of four cracker furnaces in Stenungsund, Sweden, the upgrade of the steam cracker in Porvoo, Finland, the construction of a LPG cavern in Porvoo, Finland, as well as to turnarounds in various locations.

At 31 December 2017, Borealis' contractual commitments amounted to EUR 104,958 thousand (EUR 110,297 thousand) for the acquisition of tangible assets (see note 20).

Assets pledged

Assets pledged amounted to EUR 12,906 thousand (EUR 14,540 thousand) and relate to tangible assets. The liabilities covered by the above assets amounted to EUR 3,659 thousand (EUR 4,899 thousand) at the end of the year.

5. Depreciation, amortisation and impairment

Depreciation, amortisation and impairment are allocated as follows in the income statement.

EUR thousand	2017	2016
Production costs	303,232	328,148
Sales and distribution costs	11,674	11,718
Administration costs	20,875	25,453
Research & development costs	57,090	34,407
Total	**392,871**	**399,726**

The 2017 depreciation charge includes an impairment of EUR 21,076 thousand (EUR 39,193 thousand) of tangible assets. The impairment is relating to the decision to discontinue one line of the catalyst plant in Linz, Austria, that was used for research & development, but that will not be used in the foreseeable future and therefore has been taken out of operation and conserved.

The depreciation charge further includes an impairment of EUR 1,607 thousand (EUR 1,507 thousand) of intangible assets for which the carrying value exceeds the present value of future cash flows, and a reversal of impairment of EUR 5,049 thousand (EUR 0 thousand). The impairment and write-up of both intangible and tangible assets is related to the non-allocated segment and is included in research & development costs.

6. Business Combinations and asset acquisitions

The determination of the fair values needed for the purchase price allocation of the acquisition of mtm plastics GmbH, Niedergebra, Germany, and mtm compact GmbH, Fürstenwalde, Germany, (hereafter together "mtm") made in 2016 remained preliminary at year end 2016 and was finalised by 30 June 2017. The changes are reported below.

Borealis made one acquisition in 2017 which was Feboran EOOD, Sofia, Bulgaria.

6.1. Acquisition of mtm plastics GmbH and mtm compact GmbH

On 30 June 2016, Borealis (via Borealis AG, Vienna, Austria) acquired the shares of mtm from TyBB Beratungs- und Beteiligungs GmbH, Pergo Services GmbH and pla-con Systeme Beratungs- und Beteiligungs GmbH (the Sellers).

As an industry leader, Borealis is committed to discovering and realising the opportunities presented by the circular economy. By fully acquiring mtm, Borealis took its engagement in the circular economy to the next level.

mtm plastics processes secondary raw materials into high-quality regrinds and compounds for further plastics processing. The procedure includes the reception, processing and recycling of the used waste plastics as well as the sale and the distribution of the output materials at a later stage. mtm plastics' production facilities are located in Niedergebra, Germany.

mtm compact focuses on producing hard plastic pellets which are generally used as a reduction input material in the production of steel in blast furnaces. mtm compact has its production facilities in Fürstenwalde, Germany.

The acquisition has been accounted for using the acquisition method. The acquisition date fair value of the acquired assets and liabilities is final.

Assets acquired and liabilities assumed

The fair value of the identifiable assets and liabilities of mtm as at the date of acquisition were:

EUR thousand	Fair value recognised on acquisition[1)]	Fair value recognised on acquisition[2)]
Assets	**2016 adapted**	**2016 reported**
Tangible and intangible assets	13,497	7,571
Other investments	39	39
Deferred tax assets	834	834
Inventories	2,560	2,560
Trade receivables	1,317	1,317
Other current receivables and other assets	518	518
Cash and cash equivalents	331	331
Total assets acquired	**19,096**	**13,170**
Liabilities		
Non-current provisions	403	403
Non-current loans and liabilities	1,750	1,750
Deferred tax liabilities	1,807	0
Trade payables	1,554	1,554
Other current liabilities	2,915	2,915
Total liabilities	**8,429**	**6,622**
Total identifiable net assets at fair value	**10,667**	**6,548**
Total purchase consideration	27,294	27,294
Goodwill arising on acquisition	**16,627**	**20,746**
Percentage acquired	**100%**	**100%**

1) The determination of the fair values needed for the purchase price allocation was finalised by the end of June 2017 and adapted in the comparatives of 2016.
2) Due to the ongoing assessments the fair value recognised in 2016 was preliminary and subject to finalisation.

The total acquisition costs of 100% of the share capital of mtm comprised an initial cash payment in June 2016 of EUR 18,000 thousand, a subsequent increase of EUR 603 thousand in October 2016, contingent considerations of EUR 8,691 thousand and costs of EUR 238 thousand directly attributable to the acquisition. The cash acquired with this acquisition in 2016 amounted to EUR 331 thousand, resulting in net cash outflow on the acquisition of EUR 18,272 thousand in 2016. The transaction costs have been expensed and are included in administrative expenses in the income statement in 2016 and are part of operating cash flows in the statement of cash flows in 2016.

The contingent consideration of EUR 8,691 thousand is divided into two components. The first component is linked to an earning target as at 31 December 2016. The performance of mtm showed that the earnings did not fully reach the target. Therefore, an amount of EUR 4,040 thousand has been recognised as other income in the income statement in 2017 additionally to the release in the prior year of EUR 1,311 thousand. The remaining part of EUR 1,881 thousand was paid in December 2017.

The second component in the amount of EUR 1,459 thousand has been recognised as part of the purchase consideration, which would have to be paid to the Sellers if a claim regarding subsidies was successful.

This condition has been fulfilled in 2017, the full amount was paid in December 2017 as well.

The goodwill of EUR 16,627 thousand comprises the value of the expected synergies and other benefits from combining the assets and activities of mtm with those of Borealis and has been allocated to the cash generating unit Recyclates. None of the recognised goodwill is deductible for income tax purposes.

The finalisation of the determination of the fair values needed for the purchase price allocation resulted in no significant changes to the consolidated financial statements.

6.2. Acquisition of Feboran EOOD

On 19 April 2017, Borealis (via Borealis AG, Vienna, Austria) acquired 21,104,810 shares of Feboran EOOD, Sofia, Bulgaria, (hereafter 'Feboran') from First Energy Bank, B.S.C.(c), Bahrain (the Seller). Together with 14,099,085 shares already owned before the latest acquisition by Borealis AG, Borealis became 100% owner of Feboran.

Feboran is a holding company whose only function at the moment of the acquisition was to hold 20.3% of shares in Neochim AD, Dimitrovgrad, Bulgaria (hereafter Neochim). Neochim is a fertilizer producer listed on a stock exchange in Sofia, Bulgaria. Furthermore, Feboran holds 100% of the shares of Feboran Prim EOOD, Sofia, Bulgaria.

The acquisition of Feboran has been accounted for as an acquisition of assets, as it was not a business combination. The fair value of the identifiable assets and liabilities as at the date of acquisition is final.

Assets acquired and liabilities assumed

The fair values of the identifiable assets and liabilities of Feboran as at the date of acquisition were:

EUR thousand	Fair value recognised on acquisition
Assets	
Investments in associated companies	19,405
Trade receivables	25
Other current receivables and other assets	27
Cash and cash equivalents	2,233
Total assets acquired	**21,690**
Liabilities	
Trade payables	218
Other current liabilities	5
Total liabilities	**223**
Total identifiable net assets at fair value	**21,467**
Interest previously held	-7,467
Total purchase consideration	**14,000**
Percentage acquired	**60.00%**

A cash payment in April 2017 of EUR 14,000 thousand represents the total acquisition costs of 60% of the share capital of Feboran.

The cash acquired with this acquisition amounted to EUR 2,233 thousand, resulting in net cash outflow on the acquisition of EUR 11,767 thousand. The transaction costs of EUR 9 thousand have been expensed and are included in administrative expenses in the income statement and are part of operating cash flows in the statement of cash flows. The revaluation of the non-controlling interest with the fair value resulted in a gain of EUR 257 thousand recognised in other income (see note 29).

The consolidated financial statements include the results of Feboran for the 9-month period from the acquisition date. The Group's share of profit of the associate was determined based on preliminary allocation of the cost of the associate to associate's identifiable assets, liabilities and contingent liabilities.

6.3. Other changes

In 2017, four new 100% subsidiaries have been established: Borealis Argentina SRL., Buenos Aires, Argentina, Borealis USA Inc., Port Murray, New Jersey, United States of America, Borealis BoNo Holdings LLC., Wilmington, Delaware, United States of America, and Borealis Chemicals ZA (PTY) LTD., Germiston, South Africa. Furthermore, GIFIAM G.I.E, Courbevoie, France, and Finphenol Oy, Porvoo, Finland has been dissolved. The legal form of the company Feboran OOD, Sofia, Bulgaria, changed to EOOD as of 26 April 2017.

7. Investments in associated companies and joint ventures

	Shares in associated companies and joint ventures	
EUR thousand	**2017**	**2016**
Cost		
As of 1 January	338,200	332,398
Investments and acquisitions	25,250	5,802
Disposals	-7,209	0
As of 31 December	356,241	338,200
Adjustments		
As of 1 January	3,434,558	2,952,089
Exchange adjustments	-456,882	139,125
Dividends received	-478,561	-14,248
Capital repayments of associated companies	0	-129,755
Net result of associated companies and joint ventures, after tax	542,985	487,347
As of 31 December	3,042,100	3,434,558
Carrying value as of 31 December	**3,398,341**	**3,772,758**

The Group presents the investments in associated companies and joint ventures as follows:

EUR thousand	**2017**	**2016**
Material associated company (Abu Dhabi Polymers Company Limited (Borouge))	3,294,481	3,704,084
Non-material associated companies	87,071	55,610
Non-material joint ventures	16,789	13,064
Carrying value as of 31 December	**3,398,341**	**3,772,758**

Investments in associated companies and joint ventures are part of the non-allocated segment except for Neochim AD, Kilpilahti Power Plant LTD and GCA Holding LLC which are part of the Base Chemicals segment.

The Group has the following investments in associated companies:

Associated Companies	Country	Ownership in % 2017	2016
Abu Dhabi Polymers Company Limited (Borouge)	United Arab Emirates	40.00	40.00
Borouge Pte. Ltd.	Singapore	50.00	50.00
FEBORAN EOOD***	Bulgaria	–	40.00
Neochim AD****	Bulgaria	20.30	–
Kilpilahti Power Plant LTD*	Finland	20.00	20.00
Chemiepark Linz Betriebsfeuerwehr GmbH*	Austria	47.50	47.50
AZOLOR S.A.S.*	France	34.00	34.00
Société d'Intérêt Collectif Agricole par Actions Simplifiée de Gouaix (SICA de Gouaix)*	France	25.00	25.00
Société Industrielle Commerciale et Agricole de Maiziéres La Grande Paroisse S.A.S. (SICAM)*	France	33.99	33.99
Société d'Intérêt Collectif Agricole Laignes Agrifluides (SICA Laignes Agrifluides)*	France	49.90	49.90
Franciade Agrifluides S.A.S. (FASA)*	France	49.98	49.98
Société Centre Ouest Agrifluide S.A.S. (SOCOA)**	France	–	49.98

* Excluded from consolidation at equity due to immateriality
** Sold per 30 January 2017
*** Subsidiary since 19 April 2017
**** Neochim AD a new associate due to acquisition of remaining shares of Feboran EOOD

Abu Dhabi Polymers Company Limited (Borouge) is a leading provider of innovative, value creating plastic solutions for infrastructure, automotive and advanced packaging applications.

The following table illustrates the summarised full financial information of the Group's investment in Abu Dhabi Polymers Company Limited (Borouge):

EUR thousand	2017	2016
Current assets	1,564,302	2,155,660
Non-current assets	7,255,580	8,732,598
Current liabilities	-522,823	-849,422
Non-current liabilities	-52,350	-768,458
Equity	**8,244,709**	**9,270,378**
Share of Borealis	40%	40%
Share of net assets	3,297,884	3,708,151
Adjustments	-3,403	-4,067
Carrying value as of 31 December	**3,294,481**	**3,704,084**
Net sales	3,488,337	3,595,087
Net profit for the year	1,295,994	1,171,929
Other comprehensive income	0	0
Total comprehensive income	1,295,994	1,171,929
Dividends received by Borealis from Borouge	478,203	14,248
Repayments of shareholder loan received by Borealis from Borouge	0	129,755

Summary in financial information for non-material associated companies, adjusted for the ownership by the Group:

EUR thousand	2017	2016
Net profit for the year as share of ownership by the Group	23,428	15,551
Other comprehensive income	2,253	0
Total comprehensive income as share of ownership by the Group	25,681	15,551

The Group has the following investments in joint ventures:

		Ownership in %	
Joint ventures	**Country**	**2017**	**2016**
PetroPort Holding AB	Sweden	50.00	50.00
GCA Holding LLC	US	50.00	50.00
BTF Industriepark Schwechat GmbH*	Austria	50.00	50.00

* Excluded from consolidation at equity due to immateriality

Summary in financial information for non-material joint ventures, adjusted for the ownership by the Group:

EUR thousand	2017	2016
Net profit for the year as share of ownership by the Group	592	0
Other comprehensive income	0	0
Total comprehensive income as share of ownership by the Group	592	0

8. Other investments and other non-current assets

Other investments mainly include interests in infrastructure companies in Germany and distribution and blending entities in France and Eastern Europe. Since 2017, other investments additionally include capital contribution in kind related to the Borealis formation of a Joint Venture with NOVA Chemicals and Total in the US. The other non-current receivables and other non-current assets mainly consist of long-term deposits for statutory and tax requirements.

9. Taxation

EUR thousand	2017	2016
Taxes		
Income tax payable	177,338	130,650
Change in deferred tax	-2,022	107,667
Adjustment to prior year's tax charge	-2,493	2,377
Taxes on income	**172,823**	**240,694**

Calculation from tax expense at statutory rates to accounting tax expense at the effective group tax rate.

EUR thousand	2017		2016	
Tax expense at statutory rates (weighted average tax rate of the Group)	**24%**	**305,941**	**25%**	**338,435**
Tax effect of result in associated companies	-11%	-135,737	-9%	-121,837
Tax effect of permanent differences	0%	-320	0%	-2,533
Adjustment of valuation allowance/re-assessment of unrecognised tax assets	1%	12,324	2%	28,463
Change due to changes in tax rates	0%	-4,491	0%	47
Prior year's adjustments and other	0%	-4,894	0%	-1,881
Taxes on income	**14%**	**172,823**	**18%**	**240,694**

	Balance sheet		Income statement	
EUR thousand	**2017**	**2016**	**2017**	**2016**
Deferred tax assets				
Tangible assets	10,268	20,279	-10,011	15,632
Intangible assets	4,538	5,671	-1,133	-702
Adjusted depreciation for tax purposes	**14,806**	**25,950**		
Revaluation of cash flow hedges	47	3,266	-3,219	5,236
Net gain on hedge of a net investment	24,995	30,943	0	-4
Valuation of inventories for tax purposes	15,402	13,623	1,779	-25
Fair values compared to tax values	**40,444**	**47,832**		
Employee benefits	80,920	85,157	-2,535	73
Other provisions	8,180	9,603	-1,423	4,567
Other assets and liabilities	1,995	13,250	-11,255	5,235
Other timing differences	**91,095**	**108,010**		
Losses available for offsetting against future taxable income	**62,508**	**60,756**	2,878	-126,541
Netting with deferred tax liabilities	**-154,231**	**-184,962**		
Deferred tax assets	**54,622**	**57,586**	**-24,919**	**-96,529**

EUR thousand	Balance sheet 2017	Balance sheet 2016	Income statement 2017	Income statement 2016
Deferred tax liabilities				
Tangible assets	-224,271	-234,011	5,943	-2,511
Intangible assets	-47,547	-47,433	-114	-5,227
Accelerated/adjusted depreciation for tax purposes	**-271,818**	**-281,444**		
Revaluation of cash flow hedges	-9,039	-5,187	2,766	-5,187
Valuation of inventories for tax purposes	-16,590	-22,954	6,584	-1,492
Fair values compared to tax values	**-25,629**	**-28,141**		
Employee benefits	-1,688	-691	-997	3,290
Other provisions	-16,411	-20,949	4,538	2,640
Other assets and liabilities	-37,527	-43,626	8,221	-2,651
Other timing differences	**-55,626**	**-65,266**		
Netting with deferred tax assets	**154,231**	**184,962**		
Deferred tax liabilities	**-198,842**	**-189,889**	**26,941**	**-11,138**
Net tax asset/liability	**-144,220**	**-132,303**	**2,022**	**-107,667**

The deferred tax assets of EUR 54,622 thousand (EUR 57,586 thousand) include an amount of EUR 4,846 thousand (EUR 12,822 thousand), which most likely will be utilised within one year. The deferred tax liabilities of EUR 198,842 thousand (EUR 189,889 thousand) include an amount of EUR 58,789 thousand (EUR 66,765 thousand), which most likely will be utilised within one year.

In addition to the tax assets capitalised, the Group has unrecognised tax losses amounting to EUR 339,472 thousand (EUR 305,208 thousand) and unrecognised temporary differences amounting to EUR 21,229 thousand (EUR 58,557 thousand), where current forecasts indicate insufficient future profits, thus resulting in unrecognised tax assets of EUR 93,165 thousand (EUR 108,308 thousand).

EUR thousand	2017	2016
Deductible temporary differences	5,482	20,144
Tax losses carried forward	87,683	88,164
Total unrecognised net tax assets	**93,165**	**108,308**

The tax losses carried forward have no expiry date.

The recognised deferred tax assets are expected to be utilised against future profits based on internal projections in the relevant jurisdictions. The benefit arising from previously unrecognised tax losses, tax credits or temporary differences of prior periods amounts to EUR 18,313 thousand (EUR 0 thousand).

Dividend payment to Borealis AG by its subsidiaries has no tax effect for Borealis AG. The temporary differences related to subsidiaries amount to EUR 132,966 thousand (EUR 114,992 thousand) for which no deferred tax liability has been recognised in accordance with IAS 12.39 Income Taxes.

Tax contingencies

On 5 January 2017, Borealis received two decisions of the Finnish Board of Adjustment with regard to Borealis Technology Oy. The Board of Adjustment has confirmed the Finnish tax authority's view that the license arrangements, entered into between Borealis Technology Oy and Borealis AG in 2008 and 2010, should be re-characterised into transfers of businesses. Based on this the Board of Adjustment requests Borealis to pay EUR 297,000 thousand, comprising of taxes, late payment interest and penalties.

Borealis believes that this decision fails to properly apply Finnish and international tax law and does not adequately consider the relevant facts of the case. Therefore, Borealis has appealed this decision to the Helsinki Administrative Court on 6 March 2017, and has obtained a suspension of payment.

On 11 October 2017, Borealis received a decision of the Board of Adjustment with regard to Borealis Polymers Oy. Unlike the Finnish tax authority, the Board of Adjustment has recognised the license agreement which Borealis Polymers Oy and Borealis AG had concluded in the course of the introduction of the toll manufacturing set up in 2009. The Board of Adjustment has however decided that the license percentage should be increased from 1% to 2.6% and that in the course of the introduction of the toll manufacturing set up "something else of value" amounting to EUR 142,000 thousand has been transferred. The resulting payment request for the year 2009 amounts to EUR 62,000 thousand, comprising taxes, late payment interest and penalties. The decision of the Board of Adjustment did not comprise other years than 2009 and no reassessment claims for other years have been received yet.

Borealis believes that this decision fails to properly apply Finnish and international tax law and does not adequately consider the relevant facts of the case. Therefore, Borealis has appealed this decision to the Helsinki Administrative Court on 15 December 2017, and has requested a suspension of payment.

Several other Borealis group companies are currently subject to tax audits performed by their respective tax authorities. In some of the audits, specific emphasis is put on business restructuring and transfer pricing. Management's opinion is that the company is in compliance with all applicable regulations. Given the preliminary nature of the proceedings, potential impacts, if any, cannot be currently reliably estimated.

10. Inventories

EUR thousand	2017	2016
Finished products	866,862	819,895
Raw materials and consumables	293,559	229,085
Total	**1,160,421**	**1,048,980**

The costs for the consumption of inventories recognised during the period in the income statement amounted to EUR 4,691,291 thousand (EUR 4,182,215 thousand), including impairment cost of EUR 18,968 thousand (EUR 18,339 thousand).

11. Share capital and contributions by shareholders

	Share capital		Contributions by shareholders	
EUR thousand	2017	2016	2017	2016
Balance as of 1 January	300	300	1,599,097	1,599,097
Capital increase (decrease)	0	0	0	0
Balance as of 31 December	**300**	**300**	**1,599,097**	**1,599,097**

The share capital of Borealis AG (parent company) amounts to EUR 300,000.00 (EUR 300,000.00) and is divided into 300,000 (300,000) shares, none of which have special voting rights.

The contributions by shareholders amounted to EUR 1,599,097 thousand (EUR 1,599,097 thousand).

Borealis AG is owned 61% by IPIC Beta Holdings GmbH, Wagramerstrasse 17–19, 1220 Vienna, Austria, 3% by International Petroleum Investment Company, IPIC Square, Muroor (4th) Road, PO Box 7528, Abu Dhabi, United Arab Emirates, 33% by OMV Refining & Marketing GmbH, Trabrennstrasse 6–8, 1020 Vienna, Austria, and 3% by OMV AG, Trabrennstrasse 6–8, 1020 Vienna, Austria. The ultimate controlling party until 18 January 2017 was International Petroleum Investment Company (IPIC) PJSC, Abu Dhabi, United Arab Emirates. Since 19 January 2017, Mubadala Investment Company PJSC, Abu Dhabi, United Arab Emirates, is the ultimate controlling party. None of the shares have special rights. Distribution of dividends to its shareholders does not have any tax effect for Borealis AG.

The Group's objectives are to safeguard the entity's ability to continue as a going concern and to provide an adequate return to its shareholders. The Group monitors capital on the basis of the gearing ratio. This ratio is calculated as net interest-bearing debt, including subordinated loans divided by total equity. The Group's target is to keep the gearing ratio within a range of 40%–60% to meet the business needs of the Group. As per year-end, the gearing stands at 12% (10%), significantly below the target range due to the strong performance of the Group.

12. Personnel

EUR thousand	2017	2016
Costs		
Salaries and wages	499,309	482,290
Costs of defined contribution plans	32,899	33,623
Costs of defined benefit plans and other long-term employee benefits	30,695	31,482
Social security costs	117,159	118,439
Other personnel expenses	20,162	21,294
Total	**700,224**	**687,128**

Costs of defined benefit plans and other long-term employee benefits are recognised in the production costs with EUR 18,118 thousand (EUR 19,451 thousand), sales and distribution costs with EUR 5,235 thousand (EUR 4,186 thousand), costs of administration with EUR 4,932 thousand (EUR 5,374 thousand) and research & development costs with EUR 2,410 thousand (EUR 2,471 thousand).

Number of employees (FTEs*) by country as of 31 December	2017	2016
Austria	1,786	1,750
Belgium	1,117	1,081
Finland	915	883
France	879	908
Germany	396	391
Sweden	915	906
Other	611	575
Total	**6,619**	**6,494**

* FTEs: Full-time equivalent

The remuneration of former and current management included in personnel costs is shown in the table below:

EUR thousand	2017	2016
Salaries and wages management (Executive Board)	8,962	7,323
Pension and severance costs management (Executive Board)	660	552
Salaries and wages other key management	1,404	1,578
Pension costs other key management	70	86
Total	**11,096**	**9,539**

From the pension and severance costs of the Executive Board of EUR 660 thousand (EUR 552 thousand), EUR 77 thousand (EUR 0 thousand) were paid to former members of the Executive Board.

No loans were granted to current or former members of the Executive Board. The remuneration paid to members of the Supervisory Board amounted to EUR 856 thousand (EUR 856 thousand).

13. Employee benefits

Most Group companies operate post-employment and other long-term benefit plans. The forms and benefits vary with conditions and practices in the countries concerned. The plans include both defined contribution plans and plans that provide defined benefits based on employees' years of service and estimated salary at retirement. A summary is shown below.

EUR thousand	2017	2016
Pensions and other post-employment benefit plans		
Present value of funded defined benefit pension plans	383,913	352,217
Fair value of plan assets	-221,796	-211,676
Deficit of funded defined benefit pension plans	162,117	140,541
Present value of unfunded defined benefit pension plans	167,105	160,141
Total deficit of defined benefit pension plans	329,222	300,682
Medical plans	14,908	16,369
Severance plans	68,499	70,246
Pensions and other post-employment benefit plans	**412,629**	**387,297**
Other long-term employee benefits	31,830	32,978
Net liability recognised in the balance sheet	**444,459**	**420,275**

The Group operates defined post-employment benefit plans in the EU, Norway and the United Arab Emirates under broadly similar regulatory frameworks. These comprise pension plans, severance plans as well as post-retirement medical plans.

Defined benefit pension plans

The pension plans typically are final salary pension plans which provide benefits to members in the form of a guaranteed level of pension payable for life. The level of benefits provided depends on members' length of service and their salary in the final years leading up to retirement. The pensions in payment are generally updated in line with the retail price or a similar index. The benefit payments related to funded plans are from insurance funds, however, there are also a number of unfunded plans where the company meets the benefit payment obligation as it falls due.

The movement in the benefit pension obligation over the year is as follows:

EUR thousand	2017	2016
Defined benefit obligation as of 1 January	**512,358**	**398,985**
Net current service cost	19,364	13,524
Interest cost on defined benefit obligation	8,694	9,271
Past service cost	-707	1,869
Gains (-)/losses due to settlements	-843	0
Total amount recognised in profit or loss	26,508	24,664
Gains (-)/losses due to changes in demographic assumptions	26,574	18,643
Gains (-)/losses due to changes in financial assumptions	4,053	35,935
Experience gains (-)/losses	-689	10,933
Total amount recognised in other comprehensive income	29,938	65,511
Actual benefits paid directly from the plan assets	-9,497	-10,247
Actual benefits paid directly by employer	-4,890	-5,172
Actual plan participants' contributions	909	16
Actual expenses/taxes and premiums paid	-1,446	-1,169
Other changes	424	43,609
Exchange rate gains (-)/losses	-3,286	-3,839
Defined benefit obligation as of 31 December	**551,018**	**512,358**
Fair value of plan assets as of 1 January	**211,676**	**156,563**
Interest income on plan assets	3,233	3,578
Gains/losses (-) due to settlements	-570	0
Actual admin expenses paid	-316	-260
Total amount recognised in profit or loss	2,347	3,318
Return on plan assets excluding amounts included in interest income	908	5,353
Total amount recognised in other comprehensive income	908	5,353
Actual benefits paid directly from the plan assets	-9,497	-10,247
Actual plan participants' contributions	909	16
Actual employer contributions	16,704	14,057
Actual taxes paid	-1,446	-1,169
Other changes	424	43,609
Exchange rate gains/losses (-)	-229	176
Fair value of plan assets as of 31 December	**221,796**	**211,676**

The plan assets in 2017 and 2016 consist mainly of insurance contracts.

Other changes in 2016 contained pension liabilities and pension assets of newly included pension plans related to Belgian companies. These plans are operated as defined contribution plans, however, due to a residual statutory indexation commitment of the employer, they qualify as defined benefits plans. In the low discount rate environment of 2016 their resulting net liability became significant for disclosure.

Medical plans

Medical plans reimburse certain medical costs for retired employees mainly in Belgium. The movement in the medical obligation over the year is as follows:

EUR thousand	2017	2016
Defined benefit obligation as of 1 January	**16,369**	**11,147**
Net current service cost	790	510
Interest cost on defined benefit obligation	240	250
Past service costs	-301	0
Total amount recognised in profit or loss	729	760
Gains (-)/losses due to changes in demographic assumptions	-1,636	-926
Gains (-)/losses due to changes in financial assumptions	0	2,578
Experience gains (-)/losses	-409	2,929
Total amount recognised in other comprehensive income	-2,045	4,581
Actual benefits paid directly by employer	-145	-119
Defined benefit obligation as of 31 December	**14,908**	**16,369**

Severance plans

Severance plans are operated in the Austrian group companies and cover employees who started their service before 1 January 2003. Furthermore, the Group operates severance plans in France, Italy and the United Arab Emirates. The movement in the severance obligation over the year is as follows:

EUR thousand	2017	2016
Defined benefit obligation as of 1 January	**70,246**	**65,497**
Net current service cost	1,804	1,610
Past service cost	0	295
Interest cost on defined benefit obligation	1,043	1,469
Total amount recognised in profit or loss	2,847	3,374
Gains (-)/losses due to changes in demographic assumptions	16	21
Gains (-)/losses due to changes in financial assumptions	29	5,305
Experience gains (-)/losses	810	923
Total amount recognised in other comprehensive income	855	6,249
Actual benefits paid directly by employer	-5,402	-5,178
Other changes	0	294
Exchange rate gains (-)/losses	-47	10
Defined benefit obligation as of 31 December	**68,499**	**70,246**

Other long-term employee benefits
Other long-term employee benefits provided by the Group companies include items such as jubilee payments and pre-pension benefits. The movement in the other long-term benefit obligation over the year is as follows:

EUR thousand	2017	2016
Defined benefit obligation as of 1 January	**32,978**	**31,349**
Net current service cost	1,602	1,689
Interest cost on defined benefit obligation	425	601
Past service cost	3	618
Gains (-)/losses due to changes in demographic assumptions	198	110
Gains (-)/losses due to changes in financial assumptions	168	1,837
Experience gains (-)/losses	562	1,147
Total amount recognised in profit or loss	2,958	6,002
Actual benefits paid	-4,106	-4,373
Defined benefit obligation as of 31 December	**31,830**	**32,978**

Discount rates, projected future salary, pension increases and expected rates of return on plan assets vary for the different defined benefit plans, as they are determined in light of local conditions.

Assumptions regarding future mortality are based on published statistics and mortality tables. The principal assumptions used were as follows (expressed as weighted averages):

	2017	2016
Discount rate	1.7%	1.7%
Projected future salary growth	3.2%	3.1%
Expected pension increase	1.8%	1.8%

The sensitivity of the defined benefit obligation for pensions and other post-employment benefit plans to changes in the principal assumptions is:

		Impact on defined benefit obligation	
	Change in assumption	Increase in assumption	Decrease in assumption
Discount rate	0.5%	Decrease by 6.9%	Increase by 7.7%
Salary growth rate	0.5%	Increase by 4.3%	Decrease by 4.0%
Pension growth rate	0.5%	Increase by 4.9%	Decrease by 4.5%

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions, the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the pension liability recognised within the statement of financial position.

Expected contributions to post-employment benefit plans for the year ending 31 December 2018 are EUR 28,439 thousand (EUR 28,026 thousand). The weighted average duration of the defined benefit obligation is 14.0 (14.4) years. The defined benefit plans expose the Group to actuarial risks, mainly the longevity risk, interest rate and market (investment) risk.

14. Other provisions

EUR thousand	2017 Restructuring	Decommissioning	Legal	Environmental	Other	Total
As of 1 January	1,164	31,208	3,869	6,692	23,327	66,260
Additions	0	5,291	1,983	1,659	17,178	26,111
Utilised	-1,684	0	-541	-388	-1,592	-4,205
Reversed	0	0	-94	-4,004	-418	-4,516
Reclassifications	1,436	0	-1	0	-16,042	-14,607
Interest expense	0	170	0	0	0	170
Exchange adjustments	-114	0	-32	0	-30	-176
Balance as of 31 December	**802**	**36,669**	**5,184**	**3,959**	**22,423**	**69,037**
Other provisions current	745	0	1,815	0	1,011	3,572
Other provisions non-current	57	36,669	3,369	3,959	21,412	65,465
Balance as of 31 December	**802**	**36,669**	**5,184**	**3,959**	**22,423**	**69,037**

EUR thousand	2016 Restructuring	Decommissioning	Legal	Environmental	Other	Total
As of 1 January	1,855	14,999	4,791	7,271	25,872	54,788
Additions	0	16,071	124	15	21,213	37,423
Changes in consolidation scope	0	0	0	0	403	403
Utilised	-729	0	-846	-122	-9,060	-10,757
Reversed	0	0	-205	-472	-3,885	-4,562
Reclassifications	0	0	0	0	-11,181	-11,181
Interest expense	0	138	0	0	0	138
Exchange adjustments	38	0	5	0	-35	8
Balance as of 31 December	**1,164**	**31,208**	**3,869**	**6,692**	**23,327**	**66,260**
Other provisions current	782	0	506	4,100	2,320	7,708
Other provisions non-current	382	31,208	3,363	2,592	21,007	58,552
Balance as of 31 December	**1,164**	**31,208**	**3,869**	**6,692**	**23,327**	**66,260**

Restructuring
Provisions for restructuring cover estimated costs for the ongoing restructuring programmes mainly in Norway and Germany.

Decommissioning
Provision for decommissioning cover the expected clean-up and dismantling costs for plants situated on rented land in Germany and Belgium. It is expected that EUR 11,493 thousand will be used until 2024, EUR 4,966 thousand until 2027 and EUR 20,210 thousand until 2049.

Legal
Legal provisions represent litigation provisions in different areas.

Environmental
Environmental provisions cover several environmental exposures in the Group.

Other
Other provisions cover numerous types of long-term obligations including long-term incentive plans. The reclassifications are items, that do not fulfil the definition of a provision anymore and are therefore reclassified to the balance sheet item current other liabilities.

The provisions are generally based on the past events and commitments arising thereon. The timing of the cash outflows cannot be determined for all provisions with certainty.

15. Government grants

In 2017, Borealis received government grants mainly for research and development activities. During the year EUR 9,133 thousand (EUR 7,746 thousand) were recognised in the income statement.

The EU ETS emission allowances for 2017 were granted in 2017 and amount to EUR 26,353 thousand (2016: EUR 22,406 thousand for the year 2016).

16. Financial risk management

The objective of financial risk management is to support the core businesses of Borealis. It operates within the framework of the treasury procedure. Borealis aims to minimise effects related to foreign exchange, interest rate, liquidity, credit, commodity price and refinancing risks. The use of any financial instrument is based on actual or forecasted underlying commercial or financial cash flows or identified risks as defined in the policy. Note 21 provides an overview of the financial instruments used by Borealis to manage risk.

Financial risk management is centralised in the Treasury and Funding department.

The foreign exchange risks related to short-term commercial cash flows are hedged and limits for long-term foreign exchange exposures are established. Interest rate risks are managed through a duration benchmark.

Foreign exchange translation differences relating to long-term investments in subsidiaries, associated companies and joint ventures are recognised in other comprehensive income. The exposures are partly hedged by long-term borrowing and foreign exchange contracts in the same currencies. Hedges are generally placed in the legal entities where the underlying exposure exists. When certain conditions are met, Borealis applies IAS 39 hedge accounting principles to foreign exchange, interest rate and commodity hedges.

Borealis' cash balances are deposited in the money market or invested in liquid instruments. Counterpart credit risks are managed by mandatory credit limits and external credit rating requirements. A real-time treasury system is used to monitor exposures and risk limits.

Commodity price risk is managed by the feedstock and energy traders and monitored by Trade Support and Risk Management. The commodity price risk exposure is calculated by a trading software. On a daily basis, Trade Support and Risk Management make a snapshot of all data in the trading system and retrieve the daily position from the system. The position is analysed and compared with the trading limits. Traders are allowed to use financial derivatives (i.e. financial swaps) in order to stay within the limits.

A credit limit is determined for every customer, based on an assessment of the financials of the company and past trading experiences. The credit exposure is calculated daily.

Group worldwide insurance programmes are established for risk related to property damage and business interruption, liability exposures, cargo, and for our employees when travelling for Borealis.

Hedging policies of the Group
Where possible, Borealis applies hedge accounting in order to recognise the offsetting effects on profit or loss of changes in the fair value of the hedging instrument and the hedged items. Borealis has the following hedging relationships:

Fair value hedging: In order to protect the fair value of its feedstock firm commitments, Borealis enters into derivative contracts (forward sale) and recognises an asset or a liability equal to the fair value of these commitments. In this way, and to the extent that the hedges are effective, the changes in fair value of the firm commitments offset the changes in fair value of the hedging instruments in the income statement. No fair value hedges existed at reporting date.

Cash flow hedging: Based on regular cash flow forecasts, Borealis hedges its foreign exchange exposure coming from forecasted sales and purchases, and from committed investment projects. Details about the hedging instruments used, notional amounts and maturities can be found in notes 21 and 22.

Borealis manages its interest rate risk through a modified duration benchmark. An important part of the borrowings is based on a floating interest rate but transformed into fixed interest rate loans after the application of interest rate swaps. Details regarding the hedging instruments used, notional amounts and maturities can be found in notes 21 and 23.

Borealis hedges its forecasted energy purchases using electricity and natural gas swaps. Details regarding the hedging instruments used, notional amounts and maturities can be found in notes 21 and 24.

Borealis hedges some of its forecasted feedstock purchases and finished product sales through feedstock swaps. Cash flow hedge accounting is applied to those derivatives, except for the derivatives that are used to limit the price risk on the inventory held for immediate consumption. Details about the hedging instruments used, notional amounts and maturities can be found in notes 21 and 24.

Net investment hedging: Borealis has hedged its investment in an associated company, which has USD as its functional currency, through a combination of entering into USD loans and currency derivatives. The EUR/USD impact on the valuation of both the loan and cross currency interest rate swaps is recognised in other comprehensive income. Details can be found in note 22.

Financial assets and liabilities are not offset in the consolidated balance sheet and are included separately in assets and liabilities.

17. Financial income/expenses

EUR thousand	2017	2016
Interest income from		
Cash and cash equivalents	1,280	1,302
Derivatives	3,073	3,384
Interest expenses to		
Finance institutions	-41,731	-56,919
Derivatives	-3,328	-4,160
Capitalised interest	3,832	2,449
Exchange adjustments, net	-16,244	-5,392
Other financial expenses and income	-12,630	-18,139
Financial income/expenses	**-65,748**	**-77,475**

18. Gains and losses from financial instruments

EUR thousand	2017	2016
Recognised in income statement		
Change in fair value of commodity derivative contracts	-6,138	-7,079
Change in fair value of foreign exchange derivative contracts	-1,871	-1,478
Realised result on commodity derivative contracts	-4,765	-4,081
Realised result on foreign exchange derivative contracts	664	-4,929
Financial assets and liabilities at fair value through profit or loss	**-12,110**	**-17,567**
Amounts recognised in profit or loss for realised cash flow hedges		
Commodity derivative contracts	14,434	-579
Interest derivative contracts	-507	-714
Foreign exchange derivative contracts	-3,010	-3,770
Hedging instruments	**10,917**	**-5,063**
Interest income from available for sale financial assets	80	113
Available for sale financial assets	**80**	**113**
Interest income on cash and deposits	1,280	1,310
Foreign exchange effects on cash and deposits	-3,397	-461
Foreign exchange effects on receivables	-26,582	7,867
Impairment losses on receivables	-1,216	-4,634
Loans and receivables	**-29,915**	**4,082**
Interest expenses and other expenses on financial liabilities	-54,441	-75,171
Foreign exchange effects on financial liabilities	15,195	-6,391
Financial liabilities	**-39,246**	**-81,562**

The amounts recognised in the income statement for the commodity and foreign exchange derivative contracts are booked as a correction to the net sales or mainly production costs that are being hedged. The amounts recognised in the income statement for interest rate derivatives and the foreign exchange effects on non-derivative financial assets and liabilities are reported as part of the financial income and expenses. Impairment losses on receivables are reported in sales and distribution costs.

EUR thousand	2017	2016
Recognised in other comprehensive income		
Commodity derivative contracts designated as cash flow hedge	29,844	70,769
Interest derivative contracts outstanding designated as cash flow hedge	89	-833
Foreign exchange derivative contracts designated as cash flow hedge	11,734	-16,147
Foreign exchange effects on receivables part of net investment in foreign operations	-699	-2,275
Foreign exchange effects on financial liabilities and derivatives designated as hedge of investment in foreign operations	14,779	-11,250
Available for sale financial assets	-294	166
Amounts reclassified to the income statement		
Commodity derivative contracts	-14,434	579
Interest derivative contracts	507	714
Foreign exchange derivative contracts	3,010	3,770
Total recognised in other comprehensive income	**44,536**	**45,493**

19. Loans and borrowings

The composition of interest-bearing loans and borrowings (current and non-current debt) at year-end was as follows:

Maturities (EUR thousand)		2017						
Due		**Total**	Term loans	Bonds	Utilised uncommitted facilities	Export credits	Finance leases	Unutilised committed facilities
After	5 years	**95,807**	95,807					
Within	5 years	**69,004**	68,924				80	
	4 years	**155,118**	155,041				77	930,000
	3 years	**101,138**	101,049				89	70,000
	2 years	**423,162**	298,032	125,000			130	
Total non-current debt		**844,228**	**718,853**	**125,000**	**0**	**0**	**375**	**1,000,000**
Total current debt		**174,936**	174,544	0	0	0	392	166,000[1)]
Total debt		**1,019,164**	**893,397**	**125,000**	**0**	**0**	**767**	**1,166,000**

[1)] Borealis maintains EUR 166,000 thousand in export credit facilities (these facilities were fully undrawn at 31 December 2017). These facilities are economically evergreen in nature, but include a one year notice for cancellation.

Maturities (EUR thousand)		2016						
Due		**Total**	Term loans	Bonds	Utilised uncommitted facilities	Export credits	Finance leases	Unutilised committed facilities
After	5 years	**181,129**	181,129					
Within	5 years	**156,413**	156,413					930,000
	4 years	**101,866**	101,851				15	70,000
	3 years	**429,995**	304,941	125,000			54	
	2 years	**175,786**	175,453				333	
Total non-current debt		**1,045,189**	**919,787**	**125,000**	**0**	**0**	**402**	**1,000,000**
Total current debt		**367,811**	167,324	200,000	0	0	487	166,000[2)]
Total debt		**1,413,000**	**1,087,111**	**325,000**	**0**	**0**	**889**	**1,166,000**

[2)] Borealis maintains EUR 166,000 thousand in export credit facilities (these facilities were fully undrawn at 31 December 2016). These facilities are economically evergreen in nature, but include a one year notice for cancellation.

The book values of the loans and borrowings developed in the course of 2017 as follows:

EUR thousand	2017
Current and non-current total	
As of 1 January	1,413,000
Current loans obtained	130,810
Non-current loans obtained	729
Current loans repayments	-497,137
Exchange adjustments non-cash	-28,116
Finance lease repayments	-122
As of 31 December	**1,019,164**

The Group's financing mainly comprises of committed credit lines (largely syndicated), term loans, bonds, private placements and export credits. The loans and borrowings are all measured at amortised cost.

In April 2010, a 7-year bond was issued with a nominal value of TEUR 200,000 and a fixed interest rate of 5.375%. This bond has been repaid in April 2017. In July 2012, a second 7-year bond was issued with a nominal value of TEUR 125,000 and an interest rate of 4.000%.

Borealis continues to maintain a strong liquidity position through its EUR 1 billion fully committed revolving credit facility of which EUR 1 billion remained undrawn at the end of December 2017 and by terming out its debt through diverse funding channels.

In 2017, Borealis decreased its debt position by EUR 393,836 thousand. Due to a decreased cash position, Borealis increased its net debt by EUR 139,512 thousand, which resulted in a gearing ratio of 12%. The EUR 1 billion Syndicated Revolving Credit Facility, based on a five-year tenor with two one-year extension options at lenders' discretion, which was originally refinanced in 2014, was extended in 2016 the second and final time by one additional year, with EUR 930,000 thousand of the participating relationship banks consenting to a final maturity date of 2021. EUR 70,000 thousand remain at the previously agreed final maturity date of 2020.

In 2017, Borealis concluded two R&D financings with the Österreichischen Forschungsförderungs-gesellschaft mbH in Austria with the total amount of EUR 671 thousand (2016: one R&D financing of EUR 418 thousand).

Borealis benefits from a well-diversified financing portfolio and a balanced maturity profile. The company will look to maintain access to a wide range of funding options, including capital markets and bank funding as well as private placements going forward.

At year-end, the Group has committed non-current credit facilities of EUR 1,166,000 thousand (EUR 1,166,000 thousand). No drawings under these facilities were outstanding at year-end. Some loan agreements have financial covenants based on maintaining certain gearing and solvency ratios.

The finance lease obligation amounts to EUR 767 thousand (EUR 889 thousand) and relates to payables within one year of EUR 392 thousand (EUR 487 thousand) and payables between one and five years of EUR 375 thousand (EUR 402 thousand) less financial charges of EUR 0 thousand (EUR 0 thousand).

Currency Mix (EUR thousand)	2017	Percent	2016	Percent
USD	179,653	18%	279,388	20%
EUR	798,028	78%	1,087,945	77%
GBP	33,888	3%	35,030	2%
BRL	7,595	1%	10,637	1%
Interest bearing total	**1,019,164**	100%	**1,413,000**	100%

20. Liquidity risk

Liquidity is managed on a daily basis to ensure the Group's liquidity requirement and is covered at all times with the lowest possible level of working capital. The following are the contractual maturities of non-derivative financial liabilities, including forecasted interest payments, and derivative financial liabilities. All carrying values exclude the outstanding interest accruals at year-end. Cash outflows are reported with a negative sign.

EUR thousand	2017						
Non-derivative financial liabilities	Carrying value	Contractual cash flows	6 months or less	6–12 months	1–2 years	2–5 years	More than 5 years
EUR floating rate loans	-152,987	**-155,912**	-13,908	-34,108	-30,826	-77,070	0
EUR fixed rate loans	-644,274	**-694,380**	-19,863	-125,732	-353,417	-169,235	-26,133
EUR financial leases	-767	**-767**	0	-392	-130	-245	0
USD floating rate loans	0	**0**	0	0	0	0	0
USD fixed rate loans	-179,653	**-228,265**	-5,082	-5,082	-63,642	-69,331	-85,128
GBP fixed rate loans	-33,888	**-46,629**	-1,593	-1,593	-3,185	-40,258	0
BRL floating rate loans	-7,281	**-8,380**	-1,185	-1,140	-2,162	-3,893	0
BRL fixed rate loans	-314	**-352**	-48	-47	-90	-167	0
Trade payables	-797,849	**-797,849**	-797,849	0	0	0	0
Total	**-1,817,013**	**-1,932,534**	**-839,528**	**-168,094**	**-453,452**	**-360,199**	**-111,261**

EUR thousand	2016						
Non-derivative financial liabilities	Carrying value	Contractual cash flows	6 months or less	6–12 months	1–2 years	2–5 years	More than 5 years
EUR floating rate loans	-175,790	**-179,550**	-6,436	-17,824	-47,527	-88,557	-19,206
EUR fixed rate loans	-911,266	**-993,790**	-281,347	-17,801	-146,802	-517,437	-30,403
EUR financial leases	-889	**-889**	0	-487	-333	-69	0
USD floating rate loans	-75,074	**-75,128**	-75,128	0	0	0	0
USD fixed rate loans	-204,314	**-271,159**	-5,780	-5,780	-11,559	-91,125	-156,915
GBP fixed rate loans	-35,030	**-51,494**	-1,646	-1,646	-3,293	-44,909	0
BRL floating rate loans	-10,184	**-13,322**	-1,645	-1,523	-2,921	-7,233	0
BRL fixed rate loans	-453	**-522**	-58	-57	-110	-297	0
Trade payables	-722,262	**-722,262**	-722,262	0	0	0	0
Total	**-2,135,262**	**-2,308,116**	**-1,094,302**	**-45,118**	**-212,545**	**-749,627**	**-206,524**

EUR thousand	2017						
Derivative financial liabilities/outflow	Carrying value	Contractual cash flows	6 months or less	6–12 months	1–2 years	2–5 years	More than 5 years
Interest rate swaps	-992	**-1,088**	-240	-184	-381	-283	0
Cross currency interest rate swaps	-3,246	**-48,153**	-1,485	-1,484	-2,969	-42,215	0
Foreign exchange contracts	-3,488	**-422,717**	-286,672	-136,045	0	0	0
Feedstock contracts	-46,177	**-46,903**	-21,670	-25,189	-44	0	0
Electricity contracts	-12,052	**-12,024**	-4,314	-3,471	-3,987	-252	0
Natural gas hedges	-947	**-946**	-410	-408	-128	0	0
Total	**-66,902**	**-531,831**	**-314,791**	**-166,781**	**-7,509**	**-42,750**	**0**

EUR thousand	2016						
Derivative financial liabilities/outflow	Carrying value	Contractual cash flows	6 months or less	6–12 months	1–2 years	2–5 years	More than 5 years
Interest rate swaps	-1,583	**-1,727**	-262	-183	-545	-726	-11
Cross currency interest rate swaps	-1,885	**-51,122**	-1,485	-1,485	-2,969	-45,183	0
Foreign exchange contracts	-12,335	**-441,904**	-278,781	-163,123	0	0	0
Feedstock contracts	-31,351	**-31,421**	-18,599	-11,749	-1,073	0	0
Electricity contracts	-13,940	**-13,906**	-4,389	-4,206	-3,941	-1,370	0
Natural gas hedges	-2,924	**-2,917**	-1,030	-879	-822	-186	0
Total	**-64,018**	**-542,997**	**-304,546**	**-181,625**	**-9,350**	**-47,465**	**-11**

EUR thousand	2017					
Off balance sheet liabilities	Contractual maturities	6 months or less	6–12 months	1–2 years	2–5 years	More than 5 years
Contingencies provided by the entity	56,395	396	1,780	20,071	314	33,834
Operating lease payables	218,507	17,287	16,198	27,546	62,650	94,826
Capital commitments – tangible assets	104,958	71,847	24,728	7,744	639	0

EUR thousand	2016					
Off balance sheet liabilities	Contractual maturities	6 months or less	6–12 months	1–2 years	2–5 years	More than 5 years
Contingencies provided by the entity	32,603	324	264	1,524	20,303	10,188
Operating lease payables	238,662	17,174	15,822	27,809	61,926	115,931
Capital commitments – tangible assets	110,297	82,330	21,289	1,828	4,850	0

For details with respect to off balance sheet liabilities please see note 4, note 28 and note 31.

21. Cash flow and fair value hedges

The following table indicates the period in which the cash flows associated with derivatives that are cash flow hedges are expected to occur and impact profit and loss. All carrying values exclude the outstanding interest accruals at year-end. Cash outflows are reported with a negative sign, cash inflows with a positive sign.

EUR thousand	2017						
Cash flow hedges	Carrying value	Contractual cash flows	6 months or less	6–12 months	1–2 years	2–5 years	More than 5 years
Interest rate swaps							
Liabilities/outflow	-992	**-1,088**	-240	-184	-381	-283	0
Assets/inflow	0	**0**	0	0	0	0	0
Foreign exchange contracts							
Liabilities/outflow	-2,979	**-284,993**	-148,948	-136,045	0	0	0
Assets/inflow	2,091	**284,099**	148,904	135,195	0	0	0
Electricity, feedstock and natural gas contracts							
Liabilities/outflow	-22,324	**-22,620**	-8,253	-9,956	-4,159	-252	0
Assets/inflow	58,535	**58,758**	25,256	14,338	15,593	3,571	0
Total	**34,331**	**34,156**	**16,719**	**3,348**	**11,053**	**3,036**	**0**

As of 31 December 2017, no fair value hedges existed.

EUR thousand	2016						
Cash flow hedges	Carrying value	Contractual cash flows	6 months or less	6–12 months	1–2 years	2–5 years	More than 5 years
Interest rate swaps							
Liabilities/outflow	-1,583	**-1,727**	-262	-183	-545	-726	-11
Assets/inflow	0	**0**	0	0	0	0	0
Foreign exchange contracts							
Liabilities/outflow	-12,280	**-358,601**	-195,478	-163,123	0	0	0
Assets/inflow	800	**347,130**	188,549	158,581	0	0	0
Electricity, feedstock and natural gas contracts							
Liabilities/outflow	-35,476	**-35,434**	-16,766	-12,349	-4,763	-1,556	0
Assets/inflow	58,561	**58,473**	28,829	14,333	10,693	4,618	0
Total	**10,022**	**9,841**	**4,872**	**-2,741**	**5,385**	**2,336**	**-11**

As of 31 December 2016, no fair value hedges existed.

22. Foreign currency risk

Borealis incurs foreign currency risk on sales, purchases and borrowings that are denominated in currencies other than EUR. The currencies giving rise to risk are primarily USD and SEK in order of volume.

Borealis hedges its trade receivables, trade payables, cash positions and forecasted positions denominated in foreign currencies. At any time, Borealis may also hedge its long-term commercial exposures up to a predefined level and duration. Borealis normally hedges the currency positions using forward exchange contracts and foreign exchange options. The total notional value of outstanding foreign exchange forwards as of 31 December 2017 was EUR 421,421 thousand (EUR 443,793 thousand) of which EUR 283,406 thousand (EUR 360,124 thousand) relate to foreign currency hedging and EUR 138,014 thousand (EUR 83,669 thousand) relate to liquidity management. The total notional value of outstanding foreign exchange options as of 31 December 2017 was EUR 0 thousand (EUR 0 thousand) measured at the strike rate.

Of the foreign exchange cash flow hedges, losses of EUR -3,010 thousand (EUR -3,770 thousand) were removed from hedging reserve during 2017 and were reclassified to the income statement and included into the operating profit and the financial expenses.

There was no partial ineffectiveness of the foreign exchange cash flow hedges, therefore no losses were recognised in financial expenses at year-end 2017 and 2016.

Firm commitments and forecasted transactions
Borealis classifies its foreign exchange forward contracts and options which are hedging a forecasted currency position as cash flow hedges and states them at fair value. The net fair value of foreign exchange forward contracts used as hedges of firm commitments and forecasted transactions as of 31 December 2017 was EUR -888 thousand (EUR -11,480 thousand).

EUR -888 thousand (EUR -11,480 thousand) have been recorded in other comprehensive income at year-end. EUR 2,091 thousand (EUR 800 thousand) have been recognised in other current assets and EUR -2,979 thousand (EUR -12,280 thousand) have been recorded in other current liabilities.

Hedges of net investments in foreign operations
Borealis designates certain external loans, cross currency interest rate swaps and foreign exchange forwards as hedges of the Group's investments in its foreign operations. The designated USD hedge loans amounted to EUR 179,653 thousand (EUR 279,388 thousand) as of 31 December 2017. A foreign exchange gain of EUR 14,779 thousand (loss of EUR -11,250 thousand) was recognised in other comprehensive income during 2017 on the translation of these USD liabilities to EUR.

Recognised assets and liabilities

Changes in the fair value of forward exchange contracts that hedge monetary assets and liabilities in foreign currencies and the forward legs of currency swaps used in liquidity management, for which no hedge accounting is applied, are recognised in the income statement. Both changes in the fair value of the forward contracts and the foreign exchange gains and losses relating to the monetary items are recognised as part of the financial expenses. The fair value of forward exchange contracts used as hedges of monetary assets and liabilities in foreign currencies and the forward legs of currency swaps used in liquidity management for which no hedge accounting is applied as of 31 December 2017, was EUR -3,347 thousand (EUR -1,477 thousand). Thereof EUR -100 thousand (EUR 408 thousand) are related to forward legs of currency swaps and EUR -3,247 thousand (EUR -1,885 thousand) are related to the cross-currency-swap.

EUR 409 thousand (EUR 462 thousand) was recognised in other assets and EUR -3,756 thousand (EUR -1,939 thousand) in other liabilities.

Sensitivity analysis

The Group's exposure to the risk of changes in foreign exchange rates relates primarily to the Group's operating activities, invoicing mainly in EUR and purchasing raw materials mainly in USD, and the Group's net investments in associated companies mainly denominated in USD.

The sensitivity analysis has been prepared on the basis that the financial instruments in foreign currencies and all other parameters, apart from changes in foreign exchange rates themselves, are constant and on the basis of hedge designations in place at 31 December 2017. The Group assumes that the prevailing polyolefin market pricing mechanisms reduce the foreign exchange risk in practice.

As of 31 December 2017, the Group shows a net receivable (prior year: net payable) position of USD. Therefore, it is estimated that a general strengthening of one percentage point of the USD against the EUR would have increased Borealis' profit before tax by approximately EUR 1,666 thousand (decrease of EUR -156 thousand). The effect of a weakening of one percentage point of the USD against the EUR on Borealis' profit before tax would have been a decrease of approximately EUR -1,633 thousand (increase of EUR 153 thousand).

As of 31 December 2017, the Group shows a net payable position of SEK (prior year: net receivable). Therefore, it is estimated that a general strengthening of one percentage point of the SEK against the EUR would have decreased Borealis' profit before tax by approximately EUR -1,068 thousand (increase of EUR 1,553 thousand). The effect of a weakening of one percentage point of the SEK against the EUR on Borealis' profit before tax would have been an increase of approximately EUR 1,047 thousand (decrease of EUR -1,523 thousand).

A general strengthening of one percentage point of the USD against the EUR would have decreased the Group's equity by EUR -2,916 thousand (EUR -4,792 thousand). A weakening of one percentage point of the USD against the EUR would have increased the Group's equity by EUR 2,858 thousand (EUR 4,697 thousand).

A general strengthening of one percentage point of the SEK against the EUR would have increased the Group's equity by EUR 1,491 thousand (EUR 1,451 thousand). A weakening of one percentage point of the SEK against the EUR would have decreased the Group's equity by EUR -1,462 thousand (EUR -1,423 thousand).

If not only financial instruments but also the Group's net investments are considered, a general strengthening of one percentage point of the USD against the EUR would have increased the Group's equity by EUR 31,065 thousand (EUR 34,128 thousand). A weakening of one percentage point of the USD against the EUR would have decreased the Group's equity by EUR -30,450 thousand (decrease of EUR -33,452 thousand).

Likewise, a general strengthening of one percentage point of the SEK against the EUR would have increased the Group's equity by EUR 6,951 thousand (EUR 5,930 thousand). A weakening of one percentage point of the SEK against the EUR would have decreased the Group's equity by EUR -6,814 thousand (EUR -5,812 thousand).

23. Interest rate risk

Borealis adopts a policy of managing its interest rate risk through the modified duration of its loan portfolio. Average modified duration is allowed to deviate within a predefined range. Interest rate derivatives denominated in EUR have been entered into to achieve this objective. All interest rate derivatives are on terms following the maturity and repricing terms of the underlying loans or future loan requirements.

Of total interest-bearing debt, approximately 84% (82%) have a fixed interest rate, and 16% (18%) are based on a floating interest rate before applying interest rate swaps. After applying interest rate swaps, approximately 90% (87%) have a fixed interest rate and 10% (13%) are based on a floating interest rate. The floating interest rates are set by adding a spread to the reference rates (mainly EURIBOR and LIBOR).

As of 31 December 2017, Borealis had one outstanding interest rate swap for a notional amount of EUR 57,692 thousand (EUR 69,231 thousand) with an interest rate of 0.5% (0.6%) and maturity in 2022.

Borealis does not account for any fixed rate financial assets and liabilities at fair value through profit or loss, and does not designate derivatives (interest rate swaps) as hedging instruments under a fair value hedge accounting model. Therefore, a change in interest rates for fixed rate financial assets and liabilities at the reporting date would not affect profit and loss.

Borealis classifies the outstanding interest rate swap as a cash flow hedge and states it at fair value. The total net fair value of the interest rate derivative as of 31 December 2017 was EUR -992 thousand (EUR -1,583 thousand) entirely recognised in other liabilities, thereof non-current liabilities EUR -992 thousand (EUR -1,583 thousand).

The cross currency interest rate swap is included as held for trading and stated at fair value. As of 31 December 2017, the fair value of this swap was EUR -3,246 thousand (EUR -1,885 thousand) entirely recognised in other liabilities, thereof non-current EUR -3,246 thousand (EUR -1,885 thousand).

Of the interest rate swap, a loss of EUR -507 thousand (EUR -714 thousand) was realised in financial expenses during 2017. No interest rate swap matured during 2017. Of the interest rate swap which is used as cash flow hedge no net gain (loss) was recognised in financial income and expenses at year-end due to partial ineffectiveness.

Effective interest rate

In respect of interest-bearing financial liabilities, the following table indicates their effective interest rates at the balance sheet date.

EUR thousand	2017		2016	
	Effective interest rate	Carrying value	Effective interest rate	Carrying value
EUR floating rate loans	0.6%	152,987	0.7%	175,790
Effect on interest rate swaps	0.0%		0.0%	
EUR fixed rate loans	3.1%	644,274	3.7%	911,266
EUR financial leases	2.7%	767	2.3%	889
USD floating rate loans	0.0%	0	1.0%	75,074
USD fixed rate loans	5.7%	179,653	5.6%	204,314
GBP fixed rate loans	9.4%	33,888	9.4%	35,030
BRL floating rate loans	7.9%	7,281	10.5%	10,184
BRL fixed rate loans	6.0%	314	6.0%	453
Total interest bearing debt		**1,019,164**		**1,413,000**

Sensitivity analysis
In managing interest rate risks Borealis aims to reduce the impact of short-term fluctuations on its earnings. Over the long term, permanent changes in interest rates will have an impact on consolidated earnings. The sensitivity analysis has been prepared on the basis of the amount of net debt, floating interest rates of the debt and the derivatives are as per 31 December 2017. As of 31 December 2017, it is estimated that a general increase of one percentage point in interest rates would have decreased Borealis' profit before tax by approximately EUR -2,998 thousand (EUR -1,034 thousand) and would have increased Borealis' equity by approximately EUR 1,319 thousand (EUR 320 thousand). The effect of a decrease of one percentage point in interest rates is expected to increase Borealis' profit before tax by approximately EUR 3,017 thousand (EUR 676 thousand) and would have decreased Borealis' equity by approximately EUR -1,326 thousand (EUR -322 thousand).

24. Commodity risk

Feedstock contracts: At the balance sheet date, Borealis had commodity derivative contracts with maturities of up to 18 months (18 months) forward to manage the price risk of feedstock. The gross notional volume of contracts held on 31 December 2017 was 894,000 tonnes (1,150,000 tonnes). Part of the contracts, 318,000 tonnes (660,000 tonnes), has been designated as cash flow hedge for future sales and purchases. The total fair value of these contracts at the balance sheet date was EUR 2,982 thousand (EUR 1,746 thousand). No hedge accounting is applied for the remaining contracts. The net fair value of all derivative contracts for feedstock as of 31 December 2017 was EUR -5,071 thousand (EUR -165 thousand). EUR -46,177 thousand (EUR -31,350 thousand) have been recognised in other liabilities, thereof EUR -44 thousand (EUR -1,002 thousand) in non-current liabilities, and EUR 41,106 thousand (EUR 31,185 thousand) in other assets, thereof in non-current assets EUR 67 thousand (EUR 372 thousand).

Electricity contracts: Borealis hedges its forecasted electricity purchases with maturity up to 2020 using electricity swaps. The notional volume of the contracts held at 31 December 2017 was 6,919 GWh (6,823 GWh) with an average maturity of 18 months (19 months). Cash flow hedge accounting has been applied for these contracts. The net fair value of the electricity swap contracts used as hedges for forecasted transactions as of 31 December 2017 was EUR 33,146 thousand (EUR 21,994 thousand), comprising liabilities of EUR -12,052 thousand (EUR -13,940 thousand), thereof non-current EUR -4,244 thousand (EUR -5,345 thousand) and assets of EUR 45,198 thousand (EUR 35,934 thousand), thereof non-current EUR 18,878 thousand (EUR 13,852 thousand). These amounts were recognised in other liabilities, other assets and in other comprehensive income.

Natural gas contracts: Borealis hedges its forecasted natural gas purchases with maturity up to 2019 using natural gas swaps. The notional volume of the contracts held at 31 December 2017 was 307 GWh (675 GWh) with an average maturity of 15 months (19 months). Cash flow hedge accounting has been applied for these contracts. The net fair value of the natural gas swap contracts used as hedges for forecasted transactions as of 31 December 2017 was EUR 84 thousand (EUR -655 thousand), comprising liabilities of EUR -947 thousand (EUR -2,925 thousand), thereof non-current EUR -128 thousand (EUR -1,015 thousand) and assets of EUR 1,031 thousand (EUR 2,270 thousand), thereof non-current EUR 250 thousand (EUR 1,176 thousand). These amounts were recognised in other liabilities, other assets and in other comprehensive income.

Of the commodity cash flow hedges, gains amounting to EUR 14,434 thousand (losses amounting to EUR -579 thousand) were removed from hedging reserve during 2017 and were reclassified to the income statement and included into the production costs.

There was no partial ineffectiveness of the commodity cash flow hedges, therefore no losses were recognised in production costs at year-end 2017 and 2016.

Sensitivity analysis
Commodity price risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in commodity prices. Borealis states its inventories at the lower of cost and net realisable value, taking into account future price developments.

The sensitivity analysis has been prepared for all derivative financial instruments on the basis that the amount of the feedstock held and all other parameters besides commodity prices (in particular sales prices) are constant and on the basis of the hedge designations in place at 31 December 2017. The Group assumes that the prevailing market pricing mechanisms reduce the commodity price risk in practice.

As of 31 December 2017, it is estimated that a general increase of one percentage point in commodity prices would have increased Borealis' profit before tax by approximately EUR 351 thousand (decreased by EUR -44 thousand) and would have increased Borealis' equity by approximately EUR 2,820 thousand (EUR 2,115 thousand). The effect of a decrease of one percentage point in commodity prices is expected to decrease the profit before tax by approximately EUR -351 thousand (increased by EUR 44 thousand) and would have decreased Borealis' equity by approximately EUR -2,820 thousand (EUR -2,115 thousand).

25. Securitisation

Borealis has a securitisation programme under which the company sells certain trade receivables to external parties. The Group does not retain any major interest in the trade receivables and thus accordingly derecognises the receivables sold. Borealis continues to administer the relationship with debtors and has to transfer all receivables collected and previously sold to the purchaser under this programme. Several reserves are deducted from the nominal value of the sold receivables and will be released upon transfer of the respective collected receivables to the purchaser.

As of 31 December 2017, receivables worth EUR 312,091 thousand (EUR 316,713 thousand) were sold to the purchaser under the securitisation programme. The reserves deducted from the nominal value of the sold receivables amounted to EUR 25,763 thousand (EUR 25,425 thousand) as of 31 December 2017 and are included in other current receivables.

26. Credit risk

Trade receivables credit risk (incl. associated companies)
A credit control procedure is in place. Credit risk is monitored on an ongoing basis. Credit risk of a specific counterparty is the sum of all outstanding trade receivables and is compared to the individual credit limit allocated to that counterparty. Credit limit evaluations are performed on a daily basis and all customers are at least reviewed annually. Approval and escalation limits are used to authorise the available credit limits to customers. At the balance sheet date, Borealis has no large concentrations of credit risks representing more than 10% of the total outstanding trade receivables. No credit risk is retained in trade receivables sold under the securitisation programme (note 25).

The maximum exposure to credit risk for trade receivables at the reporting date by geographic region was:

EUR thousand	2017	2016
EU Countries	375,372	320,803
Non-EU in Europe	89,581	42,992
USA	35,297	21,985
Middle East and Asia	88,464	178,007
Other regions	61,549	57,484
Total	**650,263**	**621,271**

The maximum exposure to credit risk for trade receivables at the reporting date by type of segment and group of customers was:

EUR thousand	2017	2016
Polyolefins	414,375	384,960
Base Chemicals	220,334	209,001
Non-Allocated	15,554	27,310
Total	**650,263**	**621,271**

All customers are classified in risk categories based on criteria, such as their financial strength, ownership, size, payment behaviour and country of domicile.

The following categories exist:

Risk category 1: preferred customers, customers with excellent credit standing and financial strength

Risk category 2: medium-size customers with good reputations

Risk category 3: financially sound customers, but with history of slow payments

Risk category 4: customers with repetitive slow payments or with a weak financial situation

Risk category 5: customers paying cash in advance

Risk category 6: customers with secured payment terms (L/C or other)

Risk category 7: all new customers

	Gross	Impairment	Gross	Impairment
EUR thousand	2017		2016	
Risk category 1	147,991	0	122,929	0
Risk category 2	154,946	0	122,912	0
Risk category 3	86,662	0	92,430	0
Risk category 4	211,889	-13,292	229,393	-13,371
Risk category 5	249	0	118	0
Risk category 6	61,777	0	66,860	0
Risk category 7	41	0	0	0
Total	**663,555**	**-13,292**	**634,642**	**-13,371**

The ageing of trade receivables at the reporting date was:

	Gross	Impairment	Gross	Impairment
EUR thousand	2017		2016	
Not past due	586,616	0	550,554	0
Past due 0–30 days	58,911	0	57,032	0
Past due 31–90 days	2,403	0	4,620	0
Past due 91–120 days	671	0	167	0
Past due 121–180 days	1,569	0	320	0
Past due over 180 days	13,385	-13,292	21,949	-13,371
Total	**663,555**	**-13,292**	**634,642**	**-13,371**

The movement in the allowance for impairment in respect of trade receivables:

EUR thousand	2017	2016
Balance as of 1 January	13,371	9,853
Impairment loss recognised	1,216	4,634
Written off	-1,145	-1,055
Recoveries	-150	-61
Balance as of 31 December	**13,292**	**13,371**

In 2017, the Group did not renegotiate the terms of trade receivables.

The total guarantees received (including bank guarantees and parental guarantees) in respect of the above receivables amount to EUR 249,680 thousand (EUR 163,847 thousand).

Other credit risk

Borealis' cash balances are deposited with relationship banks or are invested in liquid securities with counterparties that fulfil a certain predefined credit rating threshold. Counterparty credit risks for long-term financial treasury transactions are managed by mandatory credit limits and external credit rating requirements or have undergone a special approval process. A real time treasury system is used to monitor exposures and risk limits. The Executive Board does not expect any counterparty to fail to meet any of its current obligations.

	Credit risk		Impairment losses recognised	
EUR thousand	2017	2016	2017	2016
Available for sale financial assets	48,080	36,789	0	0
Financial assets at fair value through profit or loss	29,208	11,290	0	0
Loans and receivables				
Loans granted	9,408	2,500	0	0
Deposits and other receivables	5,037	5,303	0	0
Trade receivables	574,021	541,066	13,292	13,371
Receivables from associated companies	76,242	80,205	0	0
Cash and cash equivalents	229,062	762,421	0	0
Derivative financial assets for which hedge accounting is applied	60,626	59,361	0	0
	1,031,684	**1,498,935**	**13,292**	**13,371**

27. Fair values

The fair values of financial assets and liabilities and the fair value measurement hierarchy level, together with the carrying values shown in the balance sheet, are as follows:

EUR thousand	2017			2016		
	Carrying value	Fair value	Fair value hierarchy level	Carrying value	Fair value	Fair value hierarchy level
Assets						
Other investments						
Other investments	35,985	35,985	n/a*	24,400	24,400	n/a*
Available for sale financial assets	**35,985**			**24,400**		
Trade receivables						
Trade receivables	574,021	574,021	n/a*	541,066	541,066	n/a*
Loans and receivables	**574,021**			**541,066**		
Receivables from associated companies						
Receivables from associated companies	76,242	76,242	n/a*	80,205	80,205	n/a*
Loans and receivables	**76,242**			**80,205**		
Cash and cash equivalents						
Cash	63,023	63,023	n/a*	176,280	176,280	n/a*
Other current deposits	166,039	166,039	n/a*	586,141	586,141	n/a*
Cash and cash equivalents	**229,062**			**762,421**		
Other receivables and other assets (current and non-current)						
Long-term deposits for tax requirements	12,095	12,095	1	12,389	12,389	1
Available for sale financial assets	**12,095**			**12,389**		
Derivative financial instruments for which hedge accounting is applied	60,626	60,626	2	59,361	59,361	2
Hedging instruments	**60,626**			**59,361**		
Derivative financial instruments for which hedge accounting is not applied	29,208	29,208	2	11,290	11,290	2
Financial assets at fair value through profit or loss	**29,208**			**11,290**		
Loans granted	9,408	12,407	2	2,500	2,500	2
Deposits and other receivables	5,037	5,037	n/a*	5,303	5,303	n/a*
Loans and receivables	**14,445**			**7,803**		
Other non financial assets	426,174	n/a	n/a	319,199	n/a	n/a
Total other receivables and other assets (current and non-current)	**542,548**			**410,042**		

* According to IFRS 7.29 the fair value of these items is estimated to equal the carrying value. Therefore, no fair value hierarchy level was stated.

EUR thousand	2017			2016		
	Carrying value	Fair value	Fair value hierarchy level	Carrying value	Fair value	Fair value hierarchy level
Liabilities						
Loans and borrowings (current and non-current)						
Floating rate loans and borrowings	160,268	163,839	2	261,048	261,048	2
Fixed rate loans and borrowings	858,896	927,480	2	1,151,952	1,292,393	2
Financial liabilities	**1,019,164**			**1,413,000**		
Trade payables						
Trade payables	797,849	797,849	n/a*	722,262	722,262	n/a*
Financial liabilities	**797,849**			**722,262**		
Other liabilities (current and non-current)						
Derivative financial instruments for which hedge accounting is applied	26,295	26,295	2	49,338	49,338	2
Hedging instruments	**26,295**			**49,338**		
Derivative financial instruments for which hedge accounting is not applied	40,607	40,607	2	14,680	14,680	2
Financial liabilities at fair value through profit or loss	**40,607**			**14,680**		
Contingent consideration	3,983	3,983	3	11,260	11,260	3
Interest accruals on loans and borrowings	10,064	10,064	n/a*	17,810	17,810	n/a*
Financial liabilities	**14,047**			**29,070**		
Other non-financial liabilities	308,883	n/a	n/a	326,549	n/a	n/a
Total other liabilities (current and non-current)	**389,832**			**419,637**		

* According to IFRS 7.29 the fair value of these items is estimated to equal the carrying value. Therefore, no fair value hierarchy level was stated.

The Group measures fair values using the following fair value hierarchy that reflects the significance of the inputs used in making the measurements:

Level 1: Quoted market price (unadjusted) in an active market for an identical instrument.

Level 2: Valuation techniques based on observable inputs, either directly or indirectly. This category includes instruments valued using quoted market prices in active markets for similar instruments, quoted prices for identical or similar instruments in less active markets, or other valuation techniques where all significant inputs are directly or indirectly observable from market data.

Level 3: Valuation techniques using significant unobservable inputs. This category includes all instruments where the valuation technique includes inputs not based on observable data and the unobservable inputs have a significant effect on the instruments' valuation. This category includes instruments that are valued based on quoted prices for similar instruments where significant unobservable adjustments or assumptions are required to reflect differences between the instruments.

In 2017, no transfers between the different levels took place.

Other investments

The carrying value of other investments is not materially different from their fair value.

Trade and other receivables and assets

The fair value of trade and other receivables and assets and receivables from associated companies is estimated to equal the nominal values less impairments (= carrying value). Therefore, no fair value hierarchy level was stated.

The carrying value of deposits and other non-current receivables is not materially different from their fair value.

The fair value of loans granted is calculated based on the present value of future principle and interest cash flows discounted at the market rate of interest adjusted for the respective counterparty credit risk at the reporting date.

Derivatives
The fair value of forward exchange contracts is estimated by discounting the difference between the contractual forward price and the current forward price for the residual maturity of the contract using market interest rates at the reporting date.

The fair value of interest rate swaps is estimated by discounting estimated future cash flows based on the terms and maturity of each contract and using market interest rates for a similar instrument at the reporting date. The credit quality of counterparties did not lead to a significant change in the fair values.

The fair value of commodity derivative contracts is estimated by discounting the difference between current forward price and contractual forward price.

Other non-financial assets and liabilities
Other non-financial assets and liabilities are shown solely for reconciliation purposes.

Non-derivative financial liabilities
Fair value for non-current and current loans and borrowings is calculated based on the present value of future principal and interest cash flows discounted at the market rate of interest adjusted for Borealis credit risk at the reporting date. All fair values are excluding the outstanding interest accruals as at 31 December 2017.

The fair value of trade and other payables is estimated to equal the carrying value. Therefore, no fair value hierarchy level was stated.

Contingent Consideration
The fair value of the contingent consideration for the acquisition of Borealis Plastomers amounts to EUR 3,983 thousand as of 31 December 2017 (EUR 3,880 thousand) and has been estimated by applying a discounted cash flow technique. The assumed production target of Borealis Plastomers is, apart from the discount rate, the most significant valuation input for the determination of the contingent consideration liability. The financing rate for this acquisition has been determined as the applicable discount rate. A significant increase (decrease) in the production target of Borealis Plastomers would result in a higher (lower) fair value of the contingent consideration liability, while a significant increase (decrease) in the discount rate would result in a lower (higher) fair value of the liability. The fair value was re-measured in 2017 in the amount of EUR -103 thousand (EUR -99 thousand) and is included in the administrative costs in the income statement.

The fair value of the contingent consideration for the acquisition of mtm (EUR 7,380 thousand) was re-measured in 2017 in the amount of EUR 4,040 thousand (EUR 1,311 thousand) and is included in the other income in the income statement. The contingent consideration was derecognised after the full payment of EUR 3,340 thousand took place in December 2017.

28. Operating leases

The Group has operating leases relating to certain operational assets. Total rental during the non-terminable periods amounts to:

EUR thousand	2017	2016
1 year	33,485	32,996
1–5 years	90,196	89,735
Thereafter	94,826	115,931
Total	**218,507**	**238,662**
Operational lease payments during current year	41,083	29,075

The Group leases mainly machinery, means of transport and real estate under operating leases. The majority of the lease contracts typically run for an initial period of 3 to 5 years, with an option to renew the lease after that date. The disclosed amount for the total rental during the non-terminable periods is mainly based on one logistics contract with an initial term until 2026 and a renewal option for 5 years thereafter.

Borealis has no intention to terminate contracts for which contractual termination payments would materially affect the Group's financial position.

29. Other income

In 2017, other income consisted mainly of the release of contingent consideration in relation to business combinations amounting to EUR 4,040 thousand. Additionally, other income comprised earn-out proceeds related to sale of technology from previous periods amounting to EUR 1,950 thousand, income from a short-term sublease amounting to EUR 1,900 thousand and a EUR 257 thousand fair value gain from the step-up acquisition of Feboran EOOD. Other income in 2016 amounted to EUR 3,561 thousand.

30. Transactions with related parties

EUR thousand	2017							
	Goods and Services				Financing			
	Purchases from	Sales to	Receivables from	Payables to	Loans receivables	Borrowings	Interest received	Interest paid
Associated companies and joint ventures	297,839	383,105	76,242	54,220	6,908	0	207	0
Parent company	0	0	0	0	0	0	0	0
Companies with significant influence	1,127,617	42,422	5,618	141,019	0	0	0	0
Key management personnel	0	0	0	0	0	0	0	0
Other related parties	42,606	10,229	4,388	2,417	0	0	0	0
	1,468,062	**435,756**	**86,248**	**197,656**	**6,908**	**0**	**207**	**0**

EUR thousand	2016							
	Goods and Services				Financing			
	Purchases from	Sales to	Receivables from	Payables to	Loans receivables	Borrowings	Interest received	Interest paid
Associated companies and joint ventures	337,208	367,151	80,205	84,141	0	0	0	0
Parent company	0	159	80	0	0	0	0	0
Companies with significant influence	1,024,989	37,168	5,006	97,155	0	0	0	0
Key management personnel	0	0	0	0	0	0	0	0
Other related parties	41,509	8,025	365	0	0	0	0	0
	1,403,706	**412,503**	**85,656**	**181,296**	**0**	**0**	**0**	**0**

The sales to associated companies and joint ventures mainly include sales of finished goods and services. Purchases from companies with significant influence mainly relate to purchase of feedstock and utilities from OMV group companies at market rates. Purchases from associates mainly include purchases of finished goods produced in Borouge and sold in Europe. Payables to related parties are included in the trade payables. For details with respect to remuneration of key management personnel please see note 12.

31. Commitments and contingent liabilities

Legal claim contingencies
While the Group has certain lawsuits pending, it is the Executive Board's opinion that these proceedings will not materially affect the Group's financial position.

Financial guarantees
The Group has EUR 56,395 thousand (EUR 32,603 thousand) of financial guarantees outstanding by the end of the year. These mainly consist of commercial bank and parental guarantees which serve as assurance that Borealis will make payment to a beneficiary in the event that it fails to fulfil its financial obligation. The guarantees have various maturity dates. The outstanding amount by the end of the year is equal to the maximum credit risk exposure.

Furthermore, the Group is subject to numerous national and local tax laws and regulations concerning its sales and environmental activities. These laws and regulations may require the Group to issue guarantees to respective authorities for the Group's payment obligations. These guarantees have been provided to the extent the authorities have requested them.

The Group has committed several rental guarantees mainly for its own rental agreements. The Group will be responsible if the tenant or Borealis itself fails to pay rent or causes any damages to the property. No material losses are expected to arise from such contingent liabilities.

32. Subsequent events

Following the Memorandum of Understanding signed on 24 March 2017, Borealis AG, NOVA Chemicals Corporation and Total Petrochemicals and Refining USA, Inc. have signed on 14 February 2018 the definitive agreements that will lead to the creation of the joint venture in Texas, USA, pending regulatory approvals.

33. Subsidiaries included in the consolidated accounts

Company name	Country, City	Currency	Issued share capital	Percentage of shares owned
Borealis AG				
■ Borealis Sverige AB	Sweden, Stenungsund	SEK	1,063,000	100
■■ Borealis AB	Sweden, Stenungsund	SEK	65,000,000	100
■■■ Etenförsörjning i Stenungsund AB	Sweden, Stenungsund	SEK	5,000,000	80
■■■ KB Munkeröd 1:72*	Sweden, Stenungsund	SEK	0	100
■■■ Borealis Group Services AS	Norway, Bamble	NOK	1,000,000	100
■ Borealis Polymers Oy	Finland, Porvoo	EUR	108,321,644	100
■ Borealis Technology Oy	Finland, Porvoo	EUR	43,728,860	100
■ Borealis Financial Services N.V.	Belgium, Mechelen	EUR	99,189,000	100
■ Borealis Polymers N.V.	Belgium, Beringen	EUR	61,500	100
■■ Borealis Kallo N.V.	Belgium, Kallo	EUR	40,575,176	100
■■ Borealis Antwerpen N.V.	Belgium, Zwijndrecht	EUR	11,277,054	100
■ Borealis Plastomers B.V.	The Netherlands, Geleen	EUR	1	100
■ Rosier S.A.	Belgium, Moustier	EUR	2,550,000	77
■■ Rosier Netherlands B.V.	The Netherlands, Sas Van Gent	EUR	11,141,000	77
■■ Rosier France S.A.S.	France, Beaumetz-Les-Loges	EUR	516,600	77
■ Borealis Brasil S.A.	Brazil, Itatiba	BRL	94,743,513	80
■ Borealis Poliolefinas da América do Sul Ltda*	Brazil, Itatiba	BRL	16,000	100
■ Borealis UK Ltd	UK, Manchester	GBP	15,000	100
■ Borealis Funding Company Ltd	Isle of Man, Ramsey	EUR	10	100
■ Borealis Insurance A/S	Denmark, Copenhagen	DKK	52,795,000	100
■ Borealis France S.A.S.	France, Courbevoie	EUR	269,477,216	100
■■ Borealis Services S.A.S.*	France, Courbevoie	EUR	5,000	100
■■ Borealis Produits et Engrais Chimiques du Rhin S.A.S.	France, Ottmarsheim	EUR	20,010,000	100
■■ Borealis L.A.T France S.A.S.	France, Courbevoie	EUR	752,500	100
■■ Borealis Chimie S.A.S.	France, Courbevoie	EUR	70,000,000	100
■■■ AGRIPRODUITS S.A.S.*	France, Courbevoie	EUR	952,000	100
■■■ STOCKAM G.I.E.*	France, Grand-Quevilly	EUR	0	100

* Excluded from the consolidation due to immateriality

Company name	Country, City	Currency	Issued share capital	Percentage of shares owned
■ Borealis Química España S.A.	Spain, Barcelona	EUR	60,101	100
■ Borealis Chile SpA*	Chile, Santiago de Chile	CLP	4,000,000	100
■ Borealis Chimie S.A.R.L.*	Morocco, Casablanca	MAD	219,986	100
■ Borealis Colombia S.A.S.*	Colombia, Bogota	COP	84,000,000	100
■ Borealis s.r.o.*	Czech Republic, Prague	CZK	500,000	100
■ Borealis Polska Sp. Z.o.o.*	Poland, Warsaw	PLN	50,000	100
■ Borealis Polymere GmbH	Germany, Burghausen	EUR	18,407,000	100
■ Borealis Polyolefine GmbH	Austria, Schwechat	EUR	46,783,928	100
■ Borealis Plasticos S.A. de C.V.*	Mexico, Mexico City	MXN	50,000	100
■ Borealis Asia Ltd*	Hong Kong, Hong Kong	HKD	500,000	100
■ Borealis Italia S.p.A.	Italy, Monza	EUR	7,570,600	100
■ Borealis Compounds Inc.	US, Port Murray	USD	2,000	100
■■ Borealis US Holdings LLC	US, Port Murray	USD	0	100
■ Borealis Plastik ve Kimyasal Maddeler Ticaret Limited Sirketi*	Turkey, Istanbul	TRL	10,000	100
■ Borealis RUS LLC*	Russia, Moscow	RUB	3,600,000	100
■ Borealis Agrolinz Melamine GmbH	Austria, Linz	EUR	70,000,000	100
■■ Borealis Agrolinz Melamine Deutschland GmbH	Germany, Wittenberg	EUR	500,000	100
■ Borealis L.A.T GmbH	Austria, Linz	EUR	35,000	100
■■ Borealis L.A.T d.o.o. Beograd	Serbia, Belgrade	RSD	63,282,000	100
■■ Borealis L.A.T Hungary Kft.*	Hungary, Budapest	HUF	500,000,000	100
■■ Borealis L.A.T Bulgaria EOOD*	Bulgaria, Sofia	BGN	10,000	100
■■ Borealis L.A.T Hrvatska d.o.o.*	Croatia, Klisa	HRK	21,200	100
■■ Borealis L.A.T Czech Republic spol. s.r.o.*	Czech Republic, Budweis	CZK	2,000,000	100
■■ Borealis L.A.T Romania s.r.l.*	Romania, Bucharest	RON	18,392,320	100
■■ Borealis L.A.T Slovakia s.r.o.*	Slovakia, Chotin	EUR	497,909	100
■■ Borealis L.A.T Greece Single Member P.C.*	Greece, Athens	EUR	50,000	100
■ mtm plastics GmbH	Germany, Niedergebra	EUR	26,000	100
■ mtm compact GmbH	Germany, Fürstenwalde	EUR	26,000	100
■ Feboran EOOD	Bulgaria, Sofia	BGN	35,203,895	100
■■ Feboran Prim EOOD	Bulgaria, Sofia	BGN	5,000	100
■ Borealis Chemicals ZA (Propprietary) LTD*	South Africa, Germiston	ZAR	750,000	100
■ Borealis USA Inc.*	US, Port Murray	USD	0	100
■■ Borealis BoNo Holdings LLC*	US, Wilmington	USD	0	100
■ Borealis Argentina SRL*	Argentina, Buenos Aires	ARS	100,000	100

* Excluded from the consolidation due to immateriality

34. Auditor's fees

The following fee information relates to the auditors of the Group (including their related networking firms):

EUR thousand	2017	2016
Audit of Borealis AG's subsidiaries	1,066	938
Audit of consolidated and standalone financial statements of Borealis AG	263	259
Other assurance services	207	62
Tax consulting services	610	500
Other services	262	127
Total	**2,408**	**1,886**

The following fees for 2017 relate to the Group auditor, PwC Wirtschaftsprüfung GmbH, Vienna, Austria: audit of Borealis AG's subsidiaries amounting to EUR 170,893 (EUR 168,700), audit of consolidated and standalone financial statements of Borealis AG amounting to EUR 262,671 (EUR 259,300), other assurance services amounting to EUR 156,000 (EUR 61,800) and other services amounting to EUR 54,236 (EUR 17,206).

35. Executive Board and Supervisory Board

Executive Board
Mark Garrett, Mark Tonkens, Markku Korvenranta, Martijn Arjen van Koten,
Philippe Roodhooft (since 1 November 2017), Alfred Stern

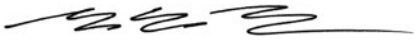
Supervisory Board
Suhail Mohamed Faraj Al Mazrouei (Chairman), Rainer Seele (Vice Chairman),
Murtadha Al Hashmi (until 14 April 2017), Rashed Saud Al Shamsi (until 14 April 2017),
Musabbeh Al Kaabi (since 14 April 2017), Khalifa Al Suwaidi (since 14 April 2017), Manfred Leitner

Vienna, 15 February 2018

Executive Board:

Mark Garrett
Chief Executive

Mark Tonkens
Chief Financial Officer



Markku Korvenranta

Martijn Arjen van Koten

Philippe Roodhooft

Alfred Stern

Statement of the Executive Board according to § 124 (1) Z 3 Vienna Stock Exchange Act

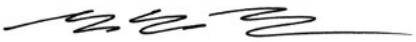
We confirm to the best of our knowledge that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group as required by the applicable accounting standards and that the group management report gives a true and fair view of the development and performance of the business and the position of the Group, together with a description of the principal risks and uncertainties the company faces.

Vienna, 15 February 2018

Executive Board:

Mark Garrett
Chief Executive

Mark Tonkens
Chief Financial Officer



Markku Korvenranta

Martijn Arjen van Koten

Philippe Roodhooft

Alfred Stern

Report of the Supervisory Board of Borealis AG

In the year under review, the Supervisory Board received a comprehensive overview of the activities of the Management of Borealis AG and performed its duties and exercised its powers under the law and the articles of association in six plenary sessions.

The Management informed the Supervisory Board regularly, in a timely fashion and comprehensively, both in writing and verbally, on all the relevant issues of business development as well as on the state and strategy of the company and the important group companies, including risk conditions and risk management.

The Management of Borealis AG submitted the financial statements as of 31 December 2017, including the management report, and the consolidated financial statements as of 31 December 2017, including the consolidated management report, and the consolidated non-financial report to the Supervisory Board and explained it thoroughly.

The financial statements of Borealis AG were drawn up in accordance with the applicable provisions of the (Austrian) Business Code (Unternehmensgesetzbuch), and PwC Wirtschaftsprüfung GmbH issued the unqualified audit opinion (uneingeschränkter Bestätigungsvermerk) on the financial statements.

Further, the consolidated financial statements of Borealis AG were drawn up in accordance with the International Financial Reporting Standards (IFRS), and PwC Wirtschaftsprüfung GmbH, issued the unqualified audit opinion (uneingeschränkter Bestätigungsvermerk) on the consolidated financial statements.

The (consolidated) financial statements documents, the consolidated non-financial report and the audit reports were submitted to the Audit Committee and the Supervisory Board in due time. After a thorough examination and discussion by the Audit Committee and by the Supervisory Board, the Supervisory Board reached the final agreement that no material objections shall be raised, and the drawn up financial statements, the management report, the proposal for the appropriation of the retained earnings, the proposal for the appointment of the auditor for the Financial Year 2018, the consolidated financial statements, the Group management report and the consolidated non-financial report were approved/ acknowledged.

Vienna, 28 February 2018

Suhail Mohamed Faraj Al Mazrouei
Chairman of the Supervisory Board

Annex

About the Non-Financial Report

This 2017 Annual Report is the first that contains non-financial information published in line with the Global Reporting Initiative (GRI) and has been prepared in accordance with the GRI Standards: Core option, as well as the Austrian law for non-financial reporting (Nachhaltigkeits- und Diversitätsverbesserungsgesetz – NaDiVeG).

The GRI Content Index below outlines where specific GRI reporting elements and indicators are addressed in the report.

Scope of the non-financial information

The data presented in the report are consolidated at Group level. Non-financial data are collected for those activities where Borealis is the operator, or where Borealis has a stake of more than 50% and exerts controlling influence. mtm plastics and mtm compact GmbH are excluded from this reporting.

Further exceptions:

- Health, Safety and Environmental reporting includes data from all production locations but excludes Borealis L.A.T warehouses.
- Human Resources excludes employee data from Rosier S.A., Rosier Netherlands B.V., and Rosier France S.A.S, as Borealis is legally not allowed to document this data.
- Procurement & Transportation Polyolefins (PO): Borealis Brasil S.A., Borealis Poliolefinas da América do Sul Ltda and Borealis Compounds Inc. are excluded from PO procurement data and from CO_2 emissions arising from shipment of PO products.
- Procurement & Transportation Fertilizer (FE): reporting includes the flows of Rosier S.A., Rosier Netherlands B.V. and Rosier France S.A.S products sold by Borealis L.A.T, but excludes all other flows of Rosier S.A., Rosier Netherlands B.V. and Rosier France S.A.S. The reporting scope of PO and FE will be further aligned in the next report.

The exclusions listed above are not of significant importance with regards to the Group's total non-financial performance. However, Borealis will work on further increasing the scope of its non-financial reporting in future.

Changes to the previous report

For 2016 data, corrections were made with regards to five numbers (feedstock for PO, water consumption, waste, flaring losses and primary energy consumption); an explanation can be found in the respective tables.

There have been no major changes in the reporting method. The non-financial report has been subject to an internal quality review. External assurance is currently not taking place, but options for an external audit are being evaluated.

› For questions regarding sustainability or social responsibility at the Borealis Group, please contact info@borealisgroup.com

GRI Content Index

GRI Standard	Disclosure		Page	Reported fully/ partially	Note
GRI 102: General Disclosures 2016	**102-1**	Name of the organisation	18	●	
	102-2	Activities, brands, products, and services	46–52	●	
	102-3	Location of headquarters	18	●	
	102-4	Location of operations	18	●	
	102-5	Ownership and legal form	4, 18	●	
	102-6	Markets served	18, 46–52	●	
	102-7	Scale of the organisation	4, 14, 51, 99, 125	●	
	102-8	Information on employees and other workers	32–33	●	
	102-9	Supply chain	53–58	●	
	102-10	Significant changes to the organisation and its supply chain	6–14	●	
	102-11	Precautionary Principle or approach	77	●	
	102-12	External initiatives	34, 41	●	
	102-13	Membership of associations	42	●	
	102-14	Statement from senior decision-maker	9–12	●	
	102-16	Values, principles, standards, and norms of behaviour	17, 20, 25–28	●	
	102-18	Governance structure	20–24	●	
	102-40	List of stakeholder groups	37–38	●	
	102-41	Collective bargaining agreements	29	●	
	102-42	Identifying and selecting stakeholders	37	●	
	102-43	Approach to stakeholder engagement	35, 37–38	●	
	102-44	Key topics and concerns raised	35–36	●	
	102-45	Entities included in the consolidated financial statements	152	●	
	102-46	Defining report content and topic Boundaries	35–36	●	
	102-47	List of material topics	36	●	
	102-48	Restatements of information	159	●	
	102-49	Changes in reporting	159	●	
	102-50	Reporting period	159	●	
	102-51	Date of most recent report	159	●	
	102-52	Reporting cycle	159	●	
	102-53	Contact point for questions regarding the report	159	●	
	102-54	Claims of reporting in accordance with the GRI Standards	159	●	
	102-55	GRI Content Index	160–164	●	
	102-56	External assurance	159	●	

GRI Standard	Disclosure		Page	Reported fully/ partially	Note
ETHICS AND COMPLIANCE (integrity, anti-corruption, anti-competitive behaviour, human rights)					
GRI 103: Management Approach 2016	**103-1**	Explanation of the material topic and its Boundary	25–26	●	
	103-2	The management approach and its components	25–28	●	
	103-3	Evaluation of the management approach	25–28	●	
GRI 205: Anti-corruption 2016	**205-2**	Communication and training about anti-corruption policies and procedures	26–27	●	100% of the members of the Borealis Executive Board and 0% of the members of the Borealis Supervisory Board (SVB) have received training about anti-corruption policies and procedures. In 2018, SVB member trainings are planned; the aim is to reach 100% completion rate.
	205-3	Confirmed incidents of corruption and actions taken	26	●	No confirmed or suspected incidents of corruption.
GRI 206: Anti-competitive Behaviour 2016	**206-1**	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	26	●	
GRI 412: Human Rights Assessment 2016	**412-2**	Employee training on human rights policies or procedures	26–27	●	
GRI 415: Public Policy 2016	**415-1**	Political contributions	40	●	
GRI 419: Socioeconomic Compliance 2016	**419-1**	Non-compliance with laws and regulations in the social and economic area	26, 76–77	●	
MATERIALS AND CIRCULAR ECONOMY					
GRI 103: Management Approach 2016	**103-1**	Explanation of the material topic and its Boundary	43–44	●	
	103-2	The management approach and its components	44–45, 53	●	
	103-3	Evaluation of the management approach	44–45, 53	●	
GRI 301: Materials 2016	**301-1**	Materials used by weight or volume	53–55	◑	Currently restricted availability of information for certain categories of material.
ENERGY					
GRI 103: Management Approach 2016	**103-1**	Explanation of the material topic and its Boundary	59–61	●	
	103-2	The management approach and its components	59–61	●	
	103-3	Evaluation of the management approach	59–61	●	
GRI 302: Energy 2016	**302-1**	Energy consumption within the organisation	59–60, 68	●	Quantitative data on energy consumption by source cannot be published due to reasons of commerical confidentiality. See Sankey diagramme on page 59 for general information.
	302-3	Energy intensity	60	●	
	302-4	Reduction of energy consumption	60, 68	●	

GRI Standard	Disclosure		Page	Reported fully/ partially	Note
WATER					
GRI 103: Management Approach 2016	**103-1**	Explanation of the material topic and its Boundary	65	●	
	103-2	The management approach and its components	65	●	
	103-3	Evaluation of the management approach	65	●	
GRI 303: Water 2016	**303-1**	Water withdrawal by source	65, 68	●	
	303-2	Water sources significantly affected by withdrawal of water	65, 68	●	Zero water sources significantly affected.
EMISSIONS					
GRI 103: Management Approach 2016	**103-1**	Explanation of the material topic and its Boundary	61–62	●	
	103-2	The management approach and its components	62	●	
	103-3	Evaluation of the management approach	62	●	
GRI 305: Emissions 2016	**305-1**	Direct (Scope 1) GHG emissions	62, 68	●	
	305-6	Emissions of ozone-depleting substances (ODS)	64, 68	●	
	305-7	Nitrogen oxides (NO_x), sulphur oxides (SO_x), and other significant air emissions	62–64, 68	●	
EFFLUENTS AND WASTE					
GRI 103: Management Approach 2016	**103-1**	Explanation of the material topic and its Boundary	65–68	●	
	103-2	The management approach and its components	65–68	●	
	103-3	Evaluation of the management approach	65–68	●	
GRI 306: Effluents and Waste 2016	**306-2**	Waste by type and disposal method	67–68	●	
PROCESS SAFETY					
GRI 103: Management Approach 2016	**103-1**	Explanation of the material topic and its Boundary	72	●	
	103-2	The management approach and its components	72–73	●	
	103-3	Evaluation of the management approach	72–73	●	
GRI G4: Oil & Gas Sector Supplement	**OG13**	Number of process safety events, by business activity	74–75	●	
SUPPLY CHAIN MANAGEMENT					
GRI 103: Management Approach 2016	**103-1**	Explanation of the material topic and its Boundary	53–58	●	
	103-2	The management approach and its components	53–58	●	
	103-3	Evaluation of the management approach	53–58	●	
GRI 308: Supplier Environmental Assessment 2016	**308-1**	New suppliers that were screened using environmental criteria	53	●	
GRI 414: Supplier Social Assessment 2016	**414-1**	New suppliers that were screened using social criteria	53	●	

GRI Standard	Disclosure		Page	Reported fully/ partially	Note
EMPLOYEE ENGAGEMENT AND DEVELOPMENT					
GRI 103: Management Approach 2016	**103-1**	Explanation of the material topic and its Boundary	28–29	●	
	103-2	The management approach and its components	28–31	●	
	103-3	Evaluation of the management approach	29	●	
GRI 401: Employment 2016	**401-1**	New employee hires and employee turnover	33	●	
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	31	●	
GRI 404: Training and Education 2016	**404-1**	Average hours of training per year per employee	31	◑	Trainings are currently tracked based on the number of courses, not hours, since this is considered a more relevant indicator for Borealis.
	404-2	Programmes for upgrading employee skills and transition assistance programmes	31	●	
	404-3	Percentage of employees receiving regular performance and career development reviews	–	●	Quantitative data for 2017 is not available yet because the performance and development cycle does not correspond with the financial year. 2016: Female employees: 93%, male employees: 95%; Senior Leaders: 87%, Managers: 96%, Team Leaders: 97%, Experts: 93%, Administration: 94%, Blue Collar: 94%
OCCUPATIONAL HEALTH AND SAFETY					
GRI 103: Management Approach 2016	**103-1**	Explanation of the material topic and its Boundary	69–70	●	
	103-2	The management approach and its components	69–71	●	
	103-3	Evaluation of the management approach	69–70	●	
GRI 403: Occupational Health and Safety 2016	**403-1**	Workers representation in formal joint management-worker health and safety committees	21, 39, 69	●	The formal joint management-worker health and safety committee is covered within the Responsible Care Committee; in addition, there are various informal platforms and meetings which ensure that all employees of operational sites are represented.
	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	71, 75	◑	Occupational Illnesses: Borealis does not currently track occupational illnesses. Borealis will adapt the risk matrix, which is part of one of the ten Group Policies. Once this is done, the Group will be able to report on this parameter in the future. Lost Day Rate: This rate is so low that it is not significant enough to report. Absentee rate: The sick leave rate is reported. This does not include leave due to occupational injuries. Regional split: This is not available because the majority of Borealis locations are in Europe (6,000 + employees versus around only 300 employees in South and North America). Gender split: Borealis also does not track the split of TRI by gender as the number of female operators, technicians and contractors is relatively low and Borealis cannot observe any major differences in risks posed to each gender.
DIVERSITY AND EQUAL OPPORTUNITY					
GRI 103: Management Approach 2016	**103-1**	Explanation of the material topic and its Boundary	30–31	●	
	103-2	The management approach and its components	30–31	●	
	103-3	Evaluation of the management approach	30–31	●	
GRI 405: Diversity and Equal Opportunity 2016	**405-1**	Diversity of governance bodies and employees	8, 15, 30, 33	●	At the end of 2017, the Executive Board (EXB) has six members, all males and with an average age of 52. At the end of 2017, the Supervisory Board has five members, all males. We have no information about the age of the Supervisory Board members.

GRI Standard	Disclosure		Page	Reported fully/ partially	Note
CUSTOMER AND PRODUCT SAFETY					
GRI 103: Management Approach 2016	**103-1**	Explanation of the material topic and its Boundary	76	●	
	103-2	The management approach and its components	76–77	●	
	103-3	Evaluation of the management approach	76–77	●	
GRI 416: Customer Health and Safety 2016	**416-1**	Assessment of the health and safety impacts of product and service categories	76	●	
GRI 417: Marketing and Labeling 2016	**417-1**	Requirements for product and service information and labeling	77	●	

Table of figures

Notes

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