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# Combined Annual Report 2020

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 **BOREALIS**

Keep Discovering



**Cover Image:**

Preventing the spread of COVID-19 with mask republic face masks

In spring 2020, as part of a social business initiative, Borealis teamed up with paper republic, a Vienna-based stationery brand, to produce sustainable and reusable face masks.

The face masks have an integrated plastic-based filter produced by Borealis on a small-scale pilot line at their Innovation Headquarters in Linz, Austria, providing up to four times more effective filtration than conventional hand-sewn cotton-based face masks.

[www.mask-republic.eu](http://www.mask-republic.eu)



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# Reviewing 2020

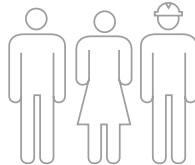
## Borealis at a Glance

### Safety



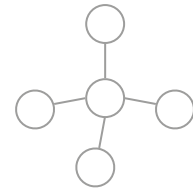
World-class safety performance:  
**1.7 Total Recordable Injuries (TRI)**  
frequency per million working hours

### Worldwide



Head Office **in Vienna, Austria**.  
Operating on **five continents**  
in **120 countries**.  
**~6,900 employees**  
(Full-time equivalents)

### Line of Business



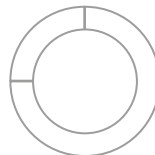
Production and distribution  
of **polyolefins, base chemicals**  
and **fertilizers**

### Market Position



**#2** among polyolefin  
producers in **Europe**

### Ownership Structure



**75%** OMV, Austria / **25%** Mubadala,  
United Arab Emirates

### Joint Venture



**Borouge** – the world's largest  
integrated polyolefin complex  
in Ruwais, UAE

### Joint Venture



**Bayport Polymers** – brings  
Borstar® technology to American  
polyethylene markets

### Circularity



Three **polyolefin recycling**  
**locations** in Europe

### Patents



**114 priority patents**  
filed in 2020

## Five-Year Comparison of Key Figures

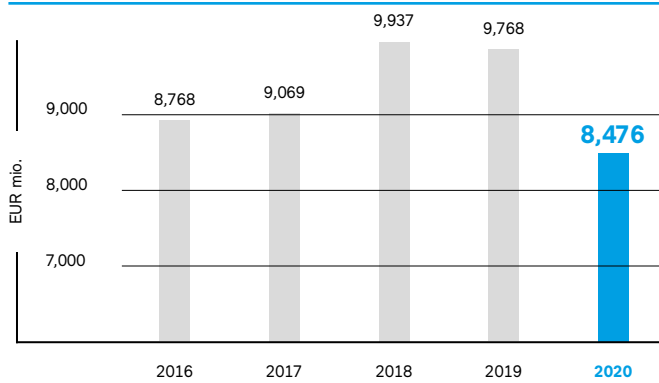
		2020	2019	2018	2017	2016
<b>Health, Safety &amp; Environment <sup>1)</sup></b>						
Total Recordable Injuries (TRI)	number/million workhours	1.7	1.6	1.3	1.1	0.9
EU ETS CO <sub>2</sub> emissions	kilotonnes	4,050	4,625	4,302	4,210	4,600
Energy consumption	GWh	22,340	25,831	24,476	22,400	24,100
Flaring performance	tonnes	42,543 <sup>2)</sup>	27,619	26,273	51,620	38,740
Waste generation	tonnes	99,940	86,109 <sup>3)</sup>	53,713	61,398	49,036
Water withdrawal	m <sup>3</sup> million	755	750	675	752	724
Number of employees	full-time equivalents	6,920	6,869	6,834	6,619	6,494
<b>Income and profitability</b>						
Net sales	EUR million	6,818	8,103	8,337	7,564	7,218
Operating profit	EUR million	356	605	496	791	938
Operating profit as percentage of net sales	%	5	7	6	10	13
Net profit	EUR million	589	872	906	1,095	1,107
Return on capital employed, net after tax	%	8	11	13	15	16
<b>Cash flow and investments</b>						
Cash flow from operating activities <sup>4)</sup>	EUR million	1,083	872	517	725	1,145
Investments in property, plant and equipment	EUR million	614	376	326	453	333
Cash and cash equivalents <sup>4)</sup>	EUR million	83	83	50	207	741
<b>Financial position</b>						
Balance sheet total	EUR million	10,600	10,118	9,949	9,395	9,932
Net interest-bearing debt <sup>4)</sup>	EUR million	1,833	1,569	1,327	812	672
Equity attributable to owners of the parent	EUR million	6,417	6,445	6,421	6,365	6,496
Gearing <sup>4)</sup>	%	29	24	21	13	10

1) Environmental data might be subject to minor adjustments due to ongoing audits and missing third-party data at the time of closing of this report. // 2) Severe upsets led to significant emergency flaring during shut-downs; further there was a lack of recycling capacity. // 3) The main reason for the increase is the integration of the plastics recycling company mtm plastics GmbH into the monthly group reporting definitions. // 4) Amounts from 2016-2019 have been restated due to reclassification.

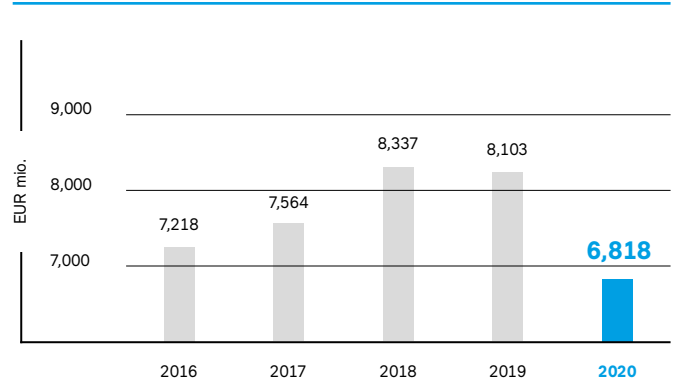


# Key Financial and Sustainability Metrics

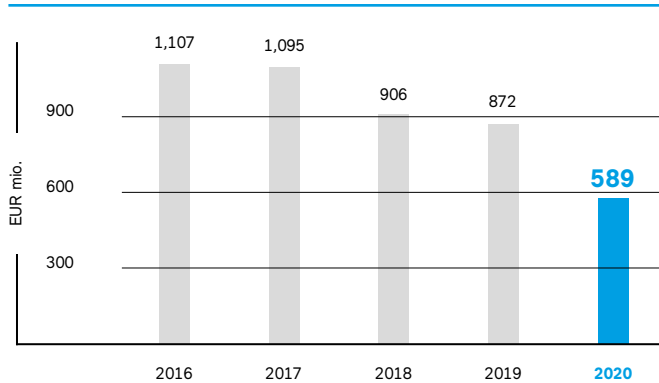
## Total Sales <sup>1)</sup>



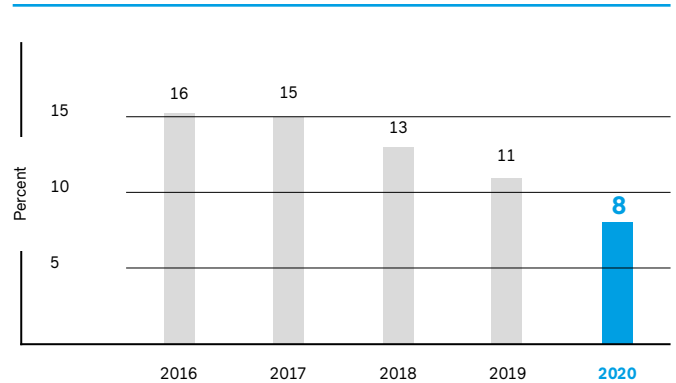
## Net Sales



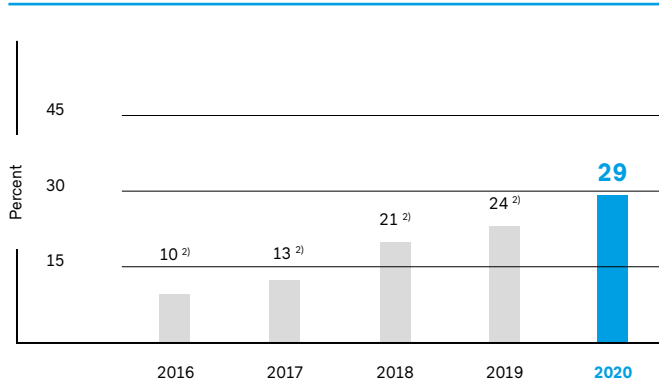
## Net Profit



## ROCE



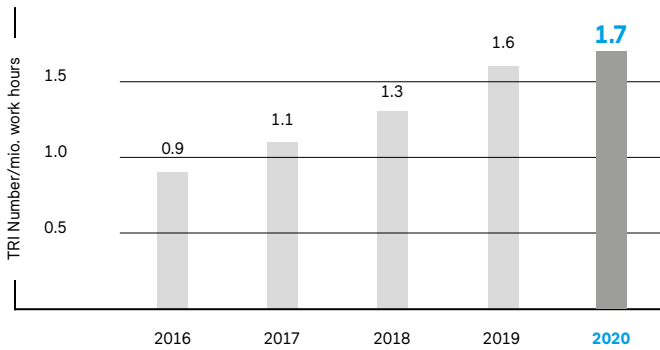
## Gearing



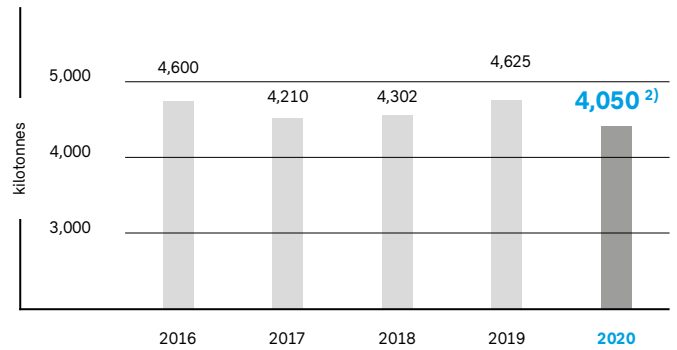
1) Total net sales of Borealis and pro-rata sales of at equity consolidated companies. // 2) Amounts from 2016-2019 have been restated due to reclassification.



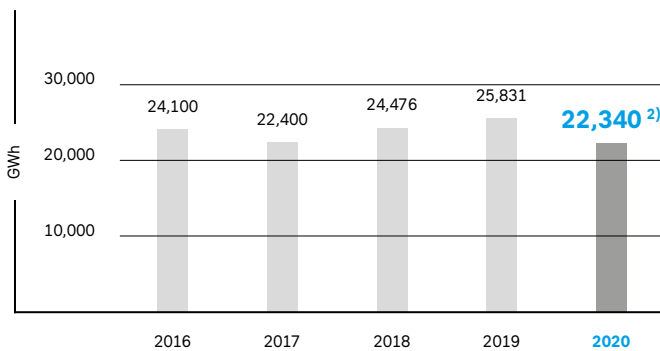
### Total Recordable Injuries (TRI) <sup>1)</sup>



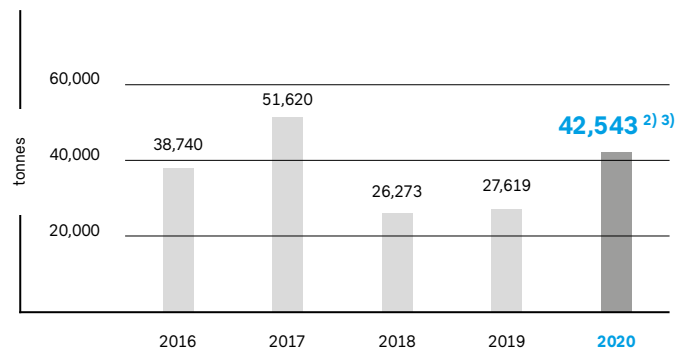
### EU ETS CO<sub>2</sub> Emissions



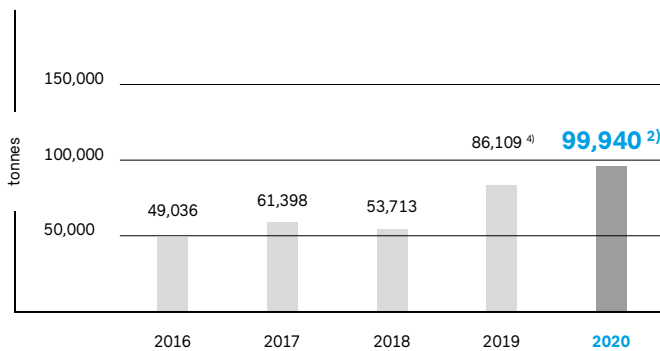
### Energy Consumption



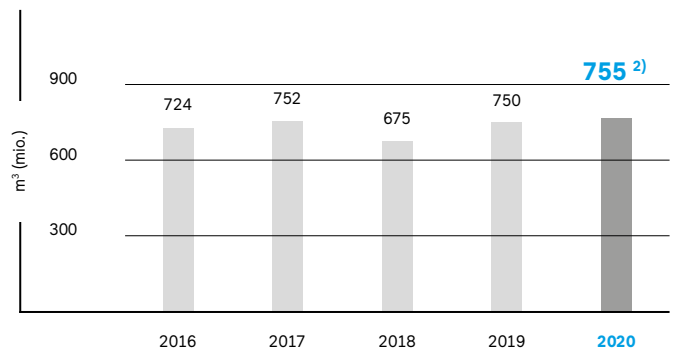
### Flaring Performance



### Waste Generation



### Water Withdrawal



1) Includes own employees and contractors // 2) Environmental data might be subject to minor adjustments due to ongoing audits and missing third-party data at the time of closing of this report // 3) Severe upsets led to significant emergency flaring during shut-downs; further there was a lack of recycling capacity. // 4) The main reason for the increase is the integration of the plastics recycling company mtm plastics GmbH into the monthly group reporting definitions.



# Highlights 2020

January–December 2020

**Safety** first: continued focus on safety with a **TRI rate of 1.7** in 2020.

**Progress continues uninterrupted on major growth projects** in Belgium (Kallo), US (Baystar™) and UAE (Borouge PP5) **despite COVID-19 pandemic**.

**Successful mobilisation of internal resources to mitigate impact of COVID-19 pandemic across Borealis operations.**

**OMV increases ownership share in Borealis to 75%**, Mubadala retains 25%.

Borealis assumes **controlling stake in South Korean compounder DYM Solution Co., Ltd.**

**Baystar** project to expand North American footprint **becomes a 50/50 joint venture between Borealis and Total S.A.**

**The Borneables™ portfolio** of premium circular polyolefins is **launched**.

First cargo of **certified renewable phenol delivered** to strategic partner Covestro.

Borealis **starts producing renewable polypropylene** based on Neste-produced feedstock in Kallo and Beringen, Belgium.

**Long-term purchase power agreements for renewable energy supply signed** with Mermaid and Eneco in Belgium, Ilmatar in Finland.

**European Investment Bank (EIB) supports development of circular economy solutions** at Borealis by way of **EUR 250 million loan**.

Crosslinked polyethylene power **cables made of Borealis Borlink™ power the German Energiewende** (transition to a low-carbon economy).

Novel **value-chain collaboration ensures plastics traceability** in the automotive sector.

Borealis **signs manifesto urging UN to draft treaty on global plastic pollution**.

**Project STOP** provided sustainable waste collection services to **133,500 people**, created **168 new full-time jobs** and built **Indonesia's largest material sorting and recovery facilities**.



# About Borealis

## Statement of the Supervisory Board

### Company Ownership and Changes to the Supervisory Board

2020 has been a decisive year for Borealis' future. While Borealis demonstrated its resilience against the pandemic impacted market environment the owners agreed on a new ownership structure to ensure the best positioning for the long-term future of the company. Accordingly, OMV announced in October the closing of the acquisition of an additional 39% stake in Borealis from Mubadala, thus increasing its share to 75%. Mubadala retains a 25% share in Borealis. The Supervisory Board is convinced that this new ownership structure will make both companies, OMV as well as Borealis, stronger by combining the best of both companies. Early efforts to identify and capitalise on potential synergistic effects have already borne fruit within both organisations. We are confident that the new ownership structure will generate even more value for each of the companies, its shareholders as well as for society as a whole.

Consequently, several important changes were made to the Supervisory Board in 2020. Most recently, and effective from 29 October 2020, Rainer Seele was appointed Chairman and Musabbeh Al Kaabi, Vice-Chairman of the Supervisory Board. Also effective from 29 October 2020, Reinhard Florey and Saeed Al Mazrouei were appointed as Supervisory Board members, succeeding Suhail Mohamed Faraj Al Mazrouei and Khalifa Alromaithi. Earlier in the year, effective from 21 February 2020, Khalifa Alromaithi was appointed Supervisory Board member, succeeding Khalifa Al Suwaidi.

The Supervisory Board would like to thank the former members of the Supervisory Board and especially His Excellency Suhail Mohamed Faraj Al Mazrouei who has been instrumental over a period of more than five years as Chairman of the Supervisory Board in forming the future of Borealis as a successful and leading global provider of innovative and more circular polyolefins-based solutions in an industry undergoing rapid change.

### Safety

With regard to safety performance in 2020, Borealis reported a Total Recordable Injuries (TRI) frequency per million working hours of 1.7. This represents a reduction in safety performance versus the 1.6 recorded in 2019. While a TRI rate of 1.7 is still world-class in the industry, this result is

below our expectations and Borealis must continue to improve its safety culture in order to reach its ambitious "Goal Zero" of no accidents or incidents whatsoever. The Supervisory Board is confident that Borealis' management will rise to this task by reinforcing its commitment to both personal and process safety. Safety is and will remain the number one priority at Borealis.

### Financial Results

With a net profit of EUR 589 million in 2020, Borealis achieved a strong financial result in an extraordinary year: a global market reeling from the effects of the coronavirus pandemic and an unprecedented slump in the price of oil in the first months of the year. Yet polyolefin sales volume growth for Borealis and its joint ventures, Borouge and Baystar™ points to robust demand for its innovative products, even in the most challenging of market environments.

The 2020 financial result falls short of the net profit of EUR 872 million reported in 2019, having been negatively affected by a weaker hydrocarbons market, limited benefit from feedstock flexibility and operational issues at Borealis crackers in Stenungsund, Sweden and Porvoo, Finland. Borealis Polyolefins sales volumes weathered the difficult market environment well, increasing by 2% compared with the same period in 2019. While integrated polyolefin industry margins also increased in 2020 compared with the previous year, the olefin share thereof contracted due to the reduced light feedstock advantage resulting from a lower oilprice. This led to a lower contribution from the Borealis Hydrocarbons business segment. The 2020 contribution from Borouge remained nearly at the same level as in 2019, as lower polymer prices were compensated by higher sales volumes. The contribution from the Borealis Fertilizers business declined due to a weaker industry margin, operational issues at Borealis production sites in France and impairment of tangible assets in Belgium and the Netherlands.

### Corporate Strategy and Purpose

The new global Group Strategy 2035 rolled out at the beginning of 2020 encapsulates the company's commitment to achieving sustainable growth in the long term: "Life demands progress – we are re-inventing for more sustainable living." Building on core Borealis capabilities and traditional



## Supervisory Board



**Rainer Seele**  
Chairman



**Musabbeh Al Kaabi**  
Vice Chairman



**Reinhard Florey**  
Board Member



**Thomas Gangl**  
Board Member



**Saeed Al Mazrouei**  
Board Member

values such as Respect, Responsible, Exceed, and Nimblivity™, the strategy guides Group efforts to act as leaders in the transformation to a circular economy, to create an even more customer-centric organisation on a global scale and to capitalise on demand in growth markets by way of geographic expansion.

The strong 2020 financial result was made possible in part by quick action taken by Borealis' management early in the year: a resilience programme was launched to address the potentially massive negative effects of the COVID-19 outbreak. By reducing and/or postponing costs and investments where appropriate, it safeguarded the company's solid financial position. It successfully mitigated the potentially negative impacts of the pandemic in all areas of Group business without compromising ongoing growth projects.

The first-ever Borealis Pulse Check was carried out to measure employee engagement in 2020. It confirmed the resilience of Borealis employees in a year marked by COVID-19 disruption, measuring an increased employee engagement level of 7 percentage points and generally higher levels of engagement across all business groups, business units and locations.

### Progress continues on Global Growth Projects

Despite disruptions to infrastructure and supply chains around the world caused by the pandemic, Borealis continued to make good progress on its major growth projects. These include the new world-scale propane dehydrogenation plant at the existing Borealis production site in Kallo, Belgium, in which approximately EUR 1 billion will be invested to ensure that Borealis remains the supplier of choice for its

European customers. The construction of the new Borstar® polyethylene (PE) unit in Texas, US also progressed well, albeit in a new ownership formation, with Borealis acquiring the 50% ownership share in Novealis Holdings LLC previously held by NOVA Chemicals. This now makes Baystar a 50/50 joint venture between Borealis and Total Petrochemicals & Refining USA, Inc. In Asia, a controlling stake was acquired in the South Korean compounder DYM Solution Co., Ltd., thus extending the company's presence in the global wire and cable industry and augmenting the existing portfolio with complementary products and technologies. Finally, construction continued on the fifth Borstar polypropylene (PP) plant, PP5, at the Borouge complex in Ruwais, UAE. The Borouge 4 project is also successfully progressing in the FEED (Front-End Engineering and Design) phase.

### Plastics Circularity

Through its dedication to Value Creation through Innovation and customer-centricity, Borealis has accelerated the shift to plastics circularity by developing and launching a wide range of material solutions in the circular economy sphere. Its own extensive investment in mechanical and chemical recycling will now be augmented by new synergistic effects to be gained through the closer relationship with OMV.

The pioneering Borealis EverMinds™ approach is evident in two important Group goals on the journey to "closing the loop" on plastics circularity: increasing the volume of recycled plastics solutions to 350,000 t/y by 2025 and ensuring that by 2025, 100% of consumer products made with Borealis polyolefins should be recyclable, reusable, or made using renewable content.



Borealis passed important mileposts in plastics circularity in 2020, further consolidating its position as industry pioneer. For the first time, Borealis was able to replace fossil fuel-based feedstock with renewable feedstock in the large-scale commercial production of PP at its production facilities in Kallo and Beringen, Belgium. These plants, as well as others in Finland and Austria, have since received the ISCC PLUS certification issued by the International Sustainability and Carbon Certification (ISCC) organisation, the global standard for recycled and bio-based materials. The Borneables™ portfolio of premium polyolefin products manufactured with renewable feedstock derived entirely from waste and residue streams was launched. The proprietary technology Borcycle™ introduced in 2019 now forms the foundation of an increasing number of more sustainable products and applications in the rigid packaging segment. Finally, an innovative pilot project carried out in Belgium literally closed the loop on plastics circularity by replacing around 1.5 million single-use drinking cups with reusable lightweight ones kitted out with a double-closed loop system.

### Energy and Climate

Borealis' management has set ambitious goals to counter climate change by using a higher share of energy derived from renewable sources in its operations, significantly increasing energy efficiency and reducing flaring. To this end, two long-term power purchase agreements for renewable energy were signed in 2020 to power Borealis production facilities in Porvoo and one to provide renewable electricity from an offshore wind farm to Belgian operations. Also in Belgium, a new waste-to-energy plant jointly commissioned with partner Bionerga is now operational. Finally, a new 80,000 m<sup>3</sup> naphtha cavern was commissioned in Porvoo, enabling Borealis to draw on and store both conventional and renewable naphtha for its own operations in a safer and more economical way.

A step-change innovation launched by Borealis in 2014 is now powering the German Energiewende, or energy transition. Crosslinked polyethylene (XLPE) power cables made with Borealis extruded high voltage direct current (HVDC) technology are being used for the majority of the so-called German corridor projects. This is the first time that Borlink™ XLPE HVDC technology is being used at extra-high levels of 525 kilovolt (kV). The Borlink cables enable the transmission of renewable energy from north to south Germany with minimal loss.

### Economic Development and Outlook for 2021

The Supervisory Board trusts that measures implemented by Borealis' management for 2021 to improve both occupational and process safety will be effective in getting safety performance back on track. Safety is to remain the number one priority for the Group at all levels and across all global operations.

The integrated polyolefin business as well as Fertilizers are expected to show improved financial performance in 2021, driven by the focus on polyolefins specialty sales, higher operability of the assets and the anticipated improvement of the overall market environment. The profit contribution from Borouge to Borealis is expected to remain at a similar level as in 2020.

The change in ownership structure in 2020 will begin to bear fruit in 2021 as Borealis and OMV realise the identified synergies, merge the best of both corporate cultures and find ways to streamline and scale up their activities, programmes and projects. The excellent fit between the two companies is certain to facilitate growth across a wide range of business areas.

While it is not possible to predict when the COVID-19 pandemic will end, it is certain that the rebuilding of the post-pandemic global economy will require innovative technologies and products that make life safer and more sustainable. The Supervisory Board is convinced that thanks to the company's leading-edge portfolio of advanced and circular polyolefins solutions, Borealis is in an advantageous position to capitalise on growth opportunities during the economic recovery. Borealis will maintain its commitment to re-inventing for more sustainable living and by offering chemical and plastic solutions that create value for society.

We would like to thank the Executive Board and all employees for their commitment in this challenging year and congratulate them on the performance achieved in 2020.

Vienna, 24 February 2021

**Supervisory Board**



## Executive Board



### Alfred Stern

#### Chief Executive

Appointed: July 2018

In April 2018, Alfred Stern was appointed CEO effective 2 July 2018, after having held the position of Borealis Executive Vice President Polyolefins and Innovation & Technology since 2012. Alfred Stern joined Borealis as Senior Vice President Innovation & Technology in 2008. Prior to that, he spent over twelve years at E.I. DuPont de Nemours, holding leadership positions in R&D, sales and marketing, and quality and business management. Following posts in Switzerland and Germany, his final DuPont assignment was as Global Business Manager of an Engineering Polymers business unit in the US.

### Mark Tonkens

#### Chief Financial Officer

Appointed: November 2014

Mark Tonkens joined Borealis in 2009. Before assuming the position as Borealis CFO in November 2014, he had served as Borealis Senior Vice President Group Controlling. Mark Tonkens came to Borealis after holding a number of senior management roles in the Royal Philips group, acting as CFO and Senior Vice President of major business units and country organisations around the globe, from the Netherlands and Greece in Europe, to Taiwan and Hong Kong in Asia.





### **Lucrèce Foufopoulos-De Ridder**

#### **Executive Vice President Polyolefins & Innovation & Technology**

Appointed: January 2019

Lucrèce Foufopoulos-De Ridder was appointed to the Borealis Executive Board as Executive Vice President Polyolefins and Innovation & Technology in January 2019. She joined Borealis after a career of more than 20 years in the chemical and petrochemical industry, most recently at Eastman, where she served as Vice President & General Manager of the Rubber Additives business unit. Prior to that, Lucrèce Foufopoulos-De Ridder held a variety of positions at multinationals, including Dow Chemical, Rohm and Haas, Dow Corning and Tyco. She currently serves on the supervisory board of Royal Vopak.

### **Martijn Arjen van Koten**

#### **Executive Vice President Base Chemicals & Operations**

Appointed: September 2013

Martijn Arjen van Koten joined Borealis in 2013 and holds the role of Executive Vice President Base Chemicals & Operations. He joined Borealis after a 19-year career at Shell, where he held numerous international leadership posts in Manufacturing, Technical Service, R&D and Strategic Development, culminating in the position of Vice President Manufacturing East, based in Singapore.



### **Philippe Roodhooft**

#### **Executive Vice President Middle East & Growth Projects**

Appointed: November 2017

Philippe Roodhooft was appointed Executive Vice President Middle East and Growth Projects in November 2017, after having served since 2013 as Chief Operating Officer of Borouge ADP in the UAE. Prior to that, Philippe Roodhooft held Vienna-based senior management positions, including Senior Vice President Supply Chain and Product Management for Polyolefins, Senior Vice President Operations for the Borealis Group, and General Manager for the Central European production sites.





# Our Group Strategy 2035

Life demands progress – we are re-inventing for more sustainable living

## Geographical expansion

Leverage core to become a fully global partner to customers for high-value material solutions

### – North America

Grow through M&A or selected build projects to strengthen the global footprint

### – MEA

Build on ADNOC partnership to capture further growth with assets in Abu Dhabi and in Asia

## Transformation

Evolve to fully customer-centric approach to offer sustainable high-value and circular material solutions

### – Circular Economy

Lead the transformation to a truly circular economy across all applications

### – Value Add

Acquire adjacencies to complement and accelerate value creation through innovation

## Leading from the core

Build on safety, values and culture to sustain strong integrated margins in high-value polyolefin solutions

### – Sustainability

Improving environmental footprint and sustainable use of resources in areas where we operate

### – People

Drive impactful leadership in a high-performing, diverse and mobile organisation and a purposeful work place

### – Excellence

Focus on excellence across all activities. Utilise technology and digitalisation to drive efficiencies

# Our Values

## Responsible

... is just a theory until you put it into action.



- We strive for zero incidents in health and safety.
- We consider our local and global responsibility for the environment in our decisions.
- We do business according to high ethical standards and lead by example.

## Respect

... is just a word until you live its meaning.



- We trust and involve people and communicate openly, respectfully and in a timely manner.
- We collaborate, support and help each other to develop for the best of Borealis.
- We build on diversity for better results as "One Company".

## Exceed

... is just a goal until it becomes your path.



- We win through excellence and deliver beyond expectations.
- We commit to making joint decisions and follow through.
- We give feedback and make "Connect-Learn-Implement" and "Continuous Improvement" a natural way of working.

## Nimblicity™

... is just a concept until you make it your routine.



- We are fit, fast and flexible and seek smart and simple solutions.
- We encourage decisions at all levels of the organisation to increase ownership and speed to realisation.
- We welcome change and manage it to shape our future.



# An Interview with Borealis' CEO Alfred Stern and CFO Mark Tonkens

**For companies around the globe, 2020 was one of the most challenging years in recent memory. As Borealis CEO, what will you remember most about this year?**

**AS** The coronavirus pandemic has been a crisis like none before. In 2020 safety was, as always, our primary concern. Keeping our people healthy as the pandemic unfolded was our top priority. But the safety culture that has long been established at Borealis helped us rise to the challenge. The few infections we detected were isolated quickly and we prevented the emergence of clusters. This allowed us to maintain our operations nearly uninterrupted across all of our assets worldwide, even in the face of supply chain disruptions. Our people have been incredibly nimble and resourceful. In Kallo, fever scanners were quickly installed to monitor contractors and visitors to our facilities during a turnaround. In Linz, our meltblown pilot production line was adapted on the fly to manufacture high-quality face mask applications at a time when these were in short supply. So, when I look back on this turbulent year, I will be most proud of what our people have been able to achieve.

I am less satisfied with our mixed record in process and occupational health and safety. One process safety incident in Stenungsund was an unfortunate setback in our Goal Zero journey of no accidents. Our record was also marred by an increase in occupational health and safety incidents in the second half of the year. But our TRI rate of 1.7 incidents per million working hours in 2020 is still world class and is a slight deterioration versus last year's 1.6.

The past year will also be remembered for the change of ownership that was announced in late October: OMV purchased 39% of Borealis shares from Mubadala and is now the majority owner with 75%. This significant change will yield many promising business opportunities and synergistic effects for both OMV and Borealis going forward.

**Mark Tonkens, as Borealis CFO, what stood out most for you in this turbulent year?**

**MT** The first thing that comes to mind is "resilience": the way in which the entire organisation, and all of our people, have been able to stay the course. Everyone

contributed to the solid overall financial performance by maintaining focus despite extensive disruption. However, from a CFO's standpoint, no financial result is fully satisfactory if we have safety incidents. Safety is always our number one priority. Good safety performance is a key driver of good financial results.

Under the circumstances, it is of course inevitable to experience setbacks in certain industries, such as automotive. But demand has been robust in energy, consumer packaging and healthcare. In the latter two segments, in particular, the coronavirus pandemic has made clear just how essential it is to re-invent for more sustainable living.

What truly stands out is how Borealis has been able to maintain a satisfying level of profitability and an excellent operating cash flow in the face of market and industry turbulence. This is due in great measure to the resilience programme we implemented as COVID-19 gathered speed earlier in the year. Our goal was to maintain sufficient liquidity and optimise our EBITDA (earnings before interest, taxes, depreciation and amortisation), while at the same time working to complete our major global outreach and growth projects in Europe, North America and the Middle East. The fact that these projects are progressing well despite COVID-19 is a most gratifying achievement.

**Could you update us on the progress of these growth ventures?**

**AS** Each of these projects plays its own unique role in helping us boost customer centricity by extending and expanding our geographic reach in different parts of the world. We are pleased to report that, on the whole, we were able to mitigate the effects of the pandemic on our active growth projects. In Belgium, for example, we are investing around EUR 1 billion in a new, world-scale propane dehydrogenation plant in Kallo, which is set to start up second quarter of 2023. In 2020, the propylene splitter – one of the largest pieces of equipment ever shipped – was successfully delivered to the construction site at the Port of Antwerp. This project solidifies our long-term role as a key polyolefins supplier in Europe.



**MT** Another important development in 2020 involves Baystar™. We increased our share in this joint venture from 25% to 50% by acquiring NOVA Chemicals' previous ownership interest. This project – now a 50/50 joint venture with an affiliate of Total S.A. – is especially exciting because it enables us to supply locally-produced Borstar® polyethylene (PE) to our North American customers for the first time. The start-up of the new cracker and Borstar PE unit that make up this integrated polyolefins site in Texas is scheduled for 2022. Overall, this project significantly expands our North American footprint.

**AS** We are particularly pleased to be moving towards completion of one of our biggest growth projects, the PP5, or fifth Borstar polypropylene (PP) plant in Bourouge. Over 13 million man hours have been clocked without any recordable health and safety incidents, which is quite a feat.

**In most parts of the world, it was a relatively quiet year for acquisitions. Apart from the ownership changes with regard to OMV and Baystar, is there anything else to report?**

**MT** Indeed there is. We had been working for quite some time to close on the acquisition of the South Korea-based compounder DYM Solution Co., Ltd. and were able to announce in late summer that we had acquired the controlling stake. This enables us to accelerate growth in one of our key industries, wire and cable, by broadening our portfolio of sophisticated compound solutions and extending our global footprint.



From left: Alfred Stern, CEO and Mark Tonkens, CFO




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**“By implementing our EverMinds™ approach in practice, we have made significant progress on circular economy solutions in 2020.”**

Alfred Stern, CEO

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**Geographical expansion is one pillar of the Borealis Group Strategy 2035 and transformation is another. What has Borealis achieved in this second area?**

**AS** By “transformation” we mean the evolution towards a completely customer-centric approach in which we provide sustainable solutions that offer added value as well as circular material solutions. By implementing our EverMinds™ approach in practice, we have made significant progress on circular economy solutions in 2020.

We reached a major milestone in March when we started producing renewable PP based on feedstock supplied by our longstanding partner Neste at our Belgian facilities in Kallo and Beringen. This is the first time that Borealis has replaced fossil fuel-based feedstocks in large-scale commercial production of PP. In another strategic co-operation with Neste, Borealis supplied renewable phenol made using renewable hydrocarbons supplied by Neste to the polymer manufacturer Covestro. So, we are taking great strides towards more sustainable production practices and our efforts will be rewarded. We are seeing increased interest from market players in renewably produced polypropylene and PP and since our production sites

are ISCC+ certified by the International Sustainability and Carbon Certification (ISCC) organisation, we will be able to capitalise on this demand.

**MT** Circular economy solutions are drivers of business growth as we evolve from a linear to a more circular economy of plastics. For the transformation to proceed, we need to generate sufficient income from our existing, ongoing businesses; at Borealis, we call this “leading from the core.” Doing so successfully is what makes it possible to devote resources to innovation. To name just one example of success: in September, we launched the Bornewables™ portfolio of premium polyolefins. These products are based on renewable feedstocks that are 100% derived from waste and residue streams. This is a prime instance of how we engage in Value Creation through Innovation in the circular sphere.

Our efforts to promote plastics circularity are also being boosted by a EUR 250 million loan from the European Investment Bank (EIB) for our research, development and innovation programme. The funds will be put to use in developing novel, value-added circular solutions for a wide range of applications in diverse industries. The loan is not only a clear vote of confidence from lenders with regard to Borealis performance, it is also an affirmation from European policymakers that they are in solid alignment with our efforts to accelerate the transformation to a circular economy.

**What has Borealis done in 2020 to use energy more efficiently in its own operations and to reduce its CO<sub>2</sub> emissions?**

**AS** Our sustainability strategy framework stipulates that we use renewable sources of electricity for at least 50% of our operations in Polyolefins and Hydrocarbons & Energy by 2030. We made significant progress towards this goal in 2020 by signing a long-term power purchase agreement (PPA) with a sustainable energy supplier, Eneco, for our plants in Belgium. This allows us to reduce our indirect CO<sub>2</sub> emissions – referred to as Scope 2 emissions in the Greenhouse Gas Protocol – by around 20 kilotonnes per year (kta). Likewise, in Finland we signed another long-term PPA with a wind farm operator to supply power to our production facilities in Porvoo, thus lowering our CO<sub>2</sub> emissions by 16 kta.

**How did the year 2020 develop for the Fertilizers and Melamine business areas?**

**MT** The Phoenix transformation programme for our Fertilizers business progressed throughout 2020. The result has been a more competitive positioning through optimised revenues and an improved cost position. After a very solid first half year, the second half of 2020 was characterised by industry margin pressure from increased feedstock prices, among other things. The melamine industry experienced very low market prices which only started to recover in the latter part of 2020. Overall, we are pleased that the Phoenix programme has delivered substantial benefits during 2020.

**Predicting the future has seldom been as difficult as it is nowadays. That said, what do you think the year 2021 holds?**

**AS** I think we will see a gradual recovery in the market and in many industries, but we should be prepared for continued volatility. Yet despite this lack of predictability, I do think that things will improve in 2021. At Borealis, we will focus on driving our global growth projects forward and continue our transformation to a more circular business model.

One source of concern is the unprecedented slump in oil prices which has depressed virgin polymer prices as well. By extension, recyclate has become less valuable, even though the cost of producing high-quality recyclate has remained the same. So, we will have to work very hard to come up with viable solutions to these challenges on the journey to plastics circularity. We need the backing of market incentives and sound public policies that are focused on desired outcomes and not individual actions. These must encompass the entire circularity loop and not just one process like recycling. We will remain committed to our fundamental purpose: life demands progress and we are re-inventing for more sustainable living. We will continue to develop new circular technologies, launch innovative and circular material solutions, reduce energy consumption in our own operations, use a higher share of renewable energy, and lower our own CO<sub>2</sub> emissions.

**MT** From a financial perspective, the overall outlook depends on how quickly the global economy recovers from the pandemic. I think it is fair to say that there is much uncertainty. As a company, we must be cautious in our



**“We will remain committed to our fundamental purpose: life demands progress, and we are re-inventing for more sustainable living.”**

Mark Tonkens, CFO



assessments, but remain flexible so that we can move quickly. We have the advantage of having concluded the year with a very strong balance sheet. Our gearing – in other words, our debt-to-equity ratio – is solid, at 29%. We have been able to progress on our growth projects while continuing to drive the transformation to a more circular economy of plastics. As a company, we are in good shape. Our people are dedicated, resilient and highly focused. I think this bodes well for 2021.

**The final word goes to you, Alfred Stern.**

**AS** I’ll conclude where I started: with safety. The lessons learned from the first waves of the pandemic are that discipline and a sharp focus on safety and hygiene can mitigate the dangers of the coronavirus in our workplace. As long as the effects of the pandemic are felt, we will use our digital and virtual tools to bring people together. However, we must be more vigilant than ever when it comes to personal and process safety and draw on the training programmes we already have in place to improve our record.



# 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](http://www.borealisgroup.com)  
[info@borealisgroup.com](mailto:info@borealisgroup.com)

### Customer Service Centres

Austria, Belgium, Finland, France,  
 Sweden, Turkey, United States

### Production Plants

Austria, Belgium, Brazil, Finland,  
 France, Germany, Italy, South Korea,  
 Sweden, The Netherlands,  
 United States

### Innovation Centres

Austria, Finland, Sweden

### Sales Offices/Representative Offices

Argentina, Brazil, Chile, Colombia,  
 Czech Republic, France, Mexico,  
 Morocco, Poland, Russia, South  
 Africa, Spain, Turkey, UAE, UK

### Borealis L.A.T Locations

Austria, Bulgaria, Croatia,  
 Czech Republic, France, Greece,  
 Italy, Hungary, Poland, Romania,  
 Serbia, Slovakia

### Borealis Rosier Locations

Belgium, The Netherlands



**○ – Borouge Locations**

**Head Offices**

Singapore, UAE

**Innovation/Application Centres**

China, UAE

**Production Plants**

China, UAE

**Sales Offices/Representative Offices**

China, Egypt, India, Indonesia, Japan, Singapore, Thailand, UAE, Vietnam

**Logistics Hubs**

China, Malaysia, Singapore, UAE

This graphic is for representational purposes only. Though it was prepared with the greatest possible attention to detail, simplified illustrations may have been applied.



## Global Growth Projects



### Bayport Polymers LLC (Baystar™)

- 50/50 joint venture with Total Petrochemicals & Refining USA, Inc.
- Location: Texas, US
- 1,000 kilotonne per annum (kta) ethane cracker in Port Arthur
- 625 kta Borstar® polyethylene plant in Pasadena
- Borealis Borstar – technology, which will be used in North America for the first time – will allow Baystar to produce enhanced polyethylene products for the most demanding applications

### New world-scale propane dehydrogenation (PDH) plant

- 100% Borealis ownership
- Location: Kallo, Belgium
- 740 kta propylene production
- PDH is a vital process step in the production of propylene from propane. As one of the most important building blocks for the entire chemical industry, propylene is the raw material used to produce PP, which in turn is one of the most widely used plastics

### Borouge's fifth polypropylene plant (PP5)

- Borouge is a 40/60 joint venture of Borealis and Adnoc
- Location: Abu Dhabi, United Arab Emirates (UAE)
- 480 kta polypropylene plant
- Production based on Borealis proprietary Borstar technology
- PP5 will be integrated with the existing Borouge 3 complex, adding value to the surplus propylene available from Takreer's Propane Dehydrogenation (PDH) unit



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# Non-financial Report

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# About the Non-financial Report

The Consolidated Non-financial Report 2020 has been prepared in accordance with the GRI Standards: core option as well as the legal requirements for the publication of a consolidated non-financial report (Section 267a of the Austrian Commercial Code).

The report covers information for the period from 1 January 2020 to 31 December 2020.

Borealis applies an annual reporting cycle.

The last report was published for the year 2019 in March 2020.

The Consolidated Non-financial Report 2020 differentiates between the product segments Polyolefins, Hydrocarbons & Energy and Fertilizer, Melamine and Technical Nitrogen Products. This approach was chosen to make the sustainability impacts of the different product segments more transparent.

A reference table creates the connection between material topics, non-financial matters according to Section 267a(2) of the Austrian Commercial Code, and the respective chapter in this report (→ chapter Sustainability Management, p. 50). The GRI Content Index in the appendix of this Combined Annual Report outlines where specific GRI reporting elements and indicators are addressed in the report (→ GRI Content Index, p. 228).

## 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.

An overview of the consolidated subsidiaries included can be found on page 219 in note 34 of the Consolidated Financial Statements as of 31 December 2020.

## Exceptions:

- Procurement & Transportation Polyolefins (PO): Borealis Brasil S.A., Borealis Poliolefinas da América do Sul Ltda and Borealis Compounds Inc. are excluded from Polyolefines (PO) procurement data and from CO<sub>2</sub> emissions arising from shipment of PO products;

- Procurement & Transportation Fertilizer (FE): reporting includes the flows of Rosier S.A., Rosier Nederland 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 Nederland B.V. and Rosier France S.A.S;
- Exception of mtm plastics GmbH and mtm compact GmbH from the sick leave rate, incident action completion rate and response rate on process safety accidents;
- Ecoplast Kunststoffrecycling GmbH is excluded from all occupational health & safety and process safety KPIs;
- mtm plastics GmbH, mtm compact GmbH, Ecoplast Kunststoffrecycling GmbH, DYM Solution Co., Ltd. and all Rosier subsidiaries are excluded from all employee data; and
- DYM Solution Co., Ltd. and Baystar™ are excluded from all non-financial indicators.

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

The material topic "Product Stewardship" was renamed to "Product Safety". Further, the reporting of Health and Safety KPIs (Key Performance Indicators) has been updated from GRI 403 (2016) to GRI 403 (2018). Apart from that, there were no material changes to the previous report. There were no restatements of information given in previous reports.

The Consolidated Non-financial Report 2020 has been subject to an internal quality review. Key sections of this report were audited with limited assurance by PwC Österreich GmbH Wirtschaftsprüfungsgesellschaft. The assurance engagement was conducted in accordance with the International Standard on Assurance Engagements 3000 (revised) issued by the International Federation of Accountants. The Independent Report on a Limited Assurance Engagement on Non-financial Information (Independent Assurance Report) describes the exact scope of the audit (→ Independent Assurance Report, p. 118).

For questions regarding sustainability or social responsibility, please contact [sustainability@borealisgroup.com](mailto:sustainability@borealisgroup.com).

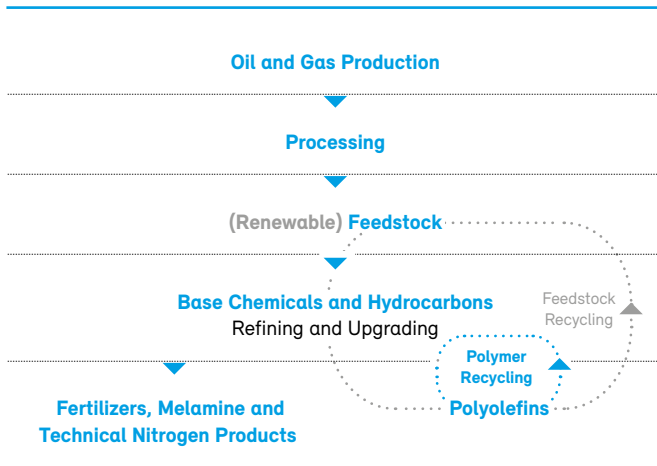


# Our Business

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

Borealis believes in progress because life demands 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 circular economy. As a reliable partner, Borealis creates ever more value by re-inventing for more sustainable living for society, its customers and partners, by developing new approaches, technologies and products.

Fig. 1: Chemical production flow



## Industry Segments

Borealis clusters its businesses in three business areas: Polyolefins, Hydrocarbons & Energy and Fertilizers, Melamine & Technical Nitrogen 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. These solutions make end products safer, lighter and more affordable, and consequently enable more sustainable living.

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

Borealis produces polyolefin products for the following industries:

## 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 includes 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 communication cable solutions for advanced data, copper multipair, fibre optic and coaxial cables, all of which enhance the efficiency of data and communication networks.



Fig. 2: Industries served by Borealis' polyolefins applications



Energy



Automotive



Pipes & Fittings



Consumer Products



Healthcare



Polymer Solutions



Circular Economy Solutions

Leading Borealis polypropylene (PP) material solutions are used to produce capacitor film products. Meeting 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.

With the launch of the new flagship solar brand Qentys™ in 2017, Borealis moved into the global solar industry.

Pioneering new products based on Qentys are making solar energy more effective, affordable and long lasting. For example, Borealis polyolefin encapsulant films improve the operational reliability of photovoltaic modules throughout the product lifetime. This results in better cost efficiency and thus greater viability for solar power.

#### 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 such as 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 kilogrammes (kg) of carbon emissions can be avoided by using one kg of 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.

#### 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, while 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 fresh 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 and stand-up pouches); rigid packaging (caps and closures, bottles, thin wall and transport packaging); and non-woven and technical fibres (filtration systems, hygiene products and technical textiles).

Advanced PP solutions offered by Borealis make white goods (such as washing machines, refrigerators, air conditioning units and more) and small appliances (such as toasters, ventilators and power tools) 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, while 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 a global supplier, Borealis can ensure 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 multitiered 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

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

Over recent years, mechanical recycling has proven to be effective and it will likely remain the eco-efficient method of choice in the foreseeable future, when implementing the principles of the circular economy. The circular economy opens up new ways to reinvent the economy in the interest of preserving natural capital and minimising waste. Another important aspect of eco-efficient waste stream management is DfR, which incorporates recycling principles into the design process itself in order to achieve optimised circulation of material for recycling and reuse. To this end, Borealis is collaborating with value chain partners – designers, retailers, packaging producers and brand owners – to develop material solutions and concepts to improve end-of-life recyclability and the performance properties of recycle material.

### Base Chemicals

#### Hydrocarbons & Energy

Borealis produces a wide range of products for use in numerous industries, including phenol, acetone, ethylene and propylene. 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 market. 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.

In line with its ambition to proactively drive the transition to a circular economy, Borealis has also started to process renewable and chemically recycled feedstock.

### [Fertilizers, Melamine and Technical Nitrogen Products](#)

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. This comprises more than 60 warehouses across Europe and has an inventory capacity of over 700,000 tonnes.

#### 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 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 awareness of the need to promote fertilizers with low carbon footprints, maintain healthy soil environments and reduce run-off from fields.

The product portfolio comprises nitrogenous fertilizers, compound NPK fertilizers and speciality fertilizers with various formulas of primary and secondary nutrients as well as oligo-elements. Non-European markets are serviced mainly via the Borealis Rosier distribution network.

#### Melamine

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. Melamine also plays an important role in the manufacture of everyday objects used in the kitchen or around the house, for example, as one component used to make handles for pots and pans.

#### Technical Nitrogen Products

A broad range of technical nitrogen product solutions is derived from the raw materials urea, ammonia, ammonium nitrate and nitric acid.

#### AdBlue®

AdBlue, a high purity aqueous urea solution, is used as a NO<sub>x</sub> reduction agent for trucks, buses, tractors, construction machinery and diesel passenger cars.

#### Ammonia

A compound of nitrogen and hydrogen, ammonia has many uses: as a precursor or intermediate product in the production of nitrogenous materials; as a refrigerant in cooling systems; as an NO<sub>x</sub> reduction agent; and as a hardening agent for metal surfaces.

#### Urea

Urea is a synthetically produced organic compound of ammonia and carbon dioxide. It is utilised in the production of melamine and the glues used in particle boards, but also as a raw material for resins and as an NO<sub>x</sub> reduction agent.



# Sustainability Management

## AT A GLANCE

### Key Achievements and Results

During 2020, Borealis:

- launched an updated Sustainability Strategy and Strategic Framework, in line with the new Group strategy and the results of the 2019 Sustainability Materiality Assessment;
- re-defined Borealis' Sustainability Ambition;
- prioritised several Sustainability Flagship projects that contribute to Borealis' delivery in the focus areas of the Circular Economy, Health & Safety and Energy & Climate as well as the Group's growth ambitions;
- introduced a Group Key Performance Indicator (KPI) for Sustainability in the Group Scorecard and improved sustainability performance management overall;
- determined Borealis' contribution to specific United Nations Sustainable Development Goals (UN-SDGs);
- enhanced employees' engagement, ambassadorship and awareness of sustainability issues, by introducing Plastics & Me, an innovative online course, and a refreshed Sustainability Access Point on the intranet, providing employees with direct access to information on sustainability topics and Borealis' position on current and emerging issues;
- expanded the Portfolio Sustainability Compass sustainability assessment tool across Borealis' innovation and investment projects;
- scaled-up Project STOP to further address the critical issue of plastic waste in the ocean; and
- implemented initiatives that address the threat of COVID-19 (→ COVID-19 Infobox, p. 41).

### Introduction

Borealis' Sustainability Ambition is "to create a world where there is no waste of resources, no emissions into the environment and no harm to society, while delivering prosperity to Borealis and our stakeholders". To achieve this ambition and foster true sustainability throughout its business, Borealis takes responsible decisions based on a fact-driven evaluation of their positive or negative impact on the environment, people and the business. Improving its sustainability performance will enable the Group to

contribute to more sustainable living, while also enhancing efficiency, reducing costs and mitigating long-term business risks. Embedding sustainability in the business is therefore considered a key success factor for Borealis and a priority for the Executive Board.

### Organisational Structure

The Executive Board is Borealis' highest governance body for sustainability. It:

- approves the Group's overall sustainability and public affairs strategy;
- regularly reviews the strategy's implementation and performance;
- provides guidance and decisions on major topics, such as Group operative plans, capital allocation and investments; and
- approves the Group's position on key sustainability issues, such as the Circular Economy, Climate & Energy and Health & Safety.

The Executive Board has delegated the management of social, environmental and economic issues to senior leaders in their respective functions.

The Director of Sustainability & Public Affairs leads the development of the Group's Sustainability Strategy and reports to the Vice President Strategy & Group Development, who in turn reports to the CEO. The Sustainability & Public Affairs organisation leads Borealis' commitment to sustainability by driving and guiding the Sustainability Strategy throughout the Group and catalysing sustainability-related initiatives that create value for Borealis' stakeholders. The team supports the leaders of key functions to develop sustainability-oriented strategies and implement a sustainability roadmap through capability building, expertise, consultancy and dedicated methodologies and tools.

The Sustainability Advisory Team (SAT) comprises senior management from key functions across the organisation. It meets regularly to review the Group's progress against the sustainability roadmap and to assess and guide sustainability projects and activities prior to gaining approval from the Executive Board when necessary. The SAT also proposes new areas of involvement and

ensures excellence and rigour in execution. In 2020, 13 Sustainability Flagship projects were identified as major contributors to Borealis' sustainability journey (→ Sustainability Flagship Projects, p. 34).

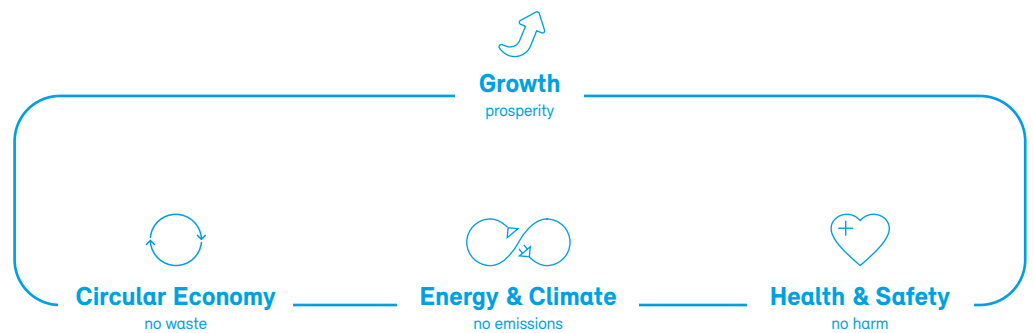
As part of embedding sustainability capabilities in the business, Borealis engages senior and mid-level managers from across the organisation in a bespoke Business Sustainability course led by the IMD Business School. Since 2016, over 100 participants have been successfully certified, including 28 in 2020. Through this course, Borealis supports continuous learning across the organisation to enhance and deepen their understanding of important sustainability issues and projects, including the circular economy, materiality identification, marine littering, microplastics and design for recycling. Interactive webcasts on current and emerging sustainability issues are held with the Sustainability Alumni throughout the year, providing an effective tool for embedding sustainability within the functions.

**Sustainability Strategy**

In order to shape the Sustainability Strategy and contribute to the Group strategy review, in 2019 Borealis carried out its second Sustainability Materiality Assessment (→ Sustainability Materiality Assessment, p. 32) to identify current and evolving stakeholder concerns and priorities. The assessment will be repeated at three-yearly intervals.

The 2019 assessment confirmed that the three focus areas in the Sustainability Strategy, which are Health & Safety, the Circular Economy and Energy & Climate, are as relevant as ever and the Group is therefore further strengthening its efforts in these areas. Growth is seen as enabling prosperity for Borealis and its stakeholders, and supports implementation of the Group's plans in the three focus areas. In January 2020, the Group launched a refreshed Sustainability Strategy, supporting its 2030 Strategy.

Fig. 3: Borealis' Strategic Sustainability Framework



**Enhance sustainability in our operations and supply chain**

- Strive towards Zero Pellets Loss
- Optimise renewable feedstock for PO and explore chemical recycling of plastics
- Reduce packaging and waste

- Increase Borealis' energy efficiency and reduce flaring
- Leverage opportunities to use locally produced renewable energy
- Reduce CO<sub>2</sub> emissions in transportation

- Implement a pro-active strategy for chemicals safety and substitution planning
- Ensure occupational health & safety and process safety

**Support profitable business growth**

- Lead the transformation of the industry to a circular economy

- Enhance PO product portfolio to increase the use of renewable energy, improve energy efficiency and reduce emissions

- Launch innovations that enhance safety in food packaging, automotive, healthcare and water, sanitation, energy and communication infrastructure



## Sustainability Targets

To ensure the realisation of the Group's strategy and with its Sustainability Ambition clearly in mind, Borealis has set specific long-term goals to improve the circularity of plastics, protect the climate and care for the health and safety of our communities.

Our Goals for Health & Safety remains constant and resolute:

- Zero work-related incidents or accidents
- Zero harmful substances in our products according to REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals)

Our Goals for the Circular Economy for 2025 are:

- 350,000 tonnes of recycled polyolefin delivered annually for the production of second-generation products
- 100% of consumer products being recyclable, reusable or with renewable content

Our Goals for Energy & Climate for 2030 are:

- 50% of electricity consumption from renewable sources
- 20% energy efficiency improvements (compared to 2015)
- Zero non-emergency flaring

In line with the Group's 2030 Strategy and the sustainability focus areas, Borealis is now focusing on contributing to seven of the United Nations SDGs. The following SDGs will be supported by our actions in each of the focus areas:



### Circular Economy

- SDG 12: Responsible Consumption and Production
- SDG 14: Life Below Water

### Energy & Climate

- SDG 7: Affordable and Clean Energy
- SDG 13: Climate Action

### Health & Safety

- SDG 3: Good Health and Well-Being
- SDG 6: Clean Water and Sanitation

### Growth

- SDG 17: Partnership for the Goals

Finally, the Group will also support SDG 17 (partnership for the goals) in its overarching pursuit of growth, highlighting the importance of cooperation as a prerequisite for sustainable value creation through all the focus areas.

In 2020, a Sustainability KPI was added to the Group Performance Scorecard, reinforcing the importance of sustainability performance to Borealis' successful development and growth. For the Polyolefin and Hydrocarbons & Energy businesses, the sustainability KPI considers process safety incidents (including fires), flaring, energy efficiency, CO<sub>2</sub> emissions and the share of recycled waste in relation to total waste. For Fertilizer, Melamine and Technical Nitrogen Products, the KPI considers process safety incidents (including fires), release of N<sub>2</sub>O, energy efficiency, CO<sub>2</sub> emissions and the share of recycled waste in relation to total waste.

## Sustainability Materiality Assessment

The Sustainability Materiality Assessment carried out in 2019 assessed 17 aspects, according to their importance to Borealis' stakeholders and their impact on the Group, society and the environment. The process was supported by an external consultancy. Through this process, Borealis determined the material aspects for its business.

As a result of the assessment, Borealis developed a Sustainability Materiality Matrix (→ Figure 4 Sustainability Materiality Matrix, p. 33), based on four levels of response:

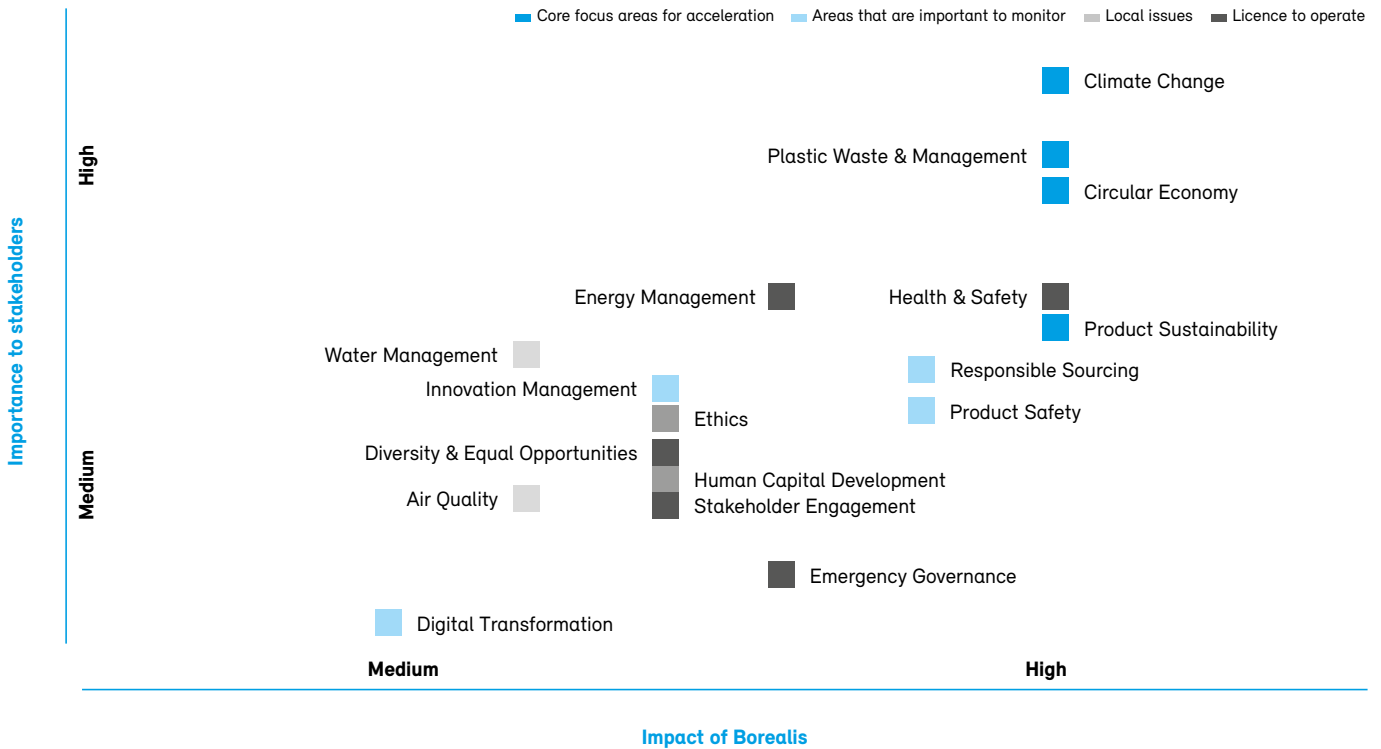
- Focus: core issues for Borealis
- Monitor: important sustainability issues to monitor
- Local: issues that are to be managed on a local level
- License to operate: issues that are considered necessary for the Group

The following four topics were identified as the most important to Borealis and its stakeholders, and are defined as "Core focus areas for acceleration".

1. Climate Change: this aspect is one of the must-win battles in Borealis' current sustainability framework and is the most highly rated topic in terms of the impact of Borealis on climate change and the importance to all stakeholders.
2. Circular Economy: this aspect is one of the main drivers of sustainability in the plastics and chemicals industry. It provides Borealis with opportunities to differentiate itself from other companies in the industry.



Fig. 4: Sustainability Materiality Matrix



- 3. Plastic Waste & Management: this aspect is of utmost importance for Borealis, at both corporate and operational level. Proactive engagement by Borealis reaffirms its commitment to zero plastics leakage.
- 4. Product Sustainability: this aspect is a key driver for developing and improving Borealis’ products to minimise stress on the environment and protect public health.

In addition to the four core focus areas for acceleration, four topics have been designated as “monitor elements”. These are important sustainability topics for Borealis, which the Group must monitor and continuously improve:

- 1. Responsible Sourcing: this aspect is important to ensure responsible sourcing and refers to the initial stages of product development, namely raw material sourcing.
- 2. Innovation Management: this aspect provides Borealis with opportunities to further differentiate itself from its industry peers, in respect of technological capabilities and research and development investments that lead to innovative and sustainable solutions for both products and processes.

- 3. Product Safety: this aspect is important for Borealis to ensure the environmental and social impacts of its products, predominantly based on life cycle assessments and the precautionary principle.
- 4. Digital Transformation: this aspect is an emerging topic and closely linked to IT and data security.

Air quality and water management were identified as local issues which require attention at an operational level, in conjunction with local authorities, laws and regulations, while all the topics categorised under “License to operate” are integrated into Borealis’ corporate culture and processes.

Figure 5, p. 35 demonstrates the connection between the material topics, the respective chapter in this report, and the sustainability matters according to the Nachhaltigkeits- und Diversitätsverbesserungsgesetz (NaDiVeG), the Austrian law on non-financial reporting.



## Sustainability Flagship Projects

In 2020, Borealis defined on 13 Sustainability Flagship Projects. These are initiatives that support the Group's strategy and Borealis' sustainability journey, and have clear objectives and milestones for 2020. This increases the visibility of real and winning sustainability initiatives supported/championed by Borealis' top management. With that approach, the business units integrate sustainability into their own strategies.

The Sustainability Flagship highlights of 2020 were:

- chapter Digital Transformation, p. 114
  - Lifesaving rules and behavioural initiatives
- chapter Product Safety, p. 57
  - REACH Dossier update
- chapter Circular Economy, p. 62
  - Circular Economy Solutions Strategic Initiatives
- chapter Borealis Social Fund, p. 47
  - Project STOP
- chapter Environmental Management, p. 76
  - Operation Clean Sweep
- chapter Public Affairs, p. 42
  - Public Affairs Advocacy Strategy
  - Sustainable Finance
- chapter Energy and Climate, p. 68
  - CO<sub>2</sub> Roadmap
  - TCFD Reporting
- chapter Our People, p. 83
  - Gender Diversity and Inclusion
- chapter Procurement of Raw Materials, Packaging and Technical Supplies, p. 102
  - Together for Sustainability
- chapter Sustainability Management, p. 30
  - Sustainability Compass
- COVID-19 Infobox, p. 41
  - COVID-19 Initiatives

A thorough review of the Sustainability Flagship Projects is carried out at each year end. Continued and new Flagship Projects will be identified and their progress monitored, with reviews by the Sustainability Advisory Team.

## Sustainability of the Product Portfolio: The Sustainability Compass

Borealis established a method to assess the sustainability of its product portfolio, called the Portfolio Sustainability Compass. Borealis based its approach on the WBCSD (World Business Council for Sustainable Development)

chemical industry methodology for portfolio sustainability assessments. Approximately 80% of the polyolefin product portfolio has been assessed so far and in 2020, the assessment covered 25% of the total portfolio. Every product innovation is assessed by the compass in various stages of product development.

Products are grouped into three segments, based on clearly identified sustainability criteria.

- “Trailblazers” are at the forefront of sustainability, providing a meaningful and enduring contribution to society. Examples include the Group's top technology products within the automotive and energy sector, which are making cars lightweight and safe, enabling renewable energy to be transported with minimum loss and allowing electric vehicles to become a mass reality.
- “Pacemakers” are the standards, with benefits commonly known to society. These include components of appliances and furniture as well as hygienic fibres.
- “Drifters” are products that are only compliant and will be challenged by sustainability improvement needs. These include films used in unnecessary packaging and other solutions that overburden the waste system.

In addition to assessing the existing portfolio, the assessment tool is used to differentiate the innovation pipeline and new projects with high sustainability factors. The Portfolio Sustainability Compass is therefore a key instrument in developing solutions that deliver sustainable benefits to society.

## Responsible Sourcing

In 2014, Borealis voluntarily began to participate at the annual sustainability assessment of EcoVadis, a platform that uses one of the most accepted methodologies for assessing a company's sustainability. In 2020, Borealis was awarded its fourth consecutive Gold Status for its EcoVadis Scorecard, placing the Group in the top 5% of all industry peers who participated during the year.

Borealis is a member of the Together for Sustainability initiative, which aims to improve the sustainability standards of the supply chain of chemical companies. In addition, Borealis has a Code of Business Conduct for Suppliers, which requires them to have ethical employment and business practices, and high standards of health, safety and environmental performance (→ chapter Procurement of Raw Materials, Packaging and Technical Supplies, p. 102).

Fig. 5: Overview of Material Topics

Material topic	Chapter of reference	Non-financial matters
Climate Change	Energy & Climate, Environmental Management	Environmental matters
Circular Economy	Circular Economy	Environmental matters
Plastic Waste & Management	Circular Economy, Environmental Management	Environmental matters
Product Sustainability	Product Safety, Sustainability Management, Procurement	Environmental matters, social matters
Sustainable Sourcing	Logistics, Procurement of Feedstock, Electricity & Utilities, Procurement of Raw Materials, Packaging and Technical Supplies	Environmental matters, respect for human rights, social matters
Innovation Management	Innovation	Social matters, environmental matters
Product Safety	Product Safety	Environmental matters, social matters
Digital Transformation	Digital Transformation	Social matters
Air Quality	Environmental Management	Environmental matters
Water Management	Environmental Management	Environmental matters
Health & Safety	Process Safety, Occupational Health and Safety	Employee-related matters
Energy Management	Energy & Climate, Environmental Management	Environmental matters
Ethics	Ethics & Compliance	Anti-corruption and bribery, respect for human rights
Diversity & Equal Opportunities	Our People	Employee-related matters
Human Capital Development	Our People	Employee-related matters
Stakeholder Engagement	Sustainability Management, Stakeholder Management	Social matters
Emergency Governance	Process Safety	Employee-related matters, social matters

## Outlook

In 2021, Borealis will continue to reinforce its commitment to supporting the sustainable development of the Group and the industry. In addition to ongoing initiatives, Borealis will further enhance the implementation of its Sustainability Strategy by:

- aligning its sustainability and government relations activities with OMV;
- introducing a long-term target for emissions;
- reporting according to the GHG protocol, including Scope 3 emissions;
- disclosing to CDP supply chain for the first time;
- embedding TCFD into enterprise risk management (ERM) processes;
- introducing regular tracking and reporting on local and Group social engagement activities;
- scaling up Project STOP and mobilising a Circular Economy Solutions Manager to Indonesia;
- expanding the Growing Talent initiative to develop a curriculum on sustainability of plastics aimed at young people;
- amplifying public affairs advocacy to support the increase of recycled plastics in packaging; and
- continuing to implement initiatives that address the ongoing threat of COVID-19.



## Sustainability Risks

This overview summarises the potential non-financial risks and mitigation measures of Borealis' activities on sustainability matters (according to the NaDiVeG), structured by the Group's material topics:

Sustainability risk	Risk description	Mitigation measures
<b>Focus Area: Environment, Energy &amp; Climate</b>		<b>Material topics: Climate Change, Air Quality</b>
Unplanned emissions from operations	If the Group's operations do not operate according to engineered process levels, unplanned emissions to the environment can occur. These emissions can be emissions to air (including NO <sub>x</sub> , dust and flaring) or pollution of soil and water, resulting in increased GHG emissions, waste, noise and other disturbances to the local community.	The Group employs health, safety, environment and quality management procedures and processes to prevent and remediate unplanned events. It proactively addresses these risks through its risk and opportunity management system to improve safety, reliability, quality and cost. It does this by identifying and setting priorities, and allocating funds and resources to the highest priorities in the risk register, while enhancing cross learning of best practices in order to continuously reduce the risk level. → chapter Process Safety, p. 54 → chapter Environmental Management, p. 76 → chapter Corporate Governance, p. 90
<b>Focus Area: Health &amp; Safety</b>		<b>Material topics: Emergency Governance, Product Safety</b>
Process Safety	The sudden and uncontrolled release of explosive material, for example, due to vessel or tube ruptures, could lead to major explosions, such as vapour cloud explosions or boiling liquid expanding vapour explosions. Catastrophic failure of process equipment could result in the uncontrolled release of harmful toxins into the community, such as ammonia	Borealis has stringent internal measures to prevent accidents and mitigate their potential consequences effectively. The Group implements critical processes, such as: <ul style="list-style-type: none"> <li>– management of change, safe permit to work, safe start up and integrity of safety critical protection layers;</li> <li>– regular inspections to ensure the integrity of the Group's installations;</li> <li>– Process Safety awareness campaigns;</li> <li>– tailor-made safety training, such as Process Safety in design and specific front-line leader training;</li> <li>– leading indicators, such as compliance with safety critical inspection plans;</li> <li>– regular testing of the functionality of the Group's safety devices and instrument protection loops;</li> <li>– regular deep dives in the Process Safety Committee;</li> <li>– self-assessments in the locations; and</li> <li>– cross-location health checks and Borealis Blue audits.</li> </ul> → chapter Process Safety, p. 54
Chemicals Safety	Chemical substances, if not handled properly and according to their intended use, could lead to unintentional health impacts for people coming into contact with those substances.	As a signatory of the chemical industry's Global Charter for Responsible Care®, Borealis is committed to ensuring the safety of its products along the entire value chain. <ul style="list-style-type: none"> <li>– Borealis does not use any banned substances from REACH Annex XIV in its operations, unless authorised by the EU Commission and ECHA. The Group even goes beyond compliance with current regulations, for example, with phthalate-free polypropylene, replacing azodicarbonamide (ADCA) in cable solutions and halogen-free cable compounds</li> <li>– The Group enforces high product safety standards, has a stringent product safety management system and considers the safety of chemicals in all of its decision-making processes.</li> <li>– The Borealis Product Stewardship Council evaluates the potential risks of all substances the Group uses and defines risk mitigation measures.</li> </ul> → chapter Product Safety, p. 54



Sustainability risk	Risk description	Mitigation measures
<b>Focus Area: Health &amp; Safety</b>		
<b>Material topics: Health &amp; Safety</b>		
COVID-19 management	If no extensive measures are taken against global pandemics like COVID-19, employees and other workers are exposed to a significant health risk and can consequently also impact production.	In 2020, the Group acted swiftly with extensive measures in order to keep its stakeholders safe from COVID-19. The key actions taken include: <ul style="list-style-type: none"> <li>– Protecting employees by implementing numerous safety and hygiene measures</li> <li>– Support of employees and managers with handling of actual or suspected cases</li> <li>– Enabling digital key events, digital training and home working for all departments in order to reduce the risk of infection</li> </ul> → COVID-19 Infobox, p. 41
<b>Focus Area: Circular Economy</b>		
<b>Material topics: Plastic Waste &amp; Management</b>		
Spills Management (Pellet Loss)	Plastic pellets could unintentionally leak into the environment through spills at Borealis' production sites, or during transportation, conversion or recycling, resulting in environmental pollution and ultimately microplastics ending up in ground water, rivers and oceans.	Borealis was one of the first signatories to the European Operation Clean Sweep® (OCS), a programme to prevent pellet and plastic powder leaking into the environment. Since then, all Borealis Polyolefin production locations have implemented this programme. Borealis and Total have developed a comprehensive OCS audit scheme and the Group assesses gaps and achievements in all its Polyolefin locations regularly, followed by an improvement action plan. → chapter Environmental Management, p. 76
Environmental Pollution (Plastic waste in the environment)	Plastic waste, if not collected, sorted and disposed of properly, could end up in the environment, causing environmental pollution, harming animals and ultimately end up as microplastics in drinking water and food.	Plastics are too valuable to end up in the environment. As a resource, plastics should be collected, sorted and recycled. Borealis is therefore playing a key role in the transformation of the industry to a circular economy. → chapter Circular Economy, p. 62  Borealis has initiated Project STOP, a programme that supports cities in Indonesia to establish low cost, more circular waste management systems, thus avoiding the leakage of plastics into the ocean. → chapter Borealis Social Fund, p. 47



# Stakeholder Management

## AT A GLANCE

### Goals

Borealis' main objectives in stakeholder management are to:

- practice continuous and active stakeholder engagement, with public and private sector actors;
- form partnerships and engage in cooperative initiatives with partners, particularly in the circular economy field;
- assess and address stakeholder concerns on an annual basis at each location; and
- execute a Group-level Sustainability Materiality Assessment every three years.

### Key Achievements and Results

In 2020:

- the location-level management procedure in relation to risks, issues and stakeholders was updated to comply with ISO 50001 and ISO 45001 requirements. Assessments are executed in line with this procedure and the identified concerns are addressed at all Borealis locations on an annual basis; and
- Borealis' views on sustainability topics were published on the Group's external website to enhance transparent communication of the Group's views to all of its stakeholders.

### Introduction

Stakeholder engagement is imperative to Borealis' business. Regular engagement with a broad range of stakeholders ensures that Borealis can address their concerns and expectations, and better anticipate and respond to business risks and opportunities, thereby supporting the implementation of the Group's strategy. Collaborating with internal and external stakeholders is also intrinsic to Borealis' ability to create value through innovation and is evidenced in the Group's commitment to Responsible Care® (→ chapter Corporate Governance, p. 90). The overall aim of engaging with key stakeholders is to drive the best outcome for society, government, the industry and the Group.

Borealis recognises that well-designed legislation and regulation can help to tackle issues such as resource efficiency, climate change, waste reduction, safety improvements, fair trade and marine littering. Regulators, policy influencers and non-governmental organisations (NGOs) can all shape regulation and legislation that affect Borealis' business and its ability to implement its strategy. Borealis therefore needs to understand the policy, regulatory

and NGO environment in the EU and ensure that it can contribute its knowledge and insight to discussions about the future of regulation and legislation. In line with the Group's Ethics Policy, Borealis strictly follows a political corporate governance practices in public affairs (→ chapter Public Affairs, p. 42).

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. Based on its Group-level stakeholder mapping, Borealis has rolled out a stakeholder mapping process and a related issue and risk assessment in all of its major locations and on Group level over the past few years. The location-level management procedure was updated in 2020 to comply with the requirements of ISO 50001 and ISO 45001. At the same time, individual departments have carried out stakeholder mapping for specific market segments, such as consumer packaging and mineral fertilizer.

### Organisational Structure

Borealis' stakeholder management is carried out at three levels:

- Senior leaders and their staff are responsible for capturing signals which are relevant to their operations.
- This information is an input to the Group's Public Affairs Network (PAN), a regional cross-functional organisation at managerial level, which deals with matters that should be escalated to Group management.
- The last level of stakeholder management is performed by the Sustainability & Public Affairs organisation as an integral step during the triennial update of Borealis' Sustainability Materiality Assessment.

### Borealis' Stakeholder Groups and Activities

#### Academia and Science

Borealis has ongoing research and development collaborations with leading universities, regularly participates in symposia, working groups and advisory committees, and supports research studies, such as Circumat (Transfercenter für Kunststofftechnik) or LIT factory (Linz Institute of Technology) at the Johannes Kepler University in Linz, Austria.

#### Customers

Borealis communicates actively with customers through numerous channels, including face-to-face meetings, visits to Borealis, feedback and satisfaction surveys, trade fair

activities, conferences and product launch events. There were significantly fewer physical meetings in 2020 compared with previous years due to the COVID-19 pandemic.

Building on its established key customer management approach, in 2020, the Group incorporated leading practices around customer intelligence, strategic customer management, relationship building and differential value creation into its key customer plans. In logistics, Borealis ran several customer-specific programmes aimed at improved reliability and reduced CO<sub>2</sub> emissions.

### Employees

In line with the company value "Respect", Borealis engages with its employees through regular evaluation and feedback from their line manager, within the framework of the Borealis performance management system. Moreover, the Corporate Co-operation Council (CCC) is an important platform for dialogue between management and employee representatives. It is a forum for exchanging information between the works councils at the various Borealis locations, top management and owners. 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, to ensure continuous feedback and enhance employee engagement and well-being.

### Governments and Regulators

Interaction with governments and regulators takes place at a European, national and local level, and through different channels, such as face-to-face meetings and participation in workshops. Often, the interaction takes place via industry associations.

Borealis actively supports government initiatives, such as the development of an EU Plastics Pact. Borealis also takes a leading role in the Circular Plastics Alliance, specifically in the field of Design for Circularity.

In 2020, Borealis approached national governments, calling for commitment to advancing the circular economy in national COVID-19 Recovery Plans. Furthermore, Borealis actively participates in EU public consultations on legislative initiatives that are relevant to the Group's business (→ chapter Public Affairs, p. 42)

### Investors and Capital Providers

Borealis regularly holds Bankers & Investors Days. The Group 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. In 2020, there were fewer activities requiring physical meetings due to the COVID-19 pandemic.

### 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

Borealis acknowledges the importance of NGOs in increasing awareness of its material topics and is a partner of the Ellen MacArthur Foundation. Its New Plastics Economy (NPEC) initiative brings together key stakeholders to rethink and redesign the future of plastics, starting with packaging. Borealis is an Advisory Board member of the NPEC and in 2020 supported the call for a UN Treaty to stop plastics pollution.

### 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, when working on joint projects) or expert level, to exchange experiences or use synergies. Towards the end of 2020, following the change in Borealis' ownership structure, alignment work intensified with majority shareholder OMV.

### Society

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

The general public has been Borealis' most vocal stakeholder with regard to their preferences about the plastics industry as a whole and to polyolefins in respect of topics such as the circular economy and plastic waste.



### Suppliers and Contractors

Borealis continuously interacts with suppliers and contractors through the Borealis Supplier Relationship Management programme as well as regular face-to-face meetings, suppliers' events and annual industry conventions for experience exchange and relationship management. The Group takes the lead in caring for the sustainability of its suppliers by actively engaging with them through the Together for Sustainability association, aimed at improving sustainability standards in the chemical industry's supply chain (→ chapter Procurement, p. 99). During the year, the Group extensively addressed the topic of substances under scrutiny (such as DCP, DPTL and hydrogenated terphenyl) with suppliers.

### Value Chain Partners

Borealis actively exchanges views and experiences and innovates with its value chain partners, particularly in the circular economy area, for which Borealis created the EverMinds™ engagement platform. In 2020, Borealis launched the Borneables™ portfolio of products made from renewable feedstock and began to scale up their production, including securing a five-year sourcing contract with Neste (→ chapter Circular Economy, p. 62).

In addition, Borealis participates at petrochemical and chemical industry conferences, such as the K-Fair in Düsseldorf, the Our Oceans Conference, the Plastic Recyclers Conference, ADIPEC Conference and the GPCA Forum in Abu Dhabi. However, due to the global pandemic, these activities were mostly halted in 2020.

Borealis is an initiator and co-founder of Project STOP, aimed at addressing the challenge of plastic pollution. In 2020, new strategic partners joined the project, thereby extending the engagement of the value chain. (→ chapter Borealis Social Fund, p. 47).

### Works Councils

There are regular meetings of the Corporate Co-operation Council, a platform for dialogue between employee representatives, works councils and top management in order to maintain a high level of trust and ensure that employee representatives are well informed and engaged for specific initiatives.

### Industry and Trade Associations

Borealis is an active member and has leadership positions in numerous national, regional, European and international associations (→ chapter Public Affairs, p. 42)

Borealis' memberships include the following organisations and associations (in alphabetical order; not exhaustive):

- CEFIC (European Chemical Industry Council)
- CEFLEX (A Circular Economy for Flexible Packaging)
- EDANA
- Ellen MacArthur Foundation – “The New Plastics Economy” (NPEC)
- Essencia (Belgium, Federation for Chemistry and Life Sciences Industries)
- Europacable (as associated industry partner)
- EUROPEN (European Organisation for Packaging and the Environment)
- Fertilizers Europe
- FSEU (Fire Safe Europe)
- IFA (International Fertilizer Industry Association)
- IV (“Vereinigung der Österreichischen Industrie”, the Federation of Austrian Industries)
- IVA (Industrie Verband Agra, German Agrochemical Industry Association)
- Kemianteollisuus ry (The Finnish Chemical Industry Federation)
- MPPE (MedPhamPlast Europe)
- PCEP (Polyolefins Circular Economy Platform)
- Petrochemicals Europe (petrochemicals industry sector within CEFIC)
- PlasticsEurope
- PRE (Plastics Recyclers Europe)
- SolarPower Europe
- TEPPFA (The European Plastic Pipes and Fittings Association)
- Together for Sustainability
- UNIFA (“Union des Industries de la Fertilisation”, the association of the French fertilizer industry)
- WEF (World Economic Forum)
- WBCSD (World Business Council for Sustainable Development)
- WKO (“Wirtschaftskammer Österreich”, the Austrian Federal Economic Chamber)
- WPC (World Plastics Council)
- WSUP (Water & Sanitation for the Urban Poor)

### Outlook

In 2021, Borealis will continue active engagement and cooperation with its stakeholders. The EverMinds platform will be further enhanced to engage value chain partners in the transformation of the industry to a circular economy.

As part of the OMV Group, alignment work will also begin to harmonise the location-level management procedure/approaches in relation to risks, issues and stakeholders, and Group-level Sustainability Materiality Assessments.





## COVID-19

### Supporting Employees, Customers and Society by Ensuring Safe and Effective Operations During COVID-19

In 2020, ensuring an effective response to the COVID-19 pandemic was a key focus across the Group. Key actions taken during the year to protect and support Borealis' stakeholders included:

- Forming COVID-19 crisis teams at Group and local levels as early as January 2020 to manage Borealis' response. Actions included issuing specific guidelines based on the World Health Organisation recommendations, self-assessments for locations to evaluate their implementation of COVID-19 restrictions, sharing of best practices, creating transparency and setting minimum standards for personal protective equipment (PPE).
- Protecting employees by implementing COVID-19-related measures such as social distancing and hand hygiene within the Group's operations, issuing masks to all employees, installing temperature screening at gates and Plexiglas screens on counters, providing solutions for working from home compliant with national laws and regulations, and preparing for the gradual and controlled return of employees to offices and workplaces.
- Managing the impact on the Group's employees by ensuring that line managers and employees received the necessary support through the HR Business Partners team, providing training and material for line managers on leading teams remotely, and sending small gifts and messages home to maintain employees' motivation. The Group did its utmost to help employees to cope with the situation and created the video series

"Healthy minds in challenging times" with a Borealis social psychology specialist, sharing useful insights on coping with unusual situations.  
→ chapter Our People, p. 83

- Stepping up communication across the Group, including publishing weekly video messages from CEO Alfred Stern, creating a microsite to gather together all COVID-19-related news, guidelines and materials, regularly informing employees about the situation, giving clear instructions and providing advice on issues such as exercising at home. The Group also published interviews with employees on the intranet about "working in Corona times" and provided a contact person for all questions around COVID-19 concerning caring for children or family members.
- Supporting employees and line managers with handling actual or suspected cases of COVID-19. This included tracing contacts and tracking cases in the Group's HR system, and making tests available free of charge in several locations.
- Ensuring IT supported the transition to home working for all departments as well as underpinning critical digital processes such as payroll and invoice payments.
- Moving key events such as Corporate Co-operation Council meetings, Town Hall Meetings and the Ethics Conference online → chapter Ethics & Compliance, p. 95. In addition, larger social events were held online.
- Moving many training courses online and introducing an innovative game-based interactive learning solution to help employees and contractors to learn the five Life Saving Rules, while the Group's Safety Centres were

required to be closed → chapter Digital Transformation, p. 114.

- Carrying out a Pulse Check employee survey, with a focus on COVID-19. This showed a 7% increase in engagement due to positive perceptions of the Group's reaction to the challenges of COVID-19 and a 77% positive perception on how Borealis dealt with the pandemic  
→ chapter Our People, p. 83.
- Transforming the Group's unique pilot line in Linz, Austria, to produce meltblown fabrics for face mask applications in response to shortages of PPE for healthcare and other workers → chapter Innovation, p. 109.
- Contributing via CEFIC to keep the European Commission informed about the impacts of the health crisis on business → chapter Public Affairs, p. 42.

The Group's response enabled it to continue its operations, producing plastic solutions that were urgently required by society during the pandemic. These included plastic products that are crucial to the healthcare sector, such as IV bottles and pouches, diagnostic equipment and consumables, syringes and other medical devices, and pharmaceuticals packaging, as well as applications to protect food, pre-product for disinfectants and products to support food production.

Borealis' efforts were recognised by customers, who provided formal and informal feedback to express their thanks for helping them to maintain the continuity of their own operations. Many of these customers are part of essential supply chains to the food, healthcare and consumer products industries, delivering both COVID-related product solutions and solutions essential to businesses involved in critical infrastructure.



# Public Affairs

## Introduction

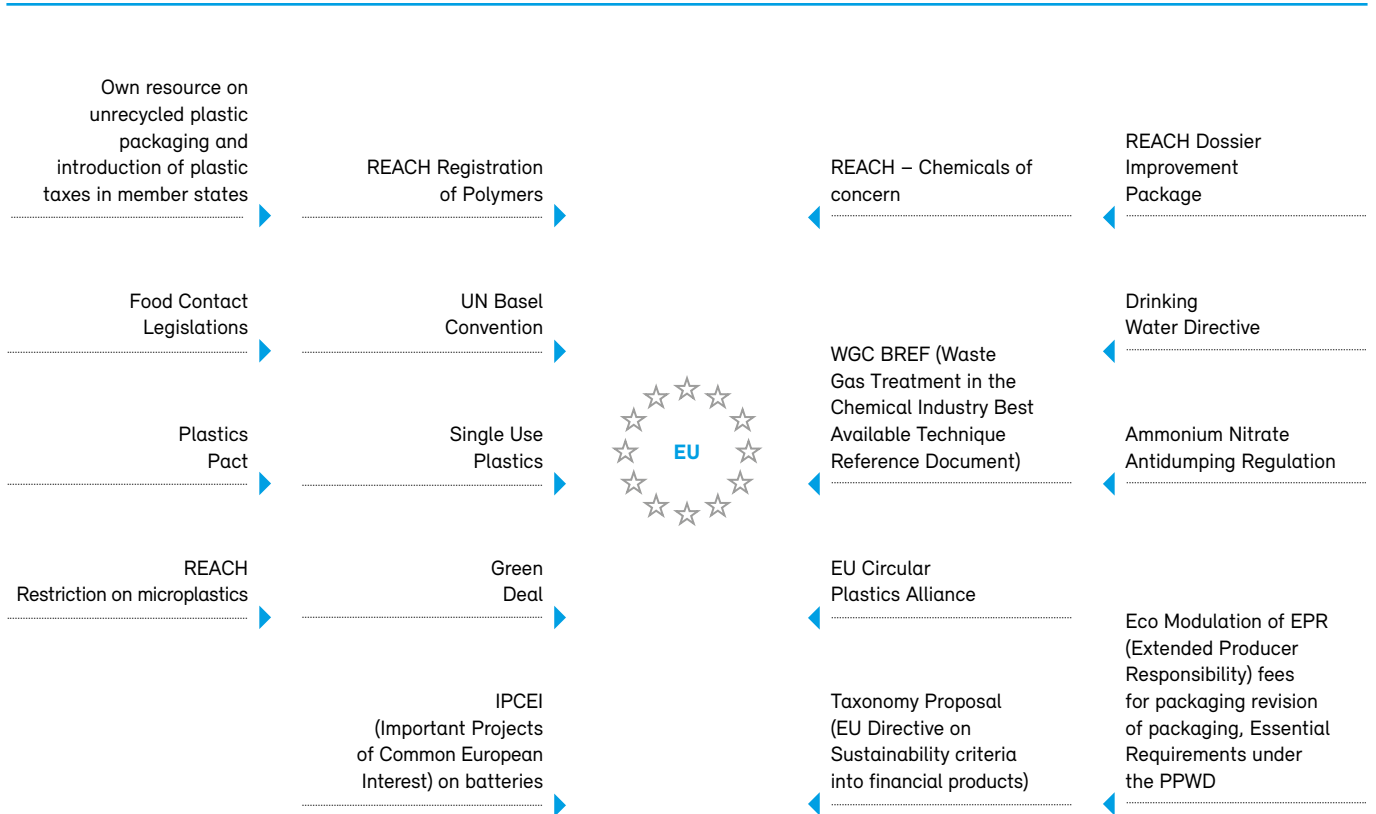
The objective of Borealis' Public Affairs Strategy is to support the delivery of the Group's 2030 Strategy by monitoring and informing regulation and policy, particularly in relation to Borealis' strategy and its sustainability focus areas (Circular Economy, Energy & Climate and Health & Safety) as well as the material issues identified with its key stakeholders. The chemicals, plastics and fertilizer industries are undergoing significant changes and, through its active Public Affairs approach, Borealis is playing a pivotal role in transforming the industry from a linear business model to a circular one.

## Organisational Structure

Borealis' Public Affairs function is part of the Sustainability & Public Affairs organisation which reports into Group Strategy & Development. It is responsible for developing and implementing the Group's Advocacy Strategy and positions on key issues affecting its business activities. It orchestrates Borealis' advocacy efforts at location and Group level by:

- staying abreast of material issues;
- developing position papers on Group Issues;
- mapping key stakeholders and engagement plan activities;
- carrying out research to determine material issues; and
- participating in global platforms such as the Ellen MacArthur Foundation, World Economic Forum, World Business Council for Sustainable Development and World Plastics Council.

Fig. 6: EU policy initiatives affecting Borealis' business



At the European level, Borealis aims to inform EU policies by engaging with decision makers and influencers, including the major industry associations PlasticsEurope, the Polyolefin Circular Economy Platform and the European Chemical Industry Council (CEFIC). At a location level, Borealis advocates for regional issues through active engagement in industry association memberships and as part of Borealis' regional Public Affairs Network.

Borealis also implements its Advocacy Strategy across the value chain by mobilising a Public Affairs Coordination Team (PACT) that meets bi-monthly to align on Group Issue positions. The PACT members are Borealis' representatives in industry associations, the Public Affairs Network and issue owners, who play a key role to:

- advocate Borealis' position on Group Issues;
- proactively engage with stakeholders;
- highlight and respond to issues of concern; and
- contribute to business strategies.

Borealis continually identifies and acts upon emerging issues, primarily in relation to the Circular Economy, Health & Safety and Energy & Climate, and develops advocacy plans accordingly.

In line with the Group's Ethics Policy, Borealis does not join political parties or make financial contributions to them or their candidates.

### Activities 2020

In 2020, Borealis refreshed its Advocacy Strategy for its Polyolefin business, primarily to support the transformation of the industry to a circular economy. In addition, Borealis aligned its business strategies with the EU's Green Deal and Recovery Plan.

Meanwhile, Borealis continued to focus its Public Affairs activities predominantly on supporting the European Commission's regulatory and policy agenda on its strategy for plastics, specifically the Green Deal and Recovery Plan. Borealis also collaborated with key stakeholders, such as non-governmental organisations (NGOs) and governmental organisations, to address societal concerns, such as climate change, the circular economy and chemicals safety, which are also key focus areas for the European Commission. Borealis also supported the advancement of the European Plastics Pact in various regions, such as Sweden.

### EU Advocacy

Borealis' Public Affairs function is actively supporting the EU in its development of a policy framework, focusing on certain topics relevant to the Group's business.

#### The European Green Deal

The European Green Deal is the EU growth strategy proposed by the new European Commission which took office in November 2019. Its main objectives are to improve the well-being of people, to make Europe climate neutral and to protect our natural habitat. Borealis welcomes the ambition set out in the Green Deal, which is in line with the Group's strategy, to become more sustainable and circular. The Group also acknowledges that realising the Green Deal will require significant changes in the industry, which is why Borealis is actively engaging in discussions about the relevant initiatives. Initiatives and objectives that will have a particularly significant impact on Borealis' business include a new Circular Economy Action Plan, measures to cut and eliminate pollution, decarbonisation of the energy sector, sustainable mobility and sustainable food systems.

During 2020, Borealis actively participated in shaping Green Deal initiatives, including contributing to public consultations. Most of these contributions were collaborations through industry associations. Borealis also contributed independently to feedback rounds and public consultations on the Waste Shipment Regulation, Sustainable and Smart Mobility, Packaging and Packaging Waste Directive (PPWD) and the Sustainable Product Initiative.

The Group is also closely monitoring several upcoming initiatives, such as those related to the reduction of packaging waste, revisions to rules on food contact materials, renewable energy rules, single use plastics products and food safety.

#### Circular Economy

Borealis continued to support the implementation of the EU Strategy on Plastics and the Circular Plastics Alliance (CPA). The CPA's vision is to deliver on the circular economy for plastics and substantially increase the use of recycled plastics in new products. The CPA endorses the ambitious target that by 2025 at least 10 million tonnes of recycled plastics should find their way into products and packaging in Europe each year, helping to deliver the circular economy with a life-cycle approach.



Borealis took a leadership role in advancing the CPA's work in 2020 by issuing a work plan on design for recycling in the Packaging working group and in other groups. The work plan was approved and implementation has started.

In addition, Borealis continued to support its industry associations and the European Commission in revising legislation to assist in the development of the circular economy. This included revisions to the Essential Requirements under the PPWD, development of guidelines for the Single Use Plastics Directive, the revision of the Waste Shipment Regulation and the levy on unrecycled plastic packaging.

Borealis has also continued to support the European Commission on the development of guidelines for the eco-modulated Extended Producers Responsibility (EPR) fee for packaging. The Group's extensive experience in sourcing plastic waste, recycling operations, commercialising recyclates and Design for Recycling (such as the 10 Codes of Conduct for Polyolefin packaging) has enabled it to play a key role in defining the modulation criteria and mechanism. The Eco-modulation guidelines have been officially published by the European Commission.

The Ellen MacArthur Foundation's New Plastics Economy (NPEC) initiative is advancing circular economy solutions for plastics with specific goals for committed members of the value chain. Borealis has reported its progress as a plastics producer and during the year further contributed to increasing the recycled content of the producers' category (→ chapter Circular Economy, p. 62).

#### EU Recovery Plan and Plastics Tax

Borealis supports the European Commission's aim to transform the EU into a more circular and resource-efficient economy. Reaching the EU's goal to become climate neutral by 2050 will only be possible with the help of climate-neutral and circular economy solutions developed by the chemical industry. During 2020, Borealis therefore published an open letter to the EU member states considering their National Recovery Plans, proposing sectors and investments they should take account of. In the letter, Borealis called for investment projects for a carbon circular economy and plastics circular economy, for green infrastructure and transport, and for the farming sector to promote nutrient management. Borealis also encouraged the EU to become more self-sufficient in medical devices, personal protection equipment, energy and raw materials.

Borealis was also actively engaged with EU member states and the European Commission, explaining the possible sustainability impacts of a plastics tax on non-recycled plastics packaging. The Group began engaging with key member states to define routes to reduce the volume of unrecycled plastic packaging and to encourage investments in the industry. Implementation of an EU-wide Plastics Tax of €800/tonne will be effective on 1 January 2021.

#### Health and Safety

During the first peak of the COVID-19 crisis in spring 2020, Borealis contributed via CEFIC to keeping the European Commission informed about the impacts of the health crisis on business.

In Austria, Borealis supported face mask initiatives through production of meltblown fabrics on its unique pilot line in Linz, Austria. The newly developed Borealis HL912FB material was used to produce meltblown fabric to be applied for customised inlays in cotton-based mouth-nose masks, for conventional mouth-nose masks, and also for high-end face masks worn by medical professionals (FFP1 to FFP3) (→ chapter Innovation, p. 109).

In 2020, the EU institutions finally reached an agreement on revisions to the EU Drinking Water Directive. The new rules bring the quality standards for drinking water up to date and introduce a cost-effective risk-based approach to monitoring water quality. The updated rules also set out minimum hygiene requirements for materials in contact with drinking water, such as pipes, including plastic ones. The aim is to improve the quality of such materials, to ensure that human health is protected and no contamination takes place. Borealis has advocated for such rules.

Increasing numbers of substances are being scrutinised under the EU REACH regulation for their hazardous effects and risks related to their use, which are critical to Borealis' business and strategy and for sustainable development in the affected value chains. Borealis actively follows up these developments and starts advocacy actions in cases where there is a risk of authorities' decisions being unjustified or regulatory measures being disproportionate. In 2020, the most notable advocacy actions were around terphenyl, hydrogenated, which is used as a heat transfer fluid, and dicumyl peroxide (DCP), which is used in XLPE medium- and high-voltage cable products. In the case of the former substance, the advocacy actions of Borealis and its value

chain partners have so far been effective. In the case of DCP, the lack of an effectively coordinated approach in the value chain has made it difficult to challenge the harmonised classification of DCP as Reprotox Cat 1B, which the Group considers unjustified.

When azodicarbonamide (ADCA) was listed as a Substance of Very High Concern under REACH, Borealis started a programme to replace this foaming agent in all its grades sold to producers of communication cables. The identified solution guarantees maximum safety for cable producers, while meeting the very demanding application requirements of the high-tech sector of communication cables. Borealis' efforts to go beyond compliance have now been recognised by Chemsec, an NGO committed to the development of sustainable chemicals. From October 2020, Borealis' non-ADCA products have been listed on its website as a recommended safe alternative for production of communication cables.

#### Climate Change

In June 2020, Borealis, Lafarge Zementwerke (a member of LafargeHolcim Group), OMV and VERBUND co-signed a Memorandum of Understanding for the joint planning and construction of a full-scale plant by 2030 to capture CO<sub>2</sub> and process it into synthetic fuels, plastics or other chemicals. Climate neutrality, circularity and innovation in Austria are driven by establishing a cross-sectoral value chain for carbon capture. This innovative project significantly reduces emissions from cement production and establishes the greenhouse gas CO<sub>2</sub> as a valuable raw material.

Borealis is now part of the second IPCEI (Important Projects of Common European Interest) for the promotion of research and innovation in the field of battery cells and their circularity, which was approved this year by the European Commission under state aid law.

#### Sustainable Finance

In 2020, the European Investment Bank (EIB) and Borealis successfully closed a benchmark financing agreement that supports Borealis' research, development and innovation programme in the circular economy sphere. The EIB will provide a EUR 250 million loan supporting Borealis' multi-year investment programme in the area of plastics circularity, in line with its objectives to support innovation, climate action and sustainability. The loan enables Borealis

to intensify the development of novel, polyolefins-based circular solutions at its Innovation Centres in Austria, Sweden and Finland.

#### Value Chain Advocacy Highlights

Borealis Public Affairs also actively supported other parts of the value chain during 2020, notably in the areas of packaging and cables.

#### Enhancing the Circularity of Plastics

In 2019, Borealis participated in Project Holy Grail which was led by Procter & Gamble and facilitated by the Ellen MacArthur Foundation. As a full value-chain pre-competitive collaboration, the aim of Holy Grail was to discover how the tagging of packaging affects the accuracy of sorting and recycling systems. The project successfully concluded at the "Digital Watermarks at Work" event at Tomra, which included a live demonstration of an add-on module to an existing sorting unit. Borealis played a key role in the realisation of the demonstration. In 2020, the branded goods industry stepped in to facilitate the next phase as a cross-value chain initiative under the name "HolyGrail 2.0", which will have much greater scale and scope. This will include the launch of an industrial pilot, to prove the viability of digital watermarking technologies for more accurate sorting of packaging and higher-quality recycling as well as the business case at large scale.

Throughout 2020, Borealis, as an Advisory Board member, supported the advancement of the NPEC initiative at the Ellen MacArthur Foundation. Borealis provided extensive support in the field of financing the Circular Economy Strategy and contributed to the advancement of the Reuse Initiative. In line with its concern for plastics pollution, Borealis signed a manifesto developed by the WWF and the Ellen MacArthur Foundation calling for a United Nations treaty on plastic pollution. The manifesto demands harmonised regulatory standards, mandatory national targets and action plans, the definition of common metrics and methodologies, and support for innovation and infrastructure development.

Borealis also participated for the first time in the Ellen MacArthur Foundation's Circulytics questionnaire, which measures the circularity of business. The results are being considered to support the further shaping of the Group's Circular Economy Strategy.



After the issuing of ISO/PC 308 on the “Chain of Custody – General Terminology and Models” and the Ellen MacArthur Foundation’s white paper on enabling a circular economy for chemicals with the mass-balance approach, Borealis and a selected number of industry partners and thought leaders have worked with ISO to create a focus group to develop standards on mass balance. These standards will help the industry accelerate the circular economy and gain the trust of stakeholders in the chain of custody.

#### Sustainable European Energy Network

Through its various value chain activities, Borealis goes beyond its role as a supplier of products towards being a partner to the power infrastructure industry, actively supporting the energy transition towards a sustainable power sector.

Borealis’ energy portfolio supports the transition to a clean and carbon-neutral energy system. The Group develops solutions to design and build the necessary infrastructure for tomorrow’s clean power, and actively supports research in the field. For example, Borealis is a member of the Advisory Board of Neptune, a Belgian government-funded research project run by Energyville, which aims to make the power system ready for the future development of offshore grids and increase the understanding of how to operate such grids.

Borealis also chairs a CIGRE working group on the interaction between cable and accessory materials in high-voltage cable applications. CIGRE is a leading collaborative global community for knowledge development in the area of power systems. CIGRE’s technical brochures are globally diverse, comprehensive publications which are broadly regarded as reference documents within the power industry.

In February 2020, a group of technical experts from Austria’s power distribution and transmission system operators visited Borealis’ Schwechat site to learn about cable materials, focusing on their main characteristics, most important features, and contribution to overall cable performance and reliability. The specialists were introduced to Borealis’ solutions for the wire and cable industry.

In addition, Borealis and Borouge announced that crosslinked polyethylene power cables made with Borealis Borlink™ extruded high voltage direct current technology will be used for the majority of the German corridor projects (→ chapter Innovation, p. 109).

#### **Outlook**

In 2021, Borealis Public Affairs will continue to support initiatives such as:

- The development of the Green Deal regulatory framework, including the Circular Economy Action Plan
- The revision of the Packaging and Packaging Waste Directive
- Sustainable Products
- Revision of the Emissions Trading System (ETS) and relevant topics linked to the Climate and Energy items of the Green Deal.
- Revision of the Industrial Emissions Directive
- Revision of the Waste Shipment Regulation
- Single-use plastics guidelines and labelling
- REACH and EFSA .
- Microplastics pollution – measures to reduce its impact on the environment
- New Regulation for batteries, the H2 Strategy.
- Borealis will continue to align its business strategies with various aspects of the EU Green Deal.

# Borealis Social Fund

## Introduction

Businesses can only grow sustainably in a healthy environment and stable society. To foster its role as a socially responsible company, Borealis has established the Borealis Social Fund.

A portion of the Group’s net profit is dedicated to the fund each year. Projects can be submitted by any external or internal stakeholder to the Sustainability Team, which validates the proposal and makes recommendations to the CEO, who has responsibility for the Fund. The CEO selects and approves all projects. Sponsorships above EUR 0.5 million per project per year need the additional approval of the Chairmen or Vice Chairmen of the Supervisory Board.

To maximise the impact of its engagement and to align Borealis’ social engagement activities with the Company’s Purpose and its Sustainability Strategy, the Group has defined three areas of social engagement that contribute directly to the UN Sustainable Development Goals (UN SDGs).



## Waste and Resource Efficiency

- SDG 14: Life Below Water; SDG 7: Affordable, Clean Energy
- supporting research and innovation;
  - improving waste management in emerging and developing countries to prevent marine litter; and
  - raising awareness and encouraging behaviour change.

## Water and Energy

- SDG 6: Clean Water and Sanitation
- providing access to safe water and sanitation;
  - supporting the preservation of water resources; and
  - raising awareness and promoting best practices.

SDG 7: Affordable and clean energy

    - supporting access to affordable, reliable, sustainable and modern energy;
    - promoting best practices

## Education and Social Integration

- SDG 4: Quality Education
- nurturing interest in chemistry and science;
  - supporting education to meet future challenges; and
  - integrating marginalised and underprivileged people.

## Waste and Resource Efficiency

Marine litter is a global challenge. Up to 13 million tonnes of plastic leaks into the ocean every year.

Around 86% of the plastic leakage comes from Asian countries as a result of their fast-growing economies, population and consumption, and waste management infrastructure not being able to keep pace with this rapid development. Poor waste management contributes to reduced tourism and fishing productivity, and impacts community health. Finally, ocean plastic severely pollutes the environment, rivers and oceans, and damages marine life.

The world needs to address the problem of marine litter and become more resource efficient. The solution is to establish more sustainable and circular waste management systems and to stop plastic leakage at source.

## Project Highlight 2020

### Project STOP – Stop Ocean Plastics

In 2017, Borealis took the lead and initiated Project STOP (Stop Ocean Plastics), a programme co-founded with SYSTEMIQ that aims to achieve zero leakage of waste into the environment and to recycle more plastics. Project STOP focuses on the regions with the highest leakage rates and, with the support of industry and government partners, works hand-in-hand with cities to create leak-free, low-cost and more circular waste management systems. In the process, Project STOP also creates community benefits, including jobs in waste management and a reduction in the harmful impact of mismanaged waste on public health, tourism and fisheries.

Project STOP uses a “system enabler” approach, whereby a team of experts works with the local government, communities and non-governmental organisations (NGOs) to build institutional capacity and support financial and business planning, behaviour change, technical expertise, project management and recycling valorisation.

Since 2018, Project STOP has been joined by more partners, who are committed to bringing their expertise, know-how and financial and technical support to the initiative. Sustainable Waste Indonesia, Veolia, the Norwegian Ministry of Foreign Affairs, NOVA Chemicals, Borouge, Nestlé, Hewlett Packard, the Alliance to End Plastic Waste and Schwarz Group joined the project in 2018 and 2019. During 2020, Siegwerk became a strategic partner in Project STOP.



The first Project STOP city partnership was launched in 2017 in Muncar, Indonesia, a fishing harbour with around 130,000 inhabitants. Based on the partnership's success and impact, in 2020, two more city partnerships were initiated, in Pasuruan, Java, and Jembrana, Bali.

Achievements so far:

- created 168 new full-time jobs in waste collection, sorting, organic processing and management and administration;
- provided waste collection services to 133,587 people, for the first time in their lives;
- collected 8,123 tonnes of waste (of which 1,118 tonnes of plastic);
- developed a financially transparent process for transferring funds;
- built Indonesia's largest material recovery facilities (two 20 t/d, two 30 ton/d, and one 50 t/day);
- supported revision of waste management law and co-developed inter-village agreements on waste collection and sorting;
- piloted new, centralised and more independent governance models;
- built curriculum from STOP lessons learned to train government workers;
- held training sessions on organisational design, financial management and business plan development;
- expanded waste collection from just households to also include businesses and schools; and
- achieved break-even for the operating costs of the sorting facility in the Tembrokrejo district in Muncar.

In mid-2021, the first city-partnership in Muncar will be completed. When all three city partnerships are complete, which is planned for 2023, Project STOP will reach 450,000 people and prevent 45,000 tonnes of waste (including 5,700 tons of plastic) leaking into the environment every year. Further scale-up plans are under way.

### Water and Energy

Ensuring everyone has access to clean water and a reliable energy supply is an essential part of the world we want to live in and there is sufficient fresh water on the planet to achieve this. However, due to bad economics or poor infrastructure, the United Nations estimates that 2.2 billion people still lack access to safely managed drinking water, especially in remote, rural areas. In addition, 789 million people – or 13% of the global population – are

living without access to electricity and rely on wood, coal, charcoal or animal waste for cooking and heating.

Access to water and energy are fundamental to quality of life, as they affect the ability of poor families to obtain sufficient food and protect their health as well as limiting the livelihoods and educational opportunities available to them. Drought is a particular problem as it damages food supplies in some of the world's poorest countries and leaves people hungry and malnourished.

Energy services are also a basic requirement for good health, whether they are enabling the supply of clean water for hygiene purposes or powering healthcare facilities. This makes energy key to preventing diseases and fighting pandemics: the human cost and global recovery from COVID-19 could be significantly worse if hospitals and communities have no access to power.

Since 2007, Borealis and Borouge have provided practical solutions to the global challenge through Water for the World, a joint programme to advance solutions, expertise and know-how to address the global water challenge in rural and urban communities, with a focus on South-East Asia and Africa.

To maximise the benefit it brings, Water for the World works in partnership with NGOs and the private sector, including business partners and customers of Borealis and Borouge. Since its launch, Water for the World has carried out numerous projects across Asia and Africa, including China, Ethiopia, India, Kenya, Nepal, Morocco, Myanmar and Pakistan, benefiting nearly 1 million people.

### Project Highlight 2020

#### Delivering a Safe and Sustainable Water Supply to More than 50,000 Residents in Maputo

Mozambique is one of the world's poorest countries, with half the urban population living below the national poverty line and only one quarter having access to piped water. At the same time, increasing urbanisation is placing ever-growing demands on water services. The Greater Maputo region includes the country's two largest cities – Maputo and Matola. When the region's local water supply companies raised concerns about the quality and quantity of water they distributed, Borealis and Borouge – through Water for the World – saw an opportunity to fund a project that would significantly improve the local water system and the residents' lives. Water & Sanitation for the Urban Poor



(WSUP) initiated and implemented the project, supported by a range of other stakeholders. The works carried out included constructing tertiary water supply networks using pipes made with Borealis' HDPE PE100 material, repairing water tanks, training the supply companies' staff to manage, operate and maintain pipeline systems, and supporting the national water infrastructure owner to more effectively monitor water quality.

The project has substantially improved the water supply for residents. Particular benefits include better water quality, reduced water losses and, in a number of local areas, a doubling of hours of service each day. Customers without water had their supply reinstated and the overall social pressure on the system was reduced. In total, the project has benefitted nearly 51,700 people. The project also ensured that the local water supply infrastructure is more resilient and requires less maintenance due to the added value provided by the HDPE PE100 pipes.

### Education and Social Integration

Young people's education and innovation skills will determine how society will cope with global sustainability challenges such as climate change and ocean pollution. Their critical minds are essential if we are to continue to find innovative solutions to the ever-more complex challenges facing society today.

Educational systems therefore need to adopt a framework and practices that enable young people to develop the right skills, so they can put their ideas into practice. 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. This is why Borealis supports initiatives to inspire young people in the fields of science, technology, engineering and mathematics in particular. The Group has launched the Growing Talent programme, supporting organisations such as the ZOOM Children's museum in Vienna and the Open Chemistry Labs in Austria, Sweden and Finland, and has initiated scholarships such as the Borealis MORE scholarship for asylum seekers at the Johannes Kepler University in Linz.

Borealis has long-standing partnerships with a number of educational institutions in Europe and the UAE, and in 2020 announced a new round of support to three leading social organisations in the UAE – the Emirates Foundation, the UAE Paralympic Committee and the Emirates National Schools.

### Project Highlight 2020

#### Educating Young People to Act on Climate Change

Given the major and growing concern about the environment and climate change, in 2020, Borealis decided to partner with Climate Action Project (CAP), an organisation that educates young people and raises their awareness, with the aim of changing behaviour and inspiring solutions for sustainable development.

CAP is an initiative of Take Action Global (TAG), a non-profit organisation based in Belgium and the US. TAG believes that for topics such as climate change, there are better ways for young people to learn than memorising and assessing definitions. By using approaches such as collaborative learning, learning by doing, playful learning and learning from experts, TAG aims to develop the skills which will become increasingly important: collaboration, creativity, out-of-the-box and critical thinking, empathy and proactive problem solving. This will help young people to develop solutions that lead to concrete action on global challenges.

TAG has developed a curriculum on climate change and has also developed a curriculum on the sustainability of plastics during 2020. The six-week online course is then guided by facilitators.

The programme's reach is significant. By 2020, it had already reached 10 million students aged 6 to 21 in 122 countries as well as their teachers. By 2025, TAG's target is to reach 50 million students and teachers. By supporting this growth ambition, Borealis will help children and students to develop critical thinking and a mindset that is capable of innovating for a more sustainable future.

### Outlook

In 2021, Borealis will continue to implement projects in the Borealis Social Fund's defined areas, with two new key engagement activities:

- Project STOP will be expanded from the city of Muncar across the entire region of Banyuwangi to provide 1.5 million citizens with sustainable waste management.
- A new project providing solar energy to deliver safe drinking water will be implemented in the course of the year.



# Sustainability Focus Areas

## Health & Safety: Occupational Health & Safety

### AT A GLANCE

#### Goals

Borealis had the following occupational health and safety goals for 2020:

- to continue to reduce Total Recordable Injuries (TRI), with the ultimate aim of achieving zero accidents;
- to protect employees and contractors against COVID-19; and
- to prepare all OHSAS certified locations to switch to ISO 45001.

#### Key Achievements and Results

In 2020, Borealis:

- reached a TRI rate of 1.7 incidents per million working hours, up from 1.6 in 2019;
- immediately took all necessary precautions to protect its employees and contractors against COVID-19;
- held its third Group-wide Safety Day in all locations; and
- updated all relevant processes and procedures to make them compliant to ISO 45001.

#### Introduction

Chemical operations involve highly flammable, toxic and hazardous substances that could pose a significant risk to Borealis' employees and neighbours, if not handled correctly. Health & Safety is therefore one of the key focus areas in the Borealis Sustainability Strategy and the number one priority at Borealis. In addition, process and occupational health and safety incidents have a direct link to lost working time and damage to valuable assets, both of which could affect the Group's ability to supply its customers, and its profitability and performance. Borealis therefore lives by the slogan "If we can't do it safely, we don't do it at all!" Everyone at Borealis is expected to stop working, or not to start working in the first place, if the situation is unsafe.

#### Organisational Structure

At a location level, the local leadership and Health & Safety team meet each month to discuss Health & Safety performance. Every location also has an HSE Forum (health, safety, environment), where employee representatives are consulted and informed about the HSE management

system (see below). The HSE Forum also promotes worker participation in occupational Health & Safety. A number of informal platforms and meetings ensure that all employees of operational sites are represented.

In Fertilizer, Melamine and Technical Nitrogen Products (TEN), regular Health & Safety Network meetings are scheduled, including all health and safety specialists at the locations and Group Health & Safety experts, to share lessons and best practices.

#### Preventing Occupational Health & Safety Incidents

Borealis proactively prevents accidents by developing risk management tools, implementing controls, undertaking awareness campaigns and safety training, and conducting regular audits for both employees and contractors. The Group is committed to eliminating hazards and reducing occupational Health & Safety risks, and continuously improves through systematic learning.

The Group has an HSE management system, which is designed to reduce the possibility of incidents in the workplace by ensuring that hazards are systematically eliminated or controlled. The system covers occupational Health & Safety, process safety, environment and energy as well as some aspects of security. It applies to all businesses where Borealis owns more than 50% or where the Group has operating responsibility. In some locations, the management system is certified to OSHAS 18001 and transition to ISO 45001 is ongoing.

Borealis uses risk assessments to identify hazards, assess the risk and take necessary measures to reduce it. These risk assessments are done before any work is carried out on a project or changes are made to an installation. Everyone is encouraged to report hazards and hazardous situations and can do this via the Group's incident management software.

Internal employee forum, conferences, speeches and meetings in Borealis commonly start with awareness raising and sharing lessons learnt on health and safety and it is a mandatory topic for discussion at many meetings. In addition, at every Corporate Co-operation Council (CCC) meeting, health and safety issues are a standard agenda point.

All levels of management at Borealis, from front-line leaders to Executive Board members, carry out regular so called engagement walks. They ensure dialogue occurs between management, employees and contractors. The walks are designed to spot safety risks and encourage positive changes in daily work routines.

In addition to safety training for all employees and contractors, all visitors to Borealis' locations must pass safety training before they get access to the site. Some Borealis sites also organise an annual meeting with their neighbours, where safety performance and initiatives are discussed. Borealis also coordinates emergency planning with external medical and public health experts, and implements detailed exposure controls as part of its corporate standards.

Borealis aims to develop its Health & Safety 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 Group has set itself a "Goal Zero" ambition. Effective field leadership is a key enabler of this. 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.

### Promoting Employees' Health and Well-being

Borealis promotes and protects its employees' health and well-being in several ways. In addition to detailed chemical exposure monitoring, which is carried out in accordance with national laws, the Group offers physical examinations and subsequent check-ups, periodic screenings and evaluations. 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 can consult a psychologist. Borealis also encourages healthy eating by providing fresh fruit and healthy meals in many locations.

Employees may also take part in voluntary health counselling programmes to identify and monitor health problems.

Training packages are available to raise employees' competence in areas such as social psychology, office ergonomics, musculoskeletal disorders and use of hydraulic tools.

In addition, Borealis' has developed a well-being concept that sets common standards across all locations, enables sharing of best practices and builds on existing activities. It takes a holistic view of well-being and identifies four key areas for ensuring motivated and healthy employees. These are health, job engagement, competence and work-life balance.

Borealis conducts regular workplace health surveys, which cover every location in the Group every five years. These surveys identify, evaluate and document the current standard of the working environment in both operations and offices to establish a base for further improvement and to prioritise an action plan. Their primary focus is to prevent occupational health risks, occupational illnesses and accidents. The health surveys also put a considerable focus on the psychosocial aspects of work and work-life balance.

### Activities 2020

In 2020, preventing employees from becoming infected with COVID-19 was a top priority (→ COVID-19 Infobox, p. 41). A special Group-wide "COVID-19 crisis team" was implemented at the start of the pandemic to monitor the ongoing situation and decide on the actions needed. The pandemic demanded a quick and thorough response. This included introducing working from home for those who can, issuing specific guidelines based on the World Health Organisation recommendations and creating a microsite to bundle together all the information and guidelines regarding COVID-19. Measures to protect against COVID-19, such as social distancing and hand hygiene, were implemented in all locations. Plexiglas screens were installed as a barrier on counters and some locations installed fever checks at the entrance as an additional precaution. In addition, Borealis provided face masks to all employees and took country-specific regulations into account.

In addition to responding to COVID-19, one of the important activities in the year was preparing for ISO 45001 certification next year by updating all relevant processes and procedures to make them compliant to ISO 45001.



Finally, the third Group-wide Safety Day was held in all locations under the banner “Safety is in our hands”. The Borealis Safety Day reflected on the Group’s COVID-19 response and discussed the fact that hands are our most important tools and that all of us are responsible for our own safety.

**Performance 2020**

Total recordable Injuries (TRI) per million working hours has been a Borealis Group Scorecard KPI for many years. TRI 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.

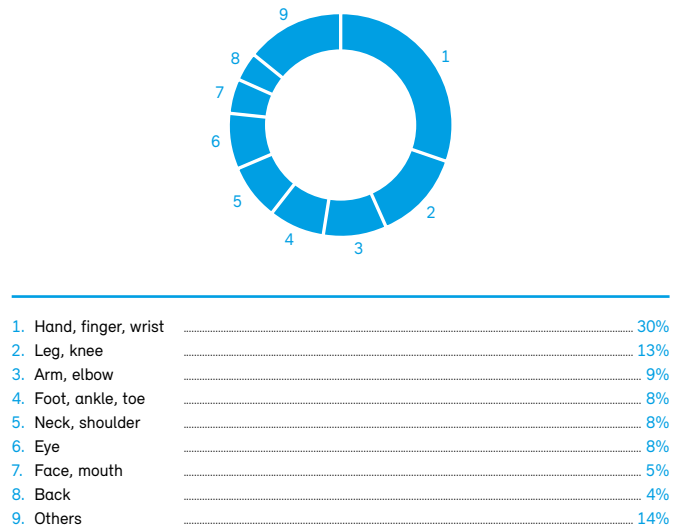
Borealis has set an ambitious target of a TRI of 1.1 or less and continuously works towards zero TRI. Although Borealis’ safety performance significantly improved in the first few months of the year, with a TRI of 0.9 to the end of May 2020, there was subsequently a disappointing increase in safety incidents. Unfortunately, there was one serious incident in 2020 when an operator was severely burned due to a pipe rupture in our operation in Linz, Austria. There were also a number of trips, falls and other incidents leading to injuries. In response, the Group set up a senior team to assess the causes of the change in safety performance and to ensure the business refocuses on the basics of safety and reliability.

Videos and other communications from CEO Alfred Stern have also strongly reinforced the message to everyone in Borealis about the importance of safety and the commitment to Goal Zero. Each member of the Executive Board has made a personal commitment to safety and all teams throughout the Group have been required to make a similar commitment to ensure Borealis achieves the necessary sustainable improvement in safety and reliability.

Overall, Borealis’ TRI was 1.7 in 2020, compared with 1.6 in 2019. The TRI frequency for Borealis’ employees was 1.8 against 1.3 in 2019, while that of its contractors was 1.3 compared to 2.6 in 2019.

Data analysis showed that hands and fingers remain the main body parts harmed in accidents.

Fig. 7: Part of the body harmed between 2018 and 2020 <sup>1)</sup>



1) Analysis of 1,095 injuries between 2018 and 2020

The sick leave rate is another important occupational health indicator. Borealis has a target of 3.2% or less, which is below the industry average in countries where the Group operates. In 2020, the sick leave rate was 3.6% compared to 3.4% in 2019.

**Outlook**

Occupational Health & Safety remains the number one priority for Borealis and for 2021 the Group has identified four primary focus areas. These are to:

- maintain the focus on the Goal Zero journey, with a focus on the Life Saving Rules, engagement walks and cross-learning from incidents;
- provide refresher training in social psychology for front-line leaders;
- ensure that by 2021, the Hydrocarbons & Energy and Polyolefin businesses meet the new ISO 45001 international standard for occupational health and safety management systems (→ chapter Process Safety, p. 54);
- roll-out a programme to further enhance health and safety in Fertilizer, Melamine and TEN; and
- maintain a high focus on COVID-19, in order to protect employees from infection and ensure business continuity.

Fig. 8: Health & Safety and process safety performance indicators 2016–2020 <sup>1)</sup>

Issue	Definition	2020	2019	2018	2017	2016
Total Recordable Injuries (TRI)	number/million work hours	1.7	1.6	1.3	1.1	0.9
TRI Borealis		1.8	1.3	1.1	0.9	0.8
TRI Contractors		1.3	2.6	1.8	1.3	1.3
Fatalities		0	1	0	0	0
Sick leave rate	% of total hours worked	3.6	3.4	3.6	3.3	3.3
Incident action completion rate	% of finalised action in due time	95.4	98.5	99.3	98.8	98.4
Response rate on process safety incidents	% actions completed on time	92.7	92.9	97.1	97.9	96.7
High severity accidents		1	0	0	1	0
Medium severity accidents		11	11	16	19	16

1) Suppliers of raw materials, chemicals, additives and other commodities and hauliers are excluded from the TRI statistics; mtm plastics GmbH and mtm compact GmbH are excluded from the sick leave rate, incident action completion rate and response rate on process safety incidents; Ecoplast Kunststoffrecycling GmbH and DYM Solution Co., Ltd. are excluded from all KPIs

## 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 the Group's 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. The overall sick leave rate is calculated as a percentage of the total number of planned working days in the current year.

**Incident action completion rate:** This monitoring parameter focuses on completing actions within the required time. It is calculated on a monthly basis and looks at the actions due in previous months for all incidents reported, regardless of their consequences, with a risk factor  $\geq 8$ . 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 accidents:** are accidents with significant consequences rated above 300 in Borealis' severity rating tool. One high-severity accident was reported in 2020.

**Medium-severity accidents:** are those resulting in a loss of containment, with medium consequences towards people, planet and profit. There were 11 medium-severity accidents reported in 2020, thereby maintaining the same level as in 2019.



# Health & Safety: Process Safety

## AT A GLANCE

### Goals

Borealis' process safety goals for 2020 were to:

- continue to reduce the number of medium- and high-severity process safety accidents, with the ambition of achieving Goal Zero in process safety accidents and high-risk process safety near misses;
- raise awareness of potentially hazardous situations and strengthen cross-learning by sharing cross-learning reviews of external incidents;
- develop systems and procedures to cover identified gaps in process safety topics, such as further developing processes around safe isolation and leak testing; and
- support risk-assessment processes by taking the next steps in the quantitative risk-assessment (QRA) programme.

### Key Achievements and Results

During 2020, Borealis' key achievements in process safety were:

- achieving the targeted level of medium- and high-severity accidents, with a total of 12 cases, against a target of 13;
- developing and rolling out a comprehensive safe isolation process to ensure de-energising and isolating of equipment before starting work;
- continuing quantitative risk assessments (QRAs) in production locations to support risk management processes; and
- continuing proactive risk management of ammonium nitrate, including its production, storage and downstream manipulation steps.

### Introduction

Borealis processes large quantities of flammable and/or toxic materials under high pressure and temperatures, which, if not handled properly, could lead to process safety incidents. In a worst-case scenario, leaks, fires or explosions could cause fatalities, both inside and outside Borealis, as well as major environmental impacts. In addition, this could lead to disruption of supply to customers and financial costs. It is therefore of the utmost importance for Borealis to invest in process safety and to properly design, maintain and operate its plants.

The Seveso directive is the main EU regulation dealing with the control of on-shore major accident hazards involving dangerous substances. In line with this directive, Borealis works closely with national authorities and emergency

organisations to ensure the safe operation of its plants and maintain a high level of preparedness in case of incidents. The Group also actively supports industry-wide efforts to enhance process safety as a member of the European Process Safety Centre.

To reach Borealis' objective of achieving zero accidents, the Group launched the Goal Zero programme in 2014. The programme covers both occupational health and safety and process safety, and 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 (→ chapter Occupational Health & Safety, p. 50).

### Organisational Structure

The Group Process Safety department has developed a process safety management system that enhances risk identification and mitigation. The Group policies that are relevant to Process Safety are the Risk Management Policy and the Responsible Care® Policy. The Risk Management Policy defines Borealis' risk management framework by providing principles, roles and responsibilities, guidelines for risk assessment, mitigation and reporting. The policy aims to ensure the implementation of sound risk management practices at all levels across the Group.

The Responsible Care Policy statement sets out the guiding principles for the Group-wide implementation of Responsible Care at Borealis (→ chapter Corporate Governance, p. 90). The Executive Vice President (EVP) Base Chemicals and Operations chairs the Group-level Process Safety Committee. The Committee's members are directors and departmental leaders from all of the relevant operational streams: Group Health, Safety, Environment & Quality, Manufacturing Excellence, Operations Polyolefins and Operations Hydrocarbons, and Project & Expert Support. 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 within the location to ensure cross-learning and a link to Group developments.

The Process Safety Committee and Sub-Committees meet regularly to oversee Borealis' process safety performance and programme, steer the Group's process safety Goal Zero roadmap, review progress and provide guidance on priorities, key activities and performance measures. Priorities are identified based on reoccurring or severe incidents, leading

to a programme being launched to improve performance by multifunctional teams. These teams determine best practice and roll it out in the locations, with support and supervision from Group Process Safety. Group Process Safety also takes an active role in resolving challenges for Borealis' large growth projects by providing its expertise in an early stage study.

Borealis works with other organisations to help improve process safety standards. Borealis' joint venture Borouge has its own process safety network and Borealis is sharing best practice in three areas: learning from incidents across borders, defining the minimum process safety design requirements for new plants, and setting minimum competence levels and education programmes related to process safety.

The Group is an active member of the European Process Safety Centre and shares lessons from incidents and supports process safety developments. The Group also takes part in a number of forums related to process safety, such as the High Pressure Safety Conference, Fertilizer Europe, the European Ethylene Producers Conference and the European Chemical Industry Council (CEFIC) Plant & Process Safety Network. In addition, the Group exchanges information with other companies to assess the best technical solutions for preventing and mitigating the escalation of major scenarios.

**Activities 2020**

Borealis undertook a wide range of activities during 2020 which were designed to further improve its process safety. In particular:

- a comprehensive safe isolation procedure was developed, to combine all types of isolation or de-energising (such as process or electrical) into one process flow to ensure safe working on de-energised or isolated equipment;
- a QRA was conducted in Stenungsund, Sweden, applying the QRA process defined in 2019; and
- in cooperation with Procurement and Growth Organisation, the HSE deliverables and activities were defined within the contractor appendix template project within the end-to-end contract management initiative.

Both higher severity accidents in Borealis' locations at Stenungsund and Linz (Austria) were thoroughly investigated and lessons have been created to prevent re-occurrence and to share between different units. Borealis implemented a task force to review all existing processes and the minimum requirements related to production, storage and

downstream manipulation steps for ammonium nitrate. The task force continues to work on enhancing the interfaces, for example, with the existing procedures for fertilizer warehouse HSE requirements.

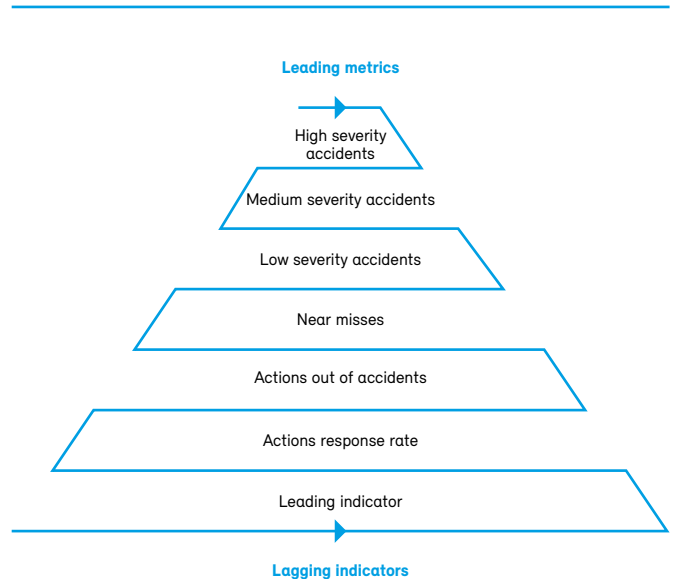
Borealis' insurance brokers conducted five major insurance surveys and three follow-up surveys during the year (due to COVID-19, three of the major surveys were conducted as physical surveys). All of these audits reassured the Group's insurance brokers that the Group has a well-managed process to prevent and limit the impact of incidents.

**Performance 2020**

Borealis uses a Loss of Primary Containment Pyramid tool (Figure 9) to support the monitoring of incidents, ensure 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 accidents. This performance is measured using indicators such as the status of safety critical inspections, the testing of critical interlocks and the closure of actions. The leading indicators are followed up annually through a "deep dive" into overall performance and review by the Process Safety Committee. As well as using its own process safety incident rating tool, Borealis also tracks process safety incidents according to European Chemical Industry Council (CEFIC) standards.

**Fig. 9: Borealis' Loss of Primary Containment Pyramid**





High-severity accidents would include, for example, a large fire or explosion resulting in injuries or fatalities, and significant business loss and impact on the environment.

Medium-severity accidents are those resulting in a loss of containment, with medium consequences for people, planet and profit. A medium-severity accident would normally result in limited possible injuries, easy-to repair damage and a controllable environmental impact.

Low-severity accidents are those where substances are released but which result in a very low to zero impact. In 2020, the Group's target was to have no high-severity accidents and a maximum of 13 medium-severity accidents, including fires.

In 2020, 1 high-severity accident was reported. 11 medium-severity accidents and 764 low-severity process safety accidents were reported, along with 993 process safety near misses, of which 11 were high potential. As general process safety awareness increases due to Borealis' educational initiatives and campaigns, more low-severity accidents are being reported (→ chapter Occupational Health & Safety, p. 50). The process safety response rate measures the number of actions closed against the number due to be closed on a 12-month rolling basis. In 2020, the response rate was 92.7% (2019: 92.9%). A total of 1,556 actions were implemented in response to high-, medium- and low-severity accidents.

Borealis had a high severity process safety incident on 9 May 2020 when a fire occurred at the Group's cracker in Stenungsund, Sweden. No one was injured during the incident and the fire caused damage to a limited part of the site.

There were no violations of the Group's environmental permits. Borealis has taken all necessary actions to prevent reoccurrence and has conducted a thorough investigation with both internal and external experts to identify the root cause of the incident in close cooperation with the authorities. Preventive actions have been taken before the plant start-up and additional medium to long term improvements are also being planned.

### Outlook

During 2021, Group Process Safety will focus on the following areas:

- continuing to develop standardised safeguards for similar scenarios to ensure an adequate level of safety for all locations and across all business units;
- rolling out a process safety awareness-boost programme, including the definition of five process-safety rules;
- rolling out a safety-boost programme in Fertilizer, Melamine and Technical Nitrogen Products, including a part dedicated to Process Safety;
- continuing to develop process safety competence for front-line leaders, engineers and managers through training; and
- conducting a QRA for the Cracker and Aromatics plants in Porvoo, Finland.



# Health & Safety: Product Safety

## AT A GLANCE

### Goals

Borealis' product safety goals in 2020 were to:

- keep Borealis' registrations under the European Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) up to date;
- take all necessary steps to assure future compliance of Borealis' products with REACH-type legislation in Turkey, the UK after Brexit, South Korea and Taiwan;
- strive to fully integrate its Polyolefin (PO) recycling business and set standards for regulatory compliance and the safety of recycled polyolefin products;
- evaluate the impact of renewable feedstock on Borealis' polyolefin products and adjust compliance documentation accordingly;
- implement the new European regulation harmonising the requirements for fertilizer products, which will be mandatory from 2022; and
- implement the European regulation on explosive precursors in the Fertilizer and Technical Nitrogen area.

### Key Achievements and Results

During the year 2020, Borealis:

- submitted and followed a plan to update all active REACH dossiers between 2020 and 2026, under the European Chemical Industry Council's (CEFIC) REACH dossier improvement programme, with 25 dossiers updated in 2020.

In 2020, Polyolefins:

- launched the world's first chemically-foamed, high-density polyethylene cable grade free of azodicarbonamide, which is a substance of very high concern (SVHC);
- compiled and evaluated existing chemical compliance standards and customer specifications regarding post-consumer recyclates (PCR) and increased analytical testing for those materials;
- revised Statements of Raw Material Origin for products partly produced with renewable feedstock, with regards to vegan, material from genetically modified organisms (GMO), kosher and halal status; and
- supported the European Chemicals Agency (ECHA) via CEFIC and Plastics Europe working groups, by providing input on how to make the restriction proposal on microplastics more proportionate and enforceable.

In 2020, Fertilizer, Melamine and Technical Nitrogen Products (TEN):

- launched a project to implement the new European fertilizer regulation, with the workload divided into nine work packages; and
- launched a project to implement the new European regulation on explosive precursors and supported Fertilizers Europe to find a pragmatic approach to fulfil the legal obligation of checking the identity of the person who receives the explosive precursor product.

### Introduction

Chemical substances or products containing them can pose risks to human health and safety as well as to the environment. These include 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 (→ Responsible Care Infobox, p. 94).

Borealis' Product Stewardship department is responsible for ensuring product safety and puts stringent measures in place across the entire life cycle. In addition, it makes sure that all products are legally compliant in all the countries in which the Group operates and sells.

The Group also ensures it understands and anticipates consumer and market needs and concerns as well as the development of legislation concerning chemicals, their applications and the environment, so it can apply a precautionary approach, take measures where needed and ensure continued compliance. Borealis also sees the proactive substitution of chemicals of concern as an opportunity to gain market share and be the first to market with an alternative solution.

Making plastics more circular is one of Borealis' main goals. The Product Stewardship department supports the Group's work to maintain product safety while using mechanically recycled post-consumer waste. A defined mix of testing and risk assessment as well as looking at the waste stream and the sorting and cleaning processes, provides the basis of compliance of recycled products to different application areas.



## Organisational Structure

Product safety is mainly handled by the Group Product Stewardship team, supported by local product stewardship experts in the production locations. Group Product Stewardship reports to the Director Health, Safety, Environment and Quality (HSEQ). The team consists of members focusing on incoming chemicals and members who ensure that products comply with general chemical legislation, such as REACH and the Classification, Labelling and Packaging (CLP) of substances and mixtures regulations, as well as application-related legislation, such as food contact or health care applications.

The Product Stewardship Council addresses chemicals of concern in a proactive way. It is chaired by the HSEQ Director and brings together experts from across the Group, including areas, such as Product Stewardship, Sustainability, Ethics, and Innovation & Technology, as well as all of Borealis' business sectors and operations. This range of competencies ensures that the Group's risk assessments take a holistic perspective and consider market needs, legal and technological requirements, and stakeholder views.

## Assessing Chemical Risks

The Group has adopted a hazardous chemicals strategy. This follows the precautionary principle of continuously assessing the risk potential of all substances used in Borealis' products to identify critical chemicals whose use needs to be stopped or that need to be replaced by safer alternatives. This includes all substances which were already classified as SVHCs according to REACH and other comparable legislation outside the EU, or which fulfil the criteria to be considered as SVHC in the future. Examples include raw materials based on cadmium salts, octylphenol or nonylphenol compounds or many poly-halogenated organic compounds.

The risk evaluation utilises a tailor-made tool which ranks the substances according to their overall risk. It considers related health, safety and environment (HSE) risks and regulatory aspects, evolving stakeholder concerns, the technical feasibility of substitution and the 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 Council. The council selects the substances to be evaluated using 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. One example of the outcome of this proactive process is the launch of the world's first chemically-foamed, high-density polyethylene grade for cables that is free of the heavily scrutinised chemical azodicarbonamide.

In addition, the Product Stewardship Council updates 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. In 2020, 8 substances were added to the Banned Substances List.

In addition, Borealis has established the Compass, which is a method for assessing the sustainability of its product portfolio. Product Stewardship assesses the Group's polyolefin products in two categories of the Compass: "Chemical hazard and exposure across the life cycle" and "Global regulatory trends". This assessment is performed for both current products and innovation projects. Any finding, opportunity or threat is followed up using Product Stewardship's established processes. More information on the full scope of the Compass can be found in → chapter Sustainability Management, p. 30.

## Product Compliance

Borealis' product safety procedures cover the HSE aspects of a product throughout its life cycle, from raw material sourcing, through the production process, conversion and use, to its recycling, recovery or disposal.

All new or modified products undergo mandatory HSE assessments and continuous monitoring to ensure they are suitable for use in the countries where they are being sold, and that they comply with all applicable legislation. This includes chemicals management legislation, such as the Toxic Substances Control Act in the United States and REACH in the EU. This comprehensive and stringent regulation targets the safe use of chemicals which must be proven by the participants in the chemicals value chain. Over the last couple of years, the quality of REACH registration dossiers

has been challenged by non-governmental organisations and some EU Member State authorities. CEFIC has therefore established a REACH dossier improvement programme that Borealis has signed up to and is fully supporting. The aim is to have all existing dossiers updated and improved by 2026. Each year, the Group's progress needs to be reported to CEFIC. Other relevant legislation and regulations include the Globally Harmonised System (GHS) for the classification and labelling of hazardous chemicals, 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. In line with 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. In 2020, the main focus of these activities was to meet the pre-registration deadline for Turkey REACH (KKDIK) and to collect all necessary data to apply for polymers of low concern (PLC) exemptions for the REACH-type legislation in South Korea. A prerequisite to perform necessary notifications and registrations for these emerging legislations is to know the annual volumes per chemical substance shipped to the relevant country. PO products are typically mixtures of several different substances. To be able to track these volumes on a continuous basis, a powerful IT tool is required that combines information on product deliveries with product recipes. In 2020, the Group therefore implemented the SAP SVT tool for the EU, Turkey, South Korea, Taiwan and the UK.

For the Fertilizer, Melamine and TEN business, there are two new key regulations coming into force in the next two years. These are the Regulation (EU) 2019/1009, laying down rules on making EU fertilizing products available on the market, and the Regulation (EU) 2019/1148 on the marketing and use of explosives precursors. Internal implementation projects have been launched and followed up to assure future product compliance and explore potential opportunities.

### Supporting the Group's sustainability journey

Borealis' activities regarding the circular economy and exploring sustainable feedstock also bring along new aspects to be considered and solved with regards to product safety and compliance.

The existing and planned legal framework, for example, following the EU Commission's "Green Deal", is asking industry and brand owners to use post-consumer recycled (PCR) materials for their products. The Borealis Product Stewardship team is providing support by generating an overview of applicable legislation and available industry standards to produce a risk assessment and analytical testing strategy to be able to confirm compliance and the suitability of Borealis' circular economy solutions portfolio.

Moving from fossil to renewable feedstock is another important aspect of the Group's sustainability journey. Using this type of feedstock from animal and agricultural waste, however, raises other product safety challenges that needed to be tackled. After a thorough analysis of the related aspects, the messages on Kosher, Halal, animal and genetically modified organisms origin, and vegan status, have been revised in the statement on raw material origin for the PO products concerned.

### Controlling and Approving Raw Materials

Before they are approved for use, all incoming chemicals used in Borealis' products are assessed using a thorough incoming material process. Group Product Stewardship performs an initial assessment, to ensure legal compliance. Product Safety teams in the countries where Borealis operates then perform additional assessments at each plant, to ensure the chemical meets plant-specific requirements and complies with national or community related legislation.

This system ensures that Borealis' procurement department does not purchase any substance before the Product Safety 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 the raw material and 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 compliance statements, such as safety data sheets (SDSs), application-related statements, such as medical use, food contact and drinking water, and other statements such as on raw materials origin.

Borealis also regularly audits its raw material suppliers for compliance with, for example, their legal and hygiene requirements. However, in 2020, due to the COVID-19 restrictions, only one virtual raw material supplier audit was held. The Group requires its suppliers to provide documentation for each raw material and to keep it up to date, including the information required by national chemical inventory control laws, the CLP and REACH. This enables Borealis to issue the respective 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. In 2020, all mandatory third-party audits were successfully passed, some of which were conducted remotely. Voluntary second-party audits, such as customer audits, were pursued as requested. The total number of audits was lower than in 2019 due to the COVID-19 pandemic travel restrictions.
- The Fertilizers business is regularly inspected by local authorities. In addition, Borealis must pass an external audit by Fertilizers Europe every three years.
- Urea animal feed grades are audited each year by the Feed Additives and Premixtures – Quality and Safety organisation. The audit was successfully passed in 2020.

### Microplastics

Microplastics have no place in the environment, water or food. However, increasing volumes of microplastics are ending up in the environment as a result of plastic litter, causing harm to marine life. The potential effect of microplastics on human beings is still a matter of scientific debate and much more sound scientific research is needed. Even so, the potential harm to human health is a major concern.

Borealis therefore pro-actively engages in working groups, along with Plastics Europe and CEFIC to review the current scientific literature on microplastics and identify the knowledge gaps. The Group also supports voluntary industry efforts to phase out intentionally added microplastics.

Borealis is also actively contributing to the CEFIC and Plastics Europe working groups to improve the intended REACH restriction on intentionally released microplastics, with regards to effectiveness and feasibility.

In pellet form, Borealis' polyolefin products fall under the size definition of microplastics. Borealis is fully committed to ensuring that no plastic pellets escape from its operations or supply chain, and was one of the first signatories to Operation Clean Sweep (OCS), a programme to prevent pellet loss (→ chapter Environmental Management, p. 76).

As one of the measures taken, Product Stewardship has added instructions on how to avoid accidental release to the environment to all product safety documentation such as Safety Data Sheets (SDSs) and Product Safety Information Sheets (PSIS) issued from October 2020 onwards.

### Ensuring Transparent Communication

One of the cornerstones of Responsible Care is open and transparent communication with stakeholders about the substances used in products. Borealis takes this obligation very seriously. Issues raised by stakeholders include substances of concern, REACH and similar developments around the world, and non-intentionally added substances (NIAS) in food and drinking water contact.

Borealis communicates with its stakeholders through a wide range of channels. The Borealis website allows anyone to find information about the Borealis Banned Substances List. The website also includes examples of successful substitutions of hazardous chemicals and some position statements regarding "hot topics". Borealis' Polyolefin



customers can download SDSs, PSISs and other general or application-related compliance statements from the Borealis website or the MyBorealis customer portal.

When product modifications may 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. Healthcare is one of the most sensitive application segments in terms of reliability, hygiene and product consistency. Sharing Borealis' expert product safety knowledge with value chain partners therefore makes an important contribution to helping customers continuously meet the highest product safety and quality standards. Borealis shares this knowledge via formal customer training sessions and through technical dialogues throughout the year. Due to travel restrictions during the COVID-19 pandemic, only two customer audits took place during 2020; one in a Borealis plant and one virtually. Twelve customers sent questionnaires that were completed instead. Polyolefins also took part in several customer initiatives regarding NIAS in contact with food and drinking water, identifying problem areas and proposing alternatives. In 2020, together with a brand owner, Borealis contributed to developing criteria related to product safety for PCR plastics used in hygiene products and their packaging.

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.

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 CEFIC sector groups, including the Lower Olefins Sector Group, the Aromatics Producer Association, Fertilizers Europe and the European Melamine Producers Association. Borealis is also a member of PlasticsEurope's working groups on food contact materials, and the "European Drinking Water" initiative which focuses on regulatory schemes for drinking water pipes and fittings.

Borealis is an active member of the Product Stewardship teams at CEFIC, PlasticsEurope and related national organisations. The Group works closely with its own experts, customers and suppliers, and engages in experience exchange at REACH conferences and other activities. As a member of Fertilizers Europe and related national associations, Borealis takes part in discussions on draft regulations and their applications. In 2020, the relevant topics included details of the new fertilizer regulation and its guidance on labelling as well as the guideline for the new European regulation on explosive precursors.

### Outlook

The Group's future product stewardship objectives are to:

- support Borealis in maintaining its position as a leader in regulatory compliance;
- execute the agreed EU REACH dossier improvement plan by 2026;
- drive sustainability by minimising potential hazards and risks associated with Borealis' portfolio;
- continue to implement globally emerging legislation, such as chemical inventories and registration, and application-related legislation, with a special focus in 2021 on UK post-Brexit obligations; and
- provide regulatory support for the implementation of the circular economy in the fields of mechanical and chemical recycling, and for the use of renewable feedstock.



# Circular Economy

## AT A GLANCE

### Goals

In 2020, Borealis' circular economy goals were to:

- continue to be a leader in Advanced & Circular Polyolefin Solutions, and progress Borealis' "plastic neutrality vision";
- develop capabilities to meet the Group's 350 kilotonne recycled plastics target for 2025 and expand the breadth of the Group's circular economy technologies and applications;
- launch innovative solutions for customers that advance the circular economy by being designed for recycling and/or manufactured using recycled or renewable raw materials, with multiple new product launches and commercialisation of The Bornewables™;
- close the plastics loop by collaborating with partners to advance recycling technologies and by enhancing the Group's own recycling capabilities; and
- engage and collaborate with customers and cooperation partners along the plastics value chain to lead the implementation of circular economy solutions.

### Key Achievements and Results

During 2020, Borealis:

- initiated a closed-loop pilot in Belgium to test the advantages of a double-closed loop reuse and recycling system;
- launched five circular grades, including recyclates and compounds with recycling content as for example, together with MENSHEN, a new packaging closure with post-consumer recycled resin;
- pioneered digital watermarks for smart packaging recycling;
- had five European polyolefin production locations in Austria, Belgium, Finland and Sweden ISCC PLUS certified;
- commercialised The Bornewables portfolio of circular premium polyolefins made with renewable raw materials;
- ran a blockchain pilot to enable the traceability of plastics; and
- secured a European Investment Bank loan to support investments in plastics circularity.

### Introduction

The versatile properties of plastics enable a wide range of products and applications which make daily life safer, more eco-efficient, more sustainable and more convenient. These properties help to ensure more sustainable living, while the global population grows and demand for plastics increases. Within the linear economic model, plastic products are made, used and eventually disposed of. Continuing with this model will lead to more plastic waste and environmental pollution, while putting pressure on the planet's limited resources.

The solution is to continue to transition to a circular economy, where dependence on fossil fuel is reduced and more plastics are reused, recycled and/or made from renewable feedstock. A circular economy decouples economic growth from resource constraints, while reducing the leakage of waste into the environment, and in particular the oceans as well as to landfill. The circular economy will also reduce global warming, since greenhouse gas emissions of products can, for example, be lowered by 30% using recyclates instead of virgin feedstock.

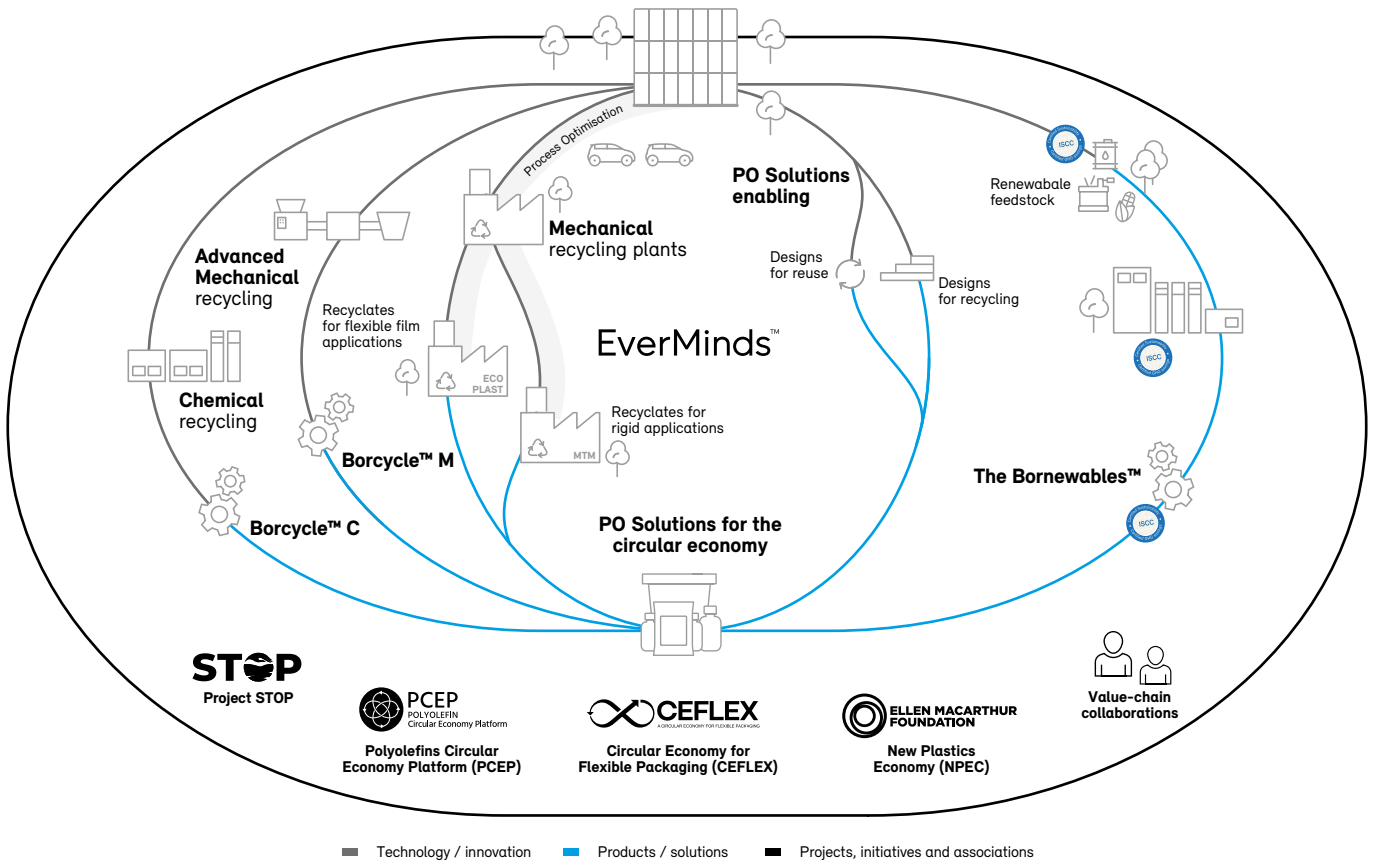
The creation of a truly circular economy has wider implications. It will provide economic benefits to society by reducing the significant financial burden of ineffective waste management systems and pollution management, and it will create new business opportunities and employment at various stages of the value chain. A circular economy will also result in more sustainable living and working conditions and a cleaner environment in general.

A fully circular economy, in which waste and pollution no longer exist, also offers much promise for achieving numerous UN Sustainable Development Goals, specifically Responsible Consumption and Production (SDG 12) and, due to keeping plastics out of the environment and oceans, Life below Water (SDG14).

### Organisational Structure

Borealis expanded the organisation supporting its circular economy efforts in 2020, alongside increased focus on and investment in its circular economy business. The Circular Economy Innovation Studio in Borealis' Innovation Headquarters in Linz remains the Group's spearhead for technology and innovation, but adaptations have been made on the business side.

Fig. 10: Overview of Borealis' circular economy landscape



In 2020, Borealis implemented a dedicated business team that is fully focused on short to mid-term opportunities in mechanical recycling, including the Group's mtm plastics and Ecoplast businesses. A separate team also looks into mid to long-term strategic topics outside the scope of mechanical recycling. This setup enables Borealis to develop market and customer centric recycling solutions, while extending its activities in the circular economy. The Circular Economy Innovation Studio and the business teams are closely aligned with other relevant functions, such as Public Affairs.

### Borealis' Commitment to a Circular Economy

Borealis is fully committed to advancing the circular economy. The circular economy is one of the three focus areas in the Group's Sustainability Strategy, alongside Energy & Climate and Health & Safety, all of which are important pillars in the Borealis Strategy 2035. In addition to the environmental and social benefits outlined above, the Group sees the circular economy as a business opportunity which will support its growth ambitions. Borealis is therefore working towards offering its customers a broad portfolio of circular products and solutions, based on different technologies. In particular, the principles of recycling plastic waste, designing products for recyclability and reusability where possible, while maximising resource efficiency, present clear business opportunities for Borealis.



In order to transition towards a truly circular and carbon neutral economy, Borealis believes in a variety of solutions. As the diagram above illustrates, Borealis follows a holistic strategy and all of its circular economy initiatives are positioned under the EverMinds™ umbrella.

Borealis prioritises products and solutions which are designed for circularity and re-use. One of the biggest issues preventing greater recycling of plastics is that many products are not designed for recycling in the first place. For example, flexible packaging often uses multiple layers of different materials to protect and preserve the packaged goods, which due, to their incompatibility during the recycling process, makes separating and recycling those plastic layers extremely difficult. The challenge is to create packaging using only one (mono) material, while maintaining or even improving the packaging's performance.

To promote design for recyclability in the solutions it offers, Borealis has developed 10 Codes of Conduct for polyolefin packaging designers. These are being incorporated into assessment methodologies for recyclability, for example, in future modulated Extended Producer Responsibility (EPR) guidelines for packaging.

In addition, Borealis applies its considerable innovation activities to offer alternatives to materials and material combinations that are not recyclable today, for example by creating polyolefin grades to substitute polyamide (PA) and polyethyleneterephthalate (PET) in flexible packaging. The Group also continues to collaborate with strategic value chain partners to expand its range of monomaterial solutions and is actively investigating the potential for reuse applications, including spearheading an innovative new pilot to test the advantages of a double-closed-loop reuse and recycling system.

Closely linked with Borealis' work on design for recyclability are the Group's efforts to advance polyolefins recycling. Borealis has committed to producing up to 350,000 tonnes of recycled plastics per year by 2025, which will help the Group to transition from a model based on the extraction of fossil resources towards one based on the circulation of materials. To support this transition, Borealis is building up its Borcycle™ portfolio (including both Borcycle™ M based on mechanical recycling processes and Borcycle™ C using chemical recycling technology) to meet growing market demand for high-quality recyclate that helps producers and brand owners to meet environmental and regulatory challenges. Borcycle™ stands for transforming polyolefin-based waste streams into value-adding, high-performance and versatile solutions for demanding applications.

A key part of Borealis' Circular Economy Strategy is an advanced mechanical recycling business. The existing products of Borealis' mtm and Ecoplast businesses are being continuously upgraded and two new commercial grades were launched during 2020. In addition, they have been supplemented by the Borcycle™ M portfolio, which leverages the Group's expertise as an integrated virgin and recycling player. Under the Borcycle™ M brand, Borealis also continues to develop unique virgin-recyclate compound solutions for diverse applications and two new grades were launched during 2020. For example, the rPP Borcycle™ M portfolio for rigid packaging now comprises six grades with different recycling content percentages.

As a scalable and modular technology, Borcycle™ C represents the portfolio of chemically recycled polyolefins and is a promising alternative to energy recovery and where mechanical recycling is limiting, for example, for very demanding applications such as food-contact materials. The cooperation with OMV on the innovative ReOil® project is a key area of the Borealis Circular Economy Strategy and several product developments are in the pipeline. The increase in OMV's ownership of Borealis to 75% will allow the companies to combine the strengths of two enterprises, breaking new ground together to advance the circular economy. In particular, the work carried out by both companies on chemical recycling will now be taken forward with combined strength.





To supplement its recycling business and in line with a holistic view on the circular economy, in 2020, Borealis launched its Bornewables portfolio, consisting of polyolefin solutions based on renewable feedstock and supported by its collaboration with Neste on renewable feedstock. Borealis hit an important milestone for both its Borcycle™ C and Bornewables business by certifying five European polyolefin production locations in Austria, Belgium, Finland and Sweden to the ISCC PLUS standard.

Borealis' vision for a circular economy can only become reality with step-changes in research and technology. The Group therefore continues to invest in expanding in its innovation capabilities and secured a significant European Investment Bank loan for this undertaking. Borealis' innovation journey towards more circularity also includes digitalisation as an enabler and the first pilot projects were concluded during 2020, with blockchain technology being one notable example.

All these activities under the EverMinds umbrella align with Borealis' polyolefins ambition to become a leading "plastic-neutral" producer of advanced and sustainable polyolefin solutions. The concept of plastic neutrality refers to a truly circular economy, where plastics produced with fossil-based feedstocks will be offset, for example, by recovering the same amount of plastic waste.

To achieve this, it is imperative that the entire value chain collaborates. A circular polyolefins industry implies that all products are designed for recyclability, while an increasing amount of quality waste streams become available for recycling operations. Higher waste collection rates and further improvements to the efficiency of waste sorting are prerequisites to advancing the Group's recycling agenda. The willingness of converters and brand owners to value high percentages of recycled content in their products is equally important. Borealis uses its EverMinds platform to facilitate this change and to unite value chain partners and other stakeholders. The latest addition during 2020 was the launch of the EverMinds blog as a means to enable more dialogue on plastics circularity.

The implementation of Borealis' circular economy vision entails a considerable redesign of the way the industry works and several risks need to be mitigated. For example, working standards in the waste and recycling industry do not live up to chemical industry standards. The industrialisation of the recycling industry means working standards need to be improved, with stronger health and safety considerations in the production environment. Product safety is another area where the recycling industry needs to raise standards and get closer to the standards of the virgin industry. In addition, the overall attractiveness and profitability of the recycling business needs to increase through market incentives and legislative support. At the same time, the entire waste management and recycling industry must become more efficient.

### Success Stories

#### "Borealis Closes the Loop" Pilot Project in Belgium

Founded on the principles of Reduce – Reuse – Recycle, Borealis has initiated a pilot project with its value-chain partners to replace the 1.5 million single-use cups used annually at four of its Belgian sites with 30,000 reusable EcoCore® cups. The pilot first reduces the weight of plastics through these extremely lightweight cups, then reuses them to maximise their lifetime, before seeking to recycle them back into cups. Replacing 1.5 million single-use cups with 30,000 reusable cups, weighing 15 grammes each, results in a material saving of 4.2 tons of single-use plastic per year and reduces plastic material use by a factor of 20. Many reuse initiatives today focus on the consumer, such as reusable cup schemes run by high-street coffee shops. Schemes like this can have a relatively low uptake as the burden is on the consumer to decide whether or not to reuse a cup. In the business environment, reuse schemes are even less prevalent and there is widespread consumption of single-use plastic cups. By using a double-closed loop, the pilot aims to make reuse schemes more sustainable and economically viable.



### Borcycle™ M Packaging Closure Solutions

Borealis and MENSHEN, a leading specialist in plastic closures and packaging systems, have collaborated on a series of ten packaging closures based on Borcycle solutions. Borcycle technology is used to manufacture a range of compounds made of recycled polyolefins, which are ideal for use in sophisticated rigid packaging applications. These packaging solutions are predominantly made for use in laundry and homecare.

MENSHEN employs a rigorous process to ensure that the quality of the post-consumer recycled (PCR) material selected for a closure aligns perfectly with its required functionality. Out of the Borcycle™ M portfolio, Borealis and MENSHEN determined that Borcycle™ UG522MO, a polypropylene (PP) compound made of 50% PCR content, would be the ideal choice for the new closures. This compound offers a potential reduction in CO<sub>2</sub> emissions of up to 15% compared to using comparable virgin PP, as well as consistent high quality, processability-rivalling virgin polyolefins and excellent end-of-life recyclability in existing PCR streams.

### Pioneering Digital Watermarks for Smart Packaging Recycling

In 2019, Borealis participated in Project Holy Grail, which was led by Procter & Gamble and facilitated by the Ellen MacArthur Foundation. As a full value-chain pre-competitive collaboration, the aim of Holy Grail was to discover how the tagging of packaging affects the accuracy of sorting and recycling systems. The project successfully concluded at the “Digital Watermarks at Work” event, which included a live demonstration of an add-on module to an existing sorting unit. Borealis played a key role in the realisation of the demonstration.

In 2020, the branded goods industry stepped in to facilitate the next phase as a cross-value chain initiative under the name “HolyGrail 2.0”, which will have much greater scale and scope. The project, under the auspices of AIM, the European Brands Association, brings together over 85 companies and organisations from across the packaging value chain, including Borealis. The project will include the launch of an industrial pilot, to prove the viability of digital watermarking technologies for more accurate sorting of packaging and higher-quality recycling as well as the business case at large scale.

### ISCC PLUS Certification of Five European Polyolefin Production Sites

In 2020, Borealis reached an important milestone on its circular transition journey, in particular for its Borcycle™ C and Bornewables businesses by gaining the International Sustainability & Carbon Certification (ISCC PLUS) for five European polyolefin production sites. The remaining German site is planned to be certified within the first quarter of 2021. ISCC PLUS is a global standard for recycled and bio-based materials, providing traceability along the supply chain and verifying companies to meet specific environmental and social standards, thereby creating a chain of custody. This enables Borealis to certify its mass balanced production of renewable and chemically recycled feedstocks, with a mass balance approach crucial to transitioning towards a more circular economy for the chemical industry. ISCC PLUS certification also enables Borealis to produce and offer a renewable PO range of circular products and renewable hydrocarbons, such as ethylene, propylene, C4s and acetone, to the market for the first time.

### Commercialisation of Bornewables

During 2020, Borealis started to produce polypropylene (PP) based on Neste-produced renewable feedstock in its production facilities in Kallo and Beringen, Belgium. This marks the first time that Borealis has replaced fossil fuel-based feedstock in its large-scale commercial production of PP. Along with this commercialisation, Borealis also launched the Bornewables portfolio of circular polyolefin products. These premium polyolefins offer the same material performance as virgin polyolefins, but are derived entirely from waste and residue streams, resulting in a reduced carbon footprint.



The Borneewables portfolio is an important extension of Borealis' existing range of value-adding polyolefins and the materials can be used in a wide range of applications in all industries. This includes the most demanding applications, such as hygiene and food contact. These innovative and more circular products will help Borealis' customers to meet their own sustainability targets, while maintaining existing quality standards.

The entire Borneewables portfolio has been ISCC Plus certified, ensuring the traceability of the renewable and sustainably produced feedstock from its point of origin through the entire chain of custody.

#### Blockchain Pilot to Enable Traceability of Plastics

Together with Porsche, Covestro, Domo Chemicals and blockchain start-up Circularise, Borealis collaborated on a pilot to enable the traceability of plastics in the automotive sector. By digitising materials all the way to the final car, Circularise was able to create a digital thread through the whole supply chain, enabling material traceability and tracking the CO<sub>2</sub> footprint and other sustainability metrics, such as water savings. The successful pilot demonstrated the potential of blockchain as an enabling technology, as getting the information needed for a circular supply chain is a major challenge today. This is due to the inherent complexity of supply chains, which can contain a multitude of suppliers, as well as concerns around trust, privacy and confidentiality. Blockchain offers a fitting solution to these transparency challenges.

#### European Investment Bank Loan to Support Investments in Plastics Circularity

In order to implement its ambitious innovation agenda for the circular economy, Borealis is investing heavily to expand its capabilities. In 2020, the European Investment Bank (EIB) and Borealis successfully closed a benchmark financing agreement that supports Borealis' research, development and innovation programme in the circular economy sphere. The EIB will provide a EUR 250 million loan supporting Borealis' multi-year investment programme in the area of plastics circularity, in line with its objectives to support innovation, climate action and sustainability. The loan enables Borealis to intensify the development of novel, polyolefins-based circular solutions at its Innovation Centres in Austria, Sweden and Finland.

#### Outlook

Borealis remains fully committed to advancing the development of a broader and more circular offering. The Group will continue to expand its range of circular solutions, based on a growing range of technologies. As true circularity can only be implemented in a joint effort, Borealis will develop these solutions in close collaboration with partners across the value chain.

Furthermore, Borealis is engaged in several innovative projects with a longer-term horizon, which might usher in the circular economy of tomorrow. A prime example is the cooperation with Lafarge Zementwerke (a member of LafargeHolcim Group), OMV and VERBUND, where the partners signed a Memorandum of Understanding for the joint planning and construction of a full-scale plant by 2030 to capture CO<sub>2</sub> and process it into synthetic fuels, plastics or other chemicals. Once up and running, this innovative project has the potential to significantly reduce emissions from cement production and establish the greenhouse gas CO<sub>2</sub> as a valuable raw material for Borealis to manufacture value-added plastics.



# Energy & Climate

## AT A GLANCE

### Goals

Borealis' Energy & Climate Strategy defines the Group's journey towards climate neutrality by 2050 (or sooner). Within this roadmap, the goals set for 2020 were to:

- source an additional 3% renewable electricity, bringing the total to 5%;
- achieve a yearly energy intensity key performance indicator (KPI) of 1.357 MWh primary energy per tonne of product in Polyolefins (PO) and 4.015 MWh primary energy per tonne of product in Hydrocarbons (HC); and achieve a yearly energy intensity of 1.076 MWh primary energy per tonne of product in Fertilizer, Melamine and TEN;
- deliver 10% energy efficiency improvements by 2020 versus the 2015 baseline;
- further drive zero non-emergency flaring; and
- proceed with and expand open innovation and strategic partnerships to boost innovation in the value chain and carbon circularity.

### Key Achievements and Results

By the end of 2020, Borealis had:

- increased the total share of renewable energy sourced to 13.6%, which is double the 2020 goal, with further contracts and projects in the pipeline putting the Group well on track to achieve its 50% target by 2030;
- achieved a yearly energy intensity KPI of 1.286 MWh primary energy per tonne of product in PO versus the 1.357 MWh target and 3.507 MWh primary energy per tonne of product in HC versus the target of 4.015 MWh; The intensity KPI of Fertilizer, Melamine and TEN was 0.999 MWh primary energy per tonne of product versus the target of 1.076 MWh primary energy per tonne of product;
- achieved an energy efficiency improvement of 8.4%, resulting in implementation of energy savings of 2,027 GWh of primary energy versus the 2015 baseline;
- signed a Memorandum of Understanding with Lafarge, OMV and VERBUND for the joint planning and construction of a full-scale plant to capture CO<sub>2</sub> and process it into synthetic fuels, plastics or other chemicals on an industrial scale (C2PAT);
- formed a consortium with the Port of Antwerp and seven leading chemical and energy companies to investigate the building of CO<sub>2</sub> infrastructure in the Port of Antwerp; and
- qualified Borealis' high voltage direct current (HVDC) cable compound based on Borlink™ technology for the tender for the "German corridor projects".

### Introduction

Industrial evolution is having a major impact on the natural greenhouse effect. Over the last century, the burning of fossil fuels, such as coal and oil, has increased the concentration of atmospheric greenhouse gases and the clearing of land for agriculture, industry and other human activities has also contributed to that increase. The changes to the natural atmospheric greenhouse gas composition are difficult to predict, but certain effects seem likely. For example, the earth will become warmer; more evaporation and precipitation overall will occur; and the sea level will rise. Taken as a whole, the range of published evidence indicates that the net costs of climate change are likely to be significant and will increase over time.

The COP21 Paris Agreement calls on all countries to keep the global temperature increase to well below 2°C and to pursue efforts to limit the increase to 1.5°C above pre-industrial levels. In this context, the European Union is committed to being the first carbon neutral economy by 2050 and therefore will define its long-term greenhouse gas (GHG) emission reduction strategy. This strategy is expected to transform all sectors of the European economy. The EU has already put a price on carbon emissions through the EU Emission Trading Scheme (EU-ETS), which monitors overall emissions and aims to achieve a reduction. It is very likely that the EU will push further policies to magnify the scope and incentives through EU-ETS. Other economic powerhouses will follow at some stage. As one of the largest and most diversified industries in Europe, and as an important emitter of GHGs, the chemical industry plays an important role in helping to achieve long-term GHG emission reductions in a European and global context.

### Organisational Structure

Borealis' governing body for addressing climate change is the Energy & CO<sub>2</sub> Committee. For the HC and PO parts of the organisation, it develops and implements energy and CO<sub>2</sub> emission targets, strategies and guidelines, and measures performance using KPIs. The committee is headed by the EVP Base Chemicals and Operations, and comprises representatives from relevant businesses and functions. Within the Fertilizer, Melamine and Technical Nitrogen Products (TEN) business, the Energy & CO<sub>2</sub> Committee is headed by the COO Fertilizer, Melamine and TEN. To align the energy management system across Borealis, a Group-level energy management team has a presence in each location.



The Borealis HC and PO organisation has set up a team to create a roadmap to reduce fossil based CO<sub>2</sub> emissions that result from industrial activities. The team will evaluate progress that has been made on the 2030 ambitions as well as technologies, business challenges and innovation, and reports to the Energy & CO<sub>2</sub> Committee. The team is led by the VP Hydrocarbon Operations and works closely with the Circular Economy team. In Fertilizer, Melamine and TEN, a GHG reduction task force has been set up to identify the full GHG reduction potential and to create a roadmap to achieve it.

**Borealis’ Commitment to Climate Neutrality**

Climate change is non arguably the biggest threat for humans on a global scale. Borealis therefore has a responsibility to reduce its carbon footprint, as well its products’ total life-cycle emissions. Climate protection and economic success must go hand in hand, to ensure that the innovations needed for global climate protection continue to be developed. Whilst it is essential to decrease emissions in the Group’s operations, Borealis is also contributing to both avoiding and decreasing value chain emissions during the life cycle of its solutions.

Borealis can play a significant role in solving society’s climate challenges by providing sustainable Polyolefin solutions. For example:

- society’s conversion to renewable power needs a high level of interconnectedness in the electricity grid. Borlink technology ensures reliable power transportation from wind and other renewable energy sources  
→ chapter Innovation, p. 109;
- Borealis’ advanced photovoltaic films (Quentys™) optimise the production of renewable solar energy;
- plastics provide for efficient electric vehicle system components and reduce emissions in transportation;
- the Group is driving the circular economy, to reduce end-of-life emissions from plastic waste by designing for recycling, increasing recycled content or using chemically recycled feedstock → chapter Circular Economy, p. 62;
- Borealis will reduce total life cycle emissions by using renewable feedstock → chapter Procurement of Feedstock, Electricity and Utilities, p. 99.

However, Borealis wants to do more. The Group is committed to reducing the carbon footprint of its operations to ensure it is climate neutral by 2050 or sooner, and will set an ambition level and develop a roadmap for CO<sub>2</sub> reduction for 2030 in 2021.

Borealis will achieve these goals by following three pathways:

1. Sourcing renewable electricity to avoid emissions
2. Continuing to implement energy efficiency improvements and zero non-emergency flaring, to reduce emissions
3. Driving innovation to find solutions for end-of-pipe CO<sub>2</sub> emissions

For each of these, Borealis has set the following goals in its journey towards climate neutrality by 2050 (or sooner):

- Source 50% of electricity from renewable sources by 2030, to reduce indirect (scope 2) emissions that are caused by electricity consumption
- Implement energy efficiency improvements equal to 20% of the absolute energy consumption in 2015 by 2030
- To reach net zero for scope 1 and 2 emissions, the Group will go beyond the targets set out above and is therefore exploring opportunities to handle emissions as they arise through CCUS.

Borealis puts a high value on partnerships in and beyond the conventional Polyolefin value chain. Therefore, the Group is working with partners along the value chain to respond to scope 3 emissions that occur both upstream and downstream. A real step change can only be achieved through intra- and cross-sectoral cooperation, as well as developing in 2021 robust internal pricing that stimulates companies to permanently reduce CO<sub>2</sub> emission.

**Greenhouse Gas Emissions**

To calculate its emissions 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 EU-ETS emission factors are permitted and approved by the relevant authorities.



In 2020, Borealis produced 4,050 kilotonnes of EU-ETS CO<sub>2</sub> equivalent emissions. This is less than the 4,625 kilotonnes in 2019 due to production reduction as result of COVID-19 and unforeseen stops of Cracker and Ammonia plants. For 2021, Borealis has set out a target to not emit more than 4,527 kilotonnes of EU-ETS CO<sub>2</sub> equivalent emissions.

Total scope 1 and 2 emissions according to the Greenhouse Gas Protocol were 5.1 Mton CO<sub>2</sub>-eq. over 2019, calculated on the basis of emissions from companies under Borealis' operational control and more than 50% ownership, and the market-based approach of Scope 2.

Fig. 11: **Scope 1 and 2 emissions in 2019**<sup>1)</sup>

CO <sub>2</sub> -eq. emissions (Mton)	2019
Scope 1 emissions	4.0
Scope 2 emissions	1.1
<b>Total</b>	<b>5.1</b>

1) Total scope 1 and 2 emissions, calculated in accordance with the GHG-protocol factors; numbers might vary in the range of +/- 10%; values are not yet externally audited as Borealis is taking a first step towards comprehensive greenhouse gas accounting. Emissions taken into account when Borealis has operational control and + 50% ownership; scope 2 is calculated in a market-based approach. Emissions of 2020 are not reported as important grid factors were not known at the point at which this report was published.

N<sub>2</sub>O emissions from nitric acid plants decreased to 1,143 tonnes in 2020, compared to 1,351 tonnes in 2019 due to a reduction in nitric acid production of 85 kilotonnes and improvement of the N<sub>2</sub>O catalyst.

### Renewable Energy Sourcing

The 2030 renewable energy goal is an important part of the journey towards climate neutrality by 2050 or sooner. To achieve the 2030 goal, Borealis will use a combination of onsite investments where possible, as well as long-term contracts known as power purchase agreements. The projects targeted are preferably as close as realistically possible to the Borealis locations where the power is consumed. Borealis believes that more renewable power will be needed going forward if industries such as the petrochemical industry are to electrify further. → chapter Procurement of Feedstock, Electricity and Utilities, p. 99

### Driving for Energy Efficiency

Energy consumption accounts for a significant proportion of Borealis' total costs and for around 55% of its GHG emissions. Process emissions (emissions resulting from a chemical reaction) from ammonia production represent 32% of GHG emissions and flaring losses, and nitrous oxide (N<sub>2</sub>O) emissions, represent a further 13% → chapter Environmental Management, p. 76.

Borealis has the ambition to implement improvements equal to 20% of the absolute energy consumption in 2015 by 2030. The Group's Energy Roadmap sets out a sequence of different activities, starting with establishing a baseline.

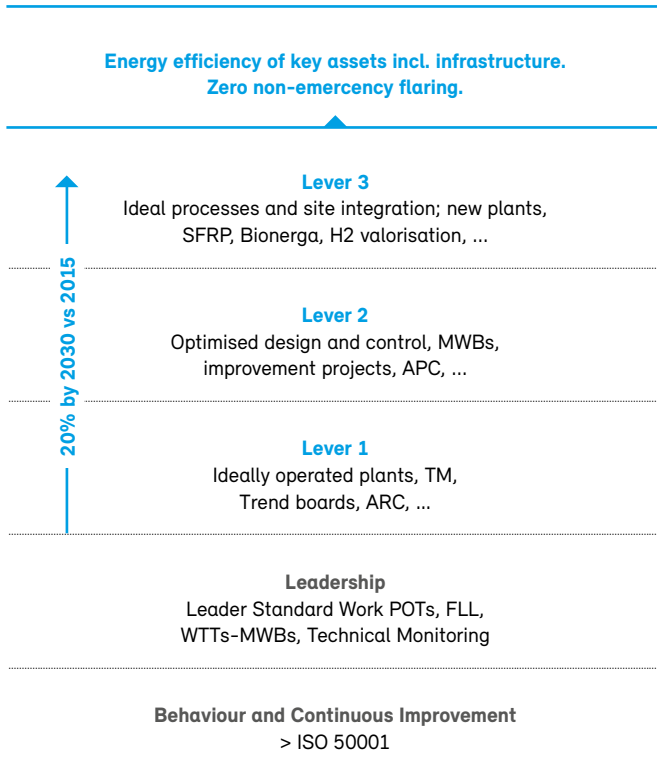
The baseline for any energy efficiency improvement is to implement and comply with ISO 50001, combined with continuous leadership engagement from key teams. Initiatives include energy teams at each production location that drive the location's energy planning process, increase awareness, act as a forum for energy issues and ensure ISO 50001 compliance.

To progress beyond this baseline, all Borealis locations run energy screening programmes every four years – often with third-party support – to evaluate their energy performance and identify improvement opportunities.

Actions to improve energy efficiency fall into one of three levels known as levers which will deliver increasing optimisation. The three levels of actions are as follows:

- Lever 1: As a first step, Borealis is implementing tools to run its plants as optimally as possible, such as introducing an Energy Trendboard which helps operators to continuously focus on energy consumption.
- Lever 2: Running plants most effectively requires continual optimisation of plant design and control, and the implementation of improvement projects to remove potential barriers to optimisation.
- Lever 3: Another way to increase energy efficiency is to implement new technologies during periodic production line revamps and to seek energy integration through industrial clusters.

**Fig. 12: Building blocks of the Energy Roadmap 2020+**



APC: Advanced Process Control // ARC: Advanced Regulatory Control // FLL: Front-Line Leader // MWB: Must Win Battles – high priority projects // POT: Plant Operational Excellence Team – management team of a plant striving for excellence // SFRP: Stenungsund Furnace Revamp Project // TM: Technical Monitoring // WTT: Winning Triangle Team: combined team of operation, business and innotech

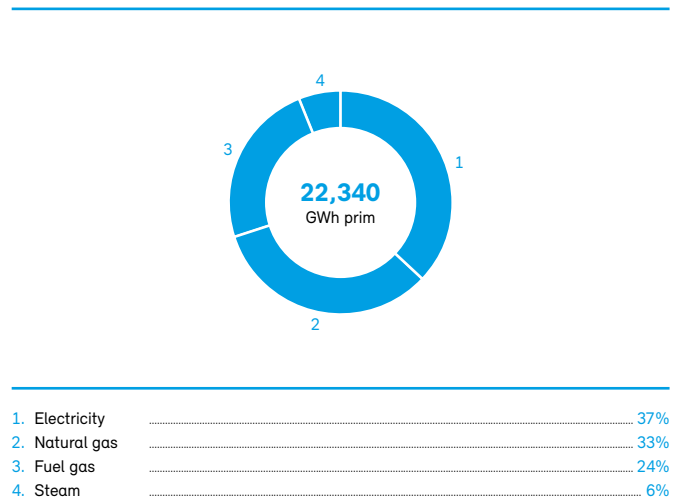
**Measuring Energy Consumption and Efficiency**

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

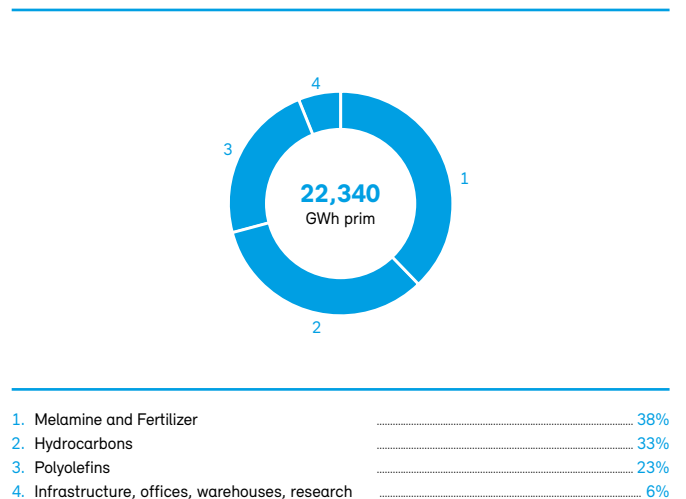
In 2020, Borealis’ total primary energy consumption was 22,340 GWh compared to 25,831 GWh in 2019. This represents a decrease of 3,491 GWh compared to the previous year due to production reduction as result of COVID-19 and unforeseen stops of Cracker and Ammonia plants. In total, 242 GWh of steam were sold.

Data on all of 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. Figures 13 and 14 show the activities for which energy was used.

**Fig. 13: Total energy consumption per source in 2020**

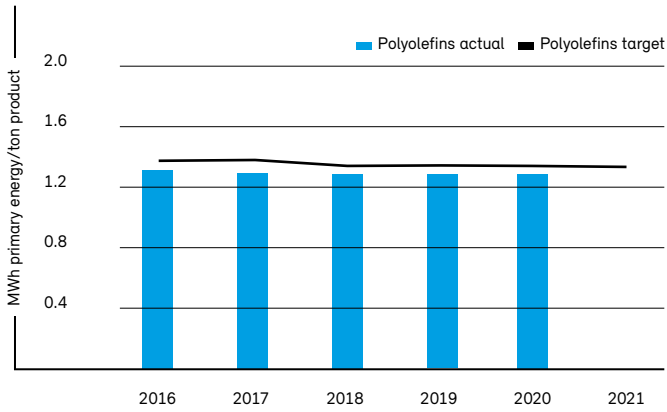


**Fig. 14: Total energy consumption per product group in 2020**



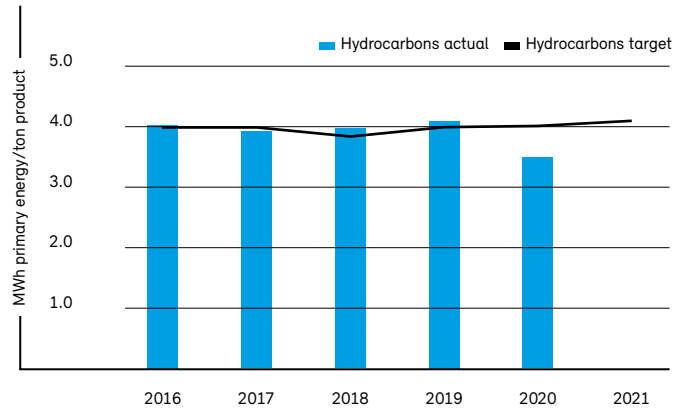


**Fig. 15: Polyolefins production energy intensity 2016–2020 and ambition 2021**



Year	PO target	PO actual
2016	1.390	1.312
2017	1.380	1.291
2018	1.365	1.284
2019	1.374	1.283
2020	1.357	1.286
2021	1.304	-

**Fig. 16: Hydrocarbons production energy intensity 2016–2020 and ambition 2021**



Year	HC target	HC actual
2016	4.003	4.038
2017	4.003	3.916
2018	3.792	3.960
2019	3.996	4.088
2020	4.015	3.507
2021	4.165	-

Figures 15, 16 and 17 show the Group’s energy intensity since it established its Energy Roadmap for each business unit.

**Innovation & Partnerships to Drive Climate Neutrality**

To achieve the climate neutrality goal, the Group tries to drive innovation in the value chain to reduce scope 3 emissions and to increase carbon circularity.

Examples of the Group’s partnership approach and innovation include:

- Forming a partnership with Lafarge, OMV and VERBUND for the joint planning and construction of a full-scale plant to capture CO<sub>2</sub> and process it into synthetic fuels, plastics or other chemicals on an industrial scale (C2PAT).
- Forming a consortium with the Port of Antwerp and seven leading chemical and energy companies, called Antwerp@C. The consortium will investigate the building of CO<sub>2</sub> infrastructure in the port, which is one of the larger integrated energy and chemicals clusters in Europe. This infrastructure could support CCUS applications and reduce the CO<sub>2</sub> emissions within the port by half between

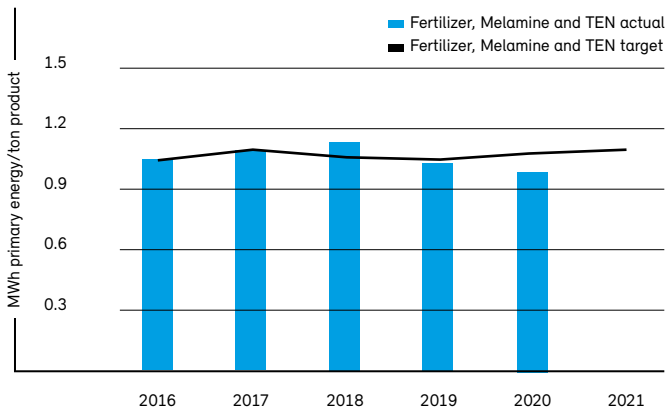
now and 2030. CCUS opens up the possibility of using CO<sub>2</sub> as a raw material for the chemical industry. In October 2020, the consortium received approval for two applications for EU funding, to carry out studies for a liquid CO<sub>2</sub> export terminal, a CO<sub>2</sub> backbone within the port and a CO<sub>2</sub> cross-border pipeline to connect to the Netherlands.

- Forming the Cracker of the Future Consortium, in conjunction with five petrochemical companies, to investigate how to use renewable energy instead of fossil-based energy to operate steam crackers. These crackers are used to produce base chemicals that are primarily turned into plastics and they represent the industry’s principal opportunity for reducing GHG emissions. The companies have agreed to invest in R&D and knowledge sharing, as they assess the possibility of transitioning their base chemical production to renewable electricity.
- Launching the Bornewables™ portfolio of circular, premium polyolefins which are produced with renewable feedstock derived entirely from waste and residue streams, while offering the same material performance as virgin polyolefins. → chapter Innovation, p. 109





**Fig. 17: Fertilizer, Melamine and TEN production energy intensity 2016–2020 and ambition 2021**



Year	Fertilizer, Melamine and TEN target	Fertilizer, Melamine and TEN actual
2016	1.049	1.049
2017	1.091	1.089
2018	1.054	1.136
2019	1.045	1.028
2020	1.076	0.999
2021	1.123	-

- Enabling the transportation of renewable energy by providing a high-voltage direct current (HVDC) cable compound based on Borealis Borlink™ technology, which is being used in crosslinked polyethylene (XLPE) power cables that qualified for the tender for the “German corridor projects”. → chapter Innovation, p. 109

**Activities 2020**

In addition to the partnerships and innovations described above, Borealis undertook a wide range of activities in 2020 in relation to Climate & Energy. These included establishing its CO<sub>2</sub> reduction roadmap and the Group’s ambitions for 2030 to guide Borealis’ Energy & Climate activities in the coming years. The Group also applied for the fourth trading period of EU-ETS and set out the basis for GHG accounting.

To find new opportunities for energy efficiency improvements, Borealis finalised energy screenings in Kallo (Belgium), Schwechat (Austria), Stenungsund (Sweden), Burghausen (Germany), Linz (Austria), Grand Quevilly (France) and Monza (Italy). Actions are prioritised based on their benefit

to the planet, in the form of environmental benefits, people (for example, through improved working conditions) and profit (such as the ability to generate cost savings). The prioritisation is based on factors such as a risk and opportunity assessment, including social, environmental and economic aspects, total cost of ownership, internal rate of return and organisational capacity.

During 2020, the Group also successfully complied with the new version of the energy management standard ISO50001:2018. A series of internal audits was undertaken to prepare for certification of the energy management system, enabling Borealis to successfully upgrade the system to comply with the new version of ISO50001:2018 for its European locations.

Other activities during the year included:

- connecting the Borealis plant in Beringen, Belgium, to a neighbouring waste-to-energy plant to supply the production process with power and heat from renewable sources; and
- implementing advanced process control in ammonia production at Linz, Austria, and Grandpuits, France, to optimise energy consumption. This delivered a saving of 20 GWh/y for Ammonia Linz and 20 GWh/y for Ammonia Grandpuits. At Grandpuits, optimising the steam network delivered a saving of 14 GWh/y.

**Outlook**

Borealis’ energy and climate objectives are to:

- continue to focus on Borealis’ journey towards climate neutrality, to deliver the next steps towards the ambition of 50% renewable electricity by 2030 and 20% energy improvement in 2030;
- identify, measure and report emissions following the GHG protocol (scope 1, 2 and 3);
- implement new, more detailed reporting and an updated ambition for 2030 for flaring reduction; and
- deliver opportunities and partnerships across the value chain and beyond to find innovative solutions for CO<sub>2</sub> reductions in scope 1, 2 and 3.



## Climate-related Risks and Opportunities

**Borealis supports the Task Force on Climate-Related Financial Disclosures (TCFD). TCFD is a global initiative established by the Financial Stability Board which has the objective of developing recommendations for more efficient and effective climate-related disclosures. It provides a framework for developing voluntary, consistent information about how a company's business is and will be affected by climate change – information which is increasingly requested by investors, banks, insurance companies and other stakeholders.**

TCFD distinguishes two categories of climate-related risks and opportunities:

- Transition risks or opportunities are associated with an abrupt adjustment to a low-carbon economy, such as rapid losses in the value of assets due to changing policy or altered consumer preferences.
- Physical risks or opportunities are direct or indirect impacts of climate change induced modifications in the natural environment, such as an increase in natural catastrophes and extreme weather events as well as gradual changes in temperature and precipitation patterns.

In 2020, Borealis performed a Group-wide assessment of climate-related risks and opportunities. In a process aligned with Borealis' Enterprise Risk Management, climate-related risks and opportunities for the most relevant Borealis business areas were identified and qualitatively assessed (in terms of business impact and probability). Risks and opportunities were identified by desktop analysis of industry-specific reports, peer analysis and topic-related studies, and refined in interviews with business units and Group functions. The assessment took different time horizons into account, from the short-term up to ten years in the future.

The assessment shows relevant transition risks for Borealis mainly arise from an anticipated increase in certificate costs for GHG emissions under the EU ETS and regulation (CWW BREF – Common Waste Water and Waste Gas treatment best available technique reference document for the chemical industry) and limiting non-emergency flaring.

There are also physical risks to Borealis' sites and its supply chain from climate change induced increases in the frequency and severity of extreme weather events.

Nonetheless, Borealis also identified significant opportunities from a transition to a decarbonised, more circular economy. These include the development of low-emission and bio-based products, opportunities from regulatory changes as part of the EU Green Deal and EU Circular Economy Strategy, more efficient production processes and an increase in supply chain resilience.

While many companies have a focus on climate risks in their TCFD assessments, Borealis has also identified clear business opportunities from decarbonisation. In particular, the Group's circular economy solutions, such as its focus on Design for Recyclability and the integration of mechanical recycling companies to close the loop of its polyolefin products, show a clear win-win situation for the climate, the environment and Borealis' success.

During 2020, Borealis' TCFD assessment focused on developing an inventory of risks and opportunities for Borealis related to climate change. In the next step, Borealis will evaluate the financial impact of both risks and opportunities on its business. Based on that analysis, Borealis will strengthen and/or adapt its strategy and related mitigation actions. The Group will also work on refining its climate-related metrics, including its disclosure of GHG emissions, and formulate ambitious climate change reduction targets.

The results of the 2020 assessment will be integrated into the Group's Enterprise Risk Management (ERM) system to ensure an ongoing analysis of climate-related risks and opportunities for Borealis. The Group will continue to increase their implementation, be transparent with stakeholders about its climate exposure and ensure that the business remains climate-fit.





**Results of the 2020 TCFD Assessment**

**Transition risks**

**– Increased GHG emission price**

Example: Large parts of Borealis’ business, such as its fertilizer or base chemical production sites, are included in the EU ETS, meaning that for every tonne of CO<sub>2</sub> emitted, certificates need to be surrendered. These certificates are traded in the marketplace and their price is subject to supply and demand. Currently, their value is approximately €25/t CO<sub>2</sub> (end of 2020). This leads to additional expenditure for Borealis. Under the assumption that to meet EU climate targets, the costs of CO<sub>2</sub> emissions will increase, Borealis’ expenditure for buying CO<sub>2</sub> emission certificates will also increase in the future.

**– Regulation on non-emergency flaring**

Flaring is an essential process control that ensures safe operation of hydrocarbons and polyolefin plants. A significant fraction of flaring is non-emergency flaring, which is under heavy scrutiny following the publication of the CWW BREF in 2016, which will bring an end to non-emergency flaring. The timeline for when the CWW BREF has to be fulfilled is dependent on technology (hydrocarbons or polyolefins) and partly on local legislation. Borealis has set reduction targets for total flaring as well as a special focus on non-emergency flaring.

**Physical risks**

**– Disruption of supply chain: Impacts of extreme weather events on production sites**

Example: Climate change can lead to acute impacts, such as extreme weather events, or chronic impacts, such as changes in precipitation or temperature over time. These can have diverse impacts on a business. Borealis’ supply chain and operating sites might be disrupted by the effects of extreme weather events. The more global supply chains are, the higher the risks. For example, inland waterways can become a bottleneck in times of drought, leading to potential limitations in the supply of raw material to Borealis’ production sites and thus potential business disruptions. Certain Borealis sites might also be at risk from natural disasters, such as floods or heat waves, which may increase in terms of impact and frequency due to climate change.

**Transition opportunities**

**– Expand portfolio with low-emission and bio-based products**

**– Opportunities from regulatory changes (EU Green Deal and EU Circular Economy Strategy): Borealis is very well positioned with its products to support these transitions**

**– Establish more energy-efficient production processes**

**– Increase in supply chain resilience**



# Environmental Management

## AT A GLANCE

### Goals

In 2020, Borealis' goals were to:

- carry out a full water inventory and water risk assessment, across all locations;
- fully roll-out split flaring for all plants, with visualisation in the environmental and energy data management tool and in the monthly key performance indicator (KPI) follow-up tool;
- carry out Operation Clean Sweep (OCS) health checks on all Borealis Polyolefins (PO) locations to evaluate compliance with the OCS core requirements; and
- promote the use of the upgraded environmental and energy data management system.

### Key Achievements and Results

During 2020, Borealis:

- carried out a full water inventory and water risk assessment, across all locations, with the results to be evaluated and compiled at the beginning of 2021;
- resolved all technical issues to enable a full roll-out of split flaring for all plants, with visualisation in the environmental and energy data management tool and the monthly KPI follow-up tool;
- updated the roadmap for zero non-emergency flaring, with further actions defined and discussions to derive a new flaring ambition continuing in 2021; and
- performed internal audits on all Borealis European PO locations, against the OCS core requirements. Actions to rectify any gaps have been defined to enable all locations to go for external certification.

### Introduction

The most relevant environmental impacts Borealis creates are those coming from emissions that contribute to climate change, acidification and eutrophication, and the effect on air quality and human health.

Borealis' emissions to air result from its production processes and from combustion for energy generation. In addition to carbon dioxide and nitrous oxide (→ chapter Energy & Climate, p. 68), these emissions comprise:

- nitrogen oxide (NO<sub>x</sub>) emissions created by the burners in steam boilers, thermal oxidisers, flares and furnaces;
- volatile organic compounds (VOC), which are fugitive emissions of hydrocarbons, occurring due to high pressure and temperature; and
- dust and ammonia (NH<sub>3</sub>) emissions from production and handling solid material in fertilizer plants.

Flaring is a necessary safety measure used in the Group's hydrocarbon and polyolefin plants, in which excess gases which cannot be recovered or recycled are safely burned. However, it also causes a small proportion of the Group's CO<sub>2</sub> emissions as well as NO<sub>x</sub> emissions, inefficient use of the Group's resources, nuisance to Borealis' neighbours and legal implications. → chapter Energy & Climate, p. 68

Borealis requires water for its operations. Industrial water, for which purity standards are less strict than for drinking water, is used for production purposes in processes such as cooling, steam generation and product handling. Lower quantities of water are needed for drinking, cleaning, sanitary and firefighting purposes. The Group looks to minimise its water use by recycling water in its production process. It also looks to improve the quality of the water it discharges and to comply with its legal obligations through filtration, neutralisation and biological wastewater treatment.

The most common types of waste produced in Borealis' operations include the non-recyclable polymer fraction of the polymer waste input to our recycling plants, excavated soil, wastewater treatment sludge, solvents, mixed industrial waste and inert construction material. Borealis aims to minimise the production of waste where possible, but its main objective is to treat waste as a resource and to better handle products at end of life by making them circular.

The loss of plastic pellets and particles could lead to marine litter and emissions of NO<sub>x</sub>, dust and VOC could affect the air quality of the Group's neighbours. If such failures occurred, they could result in fines, loss of business,



reputational damage, loss of permits and enforcement action by the relevant authorities, all of which could affect the Group's financial performance.

**Managing Environmental Impacts**

Borealis' approach to environmental management encompasses managing its emissions to air, its use of water and discharge of wastewater, its production and use of secondary resources in the form of waste, and its overall environmental compliance.

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 (→ chapter Corporate Governance, p. 90) as well as the Product Stewardship standard of Fertilizer Europe. In 2020, Fertilizer Europe conducted an external audit of the Group's fertilizer plants.

At least every three years, the Group performs a detailed and systematic environmental risk and opportunity assessment for every plant in all locations. 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, Borealis defines and documents HSE objectives and targets 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 Executive Board.

In 2019, the Group carried out a sustainability materiality assessment (→ chapter Sustainability Management, p. 30). This confirmed that reducing CO<sub>2</sub> emissions and energy consumption are the main drivers of Borealis' performance improvement and have the biggest impact on the environment. It also confirmed that the circular economy is a key driver, including a strong focus on packaging waste management.

Nevertheless, emissions to air of NO<sub>x</sub>, NH<sub>3</sub>, dust and VOC as well as water, waste and effluents also play a significant role in 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. All Borealis production locations are part of an ISO 14001 compliant environmental management system.

Borealis uses an integrated environmental data management system and reporting software. This ensures control of data flows from varied sources, in multiple formats and on different schedules as well as the traceability and transparency required for reporting and auditing.

Borealis is committed to complying 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 the costs of impact mitigation.

The Group reviews all cases of non-compliance and takes action to prevent them from reoccurring. In 2020, no significant fines or non-monetary sanctions for non-compliance with environmental laws were imposed on Borealis.

**Activities and Performance 2020**

**Emissions to Air**

With all emissions, the Group follows its legal requirements and the stipulations in its permits. In addition, Borealis has established its own requirements for measuring and following up on key pollutants. Deviations from the norm are reported within the Borealis incident management system and then investigated and addressed through corrective actions. The approach taken depends on the magnitude of the emissions' impact and their criticality.

Actions are prioritised using the principles contained in the Group's Risk Management Policy, in line with Borealis' general sustainability management approach. High-risk items and proposals with significant potential for improvement are regularly discussed and addressed to the Executive Board.

Volatile Organic Compounds (VOC) Emissions

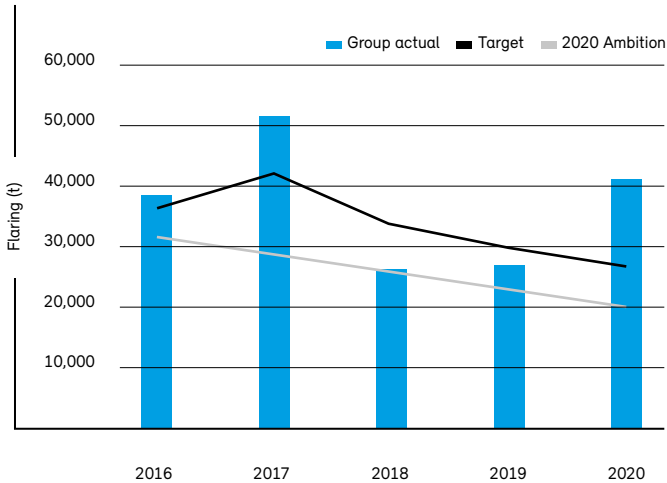
Borealis' goal is to reduce its VOC emissions by detecting and repairing leaks quickly. In 2020, Borealis' VOC emissions were 2,942 tonnes, compared to 3,122 tonnes in 2019.

Flaring

Flaring losses in 2020 were 42.5 kilotonnes, compared to 27.6 kilotonnes in 2019. The effort to reduce upsets and implement flaring improvements continued, but severe upsets led to significant emergency flaring during shut-downs due to a lack of recycling capacity.



Fig. 18: Flaring performance 2016–2020



Year	Group actual	Target	Ambition
2016	38,740	36,925	31,429
2017	51,620	42,355	28,571
2018	26,273	34,200	25,714
2019	27,619	30,000	22,857
2020	42,543	27,500	20,000

Every year, the Group defines its targets for flaring. Turnarounds, regular maintenance of the plant's assets and other internal and external factors require ongoing adaptation. In particular, flaring increases in years with higher numbers of turnarounds. These regular maintenance programmes inevitably lead to more flaring as plants or lines must be shut down, emptied and ramped up again. This is one of the drivers of the increase in 2020 against 2019. Additionally, Borealis had two major emergency shut-downs of the Stenungsund cracker in Sweden as well as of the cracker in Porvoo, Finland, which contributed significantly to the increase in flaring.

With 17,589 tonnes, non-emergency flaring losses for 2020 were lower than 2019 (19,642 tonnes) and on target (17,536 tonnes), which means that improvement projects have delivered as planned.

### Dust Emissions

Dust reduction and prevention is a focus for all Borealis operations and for improvement projects. Dust emissions are continuously measured in the Group's fertilizer locations, which are the main contributor. Borealis' polyolefin production plants monitor dust emissions using spot samples, which do not allow for an annual average to be calculated. During 2020, the Group installed a wet electrostatic precipitator in the fertilizer plant at Linz, Austria, to reduce dust emissions by nearly 90%.

Dust emissions from the fertilizer production units totalled 342 tonnes in 2020, compared to 455 tonnes in 2019.

### Nitrogen Oxides (NO<sub>x</sub>) Emissions

Borealis measures most of its NO<sub>x</sub> emissions, with the remainder being calculated using a standardised emission factor. Absolute NO<sub>x</sub> emissions in 2020 were 2,842 tonnes, compared to 3,000 tonnes in 2019.

### Ammonia (NH<sub>3</sub>) Emissions

Ammonia emissions are a consequence of either failures during the ammonia production process or leaks during storage or transportation. These emissions amounted to 686 tonnes in 2020, compared to 881 tonnes in 2019.

### Sulfur Oxide (SO<sub>x</sub>) Emissions

Borealis does not produce SO<sub>x</sub> emissions, as it only uses gaseous fuels (natural gas and hydrocarbons) where no sulfur is present.

## Water

### Water Withdrawal

Borealis' water withdrawal was 755 million m<sup>3</sup> in 2020, compared to 750 million m<sup>3</sup> in 2019. The increase in consumption was due to the reduced turnaround activities and higher cooling water consumption during the summer because of extreme weather conditions.

The majority of the water Borealis uses in its operations is surface water, for example from water bodies such as rivers and oceans. The remainder is extracted from ground water, wastewater from another organisation, municipal water supplies or other water utilities. Rainwater is also collected.

**Fig. 19: Borealis' water withdrawal by source in 2020**

Sources	2020
<b>Water withdrawal</b>	<b>755 Mio. m<sup>3</sup></b>
Surface water	97.6%
Ground water	1.9%
Water from 3rd party	0.3%
Municipal water	0.3%
Rainwater	0.0%

Water availability or scarcity varies by location. Borealis has not identified any major risk related to water at the locations in which it operates. Borealis' environmental experts in each operation continuously monitor water consumption as part of the Group's environmental monitoring programme, and in order to comply with the permit limits set by the respective local authorities.

Water Discharge

The volume and nature of the wastewater Borealis generates depend on the type of production at its locations. Borealis therefore installs water treatment techniques that are appropriate for each plant's production process. These techniques can include filtration, neutralisation, osmosis, and gravimetric and biological water treatment.

All Borealis locations are connected to wastewater treatment installations, consisting of internal treatment units, external plants or both. In Grandpuits, France, where Borealis has no permit to discharge into the surface water, discharges are made into a special salted groundwater aquifer instead.

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.

Recycling and Reusing Water

To increase water use efficiency, Borealis seeks, whenever possible, to recover its process water or to reuse wastewater. For example, in some operations cooling towers use recycled water or rainwater. 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<sub>2</sub> emissions. As water consumption and energy use are linked, due to the energy recovery from cooling water, the Group may on some occasions decide to increase its water withdrawal in order to recover more energy.

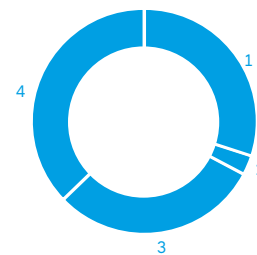
In 2020, a very detailed water inventory and risk assessment was carried out to foster the understanding of water usage, water emissions and water related risks at each site and across the total Group.

At the Ottmarsheim plant in France, modifying the aqueous ammonia plant has enabled the collection of wastewater containing nitrogen, allowing it to be recycled into the production process, reducing the emission of nitrogen to the river and increasing the production of aqueous ammonia.

Waste

Borealis generates waste during production and during short regular shutdowns and plant turnarounds. 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 works and inspections.

**Fig. 20: Waste treatment in 2020 <sup>1)</sup>**

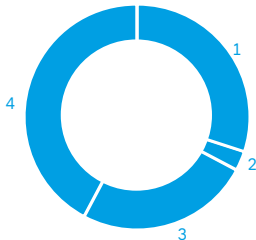


1. Energy recovery	30%
2. Landfill	3%
3. Recycling	30%
4. Other treatment	37%

1) Environmental data might be subject to minor adjustments due to ongoing audits and missing third-party data at the time this report was finalised.



Fig. 21: **Non-hazardous waste treatment in 2020** <sup>1)</sup>



1. Energy recovery non-hazardous	30%
2. Landfill non-hazardous	3%
3. Recycling non-hazardous	25%
4. Other treatment non-hazardous	42%

1) Environmental data might be subject to minor adjustments due to ongoing audits and missing third-party data at the time this report was finalised.

Borealis monitors waste production and implements control measures in all its operations, based on the requirements of regulations and ISO 14001 standards. The Group has waste management plans for each location, which are coordinated by local environmental experts. All locations follow the “4R” rules: reduce, reuse, recycle and recover.

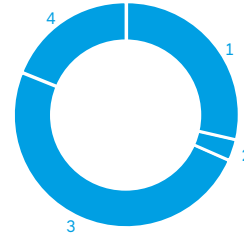
Borealis’ aim is to avoid producing waste. The Group has therefore implemented integrated manufacturing processes which recover as much co-product as possible.

For example, the CO<sub>2</sub> emitted by the ammonia production site in Linz, Austria, is used in the production of urea at the same site. In the fertilizer production process, condensate from steam contains co-products which are reinjected into the process to minimise loss of resources. 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 considerations. The Group only employs accredited contractors for handling its waste streams.

By-products of polymer production, such as non-prime material or material from cleaning activities, are used to the extent possible in the Group’s recycling plants.

Following the integration of the recycling companies Borealis acquired in Germany and Austria, the total amount of waste and its composition has changed significantly.

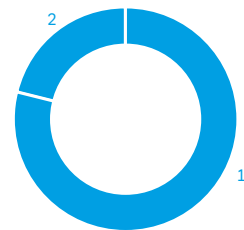
Fig. 22: **Hazardous waste treatment in 2020** <sup>1)</sup>



1. Energy recovery hazardous	29%
2. Landfill hazardous	3%
3. Recycling hazardous	50%
4. Other treatment hazardous	19%

1) Environmental data might be subject to minor adjustments due to ongoing audits and missing third-party data at the time this report was finalised.

Fig. 23: **Waste characterisation in 2020** <sup>1)</sup>



1. Non-hazardous waste	79%
2. Hazardous waste	21%

1) Environmental data might be subject to minor adjustments due to ongoing audits and missing third-party data at the time this report was finalised.

Non-recyclable waste has become one of the largest proportions of total waste for the Group and a main driver of the significant drop in the overall recycling percentage. Currently, this stream is used as secondary fuel in steel or cement production, but considerable research effort is going into finding a recycling solution for this stream too.

In 2020, the Group’s total waste volume was 100 kilotonnes, compared to 86.1 kilotonnes in 2019. Approximately 30% of Borealis’ waste volume was recycled, 30% was recovered





and 40% was disposed of, with 3% going to landfill and 37% receiving a different treatment.

**Pellet Spills**

Plastic pellets released unintentionally during production, transportation, conversion and recycling can end up in streams, rivers and oceans. Preventing spillage is a core responsibility for the industry. Borealis is committed to 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” pact in Austria, which is the equivalent to OCS.

Achieving zero pellet loss is a challenging journey and requires continuous leadership, effort, targeted and effective work practices and investment.

The Group started in 2016, with a first set of audits at all of its polymer sites. In 2018, a second set of audits confirmed that Borealis locations are on the right track to achieve the Group’s internal ambitions.

In parallel to the Group’s continuous efforts to improve its own performance, Borealis has proactively contributed to

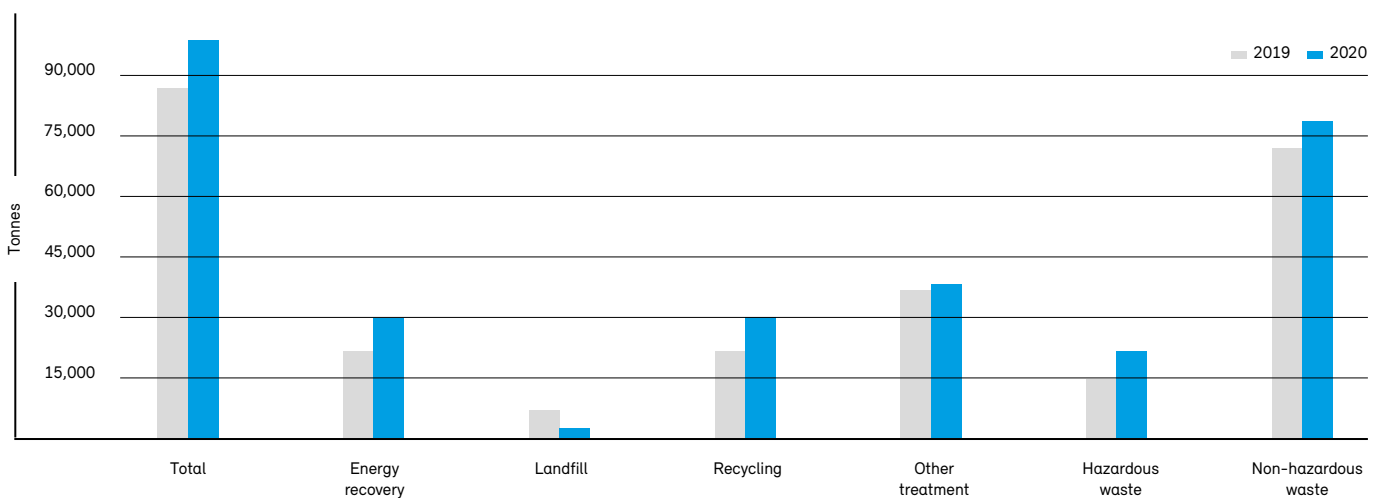
PlasticsEurope’s OCS task force, to:

- develop detailed and auditable requirements that every OCS signee must comply with;
- develop a joint EU-wide approach for auditing and certification against the OCS requirements; and
- update a self-assessment tool, combining the lessons from the Borealis and Total tool and the new mandatory requirements.

In 2020, the OCS requirements newly developed by Plastics Europe were used as the basis for audits of all Borealis polyolefin locations. The audits confirmed that Borealis’ locations in general live up to the requirements that will be the basis for the certification scheme. Nevertheless, there are still some gaps to be closed before all the locations can be certified against the soon to be released OCS standard.

Borealis made significant progress towards Zero Pellet Loss thanks to an upgraded state-of-the-art water treatment system in Schwechat, Austria. The EUR 6 million investment in a novel filtering system further reduces the risk of plastics loss. As there was no off-the-shelf technology available to suit the location’s needs and expectations, Borealis custom-built the solution, together with partners from universities and technology providers. The multi-stage filtering system uses the best available technology and is now fully operational.

**Fig. 24: Waste treatment comparison between 2019 and 2020 for all total waste, all treatments and the ratio of hazardous and non-hazardous waste <sup>1)</sup>**



<sup>1)</sup> Environmental data might be subject to minor adjustments due to ongoing audits and missing third-party data at the time this report was finalised.



## Outlook

The Group's priorities for 2021 are in line with those of 2020, with a focus on enhancing valorisation of sidestreams and research of industrial symbiosis. The purpose is to minimise the production of waste, consume fewer resources and better handle the end-of-life of Borealis' products.

For example, one of the areas of progress is a collaboration between producers and distributors of fertilizers in France to work on the design of packaging to facilitate their recycling, while not degrading their resistance and permeability for safety and quality.

In 2021, the revision of the BREF LVIC "Large Volume Inorganic Chemical" will start. It will define the new mandatory emission limits for Fertilizer plants. Preparation will also begin for the expected publication of the WGC BREF, including a gap assessment of plants versus best available technique, and defining study needs and the investment budget.

A major focus area will be to use the input from the water inventories and the water risk assessments as a basis for developing a water management strategy.

Fig. 25: Key environmental performance indicators 2016–2020 <sup>1)</sup>

Issue	Unit	2020	2019	2018	2017	2016
EU ETS CO <sub>2</sub> emissions	kilotonnes	4,050	4,625	4,302	4,210	4,600
N <sub>2</sub> O emissions	tonnes	1,128	1,351	1,330	866	1,207
Flaring performance	tonnes	42,543 <sup>2)</sup>	27,619	26,273	51,620	38,740
VOC emissions	tonnes	2,942	3,122	3,784	3,333	3,599
NO <sub>x</sub> emissions	tonnes	2,842	3,000	3,035	2,891	3,330
Dust emissions	tonnes	342	455	437	477	489
NH <sub>3</sub> emissions	tonnes	686	881	727	862	909
Energy consumption	GWh	22,340	25,831	24,476	22,400	24,100
Water withdrawal	m <sup>3</sup> (million)	755	750	675	752	724
Waste generation	tonnes	99,940	86,109 <sup>3)</sup>	53,713	61,398	49,036

1) Environmental data might be subject to minor adjustments due to ongoing audits and missing third-party data at the time this report was finalised. // 2) Severe upsets led to significant emergency flaring during shut-downs; further there was a lack of recycling capacity. // 3) The main reason for the increase is the integration of the plastics recycling company mtm plastics GmbH into the monthly group reporting definitions.

## Definitions

**EU Emission Trading Scheme (ETS) CO<sub>2</sub> emissions:** All greenhouse gas emissions (GHG) as per the European ETS expressed in CO<sub>2</sub> equivalents (since 2009 this indicator has replaced the reporting of direct carbon dioxide emissions).

**Nitrous Oxide (N<sub>2</sub>O) emissions:** Emissions of N<sub>2</sub>O (also known as laughing gas) are generated by the production of nitric acid in the fertilizer plants. N<sub>2</sub>O is a GHG with a global warming potential (GWP) 310 times higher than CO<sub>2</sub>.

**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. Total volatile organic carbon, expressed as C, includes methane.

**Nitrogen Oxide (NO<sub>x</sub>) emissions:** Emissions of all nitrogen oxides from all relevant sources, including flares. The emissions are quantified as NO<sub>x</sub>. When NO<sub>x</sub> measurements are not carried out, emission factors correlated to the fuel type and heating value are used.

**Dust:** Emission of dust from production of fertilizers.

**NH<sub>3</sub> (Ammonia):** Emissions of NH<sub>3</sub> from fertilizer plants, loading stations and water treatment of fertilizer locations.

**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.

# Our People

## AT A GLANCE

### Goals

The Group's primary people-related goals in 2020 were to:

- increase the focus on people mobility to ensure sufficient expertise for Borealis' growth projects and joint venture companies;
- increase the focus on workforce diversity and inclusion to ensure equality of opportunity for all employees to work to their full potential;
- implement an HR dashboard, which is a tracking tool within the HR Organisation, to support HR key performance indicators (KPIs) and service level agreements (SLAs);
- evaluate the 2019 People Survey results and develop action plans, in close cooperation with management and the Corporate Co-operation Council (CCC); and
- introduce a global onboarding process to provide a general framework of best practices across locations.

### Key Achievements and Results

During 2020, Borealis HR:

- successfully supported the Group in managing the COVID-19 pandemic, in particular by supporting remote leaders and local leadership teams to engage with their employees, introducing an electronic signature process and implementing national COVID-19-related measures required by authorities;
- implemented the HR Dashboard, which already shows increased efficiency in customer delivery by enabling the Group to follow up process implementation and initiate improvements;
- rolled out a new onboarding process to all locations to support line managers and other stakeholders with providing a high-quality onboarding experience to new hires and their line managers; and
- introduced a new recruitment system (the SuccessFactors Recruitment Module), including an online marketing platform and a recruitment tool to enable Borealis to better manage data privacy in light of the General Data Protection Regulation (GDPR) as well as placing the full recruitment process into only one system.

### Introduction

Borealis' People Strategy focuses on supporting Borealis' business strategy in terms of talent management and organisational development. To implement this strategy, HR continues to focus on five areas: employee engagement, diversity and equal opportunity, training and people development, process automation and fair remuneration. Achieving the Group's goals in these areas supports Borealis' profitability, helps to ensure high levels of employee engagement and satisfaction, contributes to operational excellence, encourages a strong health and safety performance and continuous improvement, and broadens the talent pool from which the Group can recruit.

### Borealis' Workforce

In 2020, Borealis employed 7,465 people (excluding DYM Solution Co., Ltd.). This compared to 7,397 in 2019. Of these, 98% worked for Borealis on a permanent basis (2019: 98%) and 2% were employed on a temporary basis (2019: 2%). This workforce was supported by 132 (159 in 2019) leasing employees who are not employed by the Group, primarily in Austria, (→ Figure 26, p. 85) and some 300 summer workers, job students, apprentices and interns.

### Organisational Structure

Borealis' HR organisation provides people-related support and guidance to leaders and employees throughout their careers. The needs supported by HR include talent acquisition and onboarding, organisational, cultural and individual development, change management, and compensation and benefits.

The Vice President (VP) HR, together with the Executive Board, identifies how HR can best support the Group's strategy and initiatives and, together with the HR leadership team, ensures that the Group has the relevant competences, tools and resources. The VP HR reports to the CEO. The Borealis HR Handbook sets out the Group's HR governance, which is managed through the Borealis People Policy and a number of HR Group procedures and operative instructions. These cover areas such as performance management, including bonuses and development, the Borealis Incentive Plan, succession planning and talent management. The Borealis Management System collates all these documents in one



system. Documents are reviewed and updated at least every three years or as needed.

The HR Services organisation strives to continuously improve the efficiency and effectiveness of the “Hire to Retire” process. The performance of these processes is followed up via key performance indicators (KPIs) and SLAs, integrated into the HR Dashboard. In 2020, the previous KPIs relating to recruitment, performance management, mobility, people engagement and data quality were retained, and SLAs relating to recruitment were added following the professionalisation of this function. The KPIs are part of the incentive goals of most HR employees.

The HR Business Partners team in all locations were vital in supporting operations and businesses in managing the COVID-19 crisis and ensuring that line managers and employees received the necessary support.

#### Improving the Human Resources Information System

Borealis’ HR administration is centrally managed using SAP as one platform. The system includes payroll, employee data, organisational management, time management, competence management, merit and long-term incentive plans. All employees’ data are documented in SAP, except for the employees of Borealis subsidiaries that do not use SAP. These are mtm plastics GmbH, mtm compact GmbH, Ecoplast Kunststoffrecycling GmbH, DYM Solution Co., Ltd. and all Rosier subsidiaries.

In 2017, Borealis HR began a three-year project to implement SuccessFactors – a cloud solution interfaced with the existing SAP core system – to help employees and leaders make better use of important HR processes. Following the launch of the Employee Profile, Learning, Succession Planning and Talent Management modules in 2018, the Performance module was introduced in 2019. The final module, Recruitment, went live in March 2020. In addition to implementing this module, HR has further developed automated HR processes, digitalising administration and measuring implementation using SLAs and KPIs.

#### Employee Engagement

The CCC is an important platform for dialogue between management and employee representatives. It is a forum for exchanging information between the works councils at the various Borealis locations, top management and owners. The CCC holds four meetings and one conference each year. In 2020, due to the COVID-19 situation, all CCC meetings were held virtually. The CCC Conference was moved to December and shortened to a five-hour virtual event, focusing on process safety. Borealis also has open forums and other opportunities for interaction at all of its locations, many of which were also moved to a virtual format in 2020. Common topics discussed at these events include the Group’s financial performance, different Group initiatives and other topics of interest.

One of Borealis’ four core values is Respect. This value includes respecting employees who wish to organise themselves and be represented by unions or works councils. In Borealis, 92.3% of all employees are covered by collective bargaining agreements. In some countries, no comparable agreement exists.

In 2020, the first Pulse Check was run to bridge the years between the Group’s bi-annual People Surveys. All employees were asked to answer seven questions which were selected from the People Survey questions. In addition, two questions related to COVID-19 and one related to the ownership change were added.

The Pulse Check showed an increase in employees’ engagement of 7%, with higher engagement seen in all business groups, business units and locations. This places Borealis above the average of the chemical industry benchmark. Borealis sees this increase, together with positive perceptions of the Group’s reaction to the challenges of COVID-19, as a clear sign of resilience in times of fast and disruptive change.

**Fig. 26: Total number of employees by employment contract (permanent or temporary) by gender & by region / and total number of employees by employment type (full-time or part-time) by gender & by region in 2020 <sup>1) 2) 3) 4)</sup>**

M ... male // F ... female	Gender	Permanent	Temporary	Total	Full time	Part time	Total
Total	M	5,843	83	5,926	5,465	461	5,926
	F	1,490	49	1,539	1,191	348	1,539
	Total	<b>7,333</b>	<b>132</b>	<b>7,465</b>	<b>6,656</b>	<b>809</b>	<b>7,465</b>
Austria	M	1,581	12	1,593	1,471	122	1,593
	F	460	14	474	315	159	474
	Total	<b>2,041</b>	<b>26</b>	<b>2,067</b>	<b>1,786</b>	<b>281</b>	<b>2,067</b>
Belgium	M	1,039	19	1,058	926	132	1,058
	F	257	9	266	166	100	266
	Total	<b>1,296</b>	<b>28</b>	<b>1,324</b>	<b>1,092</b>	<b>232</b>	<b>1,324</b>
Finland	M	689	21	710	697	13	710
	F	190	13	203	187	16	203
	Total	<b>879</b>	<b>34</b>	<b>913</b>	<b>884</b>	<b>29</b>	<b>913</b>
France	M	731	8	739	733	6	739
	F	134	4	138	127	11	138
	Total	<b>865</b>	<b>12</b>	<b>877</b>	<b>860</b>	<b>17</b>	<b>877</b>
Sweden	M	716	20	736	699	37	736
	F	223	9	232	224	8	232
	Total	<b>939</b>	<b>29</b>	<b>968</b>	<b>923</b>	<b>45</b>	<b>968</b>
Other Europe	M	813	2	815	669	146	815
	F	169	0	169	116	53	169
	Total	<b>982</b>	<b>2</b>	<b>984</b>	<b>785</b>	<b>199</b>	<b>984</b>
Non-Europe	M	274	1	275	270	5	275
	F	57	0	57	56	1	57
	Total	<b>331</b>	<b>1</b>	<b>332</b>	<b>326</b>	<b>6</b>	<b>332</b>
Borealis AG	M	110	4	114	112	2	114
	F	119	6	125	104	21	125
	Total	<b>229</b>	<b>10</b>	<b>239</b>	<b>216</b>	<b>23</b>	<b>239</b>

1) Total number: headcount (employees hired for more than 3 months, excluded: externals, trainees, apprentices, summer workers, long term absences, temporary employees less than 3 months). Permanent: employee contract without end date. Temporary: employee contract with an end date. Full-time: working 100% or work in a shift model (even if that does not sum up on average to the weekly working hours). Part-time: working only a certain percentage as agreed in an individual contract. // 2) Austria, Belgium, Finland, France and Sweden are our significant locations of operation with more than 500 employees. All other European production or sales locations are summarised under Other Europe. Non-Europe covers all production or sales locations outside Europe. // 3) All numbers as of 31.12.2020. // 4) Borealis AG is included in the Austrian figures and displayed separately.



Fig. 27: **Percentage of employees by employee category & by gender & by age in 2020** <sup>1) 2) 3)</sup>

in % M ... male // F ... female	Gender	<30	30–50	>50	% per gender per employee category
Senior leaders	M	0.00	32.86	50.00	82.86
	F	0.00	8.57	8.57	17.14
Managers	M	0.36	42.50	35.08	77.94
	F	0.00	15.01	7.05	22.06
Team leaders	M	2.32	51.96	35.00	89.29
	F	0.36	7.14	3.21	10.71
Experts	M	1.06	41.52	32.14	74.71
	F	0.49	17.05	7.75	25.29
Administration	M	7.18	33.46	20.44	61.09
	F	5.40	22.42	11.09	38.91
Blue collar	M	17.77	43.13	31.46	92.35
	F	1.98	3.76	1.91	7.65

1) Employee category grade refers to the internal role classification system (grade 1 to 21): Senior leaders: all line managers grade 16 and above. Managers: all line managers grade 12 to grade 15. Team leaders: all line managers 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. // 2) All numbers as of 31.12.2020 // 3) Numbers are correct to two decimal places in order to maintain granularity.

## Diversity and Equal Opportunity

Diversity and equal opportunity – in terms of gender, origin, religion, nationality or any other facet – are integral elements of Borealis' open culture and enrich the Group's working environment. Borealis strongly believes that diverse teams are more creative, resourceful and knowledgeable, and that they generate broader perspectives, ideas and options.

Diversity and inclusion (D&I) therefore have a strong impact on people and teams, improving engagement and job satisfaction and directly contributing to the Group's profitability and sustainability. In 2020, the D&I journey was kicked-off by thoroughly exploring the area of gender diversity, starting with collecting facts and figures, learning from research and beginning reflective discussions with diverse stakeholders to define actions that fit our purpose. Analysing Borealis' gender demographics shows that gender diversity is one area where Borealis is only in line with the industry average, with about 20.6% (20.6% in 2019) of the Group's employees being female. Borealis has

therefore begun to take a more structured approach to increasing gender diversity. From 2020 onwards, the Group has started to track the percentage of females in higher grades as well as the percentage of new female hires via the Group Scorecard. The Group has seen an increase in the number of female senior leaders, showing the positive effect of role modelling and driving gender diversity awareness top down. Since 2019, there is also female representation on the Executive Board, which provides a good example for the female population.

The People Survey results of 2019 showed no significant difference in engagement between males and females, which indicates a balanced and healthy foundation to build on.

At Group level, Borealis is continuously working to encourage more women to join its workforce and to take on more 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. The SuccessFactors Recruitment tool introduced in 2020 will improve the Group’s ability to measure which publishing channels attract external applicants, which will provide more insights to ensure that Borealis’ recruitment marketing activities are equally attractive for all genders. Borealis also encourages line managers to nominate women to take part in talent programmes.

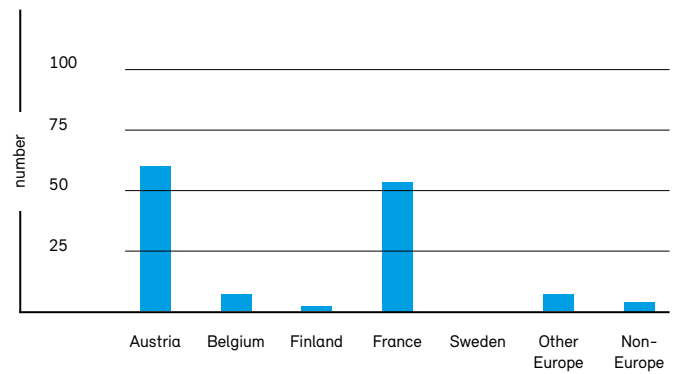
The Group’s gender diversity is a discussion topic at some CCC meetings and open forums. This includes discussions of how everyone can contribute to improving diversity and inclusion and what might help women looking to take a next career step, while respecting cultural differences. While gender diversity may be the starting point for Borealis’ D&I journey, it is not the final destination. From 2021 onwards, Borealis will take additional measures to increase diversity and actively strengthen an inclusive culture. Ultimately, the goal is to encourage and support all forms of diversity within the workforce (such as gender, age, religion, race, personality and skills), and create an environment where all employees are valued. This means having an inclusive culture in which the same conditions are in place for all people to feel supported and be successful.

**Training and People Development**

Borealis looks to routinely train and develop employees as well as external people who work with and for the Group. The Group’s ambitions require employees to understand how their work affects customer satisfaction and to have a zero-accidents mindset that puts safety first. Providing appropriate training for functional and workplace skills that are rooted in Borealis’ values, safety and ethics ambitions helps the Group to protect the health and safety of all employees, aim for job security, conduct business ethically and ensure production processes and products are safe. It also helps employees to develop their existing skills and to advance their careers within Borealis.

The Group identifies each employee’s training and development needs through its yearly performance management process. This results in line managers and employees agreeing on Individual Development Plans (IDPs). Employees with performance gaps have mandatory Performance Improvements Plans (PIPs). The catalogue of training courses made available

**Fig. 28: Total number of non employees per region in 2020**



Region	Number
Austria	59
Belgium	7
Finland	2
France	53
Sweden	0
Other Europe	7
Non-Europe	4
<b>Total</b>	<b>132</b>

to employees is then designed based on IDPs and PIPs. Line managers and management teams can also contact the Borealis Learning Network if a new training need is identified in their organisation. Borealis is continuing to upgrade its HR IT tools and technologies to gather more data and insights, resulting in a better understanding of what the organisation requires from training and development.

**Talent Management and Leadership Development**

Offering meaningful careers and ways to unlock people’s potential is essential for attracting and retaining a highly skilled, qualified and diverse workforce. The Borealis Talent Management Process focuses on attracting, identifying, promoting and developing potential for leadership and expert positions, using Leadership Talent Management Programmes and Expert Talent Programmes. In addition to global leadership programmes and courses, the key businesses have developed function-specific programmes. The Group sometimes offers outplacement programmes for employees who leave Borealis.



Fig. 29: **Percentage of new hires / turnover by gender & by region & by age in 2020** <sup>1) 2) 3) 4)</sup>

in %	% of new hires per total gender / per total region / per total age cluster	% of turnover per total gender / per total region / per total age cluster
<b>Gender</b>		
Male	5.57	2.23
Female	5.59	2.79
<b>Region</b>		
Austria	5.90	2.34
Belgium	7.18	1.84
Finland	2.52	1.21
France	7.18	1.75
Sweden	2.07	1.86
Other Europe	4.67	3.25
Non-Europe	14.16	11.14
<b>Age</b>		
<30	18.74	6.32
30–50	5.59	2.40
>50	1.10	0.91

1) The percentage of new hires is based on employee changes during the year in the respective category (e.g. 100 employees with 10 new hires is 10% new hires) // 2) Austria, Belgium, Finland, France and Sweden are our significant locations of operation with more than 500 employees. All other European production or sales locations are summarised under Other Europe. Non-Europe covers all production or sales locations outside Europe // 3) Turnover refers to employees who left Borealis voluntarily // 4) Numbers are correct to two decimal places in order to maintain granularity.

## Fair Remuneration

Fair remuneration means ensuring pay for performance, based on transparent performance evaluation. It supports strong business results by incentivising high-performing individuals and teams, increasing employees' retention and Borealis' reputation. Borealis is therefore committed to providing fair and transparent reward packages for all employees.

Every employee reward package at Borealis consists of a base salary and incentive compensation. The 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 the context of insights into national remuneration market data and developments. This approach ensures the reward package is competitive both internally and externally. Some reward packages for temporary employees are linked to the duration of their employment with Borealis.

Borealis' reward evaluation processes are gender neutral by design. Each grade in the Group's grading system has a country-specific pay range and the pay position of employees within this range is monitored at both country and Group levels to control overall pay equality. The Group shares this aggregated gender pay analysis with its employees, as legally defined in the various countries. Employees are also entitled to information about how their salary compares to the respective market.

Individual performance can influence the size of the reward package. 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 offered additional benefits aligned to local markets. These benefits and the level of subsidy, where applicable, are aligned with the Group's ambition to promote a healthy lifestyle, taking into account local market practice and national taxation rules. Benefits can therefore include subsidised lunches, access to a gym or subsidised gym membership, health and dental care insurance and company pension plans, on top of the national social security system.





**Fig. 30: Percentage of total employees by gender and by employee category who received a regular performance and career development review in 2019 <sup>1)</sup>**

in %	Female	Male
Senior leaders	100.00	100.00
Managers	96.72	97.30
Team leaders	96.93	94.60
Experts	97.00	98.00
Administration	84.05	85.55
Blue collar	87.93	83.17

1) As the performance and career development cycle ends with 31 March, figures are only available from the previous cycle (2019). // 2) Numbers are correct to two decimal places in order to maintain granularity.

Borealis performs a yearly equal pay analysis to identify focus areas for improvement. Borealis’ owners may also provide additional focus areas through the Remuneration Committee, which assists the Supervisory Board in reviewing and approving Borealis’ compensation approach. The Pension & Benefits Council, which is led by the CFO, sets the overall principles for employee benefit programmes, monitors their implementation across the Group and decides on significant changes to them. Based on the output from the Pension & Benefits Council and the Remuneration Committee, the Executive Board then gives HR a mandate to design new concepts for remuneration and to propose changes when needed.

**Data Protection**

Borealis ensures it protects employee data by following its data protection procedure. As part of this, the Group has two Operative Instructions for HR.

The first Operative Instruction covers HR Authorisation and defines, for example, who has access to which HR data or, how to request authorisation and approval workflows. The 8th EU Directive requires Borealis to monitor critical authorisations (such as salary data) and ensure segregation of duties. This means, for example, that the same person cannot change salary levels and run the payroll. To meet these obligations, Borealis has defined self-regulating actions.

The second instruction covers HR Data Protection, which includes tools to ensure compliance with GDPR, an EU law on data protection and privacy. The instruction contains definitions of purpose limitation (meaning that personal data collected and stored shall only be used for specific purposes), data minimisation, data accuracy, storage limitation, integrity and confidentiality, transfer of personal data to third parties, the right to be forgotten, portability of data and consent management. HR is in close alignment with the Group Data Protection Expert in the legal department to regularly follow up on data protection aspects and ensure ongoing training for relevant stakeholders. “Trust Arc” is the Group’s guiding tool for documentation of GDPR relevant processes.

**Outlook**

- The Group’s HR goals for 2021 are to
- continue the digitalisation journey in all HR transactional areas to ensure efficiency and data quality;
  - review the performance management system to further empower pay-for-performance and continuous dialogue with the employees;
  - implement a social media strategy in Talent Acquisition and further develop the employer brand;
  - conduct the next People Survey, with the aim of again achieving an industry leading participation rate of 85%; and
  - continue HR’s close alignment with the legal department, especially with the Group Data Protection Expert, to regularly follow up on data protection aspects, provide ongoing training for relevant stakeholders and further develop the guiding tool for documentation.



# Corporate Governance

## AT A GLANCE

### Goals

- Borealis' corporate governance goals for 2020 were to:
- successfully pass the surveillance audits required by ISO 9001, ISO 14001 and IATF 16949, to achieve compliance with the higher ISO 50001:2018 standard at all European locations and to include the North American locations Rockport, NJ, and Taylorsville, NC, into the Group matrix certificate for ISO 9001;
  - achieve certification to the new ISO 45001 standard in the matrix for the locations at Beringen and Kallo (Belgium), Monza (Italy) and Vienna (Austria);
  - achieve certification to the IATF 16949 standard for the Compounding site in Taylorsville, NC; and
  - achieve recertification to ISCC EU at Stenungsund (Sweden) and ISCC PLUS at Beringen and Kallo (Belgium) and achieve certification to ISCC PLUS at Porvoo (Finland), Schwechat (Austria) and Stenungsund (Sweden).

### Key Achievements and Results

In 2020, Borealis:

- successfully passed all surveillance audits required by ISO 9001, ISO 14001 and OHSAS 18001, achieved compliance with the higher ISO 50001:2018 standard at all European locations and integrated the US locations Rockport and Taylorsville into the Group matrix certificate for ISO 9001;
- maintained OHSAS 18001 certification for another year, as a result the standard's validity period being extended due to the COVID-19 pandemic;
- successfully passed all surveillance audits for IATF 16949 in all locations serving Automotive customers and achieved initial certification to the IATF 16949 standard for the Compounding site in Taylorsville;
- recertified according to ISCC EU at Stenungsund and ISCC PLUS at Beringen and Kallo, and achieved initial ISCC PLUS certification at Porvoo, Schwechat, Stenungsund and Burghausen; and
- successfully steered Group governance by maintaining one integrated Management System, despite the organisational split into the Fertilizer, Melamine and Technical Nitrogen Products (TEN), Polyolefins (PO) and Hydrocarbons & Energy businesses.

### Introduction

Good corporate governance is essential for gaining and retaining the trust and respect of shareholders and other stakeholders interested in or impacted by Borealis, including employees, customers, suppliers, governments, capital markets and the general public.

Borealis' approach to governance is documented in the Borealis Management System (BMS), which sets high standards of professional and personal conduct and assures Group-wide compliance with these standards. Addressing risks and opportunities is an integral part of the management system to ensure the Group continuously improves and identifies mitigating actions where needed.

The Group's governance is supported by compliance with industry-accepted standards. Being certified to standards such as ISO provides independent confirmation that Borealis applies these best practices in its daily activities. Embedding ISO standards also requires Borealis to continuously improve, so it generates more value for customers and other stakeholders.

### Corporate Governance Structure

The Supervisory Board governs the Borealis Group and consists of members of OMV and Mubadala, Borealis' two shareholders. The Supervisory Board currently comprises the chairperson, the vice-chair and three additional members. It has established Audit and Remuneration Committees and delegated the respective responsibilities to those sub-committees. The Supervisory Board met five times in 2020, while the Audit Committee met three times and the Remuneration Committee met twice.

The Supervisory Board appoints the members of the Borealis Executive Board, who manage Borealis' business activities and lead their respective areas of responsibility. In January 2020, Borealis created an Executive Committee to drive its ambitious strategic agenda. The Committee meets monthly, replacing the previous monthly meeting of the Executive Board, and focuses on Borealis' growth portfolio and transformation journey as well as reviewing the strategy and its implementation. The Executive Committee is composed of the Executive Board members, together with the VP

Strategy & Group Development, VP Human Resources & Communication and the Chief Legal & Procurement Officer.

**Borealis Management System**

Borealis’ core values (Responsible, Respect, Exceed and Nimblivity™) are supported by five corporate governance principles. These principles ensure a common understanding of leadership throughout the Group and establish effective organisational structures and control. The principles are that:

1. Borealis is managed as ONE cross-cultural Group;
2. the Borealis Executive Board steers the Group through directional guidance and empowerment of its people;
3. Borealis is steered by centrally organised functions and businesses;
4. Borealis promotes a performance culture based on clear accountabilities for delivery; and
5. Borealis’ leaders follow explicit processes and pursue transparent and effective decision-making.

The values and governance principles run through the Group at all levels and are the foundation for the BMS. Following the consolidation of Borealis Group into OMV Group, which was effective from 29 October 2020, relevant BMS documents have been updated in line with OMV’s governance principles.

**Group Policies**

Borealis works as a company and thus guide subsequent governance documents. All employees must adhere to the policies in their day-to-day activities.

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

Each Group Policy is owned by the CEO or Chief Financial Officer (CFO) and is issued by the Executive Vice President (EVP), (Senior) Vice President (SVP) or Director responsible. 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 Authority Schedule defines how authority is delegated in all business and functional areas and establishes the approval levels for senior management in key processes.

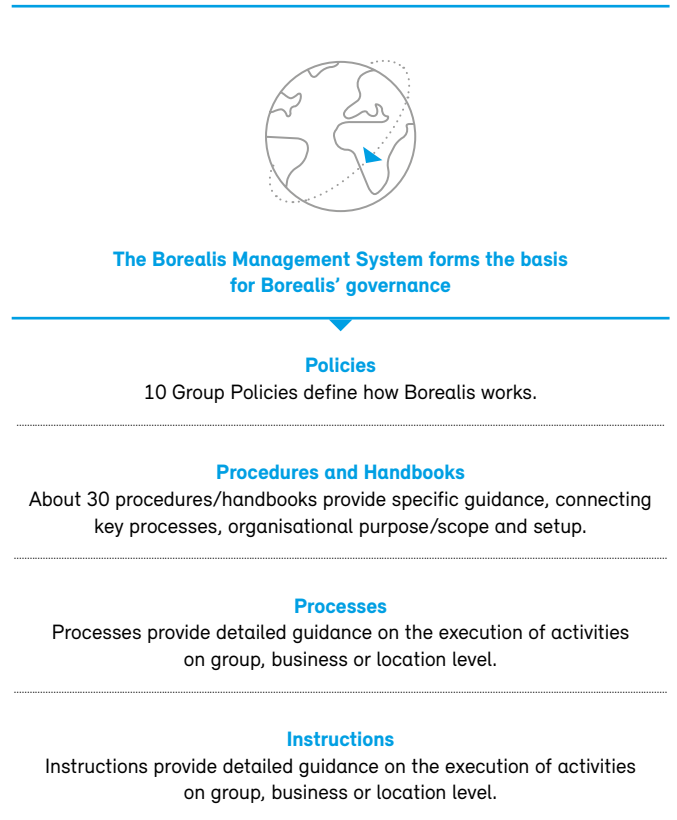
**Secondary BMS Documents and BMS Setup**

In addition to the Group Policies, the BMS encompasses procedures and handbooks, process descriptions, operative instructions, and committee and meeting charters.

Below the Group Policy level there are about 35 procedures and handbooks. These provide specific guidance, describe key processes and explain the purpose, scope and setup at a departmental level. The subsequent process descriptions and operative instructions have a more operative focus and provide detailed guidance on the execution of activities at a Group, business or location level.

The BMS has both Group and location dimensions, which together document the complete way of working in Borealis.

**Fig. 31: The Borealis Management System**





The Group BMS is managed in a centrally controlled document management database. It applies to all locations and, when decided by the Executive Board, to the respective Borealis affiliates. The policies and governance documents in the Group BMS are revised at least every three years. Local BMS documents for a particular location are written in the local language to ensure local employees fully understand them. Controlled documents in the local BMS are revised at least every five years.

### Committees

For particularly important social and environmental aspects, Borealis has set up committees in addition to the Executive Board to provide additional governance and ensure continuous improvement in these areas. These committees are cross-functional and are overseen by Executive Board members. Notable examples of these committees are:

- The Borealis Responsible Care Committee, which comprises all the Executive Board members and is sponsored by the CEO and chaired by the Health, Safety, Environment & Quality (HSEQ) Director. The committee oversees implementation of the Group's Responsible Care Policy and programmes and monitors overall health, safety, energy and environmental performance against key performance indicators. The committee also assesses any serious health, safety or environmental incidents to help avoid future risk to human safety and the environment.
  - chapter Occupational Health & Safety, p. 59
- The Product Stewardship Council
  - chapter Product Safety, p. 57
- The Quality Committee, which is chaired by the CEO. The committee sets the Group's quality management priorities and drives implementation of all quality management programmes and initiatives. It also evaluates the BMS's effectiveness and efficiency each year during the management review and develops continuous improvement actions. In particular, the committee discusses market requirements, customer feedback and changes to industry standards as input for improvement programmes.

### Ensuring Compliance with the Borealis Management System

Compliance with the Borealis Management System (BMS) is monitored at multiple levels and by various stakeholders:

- Process owners across the organisation use performance indicators to continuously monitor the effectiveness and efficiency of their respective processes. Processes are also reviewed regularly through internal audits.
  - Internal Control System and Internal Audits, p. 92
- The BMS is reviewed annually at location level by the location leadership teams and at Group level by the Executive Board as part of the Management Review.
- In addition to audits by external certification bodies and governmental institutions, 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 of continuous improvement initiatives. In 2020, all mandatory third-party audits were successfully passed, some of which were conducted remotely. Voluntary second-party audits, such as customer audits, were pursued as requested. The total number of audits was lower than in 2019 due to the COVID-19 pandemic travel restrictions.

### Managing Customer Complaints

The Group has a tightly integrated set of controls which operate before, during and after production, for example, while supplying the products to the customer. Despite these controls, customers might still not be fully satisfied with Borealis' products and services. In such cases, Borealis uses a formalised customer complaint handling process, recognising that effective complaint handling can enhance its reputation, customer relationships and customer satisfaction, even when it has initially not lived up to the customer's full expectations. Each complaint is taken seriously, registered, processed and seen as an opportunity to learn. The information obtained through the complaint handling process therefore helps Borealis to improve its products, services and processes. The Group also uses regular customer satisfaction surveys as a source of information for continuous improvement.

### 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 the 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.

Internal controls are defined for core processes and require control owners to complete self-assessments. Borealis has an independent Internal Audit function, which supports and monitors these self-assessments to ensure compliance, while external auditors assess the effectiveness of the internal controls. Borealis follows the guidelines set by the Institute of Internal Auditors.

Internal Audit is 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 proposed by Internal Audit. All audit results are reported to and discussed by the Audit Committee.

In 2020, Internal Audit performed more than 20 audits, special investigations and internal control reviews for key processes. The audits covered all business groups as well as Group functions. Audit areas encompassed: compliance; operations; strategic and financial topics including risk management, compliance, ethics and management control; procurement; strategy execution; and innovation. Internal Audit also conducted prevention, risk management and process-safety-related audits at Borealis' locations.

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

### Risk and Opportunity Management

Borealis is committed to proactive and effective risk management. Its approach is based on the core objectives of identifying, assessing and managing risks that could affect the performance of any part of its operations and gaining a better understanding of how the explicit consideration of risk may affect the strategy. Risk management therefore contributes to achieving Borealis' long-term strategy and short-term goals, and it is designed to enrich management dialogue. Risk management also enhances Borealis' enterprise resilience, which is the ability to anticipate and respond to change and enable the organisation to identify factors that affect performance and lead to a need to shift the strategy. This process, known as Enterprise Risk Management (ERM), is driven by Internal Audit.

Both non-financial and financial risks are identified, assessed and reported through the Group-wide ERM process. The assessment of financial, market, operational, tactical, strategic and reputational risks, in addition to compliance risks, helps the Group to assess business opportunities systematically.

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. The Risk Coach Network, which is a cross-functional committee chaired by the CFO with senior representatives from across the Group, ensures that the ERM process effectively captures and manages material risks across Borealis.

The Group's risk management process ensures that all parts of Borealis 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 at a Group-wide level and consolidated to produce the Group's overall risk landscape. Each quarter, Executive Board members review these key risks, validate the Group's risk tolerance levels and risk appetite, monitor the implementation of mitigating actions and ensure they are integrated into strategic planning. The process is facilitated by a Group-wide IT system, which supports the established individual process steps: risk identification, risk analysis, risk evaluation, risk treatment, reporting, and risk review, through continuous monitoring of changes to the risk profile.

While every Borealis employee is responsible for managing risk within their own areas 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 its mitigating actions. The Supervisory Board delegates some of these responsibilities to the Audit Committee.

When evaluating risks, Borealis also assesses any relevant impact Borealis activities might have on the Environment, Society and Governance (ESG). For details on the management of climate risks, please refer to the section on the Task Force on Climate-related Disclosure (TCFD) → chapter Energy & Climate, p. 68. Risks that Borealis poses on non-financial matters (according to the NaDiVeG) are summarised in → chapter Sustainability Management, p. 30.



### The Three Lines of Defence

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. The approach ensures that risk management is embedded in Borealis’ daily business rather than being a standalone process, and that it is a key part of the Group’s decision-making process, for example, for investments and capital allocation.

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.

### Responsible Care®

Borealis’ determination to control sustainability risks is stipulated in the Group’s Responsible Care Policy Statement, which sets out Borealis’ aim to be a recognised leader in Responsible Care → Infobox Responsible Care, below. The statement is the basis for all of Borealis’ activities and the development of processes in areas such as occupational health and safety, energy and environmental management, process safety, product stewardship and others, with the aim of achieving world-class performance in all these aspects.

The Group follows the legal and other requirements to which it subscribes, or looks to exceed them when they do not meet the Group’s standards. Borealis is also committed to advancing sustainable development along the value chain, prioritising innovative, value-creating solutions according to the principles of Product Stewardship. The Group has a Responsible Care management system, based on continuous improvement and verification of its performance, and openly discusses Responsible Care issues with its stakeholders to further promote health, safety and the environment and to save energy along the value chain.

## Responsible Care®



**Responsible Care®**  
OUR COMMITMENT TO SUSTAINABILITY

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:

- Ensuring it has 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 life cycle-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.

# Ethics & Compliance

## AT A GLANCE

### Goals

Borealis' ethics and compliance goals are to:

- ensure that everyone at Borealis is treated with respect and dignity and in accordance with all applicable laws and legal requirements;
- ensure that external business partners are carefully checked, so Borealis is assured that they behave ethically and treat their employees with respect and in accordance with applicable legal requirements;
- ensure that Borealis, its suppliers and other business partners strictly comply with applicable laws as well as: the Ten Principles of the United Nation's Global Compact; the United Nation's Guiding Principles on Business and Human Rights; the International Labor Standards of the International Labor Organization; and the health, safety and environmental standards of Responsible Care® (→ chapter Corporate Governance, p. 90);
- create awareness, convey the message of ethics and compliance and provide tailored ethics training to the entire Group; and
- promote a culture of speaking up and raising concerns, and make sure that Borealis professionally investigates and handles each and every report.

### Key Achievements and Results

During 2020, the Group:

- implemented a Know Your Business Partner IT system to continuously check and monitor all its business partners;
- established, updated and published new group policies relating to Private Use of Company Assets, the UK Modern Slavery Act and Third Party Due Diligence; and
- conducted compliance conferences, training sessions and workshops, in particular a Virtual Ethics Conference on 7 October 2020 with more than 170 participants, and a General Data Protection Regulation (GDPR) workshop in June 2020.

### Introduction

Maintaining the highest standards of integrity is essential for securing and maintaining the trust of Borealis' customers, suppliers, employees, shareholders and other key stakeholders, and for protecting the Group's reputation. Failure to meet its ethical and compliance obligations could expose Borealis to the loss of stakeholder trust and reputational damage as well as to fines, legal claims, loss of business, contracts or licenses or even the imprisonment of management and employees involved. An unethical or non-compliant culture can also affect employees' engagement, job satisfaction and emotional well-being. This in turn could affect Borealis' efficiency and profitability.

Borealis' commitment to ethical business conduct is strongly reflected in its core values of Responsibility, Respect, Exceed and Nimblicity™. The Ethics Policy (Code of Business Conduct) is the Group-wide standard for ensuring Borealis has an ethical culture and complies with all applicable laws. The main areas covered by the Ethics Policy are ethical principles, anti-corruption, business and personal integrity, compliance with competition laws and data privacy.

### Organisational Structure

The Compliance & Ethics function has both preventative and controlling roles. It looks to prevent infringements of laws, ethical principles and compliance matters, and to mitigate risk, react to issues and implement lessons learned. The function is headed by the Group Compliance & Ethics Officer, who reports to the Chief Legal Officer and also has a reporting line to the Audit Committee, which receives an annual report on compliance and ethics issues. The Group Compliance & Ethics Officer is supported by an Ethics & Compliance Manager and a network of more than 90 Ethics Ambassadors. The Ethics Ambassador network is a key tool for promoting and strengthening Borealis' ethics culture. The network has global coverage, with one ambassador at almost every location and all functions covered.

Borealis' Compliance & Ethics function has regular exchanges of information with its counterparts at the Group's owners, OMV and Mubadala. In addition, Group Compliance & Ethics regularly provides information and updates to Borealis' Executive Committee and the Borealis Audit Committee each quarter.



### Borealis Ethics Policy (Code of Business Conduct)

The Borealis Ethics Policy applies to all Borealis employees, managers and temporary workers, and is accessible to all employees and to the public on Borealis' website.

Borealis' contractors and other business partners are asked to adhere to the Ethics Policy or to have their own policies which are of a similar standard. Borealis has also created a special version of the Ethics Policy for external business partners. In addition to the Ethics Policy, eligible Borealis suppliers must adhere to the Responsible Sourcing Policy, which was launched in 2017. This 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 (→ chapter Procurement of Raw Materials, Packaging and Technical Supplies, p. 102). Key areas covered by the Ethics Policy are:

#### Corruption and Bribery

Before entering into a relationship with business partners from countries which are rated as high-risk in Transparency International's Corruption Perception Index, Borealis conducts a compliance clearance review. This is supported by an IT 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 all other cases, Borealis will not enter into any business relationship or will conduct further thorough due diligence to clarify any concerns.

Borealis' anti-corruption and anti-bribery rules include not accepting or tolerating any kind of facilitation payments. The Group 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 be reasonable and appropriate, and must have a legal and reasonable business purpose.

#### Human Rights

Borealis does not tolerate any form of harassment, bullying, discrimination, disrespect, exploitation of a person's vulnerability or dependency, or any other violation of human rights. Borealis expects all its suppliers, customers and other business partners to strictly comply with human rights laws.

Borealis has an internal Operative Instruction in place to comply with the requirements of the UK Modern Slavery Act.

#### Competition

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

#### Data Privacy

Borealis must treat all personal information relating to its employees and business partners sensitively, confidentially and in line with legal requirements. The Group takes its obligations under GDPR and any other applicable data protection laws seriously and takes care to prevent unauthorised disclosure. Certain employees may, as part of their role, legally handle personal information about other employees or third parties. Those employees receive specific training on what is required from them in relation to such data.

Borealis expects all employees encountering personal data to treat it sensitively and in accordance with the law, no matter the context.

#### Business Partners

Borealis expects all its external business partners to apply the same or similar compliance and ethics standards as Borealis. Borealis carefully reviews its external partners before engaging with them and continues to monitor them during its partnerships with them.

#### Activities 2020

##### Know Your Business Partner Project

In 2020, Group Compliance & Ethics successfully implemented a Know Your Business Partner (KYBP) project, helping to ensure ethical conduct by external partners and vendors across the Group. By implementing the KYBP project via the Securimate compliance solution for third-party management, Borealis has reached a new level of compliance due diligence related to its external partners.



### Policies and Processes

Group Compliance & Ethics continuously monitors and seeks to improve Borealis' compliance-related policies and procedures. In 2020, it established and published a new internal instruction for private use of company assets and updated several existing policies relating to whistle-blowing, the UK Modern Slavery Act and Third Party Due Diligence. In addition, Borealis adopted the OMV Group Policies relating to Issuer Compliance and Data Protection.

### Ethics & Compliance Performance

Borealis, to the best of its knowledge, was not involved in any material violations of anti-corruption, anti-trust or competition law, human rights or data privacy restrictions during 2020. 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.

### Internal Communication

Group Compliance & Ethics sent out quarterly ethics newsletters to the entire workforce. The newsletter includes important ethics-related updates and information, and anonymised information about substantiated misconduct. Group Compliance & Ethics also published several articles and interviews with stakeholders, including with Borealis' CEO Alfred Stern.

### Ethics Conference

Group Compliance & Ethics organised and hosted a number of conferences, workshops and tailored training sessions. Most importantly, on 7 October 2020 the team hosted a virtual Ethics Conference with more than 170 participants from Borealis, its shareholders OMV and Mubadala, and its partner companies ADNOC, NOVA Chemicals and Borouge. The agenda included a group session with Borealis Ethics Ambassadors; discussion of ethics at Borealis with members of the Borealis Ethics Council; and speeches from Borealis' CEO Alfred Stern, Borealis Compliance & Ethics Officer Gernot Kriegbaum, Thomas Hölzl - OMV Head of Compliance, Shahzad A. Khan - Mubadala Head of Ethics & Compliance, and Stephen Shergold from the law firm Dentons.

### Other Events and Workshops

Group Compliance & Ethics conducted a Data Privacy conference for colleagues in Human Resources (HR), with more than 80 participants, as well as several compliance workshops for newly acquired companies and other teams which were confronted with compliance incidents.

### Ethics Training

Borealis provides regular training in promoting its Ethics Policy, which is based on the principles of honesty, integrity, working together, respect for each other, accountability, and health, safety and the environment.

Since December 2018, Borealis has provided e-learning for employees through its service provider, Learn Research Network Limited (LRN). LRN is one of the global market leaders for e-learning solutions. The training plan is illustrated in figure 32, p. 98. In 2020, more than 9,500 training sessions were completed by Borealis employees.

Borealis also conducted 29 tailored classroom or virtual training sessions for 558 employees. Training sessions were provided by the Group Compliance & Ethics team, Legal and Ethics Ambassadors.

Training on human rights issues is part of every classroom training and Code of Conduct e-learning training. Topics covered include non-discrimination, respect, fair treatment and data protection.

### Human Rights Impact Assessment

During Q4 2020, a human rights and social impact assessment was started and will be completed in Q1 2021 in all Borealis production locations.

### Whistleblowing and Speak Up Campaign

Borealis' Ethics Policy encourages employees to report any unethical behaviour. To file a report, employees can contact their manager, HR, local Ethics Ambassador, the Compliance & Ethics team or a dedicated ethics hotline, which enables individuals inside and outside Borealis to report witnessed or suspected violations of the Ethics Policy. Reports can be anonymous, in which case Borealis guarantees to respect the anonymity of reporters and will not investigate their identities. Borealis does not accept any retaliation against any reporter of alleged compliance incidents. Once a report is received, the Group follows an investigation and disciplinary procedure to ensure potential ethical breaches are thoroughly, confidentially and professionally investigated and that there is appropriate action in any cases of substantiated misconduct.

In support of the Ethics Policy, Borealis continuously promotes "speaking up" to encourage employees to report any actual or suspected ethical or compliance breaches. In 2020, Group Compliance & Ethics received more than



Fig. 32: E-learning schedule

Training title	Target group	Training description	Frequency
Annual Certification	All white-collar employees	Commitment by each white-collar employee that the Ethics Policy is understood and followed	Annually
Code of Conduct	All employees	Principal rules of the Ethics Policy	Annually
Combating Bribery in Business	Managers, Sales & Procurement	Anti-corruption requirements	Annually
Data Privacy & Safeguarding Information	All white-collar employees	GDPR and data security requirements	Every second year
Anti-Trust & Competition Law	Managers, Sales & Procurement	Legal requirements for complying with competition and anti-trust laws	Annually
Preventing Harassment in the Workplace	All employees	Training to ensure a work environment that is characterised by mutual courtesy and respect	Every second year
Trade Compliance	Managers, Sales, Procurement, Tax & Customs	Sanctions, embargoes and trade control requirements	Every second year
Issuer Compliance	All Borealis managers and employees who have access to Inside Information	Legal requirements related to the EU Market Abuse Regulation (MAR)	Annually
Ethical Leadership	All Borealis managers	Line managers are trained on how to create an ethical culture in their teams	Once for every manager

65 reports, of which 21 cases were investigated. 7 of these investigations substantiated or partially substantiated misconduct, 12 did not substantiate misconduct and two are ongoing.

## Outlook

### Integration and Implementation of OMV Ethics Requirements

Due to OMV's acquisition of a majority shareholding, Borealis has become part of the listed OMV Group and therefore strictly needs to comply with the EU Market Abuse Regulation. Compliance & Ethics will continue to implement and monitor new processes in accordance with OMV's Compliance department. Most importantly, Compliance & Ethics needs to create awareness and continuously provide training related to issuer compliance.

### Ethical Leadership Workshops

In 2021, Group Compliance & Ethics will conduct in-person workshops on ethical leadership for Borealis' managers. In the first phase, the workshop will be mandatory for all newly promoted line managers and in the second phase, the workshop will be provided for all other managers.

The workshops train leaders to create and enhance an ethical culture in their teams, based on honesty, openness and respect.

- Starting in January 2021, the Group Compliance & Ethics team will conduct a Group-wide competition law and anti-bribery maturity assessment, with support from the law firm Dentons.
- In 2021, Borealis will adjust its Ethics Policy, whistleblower instruction and human rights requirements in accordance with OMV's Group standards.
- Group Compliance & Ethics plans to host another Ethics Conference in 2021. Depending on the COVID-19 situation at the time, the team will either conduct it virtually or in-person.
- The team will continue to integrate Borealis' newly acquired companies from an ethics and compliance perspective.

# Procurement

## Procurement of Feedstock, Electricity and Utilities

### AT A GLANCE

#### Goals

Borealis' procurement goals for 2020 included:

- continuing to enhance the Group's profitability through careful supplier selection;
- supporting the development of the circular economy through dedicated procurement functions and activities;
- continuing and accelerating the Group's renewable electricity strategy and its energy risk and trading tools; and
- supporting the Borealis Climate Strategy by accelerating energy efficiency and a carbon neutrality roadmap.

#### Key Achievements and Results

In 2020, Borealis:

- signed its first renewable power purchase agreements (PPA) in Finland, Belgium and Sweden for a total of 380 GWh;
- made its first investment in solar with Borealis Quentis material in Italy (Monza);
- achieved start-up of the Bionerga waste-to-energy plant, which will supply the Beringen, Belgium, plant with 100% renewable steam and approximately 70% renewable electricity; and
- reached agreements including a strategic co-operation with Neste on renewable feedstock for Porvoo, Finland, and on chemically recycled olefins (ReOil) with OMV in Schwechat, Austria, enabling Borealis to accelerate circularity and renewables in plastics production.

#### Introduction

To manufacture and deliver its products, Borealis purchases and sources feedstock, electricity and utilities, such as steam, nitrogen and boiler feed water.

The products and services the Group procures have an important influence on its business performance, including critical areas such as safety, environmental impact, quality and customer service. The Group therefore looks to carefully manage its procurement activities to optimise performance in these areas. Borealis does this by developing the right procurement strategies for the individual product

and service categories. The Group also looks to further improve the reliability of its feedstock supply by approving alternative and equivalent sources.

#### Sourcing of Feedstock

##### Olefins and Polyolefins

Borealis sources non-renewable hydrocarbons feedstock, such as naphtha, butane, propane and ethane, and converts them into ethylene, propylene and a range of co-products through its olefin units.

The Group's main focus is on the quality, availability and value of feedstock. Global sourcing of feedstock is crucial as it gives the Group a more diversified supplier base, so it can obtain the right quality, remain competitive and avoid supply disruptions. A dedicated team of feedstock traders and product managers is responsible for sourcing the whole Borealis feedstock range. Feedstock and olefins required for Borealis' olefins and polyolefin production plants are either sourced from Borealis' shareholders OMV and Mubadala or purchased globally via strategic long-term supply agreements, short-term contracts and spot trading, covering deliveries from the US, Russia and Europe.

The cost of feedstock is highly linked to swings in the crude oil price. Borealis therefore implements hedging strategies and ensures it develops and maintains a high-performing commercial sourcing team. The Group actively screens specific new markets, maintains its market knowledge through report subscriptions and by attending industry and market conferences, and engages with industry partners to share best practices. Borealis is a member of a number of industry groups, such as the European Chemical Industry Council's (CEFIC) Lower Olefins Sector Group, and takes part in industry gatherings such as the European Petrochemical Association and the European Petrochemical Luncheon.

During 2020, Borealis enhanced its strategy for renewable feedstock sourcing by achieving mass-balance certification for all locations and securing renewable feedstock deliveries in several locations.



### Fertilizer, Melamine and Technical Nitrogen Products (TEN)

Borealis' Fertilizer, Melamine and TEN business consumes natural gas for its production sites as a primary feedstock. Natural gas is mainly consumed through its conversion to gaseous hydrogen through steam and is needed to produce ammonia.

### Performance 2020

In 2020, the Group sourced 2,010 kilotonnes (kt) of feedstock for its olefins production units (namely the crackers and the propane dehydrogenation (PDH) unit) and 1,932 kt of olefins for its polyolefin units. The Group also sourced 14,034 GWh of feedstock for fertilizer production, which includes natural gas as a raw material for the production of ammonia.

In 2020, an incident in the cracker in Stenungsund, Sweden, led to an outage of eight months. The Group was therefore forced to source monomers from other suppliers to keep the downstream units running, which was successfully managed.

Deliveries linked to the long-term supply agreement for US-sourced ethane continued in 2020. This contributed to the competitiveness of Borealis' European cracker assets, although the light feedstock advantage was reduced in 2020 due to the lower oil price environment. Borealis also started cracking propane in Porvoo, Finland, further increasing feedstock flexibility.

In light of the new PDH plant at Kallo, Belgium, which is planned to start operating during second quarter of 2023, Borealis has begun to expand its sourcing of feedstock on a more global basis. During 2020, Borealis increased its efforts to source liquefied petroleum gas from the US, including for the Porvoo location, driven by lower Russian volume availability and the possibility to source bigger vessels at more advantageous prices from the US.

Borealis' strategic cooperation with Neste achieved another milestone in 2020, with Borealis supplying Covestro with 1,000 tons of phenol made from Neste's renewable hydrocarbons. Neste produces these ISCC Plus certified hydrocarbons entirely from renewable raw materials, such as waste and residual oils and fats. Borealis then converts the hydrocarbons into ISCC Plus certified phenol which is finally used by Covestro to produce high-performance plastic polycarbonate. The renewable phenol supplied by Borealis replaces part of the phenol previously manufactured from fossil resources.

Fig. 33: Feedstock sourced for production of olefins and polyolefins (kt) 2016–2020

kt	2020	2019	2018	2017	2016
Feedstock for Olefins	2,010	2,934	2,558	2,388	2,779
Olefins for polyolefin production	1,932	1,520	1,420	1,382	1,396

Fig. 34: Feedstock sourced for production of fertilizer, melamine and TEN (GWh) 2016–2020

GWh	2020	2019	2018	2017	2016
Feedstock for fertilizer production	14,034	14,777	13,117	13,887	14,382

### Sourcing of Electricity & Utilities

#### Polyolefins and Olefins

Borealis sources electricity and utilities needed for its production processes. The Group's electricity contracts are generally spot indexed and contracted on a one to five-year basis. Commodity pricing risk is managed using financial risk instruments.

The Group is actively scouting for industry alliances to prepare for a carbon neutral future and has an aspiration for 50% of its electricity use to come from renewable sources by 2030 (→ chapter Energy & Climate, p. 68). In addition to the sustainability benefits, electricity and utilities represent an important cost for Borealis and renewable sources offer potential cost savings for the Group.

During 2020, Borealis signed its first PPAs to source renewable electricity on a longer-term basis in Finland, Belgium and Sweden. In Finland, the Group signed two PPAs with Ilmatar Energy, a wind farm operator and developer. The agreement was made jointly with Neste, Borealis' long-term partner in Porvoo, and will provide the Group with more than 20 megawatts of wind power

over the next decade. In Belgium, Borealis signed a PPA with Eneco (a Dutch energy supplier) to acquire renewable electricity for the Group's production plants in Belgium. The electricity will be generated by a newly built offshore wind farm. Borealis also approved investments in solar panels in Italy, with Borealis Quentys™ material. During 2020, Borealis has signed PPA contracts to obtain 14% of the total electricity from renewable sources. With several other contracts and onsite projects in the pipeline, Borealis is well on track to reach its 50% aspiration by 2030.

Utilities are sourced on a longer time horizon of ten to fifteen years and very often within the context of petrochemical clusters, enabling delivery by pipelines from neighbouring industry.

As part of the journey towards increased sustainability, Borealis has implemented International Sustainability & Carbon Certification (ISCC+) in its plants in Kallo, Beringen, Schwechat, Porvoo and Stenungsund.

#### Fertilizer, Melamine and TEN

Fertilizer, Melamine and TEN follows the same energy and utilities sourcing strategy as for Olefins and Polyolefins production described above, with a focus on spot indexation and a one to two year horizon. Commodity pricing risk is also managed using financial risk instruments.

#### Outlook

Borealis' objectives in feedstock, electricity and utility procurement are to:

- further increase renewable feedstock sourcing through increased volumes from existing renewable feedstock contracts and exploring new alternative sources; and
- continue to progress towards the target of sourcing 50% renewable electricity by 2030 through additional PPAs and solar panel investments.



# Procurement of Raw Materials, Packaging and Technical Supplies and Services

## AT A GLANCE

### Goals

Borealis' procurement goals for 2020 included:

- continuing to enhance the Group's profitability through competitive supplier selection, increasing the use of digital tools and building on strategic partnerships;
- introducing the use of recycled materials in packaging and increasing the use of reusable pallets and packaging;
- supporting the development of the circular economy through dedicated procurement functions and activities; and
- supporting Borealis' growth ambition through procurement collaboration with the Group's joint ventures globally, in particular Baystar™ and Borouge.

### Key Achievements and Results

In 2020, Borealis:

- ensured security of supply of materials and goods throughout the ongoing COVID-19 crisis through close collaboration with suppliers and avoiding supply chain interruptions.
- introduced an e-procurement tool; and
- supported its Circular Economy Strategy by assigning a dedicated procurement team for running plants and all capital expenditure activities.

### Organisational Structure

Borealis' Procurement organisation is responsible for the procurement activities within Borealis at a Group and location level, with exception of Hydrocarbon & Energy's (HC&E) trading activities. Within Procurement there are two sub-departments: Direct Procurement and Indirect Procurement. Direct Procurement covers purchases of Raw Materials and Packaging. Indirect Procurement covers Technical Procurement and Business Services. The Procurement department has delegated purchasing authority for logistic services to the Polyolefins Global Logistics, HC&E Supply Chain and Fertilizer, Melamine and TEN departments.

### Responsible Sourcing

Borealis follows a defined process when purchasing goods and services to ensure legal compliance, product quality, consistency and reliability of supply.

To get the best value, Borealis applies 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.

After defining Borealis' procurement needs (including scope and specifications), reviewing the supply market and defining the sourcing strategy, the suppliers are selected. This includes the use of questionnaires and on-site audits. Every year, Borealis defines a set of strategic suppliers based on criteria such as revenue, 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.

The procurement process takes account of sustainability considerations, supported by Borealis' Responsible Sourcing Policy (Code of Business Conduct), which is published on the Group's website and communicated to all major suppliers. It defines the Group's approach to key aspects of business ethics when sourcing, such as anti-corruption, anti-slavery, compliance and child labour as well as health, safety and the environment. All major suppliers have been requested to confirm their commitment to the policy. Major new suppliers must agree to the policy by signing the contract. 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 Together for Sustainability (TfS).

**Together for Sustainability**

Borealis is a member of TFS, which is a joint initiative set up by the chemical industry. TFS enables its members to implement sustainable procurement by sharing the results of supplier audits and assessments performed by independent experts, using a single standard of auditing and assessment. It is based on the principles of the UN Global Compact and Responsible Care®.

TfS covers areas of sustainable business practice, including environmental impact, health and safety, labour and human rights, management and governance. The audits and assessments benefit both members and suppliers, who only need to go through the process once and avoid multiple assessments by different customers.

At the year end, 226 of Borealis’ suppliers had been assessed against the TfS standard. All new Borealis suppliers are requested to provide a TfS or EcoVadis assessment or equivalent, with criteria on corporate social responsibility, sustainability and ethics. Future suppliers in higher-risk countries will be requested to provide a TfS audit report.

**Procurement of Raw Materials & Packaging (RMP)**

Raw materials and additives play a vital role for Borealis, giving unique product properties which enable the Group to produce value-added specialty products. Reliable supply of these materials, on time and in accordance with the agreed quality and quantity, supports Borealis’ operational excellence. Borealis buys polymer additives which are produced using renewable feedstock, such as palm oil or rapeseed oil. The majority of the additives that use palm oil are sourced from suppliers certified by the Roundtable on Sustainable Palm Oil.

Packaging materials are needed for all solid products that Borealis delivers to customers. They are essential for protecting Borealis’ goods in transit and for preventing pellet losses into the environment. They also help customers to dose the goods accurately and influence Borealis’ transport energy consumption. The Group continuously looks to balance the cost of packaging with the volume of material used and its functionality, such as the packaging’s ability to prevent

damage, contamination or pellet spills. Packaging is an important part of the Group’s approach to achieving a circular economy, and where possible, Borealis uses reusable packaging, such as pallets and recycled material for the production of packaging material.

Borealis uses dedicated procurement teams to source its raw materials and packaging for polyolefins, primarily from suppliers in Europe, North America, Japan, China and Korea. The Group maintains an approved list of suppliers. In Raw Materials and Packaging (RMP), about 100 suppliers are labelled. strategic. They represent around 80% to 85% of the total yearly budget spent in RMP.

**Performance 2020**

**Fig. 35: Packaging consumption based on 1,000 kg of Fertilizer sold (kg) 2018–2020**

kg	2020	2019	2018
<b>Fertilizers</b>			
Big bags	1.02	0.96	0.53
Film	0.04	0.09	0.13
<b>Total</b>	<b>1.06</b>	<b>1.05</b>	<b>0.66</b>

**Fig. 36: Packaging consumption based on 1,000 kg of Polyolefin sold (kg) 2018–2020**

kg	2020	2019	2018
<b>Polyolefins</b>			
Carboard	1.57	1.60	1.55
Bags	2.05	1.96	2.04
Film	0.45	0.44	0.45
Other materials	0.02	0.02	0.02
<b>Total</b>	<b>4.09</b>	<b>3.96</b>	<b>4.06</b>



### Procurement of Technical Supplies and Services

Technical Procurement encompasses all procurement activities related to the maintenance and growth investments of Borealis' assets globally. This includes engineering, construction contracting, and procurement of equipment, materials, industrial and business services, and spare parts.

The Technical Procurement organisation is set up in category teams, who consider the commercial and technical aspects of a purchase. The category teams establish and maintain procurement for core, non-core and business services.

Major engineering services or EPCM (engineering, procurement, construction and management) contracts are sourced globally, while maintenance services are predominantly sourced within Europe.

Group-wide equipment roadmaps are developed for the different disciplines, based on sustainable asset care location masterplans. A location masterplan applies a long-term view to maximise an asset's lifetime to reduce risk and to steer investment for maximum efficiency. All location master plans build up to an equipment roadmap, in which standardisation and volume bundling opportunities are explored and implemented via Group-wide Enterprise Frame Agreements with suppliers.

The Group focuses on using high-performing strategic partners who continually strive to improve. These partners should deliver high-quality services in a consistently safe manner. In line with the Group's strategy, sustainability requirements are embedded into all new contracts. Special attention is paid to a commitment to the circular economy.

### Activities 2020

During 2020, Technical Procurement supported a major construction project in Texas: the construction of a new PE Borstar production line.

In Europe, Technical Procurement supported the Group's activities to build the new PDH plant in Kallo, Belgium. Engineering and procurement is proceeding to plan – having awarded more than 200 contracts – and the first of the main equipment has been delivered to site. Procurement activities have shifted to expediting and contract management.

The main focus in all procurement areas was business continuity in Raw Materials and Packaging during the lockdowns in several countries caused by the COVID-19 pandemic.

During two months, a structure was defined to follow up on the most critical deliveries from Asia and Italy on a daily basis. By close monitoring of raw material stock levels, logistics and intensive supplier/customer communication, raw Materials and Packaging managed that no production interruption occurred in that period due to non-availability of raw materials.

There was also an increased focus on sustainability in 2020, with all suppliers from defined high-risk countries being invited to perform a sustainability on-site audit and to share the audit report.

### Outlook

In 2021, Procurement will:

- support Borealis' first projects for mechanical recycling by awarding the contracts for equipment and services;
- continue to support the Group's value creation journey by optimising procurement and contracting strategies with OMV in joint categories;
- continue to support Borealis' growth projects in the US and Belgium;
- improve sustainability in packaging usage, with increasing reuse of pallets and starting to use recycled material for packaging; and
- continue its high focus on security of supply, as the COVID-19 pandemic continues.



# Logistics

## AT A GLANCE

### Goals

In 2020, Borealis' logistics goals were to:

- develop a carbon neutrality roadmap and further improve safety performance; and
- improve operational efficiency, increase customer satisfaction and lower overall supply chain costs.

### Key Achievements and Results

During 2020:

- Hydrocarbons & Energy (HC&E) successfully introduced a process for more active time-chartering of vessels for transporting feedstocks from overseas, reflecting the gradual shift in trade of liquefied petroleum gas (LPG) from the east to more available sources in the US;
- Polyolefins (PO) implemented a state-of-the-art transport management system, which will improve customer service, make internal processes more efficient and reduce CO<sub>2</sub> emissions by optimising transport; and
- Fertilizer, Melamine and Technical Nitrogen Products (TEN) split responsibilities for fertilizer deliveries between customer-related and transport-related functions to improve customer service and transport management, and introduce system automations to make the delivery process more efficient.

### Introduction

Borealis' businesses transport a combined volume of up to 10.7 million tonnes of raw materials and finished products to the Group's sites or customers' premises each year.

Although Borealis sources its logistics services from external suppliers, they are required to adhere to Borealis' safety, ethics and environmental standards. When Borealis is awarding contracts, it takes costs, service and quality, safety and sustainability into account. The weighting applied to each of these factors depends on the business's needs and can vary according to customer requirements, the type of products transported (dangerous or non-dangerous) and the business environment. However, at all times, Borealis' safety and ethical standards must be met.

The primary sustainability impacts relating to logistics are:

- safety, in particular potential accidents and spills, as well as smoking, speeding, alcohol use, working at heights without safety protection and a severe incident on the road; and
- greenhouse gas emissions, primarily in the form of carbon dioxide (CO<sub>2</sub>), which are measured on the basis of tonnes per kilometre for different modes of transport.

### Transport Modes

#### Polyolefins

Polyolefins has approximately 110 providers of road transport, container transport, maritime transport, warehousing and on-site logistics services. The business manages these providers through logistics contract managers who cover bulk transport, packed transport, maritime shipments and warehousing, respectively, and logistics operations managers.

#### Fertilizer, Melamine and TEN

Fertilizer, Melamine and TEN has around 360 providers of road, maritime and rail transport. About 120 logistics service providers carry out 90% of the business's transport. Logistics service providers transporting dangerous liquid cargo are required to have a Safety & Quality Assessment System (SQAS) certification.

#### Hydrocarbons & Energy

Borealis has long-term partnerships with strategic logistics partners for its sea transport, pipelines, rail and truck deliveries. These long-term partners are encouraged to obtain EcoVadis ratings. Road transport companies are required to have SQAS certification.

Borealis tracks the fleet's safety performance and energy efficiency, and promotes the use of environmentally friendly bunker solutions.

The Group also uses its time charter vessel, Navigator Aurora, to source additional ethane from US-based shale gas for its flexible cracker in Stenungsund, Sweden.



**Fig. 37: Total transported volumes per business segment in 2020 <sup>1)</sup>**

Business segment	Transported volume (kt)
Polyolefins	3,319
Hydrocarbons & Energy	3,420
Fertilizer, Melamine and TEN	3,996

1) Total Hydrocarbons & Energy volumes transported (all INCOTERMS) is 6,981.9 kt, of which 3,420 kt were transported via own contracted transports

## Activities 2020

### Vetting of Tankers and Barges

Borealis carries out vetting inspections on sea-going tankers and inland barges, with every vessel and barge being subject to Borealis' vetting approval. Contracted shipping companies also regularly undergo a Tanker Management and Self Assessment audit.

An online vetting system is used to vet vessels and barges used in the HC supply chain. In 2020, the vetting system was changed from Ship Info System (SIS) to Mainstay, which is a centralised vetting tool in which the ships' suitability and terminal compatibilities are checked.

### Securing Charter Vessel Capacity

In 2020, Hydrocarbons & Energy entered into shorter term time charter agreements, lasting approximately six months, to accommodate FOB lifting of LPG from US sources to the Group's cracker in Finland. The estimated volume shipped in 2020 is 220 kilotonnes and this volume is expected to grow in the years to come, with shifting trades lanes.

During the year, Borealis successfully concluded negotiations for a newly built time-charter vessel. This will support the future propane feed for the propane dehydrogenation plant in Kallo (Belgium) from the second quarter of 2023.

### Optimisation of River Transport

Each year, about 600 kilotonnes of fertilizer are transported from Linz, Austria, to Southeast Europe. During 2020, Borealis implemented a number of initiatives to improve the overall performance of this flow. These included introducing night

loading in Linz, with the result that 90 kilotonnes of fertilizer no longer need to be transported 30 km by truck, saving EUR 0.2 million and 167 tonnes of CO<sub>2</sub> emissions. More efficient discharge operations and the use of new ports in Southeast Europe led to EUR 120,000 in savings. In addition, an inclusive health, safety, environment (HSE) and quality incident reporting process supports safer transportation and higher customer satisfaction.

### Reorganising the Supply Chain Organisation

During 2020, a project was rolled out to reorganise the supply chain organisation. Transport booking and follow-up, which was previously carried out by Customer Service, has been transferred to dedicated logistic coordinators. Simultaneously, system automations have been implemented, such as automatic freight cost and automatic carrier allocation.

### Enhancing HSE Performance

For the Polyolefin business, all European logistics providers are now qualified according to the SQAS and the number of partners who are part of the Responsible Care® programme (→ chapter Corporate Governance, p. 90) is increasing.

The focus on HSE delivered further benefits in 2020, with an increased share of intermodal transport, thereby reducing CO<sub>2</sub> emissions, and a significant improvement in the safety performance of logistics partners.

### 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 contractors;
- 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. From 2021, the Group will introduce Total Recordable Injuries (TRI) as an indicator for logistic incidents.

Borealis looks to continuously improve transport safety in different modes of transport as a submitting member of the Oil Companies International Marine Forum (OCIMF), Chemical Distribution Institute (CDI-Marine), and European Barge Inspection Scheme (EBIS). As part of this, the Group is following an annual transport safety audit plan. In 2020, this plan included audits on road, marine transport and third-party storage facilities. A transport safety audit plan for 2021 will be defined in line with the overall Group HSE safety audit plan.

Borealis tracks the transport safety performance of its logistic providers using a key performance indicator (KPI) based on definitions provided by the European Chemical Industry Council (CEFIC) to classify incidents. The KPI score for 2020 for Hydrocarbons & Energy is 4 severe incidents (target: 3); Polyolefins reported 1 severe incident (target: 0). Corrective actions with service providers are being taken to avoid re-occurrence of those incidents. The business collaborates closely with its supply chain contractors and has a process in place to define improvement actions for every incident.

#### Spills or Losses During Transportation

Spills of hydrocarbons are potentially dangerous and may create a significant exposure for people and the environment given the nature and volumes of the products being moved. Extra precautionary safety measures are in place and followed up with the supply chain contractors to minimise the risks of spills. → chapter Environmental Management, p. 76)

Drivers transporting dangerous goods require a special licence and training, and must operate under restrictions, such as parking only in secure areas. Any loss of ammonium nitrate must be reported to the authorities as it can be used as an ingredient for explosives.

#### Emissions from Transport

The Group looks to balance the cost of transport with the potential to reduce CO<sub>2</sub> emissions. Wherever possible and economically feasible, Borealis seeks to transport products off-road via rail, barges, vessels or pipelines. The Group looks to maximise pipeline deliveries as it is the transport mode with the lowest emissions. Borealis also aims to optimise logistics via terminals which are closer to the customer, requiring shorter transport distances.

In total, around 55% of Borealis' polyolefins and around 65% of its fertilizer products are transported by road, with the result that road transport generates the large majority of Borealis' emissions from logistics activities as shown in figure 38. The Group is trialling LNG trucks to replace trucks using diesel, thereby reducing emissions from road transport.

Borealis is participating in a CEFIC initiative, alongside a number of other chemicals companies, to trial the Global Logistics Emission Council framework for calculating and reporting transport emissions. The pilot project kicked off at the start of October 2020 and is planned to finish in March 2021.

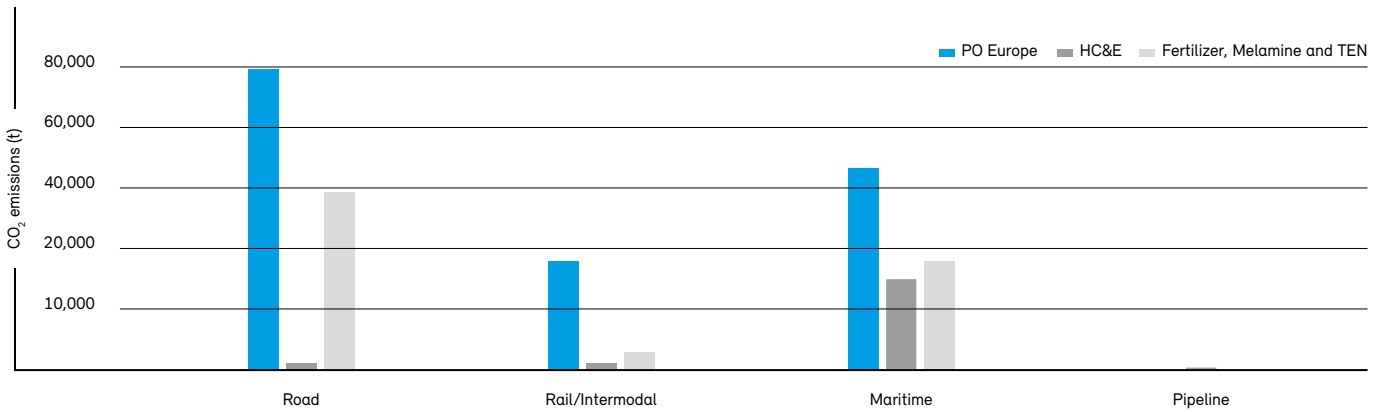
#### Performance 2020

Analysis of Borealis' transportation modes has shown that the Group's downstream transportation produced 268 kilotonnes of CO<sub>2</sub> emissions in 2020 (2019: 265 kilotonnes).

Deep sea shipping produces significant emissions of CO<sub>2</sub>, sulfur oxides and nitrous oxides, which may be subject to stricter global targets in future. During 2020, the engine of the Navigator Aurora vessel was fully running on ethane to reduce its environmental footprint. When contracting new long-term shipping capacity, a key decision element is the option to run ships on cleaner gas fuels than traditional gas-oil based bunkers.



Fig. 38: Borealis' CO<sub>2</sub> emissions by mode of transport in 2020 (t)



**Outlook**

Borealis' goals in relation to its logistics suppliers for 2021 are to:

**Polyolefins**

- continue to focus on safety and environmental aspects to achieve the 2025 goals of a 25% reduction in CO<sub>2</sub> emissions versus the 2015 baseline; and
- ensure that logistics suppliers maintain their high reliability without compromising on cost.

**Fertilizer, Melamine and TEN**

- continue to focus on safety and work closely with logistic service providers to increase their safety awareness; and
- implement the requirements of the new Explosive Precursor regulation for the supply chain, starting in February 2021.

**Hydrocarbons & Energy**

- continue the high focus on transport safety as a main priority for suppliers and customers;
- continue to reduce costs through the optimisation of transport routes and contract negotiations with key service providers;
- continue to reduce the environmental footprint in our transportation to reduce GHG emissions.

# Innovation

## AT A GLANCE

### Goals

Borealis has the following innovation-related goals:

- in Polyolefins (PO), to continue to develop unique products and solutions based on proprietary technology with high purity, improved performance and recyclability;
- in Hydrocarbons & Energy, to evaluate new technologies, improve energy efficiency and emissions and improve feedstock purity and flexibility as well as contribute to the circular economy with alternative feedstocks, chemical recycling and CO<sub>2</sub> avoidance; and
- in Circular Economy Solutions (CES), to develop technologies for mechanical, solvent and chemical recycling that will contribute to achieving circularity in manufacturing and using polyolefins.

More generally, the Group has a continued innovation focus on health, safety and the environment (HSE), project implementation and innovation delivery.

### Key Achievements and Results

During 2020, Borealis made further progress with its innovation projects across the Group.

In Polyolefins, Borealis continued its key innovation programmes, resulting in:

- breakthrough compounds for automotive, energy and new business development;
- new products, including the PE100RC family of advanced pipe products, which are among the best products on the market;
- 114 priority patent applications being filed in 2020; and
- a total of 27 new products being launched during 2020.

In Hydrocarbons & Energy, innovation achievements in the year included:

- scouting and selecting chemical recycling technology for steam cracker integration;
- implementing bio-feedstock for the Bornewables™ line of products; and
- setting up and defining a research strategy for carbon neutrality of the Group's crackers and aromatics plants.

In Circular Economy Solutions, high-performing polyethylene and polypropylene film grades for highly circular flexible packaging were launched and new recyclable polypropylene-based food packaging has attracted widespread attention from customers.

### Introduction

Innovation is fundamental to Borealis' ability to contribute to the circularity of Polyolefins and to creating added-value products that benefit society. It also helps the Group to improve its competitiveness and enhance its efficiency and sustainability, and therefore has a direct impact on people, the planet and profit.

Borealis' global innovation community comprises more than 500 employees. The Group spends approximately 1.8% of its revenue on innovation and R&D each year in line with Borealis' position as the technology powerhouse of the industry.

In Polyolefins, innovation focuses on providing solutions to societal challenges, for example, by developing technologies that are essential to achieving circularity in manufacturing and use of Polyolefins. It is also instrumental in developing products that are increasing food durability through efficient packaging, improving the effectiveness of water and energy distribution or enabling new medical applications. Innovation is therefore driven by market needs and is focused on specific outcomes. It enables Borealis to remain among the leading European polyolefins producers as the only producer that operates all types of polymerisation processes. Borealis is also able to use its leading technology position in venture-based licensing, in which Borealis provides the technology and its partners bring their complementary strengths.



Similarly in Hydrocarbons & Energy, Borealis looks to find innovative approaches to using new feedstock sources, improving resource efficiency and reducing energy consumption and flaring, which in turn reduces emissions of greenhouse gases and other substances such as dust. Hydrocarbons & Energy's innovation activities also include CO<sub>2</sub> avoidance and CO<sub>2</sub> utilisation opportunities as well as chemical recycling.

### Innovation Strategy and Culture

During 2020, the Group renewed its technology strategy to ensure it is aligned to the Group strategy as well as to the marketing and asset strategies, which are also being revised.

The renewed technology strategy has a strong focus on the circularity of materials. In particular, it:

- addresses the technologies for recycling plastics in the CES part of the strategy;
- defines highly specialty materials as targets that enable design for recycling;
- enables adding of value by developing highly specialty materials via new catalyst technologies, and/or via compounding; and
- prepares for and enables the Group's further growth by preparing Borealis' proprietary technologies for venture based licensing, making them attractive for various market and geographical regions.

In Polyolefins, Borealis has a Value Creation through Innovation strategy that sets it apart from other companies. This is because Borealis' strategy does not focus on one product or solution but on the entire polyolefins value chain. Together with Borouge, Borealis examines the complete life cycle of a product: how it can be created, processed, deployed and, ultimately, recovered or recycled. Special focus is given to circular economy solutions, developing new recyclates based on polymer recycling technologies with a focus on new polymer compounds and monomer recycling technologies.

The Visioneering Philosophy™ describes this drive towards Value Creation through Innovation. This 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. Borealis therefore works to address the challenges of society with smarter,

more sustainable solutions for the future. Hydrocarbons & Energy is following Borealis' open innovation strategy in its cooperation with OMV at the companies' shared location in Schwechat, Austria. Together, Borealis and OMV are looking to advance the monomer recycling of post-consumer plastics. This collaboration will soon be significantly intensified, in part because of OMV becoming Borealis' majority shareholder.

Evaluation of monomer recycling technologies is ongoing in order to obtain virgin polymer products based on feedstock from recycled plastics. Borealis is also participating in the "Cracker of the future" consortium, targeting a new furnace concept that uses renewable electricity rather than fossil fuels to significantly reduce carbon emissions.

### Organisational Structure

Borealis' key innovation sites are its Innovation Headquarters (IHQ) in Linz, Austria, and two Innovation Centres in Stenungsund, Sweden, and Porvoo, Finland. Three PE and PP pilot plants are also integral to Borealis' competencies in Innovation and Technology. Two of these pilot plants are in Porvoo and one is in Schwechat, Austria. Borealis recently announced the appointment of Erik van Praet as Vice President Innovation & Technology.

The Group's innovation facilities engage in independent but coordinated efforts, with the common aim of developing innovative solutions that provide added value for customers and end users. The IHQ's main R&D focus is on polymer design and compound research for polymer applications in the energy, automotive, advanced packaging and healthcare industries. In the Innovation Centre in Stenungsund, the focus is on polymer design, scientific services and R&D in the area of energy and infrastructure industry solutions. The Innovation Centre in Porvoo is an important site for advanced catalyst and process research as it includes catalyst scale-up facilities and fully integrated Borstar® PE and PP pilot plant lines. All Innovation Centres have close collaborations with local and international universities, and research institutes.

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



**Engagement with Industry Stakeholders**

In addition to its internal collaborations, Borealis undertakes a wide range of engagement with relevant stakeholders in innovation. It is a member of the Dutch Polymer Institute (DPI), attends polyolefins industry conferences and publishes papers. The Borealis Innovation and Technology management team and some of the lead scientists are invited to present at numerous leading conferences around the globe each year, such as the Society of Plastics Engineers International Polyolefins Conference and the Polyethylene-Polypropylene Chain Global Technology & Business Forum. Borealis is also a member of the European Ethylene Producers Conference (EEPC) and participates in a number of EEPC issue groups.

This year, due to the travel and gathering restrictions in almost all countries, many of these meetings were moved online, while others have been postponed. The Borealis team is keeping its activity as high as possible given the circumstances. In some cases, such as DPI meetings, moving online has increased the efficiency and value of participation in 2020 (→ chapter Public Affairs, p. 42).

**Borealis Innovation Process**

The Borealis innovation process comprises Idea, Innovation Project and Portfolio Management.

Idea Management is the front-end phase of the innovation pipeline. It involves scouting and generating ideas and selecting the right ones as either an innovation project or as a pre-study, in the case of an investment project.

Innovation projects serve to develop new product platforms, new or improved process or application technologies or new catalysts. The projects can have a number of different aims, including:

- achieving step-change product improvements;
- reducing the fixed or variable costs of existing products and processes;
- understanding and resolving specific issues in an existing production process; or
- assessing opportunities aimed at new business development.

An innovation project therefore applies to any temporary multi-disciplinary effort to create a unique product or service.

An important reason to push the boundaries of technology is to ensure a strong intellectual property right (IPR) position and strengthen Borealis' position as licensor. Innovation Portfolio Management ensures that the right innovation programmes are executed to achieve specific innovation objectives and support venture-based licensing. Portfolio Management also ensures that the allocation of resources is consistent with Borealis' strategy.

Sustainability is an important part of the project assessment process. All projects must be HSE compliant and must pass a review of their sustainability impact compared with any existing solutions. In 2020, the Portfolio Sustainability Compass was fully implemented and applied to all new innovation projects and product developments. The Portfolio Sustainability Compass is based on an industry sustainability assessment methodology and is used to assess the entire polyolefin portfolio, demonstrating the research contribution to Borealis' sustainability journey. It considers specific criteria, such as basic requirements in terms of ethics and profitability, chemicals of concern, stakeholder management and comparative environmental performance (→ chapter Sustainability Management, p. 30).

Once the project has achieved certain predefined goals, it is transitioned to the business within Advanced Products, where development and growth of this emerging business continues.

**New Business Development**

Within Polyolefins, the New Business Development function identifies and assesses new opportunities and develops them accordingly. At present, the Foam & High Melt Strength Polypropylene, Solar and Emerging Markets units are addressed within New Business Development.

To turn innovative ideas into new business, New Business Development first identifies opportunities across all areas of Borealis Polyolefins and beyond. As polyolefins show advantageous Life Cycle Analysis, they are increasingly replacing incumbent materials such as paper, metal, glass, PVC, polystyrene and engineering plastics. Then, after a systematic assessment which evaluates both market demand and unmet market needs, as well as any technical and commercial factors crucial to success, the new business opportunity is cycled into development.



### Protecting Intellectual Property

Borealis has an extensive patent portfolio comprising around 7,600 granted patents and around 3,000 pending patent applications. In 2020, Borealis filed 114 new priority patent applications, which further contribute to safeguarding Borealis' proprietary technologies and protecting its licensees. Many patents also protect products and applications.

### Risks and Opportunities

Borealis faces both general and business-unit-specific risks in relation to innovation.

In general, the Group must ensure it protects the confidentiality of its innovation projects and that it can attract and develop the talent it needs. There is a diminishing talent pool available, which Borealis looks to address by attracting young people into the industry.

Borealis raises its profile with talented individuals through the Borealis Student Award, which goes to students with the best Diploma, Masters and PhD thesis. The Group also develops its own R&D talent, for example, through its Talent Expert Pool. Through this activity, ten or twelve colleagues are engaged in learning over a period of two years. The Borealis Business Academy also offers an extensive range of training, covering a wide variety of skills.

In Polyolefins, market volatility affects Borealis' profitability, but the business continues to invest similar amounts in R&D and innovation each year, independent of the market situation. The industry is mature, which means that step-change product development, rather than small improvements, is needed to drive growth. Borealis' philosophy includes a long-term commitment to innovation and technology.

In Hydrocarbons & Energy, potential legislation regarding CO<sub>2</sub> emissions is both a risk and a driver for innovation. The robustness and flexibility of the Borealis' Innovation Process was tested during 2020. The team created quick and effective responses to rapidly changing market conditions so that Borealis could turn the challenges into opportunities by developing and advancing the products that became important in the new circumstances.

### Innovation Success Stories

#### Polyolefins

Key achievements in 2020 included the following:

- in Pipe, the PE100 RC Pipe product family was launched, offering performance that is among the best in the market and enabling even wider application of PE pipes in the construction industry;
- in Advanced Products, new sustainable solutions were developed for markets, including appliances, concentrates and polymer modifiers, healthcare, oil and gas and structured products; and
- in Circular Economy Solutions, Borealis and MENSHEN launched new packaging closures made of post-consumer recycled resin to enable more sustainable living.

In total, PO commercially launched 27 new products, clearly beating its '20 in 2020' target. Achieving these launches in such a challenging year demonstrates that Borealis is a market leader in innovation and is true to its purpose of re-inventing for more sustainable living.

Other notable developments in the year included Borealis winning the Innovation Award 2020/2021, for Austria's most innovative companies.

#### Hydrocarbons & Energy

In Hydrocarbons & Energy, feedstock prices are volatile and innovative new sources of feedstock are required. This means that Innovation and R&D focused, among other things, on:

- benchmarking and implementing a new ethane hydrogenation catalyst, with higher selectivity and yield which is also adapted to light feedstock;
- evaluating bio-feedstock opportunities for Porvoo (Finland), Stenungsund (Sweden) and Kallo (Belgium), including lignin as feedstock for aromatics production;
- recommending furnace coil materials, which are leading to increased run-lengths and hence improved efficiency;
- modelling of a propane/propylene separation unit, for improved operation and yield; and
- qualification of a new absorbent material for purification of propylene at Porvoo's cracker unit as a drop-in solution with improved HSE performance and sustainability.





### Innovation Highlights

#### Borealis Supports Austrian Face Mask Initiatives through Production of Meltblown Fabrics on its Unique Pilot Line in Linz

Borealis responded to the COVID-19 crisis with flexibility, collaboration and innovation by announcing that it had started production of meltblown fabrics for face mask applications on its unique pilot line in Linz, Austria. Borealis was able to quickly convert from pure development to smaller scale pilot production and then to regular production of rolls of fine fibre fabrics for face masks. Recently developed by Borealis, a new proprietary polypropylene (PP) meltblown resin HL912BF has boosted filtration properties due to its capability for finer fibres. By exploiting a robust network partners in Austria, Borealis is helping bolster the supply of filtration media to increase face mask production.

#### Borealis Launches the Bornewables™ Portfolio of Circular, Premium Polyolefins

During 2020, Borealis launched Bornewables™, a new portfolio of circular polyolefin products. Produced with renewable feedstock derived entirely from waste and residue streams, these premium polyolefins offer the same material performance as virgin polyolefins but with a reduced carbon footprint. As an important extension of the existing range of value-adding Borealis polyolefins, the Bornewables may be used for any number of applications in all industries. Using these innovative and more circular products will help enable Borealis' customers to meet their own sustainability targets while maintaining existing quality standards.

#### Borealis Polyolefin Innovations Enable the Transition to a Lower-Carbon Energy Future

In 2020, Borealis reached an important milestone in its efforts to facilitate a more sustainable energy future. A high voltage direct current (HVDC) cable compound based on Borealis Borlink™ technology is being used in crosslinked polyethylene (XLPE) power cables that qualified for the tender of the "German corridor projects". This enormous undertaking will transport renewable energy from wind farms off the north coast of Germany to southern areas of the country. Borealis Borlink is a crucial component in XLPE high-voltage power cables, enabling HVDC technology to transmit electricity over longer distances with minimal losses. In addition, the XLPE material offers the sustainability benefit of being recyclable.

### Outlook

Borealis will continue making a significant effort to develop and implement technologies that enable the circularity of polyolefins. It will also continue to strive to be the leading contributor to solving overall environmental issues, in particular climate change and pollution. This includes developing new materials that enable design for recycling and recyclates that are suitable for use in various applications, developing technologies for monomer recycling and the use of bio-feedstock, improving the energy efficiency of the Group's polymerisation and hydrocarbon plants, and reducing the CO<sub>2</sub> footprint of the Group's manufacturing technologies.



# Digital Transformation

## AT A GLANCE

### Goals

- Borealis' digital transformation goals in 2020 were to:
- shorten lead times to launching digital solutions developed in the Digital Studio, specifically to get from capture to prototype in four months and first minimum viable product (MVP) in six months;
  - optimise business value in terms of order volumes received through digital sales channel solutions, in particular receiving 10% of order volume through the MyBorealis online customer portal; and
  - increase discipline around business cases, with 85% of MVPs having a reviewed business plan.

### Key Achievements and Results

During 2020, Borealis:

- continued to enhance the online customer portal and to roll it out at a global level, resulting in meeting the 10% order volume goals; and
- launched within the foreseen short lead times, and with endorsed business cases, robotic process automations in various areas and digital solutions for health and safety, commercial, productivity and circularity purposes.

### Introduction

Borealis began its Digitalisation Programme in June 2017, with the aim of creating value for both the Group and its customers. The Digital Studio was founded in 2018 and is Borealis' creative and agile enabler for developing smart solutions for customers and employees. It consists of a diverse, cross-functional team of digital professionals, including designers, usability experts, business analysts, software developers and engineers.

Its role is to:

- change the way Borealis interacts with customers and employees, by radically improving the customer and employee experience;
- build new value propositions for customers and innovate the Group's business;
- help to use resources and plan processes more efficiently and effectively; and
- enable Borealis to make better decisions, based on improved use of data.

### Digitalisation Programme

Increasing digitalisation is an enabler for transformation in Borealis, supporting the delivery of its strategy to 2035.

In addition to improving the Group's productivity and the customer experience, digitalisation also promotes the circular economy of plastics, thereby creating new and profitable business solutions.

The Digital Studio helps the business to collaborate with end-users and digital professionals, to search for solutions to clearly defined business opportunities. It looks to create additional business value, by implementing agile working principles and design thinking throughout the project life cycle. When reviewing ideas, the Digital Studio aims to score each one consistently, objectively and transparently on four key factors:

- business viability: what value does it bring to Borealis and at what cost?
- technological feasibility: can we do it?
- user desirability: do users want it? and
- strategic fit: does this fit in the Group's strategy?

This all happens in an innovative setting, where business and technical know-how is combined in co-located teams, focusing on building, learning and adapting along the way, and keeping focus on the real business value they are aiming for.

Digital Studio projects have the following phases:

- Idea: identify the business opportunity or customer/employee “pain point” by picking up digital ideas.
- Capture: explore the full potential of an idea by specifying the different user and business needs identified from user interviews across the organisation, and creating a business case.
- Concept: identify how to solve the issue identified by selecting the best digital ideas, validating the customer pain point and developing the initial business plan.
- Prototype: develop a prototype and run a proof of concept for the idea.
- Pilot: develop a fully functional MVP and pilot it in the chosen business unit(s).
- Roll-out and scale: launch the business, run the day-to-day operations and scale up.

### Activities 2020

The COVID-19 situation triggered great efforts from the IT&S department to rapidly adapt IT infrastructure in order to make it easier for employees to work from home → see COVID-19 Infobox, p. 41. It became possible for all colleagues and the Digital Studio to continue working in a focused way and to deliver digital solutions at an even faster pace now that ‘online’ has become even more important.

### Customer Online Portal (My Borealis)

The online portal for Polyolefins customers supports customer service representatives and sales managers in their daily interactions with customers. It puts easy order management at the customer’s fingertips as well as a complete library of order, product or complaint documentation. The application works round-the-clock, providing instant access to up-to-date information, with ordering fully integrated into supply chain and IT processes. A single global portal supports eight languages, allowing organisations in Europe, North America and South America to use it. The portal was successfully enabled for all active customers in Q2 2020.

### Approval Tool

The approval tool is an intuitive solution for employees to manage their approvals, such as purchase orders or travel and expense statements, while supporting mobility and improving efficiency. It was designed by users, for users, in partnership with the Digital Studio. It allows leaders and managers to easily handle all the different types of approval requests they receive, using their mobile phone. The tool shows pending and historical approval requests and all the necessary information in one place. It is accessible from any device, at any place and approvers can approve or reject with a simple swipe, seeing immediately who is next in line to approve. Approvers can also follow the status of a request. The solution gives Borealis’ management one tool to track their different system approvals and enables employees to receive quicker decisions, particularly when their managers are travelling.

### Feedstock Identification Tool

In June 2020, a new digital solution called ReFIT (Recycling Feedstock Identification Tool) was launched at Borealis’ recycling business, Ecoplast. This solution, which runs on desktops and mobile devices, aims to facilitate and digitise the quality control of feedstock intake. Pictures with precise labels are stored and, in the medium term, will be used to further automate quality control via deep learning algorithms. The desktop version serves as a management tool for procurement, operations and quality control, providing an overview of all topics related to incoming feedstock. It improves efficiency and provides transparent and structured data for supplier management and price negotiations. The ReFIT app improves understanding of the feedstock’s quality and, because it can be linked to the process settings and recycle quality, feedstock process property relation models can be developed, enabling future process and product portfolio optimisations.



### Safety Inspection Tool

The safety inspection tool supports the health, safety and environment (HSE) functions during construction of the new PDH plant in Kallo, Belgium. The tool is an all-in-one HSE project reporting, evaluation and follow-up tool, usable on tablets in the construction field. It is easily accessible by all contractors (including more than 2,500 contractor employees), their lower-tier contractors and Borealis employees. Direct reports and the ability to add instant pictures from out in the field result in increased efficiency, productivity and speed. The smart setup provides automatic links to other reports and autocomplete systems to help rapidly populate near-miss reports, engagement walks and the evaluation of toolbox and work place inspections. The tool is linked to the HSE management system with, for example, links to HSE incentive programmes, the presence of management in the field, Borealis' Life Saving Rules and the disciplinary action procedure.

### Interactive Safety Training for the Five Life Saving Rules

This innovative gamed-based interactive learning solution helps employees and contractors to learn the five Life Saving Rules by offering them remote training and tests. The training combines a 3D modelled plant environment, an engaging story and motivating gamification elements to simulate scenarios, enabling better knowledge retention and faster learning than traditional methods. Trainees learn the Life Saving Rules in a very immersive way and can apply theory to practice without stopping production or risking actual injury.

This is the first time this approach has been implemented within Borealis and it was initiated as an addition to the physical Safety Centres, which needed to go into lockdown due to the COVID-19 pandemic. It was key to have a novel, next-generation digital alternative that is developed quickly and goes beyond the traditional slidedecks and recorded e-learnings. The training can be completed at any time or place, on desktops and mobile devices. It consists of four modules of increasing difficulty and all five Life Saving Rules are covered and tested in each of the modules.

### Circular Economy Solutions (CES)

In 2020, the Digital Studio worked with the new business development group and the circular economy programme to launch a proof of concept and internal and external pilots for circular business. The project explores opportunities with multiple start-ups. The aim is to create product and digital solutions for scalable and traceable closed-loop material flows, starting with the emerging reuse market.

Other projects in CES involved proof of concepts for blockchain traceability of plastic applications and digital marketplaces, supporting the digitalisation of supply chains and enabling material traceability and tracking of sustainability metrics. → chapter Circular Economy, p. 62

### Outlook

In 2021, the Digital Studio aims to support Borealis' overall business strategy by accelerating Borealis' transformation through the development of digital solutions and services that transform the way Borealis works. The Digital Studio will continue to emphasise safety, circular economy solutions and commercial solutions, and will explore how to support the Group's digital communication strategy. The medium-term strategy foresees the Digital Studio incorporating digital functions into the different business areas, while keeping a core innovative digital accelerator in place.

Vienna, 19 February 2021

**Executive Board:**



**Alfred Stern**  
Chief Executive



**Mark Tonkens**  
Chief Financial Officer



**Martijn Arjen van Koten**



**Philippe Roodhooft**



**Lucrèce De Ridder**



# Independent Limited Assurance Report on the Consolidated Non-financial Report 2020 <sup>1)</sup>

We have performed a limited assurance engagement of the Summarized Non-financial Report 2020 of Borealis AG, Vienna, and its subsidiaries (the "Group") for the year ended 31 December 2020.

## Management's responsibility

The Management is responsible for the preparation of the Summarized Non-financial Report 2020 in accordance with the requirements of Section 267a UGB as well as the GRI Standards: Core option. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation of the Summarized Non-financial Report 2020 that is free from material misstatement, whether due to fraud or error.

## Auditor's Responsibility

Our responsibility is to express a limited assurance conclusion based on our procedures performed and evidence obtained.

We performed our engagement in accordance with the professional standards applicable in Austria with regard to KFS/PG 13 "Other assurance engagements", KFS/PE28 "Selected issues in connection with the assurance of non-financial statements and non-financial reports pursuant to sections 243b UGB and 267a UGB as well as sustainability reports" and the International Standards on Assurance Engagements (ISAE) 3000 (Revised) "Assurance engagements other than audits or reviews of historical financial information". These standards require that we comply with our ethical requirements, including rules on independence, and that we plan and perform our procedures by considering the principle of materiality to be able to express a limited assurance conclusion based on the assurance obtained. As provided under Section 275 (2) UGB (liability provision regarding the audit of financial statements of small and medium-sized companies), our responsibility and liability towards the Company and any third parties arising from the assurance engagement are limited to a total of EUR 2 million.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement; consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

The selection of the procedures lies in the sole discretion of the auditor and comprised the following:

- Critical assessment of the Group's analysis of materiality considering the concerns of external stakeholders by interviewing the responsible employees and inspecting relevant documents.
- Obtaining an overview of the policies pursued by the Group, including due diligence processes implemented as well as the processes used to ensure an accurate presentation in the non-financial report by interviewing the Company's management and inspecting internal guidelines, procedural instructions and management systems in connection with non-financial matters/disclosures
- Obtaining an understanding of reporting processes by interviewing the relevant employees and inspecting selected documentations
- Evaluating the reported disclosures by performing analytical procedures regarding non-financial performance indicators, interviewing relevant employees and inspecting selected documentations. All interviews as well as audit activities were conducted virtually due to the ongoing Covid-19 pandemic and the respective Corona protective measures.
- Examining the non-financial report regarding its completeness in accordance with the requirements of Section 267a UGB as well as the GRI Standards: Core option
- Evaluating the overall presentation of the disclosures and non-financial information

The following is not part of our engagement:

- Examining the processes and internal controls particularly regarding their design, implementation and effectiveness
- Performing procedures at individual locations as well as measurements or individual evaluations to check the reliability and accuracy of data received
- Examining the prior-year figures, forward-looking information or data from external surveys
- Checking the correct transfer of data and references from the (consolidated) financial statements to the non-financial report; and
- Examining the information and disclosures on the website or further references on the internet

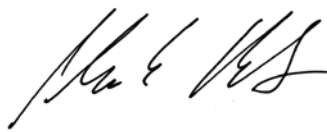
Neither an audit nor a review of financial statements is objective of our engagement. Furthermore, the disclosure and solution of criminal acts, as e.g. embezzlement or other kinds of fraud, and wrongful doings, nor the assessment of the effectiveness and profitability of the management are objectives of our engagement.

#### Conclusion

Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the Summarized Non-financial Report 2020 is not prepared, in all material aspects, in accordance with the requirements of Section 267a UGB as well as the GRI Standards: Core option.

Vienna, 19 February 2021

**PwC Wirtschaftsprüfung GmbH**



**Alexander Riavitz**

Austrian Certified Public Accountant

1) We draw attention to the fact that the English translation of this report is presented for the convenience of the reader only and that the German wording is the only legally binding version.







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# Consolidated Financial Statements including Group Management Report ("Financial Report")

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# Auditor's Report <sup>1)</sup>

We draw attention to the fact that the English translation of this auditor's report according to section 274 UGB (Austrian Company Code) 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 of 31 December 2020, the separate consolidated income statement, the consolidated statement of comprehensive income, the consolidated cash flow and the consolidated statement of changes in equity for the financial 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 of 31 December 2020, and of its financial performance and cash flows for the financial year then ended in accordance with International Financial Reporting Standards as adopted by the EU (IFRSs) and the additional regulations of section 245a Austrian Company Code.

### Basis for Opinion

We conducted our audit in accordance with Regulation (EU) No. 537/2014 (hereinafter EU Regulation) and Austrian Generally Accepted Standards on Auditing. 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 until the date of the auditor's report is sufficient and appropriate to provide a basis for our opinion by this date.

### 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 financial 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 and key observations
- Reference to related disclosures

#### 1. Recoverability of Property, Plant and Equipment and Intangible Assets including Goodwill

##### Description

In the consolidated financial statements of Borealis AG, Vienna, as of 31 December 2020, an amount of EUR 3,258.1 million (30.7% of total assets) is presented under "property, plant and equipment", an amount of EUR 554.4 million (5.2% of total assets) is presented under "intangible assets" which includes goodwill in the amount of EUR 132.4 million (1.2% of total assets).

Goodwill is tested for impairment at least annually. The carrying amounts of property, plant and equipment and intangible assets are reviewed for impairment triggers on each reporting date and whenever triggering events occur that indicate that property, plant and equipment and intangible assets including goodwill may be impaired. For this purpose, Borealis AG, Vienna, estimates the recoverable amount using the discounted cash flow methodology.

Property, plant and equipment and intangible assets including goodwill are allocated to cash-generating units ("CGUs"). In the financial year 2020, a reorganization of CGUs occurred leading to Rosier S.A., Belgium ("Rosier"), historically included within the NITRO CGU, being a separate CGU. The carrying amounts of the CGUs are compared to the recoverable amounts (value in use) derived from the valuation model. The valuation models also had to take into account the effects of the COVID-19 pandemic on the consolidated financial statements as of 31 December 2020. As far as the recoverable amount is lower than the carrying amount, an impairment is recognised.

Based on the impairment tests performed, an impairment in the amount of EUR 17.5 million was recognised for the Rosier CGU.

Given the complexity of the impairment model, the estimation uncertainty involved in the derivation of data and parameters used and the immanent discretionary decisions, the recoverability of property, plant and equipment and intangible assets including goodwill is considered as a key audit matter.

#### Audit Approach and Key Observations

As part of our audit of the consolidated financial statements, we have evaluated the determination of CGUs as well as the reasonableness of the reorganisation of the NITRO and Rosier CGU in the financial year 2020.

We have assessed the annual process, the procedure for budgeting and the impairment test for property, plant and equipment and intangible assets including goodwill.

In particular, we have verified the appropriateness of the significant assumptions used in the valuation model.

We evaluated whether the assumptions used to derive the future cash flows are based on the most recent five-year planning prepared by management and approved by the Supervisory Board. In particular, we verified whether the effects of the COVID-19 pandemic were adequately taken into account in the current planning. We confirmed the accuracy of the five-year planning by performing an analysis of historic budget deviations.

We have further evaluated the tenability of assumptions used to determine the discount rates. Our internal specialists have evaluated whether the assumptions used for the discount rates as well as the growth rates for the perpetuity are in line with external market and industry data.

Additionally, we carried out own sensitivity analyses to determine the impact of parameter changes (changes in discount rate and cash flows) on the recoverable amount. Furthermore, we have assessed whether the long-term profitability in the terminal value period is plausible. We also evaluated whether the disclosures on impairment made by Borealis AG, Vienna, in the notes to the consolidated financial statements are complete and accurate.

Our audit procedures have verified the appropriateness and tenability of the valuation model used by the entity to carry out an impairment test as required by IFRS (impairment test in accordance with IAS 36) and to estimate the impairment amount as of 31 December 2020. The assumptions and parameters used in the valuation – also taking into account the effects of the COVID-19 pandemic – are appropriate. The disclosures required by the relevant standards are complete and appropriate.

#### Reference to Related Disclosures

Management has disclosed this key audit matter under “7. Depreciation, Amortisation and Impairment” in the consolidated financial statements.

#### 2. Purchase Price Allocation: Acquisition of Additional 50% in Novelis Holdings LLC, US, and Acquisition of DYM Solution Co., Ltd., South Korea

##### Description

On 15 April 2020, Borealis AG completed the acquisition of an additional 50% in Novelis Holdings LLC, US. Furthermore, Borealis AG completed the acquisition of DYM Solution Co., Ltd., South Korea, on 28 August 2020. Under IFRS 3, the acquirer is required to assess if the acquiree meets the definition of a business and if the transaction qualifies as a business combination in line with the respective accounting standard.

While Novelis Holdings LLC, as a holding company, does not constitute a business and as such is treated as an asset acquisition, the acquisition of DYM Solution Co., Ltd., constituting a business, is in line with IFRS 3.

In accordance with IFRS 3, the identifiable assets acquired and liabilities assumed were recognised at their fair value at the time of acquisition. The identification and valuation of the net assets acquired is complex and judgmental. In particular, the valuation of the acquired intangible assets, buildings and machinery is based to a large extent on asset-specific assumptions that require discretionary decisions and estimates by management. To determine the fair value of the identifiable assets and liabilities, management has engaged external independent experts.



The risk for the consolidated financial statements relates to the fact that, due to the size and complexity of the acquisition, the assets acquired and liabilities assumed were incorrectly identified or not properly valued. There is also the risk that the disclosures required in accordance with IFRS 3 in the notes to the consolidated financial statements are incomplete and incorrect.

#### Audit Approach and Key Observations

For the purpose of understanding the acquisitions, we have read the share purchase agreements concluded between the selling parties and Borealis AG to gain insight into the key terms and conditions. We have assessed the agreements concluded therein in accordance with the relevant regulations of IFRS 3 "Business Combinations" with regard to the accounting in the consolidated financial statements and the notes to the consolidated financial statements as of 31 December 2020.

We have critically assessed the competence, skills and objectivity of the independent experts engaged by Borealis AG. We have assessed the appropriateness of the significant assumptions and input parameters (in particular, the assumptions about the growth rate, the discount rate used, the assumed attrition rate of the identified customer base and future cashflows) as well as the completeness and appropriate valuation of the assets and liabilities identified in the course of the purchase price allocation. We have examined the valuation methods used for compliance with the valuation principles of IFRS 3 in conjunction with the relevant regulations of IFRS 13.

Finally, we assessed whether the information in the notes to the consolidated financial statements as of 31 December 2020 in connection with the acquisitions is complete and appropriate.

Our audit procedures have verified the appropriateness of the accounting treatments in line with the applicable accounting standards. The significant assumptions and estimates made by management and the input parameters used are appropriate. The presentation of the acquisitions in the notes to the consolidated financial statements as of 31 December 2020 complies with the requirements of IFRS 3.

#### Reference to Related Disclosures

Management has disclosed this key audit matter under "8. Business Combinations, Asset Acquisitions and Other Changes" in the consolidated financial statements.

### [3. Insurance Compensation in Relation to the Fire Incident in Stenungsund, Sweden](#)

#### Description

On 9 May 2020, a local fire occurred at the steam cracker at Borealis' production site in Stenungsund, Sweden, which resulted in property damage and a business interruption for the remainder of the financial year 2020.

Borealis AG, covered by insurance for property damage and business interruption, has filed insurance claims for compensation with the insurer. While the claims have not been settled yet, management considers the insurance compensation to be virtually certain and has recognised a receivable in the amount of EUR 76.8 million in the consolidated financial statements as of 31 December 2020.

Given the estimation uncertainty involved in the assessment of the probability of insurance compensation, the recognition of the respective receivable is considered as a key audit matter.

#### Audit Approach and Key Observations

We have read the insurance contracts Borealis AG has entered into to gain an understanding of the terms and conditions and to confirm that the property damage and the business interruption costs incurred are covered by the insurance contract. We have further reviewed the communication between Borealis and the insurer, advance payments received from the insurer and the reports of the independent loss adjuster detailing the damages and claims. Furthermore, we have tested the incurred costs of the property damage and the business interruption which form the basis for the insurance claims.

Our audit procedures have verified the appropriateness of the recognition of the insurance claim receivable in line with the applicable accounting standards. Management's assessment that the compensation from the insurer is virtually certain is reasonable. The respective disclosures in the notes to the consolidated financial statements as of 31 December 2020 comply with the requirements of the accounting standards.

#### Reference to Related Disclosures

Management has disclosed this key audit matter under "10. Other Investments, Other Receivables and Other Assets and Loans Granted" and "30. Other Income" in the consolidated financial statements.

#### Other Information

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

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 identified above 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 on the other information that we obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

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

Management is responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the EU (IFRSs) and the additional regulations of section 245a Austrian Company Code, 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 Standards on Auditing, 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 Standards on Auditing, 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 Austrian Generally Accepted Accounting Principles, 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 regulations.

Management is responsible for the preparation of the management report for the Group in accordance with Austrian Generally Accepted Accounting Principles.

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 regulations, comprising the details in accordance with 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.

#### Additional Information in Accordance with Article 10 of the EU Regulation

We were elected as statutory auditor at the ordinary general meeting dated 21 February 2020. We were appointed by the Supervisory Board on 21 February 2020. We have audited the Company for an uninterrupted period since the financial year 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 no prohibited non-audit services (Article 5 para. 1 of the EU Regulation) were provided by us and that we remained independent of the audited company in conducting the audit.

#### Responsible Engagement Partner

Responsible for the proper performance of the engagement is Alexander Riavitz, Austrian Certified Public Accountant.

Vienna, 19 February 2021

**PwC Wirtschaftsprüfung GmbH**



**Alexander Riavitz**

Austrian Certified Public Accountant

1) 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 report is only allowed if the consolidated financial statements and the management report for the Group are identical with the German audited version. This auditor's report 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 para. 2 UGB apply.



# Group Management Report

## Safety Performance

In 2020, Borealis reported a Total Recordable Injuries (TRI) frequency per million working hours of 1.7. While this TRI falls short of the goal set by Borealis itself, and is a deterioration versus the 1.6 recorded in 2019, a TRI frequency of less than two is considered world-class in the industry. Due to operational issues at the cracker in Stenungsund, Sweden, at fertilizer plants in France and due to the challenges resulting from the coronavirus, the safety performance failed to reach the target levels. Borealis is not satisfied with these results and has bolstered its commitment to both occupational and process safety in order to achieve the ultimate goal of zero injuries. Safety is and remains the number one priority at Borealis.

As a responsible company, Borealis will continue to take all possible steps to help stop the spread of the coronavirus and protect its employees and business partners. At all locations, this involves physical distancing, the use of personal protective equipment and protective barriers where possible, combined with increased cleaning frequency and other heightened hygiene measures.

## Market Environment

Following the reduction in demand as a consequence of the global COVID-19 pandemic, the Brent Crude oil price dropped from 64 USD/bbl in January 2020 to 27 USD/bbl in April 2020. The recovery of the Brent Crude oil price to 50 USD/bbl by December 2020 was supported by the disciplined supply reduction implemented by the OPEC plus countries and, towards the end of the year, the anticipated end of the pandemic thanks to the first available vaccines. Overall, the annual average Brent Crude oil price of 42 USD/bbl was down 35% from the average of 64 USD/bbl in 2019.

The price of naphtha developed in a similar pattern, decreasing from 527 USD/t in January 2020 to 138 USD/t in April 2020. Since then, its price has partially recovered, reaching 433 USD/t in December 2020. In line with feedstock prices, polyethylene prices averaged 10% lower compared to 2019; polypropylene prices averaged 14% lower in 2020 than in 2019.

Borealis polyolefin sales volumes have shown resilience in a market environment impacted by COVID-19, increasing by 2% versus the same period in 2019. Sales volumes of both Borouge and Baystar increased by ~10% year on year. Overall, integrated polyolefin industry margins increased in 2020 versus the previous year. The olefin share of the integrated industry margin contracted during 2020, as the light feedstock advantage reduced in the low oil price environment of 2020. Consequently, the profit contribution delivered from the hydrocarbons business was lower than in 2019.

Demand for Borealis Fertilizers was not impacted by the COVID-19 crisis in 2020. However, operational issues at fertilizer production sites in France led to reduced product availability and consequently, to a decrease in fertilizer sales volumes of 2% versus 2019.

In the first five months of 2020, the fertilizer market benefited from a declining natural gas price environment. Industry margins were thus reasonable, even though the expected market price recovery failed to materialise. The price of natural gas subsequently rose, yet fertilizer sales prices failed to recover to the same degree. This led to a compression of the industry margin. The financial result of the Fertilizer business was negatively impacted by lower production volumes, a weaker market environment and the impairment of fertilizer assets in Belgium and the Netherlands. The profit contribution was lower in 2020 than in 2019.

## Strategy and Purpose

The year 2020 commenced with the global roll-out of the new Group Strategy 2035. The commitment to achieving sustainable growth in the long term is reflected in its stated purpose: "Life demands progress – we are re-inventing for more sustainable living." The strategy builds on core Borealis capabilities and traditional values such as Respect, Responsible, Exceed and Nimblivity™. At the same time, it channels Group efforts to act as leaders in the transformation to a circular economy, to create a more customer-centric organisation on a global scale and to capitalise on demand in growth markets by way of geographic expansion.

As the coronavirus pandemic unfolded during the first months of the year, Borealis quickly launched a resilience programme. Its focus is on reducing and/or postponing costs and investments where appropriate in order to safeguard the company's solid financial position.





The overall aim has been to mitigate the potentially negative impacts of the pandemic in all areas of Group business and to ensure a solid operating cash flow to fund ongoing growth projects.

### Global Growth and Acquisitions Continue

Despite disruptions to infrastructure and supply chains around the world resulting from the pandemic, Borealis successfully proceeded with its growth projects in Europe, North America and the Middle East.

In June, a propylene splitter – one of the largest single pieces of equipment ever shipped – arrived safely at the construction site of the new world-scale propane dehydrogenation (PDH) plant under construction at the existing Borealis production site in Kallo, Belgium. Having passed this milestone, the facility is on track to start up in 2023 with a propylene production capacity of 750,000 metric tons/year (t/y). The approximately EUR 1 billion to be invested in the project constitutes the largest single investment ever made by Borealis in Europe and is a clear sign of the company's commitment to being the supplier of choice to its European customers.

As construction on the new Borstar® polyethylene (PE) unit in Texas, US, progresses, changes were made with regard to ownership of this joint venture. In April, Borealis acquired the 50% ownership share in Novealis Holdings LLC that had previously been held by NOVA Chemicals. Thus Baystar™ is now a 50/50 joint venture between Borealis and Total Petrochemicals & Refining USA, Inc. The new unit will expand the Borealis footprint by enabling the supply of locally-produced Borstar products to North American customers for the first time. The project also entails the construction of an ethane-based steam cracker in nearby Port Arthur, which will supply approximately 1 million t/y of competitively-priced ethylene. The facility's ethylene monomer will be used for both the existing 400,000 t/y PE units and the new 625,000 t/y Borstar PE unit.

In August, Borealis announced it had taken a controlling stake in the South Korean compounder DYM Solution Co., Ltd., thereby extending its global presence in the wire and cable industry. This acquisition augments the existing Borealis portfolio with complementary products and technologies, enables Borealis to respond more rapidly to local demand and boosts capacity in order to secure a reliable supply of specialised compounds.

In Ruwais, UAE, construction on another major growth project is nearing completion: the "PP5" or fifth Borstar polypropylene (PP) plant located at the Borouge 3 complex. The Borouge 4 project is also progressing successfully through the FEED (Front-End Engineering and Design) phase.

A joint feasibility study commissioned by the Abu Dhabi National Oil Company (ADNOC), Adani, BASF and Borealis to evaluate the development of a major chemical complex in Mundra, India was brought to a successful close in November 2020. However, while the partners are convinced of the project's potential, they have postponed further potential next steps due to economic uncertainties also related to the COVID-19 pandemic.

### EverMinds™: Borealis Pursues Sustainable Growth in the Circular Economy

As a global provider of innovative plastic solutions, Borealis has taken the lead in transforming the industry. Plastics circularity will be achieved once this valuable resource is always reused and recycled, and never wasted, and once all applications and products are routinely designed with circularity in mind. Borealis' dedication to Value Creation through Innovation and customer-centricity have accelerated the shift, making it possible to develop and launch a wide range of innovative material solutions in the circular economy sphere. Moreover, Borealis continues to invest in mechanical and chemical recycling and has deepened its commitment to collaborating with leading industry and social welfare organisations to bring about industry change.

An integral goal on the path to "closing the loop" on plastics circularity is to increase the volume of recycled plastics solutions to 350,000 t/y by 2025. This will enable the production of larger volumes of second-generation recycled products. Another focus area is to ensure that by 2025, 100% of consumer products made with Borealis polyolefins should be recyclable, reusable or made with renewable materials.



Another important step towards circularity was taken in early 2020 as Borealis began manufacturing PP based on renewable feedstock at its production facilities in Kallo and Beringen, Belgium. This was the first time that Borealis replaced fossil fuel-based feedstock in the large-scale commercial production of PP. In the meantime, the polyolefin production plants in Kallo and Beringen, but also in Porvoo, Finland, and Schwechat, Austria, have received the ISCC PLUS certification issued by the International Sustainability and Carbon Certification (ISCC) organisation. This certification is the global standard for recycled and bio-based materials. It enables mass balance production of renewable and chemically recycled feedstock.

In September, Borealis announced the launch of the Bornewables™ portfolio. These premium polyolefin products are manufactured with renewable feedstock derived entirely from waste and residue streams. The Bornewables boast the same material performance as virgin polyolefins, yet with a lower carbon footprint.

Borcycle™ is the proprietary state-of-the-art technology launched in 2019. It transforms plastic waste streams into value-adding, versatile recycled polyolefins and serves as the foundation for an increasing number of more sustainable products and applications in the rigid packaging segment. In September, Borealis and MENSHEN, a leading specialist in plastic closures, launched a series of new packaging closures for laundry and homecare applications based on Borcycle UG522MO, a PP compound containing 50% post-consumer-recycled content.

A pilot project announced in December is a prime example of the EverMinds approach in practice. Based on the principles of reduce, reuse and recycle, it literally closes the loop by replacing single-use drinking cups with innovative new ones featuring a double-closed loop system. At four different Borealis sites in Belgium, 1.5 million single-use cups could be replaced by reusable lightweight ones made from Borstar HMS. These durable foam cups are collected and washed for reuse before eventually being recycled.

Borealis continues to invest in its recycling technologies and facilities. One example of recycling innovation is the ReOil collaboration with OMV. The patented OMV ReOil technology is used to chemically recycle post-consumer plastics into raw materials, which are then used by Borealis to produce polyolefins. Leading European multinational Nestlé has now become the first Borealis customer to use the ISCC PLUS-compliant polyolefins in consumer goods packaging.

### Energy and Climate: Striving for Improved Efficiency in own Operations

Borealis has set ambitious goals to counter climate change by using energy and resources more efficiently. Borealis intends to draw 50% of electricity used in production from renewable sources by 2030. It also seeks to achieve a 20% improvement in energy efficiency (using the year 2015 as a baseline) and aims for zero non-emergency flaring by 2030 as well.

In July, Borealis and partner Neste announced the signing of two long-term power purchase agreements (PPAs) to source renewable electricity from a Finnish wind farm operator. Switching to wind-generated power over the next decade will help Borealis increase the overall share of renewables in its Porvoo production facilities to 13%. In October, another 10-year PPA was signed with the sustainable energy supplier Eneco, in which Borealis will source renewable electricity from a new offshore wind farm for its Belgian operations starting in January 2021.

In December, Borealis and Bionerga announced the joint commissioning of a new waste-to-energy plant constructed and operated by Bionerga in Beringen, Belgium. The new facility allows Borealis to reduce the amount of natural gas used in operations by supplying steam and electricity recovered from the processing of non-recyclable waste collected from nearby communities.

Finally, in October, Borealis commissioned a new 80,000 m<sup>3</sup> naphtha cavern in Porvoo. Having invested approximately EUR 25 million in its construction, Borealis can now draw on and store naphtha for its operations in a safer and more economical way. Because it has been designed to store renewable naphtha as well, Borealis can produce ISCC PLUS-certified renewable base chemicals as well as renewable PP and PE for its customers.

### Value Creation through Innovation in 2020

The Borealis' dedication to Value Creation through Innovation is circular at its core and is applied across the entire polyolefins value chain. It spans the entire life cycle of a product: from creation to design, processing, deployment and finally recovery for recycling or reuse.

Around 500 employees work in R&D at the Borealis Group. This figure includes scientists and researchers at the Innovation Headquarters in Linz, Austria, and the two Innovation Centres in Stenungsund, Sweden, and Porvoo, Finland.

One important step-change innovation launched by Borealis in 2014 is now powering the Energiewende – or energy transition – in Germany. Crosslinked polyethylene (XLPE) power cables made with Borealis extruded high voltage direct current (HVDC) technology are being used for the majority of the so-called German corridor projects. This is the first time that Borlink™ XLPE HVDC technology is being used at extra-high levels of 525 kilovolts (kV). The Borlink cables will be implemented in the northern part of the SuedOstLink and along the entire SuedLink corridor, thereby enabling the transmission of renewable energy from north to south with minimal loss.

### Operational Development of the Group

The Borealis net profit of EUR 589 million is below the net profit of EUR 872 million in 2019, yet represents a solid financial result in the context of a market environment strongly impacted by the pandemic and a declining oil price, which has consequently reduced inventory value. The 2020 result was also affected by a weaker hydrocarbons business, resulting from limited benefit from feedstock flexibility and operational issues at Borealis crackers in Stenungsund and Porvoo. In 2020, the contribution from the Borealis Fertilizer business declined versus 2019 due to a weaker industry margin and operational issues. The contribution from Borouge remained on a similar level as in 2019, where lower polymer prices in Asia were offset by substantially higher sales volumes.

Return on capital employed (ROCE) after tax of 8% in 2020 was 3 percentage points lower than in the previous year. This weaker result was mainly driven by the lower net profit and the continued investment in growth projects. However, the 5-year average ROCE of 13% remains above the company's target of 11% through the cycle.

In 2020, Borealis net debt increased by EUR 264 million. This resulted in a gearing ratio of 29% at the end of 2020, compared to 24% at the end of 2019. This gearing is reflecting a very healthy balance sheet. Borealis benefits from a well-diversified financing portfolio and a balanced maturity profile. The latter was further enhanced in July by way of a EUR 250 million loan from the European Investment Bank (EIB) to support applied R&D efforts in the area of plastics circularity. The loan affirms the company's alignment with the larger goals of the European Green Deal and the EU Plastics Strategy.

### Review of Results

#### Sales

Borealis sold 3.9 million tonnes of polyolefins in 2020, slightly more than the 3.8 million tonnes sold in 2019. Borealis Fertilizers sales reached 4.3 million tonnes in 2020, a decrease of 2% versus 2019. Melamine sales volumes were 147 thousand tonnes in 2020, which is a similar level compared to 2019.

#### Cost Development

The lower feedstock price environment saw a drop in 2020 production costs compared to 2019. Furthermore, the stringent cost reduction measures implemented in 2020 to weather the COVID-19 pandemic have resulted in a 3% reduction of fixed costs. Sales and distribution costs decreased correspondingly from EUR 717 million in 2019 to EUR 681 million in 2020; administration costs decreased by 11% to EUR 223 million. Because the Borealis commitment to Value Creation through Innovation remains unchanged, spending on research and development rose to EUR 150 million in 2020, an increase of EUR 5 million versus 2019. At the end of 2020, the number of full-time equivalent employees (FTE) was 6,920, an increase of 51 on the previous year.

#### Operating Profit

Operating profit amounted to EUR 356 million compared to EUR 605 million in 2019. The reduction is a combination of the effects of reduced olefin margins, the reduction of the light feedstock advantage previously enjoyed and operational issues at Borealis crackers in Stenungsund and Porvoo. The result was also negatively affected by the weaker fertilizer market environment and lower fertilizer sales volumes due to the reduced operability of the company's own fertilizer assets.



### Financial Income and Expenses

The decline in net financial expenses from EUR 36 million in 2019 to EUR 23 million in 2020 was mainly due to higher interest income from the member loan granted to the Baystar joint venture with Total. Interest income increased following the acquisition of NOVA Chemical's 50% interest in Novealis Holdings LLC, additional member loan drawdowns and progress of the investment projects.

### Taxes

Income taxes amounted to EUR 119 million, an increase of EUR 37 million from tax charges of EUR 82 million in 2019. The higher overall tax charge in 2020 was mainly driven by impairments of deferred tax assets on losses carried forward in France and the Netherlands. Additionally, the 2019 tax charge was positively impacted by the agreement reached between the Finnish and Austrian tax authorities on two cases regarding the taxation of Borealis Finnish subsidiaries Borealis Technology Oy and Borealis Polymers Oy.

### Net Profit and Distribution of Dividend

The net profit for the year amounted to EUR 589 million, compared to a net profit of EUR 872 million in 2019. During 2020, Borealis distributed a dividend of EUR 300 million to its shareholders for 2019.

### Financial Position

#### Total Assets/Capital Employed

At year end, total assets and capital employed stood at EUR 10,600 million and EUR 8,343 million, respectively, compared to EUR 10,118 million and EUR 8,110 million at the end of 2019.

The solvency ratio was 59% at year end 2020, compared to 63% at year end 2019. The gearing ratio increased to 29% at the end of 2020, compared to 24% in 2019.

#### Cash Flows and Liquidity Reserves

Cash flow from operating activities was EUR 1,083 million, driven by solid operating profitability. Liquidity reserves, composed of undrawn, long-term committed credit facilities and cash balances, amounted to EUR 1,142 million at year end 2020, compared to EUR 1,191 million at year end 2019. Net interest-bearing debt increased to EUR 1,833 million at year end, up from EUR 1,569 million at the end of 2019. The table below shows the change in net interest-bearing debt.

EUR million	2020	2019
<b>Change of net interest-bearing debt</b>		
Cash flow from operating activities <sup>1)</sup>	1,083	872
Capital expenditure	-675	-471
Capital contributions to and financing of associated companies and joint ventures	-299	-85
Loans granted to third parties	0	-156
Dividends of associated companies and joint ventures	510	651
Acquisitions of subsidiaries net of cash	-603	0
Proceeds from sale of shares in joint ventures	0	22
Other (mainly relating to foreign exchange differences)	20	1
Dividend paid to equity holders of the parent and non-controlling interest	-300	-826
Additions lease liabilities	0	-250
<b>Total change</b>	<b>-264</b>	<b>-242</b>

1) 2019 amount has been restated due to reclassification.

### Capital Expenditure

Investments in property, plant and equipment amounted to EUR 614 million in 2020, compared to EUR 376 million in 2019. A large portion of the total investment relates to the new, world-scale PDH plant in Kallo, Belgium, the upgrade and revamp of four cracker furnaces in Stenungsund, Sweden and the debottlenecking of a PP-plant in Kallo, Belgium. Health, Safety and Environment (HSE) capital expenditure amounted to EUR 37 million, compared to

EUR 43 million in 2019. Depreciation, amortisation and impairment amounted to EUR 464 million, compared to EUR 427 million in 2019. The increase was partially driven by the impairment of tangible assets in the Fertilizer business in Belgium and the Netherlands.

### Shareholders' Equity

Shareholders' equity at year end 2020 was EUR 6,417 million.

EUR million	2020	2019
<b>Equity development</b>		
Net result attributable to the parent	594	873
Exchange and fair value adjustment (net)	-333	-22
Gross increase/decrease	261	851
Dividend paid	-300	-825
Reclassification of cash flow hedges to balance sheet	11	-2
Net increase/decrease	-28	24
Opening equity	6,445	6,421
<b>Closing equity</b>	<b>6,417</b>	<b>6,445</b>



## Risk Management

Borealis has a documented risk management process ensuring that all parts of the Group routinely identify and assess their risks and develop and implement appropriate mitigation actions. Risk management contributes to achieving the Company's long-term strategies and short-term goals. Borealis believes that an effective risk culture makes it harder for an outlier, be it an event or an offender, to put the Company at risk.

The Company's overall risk landscape is periodically consolidated, reported and reviewed. Borealis distinguishes between different risk categories as outlined below. While this list is not exhaustive, it does exemplify the Company's risks.

Strategic and reputational risks are those that may severely impact the Borealis Group's strategy or reputation. Often, strategic risks are related to unfavourable long-term developments, such as market or industry developments, technology, innovation, a change in the competitive environment or a threat to the reputation of the Group.

Operational and tactical 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 operational risks are assessed according to documented guidelines and procedures that are administered by the respective business functions. A pro-active risk prevention management approach has been implemented in the Operations function, covering risks in the areas of Production; Health, Safety and Environment (HSE); Product Stewardship; Plant Availability and Quality. The risk management approach also safeguards the Responsible Care® approach towards risks in Operations. The standard risk management process includes a common risk matrix and risk registers, built bottom-up from plant to portfolio level, enabling a common risk rating system for the whole of Operations.

HSE risks are assessed according to the procedures and framework described in the Borealis Risk-based Inspection Manual. The HSE Director is responsible for managing all HSE-related risks and reports the Borealis HSE risk landscape to the Executive Board periodically.

Project-related risks are assessed in the Borealis project approval process. The applicable key risks related to an individual project are assessed. These risks include financial, market, technical, legal, patent infringement, strategic, operational, country-related and political factors. The risk assessment also reflects the probability of project completion within the estimated time frame and forecasted resource requirements and the likelihood that key project objectives will be achieved. Project-related risks are managed by the project manager and reported to the Project Steering Committee.

Financial and market risks may refer to risks arising for instance from unexpected changes in market supply, demand, commodity prices, services or financing costs. Risks may also arise from liquidity, interest rates, foreign exchange rates, credit, commodity prices and insurance, the inability of a counterparty to meet a payment or delivery commitment and may for example extend to incorrect assumptions or the inappropriate application of a model. The assessment of financial risk management is described in detail in Note 18 of the consolidated financial statements. The Treasury & Funding Director and the General Counsel are responsible for reporting and coordinating the management of all financial risks.

Compliance risks focus on legal and regulatory risks, code of conduct (ethics policy), standards as well as contracting compliance. Doing business in an ethical manner is vital to Borealis' good reputation and continued success. Tactical or generic risks are risks identified as part of standards or compliance. These risks mainly relate to processes or control weaknesses.

Information security risks relate to the confidentiality, integrity and availability of critical company information. The IT Director 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 risk assessment in its strategic planning.

The Supervisory Board is responsible for reviewing the effectiveness of Borealis risk management practices and processes, risk appetite and tolerance levels, the Group's risk exposure 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 are responsible for managing risk, within their authority and in their field of work, in order to ensure that risk management is properly embedded in the organisation and reflected in the daily decision-making processes.

### Company Ownership

On 29 October 2020, OMV announced the completion of the acquisition of an additional 39% stake in Borealis from Mubadala, thus increasing its share to 75%. Mubadala retains a 25% share in Borealis. The agreed purchase price for the 39% stake was USD 4.68 billion.

### Changes to the Supervisory Board

Effective 21 February 2020, Khalifa Abdulla Khamis Alromaithi was appointed Supervisory Board member, succeeding Khalifa Al Suwaidi. Effective 29 October 2020, Reinhard Florey and Saeed Al Mazrouei were appointed Supervisory Board members, succeeding Suhail Mohamed Faraj Al Mazrouei and Khalifa Abdulla Khamis Alromaithi. In addition, effective 29 October 2020, Rainer Seele was appointed Chairman and Musabbeh Al Kaabi Vice-Chairman of the Supervisory Board.

### Borealis Pulse Check 2020

In 2020, the first Borealis Pulse Check was carried out in the interim period between the Group's biannual People Survey. The outcome showed an increased employee engagement level by 7 percentage points compared to the People Survey held in 2019. Higher levels of engagement across all business groups, business units and locations were achieved. The Pulse Check confirms the resilience of Borealis employees in times of rapid and disruptive change.

### Economic Development and Outlook

#### Outlook for 2021

In 2021, Borealis management will further increase company emphasis on safety – both occupational and process – in order to achieve the ultimate goal of zero incidents. Safety thus remains the number one priority for the Group: from top to bottom and across all global operations.

The rebuilding of the post-pandemic global economy will require innovative technologies and products that help make life safer and more sustainable. Thanks to the company's leading-edge portfolio of advanced and circular polyolefin solutions, Borealis management is confident that it can capitalise on the opportunities for growth during economic recovery. It will maintain its commitment to re-inventing for more sustainable living and by offering chemical and plastic solutions that create value for society.

On 4 February 2021, Borealis announced that it has started a process to divest its nitrogen business unit including fertilizer, technical nitrogen and melamine products. The company's share in fertilizer production sites in the Netherlands and Belgium ("Rosier") is presently not being considered within the potential sales process. Such a divestment would be subject to information and consultation requirements with employee representatives as may be required under applicable laws.

### Other Information

In accordance with section 267a (6) of the Austrian Commercial Code (UGB), Borealis prepares a separate consolidated non-financial report.



		2020	2019	2018	2017	2016
<b>Health, Safety &amp; Environment <sup>1)</sup></b>						
Total Recordable Injuries	number/million work hours	1.7	1.6	1.3	1.1	0.9
EU ETS CO <sub>2</sub> emissions	kilotonnes	4,050	4,625	4,302	4,210	4,600
Number of employees	full-time equivalents	6,920	6,869	6,834	6,619	6,494
Flaring performance	tonnes	42,543 <sup>2)</sup>	27,619	26,273	51,620	38,740
<b>Income and profitability</b>						
Net sales	EUR million	6,818	8,103	8,337	7,564	7,218
Operating profit	EUR million	356	605	496	791	938
Operating profit as percentage of net sales	%	5	7	6	10	13
Net profit	EUR million	589	872	906	1,095	1,107
Return on capital employed, net after tax	%	8	11	13	15	16
<b>Cash flow and investments</b>						
Cash flow from operating activities <sup>3)</sup>	EUR million	1,083	872	517	725	1,145
Investments in property, plant and equipment	EUR million	614	376	326	453	333
Cash and cash equivalents <sup>3)</sup>	EUR million	83	83	50	207	741
<b>Financial position</b>						
Balance sheet total	EUR million	10,600	10,118	9,949	9,395	9,932
Net interest-bearing debt <sup>3)</sup>	EUR million	1,833	1,569	1,327	812	672
Equity attributable to owners of the parent	EUR million	6,417	6,445	6,421	6,365	6,496
Gearing <sup>3)</sup>	%	29	24	21	13	10

1) Environmental data might be subject to minor adjustments due to ongoing audits and missing third-party data at the time of closing of this report. // 2) Severe upsets led to significant emergency flaring during shut-downs; further there was a lack of recycling capacity. // 3) Amounts from 2016-2019 have been restated due to reclassification.

## Definitions

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



Vienna, 19 February 2021

**Executive Board:**



**Alfred Stern**  
Chief Executive



**Mark Tonkens**  
Chief Financial Officer



**Martijn Arjen van Koten**



**Philippe Roodhooft**



**Lucrèce De Ridder**



# Consolidated Financial Statements

## Consolidated Income Statement

EUR thousand	2020	2019	Note
<b>Net sales</b>	<b>6,818,000</b>	<b>8,102,872</b>	1, 2
Production costs	-5,501,000	-6,387,617	6, 7, 14, 15
<b>Gross profit</b>	<b>1,317,000</b>	<b>1,715,255</b>	
Sales and distribution costs	-680,885	-717,138	6, 7, 14, 15
Administration costs	-222,627	-249,469	6, 7, 14, 15
R&D costs	-150,399	-144,616	3, 6, 7, 14, 15
Other income	92,800	500	30
<b>Operating profit</b>	<b>355,889</b>	<b>604,532</b>	
Net results of associated companies and joint ventures	375,016	385,748	9
Financial income	48,679	25,342	19
Financial expenses	-72,055	-61,778	19
<b>Profit before taxation</b>	<b>707,529</b>	<b>953,844</b>	
Taxes on income	-119,012	-81,845	11
<b>Net profit for the year</b>	<b>588,517</b>	<b>871,999</b>	
Attributable to:			
Non-controlling interest	-5,509	-1,419	
Equity holders of the parent	594,026	873,418	

**Consolidated Statement of Comprehensive Income**

EUR thousand	2020	2019	Note
<b>Net profit for the year</b>	<b>588,517</b>	<b>871,999</b>	
<b>Items that may be subsequently reclassified to the income statement</b>			
Net gain/loss on translation of financial statements of foreign operations	-324,944	67,680	
Reclassifications to the income statement during the period	-17,094	0	8
Tax effect recognised in other comprehensive income	0	0	
Net gain/loss on long-term loans to foreign operations	4,020	-3,398	20
Reclassifications to the income statement during the period	0	0	
Tax effect recognised in other comprehensive income	-1,005	849	
Net gain/loss on loans to hedge investments in foreign operations	16,704	-2,735	20, 23, 24
Reclassifications to the income statement during the period	0	0	
Tax effect recognised in other comprehensive income	-4,176	683	
Fair value adjustments of cash flow hedges	-50,385	-53,512	20, 23, 24, 25, 26
Reclassifications to the income statement during the period	25,636	-1,829	20, 23, 24, 25, 26
Tax effect recognised in other comprehensive income	6,187	13,836	
Share of other comprehensive income of associates accounted for using the equity method	1,893	-1,789	9
<b>Items that will not be reclassified to the income statement</b>			
Actuarial gains and losses	13,270	-56,060	15
Tax effect recognised in other comprehensive income	-1,415	13,528	
Share of other comprehensive income of associates accounted for using the equity method	-4,159	0	9
<b>Net income/expense recognised in other comprehensive income</b>	<b>-335,468</b>	<b>-22,747</b>	
<b>Total comprehensive income</b>	<b>253,049</b>	<b>849,252</b>	
Attributable to:			
Non-controlling interest	-7,471	-1,595	
Equity holders of the parent	260,520	850,847	



## Consolidated Balance Sheet

EUR thousand	31.12.2020	31.12.2019 restated	Note
<b>Assets</b>			
<b>Non-current assets</b>			
Intangible assets	554,424	522,208	3, 4, 7
Property, plant and equipment			5, 7
Production plants	2,529,639	2,515,431	
Machinery and equipment	34,682	34,742	
Construction in progress	693,735	391,257	
	3,258,056	2,941,430	
Right-of-use assets	195,675	210,022	6
Investments in associated companies and joint ventures	3,577,497	3,631,061	9
Other investments	31,443	31,692	10, 29
Loans granted	750,804	257,070	10, 28, 29, 31
Other receivables and other assets <sup>1)</sup>	76,223	60,536	2, 10, 28, 29
Deferred tax assets	26,692	59,377	11
<b>Total non-current assets</b>	<b>8,470,814</b>	<b>7,713,396</b>	
<b>Current assets</b>			
Inventories	961,328	1,109,438	12
Receivables			
Trade receivables	640,090	749,888	27, 28, 29, 31
Income taxes	7,519	153,230	
Other receivables and other assets	436,565	308,837	28, 29
Total receivables and other assets	1,084,174	1,211,955	
Cash and cash equivalents <sup>1)</sup>	83,404	83,498	29
<b>Total current assets</b>	<b>2,128,906</b>	<b>2,404,891</b>	
<b>Total assets</b>	<b>10,599,720</b>	<b>10,118,287</b>	

1) 2019 amount has been restated. For further details refer to section Restatement.

## Consolidated Balance Sheet

EUR thousand	31.12.2020	31.12.2019	Note
<b>Total equity and liabilities</b>			
<b>Shareholders' equity</b>			
Share capital and contributions by shareholders	1,599,397	1,599,397	13
Reserves	-299,231	22,791	
Retained earnings	5,117,066	4,823,040	
Shareholders' equity	6,417,232	6,445,228	
Non-controlling interest	8,993	12,524	
<b>Total equity</b>	<b>6,426,225</b>	<b>6,457,752</b>	
<b>Liabilities</b>			
<b>Non-current liabilities</b>			
Loans and borrowings	1,411,552	1,211,886	21, 22, 29
Lease liabilities	156,697	172,371	6, 21, 22
Deferred tax liabilities	224,108	216,548	11
Employee benefits	470,713	474,776	15
Provisions	65,629	61,222	16
Government grants	18,863	18,684	17
Other liabilities	16,650	13,923	22, 29
<b>Non-current liabilities</b>	<b>2,364,212</b>	<b>2,169,410</b>	
<b>Current liabilities</b>			
Loans and borrowings	310,397	229,603	21, 22, 29
Lease liabilities	38,101	38,513	6, 21, 22
Trade payables	788,170	746,527	22, 29, 31
Income taxes	63,049	39,131	
Provisions	2,163	3,481	16
Government grants	0	566	17
Contract liabilities	41,660	41,789	2
Other liabilities	565,743	391,515	22, 29
<b>Current liabilities</b>	<b>1,809,283</b>	<b>1,491,125</b>	
<b>Total liabilities</b>	<b>4,173,495</b>	<b>3,660,535</b>	
<b>Total equity and liabilities</b>	<b>10,599,720</b>	<b>10,118,287</b>	



## Consolidated Statement of Changes in Equity

EUR thousand	Share capital <sup>1)</sup> and contributions by shareholders	Reserve for actuarial gains/losses recognised in equity	Hedging reserve	Reserve for unrealised exchange gains/losses	Retained earnings	Total attributable to the equity holders of the parent	Non- controlling interest	Total equity
<b>Balance as of 1 January 2019</b>	<b>1,599,397</b>	<b>-218,228</b>	<b>44,839</b>	<b>220,738</b>	<b>4,774,622</b>	<b>6,421,368</b>	<b>14,740</b>	<b>6,436,108</b>
Net profit for the year	0	0	0	0	873,418	<b>873,418</b>	-1,419	<b>871,999</b>
Other comprehensive income	0	-42,532	-41,505	61,466	0	<b>-22,571</b>	-176	<b>-22,747</b>
<b>Total comprehensive income</b>	<b>0</b>	<b>-42,532</b>	<b>-41,505</b>	<b>61,466</b>	<b>873,418</b>	<b>850,847</b>	<b>-1,595</b>	<b>849,252</b>
Dividend payments	0	0	0	0	-825,000	<b>-825,000</b>	-621	<b>-825,621</b>
Reclassifications of cash flow hedges to balance sheet	0	0	-1,987	0	0	<b>-1,987</b>	0	<b>-1,987</b>
<b>Balance as of 31 December 2019</b>	<b>1,599,397</b>	<b>-260,760</b>	<b>1,347</b>	<b>282,204</b>	<b>4,823,040</b>	<b>6,445,228</b>	<b>12,524</b>	<b>6,457,752</b>
Net profit for the year	0	0	0	0	594,026	<b>594,026</b>	-5,509	<b>588,517</b>
Other comprehensive income	0	7,695	-18,562	-322,639	0	<b>-333,506</b>	-1,962	<b>-335,468</b>
<b>Total comprehensive income</b>	<b>0</b>	<b>7,695</b>	<b>-18,562</b>	<b>-322,639</b>	<b>594,026</b>	<b>260,520</b>	<b>-7,471</b>	<b>253,049</b>
Dividend payments	0	0	0	0	-300,000	<b>-300,000</b>	-260	<b>-300,260</b>
Changes in consolidation scope <sup>2)</sup>	0	0	0	0	0	<b>0</b>	4,200	<b>4,200</b>
Reclassifications of cash flow hedges to balance sheet	0	0	11,484	0	0	<b>11,484</b>	0	<b>11,484</b>
<b>Balance as of 31 December 2020</b>	<b>1,599,397</b>	<b>-253,065</b>	<b>-5,731</b>	<b>-40,435</b>	<b>5,117,066</b>	<b>6,417,232</b>	<b>8,993</b>	<b>6,426,225</b>

1) Share capital of Borealis AG (parent company) amounts to EUR 300,000.00 (EUR 300,000.00). // 2) The effect from changes in the scope of consolidation for non-controlling interest relates to the acquisition of DYM Solution Co., Ltd., for further details, please refer to note 8.

A dividend of EUR 300,000 thousand was paid in 2020 from the 2019 result.

## Consolidated Cash Flow

EUR thousand	2020	2019 restated	Note
<b>Cash flows from operating activities</b>			
Payments from customers	6,880,072	8,167,211	
Payments to employees and suppliers	-5,842,549	-7,022,044	
Interest received	20,839	10,256	19
Interest paid	-35,473	-40,396	19
Other financial expenses paid <sup>1)</sup>	-16,345	-17,732	19
Income taxes repaid / paid	76,503	-224,980	11
	<b>1,083,047</b>	<b>872,315</b>	
<b>Cash flows from investing activities</b>			
Investments in property, plant and equipment	-614,161	-375,754	5
Investments in intangible assets	-61,139	-94,975	4
Acquisitions of subsidiaries net of cash	-602,644	0	
Earn-out payments	0	-1,500	
Investments in other financial investments	0	-653	
Dividends of associated companies and joint ventures	510,135	651,104	9
Capital contributions to and financing of associated companies and joint ventures	-299,311	-85,232	9
Loans granted to third parties	0	-155,801	10
Proceeds from sale of shares in joint ventures	0	21,529	9
	<b>-1,067,119</b>	<b>-41,282</b>	
<b>Cash flows from financing activities</b>			
Non-current loans and borrowings obtained	608,560	590,435	21
Current loans and borrowings obtained	372,614	244,832	21
Current loans and borrowings repaid	-652,919	-768,874	21
Principal elements of lease payments	-41,534	-38,703	6
Dividends paid to equity holders of the parent	-300,000	-825,000	
Dividends paid to non-controlling interest	-260	-621	
	<b>-13,539</b>	<b>-797,933</b>	
<b>Net cash flow of the period</b>	<b>2,389</b>	<b>33,101</b>	
Cash and cash equivalents as of 1 January <sup>1)</sup>	83,498	50,418	
Effect of exchange rate fluctuations on cash held	-2,483	-21	
<b>Cash and cash equivalents as of 31 December <sup>1)</sup></b>	<b>83,404</b>	<b>83,498</b>	

1) 2019 amount has been restated. For further details refer to section Restatement.



# 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 innovative solutions in the fields of polyolefins, base chemicals and fertilizers.

## Borealis Reports the Business Result in three Segments:

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

Base Chemicals essentially includes the following product ranges: Phenol, Acetone, Ethylene and Propylene.

The third segment is "Borealis NITRO" consisting of Fertilizers, Melamine and Technical Nitrogen Products.

## Statement of Compliance

The consolidated financial statements have been prepared in compliance with the 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 publication by the Executive Board on 19 February 2021.

## Basis of Preparation

The consolidated financial statements are presented in thousand euro (EUR thousand), 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 and financial assets at fair value through profit or loss (FVPL). 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 a significant influence (interest of 20% or more), but no control or 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 on the relevant activities require the 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), 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 remeasurement of the acquired net assets is made on 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 amount of the asset or liability affected in future periods. The judgements, estimates and assumptions mainly relate to the useful life and impairment of intangible assets and property, plant and equipment (note 4 and note 5), determination of lease liabilities (note 6), value of tax assets and liabilities and unused tax losses (note 11), inventory impairment (note 12), actuarial assumptions for employee benefits (note 15),



future cash outflows for provisions (note 16), allowance for impairment in respect of trade receivables (note 28) and are included in the description of the respective note for the position.

## Foreign Currency

### Transactions and Balances

Monetary assets and liabilities denominated in foreign currencies have been converted into euro (EUR) at the exchange rates quoted on the reporting 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, conversion 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 as of the reporting 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 converted at the exchange rates quoted on the reporting date for assets and liabilities. The income statements of foreign subsidiaries have been converted on the basis of monthly exchange rates. The exchange differences arising from the conversion are recognised in other comprehensive income.

## Summary of Significant Accounting Policies

### Income Statement

#### Revenue Recognition

Borealis' main business model is to produce, market and sell various goods (polyolefins, base chemicals, fertilizers and related nitrogen products) to its customers. Each sale typically includes an obligation to deliver one particular

type of goods. No bundling of various goods in one contract currently exists and price is not interdependent on prices in other contracts, delivery of other goods or promises. In case of additional services provided as part of the contract that typically do not meet the requirements of a separate performance obligation in accordance with IFRS 15, no allocation of the transaction price to multiple performance obligations is necessary.

Revenue is recognised when control of the products has been transferred, i.e. when the products are delivered to the customer. All Borealis contracts for delivery of goods include Incoterms, such as DDP, CIF or FCA, which govern changes to the control of goods. This will be the point of revenue recognition by Borealis. Payment is generally due up to 90 days from delivery.

For some contracts, variable considerations have been agreed, typically volume discounts for goods purchased during the particular period, i.e. one year. Borealis regularly estimates the anticipated discount based on the best available data supported by a large number of similar contracts and historical information.

Generally, Borealis does not expect to have any contracts where the period between the transfer of the promised goods to the customer and payment by the customer exceeds one year. Consequently, Borealis does not adjust the promised amount of consideration for the effects of a significant financing component.

The Group typically provides warranties for general repairs of defects that existed at the time of sale, as required by law. These assurance-type warranties are accounted for under IAS 37 Provisions, Contingent Liabilities and Contingent Assets. No other warranties or rights to return are offered by Borealis.

Net sales comprise revenue from contracts with customers and revenue from other sources arising in the course of the ordinary activities of the Group, excluding value-added tax and after deduction of goods returned, discounts and allowances.

The Group recognises contract liabilities for consideration received in respect of unsatisfied performance obligations. If the Group satisfies a performance obligation before it receives the consideration, the Group recognises a contract



asset or a receivable in its balance sheet, depending on whether something other than the passage of time is required before the consideration is due.

#### 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 direct 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 or before tax, as appropriate, 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 at 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 as of the reporting 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 on 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.

### Property, Plant and Equipment

Property, plant and equipment is 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 amount of the property, plant and equipment.

Production plants include land, buildings, related immovable machinery and equipment. 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 determined in groups of similar

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 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 amounts of both property, plant and equipment and intangible assets are reviewed on each reporting 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 the fair value less cost of disposal and value in use. An impairment loss is recognised whenever the carrying amount of an asset or its cash-generating unit exceeds its recoverable amount. Impairment losses are recognised in the income statement.

#### Leases

Leases are recognised as a right-of-use asset and a corresponding liability on the date at which the leased asset is available for use by the Group. Each lease payment is split between the liability and finance cost. The finance cost is charged to profit or loss over the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

Liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable,
- variable lease payments that are based on an index or a rate,
- amounts expected to be payable by the lessee under residual value guarantees, if any,

- the exercise price of a purchase option, if it is reasonably certain that the lessee will exercise that option, and
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

Lease payments to be made under reasonably certain extension options are also included in the measurement of the liability.

Moreover, non-lease components are separated from the lease components for measurement of right-of-use assets and lease liabilities.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be determined, which is generally the case for leases in the Group, the lessee's incremental borrowing rate is used, i.e. the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

The Group determines its incremental borrowing rate by obtaining interest rates from external financing sources and makes certain adjustments (to reflect the terms of the lease and the credit-worthiness of the Company, amongst others).

Right-of-use assets are initially measured at cost comprising the following:

- the amount of the initial measurement of the lease liability,
- any lease payments made on or before the commencement date, less any lease incentives received,
- any initial direct costs, and
- costs, if any, of restoring the asset at the end of the lease term to the condition required by the terms and conditions of the lease.

After the commencement date, the right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term using a linear method of depreciation. If it is reasonably certain that the Group will exercise a purchase option, the right-of-use asset is depreciated over the underlying asset's useful life.



Payments associated with short-term leases and leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of 12 months or less. Low-value assets comprise office and IT equipment (such as water dispensers, coffee machines or franking machines), textiles or smaller containers.

#### 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. Prior to classification as held for sale, the assets (or components of a disposal group) are re-measured in accordance with IFRS 5. Thereafter, the assets (or disposal group) are generally measured at the lower of their carrying amount 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

Raw materials, work in progress and finished goods are stated at the lower of cost and net realisable value. Costs incurred are based on the first in, first out principle (FIFO method) and comprise direct materials, direct labour and an appropriate proportion of variable and fixed overhead expenditure, the latter being allocated on the basis of normal operating capacity. Cost includes the reclassification from equity of any gains or losses on qualifying cash flow hedges relating to purchases of raw material, but excludes borrowing costs. Costs are assigned to individual items of inventory based on weighted average costs. Costs of purchased inventory are determined after deducting rebates and discounts. The net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale. Measurement of 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 reliably estimated 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 amounts of assets and liabilities for financial reporting purposes and the amounts used for tax purposes. Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax

assets and liabilities and when the deferred tax balances relate to the same taxation authority. Current tax assets and tax liabilities are offset where the entity has a legally enforceable right to offset and intends to either settle on a net basis, or to realise the asset and settle the liability simultaneously. 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 as of the reporting 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 five-year business plan.

In case of a history of recent losses, a deferred tax asset arising from unused tax losses or tax credits is only recognised to the extent that the entity has sufficient taxable temporary differences or there is convincing other evidence that sufficient taxable profit will be available against which the unused tax losses or unused tax credits can be utilised.

Deferred tax assets are reviewed on each reporting date and are remeasured to the extent that it is probable they will 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 expenses when they are due. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in 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 its present value and the fair value of any plan assets is deducted. A qualified actuary performed the calculation using the projected unit credit method.

The discount rate used in the actuarial measurements is determined with a reference to long-term yields of AA-rated corporate bonds. In countries where no deep market for such bonds exists, the 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 predominantly held in the 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 mainly cover the medical expenses 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 length 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 on 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 on the principal market for the asset or liability or, in the absence of a principal market, on 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 best economic 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 reassessing 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 29.

#### Financial Instruments

##### Recognition and Derecognition

Financial assets and financial liabilities are recognised on the trade date, when the Group becomes a party to the contractual provisions of the financial instrument. Financial assets are derecognised when the contractual rights to the cash flows from the financial asset expire, or when the financial asset and substantially all the risks and rewards are transferred. A financial liability is derecognised when it is extinguished, discharged, cancelled or expires.

##### Classification and Initial Measurement of Financial Assets

Financial assets are initially recognised at their fair value, except for those trade receivables that do not contain a significant financing component and are measured at the transaction price in accordance with IFRS 15. For all financial assets which are not subsequently measured at fair value, the fair value on initial recognition is adjusted for

transaction costs (where applicable). Financial assets, other than those designated and effective as hedging instruments, are classified into the following categories:

- amortised cost,
- fair value through profit or loss (FVPL),
- fair value through other comprehensive income (FVOCI).

In the periods presented, the Group does not have any financial assets categorised as FVOCI.

The classification is determined by both:

- the entity's business model for managing the financial asset,
- the contractual cash flow characteristics of the financial asset.

#### Subsequent Measurement of Financial Assets

##### Financial Assets at Amortised Cost

Financial assets are measured at amortised cost if the assets meet the following conditions (and are not designated as FVPL):

- they are held within a business model whose objective is to hold the financial assets and collect their contractual cash flows,
- the contractual terms of the financial assets give rise to cash flows that are solely payments of principal and interest on the principal amount outstanding.

After initial recognition, these are measured at amortised cost using the effective interest rate method. Discounting is omitted where the effect of discounting is immaterial. The Group's cash and cash equivalents, trade receivables (except trade receivables under the factoring programme) and parts of other receivables fall into this category of financial instruments.

##### Financial Assets at Fair Value through Profit or Loss (FVPL)

Financial assets that are held within a different business model other than "hold to collect" or "hold to collect and sell" are categorised at fair value through profit or loss. Furthermore, irrespective of the business model, financial assets whose contractual cash flows are not solely payments of principal and interest are accounted for at FVPL.

Derivative financial instruments for which hedge accounting is not applied fall into this category.

The Group has a pool of specifically designated trade receivables that are all subject to factoring. This pool of receivables represents a hold to sell business model and is measured using FVPL.

The category also contains equity investments. These equity investments mainly consist of fully-owned subsidiaries, which are not consolidated on a materiality basis. The Group accounts for these investments at FVPL and did not make the irrevocable election to account for the investments at fair value through other comprehensive income (FVOCI).

Furthermore, the category contains marketable securities and bonds which are classified as a debt instrument. As such, marketable securities and bonds do not fulfil the solely payment of principal and interest (SPPI) criteria and have to be measured at FVPL.

Assets in this category are measured at fair value with gains or losses recognised in profit or loss. The fair values of financial assets in this category are determined by reference to active market transactions or using a valuation technique where no active market exists.

#### Impairment of Financial Assets

The Group has three types of financial assets that are subject to IFRS 9's expected credit loss (ECL) model:

- trade receivables (excluding trade receivables held to sell) and contract assets,
- cash and cash equivalents,
- debt investments carried at amortised cost.

For the measurement of the ECLs, a distinction is made between:

- financial instruments for which credit risk has not increased significantly since initial recognition ("Stage 1" – 12-month expected credit losses),
- financial instruments for which credit risk has increased significantly since initial recognition ("Stage 2" – lifetime expected credit losses).



“Stage 3” covers financial assets that have objective evidence of impairment as of the reporting date (credit-impaired financial assets).

ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the entity in accordance with the contract and the cash flows that the Group expects to receive).

Lifetime ECLs are the ECLs that result from all possible default events over the expected life of a financial instrument.

12-month ECLs are the portion of ECLs that result from default events that are possible within the 12 months after the reporting date.

On each reporting date, the Group assesses whether financial assets carried at amortised cost are credit-impaired. A financial asset is credit-impaired when one or more events have occurred that have a detrimental impact on the estimated future cash flows of the financial asset.

Evidence that a financial asset is credit-impaired includes the following observable data:

- significant financial difficulty of the borrower or issuer,
- a breach of contract such as a default or being more than 90 days past due,
- it is probable that the borrower will enter into bankruptcy or other financial reorganisation.

A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows, such as in the case of bankruptcy.

#### **Trade Receivables and Contract Assets**

Trade receivables and contract assets are impaired by using the simplified approach, which does not distinguish between 12-month ECLs and lifetime ECLs, but all assets are generally impaired using lifetime ECLs. For trade receivables and contract assets, the Group distinguishes between trade receivables up to 90 days past due and trade receivables more than 90 days past due. For trade receivables up to 90 days past due, the Group calculates

ECLs based on external and internal rating and associated probabilities of default. Available forward-looking information is taken into account if it has a material impact on the amount of impairment recognised. Trade receivables more than 90 days past due are assessed individually and credit-impaired if necessary. See note 28 for further information on how credit risk is managed.

Until the end of the financial year 2019, the impairment calculation of trade receivables and contract assets was determined using the simplified approach through a provision matrix. The provision matrix was based on an entity’s historical default rates over the expected life of the trade receivables and was adjusted for forward-looking estimates. For instance, if forecast economic conditions (i.e. gross domestic product) were expected to deteriorate over the next year, which could lead to an increased number of defaults, the historical default rates would be adjusted. To measure the expected credit losses, trade receivables and contract assets were grouped based on shared credit risk characteristics (such as geography or risk category) and the days past due. Trade receivables more than 180 days past due were assessed individually and credit-impaired if necessary.

Loss allowances for trade receivables measured at amortised cost are deducted from the gross carrying amount of the assets and recognised in sales and distribution costs in the income statement.

#### **Cash and Cash Equivalents**

While cash and cash equivalents are also subject to the impairment requirements of IFRS 9, the identified impairment loss (based on the general approach) was immaterial.

#### **Debt Investments Carried at Amortised Cost**

The Group’s debt investments at amortised cost are considered to have low credit risk and the loss allowance recognised during the period was therefore limited to 12 months of expected losses. Debt investments are considered to be low credit risk when they have a low risk of default and the counterparty has a strong capacity to meet its contractual cash flow obligations in the near term. On that basis, the identified impairment loss (ECL based on the general approach) was immaterial. If there is any objective evidence for an impairment, debt investments are impaired individually (credit-impaired). See note 28 for further information.



#### Classification and Measurement of Financial Liabilities

Financial liabilities are initially measured at fair value and, where applicable, adjusted for transaction costs unless the Group designated a financial liability at fair value through profit or loss. Subsequently, financial liabilities are measured at amortised cost using the effective interest method except for derivatives, which are carried at fair value with gains or losses recognised in profit or loss (other than derivative financial instruments that are designated and effective as hedging instruments).

All interest-related charges and, if applicable, changes in an instrument's fair value that are recognised in profit or loss are included within financial expenses or financial income.

The Group's financial liabilities include loans and borrowings, lease liabilities, trade payables and parts of other liabilities and derivative financial instruments.

#### Derivatives and Hedging Activities

Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently remeasured at their fair value at the end of each reporting period.

The accounting for subsequent changes in fair value depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged. The Group designates certain derivatives as either:

- hedges of the fair value of recognised assets or liabilities or a firm commitment (fair value hedges),
- hedges of a particular risk associated with the cash flows of recognised assets and liabilities and highly probable forecast transactions (cash flow hedges), or
- hedges of a net investment in a foreign operation (net investment hedges).

In the periods presented, the Group does not have any fair value hedges outstanding and no derivatives are considered as net investment hedges.

At inception of the hedge relationship, the Group documents the hedge relationship between hedging instruments and hedged items including whether changes in the cash flows of the hedging instruments are expected to offset changes in the cash flows of hedged items. The Group documents its risk management objective and strategy for undertaking its

hedge transactions. A hedging relationship qualifies for hedge accounting only if all of the following hedge effectiveness requirements are met:

- there is an economic relationship between the hedged item and the hedging instrument,
- the effect of credit risk does not dominate the value changes that result from that economic relationship,
- the hedge ratio of the hedging relationship is the same as that resulting from the quantity of the hedged item that the entity actually hedges and the quantity of the hedging instrument that the entity actually uses to hedge that quantity of the hedged item.

#### Cash Flow Hedging

When a derivative is designated as a cash flow hedging instrument, the effective portion of changes in the fair value of the derivative is recognised in OCI and accumulated in the hedging reserve. The effective portion of changes in the fair value of the derivative that is recognised in OCI is limited to the cumulative change in fair value of the hedged item, determined on a present value basis, from inception of the hedge. Any ineffective portion of changes in the fair value of the derivative is recognised immediately in profit or loss. The Group designates the full change in fair value of foreign exchange forward contracts as the hedging instrument in cash flow hedging relationships.

As of the reporting date, Borealis has several foreign exchange forward contracts, but no outstanding foreign exchange options.

When the hedged forecast transaction subsequently results in the recognition of a non-financial item such as inventory, the amount accumulated in the hedging reserve and the cost of the hedging reserve is directly included in the initial cost of the non-financial item when it is recognised.

For all other hedged forecast transactions, the amount accumulated in the hedging reserve and the cost of the hedging reserve is reclassified to profit or loss in the same period or periods during which the hedged expected future cash flows affect profit or loss.



If the hedge no longer meets the criteria for hedge accounting or the hedging instrument is sold, expires, is terminated or is exercised, then hedge accounting is discontinued prospectively. When hedge accounting for cash flow hedges is discontinued, the amount that has been accumulated in the hedging reserve remains in equity until, for a hedge of a transaction resulting in the recognition of a non-financial item, it is included in the non-financial item's cost on its initial recognition or, for other cash flow hedges, it is reclassified to profit or loss in the same period or periods as the hedged expected future cash flows affect profit or loss.

If the hedged future cash flows are no longer expected to occur, then the amounts that have been accumulated in the hedging reserve are immediately reclassified to profit or loss.

#### Net Investment Hedges

Hedges of net investments in foreign operations are accounted for in a similar manner to cash flow hedges.

Any gain or loss on the hedging instrument relating to the effective portion of the hedge is recognised in OCI and accumulated in the reserve for unrealised exchange gains/losses. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss. Gains and losses accumulated in equity are reclassified to profit or loss when the foreign operation is partially disposed of or sold.

#### Derivatives That Do Not Qualify for Hedge Accounting

Certain derivative instruments do not qualify for hedge accounting. Changes in the fair value of any derivative instrument that does not qualify for hedge accounting are recognised immediately in profit or loss.

#### 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.

#### 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 property, plant and equipment, intangible assets 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 the 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 used to make decisions on resources to be allocated to the segment and assess its performance and for which separate financial information is available (reportable segment).

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

The Executive Board has identified three reportable segments:

**Polyolefins** – this part of the business manufactures and markets polyolefin products. Although the Automotive, Energy, Consumer Products, Pipe, Advanced Products, New Business Development and Circular Economy Solutions operating segments provide separate reports on their performance, they have been aggregated into one reporting 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 phenol, acetone, ethylene, propylene and similar. These activities are covered in organisational terms by the business unit Hydrocarbons & Energy.

Borealis NITRO – Borealis is also engaged in the production and marketing of fertilizers, technical nitrogen and melamine. These activities are carried out by two business units – Fertilizers and Melamine. Fertilizers and Melamine provide separate reports on their performance, but based on their similar economic characteristics, as well as the size of Melamine being below the required thresholds, 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 included separately in the reports provided to the Executive Board or only contain results of the associated companies. The results of these operations are included in the Non-Allocated column (see note 1).

### New Accounting Standards

#### New and Amended Standards Adopted by Borealis

In 2020, the following amended 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
<b>Amended Standards</b>			
Conceptual Framework	References to the Conceptual Framework in IFRS Standards	1 January 2020	1 January 2020
IFRS 3	Definition of a Business	1 January 2020	1 January 2020
IAS 1 and IAS 8	Definition of Material	1 January 2020	1 January 2020
IFRS 9, IAS 39 and IFRS 7	Interest Rate Benchmark Reform – Phase 1	1 January 2020	1 January 2020

#### Amendments to IFRS 9, IAS 39 and IFRS 7: Interest Rate Benchmark Reform – Phase 1

Following the financial crisis, the replacement of benchmark interest rates such as LIBOR and other interbank offered rates (IBORs) has become a priority for global regulators. The IASB has embarked on a two-phase project to consider what, if any, reliefs to give from the effects of the IBOR reform. The IASB issued amendments to IFRS 9, IAS 39 and IFRS 7 in September 2019 with an effective date for annual periods beginning on or after 1 January 2020. The amendments bring relief avoiding the discontinuation of hedge accounting for hedges exposed to uncertainties arising from the reform.

The Phase 1 reform has no impact on the consolidated financial statements of the Group as:

- i. the Group is required to assume that the interest rate benchmark on which hedged cash flows are based is not altered as a result of the IBOR reform when assessing whether the future cash flows are highly probable, and
- ii. the uncertainties regarding the timing and the amount of the interest rate benchmark-based cash flows are still present.



In January 2021, EFRAG adopted the Phase 2 IBOR reform (listed in “New and Amended Standards Not Yet Effective”). The above statements are also applicable to Phase 2. For details refer to note 25 which provides related disclosures for Borealis.

#### Other Amended Standards

The adoption of the other 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 the Group.

#### New and Amended Standards Not Yet Effective

A number of new standards and amendments to standards have been issued, but are 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). Borealis does not expect a material impact of these amendments on the consolidated financial statements.

Standards		IASB effective date	EU effective date
<b>New Standards</b>			
IFRS 17	Insurance Contracts	1 January 2023	
<b>Amended Standards</b>			
IFRS 16	COVID-19-Related Rent Concessions	1 June 2020	1 June 2020
IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16	Interest Rate Benchmark Reform – Phase 2	1 January 2021	1 January 2021
IAS 37	Onerous Contracts – Cost of Fulfilling a Contract	1 January 2022	
IFRS 1, IFRS 9, IFRS 16 and IAS 41	Annual Improvements to IFRS Standards 2018–2020	1 January 2022	
IAS 16	Proceeds before Intended Use	1 January 2022	
IFRS 3	References to the Conceptual Framework	1 January 2022	
IAS 1	Classification of Liabilities as Current or Non-current	1 January 2023	
IAS 1 and IFRS Practice Statement 2	Disclosure of Accounting Policies	1 January 2023	
IAS 8	Definition of Accounting Estimates	1 January 2023	
IFRS 10 and IAS 28	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture	Optional	

### Amounts

All amounts are in EUR thousand unless otherwise stated. The amounts in parentheses relate to the preceding year.

### Restatement

In the course of the regular review of accounts, it came to attention that marketable securities have been presented

as cash and cash equivalents in the past, although they did not fulfil the definition of this line item. As this portfolio is held for regulatory purposes, the balance was transferred to the non-current other receivables and other assets line item. The consolidated balance sheet and cash flow statement have been restated accordingly:

<b>Consolidated Balance Sheet</b> <b>EUR thousand</b>	<b>31.12.2019</b> <b>as reported</b>	<b>Increase (+) /</b> <b>Decrease (-)</b>	<b>31.12.2019</b> <b>restated</b>
<b>Assets</b>			
Cash and cash equivalents	106,273	-22,775	83,498
Non-current other receivables and other assets	37,761	22,775	60,536
<b>Consolidated Cash Flow</b> <b>EUR thousand</b>			
	<b>2019</b> <b>as reported</b>	<b>Increase (+) /</b> <b>Decrease (-)</b>	<b>2019</b> <b>restated</b>
<b>Cash flows from operating activities</b>			
Other financial expenses paid	-16,886	-846	-17,732
<b>Net cash flow of the period</b>	<b>33,947</b>	<b>-846</b>	<b>33,101</b>
Cash and cash equivalents as of 1 January	72,347	-21,929	50,418
<b>Cash and cash equivalents as of 31 December</b>	<b>106,273</b>	<b>-22,775</b>	<b>83,498</b>



## 1. Segment Reporting

EUR thousand	Polyolefins		Base Chemicals	
	2020	2019	2020	2019
<b>Net sales by segment</b>				
Total segment sales	4,570,511	5,143,609	3,287,334	4,459,667
Inter-segment sales	0	0	-2,378,229	-2,971,936
	<b>4,570,511</b>	<b>5,143,609</b>	<b>909,105</b>	<b>1,487,731</b>

Prices for Group inter-segment sales are mainly based on monthly market prices for ethylene and propylene contracts.

<b>Segment result</b>				
Operating profit	207,253	213,639	179,966	414,496
Net results of associated companies and joint ventures	9,005	8,726	381	370
Financial income/expenses				
Taxes on income				
Non-controlling interest				
<b>Net profit for the year attributable to equity holders of the parent</b>				

<b>Net sales by geographic segment (by delivery destination)</b>				
EU countries	3,118,949	3,641,573	729,044	1,222,815
thereof Austria	112,521	151,885	13,694	14,412
Non-EU countries in Europe	495,225	494,953	153,877	222,247
US	168,424	205,500	1,309	7,522
Middle East and Asia	351,112	292,554	20,205	31,767
Other regions	436,801	509,029	4,670	3,380
	<b>4,570,511</b>	<b>5,143,609</b>	<b>909,105</b>	<b>1,487,731</b>

EUR thousand	31.12.2020	31.12.2019	31.12.2020	31.12.2019
<b>Other information</b>				
Segment assets	3,968,568	3,597,069	1,977,086	1,561,886
thereof Austria <sup>2)</sup>	1,777,083	1,920,865	673,741	625,076
Segment liabilities	0	0	0	0
Investments in property, plant and equipment	132,117	145,699	136,836	95,287
Depreciation, amortisation and impairment	171,150	167,352	112,442	110,182

Over 90% of the above relate to segment EU countries.

1) Fertilizers, Melamine and Technical Nitrogen Products business unit (Borealis NITRO) // 2) 2019 Polyolefins amount restated for EUR 270,469 thousand investment in Novealis Holdings LLC held by BoNo Holdings LLC, US

Borealis NITRO <sup>1)</sup>		Non-Allocated		Consolidated	
2020	2019	2020	2019	2020	2019
1,090,246	1,261,875	248,138	209,657	9,196,229	11,074,808
0	0	0	0	-2,378,229	-2,971,936
<b>1,090,246</b>	<b>1,261,875</b>	<b>248,138</b>	<b>209,657</b>	<b>6,818,000</b>	<b>8,102,872</b>
6,775	76,516	-38,105	-100,119	355,889	604,532
1,059	-3,746	364,571	380,398	375,016	385,748
		-23,376	-36,436	-23,376	-36,436
		-119,012	-81,845	-119,012	-81,845
		5,509	1,419	5,509	1,419
				<b>594,026</b>	<b>873,418</b>
929,830	1,062,812	106,481	97,475	4,884,304	6,024,675
122,073	130,926	75,221	59,335	323,509	356,558
62,903	69,858	0	0	712,005	787,058
6,980	10,633	13,933	3,160	190,646	226,815
50,638	54,752	127,724	109,022	549,679	488,095
39,895	63,820	0	0	481,366	576,229
<b>1,090,246</b>	<b>1,261,875</b>	<b>248,138</b>	<b>209,657</b>	<b>6,818,000</b>	<b>8,102,872</b>
31.12.2020	31.12.2019	31.12.2020	31.12.2019	31.12.2020	31.12.2019
1,005,515	950,228	3,648,551	4,009,104	10,599,720	10,118,287
476,939	505,990	3,765,558	3,771,641	6,693,321	6,823,572
0	0	4,173,495	3,660,535	4,173,495	3,660,535
74,009	79,334	271,199	55,434	614,161	375,754
98,868	80,872	81,105	69,022	463,565	427,428



## 2. Revenue from Contracts with Customers

EUR thousand	2020	2019
Revenue from contracts with customers	6,706,743	7,998,331
Revenue from other sources	111,257	104,541
<b>Net sales</b>	<b>6,818,000</b>	<b>8,102,872</b>

Revenue from other sources mainly includes the amortisation of government and investment grants. Gains/losses for realised cash flow hedges on net sales from foreign exchange forwards are included as well (see also note 20).

In the following table, revenue from contracts with customers is disaggregated by segment and geographic market. The table also includes a reconciliation of the disaggregated revenue with the Group's reportable segments (see note 1).

EUR thousand	2020				
	Polyolefins	Base Chemicals	Borealis NITRO <sup>1)</sup>	Non-Allocated	Consolidated
EU countries	3,114,727	728,842	922,994	6,142	4,772,705
Non-EU countries in Europe	495,229	153,877	62,899	0	712,005
US	168,539	1,309	6,980	13,933	190,761
Middle East and Asia	351,416	20,205	50,638	127,599	549,858
Other regions	436,850	4,670	39,895	0	481,415
<b>Revenue from contracts with customers</b>	<b>4,566,760</b>	<b>908,903</b>	<b>1,083,406</b>	<b>147,674</b>	<b>6,706,743</b>
Revenue from other sources	3,751	202	6,840	100,464	111,257
<b>Net sales (as reported in note 1)</b>	<b>4,570,511</b>	<b>909,105</b>	<b>1,090,246</b>	<b>248,138</b>	<b>6,818,000</b>

1) Fertilizers, Melamine and Technical Nitrogen Products business unit (Borealis NITRO)



EUR thousand	2019				
	Polyolefins	Base Chemicals	Borealis NITRO <sup>1)</sup>	Non-Allocated	Consolidated
EU countries	3,630,002	1,221,036	1,050,724	6,338	5,908,100
Non-EU countries in Europe	494,971	222,247	69,747	0	786,965
US	207,482	7,522	10,633	3,160	228,797
Middle East and Asia	301,966	31,767	54,752	106,706	495,191
Other regions	512,078	3,380	63,820	0	579,278
<b>Revenue from contracts with customers</b>	<b>5,146,499</b>	<b>1,485,952</b>	<b>1,249,676</b>	<b>116,204</b>	<b>7,998,331</b>
Revenue from other sources	-2,890	1,779	12,199	93,453	104,541
<b>Net sales (as reported in note 1)</b>	<b>5,143,609</b>	<b>1,487,731</b>	<b>1,261,875</b>	<b>209,657</b>	<b>8,102,872</b>

1) Fertilizers, Melamine and Technical Nitrogen Products business unit (Borealis NITRO).

The following table provides information about receivables, contract assets and contract liabilities from contracts with customers.

EUR thousand	31.12.2020	31.12.2019
Receivables	640,090	749,888
Contract assets	6,930	9,272
Contract liabilities	41,660	41,789

Contract assets are included in other receivables and other assets, thereof EUR 0 thousand (EUR 1,882 thousand) current and EUR 6,930 thousand (EUR 7,390 thousand) non-current.

The Group applies the practical expedient in IFRS 15.121 and does not disclose information about remaining performance obligations that have original expected durations of one year or less.

For impairment recognised on receivables and contract assets, please see note 28 Credit Risk.

The contract liabilities mainly include advance consideration received from customers and expected volume discounts payable to customers in relation to sales made. The contract liabilities of the previous year have been realised during 2020.

### 3. Research and Development

At the end of the year, 516 FTEs were engaged in research and development (527 FTEs in 2019). The total cost of these activities including impairment costs, amounted to EUR 150,399 thousand compared to EUR 144,616 thousand in 2019 (see note 7). Internal development costs amounting to EUR 32,983 thousand (EUR 24,035 thousand) were capitalised as intangible assets.



#### 4. Intangible Assets

EUR thousand	Goodwill		Development costs		Capitalised software		Others	
	2020	2019	2020	2019	2020	2019	2020	2019
<b>Cost</b>								
As of 1 January	158,954	159,034	440,646	396,394	102,085	74,356	311,027	242,791
Exchange adjustments	-505	-80	1	0	-108	-9	784	-552
Additions	0	0	38,533	52,525	7,245	17,645	113,453	117,061
Changes in consolidation scope	21,312	0	0	0	59	0	21,109	0
Disposals	0	0	0	0	-9	-110	-116,956	-56,593
Transfers	0	0	-8,657	-8,273	6,150	10,203	8,657	8,320
	<b>179,761</b>	<b>158,954</b>	<b>470,523</b>	<b>440,646</b>	<b>115,422</b>	<b>102,085</b>	<b>338,074</b>	<b>311,027</b>
<b>Accumulated amortisation</b>								
As of 1 January	47,375	47,375	241,752	220,000	59,087	44,965	142,290	141,921
Exchange adjustments	0	0	0	0	-90	-7	354	-273
Disposals	0	0	0	0	-9	-110	-8,322	-17,265
Amortisation	0	0	19,995	20,113	16,194	14,239	26,193	17,907
Impairment	0	0	4,537	1,639	0	0	0	0
	<b>47,375</b>	<b>47,375</b>	<b>266,284</b>	<b>241,752</b>	<b>75,182</b>	<b>59,087</b>	<b>160,515</b>	<b>142,290</b>
<b>Carrying amount as of 31 December</b>	<b>132,386</b>	<b>111,579</b>	<b>204,239</b>	<b>198,894</b>	<b>40,240</b>	<b>42,998</b>	<b>177,559</b>	<b>168,737</b>

Other intangible assets mainly include patents and licences as well as emission rights.

Additions arising from internal development amounted to EUR 32,983 thousand (EUR 24,035 thousand). Intangible assets received by way of government grants as allowances for emissions (EU Emissions Trading System) amounted to EUR 96,015 thousand (EUR 94,141 thousand), representing a small increase compared to 2019 which was mainly driven by a market price increase. Emission rights purchased from external parties amounted to EUR 46 thousand

(EUR 4,917 thousand) and returned certificates which were borrowed by external parties amounted to EUR 7,037 thousand (EUR 8,364 thousand). An equivalent of EUR 85,914 thousand (EUR 26,348 thousand) was returned to the respective EU ETS regulatory authorities for the emissions in 2019. This increase compared to the previous year can be explained by the fact that the comparative shows returns for the year 2018, for which certificates from prior periods have been used and which were allocated at a lower market price. For details on line transfers see note 5.

## 5. Property, Plant and Equipment

EUR thousand	Production plants		Machinery and equipment		Construction in progress	
	2020	2019	2020	2019	2020	2019
<b>Cost</b>						
As of 1 January	7,124,702	6,946,213	134,288	126,708	391,257	256,790
Exchange adjustments	74,958	-44,753	330	-284	4,770	499
Additions	176,859	119,664	2,877	4,351	460,890	290,296
Changes in consolidation scope	6,684	0	3,196	0	23	0
Disposals	-27,935	-36,180	-1,478	-2,279	0	0
Transfers	154,203	139,758	2,970	5,792	-163,205	-156,328
	<b>7,509,471</b>	<b>7,124,702</b>	<b>142,183</b>	<b>134,288</b>	<b>693,735</b>	<b>391,257</b>
<b>Accumulated depreciation</b>						
As of 1 January	4,609,271	4,349,508	99,546	93,650	0	0
Exchange adjustments	52,616	-29,141	212	-276	0	0
Disposals	-25,766	-34,478	-1,462	-2,250	0	0
Depreciation	326,189	321,908	9,205	8,422	0	0
Impairment	17,522	1,474	0	0	0	0
	<b>4,979,832</b>	<b>4,609,271</b>	<b>107,501</b>	<b>99,546</b>	<b>0</b>	<b>0</b>
<b>Carrying amount as of 31 December</b>	<b>2,529,639</b>	<b>2,515,431</b>	<b>34,682</b>	<b>34,742</b>	<b>693,735</b>	<b>391,257</b>

Production plants include the following carrying amounts: land amounting to EUR 50,215 thousand (EUR 46,773 thousand), buildings amounting to EUR 457,529 thousand (EUR 440,157 thousand), immovable machinery amounting to EUR 1,786,993 thousand (EUR 1,826,048 thousand) and immovable equipment amounting to EUR 234,902 thousand (EUR 202,453 thousand).

In 2020, borrowing costs amounting to EUR 5,061 thousand (EUR 2,915 thousand) have been capitalised, using an average interest rate of 1.8% (2.1%). Additions to property, plant and equipment that were not paid at the end of the reporting period amounted to EUR 56,048 thousand (EUR 48,134 thousand).

Additions comprise major projects advanced in 2020, which are the new, world-scale propane dehydrogenation (PDH) plant

at the existing production site in Kallo, Belgium, the upgrade and revamp of four cracker furnaces in Stenungsund, Sweden and the debottlenecking of a PP-plant in Kallo, Belgium.

The line transfers include EUR 6,032 thousand (EUR 10,249 thousand) of transfers to intangible assets and EUR 118 thousand (EUR 528 thousand) of transfers to right-of-use assets according to IFRS 16.

As of 31 December 2020, Borealis' contractual commitments amounted to EUR 304,528 thousand (EUR 343,637 thousand) for the acquisition of property, plant and equipment (see note 22). The main decrease results from the planned investments in the new dehydrogenation plant in Kallo, Belgium, with capital commitments of EUR 171,690 thousand (EUR 187,916 thousand).



### Assets Pledged

Assets pledged amounted to EUR 12,657 thousand (EUR 12,101 thousand) and relate to property, plant and equipment. The commitments covered by the above assets amounted to EUR 2,392 thousand (EUR 2,668 thousand) at the end of the year.

### 6. Leases

The recognised right-of-use assets relate to the following types of assets:

EUR thousand	31.12.2020	31.12.2019
Production plants	120,458	122,577
Machinery and equipment	75,217	87,445
<b>Carrying amount</b>	<b>195,675</b>	<b>210,022</b>

Additions to the right-of-use assets, including the effect of reassessed contracts, amounted to EUR 29,934 thousand (EUR 39,488 thousand) in 2020.

Leased production plants include land, building space, immovable equipment and logistics facilities, such as storage tanks, warehouses, ports and pipelines. Leased machinery and equipment include company cars, materialhandling equipment, such as forklifts, railcars

and an ethane marine carrier. The majority of leases by number relates to company cars with a typical term of four years and to material handling equipment with a typical term of six years. In general, leases for company cars and material handling equipment do not contain extension options, but a new contract for a replacement asset is usually put in place after the lease has ended.

Lease liabilities are presented in the balance sheet as follows:

EUR thousand	31.12.2020	31.12.2019
Current lease liabilities	38,101	38,513
Non-current lease liabilities	156,697	172,371
<b>Carrying amount</b>	<b>194,798</b>	<b>210,884</b>

The lease liabilities are mainly driven by two material contracts, which together represent 41% (44%) of the carrying amount as of the reporting date: a lease of an ethane carrier and a lease of land in Belgium. The minimum

lease term for the vessel lease ends in 2026, in 2049 for the land. Both contracts contain extension options.

The following amounts relating to leases were included in the income statement:

EUR thousand	2020	2019
<b>Included in production costs, sales and distribution costs, administration costs and R&amp;D costs</b>		
Depreciation charge of right-of-use assets	43,730	41,726
Production plants	22,213	21,307
Machinery and equipment	21,517	20,419
Expense relating to short-term leases	5,802	6,707
Expense relating to leases of low value assets that are not shown above as short-term leases	1,055	696
Expense relating to variable lease payments not included in lease liabilities	58	145
<b>Included in financial expenses</b>		
Interest expense	4,629	5,037

The total cash outflow for leases was EUR 57,707 thousand (EUR 51,288 thousand) in 2020.

#### Variable Lease Payments

Uncertainty arises from variable lease payments that depend on an index or a rate. Such variable lease payments are usually included in contracts for rented land, building space, pipelines or storage and aim to compensate the lessor for price inflation during the contract period. The rates relate to baskets of industry-specific price indices or to single consumer price indices of countries mainly in the euro zone. Borealis does not expect any material increases of the Group's lease liability resulting from changes in those indices.

#### Extension and Termination Options

Extension and termination options are included in a number of leases across the Group. These options are used to maximise operational flexibility in terms of managing contracts. The majority of extension and termination options held are exercisable only by the Group and not by the respective lessor.

In determining the lease term, management considers all facts and circumstances that create an economic incentive to exercise an extension option, or not to exercise a termination option. Extension options (or periods covered by termination options) are only included in the lease term if it is reasonably certain that the lease will be extended (or not terminated). Potential undiscounted future cash outflows of EUR 217,094 thousand (EUR 216,027 thousand) have not been included in the lease liability because it is not reasonably certain that the leases will be extended (or not terminated). This mainly relates to the vessel and the Belgium land lease.

The assessment of reasonable certainty is only reviewed if a significant event or a significant change in circumstances occurs which affects this assessment and is within the control of the lessee. During the current financial year, the financial effect of revising lease terms to reflect the effect of exercising extension and termination options did not lead to an adjustment. Whereas in 2019 the revision resulted in an increase in recognised lease liabilities and right-of-use assets of EUR 16,737 thousand.



## 7. Depreciation, Amortisation and Impairment

Depreciation, amortisation and impairment are allocated in the income statement as follows:

EUR thousand	2020	2019
<b>Production costs</b>		
Depreciation and amortisation	325,635	322,382
Impairment	17,522	0
<b>Sales and distribution costs</b>		
Depreciation and amortisation	30,404	26,941
<b>Administration costs</b>		
Depreciation and amortisation	27,759	26,527
<b>Research &amp; development costs</b>		
Depreciation and amortisation	57,708	48,465
Impairment	4,537	3,113
<b>Total</b>	<b>463,565</b>	<b>427,428</b>

In the current year, research & development costs include an impairment of EUR 4,537 thousand (EUR 3,113 thousand) of intangible assets for which the carrying amount exceeds the present value of future cash flows. Like last year, the impairment of the assets within the research & development costs relates to the non-allocated segment.

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 issued by highly regarded business intelligence providers and management's 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.

The lack of profitability in recent years and the significant deviation in 2020 of the financial performance of the Rosier Group (hereafter Rosier) from the budget qualified as a triggering event for an impairment test. The main reasons were the market conditions being increasingly competitive with the pressure of the vertically integrated competitors and the unfavourable cost position of Rosier. Historically, the assets of Rosier (consisting of Rosier S.A., Rosier Nederland B.V. and Rosier France S.A.S.) were included in the CGU Fertilizer & Melamine. Due to reorganisation within the Borealis NITRO segment, the cash inflows of Rosier became largely independent of those from other assets within the segment and Rosier therefore became a separate CGU in 2020. The performance of the impairment test for Rosier resulted in a recoverable amount based on the value in use, which was EUR 17,522 thousand lower than the carrying amount of this cash-generating unit. Therefore, property, plant and equipment was impaired by EUR 17,522 thousand in 2020.

The remaining assets within the Borealis NITRO segment do not generate cash inflows which are largely independent from each other, thus forming a second CGU within the Borealis NITRO segment, called "Fertilizer & Melamine". No triggering event for an impairment test was recorded for this CGU during 2020.

For the first six months of 2020, significant deviations in the development of the Polyolefins and Base Chemicals segments from the financial budget, which was valid for this period, were observed. The main reasons were the negative inventory value development due to the declining

oil price, a decreased advantage from the use of light feedstock versus naphtha and the unplanned outage of the steam cracker in Sweden. Following these deviations, management has recalculated the recoverable amounts of the cash-generating units (CGUs) in these segments as of 30 June 2020. None of the calculated cases showed any need for an impairment. No material deterioration occurred during the second half of 2020 with regards to the events identified.

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:

Impairment test parameters 2020						
Segment	Polyolefins					Borealis NITRO
Cash-generating unit	Polyethylene	Polypropylene	Recyclates	Brazil <sup>1)</sup>	South Korea <sup>2)</sup>	Rosier
Allocated goodwill in EUR thousand	50,687	22,000	33,695	3,675	22,330	0
Post tax discount rate	7.0%	7.0%	6.6%	7.6%	7.5%	6.6%
Growth rate	1.0%	1.5%	2.0%	2.6%	4.2%	1.3%

1) The change in the allocated goodwill of CGU Brazil compared to 31 December 2019 results entirely from foreign currency revaluation, since this unit is based on BRL as a functional currency. // 2) The change in the allocated goodwill of CGU South Korea compared to the acquisition date results entirely from foreign currency revaluation, since this unit is based on KRW as a functional currency.

Impairment test parameters 2019						
Segment	Polyolefins					Borealis NITRO
Cash-generating unit	Polyethylene	Polypropylene	Recyclates	Brazil	South Korea <sup>3)</sup>	Fertilizer & Melamine <sup>4)</sup>
Allocated goodwill in EUR thousand	50,687	22,000	33,695	5,197	n/a	0
Post tax discount rate	7.3%	7.3%	7.0%	9.0%	n/a	9.9%
Growth rate	1.3%	1.5%	2.0%	2.4%	n/a	1.2%

3) CGU South Korea was formed with the acquisition of DYM Solution Co., Ltd. in 2020, therefore no parameters as of 31 December 2019 are available. // 4) Assets of CGU Rosier were included in CGU Fertilizer & Melamine in 2019.



Post tax discount rates (weighted average cost of capital) reflect specific risks relating to the relevant segments and the countries in which they operate.

The 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.

In addition to the parameters above, sensitivities regarding discount rates and oil prices (for the CGUs Polyethylene and Polypropylene) are taken into consideration. For the CGU Rosier, an increase of the discount rate by 0.5 percentage points would increase the accumulated impairment by EUR 4,801 thousand.

For the other CGUs, none of the calculated cases showed any need for an impairment.

## 8. Business Combinations, Asset Acquisitions and Other Changes

Borealis made two acquisitions in 2020, which are described below.

### Acquisition of Novealis Holdings LLC

On 15 April 2020, Borealis (via Star Bridge Holdings LLC, US) acquired 50% of the shares of Novealis Holdings LLC, US, (hereafter Novealis) from NOVA Pecan Holdings LLC, US (the Seller). The Seller is a subsidiary of NOVA Chemicals. Together with a 50% stake of the shares already owned before the latest acquisition by Borealis BoNo Holdings LLC, US, Borealis became the 100% owner of Novealis.

Formed in 2018, Novealis was a joint venture between affiliates of Borealis and NOVA Chemicals (hereafter NOVA), which subsequently formed a 50/50 joint venture with an affiliate of Total S.A. to launch Bayport Polymers LLC (hereafter Baystar™) in the US. Novealis is a pure holding company. Its only investment is a 50% share in Baystar.

The acquisition of Novealis has been accounted for as an acquisition of assets, as it was not a business combination.

### Assets Acquired and Liabilities Assumed

The recognised amounts of the identifiable assets and liabilities of Novealis as at the date of acquisition were:

EUR thousand	Values recognised on acquisition
<b>Assets</b>	
Investments in joint ventures	561,398
Cash and cash equivalents	1,247
<b>Total assets acquired</b>	<b>562,645</b>
<b>Total liabilities acquired</b>	<b>0</b>
<b>Total identifiable net assets</b>	<b>562,645</b>
Interest previously held	-287,054
<b>Total purchase consideration</b>	<b>275,591</b>
<b>Percentage acquired</b>	<b>50.00%</b>



A cash payment in April 2020 of EUR 275,350 thousand as well as a payment for a purchase price adjustment of EUR 241 thousand made in June 2020 represents the total acquisition price of 50% of the shares of Novealis.

The cash acquired with this acquisition amounted to EUR 1,247 thousand. Furthermore, a loan from NOVA to Baystar in the amount of EUR 269,094 thousand was purchased from Borealis AG under the share purchase agreement, whereas the purchase price corresponds to the nominal amount and the fair value at the date of acquisition. These items result in a net cash outflow on the acquisition of EUR 543,437 thousand.

In the course of the acquisition in stages, a reserve for net gains on translation of financial statements of foreign operations of EUR 17,094 thousand was reclassified to the income statement under financial income.

Borealis agreed a contingent consideration with the Seller up to EUR 10,150 thousand based on an earnings target for the year 2022. This additional consideration shall be transferred to the Seller no later than twenty business days following the receipt of the audited year end financial statements of Baystar for the calendar year 2022. Borealis has assumed the earnings target will not be met. Thus, the contingent consideration has been valued at a fair value of EUR 0 thousand.

The consolidated financial statements include the results of Novealis for the 8.5-month period from the acquisition date. The Group's share of profit from the joint venture in Novealis was determined based on allocation of the acquisition cost of the joint venture to its identifiable assets, liabilities and contingent liabilities.

The summarised financial information of Baystar can be found in note 9.

#### Acquisition of DYM Solution Co., Ltd.

On 28 August 2020, Borealis (via Borealis AG, Vienna, Austria) acquired 90.52% of the shares in DYM Solution Co., Ltd., Cheonan, South Korea, (DYM) of which 79.46% were obtained from Mr. Dong-Ha Park and Peak Industry Investments LLC (the Sellers) and 11.06% from eight other shareholders.

DYM was founded in 1992 and is a provider of compound solutions for the global wire and cable industry. It specialises in semi-conductive, halogen-free flame retardant (HFFR), rubber and silane cured compounds.

With this investment, Borealis extends its global wire and cable asset footprint. Borealis will broaden its extensive and sophisticated portfolio, with complementary products and technologies for semi-conductive, flame retardant, rubber and silane cross-linkable compounds. Decarbonisation of the energy sector is creating substantial growth opportunities for the global wire and cable industry.

The acquisition has been accounted for using the acquisition method. The acquisition date fair value of the acquired assets and liabilities is final. The consolidated financial statements include the results of DYM for the four-month period from the acquisition date.

#### Assets Acquired and Liabilities Assumed

The fair values of the identifiable assets and liabilities of DYM as at the date of acquisition were:



EUR thousand	Fair value recognised on acquisition
<b>Assets</b>	
Intangible assets	21,168
Property, plant and equipment	9,982
Other non-current receivables and other assets	79
Inventories	5,966
Trade and other receivables	20,266
Cash and cash equivalents	7,204
<b>Total assets acquired</b>	<b>64,665</b>
<b>Liabilities</b>	
Non-current loans and borrowings	5,071
Deferred tax liabilities	3,947
Employee benefits	4,307
Government grants	258
Current loans and borrowings	11
Trade payables and other liabilities	6,765
<b>Total liabilities acquired</b>	<b>20,359</b>
<b>Total identifiable net assets</b>	<b>44,306</b>
<b>Percentage acquired</b>	<b>90.52%</b>
Total identifiable net assets attributable to non-controlling interests	4,200
Total purchase price consideration	61,418
Total identifiable net assets attributable to Borealis	40,106
<b>Goodwill arising on acquisition</b>	<b>21,312</b>

Goodwill of EUR 21,312 thousand as of the acquisition date comprises the value of the expected synergies and other benefits from combining the assets and activities of DYM with those of Borealis and has been allocated to the cash-generating unit South Korea. None of the recognised goodwill is deductible for income tax purposes. Goodwill has been determined by applying the partial goodwill method.

The total acquisition costs of 90.52% of the share capital of DYM comprised an initial cash payment of EUR 50,636 in August 2020, a purchase price adjustment of EUR 10,782 thousand which was paid in December 2020 and costs of EUR 3,009 directly attributable to the acquisition (thereof EUR 1,115 thousand in 2020). The cash acquired with this acquisition amounted to EUR 7,204 thousand, resulting in net cash outflow on the acquisition of EUR 57,222 thousand and the refinancing of debt acquired of EUR 4,994 thousand in 2020. The transaction costs have been expensed and are included in administrative expenses in the income statement and are part of operating cash flows in the cash flow statement.

Borealis agreed with the Sellers to transfer an additional consideration up to a total maximum amount of EUR 10,575 thousand to the Sellers, based on EBITDA for the twelve-month period after closing. Based on Borealis' assessment, the fair value of this contingent consideration has been valued at EUR 0 thousand.

The fair value of the trade receivables acquired through the business combination amounted to EUR 19,237 thousand and has been collected in full. From the date of the acquisition until the year end, DYM contributed EUR 22,732 thousand in net sales and EUR -683 thousand to the net result of the Group. If the combination had taken place at the beginning of the year, the net sales contribution from DYM would have been EUR 70,699 thousand and the contribution to the net result would have been EUR 3,562 thousand.

#### Other Changes

Residual changes in the legal structure in 2020 are summarised below.

Borealis L.A.T Italia s.r.l. was incorporated by 1 January 2020. This 100% subsidiary is not consolidated due to immateriality. Furthermore, Borealis Digital Studios BVBA changed its name to Borealis Digital Studios BV as of 1 January 2020.

Feboran Prim EOOD, Bulgaria, merged with Feboran EOOD as of 18 November 2020.

For a full list of all subsidiaries, please refer to note 34.



## 9. Investments in Associated Companies and Joint Ventures

EUR thousand	Shares in associated companies and joint ventures	
	2020	2019
<b>Cost</b>		
As of 1 January	601,525	534,505
Changes in consolidation scope	278,281	0
Investments and acquisitions	142,623	80,734
Disposals	0	-13,714
As of 31 December	1,022,429	601,525
<b>Adjustments</b>		
As of 1 January	3,029,536	3,220,666
Exchange adjustments	-330,032	76,015
Dividends received	-510,135	-651,104
Impairments	-7,053	-2,892
Change in equity reserves	-2,265	-1,789
Net results of associated companies and joint ventures	375,016	388,640
As of 31 December	2,555,067	3,029,536
<b>Carrying amount as of 31 December</b>	<b>3,577,497</b>	<b>3,631,061</b>

Borealis recalculated the recoverable amount for its material investments in associated companies and joint ventures as of 30 June 2020 because significant changes with an adverse effect took place in the polyolefin market environment in the first six months of 2020. Namely, weakening regional polyolefin sales prices resulted in significant deviations in the development of Abu Dhabi Polymers Company Limited (Borouge) and Bayport Polymers LLC (Baystar) from their respective financial budgets which were valid for this period. None of the calculated cases showed any need for an impairment. Since no material deterioration occurred during the second half of 2020 with regards to the events identified, they do not qualify as a trigger for an impairment test as of 31 December 2020.

The impairment of EUR 7,053 thousand in 2020 relates to Silleno Limited Liability Partnership, Kazakhstan and was triggered by Borealis' decision not to further pursue the development of an integrated cracker and polyethylene project in the Republic of Kazakhstan. In 2019, the impairment of EUR 2,892 thousand related to the shares in Neochim AD, Bulgaria.

No disposals of investments in associated companies and joint ventures occurred in 2020. Disposals in 2019 amounting to EUR 13,714 thousand relate to the sale of the 50% share in the joint venture GCA Holdings LLC. The investment was sold for proceeds of EUR 21,529 thousand, the related income was included in other financial income for the year 2019.

The Group presents the investments in associated companies and joint ventures as follows:

EUR thousand	2020	2019
Material associated company (Abu Dhabi Polymers Company Limited (Borouge))	2,853,635	3,258,607
Non-material associated companies	95,588	90,860
Material joint venture (Novealis Holdings LLC (Novealis))	0	270,469
Material joint venture (Bayport Polymers LLC (Baystar))	619,542	0
Non-material joint ventures	8,732	11,125
<b>Carrying amount as of 31 December</b>	<b>3,577,497</b>	<b>3,631,061</b>

Due to the acquisition of the remaining 50% stake in Novealis on 15 April 2020, which was previously owned by NOVA, Novealis became a consolidated subsidiary. Thus, Novealis' 50% stake in Baystar is presented as a material joint venture.

Investment in Neochim AD is part of the Borealis NITRO segment, whereas investment in Kilpilathti Power Plant Ltd

is part of the Base Chemicals segment. The share in Baystar is included in the Polyolefins segment. All other investments in associated companies and joint ventures are part of the non-allocated segment.

#### Associated Companies

The Group has the following investments in associated companies:

Associated companies	Country	Ownership in %	
		2020	2019
Abu Dhabi Polymers Company Limited (Borouge)	United Arab Emirates	40.00	40.00
AZOLOR S.A.S. <sup>1)</sup>	France	34.00	34.00
Borouge Pte. Ltd.	Singapore	50.00	50.00
Chemiepark Linz Betriebsfeuerwehr GmbH <sup>1)</sup>	Austria	47.50	47.50
Franciade Agrifluides S.A.S. (FASA) <sup>1)</sup>	France	49.98	49.98
Kilpilathi Power Plant Ltd <sup>1)</sup>	Finland	20.00	20.00
Neochim AD	Bulgaria	20.30	20.30
Société d'Intérêt Collectif Agricole Laignes Agrifluides (SICA Laignes Agrifluides) <sup>1)</sup>	France	49.90	49.90
Société d'Intérêt Collectif Agricole par Actions Simplifiée de Gouaix (SICA de Gouaix) <sup>1)</sup>	France	25.00	25.00

<sup>1)</sup> Excluded from consolidation at equity due to immateriality

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 full summarised financial information for Abu Dhabi Polymers Company Limited (Borouge):



EUR thousand	2020	2019
Current assets	1,515,325	1,507,997
Non-current assets	6,422,465	7,217,220
Current liabilities	-460,986	-495,907
Non-current liabilities	-335,184	-69,759
<b>Equity</b>	<b>7,141,620</b>	<b>8,159,551</b>
Borealis share	40%	40%
Share of net assets	2,856,648	3,263,820
Adjustments	-3,013	-5,213
<b>Carrying amount as of 31 December</b>	<b>2,853,635</b>	<b>3,258,607</b>
Net sales	3,603,287	3,720,214
Net profit for the year	845,004	928,958
Other comprehensive income	-12,245	0
<b>Total comprehensive income</b>	<b>832,759</b>	<b>928,958</b>
Dividends received by Borealis from Borouge	473,683	639,959

Summary of financial information for non-material associated companies, adjusted for ownership by the Group:

EUR thousand	2020	2019
Net profit for the year	25,500	11,134
Other comprehensive income	2,348	-596
<b>Total comprehensive income</b>	<b>27,848</b>	<b>10,538</b>

## Joint Ventures

The Group has the following investments in joint ventures:

Joint ventures	Country	Ownership in %	
		2020	2019
Bayport Polymers LLC (Baystar) <sup>1)</sup>	US	50.00	-
BTF Industriepark Schwechat GmbH <sup>3)</sup>	Austria	50.00	50.00
Novealis Holdings LLC <sup>2)</sup>	US	-	50.00
PetroPort Holding AB	Sweden	50.00	50.00
Silleno Limited Liability Partnership <sup>3)</sup>	Kazakhstan	50.10	50.10

1) Bayport Polymers LLC is a new joint venture due to the acquisition of the remaining share of Novealis Holdings LLC // 2) Subsidiary since 15 April 2020 // 3) Excluded from consolidation at equity due to immateriality

Baystar is building a 625,000-tonne-per-year polyethylene unit at our production site in Pasadena, Texas, US. Baystar is also currently building a one-million-tonne per year steam cracker in Port Arthur, Texas. This cracker will process

ethane, which is abundantly available and competitively priced in the US and will supply our Baystar polyethylene units.

The following table illustrates the full summarised financial information for Baystar:

EUR thousand	2020
Current assets	331,528
Non-current assets	2,543,393
Current liabilities	-75,792
Non-current liabilities	-1,515,404
<b>Equity</b>	<b>1,283,725</b>
Borealis share	50%
Share of net assets	641,863
Adjustments	-22,321
<b>Carrying amount as of 31 December</b>	<b>619,542</b>
Net sales	333,508
Net profit for the year	39,407
Other comprehensive income	0
<b>Total comprehensive income</b>	<b>39,407</b>
Dividends received by Borealis from Baystar	20,868
Capital contributions by Borealis to Baystar	142,623

As of the reporting date, the Group (via Novealis) has a contractual obligation for additional equity contributions to Baystar amounting to EUR 142,623 thousand (EUR 77,989 thousand). As this obligation was conditional on the mechanical completion of the cracker and the completion notification was received on 14 December 2020, Borealis committed to pay the equity contribution on

27 January 2021. As the condition was fulfilled, the equity contribution and the liability was recognised as of 31 December 2020.

Summary of financial information for non-material joint ventures, adjusted for ownership by the Group:

EUR thousand	2020	2019
Net profit for the year	381	370
Other comprehensive income	0	0
<b>Total comprehensive income</b>	<b>381</b>	<b>370</b>



## 10. Other Investments, Other Receivables and Other Assets and Loans Granted

Other investments mainly include interests in infrastructure companies in Germany and subsidiaries that are not consolidated on a materiality basis. The non-consolidated companies are mainly distribution and blending entities in France and Eastern Europe (see note 29).

The non-current other receivables and other assets mainly consist of non-current derivative financial instruments (see note 23), marketable securities and bonds (long-term

deposits for statutory, regulatory and tax requirements), a prepayment to an associated company and government grant receivables in Belgium. The loans granted include shareholder loans with Baystar amounting to EUR 734,156 thousand (EUR 242,160 thousand) and with Kilpilahti Power Plant Ltd amounting to EUR 16,648 thousand (EUR 14,910 thousand).

Other current receivables also include an amount of EUR 76,800 thousand related to insurance compensation. For further details, please refer to note 30.

## 11. Taxation

EUR thousand	2020	2019
<b>Taxes</b>		
Income tax payable	92,724	146,853
Change in deferred tax	26,706	-2,253
Adjustment to prior year's tax charge	-418	-62,755
<b>Taxes on income</b>	<b>119,012</b>	<b>81,845</b>

Calculation of tax expenses at statutory rates for tax expense accounting at the effective group tax rate.

EUR thousand	2020		2019	
<b>Tax expenses at statutory rates (weighted average tax rate of the Group)</b>	<b>25%</b>	<b>175,520</b>	<b>23%</b>	<b>220,807</b>
Tax effect of result in associated companies	-13%	-91,825	-10%	-92,711
Tax effect of permanent differences	0%	903	2%	19,115
Adjustment of valuation allowance/reassessment of unrecognised tax assets	5%	33,594	0%	-2,646
Prior year's adjustments and other effects	0%	820	-6%	-62,720
<b>Taxes on income</b>	<b>17%</b>	<b>119,012</b>	<b>9%</b>	<b>81,845</b>



The effective tax rate for 2020 was impacted by impairments of deferred tax assets on tax losses carried forward and tax losses in the year for which no deferred tax asset was recognised. The 2019 effective tax rate was impacted by the line item prior years' adjustments and other effects. This related largely to the effects of the agreement reached

between the Finnish and Austrian tax authorities on two cases regarding the taxation of Borealis' Finnish subsidiaries, Borealis Technology Oy and Borealis Polymers Oy. The dispute was resolved through a Mutual Agreement Procedure between Finland and Austria with the ruling terms below the level of the corresponding risk provisions.

EUR thousand	Balance sheet		Income statement	
	2020	2019	2020	2019
<b>Deferred tax assets</b>				
Property, plant and equipment	12,744	12,452	292	356
Intangible assets	2,470	2,617	-147	-2,449
<b>Adjusted depreciation for tax purposes</b>	<b>15,214</b>	<b>15,069</b>		
Revaluation of cash flow hedges	4,913	2,324	2,589	-673
Net gain on hedge of a net investment	25,419	30,600	0	0
Valuation of inventories for tax purposes	23,348	22,534	1,109	3,852
<b>Fair values compared to tax values</b>	<b>53,680</b>	<b>55,458</b>		
Interest-bearing liabilities	22,608	46,667	-24,059	46,667
Employee benefits	93,382	94,796	-697	1,346
Other provisions	10,869	8,637	2,232	-977
Tax impairments according to section 12 (3)(2) of the Austrian Corporate Income Tax Act (KStG)	1,511	0	1,511	0
Other assets and liabilities	29,213	2,061	27,152	-5,244
<b>Other timing differences</b>	<b>157,583</b>	<b>152,161</b>		
<b>Losses available for offsetting against future taxable income</b>	<b>12,430</b>	<b>32,146</b>	-19,577	1,869
<b>Netting with deferred tax liabilities</b>	<b>-212,215</b>	<b>-195,457</b>		
<b>Deferred tax assets</b>	<b>26,692</b>	<b>59,377</b>	<b>-9,595</b>	<b>44,747</b>



EUR thousand	Balance sheet		Income statement	
	2020	2019	2020	2019
<b>Deferred tax liabilities</b>				
Property, plant and equipment	-279,263	-269,959	-5,059	-49,708
Intangible assets	-59,866	-52,981	-2,031	-3,900
<b>Accelerated/adjusted depreciation for tax purposes</b>	<b>-339,129</b>	<b>-322,940</b>		
Revaluation of cash flow hedges	-984	-4,119	776	44,830
Valuation of inventories for tax purposes	-16,655	-17,587	932	-440
<b>Fair values compared to tax values</b>	<b>-17,639</b>	<b>-21,706</b>		
Interest-bearing liabilities	-5,047	-4,882	-206	-4,889
Employee benefits	-6,004	-5,631	310	-551
Other provisions	-16,295	-20,874	4,579	-7,219
Other assets and liabilities	-52,209	-35,972	-16,412	-20,616
<b>Other timing differences</b>	<b>-79,555</b>	<b>-67,359</b>		
<b>Netting with deferred tax assets</b>	<b>212,215</b>	<b>195,457</b>		
<b>Deferred tax liabilities</b>	<b>-224,108</b>	<b>-216,548</b>	<b>-17,111</b>	<b>-42,493</b>
<b>Net tax asset/liability</b>	<b>-197,416</b>	<b>-157,171</b>	<b>-26,706</b>	<b>2,254</b>

The deferred tax assets of EUR 26,692 thousand (EUR 59,377 thousand) include an amount of EUR 7,451 thousand (EUR 19,514 thousand), which will most likely be utilised within one year. The deferred tax liabilities of EUR 224,108 thousand (EUR 216,548 thousand) include an amount of EUR 25,251 thousand (EUR 62,510 thousand), which will most likely be utilised within one year.

In addition to capitalised tax assets, the Group has unrecognised tax losses amounting to EUR 636,583 thousand (EUR 488,357 thousand) and unrecognised temporary differences amounting to EUR 25,511 thousand (EUR 31,023 thousand), where current forecasts indicate insufficient future profits in the foreseeable future, thus resulting in unrecognised tax assets of EUR 170,121 thousand (EUR 132,487 thousand).

EUR thousand	2020	2019
Deductible temporary differences	6,378	7,756
Tax losses carried forward	163,743	124,731
<b>Total unrecognised net tax assets</b>	<b>170,121</b>	<b>132,487</b>

Of the unrecognised tax losses carried forward, the following amounts will expire:

EUR thousand Year of expiry	2022	2023	2024	2025	2026	2027
Tax losses carried forward	1,766	9,206	2,671	6,860	5,066	5,659

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 0 thousand (EUR 7,400 thousand). Deferred tax expenses as a result of changes in estimates of deferred tax assets due to forecasts indicating insufficient future profits amount to EUR 24,487 thousand (EUR 2,971 thousand). Dividend payments to Borealis AG by its subsidiaries have no tax effect for Borealis AG. The temporary differences relating to subsidiaries amount to EUR 121,028 thousand

(EUR 148,259 thousand), for which no deferred tax liability has been recognised in accordance with IAS 12.39 Income Taxes.

#### Tax Contingencies

Several Borealis Group companies are currently subject to tax audits performed by their respective tax authorities. In some of the audits, specific emphasis is placed on business restructuring and transfer pricing. Management's opinion is that the Company is in compliance with all applicable regulations.

## 12. Inventories

EUR thousand	2020	2019
Finished products	685,296	844,226
Raw materials and consumables	276,032	265,212
<b>Total</b>	<b>961,328</b>	<b>1,109,438</b>

The costs for the consumption of inventories recognised during the period in the income statement amounted to EUR 4,352,464 thousand (EUR 5,269,696 thousand),

including impairment costs of EUR 15,079 thousand (EUR 32,835 thousand).

## 13. Share Capital and Contributions by Shareholders

EUR thousand	Share capital		Contributions by shareholders	
	2020	2019	2020	2019
Balance as of 1 January	300	300	1,599,097	1,599,097
Capital increase (decrease)	0	0	0	0
<b>Balance as of 31 December</b>	<b>300</b>	<b>300</b>	<b>1,599,097</b>	<b>1,599,097</b>



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) fully paid shares with a par value of EUR 1.00, 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:

- 39.00% by Susana Beteiligungsverwaltungs GmbH, Trabrennstrasse 6–8, 1020 Vienna, Austria,
- 32.67% by OMV Downstream GmbH, Trabrennstrasse 6–8, 1020 Vienna, Austria,
- 3.33% by OMV Aktiengesellschaft, Trabrennstrasse 6–8, 1020 Vienna, Austria,
- 21.67% by IPIC Beta Holdings GmbH, Wagramer Strasse 17–19, 1220 Vienna, Austria, and
- 3.33% by Mubadala Petroleum and Petrochemicals Holding Company LLC, P.O. Box 45005, Al Mamoura A, Muroor Road, 15th Street, Abu Dhabi, United Arab Emirates.

OMV Refining & Marketing GmbH has changed its name to OMV Downstream GmbH as of 30 June 2020. A 39% share

in Borealis AG was transferred from IPIC Beta Holdings GmbH to IPIC Holdings GmbH, Wagramer Strasse 17–19, 1220 Vienna, Austria, on 8 September 2020. This share was further transferred to Susana Beteiligungsverwaltungs GmbH on 11 September 2020. OMV Downstream GmbH acquired Susana Beteiligungsverwaltungs GmbH on 29 October 2020.

Since 29 October 2020, the ultimate controlling party is OMV Aktiengesellschaft, Vienna, Austria. Until this date, the ultimate controlling party was Mubadala Investment Company PJSC, Abu Dhabi, United Arab Emirates. 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 gearing ratio is calculated as net interest-bearing debt divided by total equity. The Group's target is to keep the gearing ratio within a range of 35%–65% to meet the business needs of the Group. As per year end, the gearing ratio stands at 29% (24%), significantly below the target range due to the strong performance of the Group.

## 14. Personnel

EUR thousand	2020	2019
<b>Costs</b>		
Salaries and wages	521,988	528,246
Costs of defined contribution plans	30,494	30,615
Costs of defined benefit plans and other long-term employee benefits	31,999	25,913
Social security costs	134,214	130,287
Other personnel expenses	28,056	24,785
<b>Total</b>	<b>746,751</b>	<b>739,846</b>

Costs of defined benefit plans and other long-term employee benefits are recognised in the production costs at EUR 19,532 thousand (EUR 15,441 thousand), sales and distribution costs at EUR 5,229 thousand

(EUR 4,397 thousand), administration costs at EUR 4,824 thousand (EUR 4,088 thousand) and research and development costs at EUR 2,414 thousand (EUR 1,987 thousand).

<b>Number of employees (FTEs) by country as of 31 December</b>	<b>2020</b>	<b>2019</b>
Austria	1,924	1,903
Belgium	1,225	1,193
Finland	873	902
France	848	848
Sweden	897	923
Other Europe	759	770
Non-Europe	394	330
<b>Total</b>	<b>6,920</b>	<b>6,869</b>

The remuneration of former and current management is shown in the table below:

<b>EUR thousand</b>	<b>2020</b>	<b>2019</b>
Salaries management (Executive Board)	7,331	9,870
Pension and severance costs management (Executive Board)	582	546
Salaries other key management	1,532	1,492
Pension and severance costs other key management	112	106
<b>Total</b>	<b>9,557</b>	<b>12,014</b>

From the salaries of the Executive Board of EUR 7,331 thousand (EUR 9,870 thousand), EUR 0 thousand (EUR 2,859 thousand) were paid to former members of the Executive Board.

From the pension and severance costs of the Executive Board of EUR 582 thousand (EUR 546 thousand), EUR 0 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 831 thousand (EUR 856 thousand).



## 15. Employee Benefits

Most Group companies operate post-employment and other long-term benefit plans. The forms and benefits vary in terms of 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 the estimated salary on retirement. A summary is shown below.

EUR thousand	2020	2019
<b>Pensions and other post-employment benefit plans</b>		
Present value of funded defined benefit pension plans	332,970	307,388
Fair value of plan assets	-179,904	-166,488
Deficit of funded defined benefit pension plans	153,066	140,900
Present value of unfunded defined benefit pension plans	200,316	212,160
Effect of asset ceiling (according to IAS 19.64)	2,890	2,783
<b>Total deficit of defined benefit pension plans</b>	<b>356,272</b>	<b>355,843</b>
Medical plans	16,156	17,373
Severance plans	65,330	67,140
<b>Pensions and other post-employment benefit plans</b>	<b>437,758</b>	<b>440,356</b>
Other long-term employee benefits	32,955	34,420
<b>Net liability recognised in the balance sheet</b>	<b>470,713</b>	<b>474,776</b>

The Group operates defined post-employment benefit plans in the EU, Norway, South Korea 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 are typically 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 pension payments 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	2020	2019
<b>Defined benefit obligation as of 1 January</b>	<b>522,331</b>	<b>545,080</b>
Net current service cost	21,854	18,519
Interest cost on defined benefit obligation	5,901	8,709
Past service cost	0	725
Gains (-)/losses due to settlements	0	-85,764
Total amount recognised in profit or loss	27,755	-57,811
Gains (-)/losses due to changes in financial assumptions	-6,780	53,048
Change in unrecognised assets due to asset ceiling	79	222
Experience gains (-)/losses	-1,878	-1,937
Exchange rate gains (-)/losses	3,607	-1,178
Total amount recognised in other comprehensive income	-4,972	50,155
Actual benefits paid directly from the plan assets	-10,834	-9,612
Actual benefits paid directly by employer	-5,633	-5,340
Actual plan participants' contributions	1,256	1,172
Actual expenses/taxes and premiums paid	-1,814	-1,644
Net increase in liabilities from acquisitions	4,794	0
Other changes	0	1,815
Exchange rate gains (-)/losses	3,293	-1,484
<b>Defined benefit obligation as of 31 December</b>	<b>536,176</b>	<b>522,331</b>
<b>Fair value of plan assets as of 1 January</b>	<b>166,488</b>	<b>230,679</b>
Interest income on plan assets	1,728	2,927
Gains/losses (-) due to settlements	0	-77,605
Actual admin expenses paid	-365	-328
Total amount recognised in profit or loss	1,363	-75,006
Return on plan assets excluding amounts included in interest income	5,723	1,728
Total amount recognised in other comprehensive income	5,723	1,728
Actual benefits paid directly from the plan assets	-10,834	-9,612
Actual plan participants' contributions	1,256	1,172
Actual employer contributions	17,308	17,337
Actual taxes paid	-1,814	-1,644
Net increase in assets from acquisitions	487	0
Other changes	0	1,815
Exchange rate gains/losses (-)	-73	19
<b>Fair value of plan assets as of 31 December</b>	<b>179,904</b>	<b>166,488</b>

The plan assets in 2020 and 2019 mainly consist of insurance contracts.



In 2020, no settlements of pension plans occurred.

In 2019, gains due to the settlement of defined benefit obligations amounting to EUR 85,764 thousand, as well as losses due to the settlement of plan assets amounting to EUR 77,605 thousand, relate to the closure of a partially funded pension plan in Borealis Polymers Oy. The pension promise to former plan members was converted into a defined contribution pension scheme.

#### 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	2020	2019
<b>Defined benefit obligation as of 1 January</b>	<b>17,373</b>	<b>14,054</b>
Net current service cost	769	641
Interest cost on defined benefit obligation	173	245
Total amount recognised in profit or loss	942	886
Gains (-)/losses due to changes in financial assumptions	-970	2,697
Experience gains (-)/losses	-992	-76
Total amount recognised in other comprehensive income	-1,962	2,621
Actual benefits paid directly by employer	-197	-188
<b>Defined benefit obligation as of 31 December</b>	<b>16,156</b>	<b>17,373</b>

#### 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 Austria, France, Italy and the United Arab Emirates. The movement in the severance obligation over the year is as follows:



EUR thousand	2020	2019
<b>Defined benefit obligation as of 1 January</b>	<b>67,140</b>	<b>65,178</b>
Net current service cost	1,921	1,841
Interest cost on defined benefit obligation	675	1,140
Past service cost	23	-388
Total amount recognised in profit or loss	2,619	2,593
Gains (-)/losses due to changes in demographic assumptions	46	25
Gains (-)/losses due to changes in financial assumptions	-1,469	5,685
Experience gains (-)/losses	811	-698
Total amount recognised in other comprehensive income	-612	5,012
Actual benefits paid directly by employer	-3,752	-5,661
Exchange rate gains (-)/losses	-65	18
<b>Defined benefit obligation as of 31 December</b>	<b>65,330</b>	<b>67,140</b>

### 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	2020	2019
<b>Defined benefit obligation as of 1 January</b>	<b>34,420</b>	<b>32,771</b>
Net current service cost	2,069	1,786
Interest cost on defined benefit obligation	313	501
Past service cost	0	159
Gains (-)/losses due to changes in demographic assumptions	0	1
Gains (-)/losses due to changes in financial assumptions	-1,041	2,363
Experience gains (-)/losses	705	429
Total amount recognised in profit or loss	2,046	5,239
Actual benefits paid directly by employer	-3,511	-3,590
<b>Defined benefit obligation as of 31 December</b>	<b>32,955</b>	<b>34,420</b>



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):

Percent	2020	2019
Discount rate	0.9%	1.1%
Projected future salary growth	2.7%	3.2%
Expected pension increase	1.3%	1.7%

Compared to last year, there have been two changes in respect of the way discount rates have been set within the euro zone:

- The suggested discount rates are based on plan durations for every specific plan type (i.e. pension, retirement indemnity, jubilee, post-retirement medical, other) and every country rather than one uniform discount rate for the entire euro zone.
- The Mercer Yield Curve has been used.

Under the old assumptions, a discount rate of 0.5% would be applicable. New assumptions lead to a discount rate of 0.9%. As a result, the net liability recognised in the balance sheet decreases by EUR 21,065 thousand.

The sensitivity of the defined benefit obligation for pensions and other post-employment benefit plans to changes in the principal assumptions is:

	Change in assumption	Impact on defined benefit obligation	
		Increase in assumption	Decrease in assumption
Discount rate	0.5%	Decrease by 6.8%	Increase by 7.6%
Projected future salary growth	0.5%	Increase by 4.9%	Decrease by 4.6%
Expected pension increase	0.5%	Increase by 4.6%	Decrease by 4.2%

The above sensitivity analyses are based on a change in an assumption while maintaining 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 using the projected unit credit method at the end of the reporting period) has been applied when calculating the pension liability recognised in the balance sheet.

Expected contributions to post-employment benefit plans for the year 2021 are EUR 27,206 thousand (EUR 25,429 thousand). The weighted average duration of the defined benefit obligation is 13.8 years (14.6 years). The defined benefit plans expose the Group to actuarial risks, mainly the longevity risk, interest rate and market (investment) risk.

## 16. Provisions

EUR thousand	2020					
	Restructuring	Decommissioning	Legal	Environmental	Other	Total
As of 1 January	833	39,984	4,976	5,778	13,132	<b>64,703</b>
Additions	0	7,418	899	1,100	2,586	<b>12,003</b>
Utilised	-240	0	-392	-441	-270	<b>-1,343</b>
Reversed	-254	0	-43	-49	-1,702	<b>-2,048</b>
Reclassifications	0	0	0	0	-4,858	<b>-4,858</b>
Interest expense (+) / income (-)	0	-67	0	0	0	<b>-67</b>
Exchange adjustments	-20	0	-554	0	-24	<b>-598</b>
<b>Balance as of 31 December</b>	<b>319</b>	<b>47,335</b>	<b>4,886</b>	<b>6,388</b>	<b>8,864</b>	<b>67,792</b>
Other provisions current	267	0	1,304	0	592	<b>2,163</b>
Other provisions non-current	52	47,335	3,582	6,388	8,272	<b>65,629</b>
<b>Balance as of 31 December</b>	<b>319</b>	<b>47,335</b>	<b>4,886</b>	<b>6,388</b>	<b>8,864</b>	<b>67,792</b>

EUR thousand	2019					
	Restructuring	Decommissioning	Legal	Environmental	Other	Total
As of 1 January	1,036	43,445	5,474	2,625	19,196	<b>71,776</b>
Additions	18	0	256	3,710	8,049	<b>12,033</b>
Utilised	-224	0	-431	-157	-1,602	<b>-2,414</b>
Reversed	0	-3,531	-292	-400	-3,648	<b>-7,871</b>
Reclassifications	0	0	0	0	-8,849	<b>-8,849</b>
Interest expense (+) / income (-)	0	70	0	0	0	<b>70</b>
Exchange adjustments	3	0	-31	0	-14	<b>-42</b>
<b>Balance as of 31 December</b>	<b>833</b>	<b>39,984</b>	<b>4,976</b>	<b>5,778</b>	<b>13,132</b>	<b>64,703</b>
Other provisions current	737	0	2,360	0	384	<b>3,481</b>
Other provisions non-current	96	39,984	2,616	5,778	12,748	<b>61,222</b>
<b>Balance as of 31 December</b>	<b>833</b>	<b>39,984</b>	<b>4,976</b>	<b>5,778</b>	<b>13,132</b>	<b>64,703</b>



### Restructuring

Provisions for restructuring cover estimated costs for the ongoing restructuring programmes.

### Decommissioning

Provisions 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 11,787 thousand will be used by 2024, EUR 5,169 thousand by 2027 and EUR 30,379 thousand by 2049.

### Legal

Legal provisions represent litigation provisions in various business 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 no longer fulfil the definition of a provision and are therefore reclassified to the balance sheet item current other liabilities.

The provisions are generally based on past events and commitments arising thereon. The timing of cash outflows cannot be determined with certainty for all provisions.

### 17. Government Grants

Government grants received from the EU Emissions Trading System amounted to EUR 95,941 thousand for 2020 as well as an additional EUR 74 thousand for 2019 (EUR 94,141 thousand for 2019). The small increase compared to the previous year was mainly driven by the market price increase. These grants are included at fair value when received at the beginning of the year and are released within that year. The carrying amount as of 31 December 2020 of the grant relating to these certificates is EUR 0 thousand (EUR 566 thousand).

Non-current government grants are grants received for investments in production plants and for research and development. In 2020, no significant new grants have been received. During the year, EUR 6,409 thousand (EUR 7,425 thousand) were recognised in the income statement.

### 18. Financial Risk Management

The Group is exposed through its operations to the following financial risks:

- Foreign currency risk (note 24)
- Interest rate risk (note 25)
- Liquidity risk (note 22)
- Commodity risk (note 26)
- Credit risk (note 28)

The objective of financial risk management is to support the core businesses of Borealis. Financial risk management is centralised in the Treasury and Funding department and operates within policies approved by the Executive Board. The Group provides written principles for overall risk management, as well as policies covering specific areas, such as foreign exchange risk, interest rate risk, credit risk, price risk or the use of derivative financial instruments. 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. When certain conditions are met, hedge accounting is applied to remove the accounting mismatch between the hedging instrument and the hedged item.

Note 23 provides an overview of the financial instruments used by Borealis to manage risk. For further details on the hedging instruments, see note 23. Derivative financial instruments, note 24. Foreign currency risk, note 25. Interest rate risk and note 26. Commodity risk. The risk management process in general is described in the Group Management Report.

## 19. Financial Income/Expenses

EUR thousand	2020	2019
Interest income from		
Cash and loans granted	21,877	9,404
Derivatives	5,258	3,853
Interest expenses to		
Finance institutions	-35,548	-35,363
Derivatives	-6,437	-4,081
Capitalised interest	5,061	2,915
Exchange adjustments, net	-9,889	-4,678
Interest expenses for lease liabilities	-4,629	-5,037
Other financial income	21,544	12,085
Other financial expenses	-20,613	-15,534
<b>Financial income/expenses</b>	<b>-23,376</b>	<b>-36,436</b>



## 20. Gains and Losses from Financial Instruments

EUR thousand	2020	2019
<b>Recognised in profit or loss</b>		
Change in fair value of commodity derivative contracts	4,624	-27,780
Change in fair value of cross currency interest rate swaps	-147	1,189
Change in fair value of foreign exchange swaps	1,371	-1,227
Change in fair value of other investments and marketable securities and bonds	-297	980
Realised result on commodity derivative contracts	-11,063	-723
Realised result on cross currency interest rate swaps	-551	-45
Realised result on foreign exchange swaps	1,227	-253
Realised result on other investments and marketable securities and bonds	1,005	965
<b>Financial assets and liabilities at fair value through profit or loss</b>	<b>-3,831</b>	<b>-26,894</b>
Amounts recognised in profit or loss for realised cash flow hedges		
Commodity derivative contracts	-28,386	13,329
Interest rate swaps	-627	-182
Foreign exchange forwards	3,377	-11,318
<b>Hedging instruments</b>	<b>-25,636</b>	<b>1,829</b>
Interest income on cash and loans granted	21,877	9,404
Foreign exchange effects on cash and deposits	24,802	-20,472
Foreign exchange effects on receivables	-13,721	4,857
Expenses for factoring of trade receivables	-2,548	-2,464
Impairment losses on trade receivables	-2,725	-1,566
Impairment losses on loans granted	-651	-2,500
Impairment losses on deposits and other receivables	-2,099	0
<b>Financial assets at amortised cost</b>	<b>24,935</b>	<b>-12,741</b>
Interest expenses and other expenses on financial liabilities	-40,105	-39,420
Foreign exchange effects on financial liabilities	-23,421	11,228
Interest expenses for lease liabilities	-4,629	-5,037
<b>Financial liabilities at amortised cost</b>	<b>-68,155</b>	<b>-33,229</b>

The amounts recognised in the income statement for commodity derivative contracts and foreign exchange forwards are booked as a correction to the net sales, to assets under construction or to production costs that are being hedged. The amounts that are recognised in the income statement for interest rate derivatives, foreign

exchange swaps and the foreign exchange effects on non-derivative financial assets and liabilities are reported as part of financial income and expenses. Impairment losses on trade receivables are reported in sales and distribution costs, impairment losses on loans granted as well as impairment losses on deposits and other receivables are included in financial expenses.

EUR thousand	2020	2019
<b>Recognised in other comprehensive income</b>		
Commodity derivative contracts designated as cash flow hedge	-56,987	-47,336
Interest rate swaps outstanding designated as cash flow hedge	-5,682	1,558
Foreign exchange forwards designated as cash flow hedge	12,284	-7,734
Foreign exchange effects on long-term loans part of net investments in foreign operations	4,020	-3,398
Foreign exchange effects on loans designated as hedge of investments in foreign operations	16,704	-2,735
Amounts reclassified to the income statement		
Commodity derivative contracts	28,386	-13,329
Interest rate swaps	627	182
Foreign exchange forwards	-3,377	11,318
<b>Total recognised in other comprehensive income</b>	<b>-4,025</b>	<b>-61,474</b>

## 21. Loans and Borrowings and Lease Liabilities

The composition of interest-bearing loans and borrowings and lease liabilities (current and non-current debt) as of 31 December 2020 was as follows:

EUR thousand		2020						
Due		Term loans	Bond	Utilised uncommitted facilities	Export credits	Total loans and borrowings	Unutilised committed facilities	Lease liabilities
After	5 years	390,677				390,677		75,404
Within	5 years	326,079	297,461			623,540	1,000,000	13,745
	4 years	292,876				292,876		15,107
	3 years	35,244				35,244		21,091
	2 years	69,215				69,215		31,350
<b>Total non-current debt</b>		<b>1,114,091</b>	<b>297,461</b>	<b>0</b>	<b>0</b>	<b>1,411,552</b>	<b>1,000,000</b>	<b>156,697</b>
Total current debt		154,910	0	47,614	107,873 <sup>1)</sup>	310,397	58,138 <sup>1)</sup>	38,101
<b>Total debt</b>		<b>1,269,001</b>	<b>297,461</b>	<b>47,614</b>	<b>107,873</b>	<b>1,721,949</b>	<b>1,058,138</b>	<b>194,798</b>

1) Borealis maintains EUR 166,011 thousand in export credit facilities (these facilities were drawn with EUR 107,873 thousand on 31 December 2020). These facilities are economically evergreen in nature, but include a one year notice for cancellation.



The composition of interest-bearing loans and borrowings (current and non-current debt) as of 31 December 2019 was as follows:

EUR thousand		2019						
Due		Term loans	Bond	Utilised uncommitted facilities	Export credits	Total loans and borrowings	Unutilised committed facilities	Lease liabilities
After	5 years	335,933	296,975			632,908		82,792
Within	5 years	310,893				310,893	1,000,000	13,702
	4 years	38,299				38,299		18,887
	3 years	73,361				73,361		26,888
	2 years	156,425				156,425		30,102
<b>Total non-current debt</b>		<b>914,911</b>	<b>296,975</b>	<b>0</b>	<b>0</b>	<b>1,211,886</b>	<b>1,000,000</b>	<b>172,371</b>
Total current debt		101,633	0	69,832	58,138 <sup>1)</sup>	229,603	107,873 <sup>1)</sup>	38,513
<b>Total debt</b>		<b>1,016,544</b>	<b>296,975</b>	<b>69,832</b>	<b>58,138</b>	<b>1,441,489</b>	<b>1,107,873</b>	<b>210,884</b>

1) Borealis maintains EUR 166,011 thousand in export credit facilities (these facilities were drawn with EUR 58,138 thousand on 31 December 2019). These facilities are economically evergreen in nature, but include a one year notice for cancellation.

The carrying amounts of loans and borrowings and lease liabilities developed as follows:

EUR thousand	2020					
	Term loans	Bond	Utilised uncommitted facilities	Export credits	Total loans and borrowings	Lease liabilities
As of 1 January	1,016,544	296,975	69,832	58,138	1,441,489	210,884
Proceeds from loans and borrowings	500,688	0	372,614	107,873	981,174	0
Repayment of loans and borrowings	-199,949	0	-394,832	-58,138	-652,919	0
New lease liabilities	0	0	0	0	0	29,998
Principal elements of lease payments	0	0	0	0	0	-41,534
Exchange adjustments non-cash	-47,393	0	0	0	-47,393	-4,156
Other	-889	486	0	0	-402	-394
<b>Balance as of 31 December</b>	<b>1,269,001</b>	<b>297,461</b>	<b>47,614</b>	<b>107,873</b>	<b>1,721,949</b>	<b>194,798</b>



	2019					
	EUR thousand					
	Term loans	Bond	Utilised uncommitted facilities	Export credits	Total loans and borrowings	Lease liabilities
As of 1 January	726,330	425,000	59,901	166,011	1,377,242	381
Proceeds from loans and borrowings	765,434	0	69,832	0	835,266	0
Repayment of loans and borrowings	-476,100	-125,000	-59,901	-107,873	-768,874	0
Opening adjustment leasing	0	0	0	0	0	210,533
New lease liabilities	0	0	0	0	0	39,488
Principal elements of lease payments	0	0	0	0	0	-38,703
Exchange adjustments non-cash	880	0	0	0	880	-20
Other	0	-3,025	0	0	-3,025	-795
<b>Balance as of 31 December</b>	<b>1,016,544</b>	<b>296,975</b>	<b>69,832</b>	<b>58,138</b>	<b>1,441,489</b>	<b>210,884</b>

The Group's financing mainly comprises committed credit lines (largely syndicated), term loans, bonds, private placements and export credits. The loans and borrowings are all measured at amortised cost.

Borealis continues to maintain a strong diversified liquidity position through its EUR 1 billion fully committed Syndicated Revolving Credit Facility (RCF), of which EUR 1 billion remained undrawn as of year end, and by terming out its debt through diverse funding channels. The RCF has been refinanced in December 2019 with a five-year tenor with two one-year extension options at lenders' discretion. The first RCF extension option has been utilised in December 2020 and the new maturity date is now 19 December 2025.

At year end, the Group had total committed credit facilities of EUR 1,166,011 thousand (EUR 1,166,011 thousand). Besides the above-mentioned undrawn EUR 1 billion RCF, Borealis had OeKB Export Credit Facilities in the amount of EUR 166,011 thousand. These were drawn in the amount of EUR 107,873 thousand (EUR 58,138 thousand).

In 2020, Borealis increased its debt position by EUR 264,374 thousand. The net debt position which increased by EUR 264,468 thousand resulted in a gearing ratio of 29%.

In June 2020, Borealis successfully concluded a new EUR 300,000 thousand five-year foreign investment financing agreement with OeKB. The transaction with partial support from the Republic of Austria is another hallmark of the excellent and fruitful relationship with OeKB. This time, the investment in the Kallo PDH was selected as a basis for the foreign investment financing scheme.

In July 2020, Borealis successfully signed a financing agreement with the European Investment Bank (EIB) for an amount of EUR 250,000 thousand and a tenor of 7 years following a comprehensive due diligence process. The transaction represents a benchmark funding for Borealis' innovation and circularity efforts and is a great testimonial to the long-term partnership with the EIB. EUR 100,000 thousand have been disbursed in November 2020 and EUR 150,000 thousand will be disbursed in January 2021, subject to fulfilment of contractual disbursement conditions. As of the date of signing the Annual Report, all tranches have been disbursed.

In 2020, Borealis concluded several R&D financing agreements with the Österreichische Forschungsförderungsgesellschaft mbH (FFG) in Austria. In total, EUR 625 thousand (EUR 668 thousand) in R&D-related FFG loans have been granted and paid out to Borealis this year.



In November 2018, S&P Global Ratings issued a BBB+ rating with a stable outlook for Borealis. This constitutes the first public rating for the Company, which has been successfully active in a wide range of financing markets and instruments over the last ten years and has built up a robust and well-diversified funding portfolio. While Borealis' long-term banking partners and investors have always appreciated the strong credit quality of the Company, the public rating provides a very good additional evaluation basis for all external stakeholders. On 2 October 2020, S&P Global Ratings affirmed Borealis' BBB+ rating with a stable outlook. The pending negative credit watch, established on 25 March 2020 after the announcement of the shareholder change, is thereby resolved.

Under Borealis' funding strategy, a strongly diversified financing portfolio has been implemented in past years with the aim of maintaining a balanced maturity profile.

In addition, Borealis is pursuing a long-term relationship approach with a larger group of international financing institutions that support the Company in funding and risk management transactions.

Based on this, combined with a strong balance sheet and the strong public rating, Borealis has access to a wide variety of attractive funding instruments (such as bonds, the German Schuldschein, US Private Placement, foreign investment financing, bank loans and other). In order to meet the financing needs in 2021 and beyond, Borealis will continue to explore several suitable financial instruments fitting its strategy.

Some loan agreements have financial covenants based on maintaining certain gearing and solvency ratios. As of 31 December 2020, Borealis was in compliance with all financial covenants stipulated by the loan agreements.

Currency Mix EUR thousand	2020	%	2019	%
EUR	1,336,607	70%	1,008,835	61%
USD	498,407	26%	557,298	34%
JPY	39,358	2%	40,976	3%
GBP	33,750	2%	36,034	2%
Other	8,625	0%	9,230	0%
<b>Interest bearing total</b>	<b>1,916,747</b>	<b>100%</b>	<b>1,652,373</b>	<b>100%</b>

## 22. Liquidity Risk

Liquidity risk is the risk of the Group encountering difficulty in meeting the obligations associated with its financial liabilities. 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. For further details on loans and borrowings and lease liabilities, see note 6, note 21 and for derivatives, note 23.

The following are the contractual maturities of non-derivative financial liabilities, including forecasted interest payments and derivative financial liabilities. All carrying

amounts exclude outstanding interest accruals at year end. Cash outflows are reported with a negative sign.

EUR thousand	2020						
	Carrying amount	Contractual cash flows	6 months or less	6–12 months	1–2 years	2–5 years	More than 5 years
Non-derivative financial liabilities							
EUR floating rate loans	-203,349	<b>-204,561</b>	-13,601	-121,151	-19,239	-23,485	-27,085
EUR fixed rate loans	-944,322	<b>-1,014,491</b>	-35,888	-69,869	-16,272	-686,170	-206,292
USD floating rate loans	-164,387	<b>-174,070</b>	-1,053	-1,146	-1,992	-156,691	-13,188
USD fixed rate loans	-287,265	<b>-374,147</b>	-6,733	-5,574	-57,943	-113,911	-189,986
JPY floating rate loans	-39,358	<b>-40,162</b>	-82	-100	-152	-39,828	0
GBP fixed rate loans	-33,369	<b>-36,506</b>	-1,568	-34,938	0	0	0
Other floating rate loans	-2,236	<b>-2,264</b>	-1,385	-879	0	0	0
Other fixed rate loans	-49	<b>-50</b>	-25	-25	0	0	0
Lease liabilities	-194,798	<b>-233,002</b>	-22,301	-19,066	-34,602	-57,376	-99,657
Trade payables	-788,170	<b>-788,170</b>	-788,170	0	0	0	0
Utilised uncommitted facilities	-47,614	<b>-47,615</b>	-47,615	0	0	0	0
<b>Total</b>	<b>-2,704,917</b>	<b>-2,915,038</b>	<b>-918,421</b>	<b>-252,748</b>	<b>-130,200</b>	<b>-1,077,461</b>	<b>-536,208</b>

EUR thousand	2019						
	Carrying amount	Contractual cash flows	6 months or less	6–12 months	1–2 years	2–5 years	More than 5 years
Non-derivative financial liabilities							
EUR floating rate loans	-183,896	<b>-186,809</b>	-13,730	-75,468	-27,012	-43,158	-27,441
EUR fixed rate loans	-609,085	<b>-674,043</b>	-66,995	-9,064	-102,349	-79,825	-415,810
USD floating rate loans	-179,678	<b>-205,584</b>	-2,741	-2,693	-4,722	-180,512	-14,916
USD fixed rate loans	-318,648	<b>-427,343</b>	-7,472	-10,659	-13,458	-153,009	-242,745
JPY floating rate loans	-40,976	<b>-42,131</b>	-87	-119	-168	-41,757	0
GBP fixed rate loans	-35,444	<b>-42,108</b>	-1,666	-1,666	-38,776	0	0
Other floating rate loans	-3,792	<b>-3,911</b>	-1,369	-860	-1,682	0	0
Other fixed rate loans	-138	<b>-146</b>	-38	-37	-71	0	0
Lease liabilities	-210,884	<b>-254,158</b>	-23,423	-19,662	-33,964	-67,989	-109,120
Trade payables	-746,527	<b>-746,527</b>	-746,527	0	0	0	0
Utilised uncommitted facilities	-69,832	<b>-69,833</b>	-69,833	0	0	0	0
<b>Total</b>	<b>-2,398,900</b>	<b>-2,652,593</b>	<b>-933,881</b>	<b>-120,228</b>	<b>-222,202</b>	<b>-566,250</b>	<b>-810,032</b>



EUR thousand	2020					
	Carrying amount	Contractual cash flows	6 months or less	6–12 months	1–2 years	2–5 years
<b>Derivative financial liabilities/outflow</b>						
Interest rate swaps	-3,926	<b>-4,228</b>	-632	-559	-1,190	-1,847
Cross currency interest rate swaps	-2,930	<b>-39,245</b>	-1,485	-37,760	0	0
Foreign exchange contracts	-798	<b>-71,541</b>	-71,541	0	0	0
Feedstock contracts	-37,789	<b>-37,845</b>	-34,346	-3,499	0	0
Electricity contracts	-14,041	<b>-13,977</b>	-5,633	-4,397	-2,895	-1,052
Natural gas contracts	-7,472	<b>-7,442</b>	-2,955	-2,514	-1,973	0
<b>Total</b>	<b>-66,956</b>	<b>-174,278</b>	<b>-116,592</b>	<b>-48,729</b>	<b>-6,058</b>	<b>-2,899</b>

EUR thousand	2019					
	Carrying amount	Contractual cash flows	6 months or less	6–12 months	1–2 years	2–5 years
<b>Derivative financial liabilities/outflow</b>						
Interest rate swaps	-447	<b>-455</b>	-142	-102	-151	-60
Cross currency interest rate swaps	-2,456	<b>-88,631</b>	-2,188	-2,178	-38,967	-45,298
Foreign exchange contracts	-2,130	<b>-260,530</b>	-235,129	-25,401	0	0
Feedstock contracts	-12,188	<b>-12,446</b>	-12,048	-203	-195	0
Electricity contracts	-17,424	<b>-17,386</b>	-9,633	-4,305	-2,920	-528
Natural gas contracts	-826	<b>-826</b>	-826	0	0	0
<b>Total</b>	<b>-35,471</b>	<b>-380,274</b>	<b>-259,966</b>	<b>-32,189</b>	<b>-42,233</b>	<b>-45,886</b>

EUR thousand	2020					
	Contractual cash flows	6 months or less	6–12 months	1–2 years	2–5 years	More than 5 years
<b>Off balance sheet liabilities</b>						
Contingencies provided by the entity	<b>-48,334</b>	0	-1,228	-1,519	-14,114	-31,473
Short-term and low-value lease payments	<b>-2,316</b>	-1,240	-777	-138	-161	0
Capital commitments – property, plant and equipment	<b>-304,528</b>	-253,870	-21,767	-24,379	-4,512	0
Commitments in associated companies	<b>-15,733</b>	0	-2,900	-12,833	0	0
Commitments in joint ventures	<b>-406,745</b>	0	0	0	-406,745	0

EUR thousand	2019					
Off balance sheet liabilities	Contractual cash flows	6 months or less	6–12 months	1–2 years	2–5 years	More than 5 years
Contingencies provided by the entity	-51,805	-3,526	-515	-906	-15,685	-31,173
Short-term and low-value lease payments	-2,069	-1,170	-693	-153	-53	0
Capital commitments – property, plant and equipment	-343,637	-194,478	-49,375	-73,290	-26,494	0
Commitments in joint ventures	-459,743	0	-77,989	0	-381,754	0

For details in respect of off balance sheet liabilities, please see note 5, note 9, note 31 and note 32.

### 23. Derivative Financial Instruments

The Group is exposed to certain risks relating to its ongoing business operations. The primary risks managed using derivative instruments are foreign currency risk, interest rate risk and commodity price risk.

The Group's risk management strategy and how it is applied to manage risk is explained in note 18 and in the Group Management Report in general and in this note, notes 24, 25 and 26 in detail for the risks mentioned in the preceding paragraph.

#### Hedge Accounting Policies of the Group

Hedges are generally placed in the legal entities where the underlying exposure exists. When certain conditions are met, Borealis applies IFRS 9 hedge accounting principles 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 hedge accounting relationships:

- Cash flow hedging – foreign exchange (see this note and note 24)
- Cash flow hedging – interest rate (see this note and note 25)
- Cash flow hedging – commodity (feedstock, electricity, natural gas – see this note and note 26)
- Net investment hedging in a foreign operation (see note 24)

Derivatives are only used for economic hedging purposes and not as speculative investments. However, where derivatives are not designated as hedging instruments, they are classified as fair value through profit or loss (FVPL) for accounting purposes.

The Group holds the following derivative financial instruments:

EUR thousand	2020	2019
<b>Current assets</b>		
Foreign exchange swaps – FVPL	1,468	52
Foreign exchange forwards – cash flow hedges	12,714	3,841
Feedstock contracts – FVPL	1,646	1,152
Feedstock contracts – cash flow hedges	8,188	8,191
Electricity contracts – cash flow hedges	18,445	12,382
Natural gas – cash flow hedges	2,962	0
<b>Total current derivative financial instrument assets (Other receivables and other assets)</b>	<b>45,423</b>	<b>25,618</b>



EUR thousand	2020	2019
<b>Non-current assets</b>		
Interest rate swaps – FVPL	327	0
Interest rate swaps – cash flow hedges	0	1,576
Feedstock contracts – cash flow hedges	1,854	1,813
Electricity contracts – cash flow hedges	5,904	3,271
<b>Total non-current derivative financial instrument assets (Other receivables and other assets)</b>	<b>8,085</b>	<b>6,660</b>

EUR thousand	2020	2019
<b>Current liabilities</b>		
Cross currency interest rate swaps – FVPL	2,930	0
Foreign exchange swaps – FVPL	96	1,279
Foreign exchange forwards – cash flow hedges	702	851
Feedstock contracts – FVPL	2,356	6,479
Feedstock contracts – cash flow hedges	35,433	5,514
Electricity contracts – cash flow hedges	10,057	13,958
Natural gas – cash flow hedges	5,484	826
<b>Total current derivative financial instrument liabilities (Other liabilities)</b>	<b>57,058</b>	<b>28,907</b>

EUR thousand	2020	2019
<b>Non-current liabilities</b>		
Cross currency interest rate swaps – FVPL	0	2,456
Interest rate swaps – cash flow hedges	3,926	447
Feedstock contracts – cash flow hedges	0	195
Electricity contracts – cash flow hedges	3,984	3,466
Natural gas – cash flow hedges	1,988	0
<b>Total non-current derivative financial instrument liabilities (Other liabilities)</b>	<b>9,898</b>	<b>6,564</b>

### Impact of Hedge Accounting on Equity

The Group's hedging reserve disclosed in the Consolidated Statement of Changes in Equity relates to the following hedging instruments:

Hedging Reserve EUR thousand	2020					
	Cash flow hedge – foreign currency	Cash flow hedge – interest rate	Cash flow hedge – feedstock	Cash flow hedge – electricity	Cash flow hedge – natural gas	Hedging reserve total
As of 1 January	2,243	846	206	-1,328	-620	<b>1,347</b>
Change in fair value of hedging instrument recognised in OCI	12,284	-5,682	-36,998	-20,102	113	<b>-50,385</b>
Reclassifications from OCI to profit or loss	-3,377	627	0	32,181	-3,795	<b>25,636</b>
Reclassifications to the cost of non-financial items	115	0	15,197	0	0	<b>15,312</b>
Deferred tax	-2,256	1,264	5,450	-3,020	921	<b>2,359</b>
<b>As of 31 December</b>	<b>9,009</b>	<b>-2,945</b>	<b>-16,145</b>	<b>7,731</b>	<b>-3,381</b>	<b>-5,731</b>

EUR thousand	2019					
	Cash flow hedge – foreign currency	Cash flow hedge – interest rate	Cash flow hedge – feedstock	Cash flow hedge – electricity	Cash flow hedge – natural gas	Hedging reserve total
As of 1 January	-1,789	-459	-21,542	69,395	-766	<b>44,839</b>
Change in fair value of hedging instrument recognised in OCI	-7,734	1,558	33,438	-74,435	-6,339	<b>-53,512</b>
Reclassifications from OCI to profit or loss	11,318	182	0	-19,862	6,533	<b>-1,829</b>
Reclassifications to the cost of non-financial items	1,792	0	-4,442	0	0	<b>-2,650</b>
Deferred tax	-1,344	-435	-7,248	23,574	-48	<b>14,499</b>
<b>As of 31 December</b>	<b>2,243</b>	<b>846</b>	<b>206</b>	<b>-1,328</b>	<b>-620</b>	<b>1,347</b>



<b>Reserve for unrealised exchange gains/losses EUR thousand</b>	<b>2020</b>	<b>2019</b>
As of 1 January	282,204	220,738
Foreign currency revaluation of USD loans, designated as net investment hedge	16,704	-2,735
Foreign currency revaluation of financial statements of foreign operations	-324,944	67,680
Reclassifications to the income statement during the period	-17,094	0
Foreign currency revaluation of long-term loans to foreign operations	4,020	-3,398
Share of other comprehensive income of associates accounted for using the equity method	1,893	-1,789
Foreign currency revaluation of financial statements of foreign operations – Non-controlling interest	1,963	176
Deferred tax	-5,181	1,532
<b>As of 31 December</b>	<b>-40,435</b>	<b>282,204</b>

As of 31 December 2020 and 31 December 2019, the Group held the following cash flow and net investment hedging relationships. The table shows the profile of the timing (maturity) of the nominal amount of the hedging instruments.

	Unit	2020								
		Total	3 months or less	3–6 months	6–12 months	1–2 years	2–3 years	3–4 years	4–5 years	More than 5 years
Foreign exchange forwards	EUR thousand	<b>309,038</b>	57,866	77,103	174,069	0	0	0	0	0
USD loans, designated as net investment hedge	USD thousand	<b>216,000</b>	0	0	0	56,000	40,000	49,000	30,000	41,000
Interest rate swaps	EUR thousand	<b>112,719</b>	0	0	0	23,077	0	89,642	0	0
Feedstock contracts	tonnes	<b>462,583</b>	257,957	66,993	97,133	40,500	0	0	0	0
Electricity contracts	GWh	<b>5,352</b>	717	649	1,341	1,813	832	0	0	0
Natural gas contracts	GWh	<b>2,555</b>	924	271	548	812	0	0	0	0



		<b>2019</b>								
	Unit	<b>Total</b>	3 months or less	3–6 months	6–12 months	1–2 years	2–3 years	3–4 years	4–5 years	More than 5 years
Foreign exchange forwards	EUR thousand	<b>283,501</b>	69,181	65,961	148,359	0	0	0	0	0
USD loans, designated as net investment hedge	USD thousand	<b>221,000</b>	0	0	5,000	0	56,000	40,000	49,000	71,000
Interest rate swaps	EUR thousand	<b>132,654</b>	0	0	0	0	34,615	0	98,039	0
Feedstock contracts	tonnes	<b>274,712</b>	176,145	46,695	51,872	0	0	0	0	0
Electricity contracts	GWh	<b>5,565</b>	712	679	1,371	1,918	885	0	0	0
Natural gas contracts	GWh	<b>228</b>	228	0	0	0	0	0	0	0

As of 31 December 2020 and 31 December 2019, no fair value hedges existed.

### Offsetting

In the normal course of business, the Group enters into derivative transactions under International Swaps and Derivatives Association (ISDA) master netting agreements. The ISDA agreements do not meet the criteria for offsetting in the balance sheet. This is because the Group currently

does not have any legally enforceable right to offset recognised amounts.

The following table presents the recognised financial instruments (derivatives) that are subject to enforceable master netting arrangements, but are not offset. The “Net amount” column shows the impact on the Group’s balance sheet if all set-off rights were exercised.

<b>EUR thousand</b>	<b>2020</b>		
	<b>Amounts presented in the balance sheet</b>	<b>Related amounts not offset in the balance sheet</b>	<b>Net amount</b>
<b>Financial assets</b>			
Derivative financial instruments	53,508	-23,372	30,136
<b>Financial liabilities</b>			
Derivative financial instruments	66,956	-23,372	43,584



EUR thousand	2019		
	Amounts presented in the balance sheet	Related amounts not offset in the balance sheet	Net amount
<b>Financial assets</b>			
Derivative financial instruments	32,278	-22,384	9,894
<b>Financial liabilities</b>			
Derivative financial instruments	35,471	-22,384	13,087

Borealis has no offsetting of financial assets and financial liabilities in the balance sheet. There is no further netting potential for non-derivative financial instruments.

#### 24. Foreign Currency Risk

Foreign exchange risk is the risk that the fair value or future cash flows of an exposure will fluctuate because of changes in foreign exchange rates.

Borealis incurs foreign currency risk on sales, purchases and borrowings that are denominated in currencies other than EUR. The most significant currencies in terms of hedged amounts are USD and SEK.

The foreign exchange risk related to short-term commercial cash flows is hedged and limits for long-term foreign exchange exposures are established. Based on regular cash flow forecasts, Borealis hedges its foreign exchange exposure coming from forecasted sales and purchases and from committed investment projects.

Borealis hedges 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 foreign exchange forward contracts. Borealis classifies its foreign exchange forward contracts, which hedge a forecasted currency position, as cash flow hedges and states them at fair value.

Changes in the fair value of foreign exchange forward contracts that hedge monetary assets and liabilities in foreign currencies and the forward legs of foreign exchange 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 financial expenses.

There is an economic relationship between the hedged items and the hedging instruments as the critical terms of the foreign exchange forward contracts match the terms of the expected highly probable forecast transactions (i.e. nominal amount, exchange rate and expected payment date). Hence, the Group has established a hedge ratio of 1:1. To test the hedge effectiveness, the Group uses the Dollar Offset method and compares the changes in the fair value of the hedging instruments against the changes in fair value of the hedged items attributable to the hedged risks.

Hedge ineffectiveness may arise from:

- differences in the timing of the cash flows of the hedged items and the hedging instruments,
- different indexes (and accordingly different curves) linked to the hedged risk of the hedged items and hedging instruments,
- the counterparties' credit risk differently impacting the fair value movements of the hedging instruments and hedged items,
- changes to the forecasted amount of cash flows of hedged items,
- change in fair value of the cross currency basis spread element of the foreign exchange forward contracts ("ccbs").

Borealis does not recognise any ineffectiveness in profit or loss due to immateriality.

#### Net Investment Hedges in Foreign Operations

A foreign currency exposure arises from the Group's long-term net investment in its subsidiaries, associated companies and joint ventures in foreign currencies. Foreign exchange translation differences relating to these net investments are recognised in other comprehensive income. Borealis has hedged part of its investment in an associated company, which has USD as its functional currency, by designating certain external loans in USD as hedges of the Group's investments in its foreign operations. The hedged risk in the net investment hedge is the risk of a weakening USD against the EUR that will result in a reduction in the carrying amount of the Group's net investment in the associated company in USD. The EUR/USD impact on the measurement of the loan is recognised in other comprehensive income.

To assess hedge effectiveness, the Group determines the economic relationship between the hedging instrument and the hedged item by comparing changes in the carrying amount of the debt that is attributable to a change in the spot rate with changes in the investment in the foreign operation due to movements in the spot rate (the dollar-offset method). The Group's policy is to hedge the net investment only to the extent of the debt principal.

There is an economic relationship between the hedged item and the hedging instrument as the net investment creates a translation risk that will match the foreign exchange risk on the USD borrowing. The Group has established a hedge ratio of 1:1 as the underlying risk of the hedging instrument is identical to the hedged risk component. Hedge ineffectiveness will arise when the amount of the investment in the foreign associated company becomes lower than the amount of the borrowing.

#### Effects of Hedge Accounting on the Financial Position and Performance

The effects of the foreign currency-related hedging instruments on the Group's financial position and performance are as follows:



<b>Foreign exchange forwards EUR thousand</b>	<b>2020</b>	<b>2019</b>
Carrying amount (asset – current)	12,714	3,841
Carrying amount (liability – current)	702	851
Line item in the balance sheet where the hedging instrument is included	Other receivables and other assets/ Other liabilities	Other receivables and other assets/ Other liabilities
Total nominal amount	kEUR 309,038	kEUR 283,501
Hedge ratio	1:1	1:1
Hedged rate for the year	EUR/USD 1.08–1.15 EUR/SEK 10.16–11.07	EUR/USD 1.11–1.16 EUR/SEK 10.58–10.99
Change in fair value of the hedging instrument used for measuring ineffectiveness for the period	12,284	-7,734
Change in value of the hedged item used for measuring ineffectiveness for the period	-12,284	7,734
Hedging reserve (net of deferred taxes)	9,009	2,243
Total hedging gain (+) or loss (-) recognised in OCI	12,284	-7,734
Hedge ineffectiveness recognised in the income statement	0	0
Amount reclassified from hedging reserve to the income statement	-3,377	11,318
Line item in the income statement affected by the reclassification	Net sales and production costs	Net sales and production costs
Amount reclassified from hedging reserve to the cost of non-financial items	115	1,792
<b>Net investment hedges in foreign operations EUR thousand</b>	<b>2020</b>	<b>2019</b>
Carrying amount (liability)	176,024	196,978
Line item in the balance sheet where the hedging instrument is included	Loans and borrowings	Loans and borrowings
Total nominal amount	kUSD 216,000	kUSD 221,000
Hedge ratio	1:1	1:1
Change in fair value of the hedging instrument used for measuring ineffectiveness for the period	16,704	-2,735
Change in value of the hedged item used for measuring ineffectiveness for the period	-16,704	2,735
Reserve for unrealised exchange gains/losses (net of deferred taxes)	-4,430	-16,958
Balances remaining in the reserve for unrealised exchange gains/losses from hedging relationships for which hedge accounting is no longer applied	-6,290	-5,804
Total hedging gain (+) or loss (-) recognised in OCI	16,704	-2,735
Hedge ineffectiveness recognised in the income statement	0	0

### Sensitivity Analysis

The Group's exposure to the risk of changes in foreign exchange rates primarily relates to the Group's operating activities, mainly invoicing in EUR and mainly purchasing raw materials 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 (foreign exchange rate against EUR), are constant and on the basis of hedge designations in place as of 31 December 2020. The Group assumes that the prevailing polyolefin market pricing mechanisms reduce the foreign exchange risk in practice.

As of 31 December 2020, the Group shows a net payable (prior year: net payable) position of USD and a net payable (prior year: net receivable) position of SEK.

Effect in EUR thousand	Profit for the year		Equity	
	Strengthening +1%	Weakening -1%	Strengthening +1%	Weakening -1%
<b>31 December 2020</b>				
USD	-3,988	3,263	-3,566	2,917
SEK	-536	439	1,647	-1,347
USD – including net investment	-3,988	3,263	37,563	-30,733
SEK – including net investment	-536	439	7,384	-6,042
<b>31 December 2019</b>				
USD	1,281	-1,048	-4,735	3,874
SEK	-785	643	1,561	-1,277
USD – including net investment	1,281	-1,048	36,896	-30,188
SEK – including net investment	-785	643	7,162	-5,860

### 25. Interest Rate Risk

Interest rate risk is the risk of the fair value or future cash flows of a financial instrument fluctuating because of changes in market interest rates.

Borealis adopts a policy of managing its interest rate risk through the modified duration of its loan portfolio. The average modified duration is allowed to deviate within a predefined range. Overall, Borealis' risk management strategy according to its financial procedures is to protect itself against adverse interest rate movements and to obtain predictable interest costs. As of 31 December 2020, Borealis had three outstanding interest rate swaps. Borealis classifies these interest rate swaps as cash flow hedges and states them at fair value. The purpose of these hedges is to fix the cash outflows related to the floating rate loans.

The Group enters into interest rate swaps that have matching critical terms with the hedged item, such as reference rate, reset dates, payment dates, maturities and nominal amount.

The hedge ratios are based on interest rate swaps with a nominal amount in EUR and USD and a receive leg of a rate index. This results in 1:1 hedge ratios (100%). Since loans and hedging instruments are fully aligned and cannot be changed unless terminated, the hedge ratios will not change and hence, do not result in any imbalances that would create hedge ineffectiveness.

Hedge effectiveness will be assessed by comparing changes in the fair values of the hedging instruments to changes in the fair values of the respective hypothetical derivatives. The terms of the hypothetical derivative are as such that its fair value changes offset exactly the changes in the fair value of the hedged item. The terms are identical to the



hedging instrument but, assume no counterparty risk. Hence, the hedge is expected to be highly effective.

A significant change in the credit risk of either Borealis or the counterparty is identified as a potential source of ineffectiveness. The Group treasury monitors the Company and the bank's credit risk for significant adverse changes.

Hedge ineffectiveness may arise from:

- differences in the timing of the cash flows of the hedged items and the hedging instruments,
- the counterparties' credit risk impacting the fair value movements of the hedging instruments and hedged items differently.

Borealis considers that it is, in principle, exposed to uncertainties resulting from the interest rate benchmark reform in respect of its hedges of (6 month) EURIBOR and (3 month) USD LIBOR interest risks related to the existence of two outstanding USD interest rate swaps, with a nominal amount of USD 110 million in total and one outstanding interest rate swap, with a nominal amount of EUR 23 million. Their hedging period spans beyond 2021 when uncertainties about the existence of the USD LIBOR rates arise. Borealis expects that the hedging instrument and the hedged risk of the hedged item will not change as a result of the reform.

However, any hedge ineffectiveness would be accounted for in profit or loss.

Borealis has designated two hedges of USD LIBOR interest risk for a total of USD 110 million which will expire in 2024 and will implement the required changes in due time, if and as needed after 2022, should it be determined that after such date the existing benchmark rate will no longer be available.

Borealis has two cross currency interest rate swaps that are classified as fair value through profit or loss and stated at fair value.

Of loans and borrowings, approximately 76% (72%) have a fixed interest rate and 24% (28%) are based on a floating interest rate before applying interest rate swaps. After applying interest rate swaps, approximately 83% (81%) have a fixed interest rate and 17% (19%) 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).

#### Effects of Hedge Accounting on the Financial Position and Performance

The effects of the interest rate related to hedging instruments on the Group's financial position and performance are as follows:

<b>Interest rate swaps</b> EUR thousand	<b>2020</b>	<b>2019</b>
Carrying amount (asset – non-current)	0	1,576
Carrying amount (liability – non-current)	3,926	447
Line item in the balance sheet where the hedging instrument is included	Other receivables and other assets/ Other liabilities	Other receivables and other assets/ Other liabilities
Total nominal amount	kEUR 112,719	kEUR 132,654
Hedge ratio	1:1	1:1
Weighted average hedged rate for the year	1.99%	1.89%
Change in fair value of the hedging instrument used for measuring ineffectiveness for the period	-5,682	1,558
Change in value of the hedged item used for measuring ineffectiveness for the period	5,682	-1,558
Hedging reserve (net of deferred taxes)	-2,945	846
Total hedging gain (+) or loss (-) recognised in OCI	-5,682	1,558
Hedge ineffectiveness recognised in the income statement	0	0
Amount reclassified from hedging reserve to the income statement	627	182
Line item in the income statement affected by the reclassification	Financial expenses	Financial expenses

### 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 as of 31 December 2020.

Effect in EUR thousand	Profit for the year		Equity	
	Strengthening +1%	Weakening -1%	Strengthening +1%	Weakening -1%
<b>31 December 2020</b>				
Interest rate	-1,967	1,982	548	-552
<b>31 December 2019</b>				
Interest rate	-1,291	1,299	1,392	-1,403

### 26. Commodity Risk

Commodity price risk is the risk of future cash flows or the fair value of inventories fluctuating 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. 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 program. Trade Support and Risk Management take a snapshot of all data in the trading system on a daily basis and retrieve the daily position from the system. The position is analysed and compared with the trading limits. Traders use financial derivatives (i.e. financial swaps) in order to stay within the limits.

#### Feedstock Contracts

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. Some of the contracts have been designated as cash flow hedges for future sales and purchases. Contracts not designated as cash flow hedges are classified as fair value through profit or loss and stated at fair value.

#### Electricity Contracts

Borealis hedges its forecasted electricity purchases using electricity swaps. Cash flow hedge accounting has been applied for these contracts.

#### Natural Gas Contracts

Borealis hedges part of its forecasted natural gas purchases and exposure in commercial contracts to changes in natural gas prices using natural gas swaps. Cash flow hedge accounting has been applied for these contracts.

There is an economic relationship between the hedged items and the hedging instruments as the terms of the commodity forward contracts match the terms of the expected highly probable forecast transactions (i.e. nominal amount and expected payment date). The Group has established a hedge ratio of 1:1 for the hedging relationships as the underlying risk of the commodity forward contracts are identical to the hedged risk components. To test the hedge effectiveness, the Group compares the changes in the fair value of the hedging instruments against the changes in fair value of the hedged items attributable to the hedged risks.

The hedge ineffectiveness can arise from:

- differences in the timing of the cash flows of the hedged items and the hedging instruments,
- changes to the forecasted amount of cash flows of hedged items and hedging instruments.

#### Effects of Hedge Accounting on the Financial Position and Performance

The effects of the commodity-related hedging instruments on the Group's financial position and performance are as follows:



<b>Feedstock contracts</b> <b>EUR thousand</b>	<b>2020</b>	<b>2019</b>
Carrying amount (asset – current)	8,188	8,191
Carrying amount (asset – non-current)	1,854	1,813
Carrying amount (liability – current)	35,433	5,514
Carrying amount (liability – non-current)	0	195
Line item in the balance sheet where the hedging instrument is included	Other receivables and other assets/ Other liabilities	Other receivables and other assets/ Other liabilities
Total nominal amount	462,583 tonnes	274,712 tonnes
Hedge ratio	1:1	1:1
Change in fair value of the hedging instrument used for measuring ineffectiveness for the period	-36,998	33,438
Change in value of the hedged item used for measuring ineffectiveness for the period	36,998	-33,438
Hedging reserve (net of deferred taxes)	-16,145	206
Balances remaining in the hedging reserve for hedging instruments that have expired but forecast transaction still has to occur	3,863	-4,021
Total hedging gain (+) or loss (-) recognised in OCI	-36,998	33,438
Hedge ineffectiveness recognised in the income statement	0	0
Amount reclassified from hedging reserve to the cost of non-financial items	15,197	-4,442
<b>Electricity contracts</b> <b>EUR thousand</b>	<b>2020</b>	<b>2019</b>
Carrying amount (asset – current)	18,445	12,382
Carrying amount (asset – non-current)	5,904	3,271
Carrying amount (liability – current)	10,057	13,958
Carrying amount (liability – non-current)	3,984	3,466
Line item in the balance sheet where the hedging instrument is included	Other receivables and other assets/ Other liabilities	Other receivables and other assets/ Other liabilities
Total nominal amount	5,352 GWh	5,565 GWh
Hedge ratio	1:1	1:1
Change in fair value of the hedging instrument used for measuring ineffectiveness for the period	-20,102	-74,435
Change in value of the hedged item used for measuring ineffectiveness for the period	20,102	74,435
Hedging reserve (net of deferred taxes)	7,731	-1,328
Total hedging gain (+) or loss (-) recognised in OCI	-20,102	-74,435
Hedge ineffectiveness recognised in the income statement	0	0
Amount reclassified from hedging reserve to the income statement	32,181	-19,862
Line item in the income statement affected by the reclassification	Production costs	Production costs



<b>Natural gas contracts</b> EUR thousand	<b>2020</b>	<b>2019</b>
Carrying amount (asset – current)	2,962	0
Carrying amount (liability – current)	5,484	826
Carrying amount (liability – non-current)	1,988	0
Line item in the balance sheet where the hedging instrument is included	Other receivables and other assets/ Other liabilities	Other receivables and other assets/ Other liabilities
Total nominal amount	2,555 GWh	228 GWh
Hedge ratio	1:1	1:1
Change in fair value of the hedging instrument used for measuring ineffectiveness for the period	113	-6,339
Change in value of the hedged item used for measuring ineffectiveness for the period	-113	6,339
Hedging reserve (net of deferred taxes)	-3,381	-620
Total hedging gain (+) or loss (-) recognised in OCI	113	-6,339
Hedge ineffectiveness recognised in the income statement	0	0
Amount reclassified from hedging reserve to the income statement	-3,795	6,533
Line item in the income statement affected by the reclassification	Production costs	Production costs

### Sensitivity Analysis

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 on 31 December 2020. The Group assumes that the prevailing market pricing mechanisms reduce the commodity price risk in practice.

Effect in EUR thousand	Profit for the year		Equity	
	Strengthening +1%	Weakening -1%	Strengthening +1%	Weakening -1%
<b>31 December 2020</b>				
Feedstock - Naphtha	-125	125	167	-167
Feedstock - Other	64	-64	-2,349	2,349
Electricity	0	0	2,408	-2,408
Natural gas	0	0	-211	211
<b>31 December 2019</b>				
Feedstock - Naphtha	-76	76	639	-639
Feedstock - Other	-353	353	-387	387
Electricity	0	0	2,226	-2,226
Natural gas	0	0	87	-87



## 27. Factoring

Borealis has a factoring 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.

The total nominal value sold to the purchaser under the factoring programme in the current year amounted to EUR 2,760,426 thousand (EUR 3,181,317 thousand). As of 31 December 2020, receivables worth EUR 284,359 thousand (EUR 294,911 thousand) were sold to the purchaser under the factoring programme. The reserves deducted from the nominal value of the sold receivables amounted to EUR 24,521 thousand (EUR 25,279 thousand) as of 31 December 2020 and are included in other current receivables. During the year, expenses amounting to EUR 2,548 thousand (EUR 2,464 thousand) were recognised in the income statement for the factoring programme.

## 28. Credit Risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations. The Group is exposed to credit risk from its operating activities (primarily trade receivables) and from its financing activities, including deposits with banks and financial institutions and other financial instruments.

The Group has three types of financial assets that are subject to the expected credit loss model:

- trade receivables (excluding trade receivables at FVPL) and contract assets,
- cash and cash equivalents,
- debt investments carried at amortised cost.

On each reporting date, the Group assesses whether financial assets carried at amortised cost are credit-impaired. For trade receivables, the Group applies the IFRS simplified approach to measure expected credit losses, which uses a lifetime expected loss allowance.

### Trade Receivables Credit Risk

A credit control procedure is in place. Credit risk is monitored on an ongoing basis. Credit risk for 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 reviewed annually at least. Approval and escalation limits are used to authorise the available credit limits to customers. For some trade receivables, the Group may obtain security in the form of guarantees (bank and parental guarantees), letters of credit or credit insurance, which can be called upon if the counterparty is in default under the terms of the agreement. As of the reporting date, Borealis has no large concentrations of credit risks for trade receivables from external parties representing more than 10% of the total outstanding trade receivables. For details on trade receivables from related parties, see note 31. No credit risk is retained in trade receivables sold under the factoring programme (note 27).

The maximum exposure to credit risk for trade receivables as of the reporting date by geographic region was:

EUR thousand	2020	2019
EU countries	345,731	412,535
Non-EU in Europe	85,761	96,778
US	35,500	48,049
Middle East and Asia	94,007	134,688
Other regions	79,091	57,838
<b>Total</b>	<b>640,090</b>	<b>749,888</b>

The maximum exposure to credit risk for trade receivables as of the reporting date by type of segment and group of customers was:

EUR thousand	2020	2019
Polyolefins	421,918	463,388
Base Chemicals	89,279	127,215
Borealis NITRO	106,671	135,014
Non-Allocated	22,222	24,271
<b>Total</b>	<b>640,090</b>	<b>749,888</b>

As of the financial year 2020, all customers are classified in risk categories based on external and internal ratings with associated probabilities of default in order to measure the lifetime expected losses. The new approach was implemented to directly link the external and internal rating and associated probability of default to the impairment calculation per counterparty. The impact of the change in the inputs and the calculation technique on the financial statements is deemed insignificant.

The table below shows the maximum exposure (gross carrying amount) for each risk class based on which loss allowance was determined for trade receivables (excluding trade receivables at FVPL).

EUR thousand	31 December 2020				
	Equivalent to external rating	Probability of default	Gross carrying amount	Loss allowance	Credit-impaired
Risk category 1	AAA, AA+, AA, AA-, A+, A, A-	0.07%	66,803	-2	No
Risk category 2	BBB+, BBB, BBB-	0.25%	58,885	-7	No
Risk category 3	BB+, BB, BB-	1.19%	308,943	-496	No
Risk category 4	B+, B, B-, CCC/CC	10.26%	178,428	-975	No
Risk category 5	SD/D	100.00%	14,126	-14,126	Yes
<b>Total</b>			<b>627,185</b>	<b>-15,606</b>	

The identified impairment loss for contract assets was immaterial.

Until the end of the financial year 2019, the ECLs for trade receivables and contract assets were calculated based on a provision matrix.

As of 31 December 2019, the loss allowance based on shared credit risk characteristics and the days past due was determined as follows for trade receivables (excluding trade receivables at FVPL).



EUR thousand	31 December 2019			
	Weighted average loss rate	Gross carrying amount	Loss allowance	Credit-impaired
Current (not past due)	0.05%	624,341	-315	No
Past due 0–30 days	0.04%	81,207	-33	No
Past due 31–90 days	1.61%	9,137	-147	No
Past due 91–180 days	0.61%	13,483	-82	No
Past due over 180 days	78.63%	17,796	-13,993	Yes
<b>Total</b>		<b>745,963</b>	<b>-14,570</b>	

The movement in the loss allowance in respect of trade receivables during the year was as follows:

EUR thousand	2020		2019	
	Lifetime ECL – not credit-impaired	Lifetime ECL – credit-impaired	Lifetime ECL – not credit-impaired	Lifetime ECL – credit-impaired
Balance as of 1 January	577	13,993	777	13,017
Impairment loss recognised	1,480	1,838	577	2,294
Written off	0	-642	0	-810
Reversal of impairment	-577	-16	-777	-528
Other movements	0	-995	0	0
Exchange adjustments	0	-53	0	20
<b>Balance as of 31 December</b>	<b>1,480</b>	<b>14,126</b>	<b>577</b>	<b>13,993</b>

In 2020, the Group did not renegotiate the terms of trade receivables. Generally, trade receivables written off during 2020 are not subject to enforcement activity.

The total guarantees received (bank guarantees and parental guarantees) in respect of the trade receivables

amounted to EUR 218,726 thousand (EUR 223,465 thousand). The Group does not require collateral in respect of trade receivables. The Group does not have trade receivables for which no loss allowance is recognised because of collateral or guarantees received.

### Other Credit Risk

The Group is also exposed to credit risk relating to other financial assets. The maximum exposure to credit risk as of the reporting date is the carrying amount of each class of financial assets disclosed in note 29.

The table below shows the maximum exposure to credit risk (gross carrying amount) for financial assets that are measured at amortised cost and subject to a 12-month expected credit loss.

EUR thousand	Credit risk (Gross carrying amount)		Loss allowance recognised	
	2020	2019 restated	2020	2019
Cash and cash equivalents <sup>1)</sup>	83,404	83,498	0	0
Debt investments carried at amortised cost				
Loans granted	753,955	259,570	-3,151	-2,500
Deposits and other receivables	170,107	78,934	-2,099	0

1) 2019 amount has been restated. For further details refer to section Restatement.

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. Borealis' management does not expect any counterparty to fail to meet any of its current obligations.

While cash and cash equivalents are also subject to the impairment requirements of IFRS 9, the identified impairment loss was immaterial. All of the entities' other debt investments at amortised cost are considered in general to have low credit risk and the loss allowance recognised during the period is therefore limited to 12-month expected losses. In 2020, a balance of restricted cash in the amount of EUR 2,099 thousand was classified as other financial assets and fully impaired. Additionally, one loan to an external party in the amount of EUR 651 thousand was fully impaired. In 2019, one loan to an external party was fully impaired and amounted to EUR 2,500 thousand. The loss allowance for all other debt investments was immaterial.



## 29. Fair Values

The following table shows the carrying amounts and fair values of financial assets and financial liabilities, including their levels in the fair value hierarchy. It does not include

fair value information for financial assets and financial liabilities not measured at fair value, if the carrying amount is a reasonable approximation of fair value.

EUR thousand	31.12.2020			31.12.2019 restated		
	Carrying amount	Fair value	Fair value hierarchy level	Carrying amount	Fair value	Fair value hierarchy level
<b>Assets</b>						
<b>Other investments</b>						
Other investments	31,443	31,443	3	31,692	31,692	3
<b>at fair value through profit or loss</b>	<b>31,443</b>			<b>31,692</b>		
<b>Trade receivables</b>						
Trade receivables	640,090			749,888		
<b>thereof at amortised cost</b>	<b>611,579</b>			<b>731,393</b>		
<b>thereof at fair value through profit or loss</b>	<b>28,511</b>			<b>18,495</b>		
<b>Cash and cash equivalents</b>						
Cash	81,626			73,498		
Other current deposits <sup>1)</sup>	1,778			10,000		
<b>at amortised cost</b>	<b>83,404</b>			<b>83,498</b>		
<b>Other receivables and other assets (current and non-current)</b>						
Marketable securities and bonds <sup>1)</sup>	35,164	35,164	1	34,742	34,742	1
<b>at fair value through profit or loss</b>	<b>35,164</b>			<b>34,742</b>		
Derivative financial instruments for which hedge accounting is applied	50,067	50,067	2	31,074	31,074	2
<b>Hedging instruments</b>	<b>50,067</b>			<b>31,074</b>		
Derivative financial instruments for which hedge accounting is not applied	3,441	3,441	2	1,204	1,204	2
<b>at fair value through profit or loss</b>	<b>3,441</b>			<b>1,204</b>		
Loans granted	750,804	754,883	2	257,070	353,020	2
Deposits and other receivables	168,008			78,934		
<b>at amortised cost</b>	<b>918,812</b>			<b>336,004</b>		
Other non financial assets	256,108	n/a	n/a	223,419	n/a	n/a
<b>Total other receivables and other assets (current and non-current)</b>	<b>1,263,592</b>			<b>626,443</b>		

1) 2019 amount has been restated. For further details refer to section Restatement.

EUR thousand	31.12.2020			31.12.2019		
	Carrying amount	Fair value	Fair value hierarchy level	Carrying amount	Fair value	Fair value hierarchy level
<b>Liabilities</b>						
<b>Loans and borrowings (current and non-current)</b>						
Bond	297,461	324,432	1	296,975	333,879	1
Floating rate loans and borrowings	409,331	410,687	2	407,865	423,615	2
Fixed rate loans and borrowings	1,015,158	1,093,381	2	736,649	762,148	2
<b>at amortised cost</b>	<b>1,721,949</b>			<b>1,441,489</b>		
<b>Trade payables</b>						
Trade payables	788,170			746,527		
<b>at amortised cost</b>	<b>788,170</b>			<b>746,527</b>		
<b>Other liabilities (current and non-current)</b>						
Derivative financial instruments for which hedge accounting is applied	61,573	61,573	2	25,257	25,257	2
<b>Hedging instruments</b>	<b>61,573</b>			<b>25,257</b>		
Derivative financial instruments for which hedge accounting is not applied	5,382	5,382	2	10,214	10,214	2
<b>at fair value through profit or loss</b>	<b>5,382</b>			<b>10,214</b>		
Interest accruals on loans and borrowings	7,032			8,181		
Other financial liabilities	302,754			167,100		
<b>at amortised cost</b>	<b>309,786</b>			<b>175,281</b>		
Other non-financial liabilities	205,651	n/a	n/a	194,686	n/a	n/a
<b>Total other liabilities (current and non-current)</b>	<b>582,393</b>			<b>405,438</b>		

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 2020, no transfers between the different levels of the fair value hierarchy took place.



### Other Investments

For details on other investments, see note 10. The equity value of the other investments is assumed to equal other investments' fair value. If the equity decreases (increases), the fair value decreases (increases) accordingly.

The following table presents the changes in other investments (level 3 items):

EUR thousand	2020	2019
Balance as of 1 January	31,692	29,984
Investments and acquisitions	0	777
Other changes <sup>1)</sup>	51	0
Fair value changes recognised in income statement (financial income/expenses)	-342	923
Exchange adjustments	42	8
<b>Balance as of the reporting date</b>	<b>31,443</b>	<b>31,692</b>

1) New subsidiary in 2020 excluded from the consolidation due to immateriality.

### Trade and Other Receivables and Other Assets

The fair value of trade and other receivables and assets is estimated to equal the nominal values less impairments (= carrying amount).

The carrying amount of deposits and other 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 as of the reporting date.

### Derivatives

The fair value of foreign exchange derivative 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 rates as of 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 rates for a hypothetical instrument as of 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 as of the reporting date. All fair values are excluding the outstanding interest accruals as of the reporting date.

The fair value of trade and other payables is estimated to equal the carrying amount.

### Contingent Consideration

For the acquisition of the remaining 50% of Novealis, a contingent consideration up to EUR 10,150 thousand was agreed based on an earnings target for 2022. According to Borealis' assessment, the earnings target will not be met. Thus, the contingent consideration has been valued at a fair value of EUR 0 thousand.



Borealis agreed with the sellers of DYM Solution Co., Ltd. to transfer an additional consideration up to a total maximum amount of EUR 10,575 thousand, based on the EBITDA for the twelve-month period after closing. Based on Borealis' assessment, the fair value of this contingent consideration has been valued at EUR 0 thousand.

### 30. Other Income

In 2020, other income related entirely to the insurance compensation for a process safety incident which occurred on 9 May 2020. This incident resulted in a localised fire in the

Borealis cracker in Stenungsund, Sweden. During the remainder of 2020, the cracker was shut down to restore the capacity and recommission the plant. The cracker started up following the repairs in January 2021. Other income includes compensation for property damage and business interruption.

Although the insurance case has not been settled yet, management considers the compensation as virtually certain. Of the total amount recognised, an amount of EUR 76,800 thousand not yet paid has been recognised under other receivables.

### 31. Transactions with Related Parties

EUR thousand	Transaction values		Balance outstanding	
	2020	2019	31.12.2020	31.12.2019
<b>Sales of goods and services to</b>				
Associated companies	435,939	406,277 <sup>1)</sup>	76,281	123,245
Joint ventures	11,846	72	7,257	1
Companies with significant influence	23,818	42,961	1,771	4,588
Other related parties	39,093	38,375	4,680	3,939
<b>Purchases of goods and services from</b>				
Associated companies	334,889	364,438	63,865	52,140
Joint ventures	5,488	6,347	331	311
Companies with significant influence	61,263	1,282,297	4,049	124,292
Other related parties	1,078,725	70,201	116,189	8,945
<b>Others</b>				
Loans granted and related interest – Associated companies	1,037	675	16,648	14,910
Loans granted and related interest – Joint ventures	20,370	0	735,616	0
Lease liability and related interest – Companies with significant influence	0	406	0	18,835
Lease liability and related interest – Other related parties	361	0	16,715	0

1) 2019 sales to associated companies were restated for EUR 8,021 thousand accrued income already realised in 2018.

Through the acquisition of the remaining 50% of the shares of Novealis on 15 April 2020, Baystar became a related party in 2020. Due to ownership changes in Borealis in October 2020, transactions and balances with OMV

subsidiaries are shown under "Other related parties" in 2020 (2019: categorised as "Companies with significant influence"), whereas transactions and balances with Mubadala group



entities are shown under “Companies with significant influence” (2019: categorised as “Other related parties”).

The sales to associated companies and joint ventures mainly include sales of finished goods and services. Transactions with associated companies further include the granting of licenses for the use of Group technologies. Contract assets with Borouge amounting to EUR 478 thousand (EUR 523 thousand) and with Baystar amounting EUR 6,452 thousand (EUR 0 thousand) are included in the balance outstanding. For details on contract assets, please see note 2. Also included in the balance outstanding from associates are prepayments to KPP of EUR 13,225 thousand (EUR 0 thousand). Purchases from associated companies mainly include purchases of finished goods produced in Borouge and sold in Europe. Purchases from other related parties (2019: categorised under “Companies with significant influence”) mainly relate to purchases of feedstock and utilities from OMV group companies. Receivables from and payables to related parties are included in trade receivables/ payables. Lease liabilities and related interest from other related parties (2019: categorised under “Companies with significant influence”) relate to rented land and infrastructure from OMV in Germany. Loans granted, including interest receivables, to joint ventures amounting to EUR 735,616 thousand (EUR 0 thousand) were outstanding from Baystar. For further details on loans granted, see note 10.

All transactions with related parties were conducted on an arm’s length basis.

Borealis has a commitment to grant a loan to Baystar with a total value of EUR 1,140,901 thousand (EUR 623,914 thousand). Until year end 2020, Baystar had already drawn EUR 734,156 thousand (EUR 242,160 thousand). The commitment increased following the acquisition of NOVA Chemicals Corporations’ 50% ownership interest in Novealis in April 2020. The commitment is available until the cracker and Borstar® unit are in service or 10 June 2023, whatever occurs first. On the reporting date, the Group further has financing commitments to Kilpilahti Power Plant Ltd (KPP) amounting to EUR 15,733 thousand. KPP’s entitlements are dependent on the fulfilment of specific events, as defined in the underlying contracts. For further information in respect of dividends received from associated companies and joint ventures, please refer to note 9. For further information related to commitments in joint ventures and associated companies, see note 22. For information related to

dividends paid, please refer to the statement of changes in equity. For details regarding the remuneration of key management personnel, please see note 14.

## 32. 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 48,334 thousand (EUR 51,805 thousand) in financial guarantees outstanding at 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 at 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 property. No material losses are expected to arise from such contingent liabilities.

In addition to the contractual commitments for property, plant and equipment (see note 5) and contractual obligations for additional capital contributions (see note 9 and note 31), no further significant risks and uncertainties have been identified compared to year end 2019.

## 33. Subsequent Events

On 4 February 2021, Borealis announced that it has started a process to divest its nitrogen business unit including fertilizer, technical nitrogen and melamine products. The company’s share in fertilizer production sites in the Netherlands and Belgium (“Rosier”) is presently not being considered within the potential sales process. Such a divestment would be subject to information and consultation requirements with employee representatives as may be required under applicable laws.

### 34. Subsidiaries Included in the Consolidated Accounts

Company name	Country, City	Currency	Issued share capital	Percentage of shares owned
<b>Borealis AG</b>				
■ Borealis Argentina SRL <sup>1)</sup>	Argentina, Buenos Aires	ARS	100,000	100.00
■ Borealis Agrolinz Melamine GmbH	Austria, Linz	EUR	70,000,000	100.00
■ Borealis Agrolinz Melamine Deutschland GmbH	Germany, Wittenberg	EUR	500,000	100.00
■ Borealis L.A.T GmbH	Austria, Linz	EUR	35,000	100.00
■ Borealis L.A.T Belgium BV <sup>1)</sup>	Belgium, Beringen	EUR	120,000	100.00
■ Borealis L.A.T Bulgaria EOOD <sup>1)</sup>	Bulgaria, Sofia	BGN	10,000	100.00
■ Borealis L.A.T Hrvatska d.o.o. <sup>1)</sup>	Croatia, Klisa	HRK	21,200	100.00
■ Borealis L.A.T Czech Republic spol. s.r.o. <sup>1)</sup>	Czech Republic, Budweis	CZK	2,000,000	100.00
■ Borealis L.A.T Greece Single Member P.C. <sup>1)</sup>	Greece, Athens	EUR	50,000	100.00
■ Borealis L.A.T Hungary Kft. <sup>1)</sup>	Hungary, Budapest	HUF	500,000,000	100.00
■ Borealis L.A.T Polska sp.z.o.o. <sup>1)</sup>	Poland, Warsaw	PLN	5,000	100.00
■ Borealis L.A.T Romania s.r.l. <sup>1)</sup>	Romania, Bucharest	RON	18,392,320	100.00
■ Borealis L.A.T d.o.o. Beograd	Serbia, Belgrade	RSD	63,282,000	100.00
■ Borealis L.A.T Slovakia s.r.o. <sup>1)</sup>	Slovakia, Chotin	EUR	497,909	100.00
■ Borealis Polyolefine GmbH	Austria, Schwechat	EUR	46,783,928	100.00
■ Ecoplast Kunststoffrecycling GmbH	Austria, Wildon	EUR	50,000	100.00
■ Borealis Polymers N.V.	Belgium, Beringen	EUR	61,500	100.00
■ Borealis Kallo N.V.	Belgium, Kallo	EUR	40,575,176	100.00
■ Borealis Antwerpen N.V.	Belgium, Zwijndrecht	EUR	11,277,054	100.00
■ Borealis Financial Services N.V.	Belgium, Mechelen	EUR	99,189,000	100.00
■ Rosier S.A.	Belgium, Moustier	EUR	2,550,000	77.47
■ Rosier France S.A.S.	France, Beaumetz-Les-Loges	EUR	516,600	77.47
■ Rosier Nederland B.V.	The Netherlands, Sas Van Gent	EUR	11,141,000	77.47
■ Borealis Digital Studios BV <sup>1)</sup>	Belgium, Zaventem	EUR	20,000	100.00
■ Borealis Brasil S.A.	Brazil, Itatiba	BRL	94,743,513	80.00
■ Borealis Poliolefinas da América do Sul Ltda <sup>1)</sup>	Brazil, Itatiba	BRL	16,000	100.00
■ Feboran EOOD	Bulgaria, Sofia	BGN	35,203,895	100.00
■ Borealis Chile SpA <sup>1)</sup>	Chile, Santiago de Chile	CLP	4,000,000	100.00
■ Borealis Colombia S.A.S. <sup>1)</sup>	Colombia, Bogota	COP	84,000,000	100.00
■ Borealis s.r.o. <sup>1)</sup>	Czech Republic, Prague	CZK	500,000	100.00
■ Borealis Insurance A/S (captive insurance company)	Denmark, Copenhagen	DKK	52,795,000	100.00
■ Borealis Denmark ApS <sup>1)</sup>	Denmark, Copenhagen	DKK	223,813	100.00
■ Borealis Polymers Oy	Finland, Porvoo	EUR	108,321,644	100.00
■ Borealis Technology Oy	Finland, Porvoo	EUR	0	100.00
■ Borealis France S.A.S.	France, Courbevoie	EUR	394,477,216	100.00

1) Excluded from the consolidation due to immateriality (individual and in total) // ■ subsidiary of Borealis AG // ■ second-tier subsidiary of Borealis AG // ■■ third-tier subsidiary of Borealis AG



Company name	Country, City	Currency	Issued share capital	Percentage of shares owned
■ Borealis Services S.A.S. <sup>1)</sup>	France, Courbevoie	EUR	5,000	100.00
■ Borealis L.A.T France S.A.S.	France, Courbevoie	EUR	752,500	100.00
■ Borealis Chimie S.A.S.	France, Courbevoie	EUR	10,000,000	100.00
■■■ AGRIPRODUITS S.A.S. <sup>1)</sup>	France, Courbevoie	EUR	952,000	100.00
■■■ STOCKAM G.I.E. <sup>1)</sup>	France, Grand-Quevilly	EUR	0	100.00
■ Borealis Produits et Engrais Chimiques du Rhin S.A.S.	France, Ottmarsheim	EUR	20,010,000	100.00
■ Borealis Polymere GmbH	Germany, Burghausen	EUR	18,407,000	100.00
■ mtm plastics GmbH	Germany, Niedergebra	EUR	26,000	100.00
■ mtm compact GmbH	Germany, Niedergebra	EUR	26,000	100.00
■ Borealis Asia Ltd <sup>1)</sup>	Hong Kong, Hong Kong	HKD	500,000	100.00
■ Borealis L.A.T Italia s.r.l. <sup>1)</sup>	Italy, Milan	EUR	10,000	100.00
■ Borealis Italia S.p.A.	Italy, Monza	EUR	7,570,600	100.00
■ Borealis Plasticos S.A. de C.V. <sup>1)</sup>	Mexico, Mexico City	MXN	50,000	100.00
■ Borealis México S.A. de C.V. <sup>1)</sup>	Mexico, Mexico City	MXN	50,000	100.00
■ Borealis Chimie S.A.R.L. <sup>1)</sup>	Morocco, Casablanca	MAD	219,986	100.00
■ Borealis Polska Sp. Z.o.o. <sup>1)</sup>	Poland, Warsaw	PLN	50,000	100.00
■ DYM Solution Co., Ltd.	Republic of Korea, Cheonan	KRW	2,207,613,500	90.52
■ Borealis RUS LLC <sup>1)</sup>	Russia, Moscow	RUB	3,600,000	100.00
■ Borealis Chemicals ZA (Pty) Ltd <sup>1)</sup>	South Africa, Germiston	ZAR	750,000	100.00
■ Borealis Química España S.A.	Spain, Barcelona	EUR	60,101	100.00
■ Borealis Sverige AB	Sweden, Stenungsund	SEK	1,063,000	100.00
■ Borealis AB	Sweden, Stenungsund	SEK	65,000,000	100.00
■■■ Borealis Group Services AS	Norway, Bamble	NOK	1,000,000	100.00
■■■ Etenförsörjning i Stenungsund AB	Sweden, Stenungsund	SEK	5,000,000	80.00
■■■ KB Munkeröd 1:72 <sup>1)</sup>	Sweden, Stenungsund	SEK	0	100.00
■ Borealis Plastomers B.V.	The Netherlands, Geleen	EUR	1	100.00
■ Borealis Plastik ve Kimyasal Maddeler Ticaret Limited Şirketi <sup>1)</sup>	Turkey, Istanbul	TRL	10,000	100.00
■ Borealis UK Ltd	UK, Manchester	GBP	15,000	100.00
■ Borealis USA Inc.	US, Port Murray	USD	0	100.00
■ Borealis Compounds Inc.	US, Port Murray	USD	2,000	100.00
■■■ Borealis US Holdings LLC	US, Port Murray	USD	0	100.00
■ Borealis BoNo Holdings LLC	US, Port Murray	USD	0	100.00
■ Star Bridge Holdings LLC <sup>1)</sup>	US, Port Murray	USD	0	100.00
■■■ Novealis Holdings LLC	US, Port Murray	USD	0	100.00

1) Excluded from the consolidation due to immateriality (individual and in total) // ■ subsidiary of Borealis AG // ■■ second-tier subsidiary of Borealis AG // ■■■ third-tier subsidiary of Borealis AG

For further details related to business combinations and other changes in the legal structure during the financial year 2020, please see note 8.

### 35. Auditor's Fees

The following fee information relates to the auditors of the Group (including their related networking firms):

EUR thousand	2020	2019
Audit of Borealis AG's subsidiaries	1,121	1,075
Audit of consolidated and standalone financial statements of Borealis AG	332	274
Other assurance services	634	559
Tax consulting services	705	505
Other services	0	27
<b>Total</b>	<b>2,792</b>	<b>2,440</b>

The following fees for 2020 relate to the Group auditor, PwC Wirtschaftsprüfung GmbH, Vienna, Austria: audit of Borealis AG's subsidiaries amounting to EUR 222,800 (EUR 222,700), audit of consolidated and standalone

financial statements of Borealis AG amounting to EUR 332,000 (EUR 274,000) and other assurance services amounting to EUR 276,139 (EUR 180,256).



### 36. Executive Board and Supervisory Board

#### Executive Board

Alfred Stern (Chairman), Mark Tonkens, Martijn Arjen van Koten, Philippe Roodhooft, Lucrèce De Ridder

#### Supervisory Board

Suhail Mohamed Faraj Al Mazrouei (Chairman until 29 October 2020), Rainer Seele (Chairman since 29 October 2020, Vice Chairman until 29 October 2020), Musabbeh Al Kaabi (Vice Chairman since 29 October 2020, Member until 29 October 2020), Khalifa Al Suwaidi (Member until 21 February 2020), Khalifa Abdulla Khamis Alromaithi (Member from 21 February 2020 to 29 October 2020), Reinhard Florey (Member since 29 October 2020), Thomas Gangl, Saeed Al Mazrouei (Member since 29 October 2020)

Vienna, 19 February 2021

#### Executive Board:

**Alfred Stern**  
Chief Executive

**Mark Tonkens**  
Chief Financial Officer

**Martijn Arjen van Koten**

**Philippe Roodhooft**

**Lucrèce De Ridder**

# Statement of the Executive Board according to Section 124(1)(3) of the 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, 19 February 2021

**Executive Board:**



**Alfred Stern**

Chairman of the Executive Board



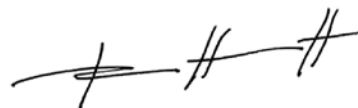
**Mark Tonkens**

Member of the Executive Board



**Martijn Arjen van Koten**

Member of the Executive Board



**Philippe Roodhooft**

Member of the Executive Board



**Lucrèce De Ridder**

Member of the Executive Board



## 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 2020, including the management report and the consolidated financial statements as of 31 December 2020, including the Group 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 Commercial 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 2021, the consolidated financial statements, the Group Management Report, and the consolidated non-financial report were approved/acknowledged.

Vienna, 24 February 2021

**Rainer Seele**

Chairman of the Supervisory Board





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## GRI Content Index

GRI Standard	Disclosures	Page	Reported fully/partially	Notes and Omissions
<b>GRI 102: General Disclosures 2016</b>	<b>102-1</b> Name of the organization	20	●	
	<b>102-2</b> Activities, brands, products, and services	22, 25–29	●	Borealis' products are not banned from any markets.
	<b>102-3</b> Location of headquarters	20	●	
	<b>102-4</b> Location of operations	20–22	●	
	<b>102-5</b> Ownership and legal form	4, 8–11, 20	●	
	<b>102-6</b> Markets served	20–21, 25–29	●	
	<b>102-7</b> Scale of the organization	5, 9, 20–21, 25–29, 140–141, 143	●	
	<b>102-8</b> Information on employees and other workers	83, 85, 87	●	102-8 e) does not apply to Borealis
	<b>102-9</b> Supply chain	25–29, 99–104	●	
	<b>102-10</b> Significant changes to the organization and its supply chain	8–11, 16–19	●	
	<b>102-11</b> Precautionary principle or approach	36–37, 57–58	●	
	<b>102-12</b> External initiatives	32, 47, 74, 94	●	
	<b>102-13</b> Membership of associations	40, 43	●	
	<b>102-14</b> Statement from senior decision-maker	9–11, 16–19	●	
	<b>102-15</b> Key impacts, risks, and opportunities	36–37, 74–75, 93–94	●	
	<b>102-16</b> Values, principles, standards, and norms of behaviour	15, 90–91, 95–96	●	
	<b>102-18</b> Governance structure	90–92	●	
	<b>102-40</b> List of stakeholder groups	38–40	●	
	<b>102-41</b> Collective bargaining agreements	84	●	
	<b>102-42</b> Identifying and selecting stakeholders	38	●	
	<b>102-43</b> Approach to stakeholder engagement	32–33, 38–40	●	
	<b>102-44</b> Key topics and concerns raised	32–33, 42–46, 60–61	●	
	<b>102-45</b> Entities included in the consolidated financial statements	24, 219–220	●	
	<b>102-46</b> Defining report content and topic Boundaries	32–33	●	
	<b>102-47</b> List of material topics	32–33, 35	●	
	<b>102-48</b> Restatements of information	24	●	
	<b>102-49</b> Changes in reporting	24	●	
	<b>102-50</b> Reporting period	24	●	
	<b>102-51</b> Date of most recent report	24	●	
	<b>102-52</b> Reporting cycle	24	●	
<b>102-53</b> Contact point for questions regarding the report	24	●		
<b>102-54</b> Claim of reporting in accordance with the GRI Standards	24	●		
<b>102-55</b> GRI Content Index	228–234	●		
<b>102-56</b> External assurance	118–119	●		



GRI Standard	Disclosures	Page	Reported fully/partially	Notes and Omissions	
<b>Ethics &amp; Compliance</b>					
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	Explanation of the material topic and its Boundary	95	●	
	<b>103-2</b>	The management approach and its components	95–98	●	
	<b>103-3</b>	Evaluation of the management approach	95–98	●	
<b>GRI 205: Anti-corruption 2016</b>	<b>205-2</b>	Communication and training about anti-corruption policies and procedures	96–98	●	The Ethics Policy, including a chapter on anti-corruption, was communicated to all employees via the ethics-policy newsletter. The Ethics Policy is available in 10 languages. Borealis created a special Ethics Policy for external business partners. All versions of the Ethics Policy are publicly accessible on Borealis' external website: <a href="http://www.borealisgroup.com/company/compliance-ethics/our-ethics-policy">www.borealisgroup.com/company/compliance-ethics/our-ethics-policy</a> . 100% of the members of the Borealis Executive Board and 100% of the members of the Supervisory Board have received training on anti-corruption policies and procedures as well as on MAR requirements. 83 dedicated employees from our Sales, Procurement, Legal and eligible project teams completed a specific e-learning anti-corruption training. In addition to this, 5,854 employees completed the e-learning course CodeOne which also includes a chapter on anti-corruption and bribery. 558 Borealis employees received in-person compliance and ethics training which regularly includes training on anti-corruption and bribery.
	<b>205-3</b>	Confirmed incidents of corruption and actions taken	96–97	●	No confirmed or suspected incidents of corruption.
<b>GRI 206: Anti-competitive Behaviour 2016</b>	<b>206-1</b>	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	97	●	
<b>GRI 307: Environmental Compliance 2016</b>	<b>307-1</b>	Non-compliance with environmental laws and regulations	77	●	
<b>GRI 412: Human Rights Assessment 2016</b>	<b>412-2</b>	Employee training on human rights policies or procedures	97–98	●	Approx. 5,900 employees received training on human rights, which corresponds to approximately 85% of Borealis' total staff. 558 employees received in-person training, which resulted in a total of 140 hours.
<b>GRI 419: Socioeconomic Compliance 2016</b>	<b>419-1</b>	Non-compliance with laws and regulations in the social and economic area	97	●	
<b>Product Sustainability</b>					
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	Explanation of the material topic and its boundary	57, 99, 102	●	
	<b>103-2</b>	The management approach and its components	57–61, 99–104	●	
	<b>103-3</b>	Evaluation of the management approach	57–61, 99–104	●	



GRI Standard	Disclosures	Page	Reported fully/partially	Notes and Omissions
<b>Product Sustainability</b>				
<b>GRI 301: Materials 2016</b>	<b>301-1</b> Materials used by weight or volume	100, 103	▶	Due to international standards, fertilizer feedstock is reported in GWh. Packaging material is only reported based on 1,000 kg of product sold. During 2020, Borealis used 6,000 t of renewable feedstock. The rest of the materials used are non-renewable.
<b>Energy Management</b>				
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b> Explanation of the material topic and its Boundary	68–69	●	
	<b>103-2</b> The management approach and its components	68–75	●	
	<b>103-3</b> Evaluation of the management approach	68–75	●	
<b>GRI 302: Energy 2016</b>	<b>302-1</b> Energy consumption within the organization	71, 82	●	<p>All fuels consumed are from non-renewable sources. The amount of commercial liquid fuels used is insignificant. Fuels and steam consumed are mainly used for processes. Data for cooling consumption is currently not available.</p> <p>Renewable power sourcing ambition is expressed in % of the power used in HC and PO business that is from renewable sources such as wind, solar, biomass or hydro and connected directly to our internal grids or sourced on the European markets through power purchase agreements (PPAs), always covered by guarantees of origin. Borealis intends to reach 50% or more by 2030 and also explores co-ownership of renewable power assets.</p> <p>Final energy consumption of Borealis: 3,336 GWh electricity, 1,169 GWh steam, 5,403 GWh fuel gas and 7,297 GWh natural gas. 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.</p>
	<b>302-3</b> Energy intensity	71–73	●	Energy efficiency is the number of MWh of primary energy divided by total production tonnes <sup>31</sup> . Basis for the energy intensity indicator: production volume of all production plants, energy consumption of the whole organisation, including infrastructure, R&D, offices; includes compensation for production and energy consumption that happens outside Borealis, but is necessary to include to have one consistent value chain through the Group and the KPI. This avoids distortion when Borealis has more output from fully integrated sites, for example, a site where Borealis does not own the cracker.

1) Energy efficiency can be calculated using the formula: Energy KPI  $\left[ \frac{\text{MWh}}{\text{t}} \right] = \frac{\text{Fuels (MWh)} + 1.11 \times \text{Steam (MWh)} + 2.5 \times \text{Electricity (MWh)}}{\text{Total plant production (t)}}$



GRI Standard	Disclosures	Page	Reported fully/partially	Notes and Omissions
<b>Energy Management</b>				
	<b>302-4</b> Reduction of energy consumption	73	●	Energy efficiency improvement is expressed as the sum of the improvement measures of projects that are individually evaluated compared to business as usual. To evaluate the objective, this amount is divided by the absolute energy consumption of 2015 (240 TWh primary energy).
<b>Water Management</b>				
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b> Explanation of the material topic and its Boundary	76	●	
	<b>103-2</b> The management approach and its components	76, 78–79	●	
	<b>103-3</b> Evaluation of the management approach	76, 78–79	●	
<b>GRI 303: Water and Effluents 2018</b>	<b>303-1</b> Interactions with water as a shared resource	78–79	●	
	<b>303-2</b> Management of water discharge-related impacts	78–79	●	
	<b>303-3</b> Water withdrawal	79, 82	●	Zero water sources significantly affected by water stress.
<b>Climate Change</b>				
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b> Explanation of the material topic and its Boundary	68–69, 76	●	
	<b>103-2</b> The management approach and its components	68–77	●	
	<b>103-3</b> Evaluation of the management approach	68–77	●	
<b>GRI 305: Emissions 2016</b>	<b>305-1</b> Direct (Scope 1) GHG emissions	70, 82	●	Borealis reports the EU-ETS Scope 1 emissions. The consolidation is based on operational control. The GWP rates are CO <sub>2</sub> = 1 CO <sub>2</sub> eq, N <sub>2</sub> O = 298 CO <sub>2</sub> eq.  Additionally, Scope 1 emissions are calculated for the first time over 2019 according to the GHG-Protocol. The approach for calculating Scope 1 emissions is based on the Greenhouse Gas Protocol and emission factors from AIB. All relevant Kyoto gases have been included in the calculation. Biogenic emissions are excluded as they are negligible. Included are all relevant operations where Borealis has +50% ownership and operational control.
	<b>305-2</b> Energy indirect (Scope 2) GHG emissions	70	●	Scope 2 emissions are calculated for the first time this year according to the GHG-Protocol. The approach for calculating Scope 2 emissions is based on Greenhouse Gas Protocol and emission factors from AIB. The market-based approach is used for Scope 2. Included are all relevant operations where Borealis has more than 50% ownership and operational control.



GRI Standard	Disclosures	Page	Reported fully/partially	Notes and Omissions	
<b>Air Quality</b>					
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	Explanation of the material topic and its Boundary	76	●	
	<b>103-2</b>	The management approach and its components	76–78, 82	●	
	<b>103-3</b>	Evaluation of the management approach	76–78, 82	●	
<b>GRI 305: Emissions 2016</b>	<b>305-7</b>	Nitrogen oxides (NO <sub>x</sub> ), sulfur oxides (SO <sub>x</sub> ), and other significant air emissions	78, 82	●	POP and HAP are not relevant for Borealis. Emission to air are mixed of measurements or calculations based on fuel consumption and emission factors.
<b>Plastic Waste &amp; Management</b>					
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	Explanation of the material topic and its Boundary	76, 60	●	
	<b>103-2</b>	The management approach and its components	76–77, 79–82	●	
	<b>103-3</b>	Evaluation of the management approach	76–77, 79–82	●	
<b>GRI 306: Effluents and Waste 2016</b>	<b>306-2</b>	Waste by type and disposal method	79–92	●	The category “Other Treatment” covers, for example, land treatment, biological treatment, incineration without energy recovery and physico-chemical treatment.
	<b>306-3</b>	Significant spills	–	●	Deviations from the norm, hazardous situations and other incidents such as spills are reported, analysed and followed up with corrective actions. No spill occurred that resulted in fines or liabilities.
<b>Emergency Governance</b>					
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	Explanation of the material topic and its Boundary	54	●	
	<b>103-2</b>	The management approach and its components	54–56	●	
	<b>103-3</b>	Evaluation of the management approach	54–56	●	
<b>GRI G4: Oil &amp; Gas Sector Supplement</b>	<b>OG13</b>	Number of process safety events, by business activity	53, 56	●	
<b>Sustainable Sourcing</b>					
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	Explanation of the material topic and its Boundary	99, 102, 105	●	
	<b>103-2</b>	The management approach and its components	99–108	●	
	<b>103-3</b>	Evaluation of the management approach	99–108	●	
<b>GRI 308: Supplier Environmental Assessment 2016</b>	<b>308-1</b>	New suppliers that were screened using environmental criteria	103	●	
<b>GRI 414: Supplier Social Assessment 2016</b>	<b>414-1</b>	New suppliers that were screened using social criteria	103	●	





GRI Standard	Disclosures	Page	Reported fully/partially	Notes and Omissions	
<b>Human Capital Development</b>					
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	Explanation of the material topic and its Boundary	83	●	
	<b>103-2</b>	The management approach and its components	83–89	●	
	<b>103-3</b>	Evaluation of the management approach	83–89	●	
<b>GRI 401: Employment 2016</b>	<b>401-1</b>	New employee hires and employee turnover	88	●	New hires: employees hired for more than three months, excluding: externals, long-term absences, trainees, apprentices, summer workers, temporary employees (less than three months). Employee turnover: employees who left the company voluntarily.
<b>GRI 404: Training and Education 2016</b>	<b>404-2</b>	Programs for upgrading employee skills and transition assistance programs	87, 89	●	
	<b>404-3</b>	Percentage of employees receiving regular performance and career development reviews	89	●	
<b>Occupational Health &amp; Safety</b>					
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	Explanation of the material topic and its Boundary	50, 54	●	
	<b>103-2</b>	The management approach and its components	50–52, 54–56	●	
	<b>103-3</b>	Evaluation of the management approach	50–52, 54–56	●	
<b>GRI 403: Occupational Health and Safety 2018</b>	<b>403-1</b>	Workers representation in formal joint management-worker health and safety committees	50	●	
	<b>403-2</b>	Hazard identification, risk assessment, and incident investigation	50	●	
	<b>403-3</b>	Occupational health services	51	●	
	<b>403-4</b>	Worker participation, consultation, and communication on occupational health and safety	50	●	
	<b>403-5</b>	Worker training on occupational health and safety	50–51	●	
	<b>403-6</b>	Promotion of worker health	51	●	
	<b>403-7</b>	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	57–61	●	
	<b>403-9</b>	Work-related injuries	52–53	▶	High-consequence work-related injuries are not reported separately and will be aligned with OMV KPIs in the future. Contractors' injuries are generally tracked. They include TRI, EMC (external medical check) and FAC (first aid cases).



GRI Standard	Disclosures	Page	Reported fully/partially	Notes and Omissions	
<b>Diversity and Equal Opportunity</b>					
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	Explanation of the material topic and its Boundary	86	●	
	<b>103-2</b>	The management approach and its components	86–87	●	
	<b>103-3</b>	Evaluation of the management approach	86–87	●	
<b>GRI 405: Diversity and Equal Opportunity 2016</b>	<b>405-1</b>	Diversity of governance bodies and employees	86	●	At the end of 2020, the Executive Board (EXB) had five members, one woman and four men, with an average age of 54.6. At the end of 2020, the Supervisory Board had five members, all men. We have no information about the age of the Supervisory Board members.
<b>Stakeholder Engagement</b>					
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	Explanation of the material topic and its Boundary	38	●	
	<b>103-2</b>	The management approach and its components	38–40	●	
	<b>103-3</b>	Evaluation of the management approach	38–40	●	
<b>GRI 415: Public Policy 2016</b>	<b>415-1</b>	Political contributions	43	●	
<b>Product Safety</b>					
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	Explanation of the material topic and its Boundary	57	●	
	<b>103-2</b>	The management approach and its components	57–61	●	
	<b>103-3</b>	Evaluation of the management approach	57–61	●	
<b>GRI 416: Customer Health and Safety 2016</b>	<b>416-1</b>	Assessment of the health and safety impacts of product and service categories	58–59	●	
<b>GRI 417: Marketing and Labeling 2016</b>	<b>417-1</b>	Requirements for product and service information and labeling	58–59	●	
<b>Digital Transformation</b>					
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	Explanation of the material topic and its Boundary	114	●	
	<b>103-2</b>	The management approach and its components	114–116	●	
	<b>103-3</b>	Evaluation of the management approach	114–116	●	
<b>Circular Economy</b>					
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	Explanation of the material topic and its Boundary	62	●	
	<b>103-2</b>	The management approach and its components	62–67	●	
	<b>103-3</b>	Evaluation of the management approach	62–67	●	
<b>Innovation Management</b>					
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	Explanation of the material topic and its Boundary	109–110	●	
	<b>103-2</b>	The management approach and its components	109–113	●	
	<b>103-3</b>	Evaluation of the management approach	109–113	●	



#### **IMPRINT**

This report is available in English and German. The original version was written in English. Both documents are available online and can be downloaded from [www.borealisgroup.com](http://www.borealisgroup.com).

#### **Trademark information:**

Baystar, Borcycle, Borlink, Bormed, The Bornewables, Casico, EverMinds, Nimblicity, Visico, Visioneering Philosophy, Quentys and Queo are trademarks of Borealis AG. Borstar is a registered trademark of Borealis AG. Responsible Care is a registered trademark of the Chemistry Industry Association of Canada.

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Graphic Design: Martina Veratschnig  
Photography: Borealis AG archive, Daniela Beranek  
Published in March 2021  
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