

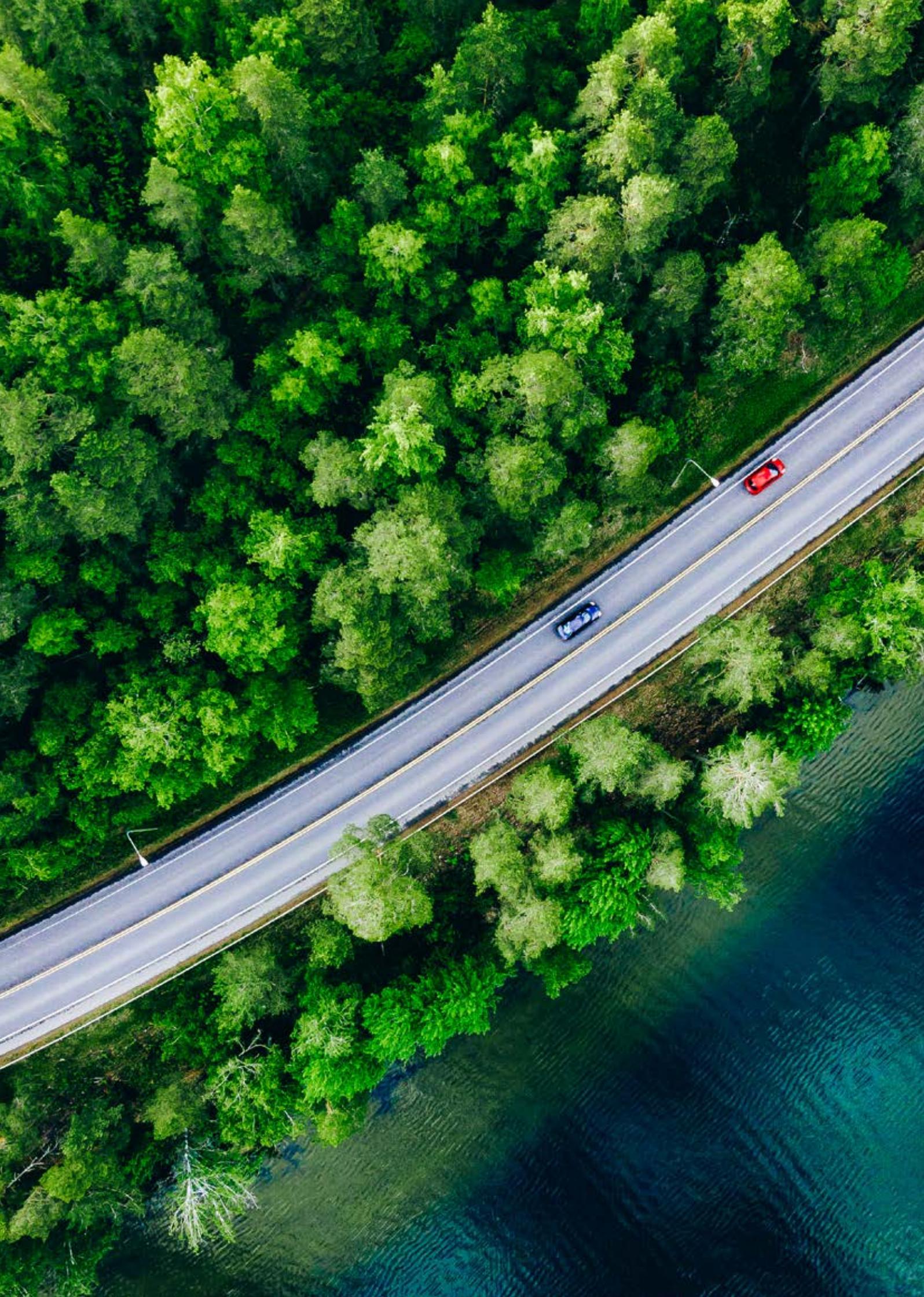


# ANNUAL REPORT

## 2022

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# THE BORREGAARD GROUP

*Borregaard operates one of the world's most advanced biorefineries. The Group provides sustainable solutions based on renewable raw materials and unique competence.*

## BORREGAARD IN A NUTSHELL

- A biorefinery with high value-added
- Specialisation in global niches
- Strong innovation ability and continuous improvement
- Competence as the main competitive advantage

## A BIOREFINERY WITH HIGH VALUE-ADDED

The Group's business model is closely linked to the integrated nature of its biorefinery concept which utilises the three key components of wood – fibres, lignins and sugars – to produce a diversified portfolio of products.

The biorefinery utilises 94 percent of the feedstock to make biochemicals, biomaterials and energy that can replace oil-based products.

In addition to its biorefinery in Sarpsborg, Borregaard has five production sites outside Norway dedicated to producing lignin-based products. In total, the company has manufacturing operations and sales offices in 13 countries in Europe, Asia and the Americas serving its global customer base. At the end of 2022, the Group had 1,107 full-time equivalent (FTE) employees.

## Business areas

### BioSolutions

- Market and technology leader in lignin-based biopolymers.
- Only producer of wood-based vanillin.

### BioMaterials

- Leading speciality cellulose supplier.
- Pioneer in cellulose fibrils.

### Fine Chemicals

- Leading producer of fine chemical intermediates for contrast agents.
- Significant producer of advanced bioethanol.

## SUSTAINABILITY INTEGRATED IN STRATEGY

Borregaard provides sustainable solutions with a documented favourable environmental and climate impact which can improve the customers' climate footprint or substitute chemicals of concern. The Group has also committed to science-based targets to further reduce greenhouse gas emissions and strengthen its sustainability platform.

Borregaard's business model and products are well positioned to support the UN's Sustainability Development Goals (SDGs). The company has prioritised six SDGs based on its ability to contribute to solving these global challenges (see page 37).

## SPECIALISATION IN GLOBAL NICHES

Borregaard is a supplier of specialised biochemicals and biomaterials to a global customer base. The Group's main products are lignin-based biopolymers and biovanillin, speciality cellulose, cellulose fibrils, fine chemical intermediates and advanced bioethanol.

The products are used in a variety of applications in sectors such as feed and agriculture, construction and building materials, food and pharma, personal care, batteries, biofuel and various other industries.

The Group's strong market positions have been developed through in-depth understanding of its markets, production of advanced and specialised products and local presence through a global sales and marketing organisation.

## COMPETENCE AS MAIN COMPETITIVE ADVANTAGE

Borregaard is a competence-driven company with production, research and development (R&D) and sales and marketing as its core competencies. To maintain its leading position, the Group has a strong focus on training programmes and co-operation between the various disciplines.

Borregaard has a leading research centre combining various chemistry disciplines, biotechnology and microbiology, developing new or improved products, applications and production technologies. The Group had 93 employees in R&D as of 31 December 2022.

## BORREGAARD'S THREE BUSINESS SEGMENTS

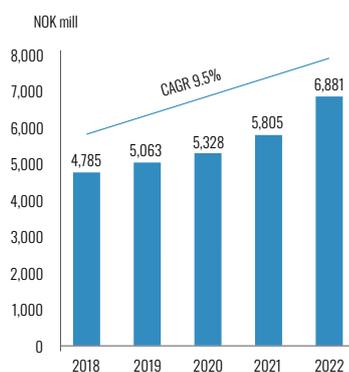
*BioSolutions* develops, produces and sells biopolymers and biovanillin from lignin. Biopolymers are used in a wide range of end-market applications, such as agrochemicals, batteries, industrial binders and construction. Biovanillin is supplied to flavour and fragrance companies, as well as to the food and beverage industry.

*BioMaterials* develops, produces and sells speciality cellulose mainly for use as a raw material in the production of cellulose ethers, cellulose acetate and other speciality products. BioMaterials also includes cellulose fibrils for industrial applications.

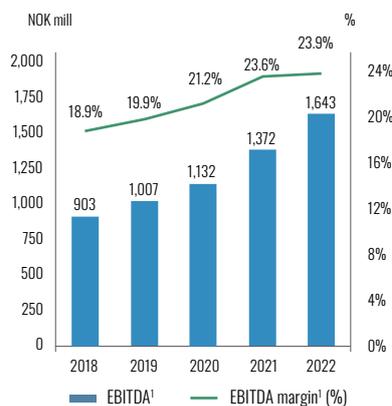
*Fine Chemicals* consists of fine chemical intermediates for contrast agents and advanced bioethanol.

## KEY FIGURES

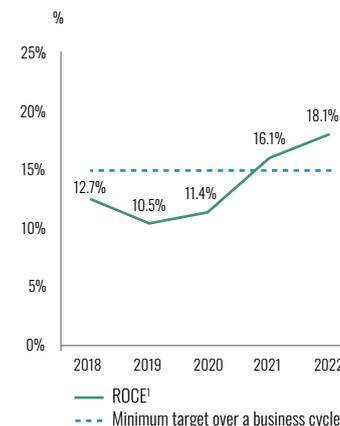
### OPERATING REVENUES



### EBITDA<sup>1</sup>



### ROCE<sup>1</sup>



/ <sup>1</sup> Alternative performance measures, see page 172 for definition.

# MESSAGE FROM THE CEO

*Borregaard has continued to perform well under a challenging business environment and 2022 was another record year for the company.*

## RESILIENT BUSINESS MODEL

The Borregaard business model is to utilise the full potential of wood resources to manufacture valuable speciality products. These biochemicals are sustainable and environmentally friendly substitutes for fossil-based products. Borregaard has developed a diversified market strategy over time to reduce risk in the integrated operations. A global presence with 800 products for numerous applications gives the company many options in the marketplace and possibilities to offset the effects of a recession.

At the same time, our specialised products are less exposed to cyclicity than commodities. The specialisation strategy has led to reduced exposure to cyclical markets over time. In recent years, we have reduced sales of lignin-based biopolymers to concrete admixtures by more than 50%, and we have upgraded the product portfolio in our cellulose business.

The Russian invasion of Ukraine and the Covid pandemic have led to a challenging business environment with increasing costs. The significant cost inflation has been mitigated by positive effects from recent energy conservation investments and capacity increase for captive production of sodium hydroxide. We continue to exploit our flexibility in heat energy production, utilising electricity, LNG or light oil to produce steam for use in our production processes.

## KEY STRATEGIC CONSIDERATIONS

Borregaard has a significant potential for further specialisation and value growth. Our specialisation strategy is a continuous journey towards full specialisation. The unique combination of high-value raw materials, biorefinery assets and expert knowledge is a good base for development of new high value-added products. The current portfolio with multiple applications in many markets leaves room for further optimisation based on value.

Therefore, specialisation and value growth will continue to take priority in the short to medium term. We see significant potential for upgrading the product portfolios in both BioSolutions and Speciality Cellulose. In addition, Cellulose Fibrils represent a captive use of speciality cellulose with high value-added. In parallel, we will explore expansion and debottlenecking opportunities at the biorefinery in Norway. A further development of this biorefinery represents a low-risk investment and raises barriers to entry.

We expect an increasing momentum for bio-based products in the years ahead. Both consumer and investor attention will drive demand for greener solutions. This will be further strengthened by political initiatives like EU's Green Deal and Taxonomy. Borregaard is highlighted as a global leader in corporate climate action by CDP with an A score within Climate Change and Forests, as well as an A- score within Water Security. In 2022, Borregaard's



revised targets for reduction in GHG emissions were approved by the Science Based Targets initiative. The new targets are in line with the 1.5°C goal in the Paris Agreement and Norwegian Climate Law. We project investments of NOK 650-850 million in the period 2023 to 2025 to secure delivery of our 2030 environmental targets. These investments will reduce emissions of both CO<sub>2</sub> and effluents to water (COD) as well as support specialisation and value growth leading to a strengthened competitive position.

## STRATEGIC PRIORITIES

To make our specialisation strategy operational, we define a set of strategic priorities. These priorities are defined as the key actions to deliver on the long-term strategy and will be executed over the next 3 to 5 years. The key actions are renewed and replaced over time as we progress the company in a more specialised direction. Based on the key strategic considerations above, we revised our strategic priorities during 2022:

### Increased specialisation and value growth

- Specialisation through innovation and market development

- Leverage high-value lignin raw material base in biopolymers and biovanillin
- Enhance product mix in speciality cellulose
- Development of the cellulose fibrils business
- Targeted investments to support increased specialisation, capacity needs and new initiatives

### Sustainability as a value driver

- Exploit full market potential of biochemicals product portfolio
- Delivery of environmental targets strengthens competitive edge
- Sustainability a key decision criterion in relation to innovation and new initiatives

We are confident that specialisation and value growth continue to be the best way forward for Borregaard. The need for global businesses to deliver on ambitious 2030 environmental targets will further support this strategic direction.

Kind regards,  
Per A. Sørli,  
President and CEO

# THE BOARD OF DIRECTORS



**HELGE AASEN**

*Chair*

Member of the Board since April 2018, and Chair since April 2021. Helge Aasen was appointed CEO of Elkem ASA for a second term in

2021 after having previously held the position from 2009 to 2019. He has held a number of positions in the Elkem Group since 1990. Mr Aasen has held board member positions in Elkem ASA and China National Bluestar Company and chair of REC Solar and the board of the Federation of Norwegian Industries (Norsk Industri). He holds a degree in Metallurgy from the Norwegian University of Science and Technology and has participated in an executive leadership development programme at IMD, Switzerland. Mr Aasen attended 8 out of 8 board meetings in 2022. Helge Aasen holds 4,500 shares in Borregaard<sup>1</sup>.



**TERJE ANDERSEN**

Member of the Board from October 2012 and member of the Board of Borregaard Industries Limited 2005- 2012.

Terje Andersen has held various positions within the Orkla group including acting CEO and President, CFO and Head of Orkla Investments. Mr Andersen holds a number of positions in various boards, such as Jotun AS. He holds a degree in Business Administration (siviløkonom) from the Norwegian School of Economics and Business Administration in Bergen. Mr Andersen attended 8 out of 8 board meetings in 2022. Terje Andersen holds 4,371 shares in Borregaard.



**TOVE ANDERSEN**

Member of the Board since April 2018. Tove Andersen is President and CEO of Tomra Systems ASA. Before that Ms Andersen has held a number of different positions at

Norsk Hydro/Yara, including EVP Europe, EVP Production, EVP Supply Chain, VP Marketing and New Business and Director Specialities and Retail Marketing. She has also held the position as a researcher at the Norwegian Computing Center. Ms Andersen is a board member of Equinor ASA. She holds a degree in Applied Physics and Mathematics from the Norwegian University of Science and Technology, and an MBA from BI Norwegian Business School. Ms Andersen attended 7 out of 8 board meetings in 2022. Tove Andersen holds 6,000 shares in Borregaard.

/ <sup>1</sup> Shareholding as of 31 December 2022.



### MARGRETHE HAUGE

Member of the Board since April 2018. Margrethe Hauge is CEO of Goodtech ASA and has held management positions within production, supply chain, service

and sales in aqua, agriculture, maritime and oil and gas industries, including CEO at Teknisk Bureau AS, Regional Managing Director at MRC Global Inc. and EVP Services at TTS Group ASA. She has also held several management positions at Kverneland Group. She is deputy chair and head of the audit and risk committee of Salmar ASA and member of the board of Mesta AS. She holds a Master's degree in Economics & Business Administration, University of Mannheim, Germany. Ms Hauge attended 8 out of 8 board meetings in 2022. Margrethe Hauge holds 4,077 shares in Borregaard.



### JOHN ARNE ULVAN

Member of the Board from April 2021. John Arne Ulvan is CEO of Mantena AS. Before that Mr Ulvan was CEO of Felleskjøpet Agri SA from 2011 to 2020. Prior to this

period, he had a number of positions at Norsk Hydro/Yara within strategy, business development and marketing. Ulvan is board member of CO2 Capsol AS and has held a number of board positions in connection with his roles at Felleskjøpet Agri, including member of the Executive Committee of InterCOOP (Switzerland) and deputy chairman of the corporate assembly of Moelven Industrier ASA. He holds a degree in Chemical Engineering from the Norwegian University of Science and Technology. Mr Ulvan attended 8 out of 8 board meetings in 2022. John Arne Ulvan holds 3,500 shares in Borregaard.



### RAGNHILD ANKER EIDE

Employee elected member of the Board since October 2012. Ragnhild Anker Eide works as Logistics Manager at Borregaard Sarpsborg. She is chair of The

Norwegian Society of Graduate Technical and Scientific Professionals (Tekna) at Borregaard and chair of the board of the Joint Union for Officials and Engineers at Borregaard. Ms Eide attended 8 out of 8 board meetings in 2022. Ragnhild Anker Eide holds 3,699 shares in Borregaard.



### ARUNDEL KRISTIENSEN

Employee elected member of the Board since August 2020. Mr. Kristiansen is Leader of The Norwegian United Federation of Trade Unions at Borregaard

Sarpsborg (Fellesforbundet Borregaard Fagforening), as well as Chair of the Board of the Norwegian Confederation of Trade Unions (LO) at Borregaard Sarpsborg. Mr Kristiansen attended 8 out of 8 board meetings in 2022. Arundel Kristiansen holds 906 shares in Borregaard.



### BENTE SELJEBAKKEN KLAUSEN

*Observer*

Observer of the Board since October 2012. Bente Seljebakken Klausen works as Laboratory Technician at Borregaard R&D,

Sarpsborg. She is chair of the Norwegian Engineers and Managers Association (FLT) at Borregaard, secretary of the board of the Norwegian Confederation of Trade Unions (LO) at Borregaard Sarpsborg, treasurer of the Norwegian Engineers and Managers Association (FLT), Sarpsborg branch and chair of the board of the Norwegian Confederation of Trade Unions (LO) in Sarpsborg and Rakkestad. Ms Seljebakken Klausen attended 6 out of 8 board meetings in 2022. Bente Seljebakken Klausen and close relatives hold 1,402 shares in Borregaard.



### ROY KÅRE APPELGREN

*Observer*

Observer of the Board from October 2012 and member of the Board of Borregaard Industries Limited 2010- 2012. Roy Kåre

Appelgren works as Senior Engineer in Mechanical Maintenance at Borregaard Sarpsborg. He is chair of The Norwegian Society of Engineers and Technologists (NITO) at Borregaard and a member of the Joint Union for Officials and Engineers at Borregaard. Mr Appelgren attended 6 out of 8 board meetings in 2022. Roy Kåre Appelgren holds 1,911 shares in Borregaard.



# REPORT OF THE BOARD OF DIRECTORS

*Borregaard achieved an all-time high EBITDA<sup>1</sup> and improved return on capital employed<sup>1</sup>. Overall strong demand for the Group's products, price increases, cost mitigation and positive currency effects were the main reasons for the improved financial performance. Sustainability aspects of Borregaard's business model continued to be promoted and received increasing attention and recognition from the Group's stakeholders.*

## OVERVIEW

Borregaard is a leading global supplier of sustainable products and solutions within selected niches of biochemicals, biomaterials and fine chemicals. The Group operates one of the world's most advanced biorefineries with high value-added through full utilisation of the wood raw material base. Borregaard's strong innovation competence contributes to continuous specialisation of existing operations as well as the development of new products and applications.

The head office and main production facilities are located in Sarpsborg, Norway, where industrial activity based on sulphite pulping started in 1889. The Group has manufacturing operations and sales offices in 13 countries.

## HIGHLIGHTS 2022

As a result of strong demand and tight markets, Borregaard's sales prices were increased by 15-20% both for speciality cellulose and lignin-based biopolymers from the beginning of the year. During the first half of the year, the Russian invasion of Ukraine led to increased energy spot prices which again affected certain raw materials and chemicals. For the second half of the year, additional price increases were implemented, and surcharges were agreed with certain customer groups. To mitigate increased energy costs, Borregaard utilised its flexibility to use different energy sources in producing heat energy. In addition, Borregaard benefitted from recent investments in energy conservation and basic chemicals production.

<sup>1</sup> Alternative performance measures, see page 172 for definition.

Sustainability is a key element in Borregaard's business model and one of the Group's three core values. Borregaard contributes to a sustainable development, both through minimising negative environmental impact from own production, as well as improving environmental impact in customers' value chains. Borregaard's business model and products are well positioned to support the UN's Sustainability Development Goals (see page 37).

In 2022, the total recordable injury frequency (TRIF)<sup>2</sup> was 4.9 (3.5)<sup>3</sup>. There were no fatal or high consequence work-related injuries. Sick leave increased to 4.3% (3.7%) mainly due to the Covid-19 pandemic (see page 82).

The Group has committed to major reductions in greenhouse gas emissions in the years to come. In 2021, Borregaard revised its target to a 1.5°C temperature increase following the IPCC's Sixth Assessment report. The revised target was approved by the Science Based Targets initiative in 2022.

During 2022, Borregaard has further developed its plan to deliver on targets for reduction of CO<sub>2</sub> emissions and effluents to water by 2030. Electrification, energy conservation and innovative heat recovery are the main projects to achieve the GHG emission reduction targets. Process improvements and wastewater incineration technology are the main measures to reduce effluents to water.

Greenhouse gas emissions (scope 1 and scope 2) were slightly lower than in 2021 (see page 65). Emissions of organic material (COD) to the river Glomma, have been reduced by 42% since 2010. In 2022, COD emissions decreased to 54 t/day (55 t/day), mainly due to activities in the emission reduction plan for COD (see page 73).

In 2022, Borregaard retained its recognition for sustainability leadership in climate change, forests and water security by the global environmental non-profit organisation CDP. Borregaard was upgraded from gold to platinum rating by the sustainability rating company EcoVadis (see page 38).

Documentation of environmental, social and governance (ESG) aspects through life cycle analyses and an increased number of environmental product declarations (EDPs) are among efforts to increase market awareness of the Group's sustainable products.

Innovation efforts contributed to an improved innovation rate<sup>4</sup> (15.2% in 2022, see page 54) and strengthened market position. In 2022, Borregaard's gross expenditure on research and innovation was NOK 192 million, representing 2.8% of the Group's operating revenues. Borregaard recognised NOK 26 million of public funding from the Norwegian Government for ongoing research projects.

Digitalisation is an important part of Borregaard's improvement efforts. Selected projects within data driven insight and operational excellence are on-going. In parallel, necessary technical enablers have been put in place. Borregaard's digitalisation competence continues to be strengthened through recruitment and competence development.

Borregaard's strategic priorities are *increased specialisation and value growth with sustainability as a driver*. There is significant potential for further specialisation and value growth in Borregaard. This will be achieved through product mix improvements, new opportunities from the innovation portfolio and further potential from completed and new expansion investments.

## MARKET TRENDS

Borregaard's diversified product portfolio and global market exposure provide flexibility and an inherent hedge against market fluctuations. The diversified market strategy and strong market positions proved their value in 2022 as Borregaard was able to offset significant cost increases by price increases, surcharges and an improved product mix.

The demand for BioSolutions' lignin-based biopolymers was strong. Optimisation and diversification of the product portfolio continued driven by value growth and preference for sustainable solutions. Specialisation through innovation and market development of advanced applications such as agrichemicals, batteries and oilfield chemicals, has improved results. The market introduction of the new biovanillin capacity was on track in 2022. In the 1<sup>st</sup> half of the year, demand for wood-based vanillin was partly influenced by a temporarily tight supply situation for synthetic vanillin and ethyl vanillin.

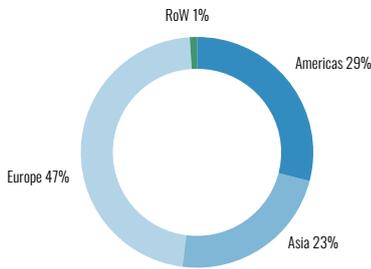
In BioMaterials, demand was strong for all speciality cellulose grades, with significant market-driven price increases from the beginning of the year. Following significant cost increases, customers accepted surcharges for the 2<sup>nd</sup> half

/ <sup>2</sup> TRIF: Total recordable injuries per million hours worked.

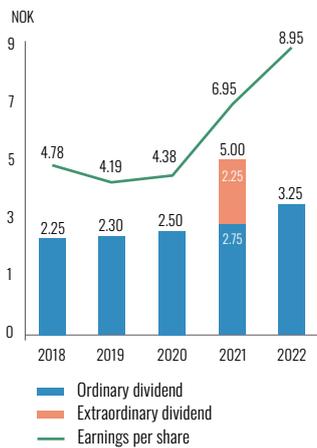
/ <sup>3</sup> Figures in parentheses are for the corresponding period in the previous year.

/ <sup>4</sup> Innovation rate = share of sales revenues from new products and applications introduced during the previous five years.

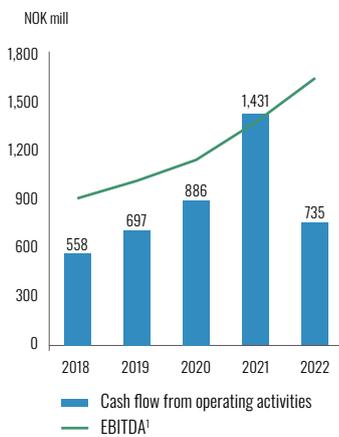
### SALES REVENUES BY GEOGRAPHICAL AREA 2022



### EARNINGS PER SHARE AND TOTAL DIVIDEND



### CASH FLOW FROM OPERATING ACTIVITIES



of the year. Deliveries were lower than in 2021, when there was a considerable inventory reduction. Demand was particularly strong for cellulose ethers to construction, food and pharma. The sales of cellulose fibrils continued to grow.

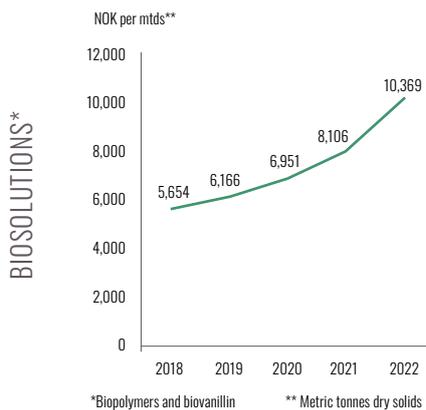
For Fine Chemicals, demand for advanced bioethanol to biofuel was strong with increased prices. Deliveries of fine chemical intermediates were stable with full capacity utilisation.

### FINANCIAL PERFORMANCE IN 2022

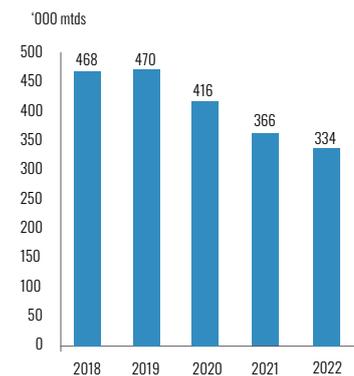
Borregaard's operating revenues increased to NOK 6,881 million (NOK 5,805 million). EBITDA<sup>1</sup> increased to an all-time high of NOK 1,643 million (NOK 1,372 million). The result improved in all business areas. The net currency impact on EBITDA<sup>1</sup> was positive.

In BioSolutions and BioMaterials, higher sales prices and an improved product mix were the main reasons for the EBITDA<sup>1</sup> increase. In Fine Chemicals, the

#### GROSS AVERAGE PRICE

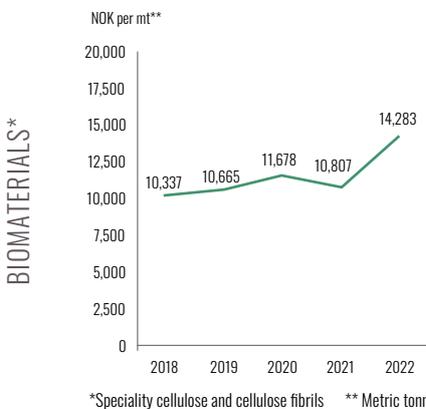


#### SALES VOLUME<sup>5</sup>

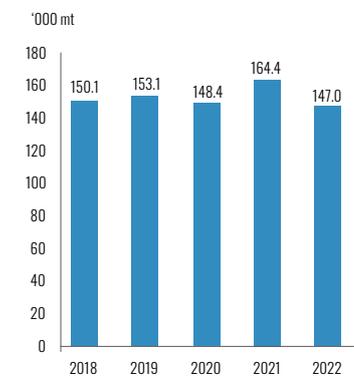


\*Biopolymers and biovanillin \*\* Metric tonnes dry solids

#### GROSS AVERAGE PRICE



#### SALES VOLUME



\*Speciality cellulose and cellulose fibrils \*\* Metric tonnes

/ <sup>1</sup> Alternative performance measures, see page 172 for definition.

/ <sup>5</sup> Average sales price and sales volume reflect 100% of sales and volume from the J/V in South Africa till the end of the 2<sup>nd</sup> quarter 2020. Average sales price is calculated using actual FX rates, excluding hedging impact.

result improvement was due to increased sales prices and a higher bioethanol sales volume. Substantial cost increases affected all business areas.

Other income and expenses<sup>1</sup> were NOK -8 million. NOK -20 million was an accrual for precautionary measures related to ground conditions at the site in Norway and NOK 12 million was mainly related to sale of assets in the closed lignin operation in South Africa.

Operating profit was NOK 1,186 million (NOK 952 million). Net financial items amounted to NOK -68 million (NOK -79 million). Profit before tax was NOK 1,118 million (NOK 873 million). Tax expense was NOK -267 million (NOK -213 million) giving a tax rate of 24% (24%).

Earnings per share were NOK 8.95 (NOK 6.95). Return on capital employed<sup>1</sup> was 18.1% (16.1%), well above the targeted level of minimum 15% pre-tax. Borregaard ASA's share price was NOK 152.00 (222.00) at the end of 2022.

## CASH FLOW AND FINANCIAL STRUCTURE

Cash flow from operating activities was NOK 735 million (NOK 1,431 million). The cash flow was negatively affected by a significant increase in net working capital. This was due to higher inventory values related to volume and cost increases, and higher sales prices affecting accounts receivable. The cash effect of an improved EBITDA<sup>1</sup> was partly offset by higher tax payments compared with 2021.

Investments amounted to NOK 464 million (NOK 701 million). Replacement investments were NOK 359 million (NOK 398 million). Expansion investments<sup>1</sup> totalled NOK 105 million (NOK 303 million) and were mainly related to specialisation projects within BioSolutions.

Dividend of NOK 499 million (NOK 249 million), of which NOK 225 million was extraordinary dividend, was paid out in the 2<sup>nd</sup> quarter. The Group has sold and repurchased treasury shares with net proceeds of NOK -27 million (NOK -59 million). Realised effect of hedging of net investments in subsidiaries was NOK -79 million (NOK -14 million).

On 31 December 2022, the Group had net interest-bearing debt<sup>1</sup> totalling NOK 1,836 million (NOK 1,417 million), an increase of NOK 419 million from year-end 2021.

At the end of December, the Group was well capitalised with an equity ratio<sup>1</sup> of 54.8% (60.1%) and a leverage ratio<sup>1</sup> of 1.12 (1.03).

## BUSINESS SEGMENTS

### BioSolutions

BioSolutions' operating revenues reached NOK 4,050 million (NOK 3,469 million). EBITDA<sup>1</sup> improved to NOK 986 million (NOK 942 million). Increased sales prices, positive net currency effects and a slightly improved product mix were the main reasons for the EBITDA<sup>1</sup> improvement, partly offset by substantial cost increases.

Demand for lignin-based biopolymers was generally strong. The market introduction of the new wood-based vanillin capacity was on track in 2022. Demand for wood-based vanillin was partly influenced by a temporarily tight supply situation for synthetic vanillin and ethyl vanillin in the 1<sup>st</sup> half of 2022. These markets weakened towards the end of the year.

The average price in sales currency was 20% higher than in 2021 mainly due to price increases and optimisation of product mix. Total sales volume was 9% lower than in 2021, mainly due to lower raw material supply in 2022 and sales from inventories in 2021. In addition, volumes were optimised based on value within all market segments.

### BioMaterials

Operating revenues for BioMaterials reached NOK 2,250 million (NOK 1,878 million). EBITDA<sup>1</sup> increased to NOK 427 million (NOK 284 million).

The significant EBITDA<sup>1</sup> improvement was due to increased sales prices, higher production and an improved product mix for speciality cellulose. These effects were partly offset by lower deliveries and increased energy and raw material costs. Both sales volume and prices increased for cellulose fibrils. Net currency effects were positive.

The average price in sales currency increased 28% due to price adjustments, surcharges and an improved product mix. The sales volume was significantly lower than in 2021, when sales volume exceeded production output due to a considerable inventory reduction. Inventories increased from a low level in 2021. Demand for speciality cellulose was strong in 2022. However, there was a slight slowdown in orders from the construction market for cellulose ethers towards the end of the year.

### Fine Chemicals

Operating revenues in Fine Chemicals increased to NOK 632 million (NOK 491 million). EBITDA<sup>1</sup> reached NOK 230 million (NOK 146 million).

/ <sup>1</sup> Alternative performance measures, see page 172 for definition.

The improved EBITDA<sup>1</sup> for bioethanol was due to increased sales prices and a higher sales volume, partly offset by increased costs. Bioethanol sales were mainly to biofuel. The result for fine chemical intermediates improved due to increased sales prices and a high production output, partly offset by increased costs. The net currency impact was positive.

## CORPORATE GOVERNANCE

Borregaard's governance systems are based on principles set out in the Norwegian Code of Conduct for Corporate Governance. See report on Corporate Governance at Borregaard (from page 18). This report is an integral part of the Report of the Board of Directors.

Borregaard's internal compliance board (see page 26) reviews and controls compliance matters and reports to the Board annually.

Borregaard has purchased and maintain a Directors and Officers Liability Insurance on behalf of the members of the Board of Directors and the CEO. The insurance additionally covers any person acting in a managerial capacity and includes subsidiaries owned by more than 50%. The insurance policy is issued by a reputable, specialised insurer with appropriate rating.

## SUSTAINABILITY AND CORPORATE RESPONSIBILITY

Sustainability is an integral part of Borregaard's business model. This is reflected in the Group's main objective: Providing sustainable products and solutions based on renewable raw materials and unique competence. Borregaard's 2022 Report on sustainability and corporate responsibility (from page 29) outlines ambitions and achievements within climate and EHS, and Borregaard's commitment to business ethics and compliance. The report also covers topics within competence development, human rights, inclusion and diversity. This report is an integral part of the Report of the Board of Directors. Borregaard's ESG information is reported according to the GRI<sup>6</sup> standard and an independent third party has issued an assurance report on Sustainability reporting (see EY's assurance report from page 169). A separate report on Equality and Inclusion for 2022 is published on the company's website.

The Corporate Sustainability Reporting Directive (CSRD), was approved by EU in December 2022. Borregaard will report according to CSRD for the financial year 2024 and is

in the process of making necessary preparations for future reporting.

## FINANCIAL AND OPERATIONAL RISKS

Borregaard is financially exposed to currency risk for most of its sales, primarily in USD and EUR. A substantial part of this exposure, defined as estimated net cash flow in USD and EUR, is routinely hedged with a nine-month time horizon. Subject to certain criteria being met, the hedging horizon for USD and EUR exposure may be extended up to 36 months. In 2022, substantial EUR and USD amounts were hedged within a 3-year time horizon. See Note 28.

Borregaard is also exposed to price risk for energy, wood and other strategic raw materials. There is also a supply risk for lignin raw material. In sales, all Borregaard's business segments are exposed to price risk in international and domestic markets. Furthermore, there are production, environmental and safety risks inherently associated with the operation of manufacturing sites. To mitigate these risks, Borregaard has a strong commitment to continuous improvement throughout its worldwide operations, calling on a wide range of measures affecting both revenues and costs. Climate risk assessment comply with the Task Force on Climate-related Financial Disclosures (TCFD). The short and medium-term climate risk is considered to be low. See also a summary of climate risks and potential financial impact in Note 28. Credit risk for Borregaard is perceived to be modest due to the quality of its customer base and its stringent credit management policy. Short-term liquidity risk associated with cash flow fluctuations is low because Borregaard has ensured ample short-term and long-term financing from a group of leading Nordic banks. As of 31 December 2022, the undrawn portion of available long-term facilities amounted to NOK 1,500 million.

The company's business activities and financial position, together with the factors likely to affect its future development and performance, are set out above. With its considerable financial resources, together with longstanding relationships with customers and suppliers across different geographic areas and industry sectors, the company is well placed to manage its ongoing business risks. With a strong equity ratio<sup>1</sup> and good liquidity, the company has adequate resources to continue its operations for the foreseeable future. Hence, in accordance with the Norwegian Accounting Act §3-3a, we confirm that the financial statements have been prepared under the assumption of a going concern. See Note 28 to

/ <sup>1</sup> Alternative performance measures, see page 172 for definition.

/ <sup>6</sup> Global Reporting Initiative.

the Group's financial statements for further disclosure of financial and operational risks.

## REMUNERATION OF GROUP EXECUTIVE MANAGEMENT

The Board of Directors has a Compensation Committee which deals with all important matters related to salary and other remuneration of senior executives before such matters are decided by the Board. In accordance with Norwegian legislation, the General Meeting approved the guidelines for remuneration of executive personnel in 2021. The Guidelines and actual remuneration are included in the report "Remuneration report 2022" available at the company's website. The report is subject to approval by the Annual General Meeting in 2023.

## SHAREHOLDER MATTERS

All shares in Borregaard ASA have equal rights and are freely traded. The company has established a programme enabling employees to purchase shares at a discounted price. In connection with this programme and the share option programme for the Group Executive Management and other key employees, Borregaard ASA held 434,553 treasury shares as of 31 December 2022 and 245,480 as of 21 March 2023. See Note 9 regarding share options.

Total number of shares outstanding as of 31 December 2022 was 100 million, including 434,553 treasury shares. Total number of shareholders was 8,248. Borregaard ASA's share price was NOK 152.00 at the end of 2022, compared with NOK 222.00 at the end of 2021.

## OTHER MATTERS AND SUBSEQUENT EVENTS

### Shares to employees

As part of the employee share programme, Borregaard sold a total of 169,213 shares to employees in February 2023. The share price was NOK 132.46 per share after deduction of a 25% discount. See notifications to the Oslo Stock Exchange on 6 and 13 February and 2 March 2023.

### Share options issued

In February 2023, 250,000 share options at a strike price of NOK 194.00 were granted under the long-term incentive programme. The options will expire after five years, the vesting period is three years, and the options may be exercised during the last two years. See notification to the Oslo Stock Exchange on 1 March 2023.

In February 2023, an investment of NOK 230 million to reduce CO<sub>2</sub> emissions and increase energy flexibility at the biorefinery in Norway was approved. This investment will allow for a 30,000 tonnes annual reduction of CO<sub>2</sub> emissions by replacing liquified natural gas (LNG) with electricity and by improved energy efficiency. In addition, there is a significant cost reduction potential by removing absolute dependency on LNG and introducing more options to switch between alternative energy sources.

There have been no events after the balance sheet date that have had a material impact on the financial statements, or the assessments carried out.

## ALLOCATION OF PROFIT

The Board has proposed an ordinary dividend for 2022 of NOK 3.25 (NOK 2.75) per share for the 2022 financial year, corresponding to 36% of net earnings per share for the Group. Total dividend payment is estimated at NOK 324 million. The exact amount will depend on the number of treasury shares held at the date of the General Meeting.

In 2022, Borregaard ASA had a profit of NOK 487 million (NOK 475 million). Borregaard ASA is well capitalised with an equity ratio<sup>1</sup> of 72% after pay-out of the proposed dividend. The Board proposes the following allocation (NOK million):

Dividend	324
Retained earnings	163
<b>Total</b>	<b>487</b>

## OUTLOOK

In 2023, the total sales volume for BioSolutions is forecast to be approximately 350,000 tonnes, depending on raw material supply and global economic development. The portfolio optimisation within biopolymer applications will continue. The market for synthetic vanillin and ethyl vanillin is expected to normalise in 2023.

For BioMaterials, the total sales volume is forecast to be higher than the production output. Sales volume of highly specialised grades is expected to be higher than in 2022. In the 1<sup>st</sup> quarter of 2023, the average price in sales currency is expected to be largely in line with the 4<sup>th</sup> quarter of 2022. Development in the construction market for cellulose ethers is the main uncertainty for 2023. However, other applications are expected to largely

/ <sup>1</sup> Alternative performance measures, see page 172 for definition.

compensate for a potential slowdown in the construction market. Sales growth will continue for cellulose fibrils.

Sales volume and product mix for fine chemical intermediates are expected to improve in 2023. In bioethanol, sales prices are expected to increase whereas sales volume is forecast to be in line with the 2022 level. The market conditions for advanced biofuel are favourable in several European countries. Bioethanol sales are expected to be mainly into these markets in 2023.

Wood costs will increase 10-15% in the 1<sup>st</sup> half of 2023 compared with the 2<sup>nd</sup> half of 2022. Energy spot prices will continue to represent the largest uncertainty. However, Borregaard will benefit from its ability to switch between electricity, LNG and light oil to minimise energy costs at the site in Norway.

Cost inflation and consequences of the Russian invasion of Ukraine may impact the global economy and Borregaard's markets. In addition, the March 2023 disturbance of the financial markets due to financial weaknesses at certain banks adds to the uncertainty in the global economy. Borregaard will continue to closely monitor cost inflation and market development and implement relevant measures if required.

Sarpsborg, 21 March 2023

## THE BOARD OF DIRECTORS OF BORREGAARD ASA

*Signed*

**HELGE AASEN**

*Chair*

*Signed*

**TERJE ANDERSEN**

*Signed*

**TOVE ANDERSEN**

*Signed*

**MARGRETHE HAUGE**

*Signed*

**JOHN ARNE ULVAN**

*Signed*

**ARUNDEL KRISTIANSEN**

*Signed*

**RAGNHILD ANKER EIDE**

*Signed*

**PER A. SØRLIE**

*President and CEO*





# CORPORATE GOVERNANCE

*Borregaard's principles for good corporate governance form the basis for long-term value creation, benefitting shareholders, employees and society. These principles promote a healthy corporate culture where sustainability, long-term perspective and integrity are fundamental values. The sustainability agenda covers social, environmental and economic responsibility. The Board of Directors is responsible for corporate governance.*

## 01 IMPLEMENTATION AND REPORTING ON CORPORATE GOVERNANCE

Borregaard is subject to the requirements of Section 3–3b of the Norwegian Accounting Act, the Norwegian Code of Practice for Corporate Governance and the Continuing Obligations of Stock Exchange Listed Companies, which are available at [www.lovddata.no](http://www.lovddata.no), [www.nues.no](http://www.nues.no) and [www.oslobors.no](http://www.oslobors.no), respectively.

This report follows the system used in the Code of Practice from 14 October 2021<sup>1</sup>. It comprises all clauses of the Code of Practice, describes Borregaard's compliance and explains any deviations.

The Board of Directors approved this report on corporate governance 21 March 2023. The statement is cited on page 162. The Annual General Meeting will consider the statement 18 April 2023.

The Board will ensure that the company complies with the requirements of the applicable laws and regulations. The principles of good corporate governance are integrated in the Board's decision-making process, and the Board will continually discuss and evaluate the principles and their implementation.

## 02 BUSINESS

According to the Articles of Association, Borregaard's business operations involve: "... the development, production and sale of biochemicals, bio-based speciality products and other chemicals, as well as other business operations that are naturally related therewith." The Board of Directors has clear objectives, strategies and risk profiles for the company's business activities integrating financial, social, and environmental considerations.

Borregaard's activities focus on BioSolutions with biopolymers and biovanillin from lignin, BioMaterials, which is speciality cellulose and cellulose fibrils, and Fine Chemicals consisting of fine chemical intermediates and advanced bioethanol. Borregaard's financial objective is to deliver good profitability with a return on capital employed<sup>2</sup> (ROCE) above 15% pre-tax over a business cycle. For a more detailed description of business segments, corporate goals and strategies, please refer to The Borregaard Group on page 4.

The Borregaard Group will contribute to the sustainable development of society through responsible commercial operations and continuous improvement. The Group has ethical guidelines and guidelines for corporate responsibility, available at [www.borregaard.com](http://www.borregaard.com).

The Sustainability and corporate responsibility report can be found from page 29 in this Annual Report. The Annual Report gives an account of Borregaard's systematic work in areas important for stakeholders such as employees, business partners and the community (see pages 34-35).

The objectives, strategies and risk profiles are evaluated annually by the Board.

## 03 EQUITY AND DIVIDENDS

The Group's equity as of 31 December 2022 was NOK 4,445 million. The capital structure is appropriate for the company's objective, strategy and risk profile. The Board has stated the following regarding the dividend policy:

*"Under the current dividend policy adopted by the Board, Borregaard intends to pay regular and progressive dividends reflecting the expected long-term earnings and cash flows of the Borregaard Group, targeting an annual dividend between 30% and 50% of the company's net profit for the preceding financial year".*

For the financial year 2022, the Board proposes a dividend of NOK 3.25 per share, up from NOK 2.75 per share in 2021. Dividend will be paid on 27 April 2023 to shareholders registered in the company's shareholders' register as

evidenced in a transcript as of 20 April 2023.

Acquired shares subject to ordinary settlement in the Norwegian Securities Register (VPS), will carry the right to receive dividends if acquired up to and including 21 April 2023.

The Board has no authority to issue new shares. At the General Meeting in 2022, the Board was authorised to buy treasury shares up to a total nominal value of NOK 10 million, corresponding to 10% of the current share capital. The authorisation is valid until the General Meeting in 2023, but no longer than 30 June 2023. It is a requirement that the authorisation is used in connection with share-based incentive programmes, shares for employees or for repurchase of shares for cancellation.

## 04 EQUALITY OF TREATMENT OF SHAREHOLDERS AND TRANSACTIONS WITH RELATED PARTIES

Borregaard has one class of shares, and each share entitles the holder to one vote. The nominal value is NOK 1.00. As of 31 December 2022, Borregaard held 434,553 treasury shares.

It is Borregaard's policy that shareholder value shall not be diluted by the issuance of new shares. Should the Board propose a deviation from existing shareholders pre-emption rights in the event of a share issue, the Board

/ <sup>2</sup> Alternative performance measures, see page 172 for definition.

must justify this as being in the common interest of the company and its shareholders. The justification must be stated in the notice of the General Meeting.

There are no provisions in Borregaard's Articles of Association concerning the buy-back or issue of shares.

Transactions in treasury shares have taken place on the market at stock exchange prices, according to the Oslo Stock Exchange safe harbour rules and according to good stock exchange practice in Norway.

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## 05 SHARES AND NEGOTIABILITY

All of Borregaard's shares confer equal rights and are freely negotiable. There are no provisions in the Articles of Association restricting the free negotiability of shares.

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## 06 GENERAL MEETING

The General Meeting of the shareholders is the highest authority in the company and elects the Board of Directors as the highest governing body. The Board encourages the shareholders to exercise their rights by participating in the General Meeting.

Borregaard holds its Annual General Meeting every year before 30 June. The notice of the General Meeting and administrative documents must be available on Borregaard's website no later than 21 days prior to the date of the meeting.

According to the Articles of Association, Clause 7, the documents relating to matters to be dealt with at the General Meeting, including documents which by law must be included in, or attached to, the notice of the General Meeting do not need to be sent to shareholders, if such documents instead are made available on Borregaard's website. A shareholder may at any time demand to have such documents mailed. The provision in the Articles of Association is consistent with Section 5-11a of the Norwegian Public Limited Liability Companies Act.

The final date for registration for the Annual General Meeting is two business days prior to the meeting. The right to attend and vote at the General Meeting may only be exercised for shares registered with VPS before the final date for registration for the General Meeting. The same applies if a share transfer has been notified to VPS and evidence of this can be provided at the General Meeting. To confer voting rights for shares registered to a nominee

account, the beneficiary owner must register the shares in VPS under the name of the beneficiary owner before the final date of registration.

Shareholders unable to attend the General Meeting may either appoint a proxy or submit a vote in advance via the Internet, using either DNB or the Norwegian Central Securities Depository (VPS) investor services. There are links to these services on Borregaard's website. Advance votes can also be submitted by post. It is stipulated in the Articles of Association that the notice of the General Meeting must indicate the rules established by the Board for advance voting. The Board will always consider the possibility to offer electronic and/or hybrid general meetings.

If a shareholder has given the company proxy to vote, the Chair of the Board or the Chair of the General Meeting will be appointed to vote on the shareholder's behalf. The proxy form has been designed in such a way that the shareholder may provide instructions for each item to be dealt with, and for each candidate to be elected. Information on the use of proxy voting and shareholders' rights to have items dealt with at the General Meeting, is given both in the notice of the General Meeting and on Borregaard's website. The Articles of Association contain no special provisions regarding the opening and chairing of the General Meeting. In line with the Code of Practice, the Board will arrange for the General Meeting to be opened by an independent person. In the notice of the General Meeting, the Board will indicate who will open the meeting and propose a Chair

who satisfies the independence requirements of the Code of Practice, to be elected by the General Meeting. The Chair of the Board, the President and CEO, the external auditor

and the Chair of the Nomination Committee will be present at the General Meeting.

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## 07 NOMINATION COMMITTEE

The Articles of Association stipulates that Borregaard shall have a Nomination Committee. The Nomination Committee shall consist of three or four members, who are independent of the Board and the Executive Management. The General Meeting elects the Chair of the Committee and its members and determines its remuneration. There is an option to vote for each individual candidate.

Instructions for the Nomination Committee have been adopted by the General Meeting and are available on Borregaard's website. The instructions establish guidelines for the preparation and conducting of elections to the Nomination Committee and the Board, as well as the criteria for electability, general requirements for the recommendations and rules for dealing with matters during the Nomination Committee's work.

The Nomination Committee makes recommendations to the General Meeting regarding the election of shareholder-elected board members and the Chair, remuneration of the Board including relevant subcommittees in addition to the election and remuneration of the members and the Chair of the Nomination Committee. Each proposal is justified on an individual basis with the notice documents to the General Meeting.

Shareholders are encouraged to give input to the nomination process and more information about the composition of the Nomination Committee, which

members are up for election and how input and proposals can be given to the Nomination Committee, can be found at Borregaard's website. Furthermore, the Nomination Committee engage in specific dialogue with the President and CEO and the company's administration, and the largest shareholders are being approached specifically to gain their input. When the Committee is considering candidates for the Chair of the Board, it is supplemented by a representative appointed by the employee-elected board members.

The Nomination Committee consists of the following four members (one female and three males) elected on the Annual General Meeting in 2022 until the Annual General Meeting in 2023:

- Mimi K. Berdal (Chair)
- Erik Must
- Rune Selmar
- Atle Hauge

The Nomination Committee has been composed in accordance with the Code of Practice to safeguard the interests of the shareholder community and meets the Code's requirements for independence. All members of the Nomination Committee are independent of the Board, nor does the Nomination Committee include the company's President and CEO or any other executive personnel.

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## 08 THE BOARD OF DIRECTORS: COMPOSITION AND INDEPENDENCE

Pursuant to the Articles of Association, the Board shall be composed of three to ten members. The current Board consists of the Chair, six members and two observers of whom four are women. As agreed with the employees, there is no corporate assembly neither in Borregaard ASA nor in its subsidiary, Borregaard AS. Instead, employees have extended representation rights to those companies' Boards. Hence, in accordance with the Norwegian Public Limited

Liability Companies Act, the employees have elected two members and two observers. The composition of the Board meets statutory requirements and the Code of Practice. All shareholder-elected members are independent of the company's management, main shareholders and important business associates. No one from day-to-day management is member of the Board. No Board member has ever been disqualified on the grounds of a lack of impartiality.

According to the Norwegian Public Limited Liability Companies Act, the Board's term of office is two years. Borregaard's Articles of Association comply with this requirement. However, the General Meeting is free to set a shorter term of office.

It is the task of the Nomination Committee to recommend the term of office of the Board. The shareholder-elected members of the Board have been elected for a period of one year, as an annual evaluation of the composition provides the greatest flexibility. The current Board has been elected for the period leading up to the 2023 Annual General Meeting.

According to the Instruction for the Nomination Committee, the Board's composition shall secure the necessary competence and diversity to safeguard the common

interest of the shareholders. Furthermore, the composition of the Board shall allow it to function effectively as a collegiate body and to act independently of special interest. For further details about each Board member's background, qualifications and competencies, term of office and independence, see pages 8-9.

The Articles of Association does not require members of the Board to own shares in the company. However, the General Meeting has decided that from 2018 and on, shareholder elected Board members are required to use part of their remuneration to acquire shares in the company. For an overview of each Board member's shareholding, see page 159.

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## 09 THE WORK OF THE BOARD OF DIRECTORS

### The duties of the Board of Directors

The duties of the Board are stated in the Public Limited Liability Companies Act and in the Instructions for the Board of Directors, which among other things define the responsibilities and obligations of the Board. The rules governing the handling of cases by the Board are also stipulated in the Instructions for the Board. These include regulations governing the President and CEO's disclosure requirements and the duty to carry out the Board's resolutions. There are guidelines on the preparation of matters to be considered by the Board and provisions whereby employees must be informed of the Board's resolutions. Other instructions, clarification of obligations, authorisations and responsibilities of day-to-day management are adopted on an ongoing basis.

The Board adopts an annual plan of meetings and agenda items that includes strategic work, commercial issues and control work. In 2022, the Board held eight meetings and dealt with 72 agenda items. The Board's annual evaluation process includes discussions regarding the work in more detail, see section "Internal Evaluation by the Board" below. The President and CEO prepares items for the Board in consultation with the Chair of the Board. The Board has established two permanent subcommittees, the Compensation Committee and the Audit and Sustainability Committee, both of which are described in more detail below. These committees pass no resolutions, but they supervise administrative work on behalf of the Board and prepare items for decision by the Board.

The committees may draw on the resources of the company and obtain advice and recommendations from external sources, if necessary.

### Compensation Committee

The Compensation Committee makes recommendations to the Board regarding the President and CEO's salary and terms and supervises the general conditions for other executive personnel within the Group. The committee is chaired by Helge Aasen. Margrethe Hauge and Ragnhild Anker Eide are members and Borregaard's SVP Organisation and Public Affairs serves as its secretary. The Compensation Committee held three meetings and dealt with ten agenda items in 2022. All members of the Compensation Committee participated in all meetings during their elected period. The composition of the Committee complies with the Code of Practice requirements for independence, and all members of the Committee are independent of the executive personnel.

The mandate of the Committee has been incorporated in the Instructions for the Board. The Committee will additionally deal with any specific questions relating to compensation for employees of the Group.

### Audit and Sustainability Committee

The Audit and Sustainability Committee supports the Board in fulfilling its responsibilities with respect to financial and sustainability reporting, internal accounting controls and auditing matters. The committee is chaired by Terje



Andersen. John Arne Ulvan, Tove Andersen, and Arundel Kristiansen are members, and the Vice President Finance serves as its secretary. The Audit and Sustainability Committee held six meetings and dealt with 25 agenda items in 2022. All members of the Audit and Sustainability Committee participated in all meetings during their elected period. The composition of the Committee complies with the requirements of the Code of Practice for independence and competence. The recommendations of the Nomination Committee provide information as to which members of the Board meet the independence and competence requirements for members of the Audit and Sustainability Committee. The mandate of the Committee has been incorporated in the Instructions for the Board.

#### **Internal evaluation by the Board**

The Board has carried out the annual evaluation of its own activities and competence. The Board arranges an anonymous survey among the board members with a number of questions in addition to discussions as a separate agenda topic in a board meeting. The result is made available to the Nomination Committee.

#### **Impartiality and conflict of interest**

The Instructions for the Board have regulations about impartiality. They establish that members of the Board may not take part in the handling of, or decisions in, matters in which the member or a close associate has a prominent personal or financial interest. Members of the Board shall also always consider whether there are

circumstances which, from an objective point of view, are likely to weaken confidence in the member's impartiality, or which may lead to conflicts of interest in connection with the Board's handling of the case. Such circumstances must be discussed with the Chair of the Board. The Board's consideration of material matters in which the Chair of the Board is, or has been, personally involved will be handled by the other board members.

With regards to the Group's ethical guidelines, employees must, on their own initiative, inform their superiors of any case of impartiality or conflict of interest, and they must not take part in the processing of such cases.

#### **Related party transactions**

The instructions for the Board have regulations about related party transactions. The Group will immediately make public any material transaction between the Group and shareholders, board members, Group Executive Management or any of their close relations. In the event of such transactions, the Board will determine how the matter will be dealt with. All such agreements shall be entered into on arms-length basis, and it shall be assessed whether it is necessary to seek a third-party valuation. There were no material transactions with related parties or any of their close relations in 2022.

The company has no controlling shareholders and there has been no conflict of interest identified related to suppliers and other stakeholders.

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## **10 RISK MANAGEMENT AND INTERNAL CONTROL**

The Board of Directors is the ultimate responsible for Borregaard's internal control system. Each member of the Group Executive Management is responsible for internal control within their respective areas. Borregaard's main objective is to provide sustainable solutions based on renewable resources and unique competence. The risk management system is essential for achieving the overall objective.

#### **Risk management**

Identifying and managing risks and opportunities are integrated multidisciplinary parts of the Group's business processes. Risk management shall ensure that risks relevant to Borregaard's objectives are identified, analysed and dealt with early and in a cost-effective manner.

A sound risk culture in Borregaard's operating units is a

prerequisite for a successful risk management process. An operating unit may be a plant, an organisational department, a subsidiary or a business unit. Comprehensive risk assessments related to either operations or projects are carried out on an ongoing basis in all operating units and reported to the next management level. Top-down risk evaluations are mainly focused on climate change, environment, health and safety (EHS) and profitability.

The risk assessment is presented and reviewed quarterly by the Audit and Sustainability Committee and at least annually by the Board.

An operating unit's risk assessment identifies the principal risk factors associated with the unit's value chain. The individual unit managers in the Group are responsible for acquainting themselves with all significant risk factors

within their own area of responsibility, thus contributing to a financially and administratively sound handling of these risks. Borregaard has established a central risk management function at Group level, headed by the Chief Risk Officer (CRO), who is responsible for Borregaard's risk management model and implementation support. Furthermore, the Group CRO shall facilitate the risk assessment process and contribute to the identification, analysis and handling of risks across business areas and disciplines.

The CRO consolidates the aggregate risk assessment which the Group Executive Management reviews before it is submitted to the Audit and Sustainability Committee and finally to the Board.

The stakeholders' perspective is taken into consideration when assessing and managing risks with potential environmental, social and economic impacts throughout the company's value chain.

Climate-related risk assessments comply with the Task Force on Climate-related Financial Disclosures (TCFD). Risks (physical, regulatory, market, cost, and legal) associated with climate change are featured on pages 38-39 and pages 144-145.

### Information security

Borregaard's activities may be susceptible to various threats related to information management. The implementation of the Borregaard information security policy ensures good information management practices in business processes, as well as compliance with applicable regulatory requirements, such as GDPR. The Group's information management governs confidentiality, integrity and availability, both strategically and operationally.

The operationalisation of Borregaard's information management is supported by dedicated internal resources and technical solutions. Raising awareness within the organisation is a key element to safeguard against unwanted dissemination of information; hence, building a culture of information security in the company and relevant training are prioritised in every area applicable.

### Internal control

Borregaard has documented its internal procedures, including a description of authority, in the quality management system. The Group has a dual control principle for approvals, and the main accounting and purchasing system (SAP) enforces the principle.

Personnel within finance and controlling functions perform internal control reviews in the Group's legal entities.

Monthly financial reports are sent to the Board. Each legal entity submits reports into the consolidation system in accordance with the annual financial calendar. There are monthly meetings among key finance personnel to review financial results, incidents, projects, estimates, etc. This input is used in the monthly reporting to the Board and the quarterly meetings with the Audit and Sustainability Committee.

The Group's quarterly reports are reviewed by the Audit and Sustainability Committee prior to the Board meeting. Borregaard's external auditor is present at the Audit and Sustainability Committee meetings and attends the Board meeting when the Board approves the annual financial statements.

Internal control of EHS matters is compliant with the regulations relating to systematic health, environmental and safety activities in enterprises (Internal control regulation).

### Business ethics and corporate responsibility

Borregaard and its subsidiaries work continuously with ethics, anti-corruption and corporate responsibility, which are integrated parts of the basis for decisions.

Borregaard must comply with several guidelines and reporting procedures as part of its corporate responsibilities. The main documents have been approved by the company's Board of Directors, which also sets the overall goals for the areas covered by those reporting procedures.

Borregaard's Guidelines are:

- Environment, climate, health and safety engagement Policy
- Human Rights Policy
- Anti-Corruption Manual
- Corporate Responsibility
- Code of Conduct
- Corporate Governance Principles
- Responsible Sourcing Policy
- Competition Law Compliance Manual

The Group Executive Management is responsible for monitoring the company's goals, measures and results. Their daily implementation is a line management responsibility. This means that corporate responsibilities are integrated components of all operations in Borregaard's subsidiaries, as well as in various management teams, units and departments. Training measures and material for employees within relevant topics and guidelines are also developed and implemented (see from page 84).

**Sustainability board**

The internal sustainability board addresses and monitors important sustainability topics, and initiates processes in which guidelines, goals and measures are developed within the areas covered by this report. The sustainability board reports to the President and CEO and is chaired by the Senior Vice President of Organisation and Public Affairs.

The status of the work by the business areas involving corporate responsibility is included in the Sustainability and corporate responsibility report.

**Compliance board**

Borregaard has an internal compliance board consisting of SVP Organisation and Public Affairs (Chair), General Counsel, Vice President Finance and CRO. The compliance board shall support the Group companies' management by raising awareness of compliance matters, reporting on its activity and findings and contribute to improvements. The compliance board reports to the President and CEO and the Board of Directors reviews an annual *Compliance Report*. Since 2021, a public version of the Compliance report is published at the company's website.

**Whistleblowing**

Borregaard aims for transparency and a strong corporate culture to help ensure that difficult or undesirable situations are discussed and resolved. There may be situations where employees see or experience conflicts with Borregaard's guidelines or expectations. Ideally, such issues should be dealt with where they occur. However, situations may arise where that is difficult, not possible, or desirable for the employee. Borregaard has established a whistleblowing system including a separate channel operated by Borregaard's General Counsel. This system will be replaced by a new third-party whistleblowing system accessible for employees and external parties. It will be implemented in 2023. Any unethical behaviour can be reported through the channel, in accordance with Borregaard's Code of Conduct, Section 4.2, or according to applicable law. Whistleblowers may request anonymity, which always will be respected to the extent legally possible. Borregaard's written procedures satisfy governmental requirements. Guidelines are translated into relevant languages and implemented in the company's subsidiaries worldwide.

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**11 REMUNERATION OF THE BOARD OF DIRECTORS**

All remunerations of the Board have been disclosed in Note 4 to the financial statements of Borregaard ASA. Board members' remuneration is not dependent on the company's financial results, and no share options are granted. The shareholder-elected Board members shall use part of their remunerations to acquire shares in the company.

The General Meeting decides the remuneration of the Board. In its recommendation for 2022, the Nomination

Committee proposed the compensation to the Board for the period up to the Annual General Meeting in 2023 reflecting the responsibilities, expertise and time spent as well as the complexity of the business. Board members and/or companies with which they are associated should not take on specific assignments for the Group in addition to their Board appointment. If they do, however, this must be disclosed to and approved by the Board.

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**12 REMUNERATION OF EXECUTIVE PERSONNEL**

The Board's Compensation Committee makes recommendations to the Board regarding the President and CEO's compensation and terms and supervises the general conditions for executive personnel. The Board assesses the President and CEO's remuneration annually.

The Board's statement on salaries and other remuneration of executive personnel (see the separate report

"Remuneration report 2022" at Borregaard's website) contains an account of the remunerations given to executive personnel and the Group's Remuneration Guidelines for 2021 including criteria related to share option schemes. Both the Guidelines and the Remuneration report (advisory vote) are subject to approval by the General Meeting.

## 13 INFORMATION AND COMMUNICATIONS

Borregaard's accounting procedures are transparent and comply with the International Financial Reporting Standards (IFRS). The Audit and Sustainability Committee monitors the company's reporting on behalf of the Board.

Borregaard has an active and open communication with the financial market. The annual and quarterly reports contain information on the various aspects of the company's activities. The quarterly presentations are published at Borregaard's website.

All shareholders and other financial market players are treated equally as regards access to financial information. The Group's Investor Relations Department maintains regular contact with shareholders, potential investors, analysts and other financial market stakeholders. Borregaard adheres to the Oslo Stock Exchange recommendation on reporting of relevant information to the investor community. The financial calendar for 2023 is published at Borregaard's website and at Oslo Stock Exchange.

## 14 TAKE-OVERS

The Board's approach to takeovers is published at the company's website under "Investors". The Board will not seek to prevent or obstruct any takeover bid for Borregaard's operations or shares. In the event of such a bid, in addition to complying with relevant legislation and regulations, the Board will seek to comply with recommendations in the Code of Practice, including obtaining a valuation from an independent expert.

On this basis, the Board will recommend whether the shareholders should accept the bid. There are no other written guidelines in the event of a takeover bid. The Board has not considered it appropriate to draw up any explicit principles other than the actions described above. The Board otherwise concurs with what is stated in applicable laws and regulations and in the Code of Practice regarding this issue.

## 15 AUDITOR

The Board of Directors has determined the procedure for the external auditor's regular reporting to the Board. Annually, the external auditor presents to the Board an assessment of risk, internal control and the quality of financial reporting. The auditor presents the audit plan for the following year. The external auditor also takes part in the Board's discussions on the annual financial statements, including a session without the presence of management.

Both the external auditor and the President and CEO attend all meetings of the Board's Audit and Sustainability Committee. For further information, see Section 10 regarding risk management. Borregaard has guidelines for the management's use of the external auditor for services other than auditing. Responsibility for monitoring such use in detail has been delegated to the secretary of the Audit and

Sustainability Committee, who is the Vice President Finance. The Audit and Sustainability Committee sets an annual limit for such services and the secretary will approve significant assignments in advance and compile a quarterly summary of services other than auditing provided to the company.

Details of the company's use and remuneration of the external auditor are disclosed in Note 4 to the financial statements of Borregaard ASA. The General Meeting is informed about the Group's overall remuneration of the auditor.

In connection with the auditor's participation in the Audit and Sustainability Committee and the Board of Directors' consideration of the annual statements, the auditor also confirms its independence.





## SUSTAINABILITY AND CORPORATE RESPONSIBILITY

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# HIGHLIGHTS



CERTIFIED PART OF  
PURCHASED WOOD

98%

OF 1,000,000 M<sup>3</sup> WOOD



INNOVATION EFFORTS

192

MILL NOK



ENERGY

59%

RENEWABLE ENERGY



GHG REDUCTIONS

2%

SCOPE 1 AND 2  
FROM 2021



SUSTAINABILITY RATING

A, A, A-

CDP'S CLIMATE, FOREST, WATER



DIVERSITY

26%

FEMALE SHARE OF NEW  
RECRUITMENTS



APPROVAL OF NEW  
SCIENCE-BASED TARGET

1.5°C

TEMPERATURE INCREASE



ECOVADIS RATING

PLATINUM



# ESG DOCUMENTATION TO THE ANNUAL REPORT

REPORT OF THE  
BOARD OF DIRECTORS

CORPORATE  
GOVERNANCE REPORT

SUSTAINABILITY AND  
CORPORATE GOVERNANCE

CONSOLIDATED  
FINANCIAL STATEMENTS

## GRI INDEX

The index gives an overview of reporting elements according to the GRI index and structure.

## SUPPLEMENTING REPORTS

### MATERIALITY ASSESSMENT REPORT

Process description based on the GRI standard, including stakeholder dialogue. Together with TCFD it results in a double materiality assessment.

### EQUALITY AND INCLUSION REPORT

Describes how Borregaard works to secure equality and inclusion in the company, including equal pay for equal work. The report is aligned with requirements of Norwegian law.

### COMPLIANCE REPORT

Describes how Borregaard works systematically with compliance-related issues, including prioritised areas with plans, measures and results.

### HUMAN RIGHTS AND DECENT WORKING CONDITIONS REPORT

Describes our work with human rights and decent working conditions.

### TAXONOMY REPORT

The Taxonomy guidelines are not fully disclosed and decided. This report gives an overview of Borregaard's approach and reporting status as of 2022.

### REMUNERATION REPORT

Describes the executive management's financial compensation, including alignment with the policy approved by the Annual General Meeting.

### SCENARIO ANALYSIS

The analysis (2030-2050) is performed by CEMAsys and aligned with TCFD's recommendations.

### SCOPE 3 REPORT

Issued by Norsus and describes how Scope 3 emissions are calculated; aligned with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

### TNFD REPORT

The report is based on "Task Force on Nature-related Financial Disclosure"(TNFD) standardised reporting structure of financially material nature-related risks and opportunities.

### TCFD REPORT

The report is based on "The Task Force on Climate-related Financial Disclosure" (TCFD) standardised reporting structure of financially material climate-related risks and opportunities.

# RESPONSIBLE BUSINESS<sup>1</sup>

*Borregaard's main objective is to provide sustainable solutions based on renewable raw materials and unique competence. Sustainability is a natural component of the company's overarching goals. Borregaard's Board of Directors emphasises the importance of sustainability as an integral part of the company's operations and development.*

We fulfil our corporate responsibilities by developing and running our operations profitably and in a manner that

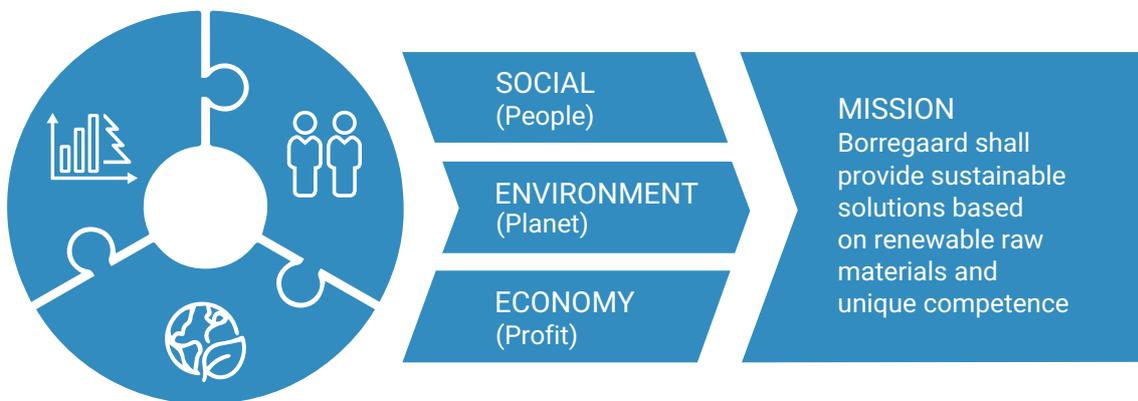
conforms with fundamental ethical values and respect for individual people, society and the environment.

## BORREGAARD'S SUSTAINABILITY APPROACH

Sustainability is one of Borregaard's core values. Borregaard's approach to sustainability is based on the UN document "Our Common Future" (1987)<sup>2</sup>:

***Operations and development that meet the needs of the present without compromising the ability of future generations to meet their own needs.***

Sustainability is composed of three pillars: social (people), environment (planet) and economy (profit).



## GLOBAL CHALLENGES AND SUSTAINABLE SOLUTIONS

Borregaard's innovative products and solutions can play an important role in addressing some of the world's biggest sustainable development challenges: Population growth and climate change<sup>3</sup>.

The UN predicts population growth of around 13% by 2030<sup>4</sup>, which will generate resource scarcity and an

extraordinary demand for climate friendly solutions in our daily lives. The UN has defined specific sustainability goals and measures within areas such as access to raw materials, energy, food and infrastructure. These factors are expected to increase demand for sustainable products and will present opportunities for Borregaard's innovative solutions in terms of creating good lives within a sustainable framework.

<sup>1</sup> Borregaard ASA has a statutory duty to comply with the reporting requirements for corporate social responsibility in Section 3-3c of the Norwegian Accounting Act. This requires Borregaard to account for "what the company is doing to integrate respect for human rights, labour rights and social issues, the environment and anticorruption in their business strategies, in their daily operations and in their relationship with stakeholders."

<sup>2</sup> (<https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>)

<sup>3</sup> IPCC, 2013: Summary for Policymakers. In *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA

<sup>4</sup> 2022 Revision of World Population Prospects: [https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/wpp2022\\_summary\\_of\\_results.pdf](https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/wpp2022_summary_of_results.pdf)

We take climate action and demonstrate how our business can help advance sustainable development by both minimising negative and maximising positive environmental impacts.

## MATERIALITY ASSESSMENT, GOALS AND EFFORTS

Our business model is based on the life cycle assessment approach (page 48) which includes the entire value chain. This approach gives us valuable input on our products' environmental impact, both negative impact from production and transportation and positive impact when our products replace fossil-based alternatives for our customers and end-users.

The Intergovernmental Panel on Climate Change (IPCC)<sup>5</sup> Sixth Assessment report from August 2021 provides new estimates of the chances of crossing the global warming level of 1.5°C in the next decades, and states that unless there are immediate, rapid, and large-scale reductions in greenhouse gas emissions, limiting warming to close to 1.5°C will be beyond reach. In 2022, Borregaard's revised targets for reduction in GHG emissions were approved by the Science Based Targets initiative (SBTi). The climate challenge and possible long-term consequences of this are dealt with in our scenario analysis<sup>6</sup> describing possible impacts for Borregaard's operations and the markets we operate in.

In December 2022, UN's Biodiversity Conference (COP 15) agreed on a new set of goals to guide global action through 2030 to halt and reverse nature loss. The conference declared that "nature is critical to meeting the SDGs and limiting global warming to 1.5 degrees. Adoption of a bold global biodiversity framework that addresses the key drivers of nature loss is needed to secure our own health and well-being alongside that of the planet."

We expanded our impact analysis and conducted a preliminary assessment report according to the Task Force on Nature-related Financial Risk (TNFD) in 2022. The TNFD report<sup>11</sup> is conducted to gain a more in-depth understanding of Borregaard's nature related impact, dependencies, risks and opportunities. In evaluating our risks and opportunities in relation to our dependencies and

impacts on nature, our targets will increase the resilience of our business to maintain a sustainable operational strategy and work towards meeting the COP 15 agreement.

Results from these analyses and our present operations give us a clear understanding of our main challenges, as well as our sustainable solutions to these:

1. Reduce climate impact and emissions (CO<sub>2</sub>)
2. Develop, produce, and sell sustainable and climate friendly products
3. Ensure long-term access to sustainable forest raw material
4. Reduce water consumption and effluents (COD)

These areas are important for society in general, as they cover issues that will contribute positively and directly to several of the UN's sustainability goals. Furthermore, the main challenges cover the entire value chain: All the way from reducing negative impacts related to the sourcing of raw materials, to reducing emissions related to production, as well as the transportation of products to our customers.

Our approach and contributions to the main challenges are thoroughly covered in this report under the relevant chapters (A to C). Goals with ambitions and measures both in the short and long term have been established for all ESG areas.

Borregaard's reporting to CDP<sup>7</sup> identifies three of the four main challenges presented in the table below. The identified impacts were merged into material topics including indicators and ambitions, and ranked to create a prioritised list. The materiality assessment report<sup>8</sup> describes the process following the Global Reporting Initiative (GRI) 2021 standard and a financial impact analysis according to the methodology of Task Force on Climate-related Financial Disclosure (TCFD). The analyses result in a double materiality assessment<sup>9</sup>. In our material assessment, we consider external factors and expectations from our main stakeholders, as well as Borregaard's positive and negative impacts on various factors across our value chain. We address all these topics while describing our goals and efforts in our sustainability reporting.

/ <sup>5</sup> IPCC, 2021: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press. In Press.

/ <sup>6</sup> The scenario analysis is published at <https://www.borregaard.com/sustainability/sustainability-documentation>.

/ <sup>7</sup> CDP is a not-for-profit charity that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts.

/ <sup>8</sup> The materiality assessment report is published at [borregaard.com/sustainability/sustainability-documentation](https://www.borregaard.com/sustainability/sustainability-documentation)

/ <sup>11</sup> The TNFD report is published at [borregaard.com/sustainability/sustainability-documentation](https://www.borregaard.com/sustainability/sustainability-documentation)

## LIST OF MATERIAL TOPICS

MATERIAL TOPIC	MAIN INDICATOR	CHAPTER
<b>Sustainable and climate friendly products</b>	Number of new or updated Environmental product declarations (EPD)	A
<b>Strong innovation efforts</b>	Innovation rate	A
<b>Sustainable forest raw materials</b>	% of PEFC or FCS certified wood	A
<b>Climate impact and emissions</b>	Reduction in scope 1, 2 and 3 GHG emissions	B
<b>Water consumption and effluents</b>	Effluent reduction of organic material measured as COD to water	B
<b>Waste and circularity</b>	% of waste sent to material or energy recovery	B
<b>Public and process safety</b>	Number of fires	B
<b>Safe and healthy working environment</b>	Total recordable injury frequency (TRIF)	C
<b>Competence development, culture and values that support our goals and strategy</b>	Voluntary turnover	C
<b>Diversity and equal opportunities</b>	Share of new hires to be female employees	C
<b>Sustainable sourcing</b>	% of suppliers that have signed Borregaard's Code of Conduct	C
<b>Business ethics and anti-corruption</b>	Reported cases of violations of anti-corruption and competition regulation	C
<b>Human rights and decent working conditions</b>	Reported cases of violations of human rights at Borregaard or in the value chain	C

## **BORREGAARD'S CONTRIBUTION TO THE UN'S 2030 AGENDA**

Borregaard has prioritised six of the seventeen Sustainable Development Goals (SDGs) set out in the UN 2030 Agenda for Sustainable Development. This prioritisation is based on how we can contribute to solving the global challenges through our activities and solutions.

SDG 2: Zero hunger

SDG 8: Decent work and economic growth

SDG 9: Industry, innovation and infrastructure

SDG 12: Responsible consumption and production

SDG 13: Climate action

SDG 15: Life on land

Borregaard can have a positive impact in all these areas through our unique biorefinery concept and our sustainable products.

The six prioritised SDGs are closely linked to Borregaard's core operations and are in line with our business strategy with respect to the sourcing of natural raw materials, our production processes and the impact our products have in our customers' value chains. The six SDGs are reflected in Borregaard's stakeholder and materiality analysis and are used as a framework for guiding, communicating and reporting on the company's strategy, goals and activities.

Specific targets and KPIs are presented in this report under the relevant topics.

# BORREGAARD'S CONTRIBUTION TO THE SDGs<sup>9</sup>



/ <sup>9</sup> The UN SDGs consist of 17 goals with 169 targets covering a broad range of sustainable development issues. Borregaard has identified the targets the Group is specifically contributing to within the six prioritised goals: 2.4 - 8.2, 8.5 - 9.4, 9.5 - 12.2, 12.4, 12.6 - 13.2 - 15.1, 15.2. <https://sustainabledevelopment.un.org/topics/sustainabledevelopmentgoals>

## STAKEHOLDER DIALOGUE

We assess our stakeholders' views and concerns through our community involvement programme, regular dialogue, media analyses, investor meetings, as well as other relevant arenas. Complaints and other enquiries from external stakeholders are dealt with in a proper manner, including through our grievance mechanisms. The most important subjects in the stakeholder dialogue in 2022 were consequences of the Russian invasion of Ukraine, the energy crisis, the Covid-19 pandemic and topics such as EU Taxonomy, European Green Deal, and climate impact. Nature-related risks (in particular biodiversity), and human rights, are topics that receive increasing attention amongst our stakeholders. Information from the stakeholder dialogue is used in the annual update of our materiality assessment<sup>8</sup> and covered within our material topics.

As a cornerstone company in Sarpsborg, Norway, the local community is a particularly important stakeholder for Borregaard. We play an important role in the city and region as an employer, a customer of many suppliers, a socio-economic contributor through taxes and duties from our operations and as an associate for many stakeholders and voluntary organisations.

## RECOGNITION IN 2022

Borregaard was recognised for its sustainability leadership in climate change, forests, and water security by the global environmental non-profit organisation CDP, securing a place on its prestigious 'A' lists for climate change and forest. We also received an A- for water security.

In 2022, the sustainability rating company EcoVadis upgraded Borregaard to a platinum rating. Out of over 90,000 companies assessed, only 1% received the platinum rating. EcoVadis' assessments are widely used to evaluate companies in the value chain and give a comprehensive overview of Borregaard's social and environmental performance. In addition, we ended up in the top tier with a rating of A+ in Position Green Group's "ESG 100" report which ranked the 100 largest listed companies in each Scandinavian country within sustainability information.

Borregaard conducts an annual reputation survey among the general public assessing the local community's opinion (Østfold County) of Borregaard as a place to work, environmental conditions, contribution to the community and people's general impressions of the



company. In 2022, the survey once again confirmed the company's strong reputation as a sound company with good environmental conditions, an attractive place to work and positive contributions to the local community around Borregaard's largest plant.

## CLIMATE AND NATURE-RELATED RISKS AND OPPORTUNITIES

Borregaard has reported in line with the Task Force on Climate-related Financial Disclosure (TCFD) framework and Task Force on Nature-related Financial Disclosure (TNFD) v0.3 to get a total overview of potential risks and opportunities associated with climate change. In the separate TCFD report<sup>10</sup> and preliminary TNFD<sup>11</sup> report, we disclose how climate and nature-related impacts, dependencies, risks, and opportunities are integral parts of Borregaard's governance, strategy, risk and impact management, metrics and targets. The figure below summarises our main climate and nature risks and opportunities. In Note 28 (see page 144), we have disclosed information about financial impact in a 2030 perspective for the main climate and nature related risks.

The climate-related scenario analysis of our climate and environmental strategy addresses two different scenarios, well below 2°C and business as usual, to show how climate change may impact our operations and the value chain. A qualitative scenario analysis was conducted to evaluate the resilience of our climate and environmental strategy. In the figure below, the main risks and opportunities from the scenario analysis<sup>6</sup> are listed.

/ <sup>6</sup> The scenario analysis is published at [borregaard.com/sustainability/sustainability-documentation](https://borregaard.com/sustainability/sustainability-documentation)

/ <sup>8</sup> See a full version of this report at <https://www.borregaard.com/sustainability/sustainability-documentation/>

/ <sup>10</sup> The TCFD report is published at [borregaard.com/sustainability/sustainability-documentation](https://borregaard.com/sustainability/sustainability-documentation)

/ <sup>11</sup> The TNFD report is published at [borregaard.com/sustainability/sustainability-documentation](https://borregaard.com/sustainability/sustainability-documentation)

CLIMATE RISKS	CLIMATE OPPORTUNITIES
Current and emerging carbon pricing mechanism, see page 65 and the TCFD <sup>10</sup> report	<b>Resource efficiency:</b> High utilisation of raw materials and energy, see page 41
Increased energy prices, see page 64	<b>Renewable energy:</b> Technology available for reduction in direct GHG emissions from energy consumption, see pages 64-65
Availability of forest raw material, see pages 56-58	<b>Product and services:</b> Low-carbon products that replace fossil alternatives, see examples at pages 46-47
<b>Physical acute:</b> Disturbance in supply chain or operations, see page 91, the scenario analysis <sup>6</sup> and the TCFD report <sup>10</sup>	<b>Capital markets:</b> High ESG trust, see page 60
<b>Physical chronic:</b> Sea level rise, see the scenario analysis <sup>6</sup> and the TCFD report <sup>10</sup>	<b>Resilience:</b> Products in many different markets, high competence and innovation rate for new developments, see pages 6, 84 and 53

In examining our nature-related impacts, we established our influence on a variety of ecosystems: boreal forests, freshwater ecosystems, salmon stocks, and land and air pollution. We are actively working on and monitoring our risks both in terms of setting targets to minimise our nature-related impacts and maintaining an approach to sustainable sourcing and transition to a more circular economy. Our nature-related dependencies are focused on access to wood raw materials and fresh water sources.

In evaluating our risks in relation to our dependencies and impacts on nature, we also identified our opportunities to maintain a sustainable operational strategy. As our

products have a wide range of applications, our business is more adaptable to unforeseeable changes. The products are also resilient to shifting market demand, which is steadily going towards more sustainable products.

Going forward, Borregaard will strive to keep up with and stay ahead of climate and nature-related regulations. We will continue our research and development of new sustainable products towards a shift to circular economies.

NATURE RISKS	NATURE OPPORTUNITIES
Emerging legislations, see pages 56 and 60	<b>Market:</b> Target to purchase 100% certified wood, see page 56
<b>Reduced water quality:</b> If failure to reduce COD emissions, see pages 72-73 for our plan to reduce COD	<b>Utilisation of wood:</b> Increase value-added of existing products and develop new bio-based products, see page 41
<b>Air pollution:</b> If failure to reduce emissions to air of NO <sub>x</sub> , SO <sub>2</sub> , dust, see pages 69-70 for our plan to reduce emissions	<b>Resource efficiency:</b> Sidestreams from the cellulose production are utilised to produce lignin-based biopolymers, biovanillin, bioethanol and energy, see page 42
Forest raw material availability, pages 56-58	<b>Growing markets:</b> Water-intensive industries shifting towards specialised lignin-based biopolymers, see page 48

/ <sup>6</sup> The scenario analysis is published at [borregaard.com/sustainability/sustainability-documentation](http://borregaard.com/sustainability/sustainability-documentation)

/ <sup>10</sup> The TCFD report is published at [borregaard.com/sustainability/sustainability-documentation](http://borregaard.com/sustainability/sustainability-documentation)

# MAIN AREAS

Our most important and material sustainability topics are described in more detail through chapters A to C in this sustainability report:



Sustainable business model



Climate and environmental engagement



Care for people and competence development

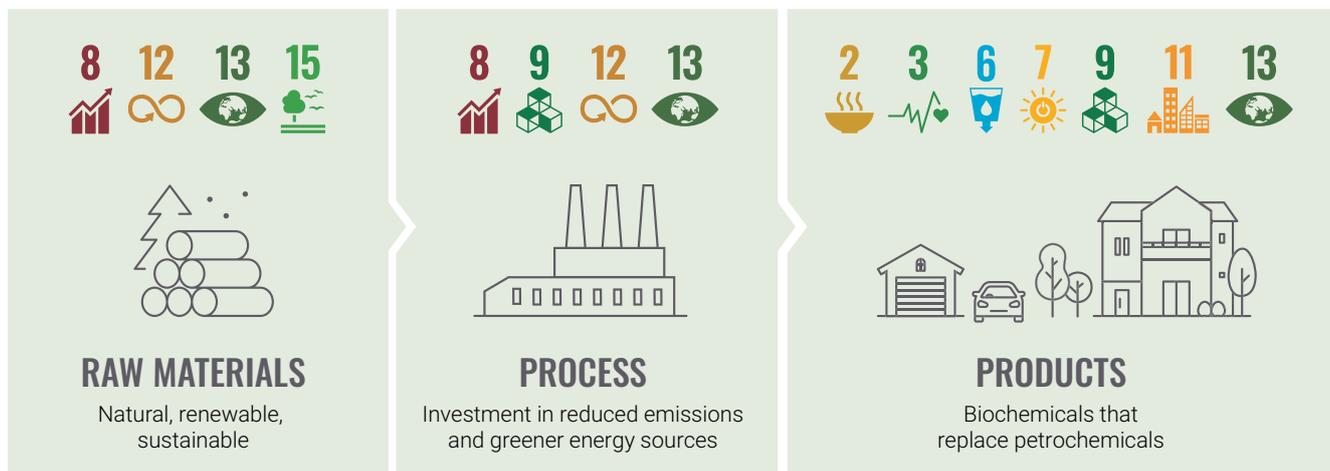
## A | SUSTAINABLE BUSINESS MODEL

Our understanding of sustainability and corporate responsibility derives from the fact that our business model itself, the way we run our company and the products we produce, is sustainable and meets global needs.

The world faces major challenges related to population growth, climate change and resource access. These challenges will generate an increased demand for climate friendly solutions for food production, infrastructure, transportation, housing, energy and jobs. Borregaard provides renewable products and solutions to replace fossil-based alternatives. Utilising the different components of wood, we produce lignin-based biopolymers and biovanillin, speciality cellulose, cellulose fibrils and bioethanol for a

variety of applications in sectors such as agriculture and aquaculture, construction, pharmaceuticals and cosmetics, foodstuffs, batteries and biofuels.

Successful development and marketing of our bio-based products will have a positive impact both on the environment and our customers and end-users. Borregaard's products have a positive impact on several SDGs, such as food and feed production (SDG 2), construction and infrastructure (SDG 9 and 11), clean energy (SDG 7), transportation solutions (SDG 9) and chemicals for water purification (SDG 6). Most of Borregaard's products have a favourable climate footprint compared with fossil-based alternatives and will contribute positively to climate change mitigation (SDG 13).



The illustration shows how our business impacts different SDGs along the value chain as well as how our products contribute to reach many SDGs.

# THE CIRCULAR ECONOMY AND CASCADING USE OF BIOMASS

In a circular economy<sup>12</sup>, the aim is to make the best possible use of society's resources for as long as possible, simply explained by the 3 R's: Reduce, Reuse and Recycle. This can be done through the high utilisation of raw materials, reducing waste, emissions, and the use of energy, as well as by reusing and recycling products.

One of the basic principles is eco-design; to design products in a way that ensures that materials can be recovered more efficiently and to view waste as a resource.

## Transition to a circular economy

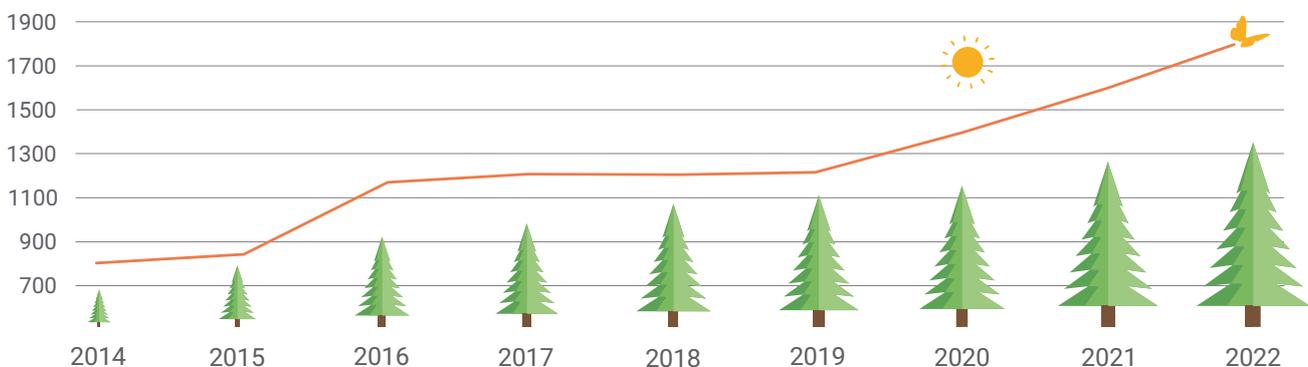
High raw materials utilisation, including efficient utilisation of sidestreams and cascading use are cornerstones of a circular economy. In this context, cascading means that the sidestream from one process is used as feedstock for the next. In this way, we gain more value-added by utilising the raw material for multiple products rather than producing just one product. The value-added and environmental contributions, including climate benefits, in this concept is higher than utilising the wood for energy purposes only.

## Cascading use

Cascading use can both materialise within a cluster of companies and within an integrated production set-up.

In Norwegian forest-based industries, all parts of the tree are utilised for products. Wooden construction material<sup>13</sup>

## VALUE CREATION FROM BORREGAARD'S BIOREFINERY (NOK per solid cubic meter)



The figure shows the increase in value creation in NOK per solid cubic meter of wood from Borregaard's biorefinery in Sarpsborg. Value creation is defined as the value of products sold from the biorefinery minus the cost of materials, services and depreciation.

<sup>12</sup> <https://ec.europa.eu/eurostat/web/circular-economy>

<sup>13</sup> <http://www.treindustrien.no/nokkeltall>

[https://www.prosess21.no/contentassets/8fdf5202cb224ce0bb2cf1aa1a9a9384/prosess21\\_biobasert-prosessindustri\\_ekspertgrupperapport\\_def.pdf](https://www.prosess21.no/contentassets/8fdf5202cb224ce0bb2cf1aa1a9a9384/prosess21_biobasert-prosessindustri_ekspertgrupperapport_def.pdf)



**CONSIDERING OUR PRODUCTS ARE BASED ON A RENEWABLE, NON-TOXIC RAW MATERIAL, THEY REPRESENT NO NEGATIVE IMPACT WHEN THE END PRODUCTS ARE RECYCLED.**

is the main driver for harvesting trees in Norway. The most valuable part of the tree is used for this purpose. 25% of the wood entering the sawmills becomes residuals in the form of wood chips to our industry. The remaining part of the tree and the residual wood chips from the sawmills are raw materials for Borregaard’s sustainable, high value products.

Borregaard’s biorefinery is an extraordinary cascading operation where wood, which consists of fibres, lignins, and sugars, is converted into cellulose and a variety of other valuable products. The sidestream from the cellulose production is first utilised in the production of bioethanol before the rest is converted into lignin-based biopolymers. Parts of the lignin are also used in the production of biovanillin, and parts of the cellulose are converted into cellulose fibrils. Some sidestreams from production are sold to other industries, which in turn use them as raw materials in their production. Knot pulp, which is removed from the cellulose and utilised for packaging materials and bark for soil conditioning, are examples of such utilisation. The sidestreams that can not be utilised for products are converted into biogas or biomass used for energy in the production processes.

By using sidestreams to produce valuable biochemicals and biomaterials, we secure high resource efficiency of

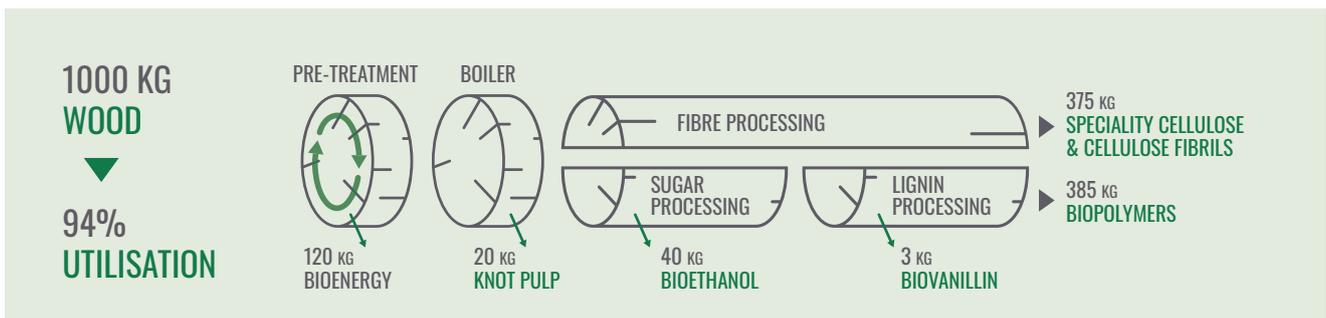
the renewable raw material sourced, which is key to the low-carbon circular bioeconomy.

Borregaard’s most important raw material, Norway spruce, is harvested from certified forests. We source wood from nearby forests by sustainable transportation, in which health and safety, emissions and costs are considered. In this way, Borregaard, together with external suppliers and customers, is part of a complex and well-established cascading system for bio-based products, intermediate products and sidestreams. In other words, the Norwegian forestry sector and Borregaard’s biorefinery are built on the principles of both cascading and circular use.

Borregaard contributes to strengthen circular value chains and promote circularity by offering sustainable solutions. Some of our products are used in sectors that have a high use of resources and where the potential for circularity is high, such as within electronics, batteries, vehicles, packaging, plastics, textiles, construction, food, water and nutrients. We promote circularity by offering sustainable solutions within these areas. Considering our products are based on a renewable, non-toxic raw material, they represent no negative impact when the end products are recycled.

**High raw materials utilisation**

The concept of utilising all parts of the harvested tree for valuable products such as building materials from sawmills and our bio-based chemicals, contributes to a high raw material utilisation. Borregaard’s biorefinery concept demonstrates high raw material utilisation where 94% of the sourced wood is utilised, of which 82% is turned into commercial products and 12% is used for energy. As a result, high resource usage and circular economy is integrated into our business model.



# THE CIRCULAR ECONOMY AND CASCADING USE OF BIOMASS





## SUSTAINABLE AND CLIMATE FRIENDLY PRODUCTS

As Borregaard's bio-based products contribute positively to several of the UN's sustainability goals, they are important to our stakeholders and society in general. By offering wood-based solutions that replace petrochemical-based products, we contribute to the transition to a circular economy with documented lower GHG footprint, utilising renewable carbon from plants. Our efforts are guided in both The Borregaard Way<sup>14</sup> and our overall policy for Environment, climate, health and safety<sup>15</sup>.

Most customers purchase products primarily for their performance. However, customers and end-users are becoming increasingly concerned about which products they buy, favouring natural starting materials, health benefits and low GHG footprints.

The positive environmental impact in our customers' value chains depends on the application and each customer's production process. Reduced energy consumption, increased lifetime of process equipment due to less corrosion, increased utilisation of raw material and increased production capacity, as well as less exposure to hazardous chemicals, are all examples of positive impacts our products have on our customers' processes.

End-users such as farmers experience increased crops and improved soil conditions from plant nutrition, as well as better working conditions related to less exposure to hazardous chemicals (pesticides). Increased life-time of lead batteries in energy storage systems and improved recycling ability of packaging materials are examples of long horizon environmental impacts caused by our products.

The impact on the environment from production of products is discussed in chapter B.

Based on our recent climate scenario analysis, we expect an increase in the materiality impact of this topic going forward.

<sup>14</sup> The Borregaard Way is published at [borregaard.com/sustainability/the-borregaard-way/](https://borregaard.com/sustainability/the-borregaard-way/)

<sup>15</sup> Borregaard's policy for Environment, climate, health and safety is published at [borregaard.com/sustainability/sustainability-documentation](https://borregaard.com/sustainability/sustainability-documentation)



## KEY NUMBERS, TARGETS AND RESULTS

### KEY NUMBERS

- Annual revenue growth 9.5% last five years
- Increased specialisation and value-added: "Specialities" 57% of revenues from lignin-based biopolymers and biovanillin, 85% of Speciality cellulose sales volume was "Highly specialised" products
- 60% (NOK 4.1 billion) of sales revenues from bio-based products with low environmental footprint compared with fossil-based products

### 2022

- Target: Assessment of Taxonomy alignment
- Result:** In progress. See separate report on Borregaard's approach to EU's Taxonomy 2022
- Target: Continued development of new bio-based products

**Result:** 15

### TARGETS 2023

- Increased/maintained specialisation level
- Improve environmental footprint through reduced emissions and effluents, process optimisation, energy conservation and higher raw material utilisation (see chapter B for relevant targets)
- Improve competitive edge and transparency in sustainability documented through 5 new EPDs and benchmark our bio-based products versus synthetics



# SUSTAINABLE SOLUTIONS



## PLANT NUTRITION <sup>2</sup> <sup>12</sup> <sup>13</sup>

Micronutrients provide nourishment to plants and help them grow healthier and larger and thereby help improve sustainable food production. By replacing oil-based chemicals such as EDTA (an oil-based chemical that binds and holds on to micronutrients) within plant nutrition, our wood-based products contribute to:

### Sustainable food production

- 90% CO<sub>2</sub> emission reductions<sup>16</sup>
- Better nutrient efficiency

## FEED <sup>2</sup> <sup>12</sup> <sup>13</sup> <sup>14</sup>

By-products from the fishing and aquaculture industry, such as waste from fish farming, gutting and the further processing of fish, can be conserved and turned into valuable feed products for farm animals. When conserving the by-products, the most common preservative is formic acid which requires a lot of energy to produce and creates the toxic gas carbon monoxide during the manufacturing process. By replacing formic acid within animal feed and fish by-products, our products contribute to:

### Sustainable feed products

- High utilisation of the raw material
- Improved EHS, less corrosivity
- 19% CO<sub>2</sub> emission reductions<sup>16</sup>

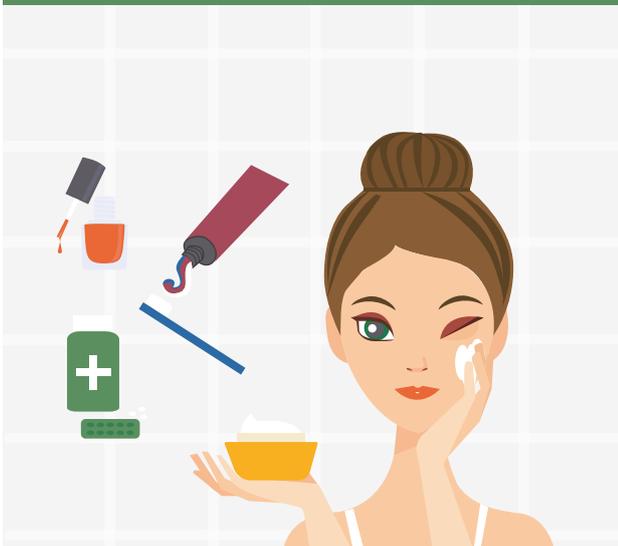


## CELLULOSE DERIVATIVES <sup>13</sup> <sup>14</sup>

Cellulose ethers are water-soluble polymers produced from cellulose. They function as stabilisers, thickeners and viscosity modifiers in many industries, including food, pharmaceuticals, personal care, oil field chemicals, construction, paper, adhesives and textiles.

By replacing pulp from cotton linters as raw material for production of cellulose ethers, our speciality cellulose contributes to:

- 80% CO<sub>2</sub> emission reductions<sup>17</sup>
- 50% reduction of potential acidification of soil and water<sup>19</sup>
- Non-GMO products
- Preservation of arable land



<sup>16</sup> Soldal and Modahl (2019): Environmental analysis of competing products for lignin from Borregaard OR 39.19, Fredrikstad: Ostfold research

<sup>17</sup> Soldal (2019): Environmental profile of cellulose from cotton linter AR 08.19, Fredrikstad: Ostfold Research

## ADHESIVES FOR CORRUGATED BOARD <sup>12</sup> <sup>13</sup>

Corrugated board is produced by combining various papers together in layers. The layers are glued together by using corrugated starch adhesives.

By using Borregaard's wood-based cellulose fibrils in starch adhesives, the adhesive bonding and strength are improved, contributing to:

- 21% CO<sub>2</sub> emission reductions from reduced adhesive consumption<sup>18</sup>
- Replacing toxic substances<sup>19</sup>
- Replacing modified starch with native starch
- Effective manufacturing and increased capacity
- Reduced waste by avoiding delamination and giving flatter boards
- Reduced energy consumption in corrugator
- USDA Certified Biobased Product

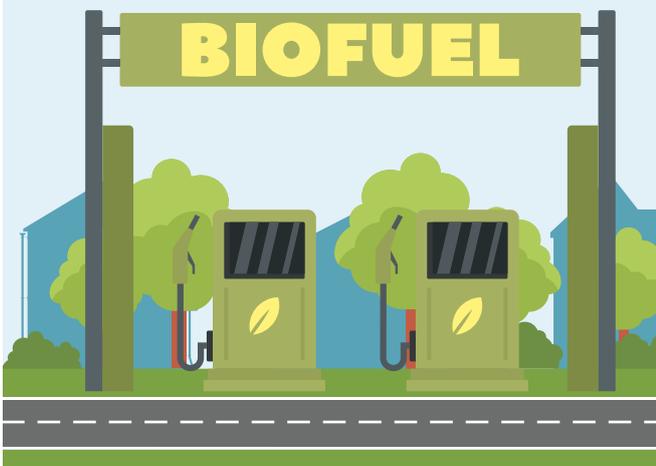


## BIOFUELS <sup>7</sup> <sup>12</sup> <sup>13</sup>

Second-generation biofuels are fuels that can be manufactured from various types of non-food biomass such as wood. Borregaard is a significant producer of advanced bioethanol in Europe.

By replacing petrol as fuel, our products contribute to:

- 85% CO<sub>2</sub> emission reductions<sup>20</sup>
- Effective land use (non-food raw material)



## VANILLA FLAVOUR <sup>2</sup> <sup>12</sup> <sup>13</sup>

Vanilla is one of the world's most used flavourings in food, drinks and perfume. However, the natural vanilla bean covers less than 0.5% of the worldwide demand. Consequently, the vanilla bean is often replaced by vanillin, an artificial vanilla flavour most commonly made from mineral oil. In fact, 90% of vanilla taste and smell derives from petrochemical alternatives. Borregaard is the world's only producer of wood-based vanillin.

By replacing oil-based vanillin in food, drinks and perfume, our products contribute to:

- 90% CO<sub>2</sub> emission reductions<sup>20</sup>
- Natural raw materials



<sup>18</sup> Norsus: AR 09.21 Memo\_starch adhesive with and without Exilva

<sup>19</sup> Europe Chemicals Agency (ECHA) (2021). Substance information, Substance Infocard, Sodium tetraborate ecahydrate, Borax. (Link: <https://echa.europa.eu/substance-information/-/substanceinfo/100.129.152>)

<sup>20</sup> Baxter and Brekke (2016): Competitor product environmental analysis for Borregaard's products, AR.06.16, Fredrikstad: Ostfold Research

## HOW WE WORK

### Sustainability dimensions in customer solutions

Borregaard's products solve different challenges for different customers. Some of our customers buy our products for their low GHG footprint. Borregaard's wood-based bioethanol is a good example of this. Compared with petrol, this advanced alternative has at least 85% lower greenhouse gas emissions.

Other customers, especially those who operate in consumer markets, prefer using natural ingredients or ingredients made from natural raw materials in their products. The market for biovanillin is growing. This trend is expected to continue and is likely to be reinforced in parallel with the world's growing sustainability focus.

Health and safety aspects influence customers' purchasing behaviour. Borregaard's wood-based products represent a non-toxic substitute for chemicals with negative health exposure. Our biopolymers and cellulose fibrils are examples of products replacing harmful chemicals in applications such as coatings, agriculture and adhesives.

Borregaard produces sustainable crop solutions, including ingredients for plant nutrition. For instance, when used in the production of corn, vegetables and fruits, Borregaard's lignin-based biopolymers improve fertiliser efficiency, increase the plants' resistance to stress and enhance crop quality and yield.

Sustainable lignin-based biopolymers can play a key role in optimising the efficiency of water-intensive industries such as agriculture, oil production and mining. Borregaard is cooperating with customers and universities in a research project funded by the Research Council of Norway to find solutions within these industries.

For some applications, our products do not replace fossil-based alternatives as the alternative is bio-based. However, Borregaard's products could have other important sustainability dimensions such as higher performance per kilo product, increased land use efficiency and reduced water usage during production.

Another important aspect for Borregaard is to be present in markets where we believe there will be a sustainability shift and thus future opportunities for our sustainable products.

### Environmental documentation of products

Documentation of sustainability impact is important both to increase market awareness of our sustainable

products, and to compare environmental performance with competing products.

Borregaard has engaged an independent third party, Norsus, to conduct a life cycle assessment (LCA) based on the ISO 14044/48 standard. The LCA analyses the environmental impacts of our production, from raw materials to finished products. The study was carried out for the first time in 2008 for the biorefinery in Norway. It has since been updated on several occasions, most recently in 2022 when it was improved and updated to the latest LCA standard. The LCAs are also used internally as a basis for making improvements in the environmental performance of our products and processes.

Further assessments in which some of Borregaard's products are compared with competing fossil-based alternatives confirm that our products provide better environmental performance than the alternatives in almost all environmental categories.

In 2022, we published updated environmental product declarations (EPDs) that included biogenic carbon uptake for 12 different product groups produced at our biorefinery in Norway. We also finalised an LCA for our lignin-based biopolymer plant in Florida and published four EPDs for products produced at this specific plant.

Certification is an important part of Borregaard's sustainability documentation and an independent third party has issued an assurance report on Sustainability reporting (see page 167 for EY's assurance report). Borregaard's advanced bioethanol holds an ISCC EU sustainability certification, our speciality cellulose products hold an ISCC Plus certification and are certified according to PEFC, while our cellulose fibrils and lignin-based biopolymers are certified through the US Department of Agriculture (USDA) BioPreferred program®. In the beginning of 2023, we aim to certify our lignin-based biopolymers produced in Norway according to PEFC.

The standards for sustainability documentation are moving towards strict use of third party verified data, standardised methods for calculation of biogenic CO<sub>2</sub> and more comprehensive product category rules to define environmental impact in LCA. Updating LCA assessments and EPD declarations of our products will continue in the years to come to ensure they reflect the changes in regulations and standards. In 2023, Borregaard will make a separate LCA for our lignin biopolymer plant in Wisconsin, followed by EPDs for products produced there.

# OUR PRODUCTS IMPROVE CUSTOMER'S SCOPE 3 EMISSIONS

Wood products contain carbon that is captured through photosynthesis and stored in the biomass. This is known as biogenic carbon. If the wooden product is combusted or decomposed, this carbon is released to the atmosphere as biogenic CO<sub>2</sub>, and the amount can be calculated according to NS-EN 16449:2014.

If the lifespan of the biogenic carbon product is more than 100 years before it is emitted back to the atmosphere, it can be considered as stored. A product with a long lifespan can have total net negative climate gas emissions if the emissions from production and transportation are less than the uptake when the tree is growing.

One way of demonstrating an environmental benefit of a certain product is through the substitution effect which describes the amount of GHG emissions that could be avoided if a fossil-intensive product is substituted with a bio-based product with the same function. Calculation of the substitution effect is not defined by standards. When applied, the purpose must be to compare specific products used in a specific application and not for the calculation of substitution of a portfolio of products at a company level.

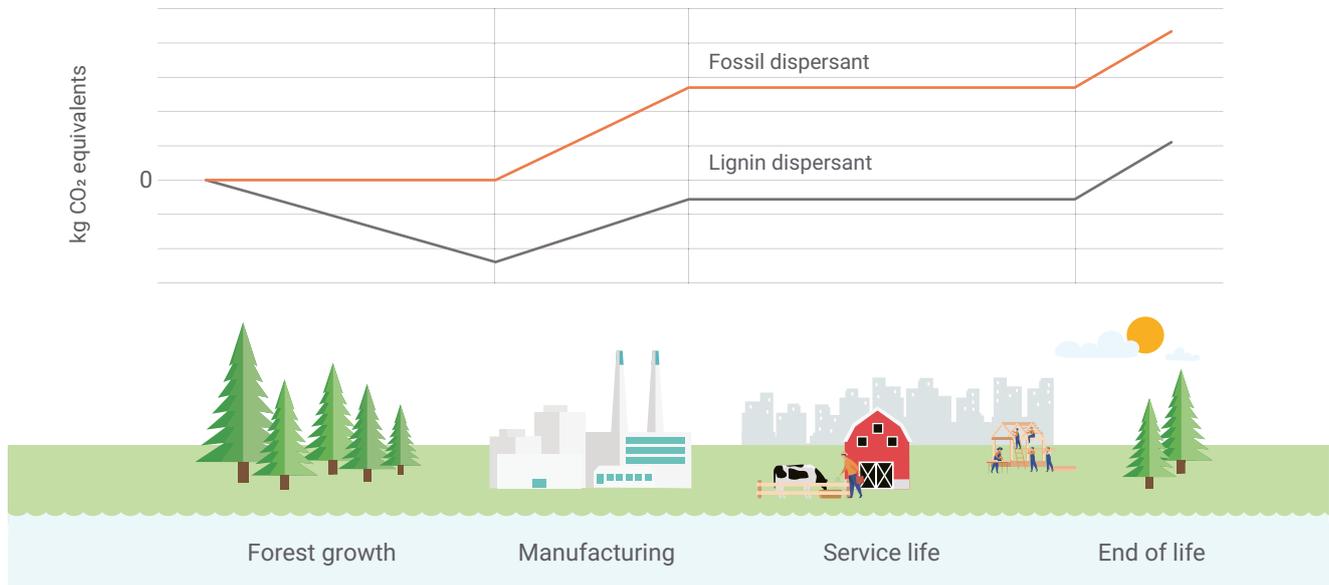
A comparison of the life cycle of a lignin-based dispersant from wood versus a synthetic dispersant based on a fossil raw material is shown in the figure below. During forest growth, trees capture CO<sub>2</sub>. The captured CO<sub>2</sub> in the bio-based lignin raw material will account as negative CO<sub>2</sub>. The raw material for fossil-based synthetic dispersant will start at zero. During production, the process of extracting and refining the final product contributes to a certain environmental load for both lignin-based and synthetic dispersants. In our example the CO<sub>2</sub> emissions connected to producing

1 kg of lignin-based biopolymers is more than 30% lower than producing 1 kg of synthetic dispersants. During the service life, no emissions are associated with the use of either product, which means that the CO<sub>2</sub> footprint is negative during the lignin-based dispersant's service life. In the last phase, end of life, a theoretical calculated CO<sub>2</sub> emission is included based on 100% degradation of both products to CO<sub>2</sub>. All in all, replacing a synthetic dispersant with a lignin-based dispersant results in a 70% lower CO<sub>2</sub> footprint from cradle to grave.

Borregaard's products' beneficial climate footprint contributes positively to our customers scope 3 emissions compared to using a fossil-based product.



## COMPARING CO<sub>2</sub> LIFECYCLE OF FOSSIL AND BIO-BASED PRODUCTS



Modahl, I. S. (2022) *Xylobond project: Environmental analysis of competing products for Borregaard's lignin-based biopolymers.*

### Sustainability dilemmas

Although Borregaard's products consistently have good climate and environmental performance, some applications still represent dilemmas. Examples of such applications are oil extraction, fossil energy systems, selected crop protection products and cigarette filters.

Borregaard's exposure to such applications is limited and our products either represent an improvement in an established value chain or can, with further innovation efforts, be used in the manufacturing of products for more sustainable applications. Consequently, these products may represent new sustainable long-term opportunities.

Most of our products are bio-based. However, Borregaard also manufactures and sells products based on fossil or non-renewable raw materials, such as fine chemical intermediates for contrast agents, aroma chemicals and certain products for agricultural markets. These products may be difficult to produce using bio-based raw materials or there may be no bio-based alternatives. Nevertheless, the products are often complementary to Borregaard's bio-based products and supplement our overall offering to the market. However, we are constantly assessing possibilities of developing bio-based or more sustainable alternatives to raw materials, process chemicals or finished products.

### DEVELOPMENTS IN 2022

The EU Taxonomy is a new classification system, establishing a list of environmentally sustainable economic activities. The system can play an important role in helping the EU scale up sustainable investment and implement the European Green Deal. It can provide companies, investors, and policymakers with appropriate definitions for which economic activities can be considered environmentally sustainable.

The processes in Borregaard's biorefinery are integrated in value chains that substantially support and enable transition to a circular economy, whereas our bio-based products significantly contribute to climate change mitigation. Moreover, the biochemicals we manufacture are in some cases a less polluting substitute for another existing chemical classified as hazardous. Borregaard's activities could therefore be substantially contributing to three of the environmental objectives in the EU Taxonomy: (1) Climate change mitigation, (2) Transition to a circular economy, and (3) Pollution prevention and control. We have published a separate report on our approach to the EU Taxonomy for 2022<sup>21</sup>. The EU Taxonomy regulation was effective from 1 January 2023.

<sup>21</sup> The taxonomy report is published at [borregaard.com/sustainability/sustainability-documentation](https://borregaard.com/sustainability/sustainability-documentation)

## THE WAY FORWARD

We continue to see business opportunities in several markets where our bio-based products can contribute to improved sustainability in different value chains. Going forward, Borregaard's strategic priorities lie within specialisation through innovation and market development for our wood-based products.

By focusing our efforts on innovation and productivity, we will increase the value-added from our unique biorefinery in Norway as well as our production units in Europe and the US. We will continue the development of our radical innovations, such as our cellulose fibrils business, through continued market development across multiple applications and geographies.

The EU Taxonomy is under development and relevant technical screening criteria for water, pollution, circular economy and biodiversity for our business are still not published. Products such as speciality cellulose and cellulose fibrils will probably be covered by the EU Taxonomy when the circular economy criteria are finished. Alignment assessments regarding climate mitigation and circular economy criteria will be conducted in 2023.

Targeted investment opportunities within sustainable conversion of bio-based raw materials to high value-added products that represent synergies with our existing business and competence, could also be potential growth opportunities. Selection criteria for potential acquisition candidates have been developed, such as a strong sustainability profile, synergies with Borregaard's existing business and competence and a significant revenue potential.

The investment in Alginor in 2021 (current ownership 25%) is an example of such an investment. Alginor is a marine biotech company based in Norway. The company is in the development phase and its core technology lies within sustainable harvesting and biorefining of kelp into high-value ingredients to global markets for pharmaceutical and nutraceutical applications. There are many similarities between Borregaard's business model and Alginor. Borregaard has contributed to process development by utilising its biorefinery demonstration facility in Norway.

In 2024, Borregaard will complete an investment for volume expansion of highly specialised lignin-based biopolymers for end markets such as energy storage, agrochemicals, pigments and dyes. In these markets, our lignin-based products offer a favourable CO<sub>2</sub> footprint and thus reduced scope 3 emissions.



# PRODUCT STEWARDSHIP

Borregaard's main products are lignin-based biopolymers and speciality cellulose, representing about 80% of our revenues. Both are exempted from registration under the REACH regulation, which means their use is associated with low risk.

About 20% of our revenues are from products that are subject to classification according to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Borregaard is monitoring possible impacts of EU's new Chemicals Strategy for Sustainability (CSS) that recognises the important role of chemicals in addressing the world's climate and environmental challenges. This strategy also involves a revision of both the REACH and Classification, Labelling and Packaging (CLP) Regulations.

Borregaard has a hazardous substances management programme where substances which are subject to registration under the REACH regulation undergo a thorough hazard and risk assessment according to regulatory requirements. An electronic chemical health, environment and safety system is used for the identification and monitoring of substances of concern: REACH Candidate List and REACH Authorisation List. Borregaard does not produce substances included in these lists. The classification according to the CLP regulation of all products placed on the market is being evaluated based on intrinsic properties of the ingredients and/or toxicological data for the product. The product safety programme regularly revises and updates Safety Data Sheets. The risks for hazardous conditions and unexpected exposure due to use of chemicals from Borregaard are low.

In order to be compliant with upcoming regulations such as "UK REACH" in the United Kingdom and "KKDIK" in

Turkey, Borregaard is preparing for the registration of relevant substances for those markets. International and national chemicals legislation require tests and registrations with the authorities before products can be safely and legally placed on the market. Animal testing might therefore be necessary in some exceptional cases to ensure compliance with relevant directives. Our policy on Animal testing and welfare<sup>22</sup> is available on our homepage, and a procedure for approval and performance of animal testing is in place. The main part of testing performed in recent years has been for the purpose of animal feed applications (animal testing programme).



<sup>22</sup> Borregaard's policy on Animal testing and welfare is published at [borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/](https://borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/)



## STRONG INNOVATION EFFORTS

Maintaining strong innovation efforts is one of Borregaard's strategic priorities and sustainability has become a key driver in our innovation processes. Long-standing research and development have resulted in sustainable solutions that respond to important long-term global challenges. We firmly believe that this strong trend represents a great opportunity for our company that will have a positive impact on our profitability. The positive effect from sustainable products will increase as new products and solutions are developed.

To maintain our position as the world's most advanced biorefinery, Borregaard is dependent on improving the biorefinery concept through identification of new bio-based raw materials, as well as development of new products with high value and good environmental profile. Innovation also plays a key role in developing the sustainability aspects of our business model through solutions that reduce our process emissions and environmental impact as well as improve the environmental footprint of our products as stated in our policy for Environment, climate, health and safety<sup>15</sup>.



### KEY NUMBERS, TARGETS AND RESULTS

#### KEY NUMBERS

- Borregaard's R&D and innovation efforts amounted to NOK 192 million (2.8% of company revenues)
- Innovation team of 93 employees, including 29 PhDs
- R&D grant of NOK 26 mill in 2022
- Innovation rate of 15.2%<sup>23</sup>

#### 2022

- Target: Innovation rate of 15%

**Result:** 15.2%

#### TARGETS 2023

- Innovation rate of 15%

<sup>15</sup> Borregaard's policy for Environment, climate, health and safety is published at [borregaard.com/sustainability/sustainability-documentation](https://borregaard.com/sustainability/sustainability-documentation)

<sup>23</sup> Innovation rate = Share of sales revenues from new products and applications introduced during the previous five years.

## HOW WE WORK

Borregaard's innovation success is a result of world class in-house R&D and close co-operation with sales, manufacturing, customers and research institutes and universities in several countries. The innovation work is organised in one "Innovation Management Team" for each business unit. The teams are cross functional and work with the whole portfolio, from idea to implementation. This cross functional work is crucial in our efforts to achieve the positive impacts from innovation.

Borregaard has introduced a set of assessment criteria to ensure that our entire project portfolio is evaluated in terms of sustainability. Each project proposal, both concerning new products and processes as well as new product applications, is subject to Borregaard's sustainability criteria throughout the projects' lifetime. This ensures that the most sustainable products are developed and that we avoid potential negative impact from non-sustainable innovations.

The sustainability assessments are related to how we run our business and the effects our products have on our customers' sustainability profile. Use of raw materials, direct and indirect effects on emissions to air and water as well as health and safety aspects in the working environment at Borregaard are assessed, as well as our products' capabilities to save energy, reduce CO<sub>2</sub> emissions, limit exposure to toxic chemicals and minimise water consumption in our customers' value chains. These assessments, along with technological and market analyses, form the basis for decision-making when it comes to prioritising resources in our innovation work.

Borregaard has an innovation team of 93 employees, including 29 PhDs. Central R&D is located in Sarpsborg, Norway, which at year-end 2022 employed 72 people from 8 different countries. R&D activities also take place at the R&D centres in India and the US. Each R&D unit represents a centre of excellence with targeted collaboration with customers, universities and research institutes in several countries.

In 2022, Borregaard recognised NOK 26 million (NOK 22 million) in grants for ongoing R&D projects, mainly from the Research Council of Norway, Innovation Norway and Skattefunn<sup>24</sup>.

## DEVELOPMENTS IN 2022

Borregaard's innovation efforts during 2022, concentrated on supporting the overall specialisation strategy and

resulted in an innovation rate of 15.2%.

Within lignin-based biopolymers, our target was specialisation and value growth in high-value and advanced applications such as agriculture, energy storage systems, vegetable leather tanning, textile printing and industrial binders. In these markets, Borregaard's favourable climate footprint enabled high value business. One example is the launch of a novel product range for crop protection formulations within agriculture that offers a 70% lower CO<sub>2</sub> footprint compared with the fossil-based alternative.

Our cellulose fibrils business had promising development within applications like corrugated board, coatings and agrochemicals. During the year, a significant number of potential customers was in the plant trial phase and we experienced a stable growth in active prospects.

The development efforts within speciality cellulose, biovanillin and bioethanol mainly concentrated on increased productivity, further improvement of sustainability profile and reduced energy consumption. Product development which allowed for introduction into new markets was also an important part of the speciality cellulose innovation portfolio.

Our innovation portfolio also contains explorative projects where the goal is to increase the product portfolio by utilising sidestreams to produce new bio-based products long term. During 2022, we have taken important steps forward within these projects.

## THE WAY FORWARD

Borregaard's strategic priorities include increased specialisation and value growth. We have a strong innovation portfolio which is key to supporting the specialisation strategy and includes a wide range of new products, processes and advanced applications.

Within lignin-based biopolymers, we will continue specialisation and value growth in high-value and advanced applications. We will launch novel, high-performance products for targeted applications with improved performance characteristics and continue the work to document the favourable climate footprint our products bring to our customers.

Within cellulose fibrils, business development of applications like corrugated board, coatings and agrochemicals will be targeted. High attention will also be

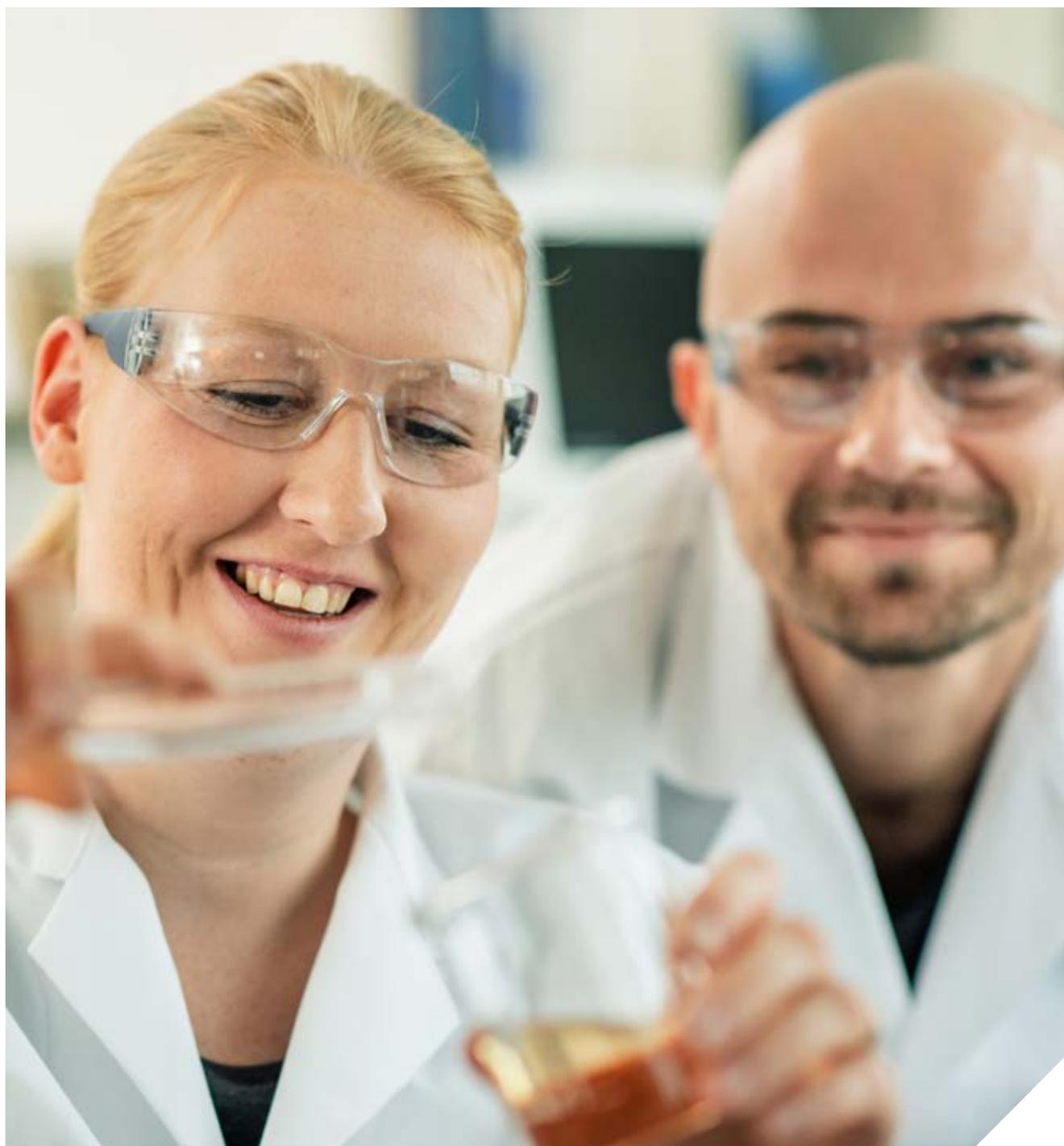
<sup>24</sup> A government programme designed to stimulate research and development (R&D) in Norwegian trade and industry.

given to plant trials as well as growing the number of active prospects.

The development efforts within speciality cellulose, biovanillin and bioethanol will continue to concentrate on increased productivity, further improvement of sustainability profile and reduced energy consumption. Product development which allows for introduction into new markets is also an important part of the speciality cellulose innovation portfolio.

We will continue our explorative projects to increase the product portfolio by utilising side streams. We are also positioning the company for inorganic growth through investments in companies/technologies which converts bio-based raw materials to chemicals and materials.

Important investment criteria are a strong ESG profile, a specialisation potential as well as synergies with Borregaard's existing business and competence.





## SUSTAINABLE FOREST RAW MATERIAL

Wood is an essential raw material for Borregaard as our business model is providing sustainable solutions based on renewable raw materials and full utilisation of all components of the tree. Borregaard is a substantial buyer of forest raw material and sources wood from sound forestry operations. As stated in our policy for Environment, climate, health and safety<sup>15</sup>, we strive for high raw material utilisation through our biorefinery concept.

The EU has several initiatives that deal with forest resources and put these in a climate and nature conservation perspective. "Land Use, Land Use Change and Forestry" (LULUCF) and the new Forest Act are among these initiatives. Borregaard follows the development of these policy areas closely and will evaluate possible consequences.



### KEY NUMBERS, TARGETS AND RESULTS

#### KEY NUMBERS

- Annual purchase: 1 mill solid cbm (Borregaard biorefinery)
- Origin: 81% Norway, 19% Sweden
- Harvested i.a.w. the country of origin's laws on felling and certification standards
- Borregaard is Chain of Custody certified
- 100% of wood suppliers certified i.a.w. PEFC or FSC®
- CDP Forest A score

#### 2022

- Target: 100% of the purchased wood to the biorefinery in Sarpsborg certified (FSC or PEFC)  
**Result:** 98% certified, 2% controlled i.a.w. PEFC and/or FSC standards
- Target: Collecting data and establish KPI for sourcing lignin raw material  
**Result:** Data collected and KPI in process

#### TARGETS 2023

- 100% of the purchased wood to Borregaard in Norway certified (FSC or PEFC)
- Establish KPI for sourcing lignin raw material
- The long-term target is securing availability of 100% certified raw material

#### HOW WE WORK

Wood is one of the few renewable raw materials that can be produced in large quantities. The availability, however, is not unlimited. Borregaard is impacted by supply, demand

and price of wood. Forestry and harvesting of trees impact nature and people and are vital from a climate perspective. The biodiversity of forests provides habitat for a variety of important species as well as providing recreational areas

<sup>15</sup> Borregaard's policy for Environment, climate, health and safety is published at [borregaard.com/sustainability/sustainability-documentation](https://borregaard.com/sustainability/sustainability-documentation)

for humans.

It is important that forest resources are used in an optimal way and that forest management is carried out in a responsible and sustainable manner. We impact this through our high raw material utilisation as well as strict requirements for how the raw material is grown, harvested and transported to our site.

To minimise the impact from felling and forestry operations, Borregaard attaches significant importance to sourcing wood from forests that are certified and managed in a proper, sustainable, and eco-friendly manner, including measures to maintain biodiversity. We ensure that our suppliers comply with the applicable certification schemes, laws, and regulations in the countries where the wood is sourced.

Borregaard will continue development of wood supply logistics in the Nordic market and the Baltic Sea region to expand the sourcing area and lower the cost of wood. There are few transportation restrictions to the biorefinery in Norway, and wood can be transported by road, rail, or sea. When available, we will prioritise rail before road for transportation of wood.

Borregaard's production units outside Norway receive lignin raw material from adjacent pulp mills which source PEFC<sup>25</sup> and/or FSC<sup>26</sup> certified or controlled wood.

Borregaard's use of certified wood implies that we do not purchase:

- Illegally harvested wood
- Wood harvested in violation of traditional and human rights
- Wood from forests in which high conservation values are threatened by management activities
- Wood from forests being converted to plantations or non-forest use; and
- Wood from forests in which genetically modified trees are planted

## DEVELOPMENT IN 2022

Our efforts towards achieving our goal to source 100% certified wood resulted in sourcing of 98% certified wood where the remaining 2% was controlled in accordance with PEFC and/or FSC standards. The last 2% could have been achieved by alternative sourcing. However, Borregaard decided to use our buyer influence and continue impacting and improving the original sources instead. The aim is to help the suppliers reach 100% certified wood, rather than excluding them.

<sup>25</sup> [pefc.org/](https://www.pefc.org/)

<sup>26</sup> [fsc.org/en](https://www.fsc.org/en)

Nature dependencies are gaining increased attention, and in 2022 we conducted a nature risk assessment according to the TNFD standard with emphasis on forest and water resources. By using certified wood, we will fulfil our ambitions to reduce our impact on these resources.

Environmental transparency and accountability are vital to tracking progress towards a thriving, sustainable future, also when it comes to forest raw materials. Borregaard has supported and contributed to the revision of the Norwegian PEFC Standard and the establishment of a Norwegian National Forest Stewardship Standard (NFSS Norway) through the Norwegian Pulp and Paper Association (TFB). We have also invited members of the certification working committee for separate discussions. The revision started in 2020 and final approval is expected in 2023.

NFSS Norway will take into consideration national and regional characteristics such as natural conditions, forest ownership structure and legislation in Norwegian Forests. The ten FSC principles have established 240 indicators related to ecosystem restoration, reforestation, protection of forests and other ecosystems, and biodiversity offsetting. The establishment of a Norwegian FSC Standard is a voluntary initiative by the industry and the goal is to increase the FSC volumes available in Norway.

The FSC and the PEFC certification standards contribute to the availability of sufficient, sustainable forest raw material and provide flexibility in the certification standards to meet customers' requirements.

## THE WAY FORWARD

Going forward, Borregaard will continue securing the supply of forest raw material in a sustainable way, through long-term relationships with our major suppliers. We will evaluate the consequences of the revised certification schemes that are expected to be valid from 2023 and we will continue to communicate our expectations and requirements regarding sustainability to our suppliers.

Our target of sourcing 100% certified wood will be maintained, and we aim to maintain our A rating in the CDP Forest reporting category.

Borregaard is engaged with external stakeholders to assess nature risks and their importance for business, in particular the aspects of the use of land. The purpose is to establish facts and a framework for businesses assessing nature risks and their consequences. This work will continue in 2023.

# SUSTAINABLE FORESTRY

The 2019 UN Special Report on Climate Change and Land<sup>27</sup> shows that land use and forests play a vital role, serving three important purposes:

- Climate: CO<sub>2</sub> uptake and storage
- Biodiversity: Provide the principal basis for important species
- Renewable raw material: For sustainable products that can replace fossil-based alternatives

## Climate

While trees are growing, they capture and store CO<sub>2</sub> from the atmosphere. As trees grow old, they capture less CO<sub>2</sub> and are ready to be harvested to become biomass for sustainable products that can replace oil-based alternatives. Some products, such as building materials, also serve as carbon sink as they store the CO<sub>2</sub> during the products' lifetime.

## Biodiversity

The forests are among the world's most biodiverse ecosystems and home to most of the Earth's plants, animals, bacteria, and other species. Forests provide vital products and services such as oxygen, clean air and water, as well as building materials, energy and raw materials for numerous everyday products. There is an increasing recognition of the wide-ranging benefits that forests provide to society, such as recreation and social welfare. Identifying and protecting both ecologically and culturally valuable sites is therefore an important part of forest management.

Deadwood is a natural habitat for many valuable and vulnerable species found in old forests. Normally, both the amount and variety of deadwood increase with the age of the forest. The forests must also provide the necessary habitat for species with different

requirements. Thus, variation in forest structure is key to conserving biodiversity.

## Key elements for sustainable forest management

A wide range of measures are needed to secure the forests' future role in obtaining biodiversity and mitigating climate change, as well as being a provider of climate friendly solutions. To secure carbon storage and access to sustainable raw materials, the amount of biomass must increase over time. Measures such as planting new trees after felling are important in this context.

Protecting important biotopes and increasing the amount of deadwood and old trees are examples of measures to secure biodiversity. Minimising adverse impact to soil and water from harvesting, soil preparation, road construction and creation of buffer zones to protect watercourses are other examples.

## Certification standards contribute to sustainable forestry

The certification of Norwegian forestry today is mainly according to the Norwegian PEFC Forest Standard<sup>28</sup> and the environmental management system ISO14001. PEFC is the world's largest forest certification system, with presence in around 50 countries. The certification requirements are stricter and more detailed than set out in the legislation and encompass environmental, social, and economic considerations, including biological diversity, outdoor life, climate, cultural monuments, long-term resource management and employees' rights. The requirements ensure that the forest owner safeguards all values and interests associated with the forest.

In 2022, the standard was revised in co-operation with 15 different organisations of which five of these are from the environment and outdoor life side. The requirements relating to environment and outdoor life are particularly tightened in the revised standard.

<sup>27</sup> IPCC, 2019: Summary for Policymakers. In: *Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems* [P.R. Shukla, J. Skea, E. Calvo Buendia, V. Masson-Delmotte, H.-O. Pörtner, D. C. Roberts, P. Zhai, R. Slade, S. Connors, R. van Diemen, M. Ferrat, E. Haughey, S. Luz, S. Neogi, M. Pathak, J. Petzold, J. Portugal Pereira, P. Vyas, E. Huntley, K. Kissick, M. Belkacemi, J. Malley, (eds.)].

<sup>28</sup> Program for the Endorsement of Forest Certification [cdn.pefc.org/pefc.org/media/2019-04/b017030b-c623-42b1-b494-d17f94bbd437/5706b1de-adae-596d-afb2-1d21060e9e08.pdf](https://cdn.pefc.org/pefc.org/media/2019-04/b017030b-c623-42b1-b494-d17f94bbd437/5706b1de-adae-596d-afb2-1d21060e9e08.pdf)

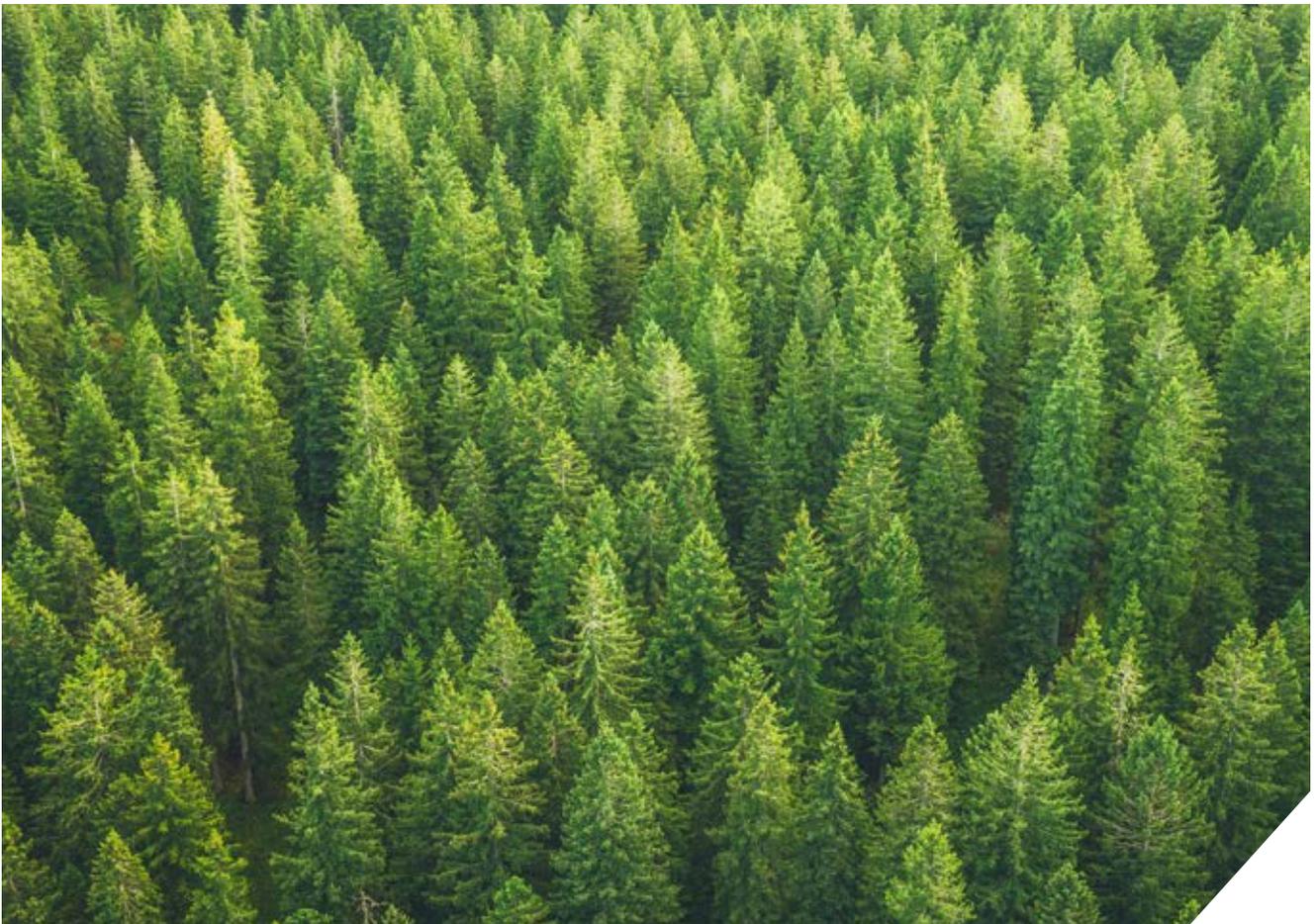


## NORWEGIAN FORESTS ARE INCREASING IN SIZE. FOR EVERY TREE THAT IS HARVESTED, TWO NEW ONES ARE PLANTED.

As an example, there will be a requirement for 5% of biologically important areas to be set aside for properties larger than 1500 acres. There will also be demands for increased consideration for birds by avoiding felling in important areas during the breeding season and protection of nest sites for birds of prey. There are also clearer targets and measures to increase the proportion of continuous-cover forestry and small group harvesting. The new standard with 30 different requirements is now up for international approval.

Environmental measures during the last 10 years have led to sustainability improvements in the Norwegian forests. The proportion of deadwood as the most important living environment has increased by 38% since the beginning of the 1990s, and the number of old trees has increased.

The transition to a society based on renewable and sustainable solutions with low-carbon footprint has resulted in an increased market for wood-based products. At the same time, Norwegian forests are increasing in size. For every tree that is harvested, two new ones are planted. Norwegian forests have been meticulously monitored since the 1920s by the Land Resource survey. The monitoring shows that Norwegian forests have grown three times over the last hundred years. Borregaard's raw material Norway Spruce makes up the largest volume in the forests. However, pine and deciduous trees account for most of the increase, which contributes positively to biodiversity in the forest<sup>29</sup>.



<sup>29</sup> National Forest Inventory [nibio.no/en/about-eng/our-divisions/division-of-forestry-and-forest-resources/national-forest-inventory](http://nibio.no/en/about-eng/our-divisions/division-of-forestry-and-forest-resources/national-forest-inventory)

## B | CLIMATE AND ENVIRONMENTAL ENGAGEMENT

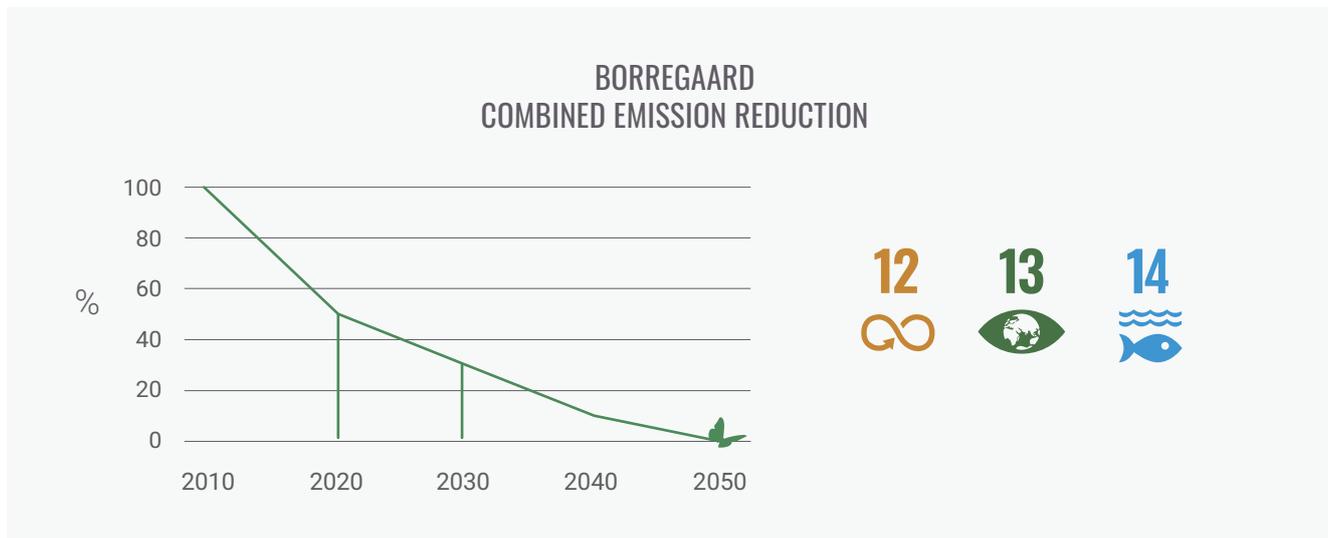
Borregaard is actively working on measures that can contribute to an environmentally sound resource management, as stated in our policy for Environment, climate, health and safety<sup>15</sup>. This is also an integral part of our business model and our sustainability strategy.

Emissions and other environmental issues are material to Borregaard and our stakeholders, both in view of the environmental benefits of our products themselves, and the importance of managing the risk of emissions to the environment. Our main negative environmental impact is emissions from our largest operational unit, the biorefinery in Norway. Thus, the results, targets and new initiatives in this chapter focus mostly on our biorefinery. Borregaard's other units are much smaller and represent less complexity and environmental impact.

We prioritise innovations and activities that can improve our processes by reducing emissions and waste, and by

improving water and energy efficiency. These processes are supported by certified environmental management systems. The highest risk production units are certified by ISO 14001 Environmental Management. Emissions from the various production units are regulated by national and/or local authorities.

Borregaard has been working systematically on reducing the environmental impact of our business for many years. We have reduced our total emissions to air and water by 50% during the last ten years. We will continue to reduce our emissions according to our own goals, the ambitions of the European Green Deal and the zero-pollution vision for 2050. In our long-term transition plan, effluents of COD to water and emissions of CO<sub>2</sub> to air will be prioritised. Emissions of other components will also be reduced. Borregaard expects a reduction in total emissions in 2030 and 2050 as indicated in the diagram below.



### Sustainability linked financing

Borregaard has made financial commitments linked to our main environmental targets: reduction of greenhouse gas emissions and reduction of effluents of organic matter to water (COD), by entering sustainability linked financing agreements with financial institutions. In 2022, Borregaard entered into a new sustainability linked financing agreement by signing a USD 50 million term loan with the Nordic Investment Bank. Previously, Borregaard has signed three

bilateral multicurrency revolving credit facility agreements totalling NOK 1,500 million with DNB, Skandinaviska Enskilda Banken and Handelsbanken. All facilities are linked to targets, and the margins can be adjusted based on our progress on three parameters: reduction of greenhouse gas emissions (scope 1 and 2), keeping emissions of COD to the River Glomma below certain levels and reduction of the Group's total recordable injury frequency.

<sup>15</sup> Borregaard's policy for Environment, climate, health and safety is published at [borregaard.com/sustainability/sustainability-documentation](https://borregaard.com/sustainability/sustainability-documentation)



## CLIMATE IMPACT AND EMISSIONS

Climate impact is one of Borregaard's main challenges, but it also represents an opportunity for our sustainable products and solutions. Our ambitions cover the entire value chain: from reducing negative impacts related to the sourcing of raw materials, to reducing emissions related to production and transportation of products to our customers. Reduced GHG emissions will contribute positively and directly to UN's sustainability goals. In this

way, we demonstrate how our business can help advance sustainable development by both minimising negative and maximising positive climate and environmental impacts. As stated in our policy for Environment, climate, health and safety<sup>15</sup>, our business model and strategy are compliant with the transition to a climate-neutral economy and with limiting global warming to 1.5°C in line with the Paris Agreement.



<sup>15</sup> Borregaard's policy for Environment, climate, health and safety is published at [borregaard.com/sustainability/sustainability-documentation](https://borregaard.com/sustainability/sustainability-documentation)

# CLIMATE CHANGE MITIGATION BY REDUCED RESOURCE USE

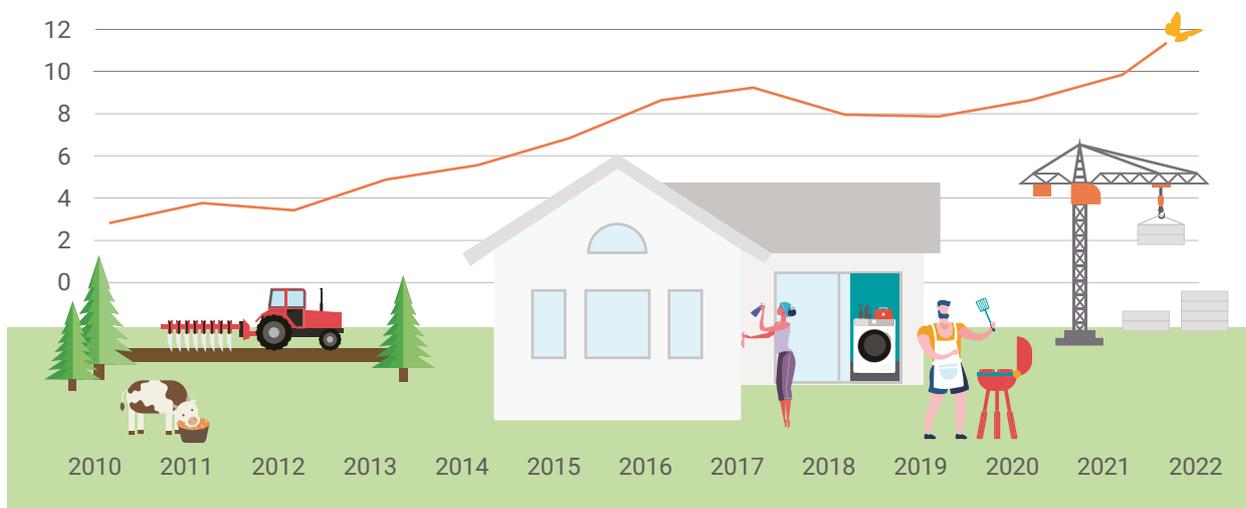
Products extracted from the biomass in the biorefinery process retain much of their natural molecular form. By utilising natural molecular structures and almost all the biomass, products produced in the biorefinery require less energy and chemicals during manufacturing, and therefore have less environmental and climate impact when compared to established synthetic alternatives.

The high utilisation of wood for products at the biorefinery in Norway (82%) results in a limited quantity of residual biomass and biogas available for energy. Therefore, Borregaard obtains heat energy from other sources like renewable electricity, energy recovery from production processes, incineration of sorted household waste and natural gas. Our continuous efforts to increase Borregaard's energy efficiency and use of renewable energy, as well as streamlining production, decrease the input factors per tonne of product produced. In this way,

the environmental footprint of our products is constantly reduced, while the value creation from the resources is increased.

The surplus energy from Borregaard's production processes is part of a symbiotic industrial ecosystem by serving as the main source of energy at the district heating plant in Sarpsborg. This sustainable energy source reduces the use of fossil fuel for heating.

## VALUE CREATION IN NOK 1,000 PER TONNES CO<sub>2</sub> SCOPE 1 AND 2



The figure shows the increase in value creation in NOK 1,000 per tonnes CO<sub>2</sub> scope 1 and 2 emissions. Value creation is defined as the value of products sold (revenues) minus the cost of materials, services and depreciation.

### We have divided this material topic into three subtopics:

How we work with direct GHG emissions; How we work with indirect GHG emissions and; How we work with local air quality.

### DIRECT GHG EMISSIONS (SCOPE 1 AND SCOPE 2)

Scope 1 and scope 2 emissions are mainly linked to our use of energy in the production processes. Thus,

Borregaard's strategy to reduce these emissions is switching to renewable energy sources and reducing the consumption of energy. In 2022, 86% of Borregaard's scope 1 and 2 emissions came from the biorefinery in Norway, 12% came from our operations in the US, while 2% came from our German operation.



## KEY NUMBERS, TARGETS AND RESULTS

### KEY NUMBERS

- Scope 1 and 2 reduced by 28% since 2009
- Scope 1: 157,768 tCO<sub>2</sub> e
- Scope 2: 56,511 tCO<sub>2</sub> e
- Total energy consumption 1,781 GWh, of which 59% renewable
- 91% of energy consumption covered by ISO 5001
- CDP Climate A score

### 2022

- Target: Develop and publish transition plan for reduction of scope 1 and 2 GHG emissions

**Result:** Achieved, transition plan published at Borregaard's Capital Markets Day (September 2022)

### TARGETS

- Initiate sourcing of green electricity to electrify spray dryer operations at Borregaard Norway
- Start the investment programme for fast-tracking electrification of spray dryer operations
- Science-based target for scope 1 and 2 (base year 2020):
  - 2030: 42% absolute reduction
  - 2050: 90% absolute reduction (net-zero)

*A complete list of reported GRI indicators is shown from page 100*

### HOW WE WORK

Borregaard's investments in renewable energy sources and energy efficiency have resulted in reduced GHG emissions over the last 13 years. The investments are mainly within technology for energy efficiency and utilisation of renewable energy sources such as hydropower and biogas.

Energy efficiency is the backbone of our GHG reduction plan and correlates with our ambitious science-based targets. Our GHG reduction transition plan was presented

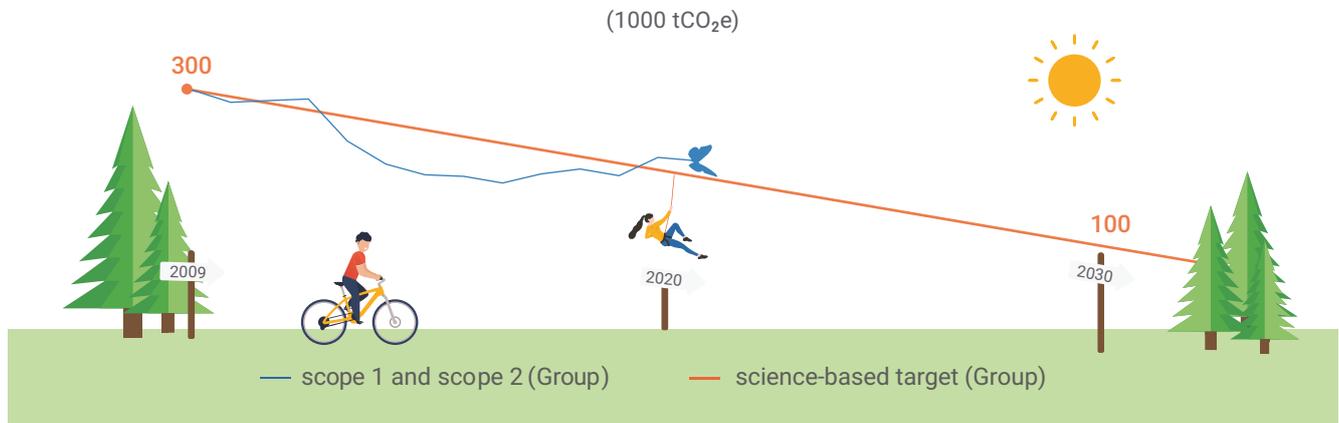
at our Capital Markets Day in September 2022, and will be in line with our commitment to a science-based target consistent with limiting global temperature rise to 1.5°C. The major investments will be at the biorefinery in Norway. The transition plan is illustrated on page 65.

Consequently, the availability of renewable energy and the technology to utilise it is a key priority for us. Examples of such measures are investments in new innovative technologies, such as a highly efficient heat pump and

technology for recycling of waste heat to improve efficiency of evaporation. We apply for support for energy efficiency

measures from various government support schemes such as Enova<sup>30</sup>.

## GREENHOUSE GAS REDUCTIONS AND TARGETS



The illustration shows Borregaard's progress towards our science-based target. Scope 1 and Scope 2 emissions had a slight decrease from 2021 to 2022. The progress has temporarily slowed down due to use of more fossil-fuel for energy caused by the energy crisis in Europe.

Development in technologies for Carbon capture and storage (CCS) or sustainable Carbon capture and use (CCU) may be a prerequisite to achieving the target in 2050. Borregaard has joined a cluster of companies in establishing CCUS Norway, a non-commercial and science-based organisation that serves as a knowledge-sharing network. Members from academia, the industry and technology developers come together to share knowledge and experience on environmental and resource efficient carbon capture and storage or usage (CCUS).

Our operations in Norway meet the continuous need for the base load of heat energy in the form of steam through energy recovery from waste, internal bio-based sources and heat recovery from production. For the variable load of heat energy, we can use either electrical boilers or a multifuel boiler. The GHG emissions associated with the production of heat energy will vary from year to year, depending on both the production volume and the renewable energy share for the variable load. As shown in the transition plan below, we have an increase in the GHG emissions compared to the base year 2020 due to impact on electricity cost from the energy crisis, explained under Developments in 2022 below.

GHG emissions, energy consumption and progress in reduction targets for Borregaard's different units, are reported monthly or quarterly. At our biorefinery in Norway, we have a dedicated Energy team responsible for monitoring and reporting on targets related to energy consumption and GHG emissions. The team also

addresses changes that could have negative or positive impact on our operations, such as regulations, energy cost including CO<sub>2</sub> and development in technology and supply of renewable energy, such as power from hydro or wind.

### DEVELOPMENTS IN 2022

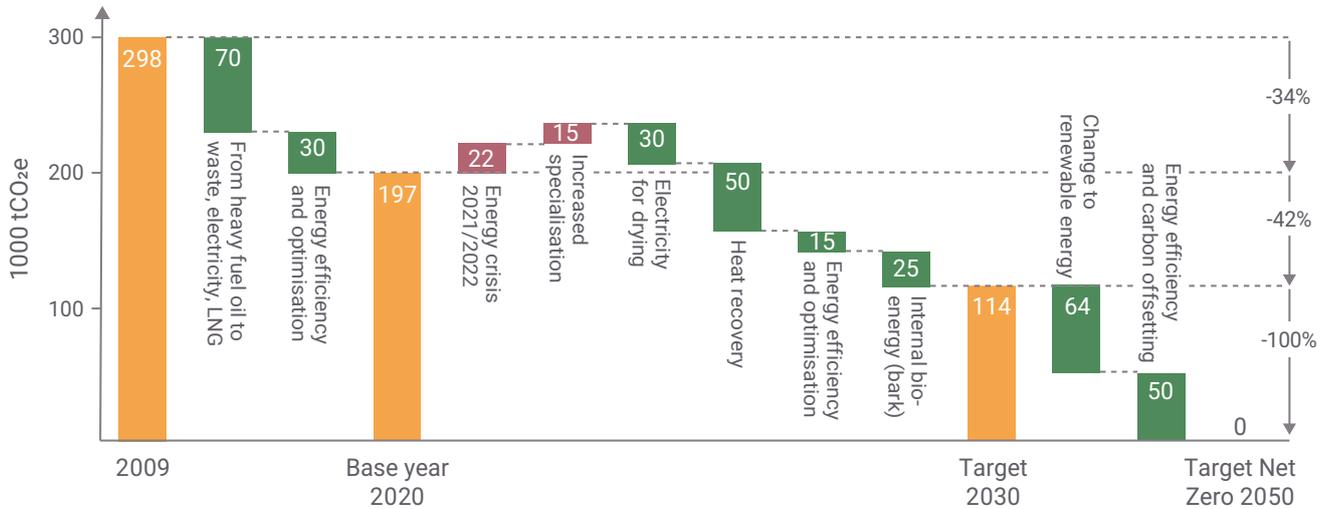
The Russian invasion of Ukraine and reduced use of Russian LNG led to an energy crisis in Europe, which again resulted in higher direct energy costs for Borregaard. In the second half of 2022, Borregaard initiated two measures to mitigate this direct cost exposure significantly while at the same time making more electricity and natural gas available for Continental Europe:

- Finalising an energy conservation project in conjunction with the bio-boiler that significantly reduced the consumption of LNG at the Sarpsborg biorefinery, and
- introducing the flexibility to utilise light oil as input to the multi-fuel boiler in periods where electricity and natural gas are strained in Europe.

GHG emissions for scope 1 and 2 decreased by 2% at Borregaard compared with 2021. The temporary introduction of light oil as an alternative for variable heat energy production led to an increase in GHG emissions. However, this increase was offset by energy efficiency measures and lower GHG emissions from the external waste incineration plant at the biorefinery in Norway. Borregaard's reduction of dependency and consumption of LNG as an

<sup>30</sup> Norwegian government agency that promotes eco-friendly changes in relation to energy use, renewable energy production and new energy and climate technology

## BORREGAARD'S TRANSITION PLAN TO CUT GHG EMISSIONS



The diagram shows our measures to reach our science-based target from base year 2020 towards our near-term target in 2030 and net-zero target in 2050, and the results of completed measures from 2009 to 2020. The increase from 2020 is due to increased fossil-fuel for energy as a result of the energy crisis in Europe. Net-zero means 90% absolute reduction and 10% carbon offsetting.

auxiliary fuel in the bio-boiler during 2022 is an example of an energy efficiency measure. This project will give an annual reduction in GHG emissions of about 17,000 tonnes.

In periods with excessive power and natural gas prices in Europe, the use of light oil for variable load in our biorefinery is reasonable as we can utilise this energy source with a very high degree of efficiency. Even though this prioritisation resulted in higher direct emissions and EU ETS costs for Borregaard in 2022, we regard this as a responsible environmental decision from a systems perspective. The use of electricity for heating purposes in these strained periods could result in higher overall direct emissions in Europe, as this would incentivise power production with lower energy efficiency and higher emission intensity. The efficient allocation of resources is an important motivation for the market-based EU ETS. There is both a social and a security perspective of temporarily running on light oil at the biorefinery, as this frees up electricity and natural gas for a Continental Europe much in need of filling storages.

During 2022, we have progressed our long-term transition plan to achieve the science-based targets for 2030 and 2050. Energy efficiency measures and increased availability of renewable sources like electricity from hydropower or biogas remain key priorities.

Following the energy crisis, we are now fast-tracking some measures, such as phasing out the absolute dependence on LNG in the spray driers in favour of electricity and other

alternative fuels (see page 15). This increases our flexibility which will be vital not only to mitigate volatile energy prices in the future but also in securing additional power grid capacity from the grid owner. As a result of flexible power consumption and hence less needed investments in the existing grid, the lead-time for additional grid capacity is reduced. Smart utilisation of existing energy infrastructure thus allows Borregaard to reach its climate targets faster.

Borregaard's biorefinery in Norway supplies surplus heat from low temperature water to the district heating system in Sarpsborg municipality. In 2022, 5.2 GWh (9.4 GWh) of surplus waste heat was utilised. The decrease was a result of a defect heat pump at the operator. Our continuous efforts to enhance energy efficiency and increase usage of low temperature surplus heat is expected to increase our annual deliveries to the district heating system.

### THE WAY FORWARD

Going forward, we will continue navigating the energy crisis while at the same time pursuing efforts in emission reductions according to our climate and energy strategy and our science-based targets.

At the biorefinery in Norway, several projects that will reduce direct GHG emissions from the use of energy are now being completed. Investment plans for the environmental investments needed to reach our 2030 target were presented at the Capital Markets Day in September 2022.

In 2023, we will concentrate on fast-tracking the projects that enhances energy flexibility as well as innovative heat recovery. A higher degree of electrification of the energy consumption at the biorefinery in Norway – directly or indirectly – will be necessary to meet our climate targets. In order to mitigate the exposure to higher electricity prices and tariffs following higher electricity consumption, we are continuously looking to enhance the redundancy of Borregaard's energy system and facilitate flexibility in our electricity consumption. This will benefit both Borregaard and the wider energy system in general.

Market and framework conditions for energy and climate matters are changing rapidly. We expect high market uncertainty and policy changes promoting the transition to a carbon-neutral society to accelerate in 2023. Borregaard monitors and engages actively in the development of the European Green Deal, in co-operation with European and national industry associations.

## INDIRECT GHG EMISSIONS ALONG THE VALUE CHAIN (SCOPE 3)

Indirect GHG emissions are emissions that are a consequence of our activities but occur at sources owned

or controlled by another entity. Scope 3 accounts for 62% of our GHG emissions which makes it of great interest for us to survey and reduce.

We have reported our indirect scope 3 GHG emissions since 2017, which has provided us with more knowledge about how indirect emissions can be reduced. The quality of the data is continuously improved, and we report on all categories that are relevant in the value chain. The reporting is carried out in accordance with the GHG Protocol<sup>31</sup>.

The products from our biorefinery are made from a renewable raw material, wood, and therefore generate no fossil CO<sub>2</sub> emissions in the usage phase or in the end-of-life treatment phase, thus our scope 3 emissions are low in these two stages. Borregaard's major sources of scope 3 emissions are purchased goods and services (44%), and upstream and downstream transportation and distribution services (29%). These two categories are verified by a third-party. We have published a separate scope 3 emission report<sup>32</sup>, which shows the emissions in each stage and how they have been calculated.



## KEY NUMBERS, TARGETS AND RESULTS

### KEY NUMBERS

- Scope 3: 62% of emissions, 354,303 tCO<sub>2</sub> e
- Transportation: 29%
- Purchasing of goods and services: 44%

### 2022

- Target: Third-party verified data for 72% of scope 3 emissions

**Result:** Achieved

- Target: Include CO<sub>2</sub> emissions as criteria in the supplier selection process

**Result:** Achieved

### TARGETS 2023

2023: Targeted Supplier engagement to reduce GHG emissions in our supply chain

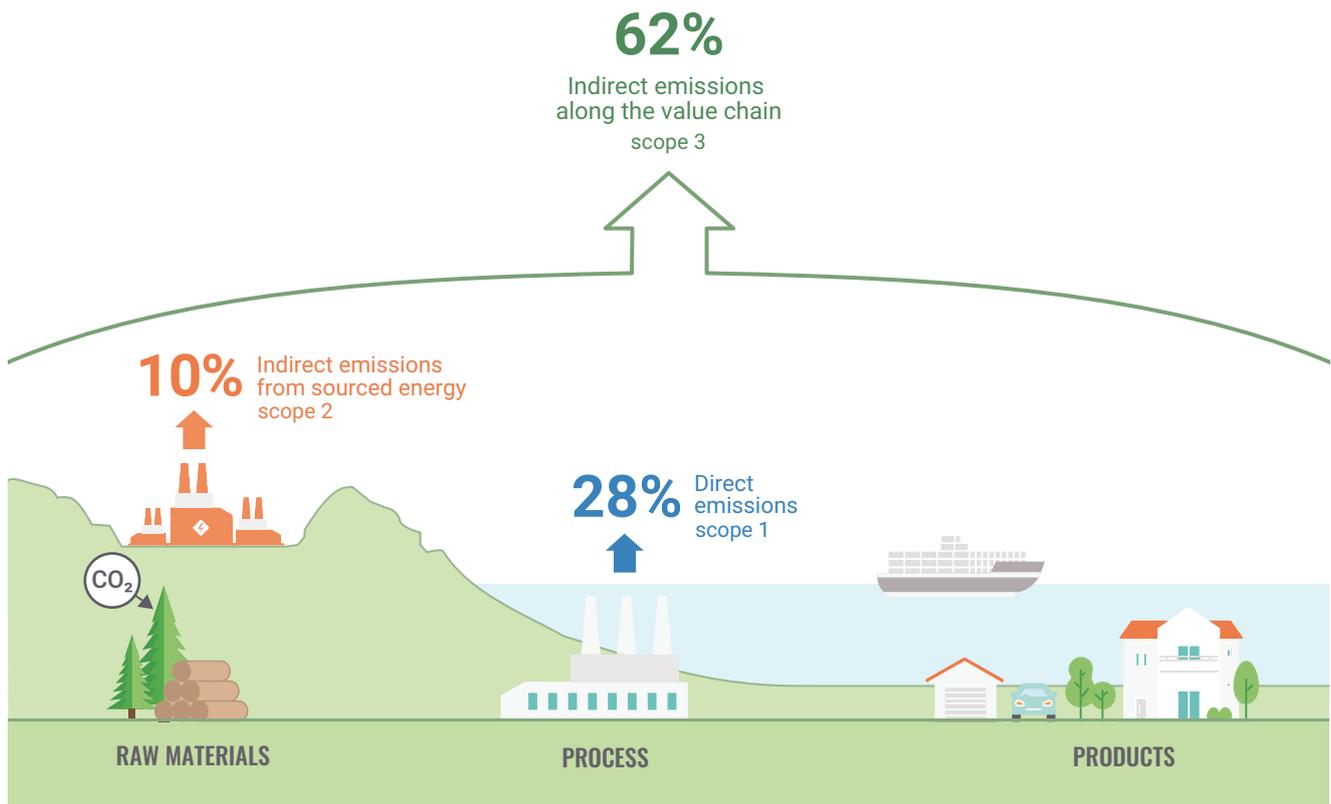
Science-based target, scope 3 (base year 2020)

- 2030: 25% absolute reduction
- 2050: 90% absolute reduction (net-zero)

*A complete list of reported GRI indicators is shown from page 100*

<sup>31</sup> <https://ghgprotocol.org/standards>

<sup>32</sup> Borregaard's Scope 3 report is published at [borregaard.com/sustainability/sustainability-documentation](https://borregaard.com/sustainability/sustainability-documentation)



The illustration shows the distribution of our scope 1, 2 and 3 GHG emissions along the value chain, updated with actual results for 2022.

## HOW WE WORK

Borregaard continuously collects and improves data about the sources of our scope 3 emissions, such as details of actual emissions (primary data) and the suppliers' maturity when it comes to climate change mitigation. We engage with our suppliers, both by sharing information and knowledge as well as seeking to learn from our best-in-class suppliers, and the purpose is to improve knowledge in the value chain. We prioritise the categories and suppliers accountable for the largest emissions with a potential of making actual changes. Borregaard is among the top 8% assessed companies for supplier engagement on climate change, based on our 2022 disclosure.

Borregaard's efforts to reduce scope 3 emissions are organised in our established Scope 3 programme, which reports to Borregaard's Sustainability Board. We continuously search for alternative suppliers and solutions for goods and services which can lead to reduced emissions, while at the same time taking cost and security of supply into account.

With customers in more than a hundred different countries, our products are distributed around the world. Being a buyer of transport services, Borregaard can contribute

to climate friendly transport as transportation is an area where low emissions, carbon neutrality and emission free solutions are gaining traction. Our Scope 3 programme includes a green logistics programme.

Although employee commuting is a small contributor to our indirect emissions, we find it important that all employees engage in how they as individuals can contribute to our ambitious greenhouse gas emissions target. Borregaard has increased its fleet of electric vehicles (EV) for local transport and has installed several EV charging stations at our site in Norway to facilitate employees' use of electric cars. In 2020, Borregaard qualified for the regional programme 'Home-Work-Home', an initiative run by the local county aiming to reduce the use of cars between home and work. So far, more than 100 Borregaard employees bought or leased e-bikes on payroll deduction, and almost 100 employees bought subsidised tickets for public transport. Borregaard was awarded 'Home-Work-Home Company of the Year 2021' for working systematically to increase the proportion of cyclists, pedestrians or public transport users amongst our employees by mobility measures and activities. The programme will continue with new initiatives during 2023.

## DEVELOPMENTS IN 2022

In 2022, our actions to reach the short-term targets have primarily been related to the purchase of goods, services and transportation.

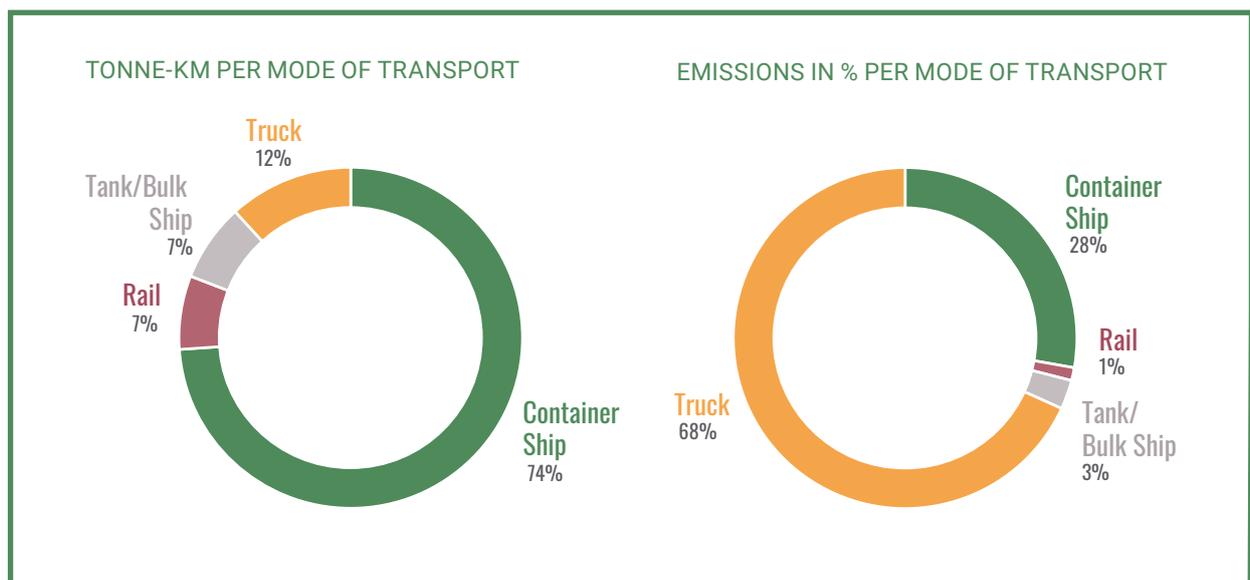
In accordance with our supplier engagement strategy, we have targeted our major suppliers of chemicals and received information about their sustainability activities in relation to climate and emissions. We have established and applied criteria for supplier selections regarding climate and emissions in several sourcing processes and each supplier's response to the climate requirements has been a determining factor for contract award.

Borregaard's transport services are tendered with requirements to respond with plans for reducing carbon footprint in the short, medium, and long term. Suppliers with the intent of doing business with Borregaard must comply with these requirements. In 2022, access to more

detailed information from our suppliers enabled us to make decisions based on the different suppliers' carbon footprints.

Our data collection for Mode of Transportation (MOT), transport distances and calculated CO<sub>2</sub> emission factors for each mode are continuously improved. This enables a structured and fact-based approach on initiatives for reduced carbon emissions in transport going forward. The emission factors will be updated on an annual basis to reflect the rapid development towards a greener logistics industry.

The combined information of tonne/km and emissions per MOTs, as illustrated for 2022 in the diagrams below, enabled us to make better decisions when selecting MOT, by preferring MOT with lower emissions when possible, and accommodating for lower emissions alternatives. Furthermore, we defined what type of information to collect and who to collect it from.



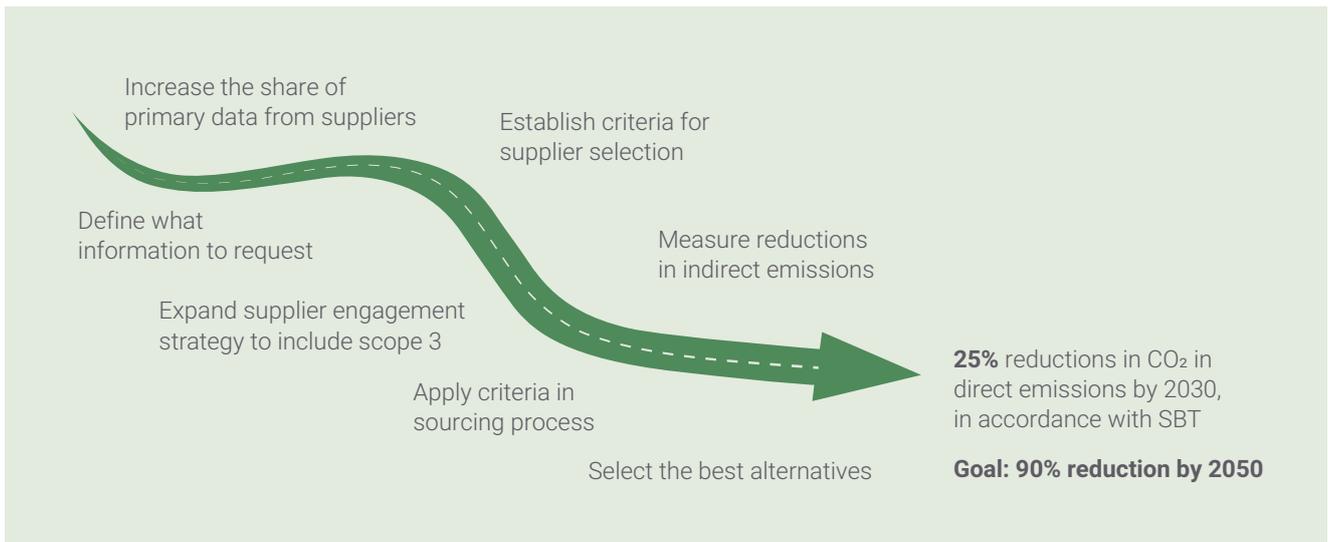
## THE WAY FORWARD

To secure transparency and progress, our initiatives, actions, and results in reducing our Scope 3 emissions will continue being monitored by our Scope 3 programme.

As emissions related to purchased goods and services, as well as transportation represent a significant share (72%) of Borregaard's indirect emissions, we find it crucial to identify and collaborate with suppliers who work actively to minimise climate impact. This is an important initiative to reach Borregaard's commitments to reduce scope 3 emissions.

Our aim is to continue collecting relevant and documented information, select suppliers with the better performance, and work together in the value chain to reduce emissions and improve environmental performance over time.

Going forward, our most effective way to improve sustainable sourcing will be to engage with ambitious suppliers, request documentation of actual progress and include CO<sub>2</sub> emissions as criteria in the supplier selection process. In 2023, we will assess our contract portfolio with the aim of including clauses regarding environment and



Borregaard's roadmap for 25% reduction in direct CO<sub>2</sub> emissions by 2030.

emissions in additional contracts, with a special emphasis on suppliers with significant impact on CO<sub>2</sub> emissions.

### LOCAL AIR QUALITY

Borregaard's emissions of SO<sub>2</sub>, NOx and dust particles to air can affect local air quality and are included in our non-GHG air emissions programme.

These emissions mainly derive from the production of energy. Spray drying of lignin-based biopolymers to powder results in some emissions of NOx (from fuel) and dust particles (lignin). At Borregaard's biorefinery in Norway, the local authority has set limits for SO<sub>2</sub> concentrations in the air, and the municipality monitors local air quality with respect to SO<sub>2</sub> content. Measurements show a general reduction in concentrations of SO<sub>2</sub> around the plant, and the local air quality remains within current limits 99% of the time.



## KEY NUMBERS, TARGETS AND RESULTS

### KEY NUMBERS

- 83% reduction in SO<sub>2</sub> emissions last 10 years
- 62% reduction in NOx emissions last 10 years
- 31% reduction in dust particles last 10 years
- 60 tonnes SO<sub>2</sub>, 104 tonnes NOx emissions in 2022

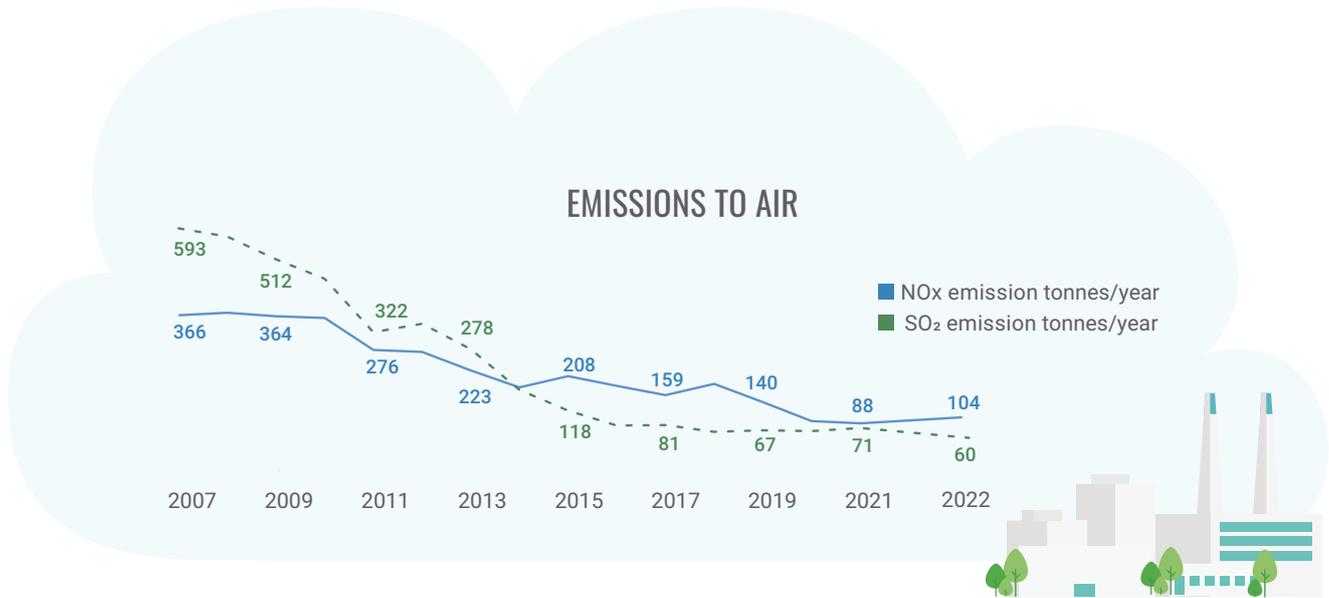
### 2022

- Target: Zero exceedances of local air quality due to SO<sub>2</sub>
- **Result:** 6 exceedances

### TARGETS 2023

Zero exceedances of local air quality

A complete list of reported GRI indicators is shown from page 100



The illustration shows the reduced emissions from NO<sub>x</sub> and SO<sub>2</sub>, which has a positive impact on SDG12 (12.4)

## HOW WE WORK

Reduction of emissions to air has high priority at Borregaard. Implemented measures, such as switching from using heavy fuel oil to more eco-friendly alternatives as well as installing new technological equipment, have significantly reduced our impact on local air quality.

SO<sub>2</sub> emissions from production in Norway stem from cooking acid used to separate lignin from cellulose. These emissions are generally removed by scrubbers, but there are also some diffuse emissions. By following a long-term investment plan, we have reduced the emissions over several years.

## DEVELOPMENTS IN 2022

In 2022, there were 6 hourly exceedances of local air quality, compared to 4 in 2021. These exceedances were a result of the commissioning of a new plant to produce SO<sub>2</sub>. The new plant is expected to deliver an improvement in local air quality and, in 2023, we expect the results to revert to the 2020 level at 0 hourly exceedances. A scrubber for SO<sub>2</sub> in the ethanol plant, which is expected to have a positive effect on the local air quality in 2023, was commissioned at the end of 2022. The total SO<sub>2</sub> emissions was reduced by 16% from 2021 to 2022 due to process optimisation in the cellulose production line.

Emissions of NO<sub>x</sub> stem from the use of fuel for energy. Over several years, we have reduced our use of fossil fuel and invested in NO<sub>x</sub> reducing technology. This has resulted in a reduction in emissions of NO<sub>x</sub>. However, our utilisation of light oil as input to the multi-fuel boiler due to the energy crisis as described on page 65 has resulted in increased NO<sub>x</sub> emissions in 2022. We consider this a temporary increase. The NO<sub>x</sub> emissions will be reduced along with our climate transition plan, as we will use more renewable energy from hydro power and wind for heat energy.

## THE WAY FORWARD

Planned measures to meet our science-based targets such as increased use of renewable electricity, reduced use of energy from natural gas and incineration of municipal waste will have a positive effect on the local air quality, especially with respect to emissions of NO<sub>x</sub>.

A long-term investment plan for reducing SO<sub>2</sub> emissions from the biorefinery process will continue to give positive results regarding the local air quality in Sarpsborg.



## WATER CONSUMPTION AND REDUCTION OF EFFLUENTS

With reference to our EHS and climate policy<sup>15</sup>, we make environmental efforts, both in a short and a long-term perspective, to reduce our impact on water consumption and pollution from effluents. This applies to both our own operations and operations in our value chain.

Borregaard's highest water-related impact in reference to pollution prevention and control is at our main production facility in Norway. Emissions of organic compounds to water (chemical oxygen demand (COD) or biological oxygen demand (BOD)) affect the aquatic environment in the River Glomma. The organic material stems mainly from the washing and processing of biomass into advanced products.

Water is one of our main nature related dependencies as it is vital for cooling, steam production and hot water production, as well as washing and transportation of biomass in the production processes. However, most of the water used is returned to the River Glomma.

Borregaard has a sustainable water management system. The Water Risk Filter<sup>33</sup> has been used to identify any physical, transitional, and reputational risks related to water. Due to the large amounts of water available at the biorefinery in Norway, water withdrawal is considered sustainable when compared to areas in the world where water scarcity represents a risk. Thus, water withdrawal represents a low risk both in the medium and long-term perspective. See our TNFD report<sup>11</sup> for more background information on nature-related water risk.

The water volumes used at Borregaard's facilities for production of biopolymers from lignin outside Norway are relatively low; about 5% of the company's total water consumption. The water is sourced from public waterworks or adjacent industrial facilities. There are low emissions to water in the operations outside Norway.



<sup>11</sup> The TNFD report is published at [borregaard.com/sustainability/sustainability-documentation](https://borregaard.com/sustainability/sustainability-documentation)

<sup>15</sup> Borregaard's policy for Environment, climate, health and safety is published at [borregaard.com/sustainability/sustainability-documentation](https://borregaard.com/sustainability/sustainability-documentation)

<sup>33</sup> WWF's Water risk filter is a screening tool to help companies prioritise action on what and where it matters the most to address water risks for enhancing business resilience and contributing to a sustainable future, <https://riskfilter.org/water/home>



## KEY NUMBERS, TARGETS AND RESULTS

### KEY NUMBERS

Effluent reductions (SDG 12.4):

- COD 44% from 2010
- Phosphor 70% from 2010
- Copper 33% from 2020
- Nitrogen 26% from 2019
- CDP water A- score

### 2022

- Target: COD 55 tonnes/day

**Result:** 54 tonnes/day

We have established specific targets for water reduction in areas with the most potential

### TARGETS

2023: COD below 52 tonnes/day

2026: COD below 47 tonnes/day

2030: COD below 40 tonnes/day

*A complete list of reported GRI indicators is shown from page 100*

### HOW WE WORK

At the biorefinery in Norway, the water withdrawal is high due to a large demand for cooling water in the production process. The site is self-sufficient and has access to water from the River Glomma via its own water treatment facility. The cooling water is returned to the river after use. The volume of process water discharged and its effluent components are measured and reported as required in the permit from the authorities. The water consumption was 325 megalitres in 2022, thus only a small portion of the

water withdrawn (54,370 megalitres) was consumed.

Possibilities of reducing water consumption are assessed in connection with investment projects. This is also motivated by the potential gains associated with energy savings and more efficient water treatment. A large proportion of the process water is treated to keep levels of substances in the effluent, such as halogenated organic compounds (AOX) and COD, below the discharge permits.

### EFFLUENTS OF ORGANIC MATERIAL



*The illustration shows the reduced effluents of COD (tonnes per day) from the biorefinery in Norway which have a positive impact on SDG 12 (12.4).*

Borregaard and the Norwegian Institute for Water Research (NIVA) monitor the River Glomma in accordance with the requirements and standards in the EU Water Framework Directive (WFD). This monitoring shows that emissions of easily degradable organic matter (BOD) from our biorefinery have caused a proliferation of bacteria covering riverbed sediments close to the plant. This causes poor oxygen conditions, which has implications for the growth of the River Glomma's wild Atlantic salmon stock. As a result, its ecological status is classified as poor and can be defined as a river with water stress. NIVA's measurements of chemical status in accordance with the WFD standards show a good status. New analyses show that the conditions in the River Glomma downstream from Borregaard have improved, and that the reduction in emissions of several substances has had a positive effect.

Due to low natural reproduction of Atlantic salmon in the river, Borregaard contributed to financing a salmon cultivation facility in 2012 and we have since covered a major part of the operating costs. Surveys conducted by NIVA show that the natural reproduction in the river has increased and contributes substantially to the young fish population. In general, there is a decline in the Atlantic salmon stock due to impacts of human activities in combination with a large-scale decline in sea survival<sup>34</sup>. Continuing the financing of salmon cultivation is an important contribution to maintaining the Atlantic salmon stock and has a positive impact on SDG 14.

Borregaard has submitted a long-term plan for reduction of COD to water to the Norwegian Environmental Authorities. The plan includes several measures such as recipe and process optimisation and technical installations like spill collection and evaporation. The goal is to reduce COD emissions to a level below 47 tonnes per day in 2026, which will be a significant improvement to reach the final goal of good ecological status in the river.

The risk of emissions to water from old landfills and areas with polluted soil from former operations is supervised by an emission control measurement programme. From 1949 to 1997, Borregaard used mercury-based technology for chlor-alkali production at the site in Norway. This process led to pollution of the soil in the area surrounding the plant. A six-year programme for improving barriers, cleaning and deposition of the polluted areas was finalised in 2021. The concentration of mercury in ground water wells and in the sewage systems has decreased significantly due to these actions. Going forward, the area will be continuously monitored in close co-operation with the authorities to

secure stable and acceptable mercury levels. The mercury levels are well below the permitted amount.

## DEVELOPMENTS IN 2022

Sustainable water management has gained increased priority over the last years. Our targeted efforts have led to significant reduction in water use at some of our plants. In 2022, Borregaard improved the process for collecting water data and identified potential projects to reduce our water withdrawal.

In 2022, Borregaard reduced the emissions of COD to the River Glomma from 55 to 54 tonnes/day. We finalised the plan for reaching our long-term target for 2030; below 40 tonnes of COD/day. The planned investments represent a 30-50% reduction in effluents to water (COD) compared with 2020. The plan consists of process improvements and installation of novel wastewater incineration technology, and in addition include measures for significant water reduction. The emission fractions will be utilised for renewable energy. We believe that these environmental investments will contribute to improving our competitive position.

Borregaard's biorefinery in Norway uses copper as a catalyst in a production process step. Copper emissions have been reduced by 33% during the last two years after investments in sustainable process measures at the beginning of 2021.

The emission permit's 24-hour period limit for sub-streams was exceeded for some substances in 2022, all of which have been reported to the Norwegian Environment Agency and measures have been taken to reduce emissions. The number of incidents of non-compliance with long-term discharge limits was 0.

## THE WAY FORWARD

These activities are part of our long-term plans to be in line with the European Water Frame Directive and the European Green Deal Initiative and will help us achieve good ecological status in the River Glomma, as well as to be prepared for new requirements. We will implement measures to receive a gradual reduction of COD towards our target in 2026 and 2030. The long-term goal is a good ecological status of the river within 2033.

We will identify improvement projects within water efficiency and establish a long-term target for reduction in water withdrawal.

<sup>34</sup> Norwegian Scientific Advisory Committee for Atlantic Salmon/Status of wild Atlantic salmon in Norway in 2021

Borregaard has conducted an initial assessment related to the Do No Significant Harm criteria (DNSH) for the environmental objective Sustainable use and protection of water and marine resources in the Taxonomy<sup>35</sup>. For the general criteria, our economic activities are aligned. In 2023, we will conduct a full assessment of the DNSH criteria.

We engage with suppliers of major raw materials like wood and energy to disclose information about their water usage and water-related risks. The aim is to trigger improvements in the value chain and to better understand water-related risks in our supply chain.



<sup>35</sup>Borregaard's taxonomy report is published at [borregaard.com/sustainability/sustainability-documentation](https://borregaard.com/sustainability/sustainability-documentation)

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## WASTE MANAGEMENT AND CIRCULARITY

Despite high raw material utilisation, cascading use of sidestreams and reduction of input factors over time, there are still some streams that end up as waste. 79% of Borregaard's waste is generated at the biorefinery in Norway. Reducing the amount of both non-hazardous and hazardous waste produced and controlling the risk of emissions from waste are important aspects of our waste management system. We have committed to setting

targets to reduce waste in our policy for Environment, climate, health and safety<sup>15</sup>.

Converting waste fractions into new materials or energy, and routing waste into a circular economy value chain, could represent a potential positive impact on both economy and environment.



### KEY NUMBERS, TARGETS AND RESULTS

#### KEY NUMBERS

- Total amount of waste: 36,512 tonnes
- Waste source separated: 99%
- Hazardous waste reduced by 1%
- 53% of waste to recovery of materials or energy
- Waste incineration recovered energy from 69,568 tonnes of municipal waste
- 93% of hazardous waste generated was fly ash from incineration of municipal waste

#### 2022

- Target: Design long-term target and investment plan (2030) for reduction of landfilling
- Result:** Reduced landfilling and increased energy recovery

#### TARGETS

- 2025: 100% material recovery of gypsum (Norway)
- 2030: 100% material or energy recovery of all types of waste

*A complete list of reported GRI indicators is shown from page 100*

<sup>15</sup>Borregaard's policy for Environment, climate, health and safety is published at [borregaard.com/sustainability/sustainability-documentation](https://borregaard.com/sustainability/sustainability-documentation)

## HOW WE WORK

The most common non-hazardous waste fractions from our operations are gypsum and sludge with some residual organic content, which is mostly landfilled. These are derived from our operations in Norway, Wisconsin (USA) and Germany and represent 40% of the non-hazardous waste.

Borregaard is actively seeking possibilities within the circular economy to find solutions for material recovery, and we are a part of several recovery initiatives. Our long-term goal is to achieve 100% material or energy recovery from all waste fractions in our operations in 2030.

The majority of waste stems from use of recovered energy from waste incineration. This is a part of the base load needed for energy supply, and all the energy will be utilised in the continuous production. The biorefinery receives heat energy from two waste incineration plants, one of them operated by Borregaard. 93% of the hazardous waste and 31% of the non-hazardous waste generated at Borregaard consist of ash from the energy recovery of municipal waste. The bottom ash is classified as non-hazardous waste, while the fly ash is classified as hazardous waste. The alkaline fly ash is treated externally to form a stable gypsum phase before it is landfilled. Metals from the non-hazardous bottom ash are removed and recycled by our waste operator, and the remaining waste is recovered as filler material.

Waste from our operations is source separated and processed by certified waste treatment providers. The hazardous waste is handled by certified waste operators and is reported in a declaration system operated by the Norwegian Environment Agency.

## DEVELOPMENTS IN 2022

In co-operation with both internal and external waste incineration companies, Borregaard's biorefinery in Norway successfully tested solutions to reduce landfilling and increase energy recovery for some of our waste fractions. This resulted in a reduction in the landfilling fraction of ordinary waste treatment from 34% to 23%.

We have made progress in our long-term plan to achieve 100% material and energy recovery of waste. Our priorities have been on solutions for gypsum fractions and we are now testing different material recovery options.

## THE WAY FORWARD

Gypsum, sludge with some organic content and ash are waste fractions where we will seek circular solutions. Borregaard's biorefinery in Norway is a member of a circular economy initiative called EarthresQue<sup>36</sup>, of which the purpose is to improve and develop new methods for recycling, reuse and treatment processes for contaminated soil, residues and waste.

We will continue with our plan to reach 100% material or energy recovery of all waste fractions in 2030.

<sup>36</sup> [nmbu.no/en/services/centers/earthresque/about](https://nmbu.no/en/services/centers/earthresque/about)



## PUBLIC AND PROCESS SAFETY

Public and process safety management are important topics to control and mitigate the risks involved in the company’s operations. The site in Norway is subject to the EU Directive 96/82/ EC (“Seveso III”), intended to prevent accidents that could potentially cause large-scale harm, and impact economy, environment and people. Our process safety strategy guides our efforts<sup>37</sup> and will reduce risk of unexpected emissions to the environment or

harmful conditions for workers and contractors.

Sometimes, risks can be eliminated through technical measures. One example is our elimination of chlorine risk where we converted elemental chlorine to hydrochloric acid in 2012. We have also replaced heavy fuel oil, waste oil and propane with state-of-the-art LNG facilities during the past decade.



### KEY NUMBERS, TARGETS AND RESULTS

#### KEY NUMBERS

#### 2022

- Target: Number of fires = 0

**Result:** = 0

#### TARGETS 2023

- Number of fires = 0
- Develop and start reporting on additional process safety indicators

*A complete list of reported GRI indicators is shown from page 100*

### HOW WE WORK

Process safety is continuously improved at Borregaard’s facilities. We have a systematic approach for hazard analyses, proactive implementation of mitigating measures and identification of root causes for process safety incidents. Safety is also continuously improved through our investment programmes where new technology is implemented, as well as through research and development of new processes. Inherent safety is a primary goal when designing and developing new processes. Contingency

plans for our sites are continuously updated and emergency training prepares us for the potential risk scenarios.

We strive to have open communication regarding risk potential and ongoing improvement projects with people who live and work near our production facilities. Borregaard’s current quantitative risk analysis for the biorefinery in Norway shows a significant improvement in risk overviews associated with third parties. Independent

<sup>37</sup> Our process safety strategy is published at [borregaard.com/sustainability/sustainability-documentation](https://borregaard.com/sustainability/sustainability-documentation)

expertise has carried out extensive risk assessments in accordance with guidelines from the Norwegian Directorate for Civil Protection (DSB). Based on this work and recommendations from DSB, the municipality has established a consideration zone for the area surrounding Borregaard's operations in Sarpsborg. We therefore expect the long-term development of the area surrounding the plant to be harmonised in line with the principles of Seveso III.

Fire prevention is an important area within process and public safety. We report all our near fires and fires in our non-conformity report system, and the root cause of all fires are investigated.

Borregaard's biorefinery in Norway has an ongoing programme to modernise the fire protection system. The site is regularly inspected by independent fire protection experts through our property and business-interruption programme. All storage tanks, with some minor exceptions of low-risk storage tanks, are now in compliance with the Norwegian Tank Regulations<sup>38</sup> and they are equipped with physical barriers for the collection of chemical spills.

Borregaard has procedures to ensure that all new chemicals subject to labelling requirements are assessed for possible substitution by a dedicated committee. The existing portfolio of chemicals is also subject to a periodic substitution review. During planning and development of new processes and products, substances are carefully evaluated in terms of inherent safety.

## DEVELOPMENT IN 2022

SO<sub>2</sub> is an important input chemical in our production processes at the biorefinery in Norway and cannot be replaced by other chemicals. Risk analysis shows that a large discharge may have severe consequences for third parties, especially from the storage of liquid SO<sub>2</sub>. In 2022, we were recognised for our engagement with our suppliers to tackle climate change and hence earned a place on CDP's Supplier Engagement Leaderboard for the third year in a row. Borregaard has invested in a new SO<sub>2</sub> plant and a high-tech SO<sub>2</sub> purification facility which has eliminated purchase, transport, storage and use of liquid SO<sub>2</sub>. During 2022, we emphasised process optimisation and technology improvements at this facility.

The severity of process safety incidents has been reduced in 2022 due to our systematic approach to reducing process safety risks and conducting safety training.

2022 was our first year achieving 0 (3) fires. This was a result of improvements in preventive measures and an improved fire detection system.

## THE WAY FORWARD

We will continue to improve process safety by systematic identification of risk and implementation of measures aimed at mitigating risk. In 2023, we have scheduled a process safety training programme for operators to increase awareness of important safety barriers and their operational control, and a training programme to increase process safety competence among our process engineers and other specialists.

New KPI's for process safety will be implemented to improve identification and reduction of risk.

<sup>38</sup>Norwegian Pollution Regulations, Chapter 18

# C | CARE FOR PEOPLE AND COMPETENCE DEVELOPMENT

A sound corporate culture provides a vital basis for developing a specialised company and strengthening our business model. Borregaard's culture and value document, The Borregaard Way, highlights our competence and its further development as one of our main competitive advantages. In this context, diversity is highly valued as a factor for attracting people with different backgrounds, skills and competencies. We believe that equal opportunities are important to capitalise on our employees' resources and skills, and that a safe and healthy working environment is a key factor in a sustainable organisation.

Welfare, social security and human rights are important aspects in reaching profitable and sustainable jobs. This manifests itself through income and meaningful activity for individuals, as well as through financial contributions through taxes and duties that companies and their

employees pay in the countries and local communities in which they operate. Communities around Borregaard's production units see significant ripple effects from suppliers and other activities.

As of 31 December 2022, Borregaard employed 1,107 (1,072) FTEs in plants and sales offices in 13 countries. The Group has production units in Norway, the UK, Germany, the Czech Republic and the US.

We have described our ambitions as an attractive employer in a separate document; Borregaard's employer value proposition. The main characteristics of our employer brand are described as follows:





## SAFE AND HEALTHY WORKING ENVIRONMENT

A safe and healthy working environment is a prerequisite for attracting and retaining motivated and highly skilled people. Companies with high performance within health and safety often show strong performance in other areas. Borregaard's ambition is to promote a safety culture that results in no injuries to employees, contractors or third parties or to the environment from unexpected emissions. This is achieved through risk management, systematic efforts to prevent injuries and occupational diseases, both physical and mental, and the involvement of all employees. Safety is an integral component of all aspects of Borregaard's operations through a proactive approach that

involves safe job analyses, safety barriers, training, and the overall principle of "safety first". Our policy for Environment, climate, health and safety<sup>15</sup> and our Human rights and working conditions policy<sup>39</sup> set out our priorities.

Borregaard encourages an open feedback culture. We strive to ensure that our working conditions are a positive contribution to the health of our employees and contractors by providing a good, inclusive working environment with meaningful tasks. We believe that this will make us a more attractive employer.



### KEY NUMBERS, TARGETS AND RESULTS

#### KEY NUMBERS

- Lost time injury frequency (LTIF) = 1.0
- Number of fatal and high-consequence work-related injuries = 0
- Total recordable injury frequency (TRIF) Borregaard = 4.9

#### 2022

- Target: TRIF Borregaard = 0  
**Result:** = 4.9
- Target: Sick Leave rate = 3.5%  
**Result:** = 4.3%

#### TARGETS 2023

- TRIF Borregaard = below 3.5/long term = 0
- Sick leave rate: below 4.0%/long term = 3.0%

*A complete list of reported GRI indicators is shown from page 100*

<sup>15</sup>Borregaard's policy for Environment, climate, health and safety is published at [borregaard.com/sustainability/sustainability-documentation](https://borregaard.com/sustainability/sustainability-documentation)

<sup>39</sup>Our Human rights report is published at [borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/](https://borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/)

## HOW WE WORK

All employees are encouraged to report safety incidents and unsafe conditions in a dedicated reporting system which is open and available to the whole organisation. Borregaard has a systematic procedure for investigating the root causes of incidents before corrective and preventive measures are implemented. This provides valuable input for the risk assessment process and documents the lessons learned. Historically, exposure to chemicals has been the main category of injuries, but systematic efforts over many years through training and safety management are now showing results.

The awareness of risk from inattention and stress is important to prevent injuries from slips, trips and falls due to different conditions such as slippery, wet or greasy floors, uneven walking surfaces and poor housekeeping.

Borregaard's manufacturing plants outside Norway have established local EHS/Zero Harm organisations which include and engage all employees. An EHS leadership team consisting of all managing directors and safety professionals is leading the safety work together with the EHS manager for each plant.

With the aim of providing information, training and follow-up of external workers' fulfilment of safety instructions, safety among contractors have become a particular priority. All contractors and visitors complete an e-learning

course regarding all relevant safety risks before obtaining permission to enter the production site in Norway.

The health of our employees is regularly monitored through medical examinations and working environment surveys. The working environment is generally considered to be good, and efforts are continually being made to improve it through various measures.

Borregaard has introduced both preventive activities and initiatives to reduce stressful aspects of working conditions. The close follow-up of employees on sick leave and adapting tasks for individuals with suitable duties or shorter working hours for a limited time, are examples of applied measures. Training, physical/mental health and lifestyle counselling, vaccinations and stress management are other examples. Most of the sick leave is due to musculoskeletal disorders, and we emphasise the use of ergonomic measures to prevent this.

The precautionary principle is fundamental and personal protective equipment is compulsory when a risk of exposure exists. Therefore, we implement measures to reduce or eliminate substances that may have a negative impact on health. In 2018, the Norwegian authorities introduced a new threshold value for SO<sub>2</sub> in the workplace atmosphere. Complying with the requirements is demanding and we have therefore reinforced our action plan for reducing concentrations of SO<sub>2</sub> in the working environment.

## IMPROVED SAFETY OVER TIME



Reduction of TRIF (total recordable injury frequency per million hours worked) from 2013 to 2022 (16.7 to 4.9) at Borregaard.

## DEVELOPMENTS IN 2022

The total number of recordable injuries increased from seven to ten in 2022. Borregaard had two lost time injuries. Both incidents occurred at the site in Norway. One operator was exposed to hot process liquid and burned his foot, which resulted in eight days of absence. The second injury occurred when an operator handled a jack trolley and injured his foot, which resulted in 32 days of absence. The operational units outside Norway have shown a positive development with no lost time injuries this year.

We had four incidents leading to lost time injuries amongst Borregaard's contractors. One external worker fell and broke his foot due to slippery conditions; another twisted his knee. One had his hand cut when using a sharp object and one had his hand crushed between two objects. In general, we see the same types of work-related injuries for both employees and contractors.

As stated in Borregaard's safety rules, sufficient barriers between people and moving objects are important to ensure safe movement at our sites. During 2022, the site yard at our operations in UK was extended and barriers were installed to improve safe vehicle and pedestrian movements. Upgrades that involve safety barriers are also being made at the main terminal area (C-gate) at the biorefinery in Norway.

During the year, we evaluated our employees' experiences of working from home during the Covid-19 pandemic, and we developed guidelines for flexible working and office solutions.

The total sick leave in 2022 was 4.3%, which is higher than previous years. In Norway, this trend, which is believed to be a post-pandemic effect, is clear both within the industry and in general. To achieve better results in the future, we have strengthened our preventive measures in co-operation with the employee representatives. Throughout 2022, we had some cases of serious illness among our employees with long rehabilitation that we have facilitated in the best possible way.

## THE WAY FORWARD

In order to achieve the target of zero total recordable injury frequency (TRIF), we will maintain a motivated and proactive organisation with a high degree of awareness of our responsibility to mitigate risk. Reporting, analysing underlying causes, implementing measures regarding near accidents and hazardous situations, as well as frequent inspections at the facilities, will continue in 2023. We will emphasise lifesaving rules while maintaining a strong safety culture and increasing the understanding of risk. Safety has traditionally been seen as a measure to control conditions within operations to make work safer, although the human factor has been difficult to control. In 2023, we plan to introduce the principles and framework of Human and Organisational Performance, HOP<sup>40</sup>, to help us improve the way we think, act and respond to failure.

Borregaard particularly concentrates on sick leave and has an ambitious long-term goal of reducing sick leave to 3%. We will continue to concentrate on appropriate measures within health promotion and workplace prevention programmes in close co-operation with employee representatives.

<sup>40</sup> The principles and framework of Human and Organisational Performance, HOP – an operating philosophy and framework for building more resilient organisations





## COMPETENCE DEVELOPMENT, CULTURE AND VALUES THAT SUPPORT OUR GOALS AND STRATEGY

High competence is one of the key elements in Borregaard's specialisation strategy. The combination of unique competences in sales and marketing, R&D and production drives the specialisation strategy and sets Borregaard apart from our competitors. Our corporate culture and values support our strategy and contribute to moving the company in the right direction.

Over many years, Borregaard has developed a strong corporate culture, which contributes to a common mindset, core values and an understanding of the business across functions, business areas and geographical boundaries. A sound corporate culture that supports our objectives

and strategies is vital for the development of the company and our employees. Therefore, competence development is regarded as material in Borregaard's stakeholder and materiality analysis. Our culture and values document, The Borregaard Way<sup>14</sup>, reviews our core values: Sustainability, long-term perspective and integrity and plays an important role in the various introduction and development programmes. We want our corporate culture to be influenced by market orientation, innovation and our ability to change. Our leadership principles are an integral part of The Borregaard Way, where expectations and guidelines for executing leadership in Borregaard are outlined.



<sup>14</sup> The Borregaard Way is published at [borregaard.com/sustainability/the-borregaard-way/](https://borregaard.com/sustainability/the-borregaard-way/)



## KEY NUMBERS, TARGETS AND RESULTS

### KEY NUMBERS

- 51 apprentices of which 24 were onboarded in 2022 (Norway)
- 16 apprentices hired permanently after training period
- 121 new employees onboarded in 2022
- Total employee turnover: 8%, of which 4.1% points were voluntary

### 2022

- Target: Conduct sustainability training for all employees  
**Result:** Achieved (Training made available to employees in December 2022)
- Target: Run 6 competence academies  
**Result:** Achieved (6)
- Target: Employee engagement survey participation rate: 90%  
**Result:** Achieved (90%)
- Target: Voluntary turnover: Less than 3.5%  
**Result:** 4,1% voluntary turnover, mostly due to higher turnover of operators (Norway and USA)
- Target: Annual appraisal review: 85%  
**Result:** Achieved (88%)

### TARGETS 2023

- Run 6 competence academies
- Voluntary turnover: Less than 3.5%

*The main GRI indicators are shown from page 100, the other indicator is in the HR file<sup>41</sup>*

## HOW WE WORK

### Competence development

As a competence driven company, Borregaard makes substantial efforts in training and competence development, both within our areas of core competence and our corporate culture. This contributes positively to innovation of sustainable products, reduction of environmental impact and continuous improvement of our operations and suppliers.

Since Borregaard's production processes are complex and involve a high degree of integration, significant importance is attached to knowledge and competence in the areas of production and biorefining. The Borregaard production academy involves subjects such as leadership, culture, and lean manufacturing to enhance a joint approach and understanding of how to drive continuous improvement. We arrange extensive training programmes for our operators and apprentices and conduct internal training programmes in all areas of core competence.

<sup>41</sup> The HR file is published at [borregaard.com/sustainability/sustainability-documentation](https://borregaard.com/sustainability/sustainability-documentation)

Borregaard also conducts competence development programmes for sales personnel such as sales and application academies, as well as biannual conferences for employees within innovation.

### Individual development

Annual appraisal dialogues are held between managers and employees. The appraisal covers topics such as expectations, feedback, development and overall performance. Individual development plans are followed up by the manager. The overall input from the appraisal dialogue concerning career and competence development is summarised and discussed in an annual management audit where it is used as a basis for internal mobility, development measures and nomination for competence development programmes.

Borregaard underlines the importance of creating an internal job market and favours a high degree of job rotation and internal recruitment to fill vacancies. This model also creates career opportunities for our employees. There were several examples of internal recruitment between divisions and business areas in 2022. This is a crucial element in strengthening the competence and understanding of the totality of the company, in addition to enhancing innovation and continuous improvement.

In 2022, 839 (844) employees had an appraisal dialogue with their manager. This represents 89% of those who were included in the annual appraisal process. Labour union agreements regulate that not all Borregaard employees can be included in the annual appraisal process. Furthermore, 107 employees above the age of 60 in Sarpsborg had a separate senior dialogue with their manager. The purpose of the senior dialogue is to ensure retention, discuss competence development and the possible need for adjustments in the current work situation.

### Collaboration

We value the commitment and initiative of all our employees and emphasise good collaboration between management, employees and their representatives. 87% of Borregaard's employees work in units that have collective bargaining agreements with unions.

### Recruitment and sponsorships

Based on the current age composition of the workforce, Borregaard's biorefinery in Norway will experience a growing need for qualified employees in years to come. To meet these challenges, Borregaard has recruitment activities and school programmes to encourage interest in an industrial career and relevant qualifications. One

example is our collaboration with Borg Upper Secondary School in Sarpsborg, with the aim to create Norway's best education within process chemistry at operator level.

In 2022, Borregaard contributed around 5 million NOK to support measures that benefit both the company and the region, with the overall goal of strengthening our long-term attractiveness as an employer. Our sponsorship strategy has two main pillars. The first pillar covers cultural and sports experiences and activities that help make the city and region more attractive. This will again contribute to easier recruitment and retention of employees.

The second pillar supports measures intended to stimulate young people to understand and become interested in disciplines important to Borregaard and society, such as natural sciences and entrepreneurship. This is illustrated by our support to and co-operation with different educational institutions such as Inspiria Science Centre, the Young Entrepreneurship scheme and the company's own Knowledge Plant.

Borregaard works closely with schools and educational institutions. Our Knowledge Plant functions as an inhouse training centre and as a showroom and venue for school visits. We offer educational programmes that tie in with schools' curricula, using examples taken from the company. Every year, we receive visits from students taking part in educational programmes combining technical training, career advice and a company presentation.

The apprentice programme is a co-operation between the county and Borregaard. The apprentices need to complete a mandatory practical training as part of their vocational education. This practical training usually lasts for two years with on-the-job training together with a dedicated instructor from Borregaard. The apprentice programme is an important recruitment arena for new operators. Borregaard offers apprentice programmes within process chemistry, laboratory and logistics, as well as technical subjects such as mechanical, electrical and automation.

Every year we welcome students to attend our summer internship programme which represents a recruitment arena for Borregaard by providing students insight into our operations and giving us the opportunity to get to know the students better. In 2022, we had 11 interns participating. Furthermore, we participated in career fairs at selected universities in Norway and Sweden. We also supported selected bachelor and master projects, where students had the opportunity to write papers or dissertations in collaboration with Borregaard.

Borregaard also contributes to a University Educated Teacher II scheme in chemistry for upper secondary schools in Viken County, where researchers from Borregaard have created a company related teaching plan in chemistry. Every year, students from several higher education institutions carry out practical tasks and projects or get internships at our company. Borregaard has programmes and instructors for apprenticeship schemes involving co-operation with vocational schools in the region. These schemes provide apprentices with relevant experience to supplement their theoretical training. We also cooperate with several universities in Norway and other countries.

### Low turnover

Our strong corporate culture with common core values and a strong focus on competence development results in satisfied employees and a generally low turnover at all Borregaard units.

We measure engagement and well-being through our annual employee engagement survey. In 2022, 90% of the employees responded to the survey. The survey includes questions about learning and development, strategy, vision and goal achievement, feedback and communication, relationship with colleagues and manager, recommendation of Borregaard as an employer as well as diversity and harassment. These factors are important to measure well-being, motivation and engagement.

### Digitalisation

Digitalisation is an important part of Borregaard's improvement efforts. Borregaard's digitalisation strategy includes extracting more information from existing data as well as improving our operational excellence. In 2021, we performed a feasibility study to define a strategy and develop a road map for digitalisation across business and production processes. Numerous digital opportunities to support value growth, productivity, sustainability and safety were identified and evaluated based on costs and benefits. Implementation of prioritised projects started in 2022 and will continue in 2023. In parallel, Borregaard's digitalisation competence has been strengthened through recruitment and competence development.

## DEVELOPMENTS IN 2022

Borregaard has increased attraction, recruitment and retention activities in 2022. During the year, we hired 121 new employees and directed special efforts into efficient onboarding. We conducted a physical introduction programme for 27 new employees located in Sarpsborg, and a digital introduction programme for 30 new employees from our units worldwide.

We also engaged 13 substitutes from an external agency to cover amongst others long-term sick leave and parental leave.

In 2022, 24 new apprentices started their practical training at Borregaard. In total, there were 51 apprentices in the programme. Of those who completed their apprenticeship in 2022, 16 apprentices were hired in permanent positions.

Borregaard had two trainees rotating between different functions within sales and marketing, R&D and production. There were no new recruitments to the trainee programme in 2022. We onboarded a researcher who was hired into an industrial PhD programme sponsored by Borregaard.

We hosted the Borregaard Management Programme with 24 participants from various countries and locations. In addition, we continued training in Borregaard Leadership Principles and held several webinars for managers. During regional sales meetings, our employees received training in communication and feedback.

## THE WAY FORWARD

Engaged and competent employees are important to further develop Borregaard and to fulfil our strategy. The labour market has been challenging for companies recruiting operators, engineers and certain specialist functions within innovation and digitalisation. Therefore, Borregaard will increase employer branding activities during 2023. Going forward, an additional resource is dedicated to strengthening our brand and reputation as an attractive employer.

Borregaard's e-learning platform is an important tool for competence building. We will continue to expand the number of new e-learning programmes to support our competence strategy.

Borregaard will continue to practice and communicate our leadership principles for managers, arranging webinars on several leadership topics and running the Borregaard Management Programme.



## DIVERSITY AND EQUAL OPPORTUNITIES

Borregaard has a diversity programme that aims to enhance diversity among our employees in line with our integrity and sustainability values. This is further described in The Borregaard Way<sup>14</sup>, our Human rights and working conditions policy<sup>39</sup> and Code of conduct<sup>42</sup>. Diversity is a positive factor that gives a variety of inputs and views in the internal discussions and processes. We believe that an amplification of diversity, based on cultures, gender, age and different backgrounds will result in a sound and productive working environment with high motivation and low sick leave. We also believe that this will make us more competitive both as an employer and as a supplier of products.

Society will also be affected and benefit from the fact that Borregaard and other companies have job opportunities for a wide range of people.

Borregaard has specific guidelines for diversity and equal opportunities. Matters regarding equality, diversity and discrimination are addressed in Borregaard's culture and values document The Borregaard Way. The topic is also addressed in further detail in the company's Code of Conduct and other governing documents, such as Supplier Code of Conduct<sup>43</sup> which addresses our expectations and follow-up of suppliers.



### KEY NUMBERS, TARGETS AND RESULTS

#### KEY NUMBERS

- 32 different nationalities
- 25% proportion of female employees

#### 2022

- Target: Implementation and training with emphasis on unbiased recruitment

**Result:** Postponed to 2023 as part of a larger employer branding and recruitment initiative with a new dedicated resource

- Target: Minimum 35% of new hires to be female employees

**Result:** 25%

#### TARGETS

- 2023: Minimum 35% of new hires to be female employees
- Long term: Minimum 35% proportion of female employees and managers

*The main GRI indicators are shown from page 100, the other indicator is in the HR file<sup>41</sup>*

<sup>14</sup> The Borregaard Way is published at [borregaard.com/sustainability/the-borregaard-way/](https://borregaard.com/sustainability/the-borregaard-way/)

<sup>39</sup> Our Human rights report is published at [borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/](https://borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/)

<sup>41</sup> The HR file is published at [borregaard.com/sustainability/sustainability-documentation](https://borregaard.com/sustainability/sustainability-documentation)

<sup>42</sup> Borregaard's Code of conduct is published at [borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/](https://borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/)

<sup>43</sup> Our Supplier code of conduct is published at [borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/](https://borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/)

## HOW WE WORK

Equality and diversity are about exercising corporate responsibility, acting in a transparent, honest, and predictable way, being respectful of individuals and cultures and upholding our own integrity.

We have implemented initiatives aimed at promoting the recruitment of female managers and employees, where the goal is that 35% of new hires should be women. However, the industry and education institutions that we recruit from are dominated by male candidates, which makes this goal quite ambitious. We deliberately nominate a high proportion of women in management and technical programmes, as well as in the company's recruitment base. In 2022, 42% of the participants at the Borregaard Management Programme were female and eight different nationalities were represented.

The lowest proportion of women is in production, while the proportion of women in R&D, customer service, HR and finance and accounting is above 50%. We have the same working hours for men and women and the degree of part-time employment is low. Borregaard has gender-neutral guidelines and a gender pay equality programme that provides equal pay for equal work. The ratio of base salary and payment of women to men at Borregaard in Norway is 103% (women: 722 809 NOK /men: 704 150 NOK). The base salary is fixed salary + fixed additions to the salary such as for instance shift pay. As part of legal requirements from Norwegian authorities, Borregaard has evaluated all Norwegian positions regarding equal pay related to gender. The result is published in a separate Diversity and equality report<sup>44</sup> that can be found on our web pages. The pay ratio (base salary) between the CEO and the median Borregaard employee in Norway was approximately 6.5 to 1 in 2022 (6.6 to 1 in 2021).

Borregaard is a global organisation with 32 different nationalities. We have experienced that employing people with diverse ethnic and cultural backgrounds is a strength within the organisation. The diversity of nationalities also affects how our training programmes are put together and staffed.

Each year we conduct an organisational review, a process for systematic leadership and competence evaluation and succession planning. During the review, the managers are challenged to assess diversity in their own leadership teams and conduct succession planning with emphasis on gender balance, age distribution and diversity in general. A summary of findings and actions are presented to the Group Executive Management and the Board of Directors every year.

Borregaard has implemented policies and guidelines for adapting working hours and conditions for employees in different phases of their career.

Borregaard in Norway has joined networks for enabling job training for people who, for various reasons, have difficulties entering the job market.

## DEVELOPMENTS IN 2022

Pursuant to our annual Diversity and equality report<sup>44</sup>, we increased our emphasis on measures to avoid any form of discrimination or other obstacles to equality and diversity. We also implemented a career and pay tool for objective pay determination and development opportunities for parts of the organisation.

The annual global employee engagement survey included questions regarding diversity and inclusion. In general, the vast majority confirms that they are not exposed to discrimination and that people of all backgrounds are accepted at Borregaard. Any non-conformities or areas of concern were followed up within the departments, a separate health and work environment survey and in the annual appraisal dialogues. We have also established KPIs concerning diversity and inclusion, and results and progress will be measured in 2023.

In 2022, Borregaard implemented a pay and career development tool to ensure equal pay and develop career paths across Borregaard.

## THE WAY FORWARD

We will continue to work systematically to recruit and develop people of different ethnicity, genders and age groups. Our focus on diversity is reflected in recruitment, promotion and leadership development, and is measured and monitored through our organisational audit and annual engagement survey.

<sup>44</sup> Our Diversity and equality report is published at [borregaard.com/sustainability/sustainability-documentation/](https://borregaard.com/sustainability/sustainability-documentation/)



## SUSTAINABLE SOURCING

As procurement makes up a substantial part of our budget and is a vital input in our production, sustainable sourcing is regarded as a material topic for Borregaard. What we purchase, who we purchase from and the requirements and standards we set for our suppliers impact the economy, environment, and society. Consequently, sourcing of our goods and services and supplier interaction must be conducted in a proper manner, taking all three pillars of sustainability: People, Planet and Profit, into account.

Our commitment to sustainable sourcing is embedded in our top governing documents, the Procurement policy and the Responsible sourcing policy<sup>45</sup>. Guidelines and policies procedures are implemented to regulate activity and help employees cultivate good relationships and sound business practices. Social, environmental and economic factors are integrated into the sourcing decisions and the assessment of suppliers.



<sup>45</sup>Our Responsible sourcing policy is published at [borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/](https://borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/)



## KEY NUMBERS, TARGETS AND RESULTS

### KEY NUMBERS

- 3,000 suppliers, 3% account for 65% of total spend, 96% European & US based
- 89% has signed our Supplier Code of Conduct<sup>43</sup>
- 100% of new suppliers\* were screened using environmental criteria
- 100% of new suppliers\* were screened using social criteria

### 2022

- Target: All new suppliers sign Supplier Code of Conduct and are assessed w.r.t. responsible sourcing  
**Result:** Achieved. 100% has signed and 100% has been assessed (Biorefinery in Norway)
- Target: Reassess the existing supplier portfolio w.r.t. responsible sourcing  
**Result:** Achieved
- Target: Implement improved supplier assessment tools  
**Result:** Achieved. EcoVadis implemented
- Target: 11 supplier audits  
**Result:** Achieved. 13 conducted

### TARGETS 2023

- All new suppliers sign Supplier Code of Conduct and are assessed w.r.t. responsible sourcing
- 60% of strategic suppliers disclose information on the EcoVadis platform
- 14 supplier audits

*\*Targeted suppliers: All new suppliers except those classified non-critical*

### HOW WE WORK

When purchasing goods and services, we aim to make our supply chain as sustainable as possible. We actively communicate our expectations and requirements to our partners, and we collect information from our suppliers about their businesses as part of our decision-making process. An example of such information is physical climate-related risk that can cause disturbance in the supply chain. We assess the suppliers on efficiency, price, quality, and service levels, as well as social and environmental issues. Our established strategy is to conduct sustainable purchasing, where social, ethical, and environmental aspects are integrated and given considerable weight in the procurement process.

Borregaard's corporate culture, as well as our values on integrity and sustainability, contribute to standards and objectives for sound business ethics throughout the value chain.

We comply with, and we expect our suppliers to comply with, accepted levels of ethical and responsible practices in areas such as labour and human rights, environment, and anti-corruption. Our suppliers commit to such standards by signing our Suppliers Code of Conduct<sup>43</sup>. Risk is mitigated and harm is avoided by meeting established principles and specific compliance criteria, which are published and transparent.

<sup>43</sup> Our Supplier code of conduct is published at [borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/](https://borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/)

Furthermore, we consider any significant actual and potential negative social and environmental impacts by the supplier and their supply chain. In case of significant impacts, we use our purchasing power and estimate the possibility to influence the supplier's business standard for the better. In severe cases and/or where the supplier shows no efforts to improve, the alternative would be to end the relationship with the supplier.

In 2022, the estimated monetary value of payments made to suppliers (spend) was approximately NOK 5 billion. We sourced from 3,000 suppliers from 44 different countries. 76% of the sourcing was from Europe, 20% from the US and Canada and the remaining 4% distributed throughout Asia, Americas, Australia and Africa. Out of the 3,000 suppliers, 491 had a spend exceeding NOK 1 million in 2022 and 98 suppliers were defined as bottleneck or strategic suppliers.

75% of spend was related to the biorefinery in Norway, out of which 57% was direct spend (energy and raw materials) and logistics. Out of the 1,600 suppliers to the biorefinery in Norway 63% of spend originated from Norway, Sweden and Germany.

## DEVELOPMENTS IN 2022

We continued improving our supplier data collection process and engagement with suppliers to enable good data-driven decisions and priorities for our sustainability approach. We collected detailed figures from suppliers regarding their sustainability activities in relation to climate and emissions as well as their water usage and approach to water security (ref Section B, Indirect GHG emissions along the value chain (scope 3), Developments in 2022). We improved communication with our suppliers by introducing "What you need to know as a supplier"<sup>46</sup> on our web page.

Borregaard has been disclosing information on the EcoVadis<sup>47</sup> platform since 2013. EcoVadis provides sustainability ratings for businesses. It assesses companies based on their environmental, social, and ethical practices and performance. In 2022, we expanded our involvement by using EcoVadis also as a tool for assessing suppliers. We implemented two separate modules: EcoVadis Ratings and EcoVadis IQ.

Using the EcoVadis IQ, we profiled and mapped our supplier base for ethical, social and environmental risks and opportunities. We detected the suppliers' overall risk, which is calculated based on the supplier's inherent sustainability risk intelligence from the EcoVadis platform and our own procurement data. The results are shown in the illustration below.

In parallel, we introduced a programme to encourage our suppliers to share their information on the EcoVadis platform (EcoVadis Rating). This programme is part of our supplier engagement strategy, and the aim is to collaborate and achieve environmental and social improvements across the value chain.

In total 1,356 of our suppliers have been assessed for social and environmental impact using the EcoVadis tools. Four were identified as having significant actual and potential negative social impacts, none of them strategic suppliers and none with improvements agreed. Six suppliers were identified as having significant actual and potential negative environmental impacts. In addition, we regard the 289 suppliers in the categories transportation services, chemicals and wood as having potential negative environmental impacts on a general basis. Of these 33 suppliers are classified as strategic and improvements were agreed with 58% of them. No significant actual and

## Supplier distribution per risk level



<sup>46</sup> <https://www.borregaard.com/company/suppliers/>

<sup>47</sup> <https://www.ecovadis.com/>

potential negative social nor environmental impacts have been identified in the supply chain. At the same time, it has not been deemed necessary to terminate the relationship with any of the identified suppliers. We have ended our relationship with three suppliers identified with “high risk” as their products/services were no longer needed.

Borregaard has provided sustainability training to internal personnel and suppliers. Furthermore, we have made necessary measures to comply with the Norwegian Transparency Act<sup>48</sup>, being in effect as of July 2022, promoting decent working conditions and human rights throughout the whole value chain.

## THE WAY FORWARD

We will continue to improve our supplier data collection process and engage with suppliers to enable good data-driven decisions and priorities for our sustainability approach.

Borregaard will continue co-operation with external resources to implement tools to collect and assess detailed supplier data in a more efficient and automated way.

A web-based solution for supplier interaction is in process, as well as a supplier assessment tool for non-strategic suppliers and a sourcing tool. These tools will help us increase efficiency and transparency to make data-driven decisions on innovation and sustainability, and measure and track CO<sub>2</sub> emissions.

The use of EcoVadis as a tool to assess suppliers shall be expanded to the global organisation.

The Supplier Engagement Strategy is currently being revised. In 2023, the updated strategy will be implemented in the organisation, with accompanied training of buyers.

All our suppliers that signed our Supplier Code of Conduct have contractually committed to acknowledged standards related to environment, labour and human rights. Some contracts also have specific clauses regarding environment, labour and human rights included. In 2023, we will assess the contract portfolio with the aim to include such clauses in additional contracts, where applicable.



<sup>48</sup>New Norwegian law on business openness and work with basic human rights and decent working conditions



## BUSINESS ETHICS AND ANTI-CORRUPTION

Borregaard’s corporate culture, as well as our values within integrity and sustainability as set out in Borregaard’s culture and value document, The Borregaard Way<sup>14</sup>, include standards and objectives for sound business ethics. This is also further described in our code of conduct<sup>42</sup> and Human rights and working conditions policy<sup>39</sup> and more specific

guidelines for anti-corruption, competition legislation and responsible sourcing. A sound business practice honouring integrity and high ethical standards is important to gain trust and maintain our reputation in relations with employees, suppliers, customers, governmental bodies and other stakeholders.



### KEY NUMBERS, TARGETS AND RESULTS

#### KEY NUMBERS

- All new employees trained in Code of Conduct including anti-corruption
- 0 reported cases of violations of anti-corruption and competition regulations

#### 2022

- Target: Implementation of new third-party whistleblowing system  
**Result:** System suppliers evaluated and decided
- Target: Conduct training within Code of Conduct and anti-corruption  
**Result:** Achieved

#### TARGETS 2023

- Implementation of new third-party whistleblowing system
- Revise and update Code of Conduct
- 0 violations of anti-corruption and competition regulations

*The main GRI indicators are shown from page 100, the other indicator is in the HR file<sup>41</sup>*

<sup>14</sup> The Borregaard Way is published at [borregaard.com/sustainability/the-borregaard-way/](https://borregaard.com/sustainability/the-borregaard-way/)

<sup>39</sup> Our Human rights report is published at [borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/](https://borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/)

<sup>42</sup> Borregaard’s Code of conduct is published at [borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/](https://borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/)

<sup>41</sup> The HR file is published at [borregaard.com/sustainability/sustainability-documentation](https://borregaard.com/sustainability/sustainability-documentation)

## HOW WE WORK

Based on an assessment of risk, materiality and relevance, Borregaard focuses our work through anchoring of relevant topics in value documents.

The ethical guidelines were revised in 2019 in a process that involved many parts of the organisation, including the unions. The guidelines were implemented by e-learning which was completed by all employees in 2020.

We have recently renewed our interactive e-learning programmes for anti-corruption and ethical guidelines that combine knowledge with dilemma training. The programmes also ensure documentation of who has conducted the e-learning.

## DEVELOPMENTS IN 2022

Borregaard has established guidelines on whistleblowing, how they are handled, and which channels can be used for addressing concerns<sup>49</sup>. These guidelines are translated into relevant languages and distributed to the company's units worldwide. In addition, a new system for external and

internal whistleblowing has been evaluated and concluded and will be implemented.

A selection of employees conducted the e-learning course "Fighting corruption", which had a 97% completion rate. The e-learning course "Code of Conduct" held in the 4<sup>th</sup> quarter was mandatory for all employees and included several situations and ethical dilemmas our employees may encounter. At the end of the year, we conducted an e-learning course on sustainability to increase awareness around one of Borregaard's strategic priorities among all employees.

For new employees, code of conduct, anti-corruption and other relevant topics were included in the introduction programmes in 2022.

## THE WAY FORWARD

In 2023, we will revise Borregaard's code of conduct. We will also implement our new third-party whistleblowing system for both external and internal alerts, which will also allow for anonymity (see page 26 Corporate Governance).



<sup>49</sup> [Borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/competition-law-compliance-manual/](https://www.borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/competition-law-compliance-manual/)

8



## HUMAN RIGHTS AND DECENT WORKING CONDITIONS

Respecting and maintaining human rights and decent working conditions is a means to both human well-being and gaining trust. It is of vital importance that both our own employees and the different people we interact with in our value chain can work efficiently without human rights limitations.

An important element in The Borregaard Way<sup>14</sup>, Code of Conduct<sup>42</sup> and Supplier Code of Conduct<sup>43</sup> is to respect human rights and operate in a way that avoids violations of

human rights. We also have a specific Human rights and working conditions policy<sup>39</sup>. Borregaard has implemented necessary measures to be compliant with the Norwegian Transparency Act<sup>48</sup>. We comply with the UN's Universal Declaration of Human Rights<sup>50</sup> and the ILO's Declaration on Fundamental Principles and Rights at Work<sup>51</sup> and OECD Guidelines on Multinational Enterprises<sup>52</sup>.



### KEY NUMBERS, TARGETS AND RESULTS

#### KEY NUMBERS

- 0 reported cases of violation of human rights at Borregaard
- 0 reported cases of violations of human rights in our value chain

#### 2022

- Target: 0 violations on human rights  
**Result:** Achieved
- Target: Report according to the Norwegian Transparency Act  
**Result:** Achieved

#### TARGETS 2023

- 0 violations of human rights
- Follow up actions based on risk assessments

*A complete list of reported GRI indicators is shown from page 100*

<sup>14</sup> The Borregaard Way is published at [borregaard.com/sustainability/the-borregaard-way/](http://borregaard.com/sustainability/the-borregaard-way/)

<sup>39</sup> Our Human rights report is published at [borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/](http://borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/)

<sup>42</sup> Borregaard's Code of conduct is published at [borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/](http://borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/)

<sup>43</sup> Our Supplier code of conduct is published at [borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/](http://borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/)

<sup>48</sup> New Norwegian law on business openness and work with basic human rights and decent working conditions

<sup>50</sup> International Declaration of Human Rights, <http://www.un.org/en/documents/udhr/> / <sup>47</sup> International Labour Organisation (ILO), Declaration on Fundamental Principles and Rights at Work, <http://www.ilo.org/declaration/lang-en/index.htm>

<sup>51</sup> <https://www.oecd.org/corporate/mne/48004323.pdf>

<sup>52</sup> The Human rights and decent working conditions report is published at [borregaard.com/sustainability/sustainability-documentation](http://borregaard.com/sustainability/sustainability-documentation)

## HOW WE WORK

Borregaard conducts annual risk assessments, raises awareness and evaluates different issues that could violate human rights. As part of our materiality assessment<sup>8</sup>, we evaluate the human rights impact at Borregaard within economic, environmental and social areas. This is further explained in our report on Human rights and decent working conditions<sup>39</sup> which increases transparency around procedures, training and risks related to the topic.

## DEVELOPMENTS IN 2022

We expanded the human rights report to cover the requirements set out in the Norwegian Transparency Act and developed the Human rights and decent working conditions report<sup>39</sup>. The report is based on the OECD guidelines and provides a systematic and transparent view on how Borregaard assesses human rights and decent working conditions in our own operations, our supply chain or in other business relationships. Furthermore, the report accounts for how we follow up any actual or potential

negative findings and how we work to minimise these risks. Our Human rights and decent working conditions report is also available on our website, and it will be updated prior to 30 June 2024 and otherwise as required in line with any material changes in the overall risk assessment. The public's right to access information pursuant to the Norwegian Transparency Act is made available on [borregaard.com](http://borregaard.com).

Our employee engagement survey also covered questions related to human rights. The survey will be followed up to improve or maintain positive working conditions.

## THE WAY FORWARD

In 2023, we will keep working on the risk assessments pursuant to the Norwegian Transparency Act with emphasis on the identified areas where we can reduce our risk. The details are explained in our Human rights and decent working conditions report<sup>39</sup>.



<sup>8</sup> The materiality assessment report is published at [borregaard.com/sustainability/sustainability-documentation](http://borregaard.com/sustainability/sustainability-documentation)

<sup>39</sup> Our Human rights report is published at [borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/](http://borregaard.com/sustainability/corporate-responsibility/borregaard-s-business-policies/)

## REPORTING STANDARDS

This report has been prepared in accordance with the Global Reporting Initiative (GRI) Universal Standard 2021. The sustainability reporting includes the subsidiaries listed on page 160. Our GRI Index is available at [borregaard.com](http://borregaard.com)<sup>53</sup>. The sustainability report should be read in conjunction with the GRI index to get an overview of the full extent of the report. We also use recommendations from the Task Force on Climate-related Financial Disclosures<sup>10</sup> and Task Force on Nature-related Financial Disclosures<sup>11</sup> in our report.

In 2022, Borregaard made an initial assessment of the proposed Corporate Sustainability Reporting Directive (CSRD) requirements and evaluated its alignment against the current criteria. The assessment revealed a positive outlook for compliance given smaller adjustments to fully align with CSRD requirements.

Borregaard participates in external schemes that contribute to tighter control, improvements and inspiration regarding

a systematic way of working, as well as issues and topics relating to corporate responsibility and sustainable development and operation. We have committed to the Responsible Care guidelines and objectives, which are part of the European chemical industry's environmental responsibility initiative. Borregaard is a member of the UN Global Compact and through this we support universal principles on human rights, labour, the environment and anti-corruption. Borregaard also reports progress in line with the Global Compact. We view this report as our Communication on Progress to the UN Global Compact (advanced reporting level).

Borregaard is certified in accordance with several standards. Read more at [borregaard.com/company/certifications](http://borregaard.com/company/certifications).

<sup>10</sup> The TCFD report is published at [borregaard.com/sustainability/sustainability-documentation](http://borregaard.com/sustainability/sustainability-documentation)  
<sup>11</sup> The TNFD report is published at [borregaard.com/sustainability/sustainability-documentation](http://borregaard.com/sustainability/sustainability-documentation)  
<sup>53</sup> Our GRI index is published at [borregaard.com/sustainability/sustainability-documentation/](http://borregaard.com/sustainability/sustainability-documentation/)



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## NOTE GRI NUMBERS CHAPTER B

GHG emissions are reported in accordance with the Greenhouse Gas Protocol<sup>31</sup>. With basis in Borregaard's input data, a third party calculate our emissions which are published in a separate scope 3 emission report<sup>32</sup>. The calculation of GHG emissions is performed according to international standards. The direct GHG emissions and the GHG emissions from sourced steam at Borregaard in Norway are within the EU-ETS system, emission factor and calculation method are according to the EU-ETS permit given by the Norwegian Environmental Agency. The GHG

emissions from electricity are calculated as consumption times emission factor, physical mix for electricity is used. Sources for emission factors are the International Energy Agency (IEA) and Emissions & Generation Resource Integrated Database (eGRID). Borregaard's full year GHG emissions data are approved by a third-party.

Emission components are measured in line with Norwegian or international standards and are regulated by the permits given by the local or national authorities.

GRI ref	GRI Indicators for climate impact and emissions	Unit	2022	2021	2020
<b>302</b>	<b>Energy</b>				
302-1	Total Energy consumption	GWh	1,781	1,762	1,731
302-1	Renewable part of total energy consumption	GWh	1,051	1,040	1,108
302-1	Amount of Heat energy consumption of total energy consumption	GWh	1,235	1,234	1,193
302-1	Amount of Electricity consumption of total energy consumption	GWh	546	529	537
302-3	Heat energy consumption at Borregaard Norway (total) per air dried tonne (TAD) of cellulose	GJ/TAD cellulose	21.4	21.9	20.9
<b>305</b>	<b>Emissions</b>				
305-1	Scope 1: Direct GHG emissions (Base year 2020)	t CO <sub>2</sub> e	157,768	153,285	130,945
305-2	Scope 2: Energy indirect GHG emissions, location based (Base year 2020)	t CO <sub>2</sub> e	56,511	64,818	65,414
305-3	Scope 3: Other Indirect GHG emissions (Base year 2020)	t CO <sub>2</sub> e	354,303	364,245	399,998
305-4	Direct and indirect GHG emission (scope 1 og scope 2) pr revenue	tCO <sub>2</sub> e/mNOK	31.1	37.6	36.9
305-4	Direct and indirect GHG emission (scope 1 og scope 2) pr total energi consumption	tCO <sub>2</sub> e/GWh	120	124	113
305-5	Reduction of GHG emissions (total scope 1 og scope 2) from base year (2020)	t CO <sub>2</sub> e	-17,920	-21,745	0
305-5	Reduction of GHG emissions (total scope 1 og scope 2) from base year (2020)	%	-9	-11	0
C.S	Reduction of GHG emissions (total scope 1 og scope 2) from 2009	%	28	27	34
C.S	The amount of direct GHG emissions within EU-ETS system	t CO <sub>2</sub> e	143,042	137,579	118,200
305-1	Scope 1: Direct biogenic CO <sub>2</sub> emissions	t CO <sub>2</sub> e	148,565	150,748	139,657
305-2	Scope 2: Energy indirect biogenic CO <sub>2</sub> emissions	t CO <sub>2</sub> e	74,861	70,214	72,159
305-3	Scope 3: Other indirect biogenic CO <sub>2</sub> emissions	t CO <sub>2</sub> e	1,032,703	1,026,394	993,514
305-7	Emissions of SO <sub>2</sub>	t	60	71	65
305-7	Emission of NO <sub>x</sub>	t	104	93	94
305-7	Emissions of dust particles	t	56	62	50

<sup>31</sup> <https://ghgprotocol.org/standards>

<sup>32</sup> Borregaard's Scope 3 report is published at [borregaard.com/sustainability/sustainability-documentation](http://borregaard.com/sustainability/sustainability-documentation)

GRI ref	GRI Indicators for water consumption and effluent	Unit	2022	2021	2020
<b>303</b>	<b>Water and Effluents</b>				
303-3	Total water withdrawal	megaliters	54,468	57,610	55,482
303-3	Water withdrawal river Glomma, Borregaard Norway	megaliters	51,133	54,196	52,239
303-3	Water withdrawal ground water, Borregaard Norway	megaliters	0	0	0
303-3	Water withdrawal surface water other countries	megaliters	2,754	2,560	2,164
303-3	Water withdrawal ground water Florida	megaliters	141	149	168
303-4	Total water discharge	megaliters	54,143	57,299	55,200
303-4	Water discharge of cooling water river Glomma, Borregaard Norway	megaliters	33,852	36,158	34,917
303-4	Water discharge of process water river Glomma, Borregaard Norway	megaliters	17,139	18,106	17,629
C.S.	COD (organic material) in process water discharged, Borregaard Norway	t/day	54	55	57
C.S.	AOX ( halogenic organic material) in process water discharged, Borregaard Norway	t/day	0.22	0.25	0.27
C.S.	Suspended solids (fibers) in process water discharged, Borregaard Norway	t/day	5.0	4.7	4.4
C.S.	Phosphor in process water discharged, Borregaard Norway	kg/day	23	21	20
C.S.	Nitrogen in process water discharged, Borregaard Norway	kg/day	294	286	321
C.S.	Copper in process water discharged, Borregaard Norway	kg/day	6.5	7.2	9.7
303-4	Number of incidents of non-compliance with discharge limits, short-term	Number	122	99	59
303-4	Number of incidents of non-compliance with discharge limits, long-term	Number	0	0	0
303-5	Total water consumption	megaliters	325	311	281

GRI ref	GRI Indicators for waste and circularity	Unit	2022	2021	2020
<b>306</b>	<b>Waste</b>				
306-3	Total amount of waste generated	t	36,512	34,172	40,811
306-3	Non-hazardous waste generated	t	32,800	30,419	36,207
C.S.	Non-hazardous waste, to recovery of materials or energy, Borregaard Norway	t	19,454	14,413	14,439
C.S.	Non-hazardous waste, to landfill	t	12,897	15,329	21,249
306-3	Hazardous waste generated	t	3,712	3,753	4,605
C.S.	Hazardous waste, to recovery of materials or energy, Borregaard Norway	t	202	134	135
C.S.	Hazardous waste, to landfill, Borregaard Norway	t	3,509	3,552	4,186

GRI ref	GRI Indicators for process and public safety	Unit	2022	2021	2020
<b>306</b>	<b>Company specific indicator</b>				
C.S.	Number of fires	Number	0	3	5
C.S.	Number of near-fires	Number	9	8	11

GRI ref	GRI Indicators for chapter B	Unit	2022	2021	2020
<b>2</b>	<b>Environmental compliance</b>				
2-27	Non-compliance with environmental laws and regulations	Number	-	-	-

**NOTE GRI NUMBERS CHAPTER C**Other GRI indicator is in the HR file<sup>41</sup>

GRI ref	GRI Indicators for a safe and healthy working environment	Unit	2022	2021	2020
<b>403</b>	<b>Occupational health and safety</b>				
403-9	Number of fatalities as a result of work-related injury	Number	0	0	0
403-9	Rate of fatalities as a result of work-related injury per million hours worked	Rate	0,0	0,0	0,0
403-9	Number of high-consequence work-related injuries	Number	0	0	1
403-9	Rate of high-consequence work-related injuries per million hours worked	Rate	0.0	0.0	0.5
403-9	Number of recordable work-related injuries	Number	10	7	10
403-9	Rate of recordable work-related injuries per million hours worked	Rate	4.9	3.5	5.0
C.S	Number of lost time work-related injuries	Number	2	1	4
C.S	Rate of lost time work-related injuries per million hours worked (LTI-rate)	Rate	1.0	0.5	2.0
403-9	The numbers of hours worked	Number	2,025,186	1,987,809	2,000,682
403-9	Number of fatalities as a result of work-related injury - contractors	Number	0	0	0
403-9	Rate of fatalities as a result of work-related injury per million hours worked - contractors	Rate	0.0	0.0	0.0
403-9	Number of high-consequence work-related injuries - contractors	Number	0	0	0
403-9	Rate of high-consequence work-related injuries per million hours worked - contractors	Rate	0.0	0.0	0.0
403-9	Number of recordable work-related injuries - contractors	Number	6	4	2
403-9	Rate of recordable work-related injuries per million hours worked - contractors	Rate	23.2	13.9	7.0
403-9	The numbers of hours worked - contractors	Hours	258,768.5	287,247	286,940
C.S	Sick leave	%	4.3	3.7	3.7
GRI ref	GRI Indicators for competence development and a corporate culture that supports our goals and strategy	Unit	2022	2021	2020
<b>2-7</b>	<b>Employees</b>				
2-7 a.	Total number of employees	Number	1,133	1,099	1,103
2-7 a.	FTE Group	Number	1,107	1,072	1,091
2-7 a.	FTE Sarpsborg	Number	798	768	779
2-7 a.	FTE Rothschild, USA	Number	98	98	98
2-7 a.	FTE Fernandina Beach, USA	Number	61	55	60
2-7 a.	FTE Maxau, Germany	Number	38	40	41
<b>401</b>	<b>Employment</b>				
401-1	Total turnover Group	Rate	8.0 %	8.3 %	6.7 %
401-1	Total turnover Sarpsborg	Rate	4.7 %	6.1 %	4.6 %

/ <sup>41</sup> The HR file is published at [borregaard.com/sustainability/sustainability-documentation](https://borregaard.com/sustainability/sustainability-documentation)

GRI ref	GRI Indicators for competence development and a corporate culture that supports our goals and strategy	Unit	2022	2021	2020
<b>402</b>	<b>Training and education</b>				
402-2	Introduction, Borregaard Group	Number	57	25	30
402-2	Production academy	Number	57	20	44
402-2	Borregaard Leadership principles programme	Number	19	20	
404-3	Percentage of total employees who received a regular performance and career development review (men)	%	72 %	76 %	
404-3	Percentage of total employees who received a regular performance and career development review (women)	%	81 %	79 %	
GRI ref	GRI indicators for diversity and equal opportunities	Unit	2022	2021	2020
<b>405</b>	<b>Diversity and gender equality</b>				
405-2	Ratio of basic salary women to men	%	103 %	102 %	110 %

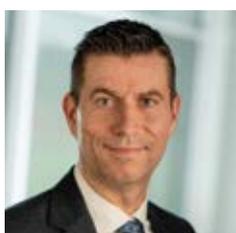
# THE GROUP EXECUTIVE MANAGEMENT



**PER A. SØRLIE**

President and Chief Executive Officer (CEO)  
Born: 1957

Per A. Sørli has been with Borregaard since 1990 and was appointed President and CEO in 1999. He has served Borregaard as CFO (1990-1993) and Executive Vice President of the Fine Chemicals division (1993-1999). Previously, Mr Sørli held positions as CFO at Bjølsen Valsemølle and Hafslund's US operations. Per A. Sørli holds a Degree in Business Administration (siviløkonom) from the Norwegian School of Economics and Business Administration in Bergen, Norway.



**TOM ERIK FOSS-JACOBSEN**

Executive Vice President (EVP), BioSolutions  
Born: 1969

Tom Erik Foss-Jacobsen has served as EVP BioSolutions from May 2019. Prior to that he served as EVP of Speciality Cellulose since 2007. Since joining Borregaard in 1996, he has assumed various roles in sales and marketing. Previously, Mr Foss-Jacobsen worked as a Business Development Manager EMEA at InFocus Corp and as Assistant Product Manager Soft Drinks at Borg Bryggerier. Tom Erik Foss-Jacobsen holds a Master's Degree in International Marketing and Strategy from the Norwegian Business School (BI) and a Bachelor's Degree in Civil Engineering.



**GISLE LØHRE JOHANSEN**

Executive Vice President (EVP) Speciality Cellulose and Fine Chemicals  
Born: 1959

Gisle Løhre Johansen has served as Executive Vice President (EVP) Speciality Cellulose and Fine Chemicals from May 2019. Prior to that, he served as SVP of Business Development/R&D since 2007 and EVP of Fine Chemical Intermediates since 2013. Since joining Borregaard in 1991, Mr Løhre Johansen has assumed various positions including Site Manager in Sarpsborg (1999–2007) and Site Director of Borregaard Schweiz (2006–2007). Gisle Løhre Johansen holds a Master's Degree in Organic Chemistry from the Norwegian University of Science and Technology (NTNU) in Trondheim, Norway.



### OLE GUNNAR JAKOBSEN

Plant Director of Borregaard's  
Sarpsborg Site (Norway)  
Born: 1969

Ole Gunnar Jakobsen has served as Plant Director of Borregaard's Sarpsborg production site since 2006. Since joining Borregaard in 1995, he has assumed various positions in production management in various plants at the site in Sarpsborg. Ole Gunnar Jakobsen holds a Bachelor's Degree in Mechanical Engineering and a Master's Degree in Process Engineering from Telemark University College (HiT) in Porsgrunn, Norway.



### PER BJARNE LYNGSTAD

Chief Financial Officer (CFO)  
Born: 1961

Per Bjarne Lyngstad has been with Borregaard since 1988. He was appointed CFO in 1998 and prior to that, he assumed various finance and administrative positions in Borregaard and Borregaard USA. Per Bjarne Lyngstad has a Graduate Programme in Economics and Business Administration (siviløkonom HAE) from the Norwegian School of Economics and Business Administration in Bergen, Norway.



### KRISTIN MISUND

Senior Vice President (SVP), R&D  
and Business  
development  
Born: 1965

Kristin Misund has served as SVP R&D and Business development since May 2019. Since joining Borregaard in 1993 she has assumed various positions within R&D, including 15 years as R&D Director and head of the Corporate R&D centre. Kristin Misund holds a PhD in organic chemistry from Norwegian University of Science and Technology (NTNU) in Trondheim, Norway.



### LIV LONGVA

Senior Vice President (SVP),  
Strategic Sourcing  
Born: 1969

Liv Longva has been with Borregaard since 2008. She was appointed SVP, Procurement and Strategic Sourcing in 2020. Previously Ms Longva held positions at NATO C3 Agency, Tandberg Data and the Norwegian Armed Forces. Liv Longva holds a Master of Economics degree from the University of Oslo.



### DAG ARTHUR AASBØ

Senior Vice President (SVP), Organi-  
sation and Public Affairs  
Born: 1961

Dag Arthur Aasbø has been SVP of Organisation and Public Affairs since 2008. Since joining Borregaard in 1993, he has assumed positions in Borregaard relating to communications and public affairs. Mr Aasbø also has experience as editor and in communication management roles in various organisations. Dag Arthur Aasbø holds a Bachelor's Degree in Business Administration from the Norwegian Business School (BI) and has also studied Communications/Journalism and Religion/Ethics.



### SVEINUNG HEGGEN

General Counsel  
Born: 1958

Sveinung Heggen was appointed General Counsel of Borregaard 1 January 2013. Before joining Borregaard, he served as attorney-at-law at Orkla ASA, Legal Department (from 1992). Prior to that, he held different positions in the Ministry of Finance, Tax Law Department (1985-1992). Sveinung Heggen holds a Cand. Jur. Degree from the University of Oslo.





## CONSOLIDATED FINANCIAL STATEMENTS

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# CONSOLIDATED FINANCIAL STATEMENTS 2022

## INCOME STATEMENT

Amounts in NOK million	Note	2022	2021
Sales revenues	2, 8	6,776	5,715
Other operating revenues		105	90
<b>Operating revenues</b>	<b>2, 7</b>	<b>6,881</b>	<b>5,805</b>
Cost of materials	21	-2,628	-2,152
Payroll expenses	9, 10	-1,170	-1,114
Other operating expenses	9, 11	-1,440	-1,167
Depreciation and impairment property, plant and equipment	12, 17, 18	-444	-416
Amortisation intangible assets	17	-5	-4
Other income and expenses <sup>1</sup>	13	-8	-
<b>Operating profit</b>		<b>1,186</b>	<b>952</b>
Finance income	14	345	229
Finance costs	14	-410	-306
Profit/loss from associate company	6, 14	-3	-2
Financial items, net	14	-68	-79
<b>Profit before taxes</b>		<b>1,118</b>	<b>873</b>
Taxes	15	-267	-213
<b>Profit for the year</b>		<b>851</b>	<b>660</b>
Profit/loss attributable to non-controlling interests	31	-41	-32
Profit/loss attributable to owners of the parent		892	692
EBITDA <sup>1</sup>		1,643	1,372

## EARNINGS PER SHARE

Amounts in NOK	Note	2022	2021
Earnings per share	16	8.95	6.95
Diluted earnings per share	16	8.92	6.94

## STATEMENT OF COMPREHENSIVE INCOME

Amounts in NOK million	Note	2022	2021
<b>Profit for the year</b>		<b>851</b>	<b>660</b>
<b>ITEMS NOT TO BE RECLASSIFIED TO PROFIT &amp; LOSS</b>			
Actuarial gains and losses (after tax)	10, 15	1	55
Total		1	55
<b>ITEMS TO BE RECLASSIFIED TO PROFIT &amp; LOSS</b>			
Change in hedging reserve after tax (cash flow)	15, 29	-253	86
Change in hedging reserve after tax (net investment in subsidiaries)	15	-70	-9
Translation effects		114	27
Translation effects joint venture	6	4	-2
Total		-205	102
<b>Total items not to be and to be reclassified to profit &amp; loss</b>		<b>-204</b>	<b>157</b>
<b>The Group's comprehensive income</b>		<b>647</b>	<b>817</b>
Profit/loss attributable to non-controlling interests	31	-33	-28
Profit attributable to owners of the parent		680	845

/ <sup>1</sup> Alternative performance measures, see page 172 for definition.

## STATEMENT OF FINANCIAL POSITION

Amounts in NOK million	NOTE	31.12.2022	31.12.2021
<b>Assets</b>			
Intangible assets	17	82	89
Property, plant and equipment	18	4,371	4,191
Right-of-use assets	12	345	351
Deferred tax assets	15	4	7
Investments in joint venture and associate company	6	142	173
Other assets	20	250	332
<b>Non-current assets</b>		<b>5,194</b>	<b>5,143</b>
Inventories	21	1,299	792
Receivables	22	1,387	1,107
Cash and cash equivalents	23	234	124
<b>Current assets</b>		<b>2,920</b>	<b>2,023</b>
<b>Total assets</b>		<b>8,114</b>	<b>7,166</b>
<b>Equity and liabilities</b>			
Group equity	30	4,394	4,222
Non-controlling interests	31	51	84
<b>Total equity</b>		<b>4,445</b>	<b>4,306</b>
Deferred tax	15	136	197
Provisions and other liabilities	24	159	60
Interest-bearing liabilities	27	1,370	1,320
<b>Non-current liabilities</b>		<b>1,665</b>	<b>1,577</b>
Interest-bearing liabilities	27	702	224
Income tax payable	15	217	195
Other liabilities	25	1,085	864
<b>Current liabilities</b>		<b>2,004</b>	<b>1,283</b>
<b>Equity and liabilities</b>		<b>8,114</b>	<b>7,166</b>

Sarpsborg, 21 March 2023

**THE BOARD OF DIRECTORS OF BORREGAARD ASA**
*Signed*
**HELGE AASEN**
*Chair*
*Signed*
**TERJE ANDERSEN**
*Signed*
**TOVE ANDERSEN**
*Signed*
**MARGRETHE HAUGE**
*Signed*
**JOHN ARNE ULVAN**
*Signed*
**ARUNDEL KRISTIANSEN**
*Signed*
**RAGNHILD ANKER EIDE**
*Signed*
**PER A. SØRLIE**
*President and CEO*

## STATEMENT OF CASH FLOW

Amounts in NOK million	Note	2022	2021
Profit/loss before taxes		1,118	873
Amortisation, depreciation and impairment charges		449	420
Changes in net working capital, etc.		-658	256
Dividend/share of profit from JV & associate company	6, 14	34	6
Taxes paid		-208	-124
<b>Cash flow from operating activities</b>		<b>735</b>	<b>1,431</b>
Investments property, plant and equipment and intangible assets*	17, 18	-464	-556
Other capital transactions		9	9
Investment in associate company	6		-145
<b>Cash flow from investing activities</b>		<b>-455</b>	<b>-692</b>
Dividends		-499	-249
Proceeds from exercise of share options/shares to employees		41	59
Buy-back of treasury shares		-68	-118
Gain/loss on hedges for net investments in subsidiaries		-79	-14
<b>Net paid to shareholders</b>		<b>-605</b>	<b>-322</b>
Repayment of interest-bearing debt		-512	-814
Proceeds from interest-bearing liabilities		837	300
Change in interest-bearing receivables/other liabilities		78	-1
<b>Change in net interest-bearing liabilities</b>	<b>27</b>	<b>403</b>	<b>-515</b>
<b>Cash flow from financing activities</b>		<b>-202</b>	<b>-837</b>
<b>Change in cash and cash equivalents</b>	<b>23</b>	<b>78</b>	<b>-98</b>
Net cash and cash equivalents as of 1 January		5	96
Change in cash and cash equivalents		78	-98
Currency effect of cash and cash equivalents		28	7
<b>Net cash and cash equivalents as of 31 December</b>	<b>23</b>	<b>111</b>	<b>5</b>

## \* INVESTMENTS BY CATEGORY

Amounts in NOK million	Note	2022	2021
Replacement investments	17, 18	359	398
Expansion investments <sup>1</sup> including investment in associate company	6, 17, 18	105	303
<b>Total</b>		<b>464</b>	<b>701</b>

The cash flow statement has been prepared according to the indirect method and reflects cash flows from operating,

investing and financing activities and explains changes in "Cash and cash equivalents" in the reporting period.

## STATEMENT OF CHANGES IN EQUITY

Amounts in NOK million	Share capital (Note 30)	Share premium fund	Other paid-in equity	Retained earnings	Hedging reserve	Translation reserve	Actuarial gains/ losses	Total Group equity	Non- controlling interests	Total equity
<b>Equity 31 December 2020</b>	<b>100</b>	<b>1,346</b>	<b>746</b>	<b>1,479</b>	<b>-66</b>	<b>77</b>	<b>-14</b>	<b>3,668</b>	<b>110</b>	<b>3,778</b>
Profit/loss for the year	-	-	-	692	-	-	-	692	-32	660
Items in other comprehensive income	-	-	-	-	77	21	55	153	4	157
The Group's comprehensive income	-	-	-	692	77	21	55	845	-28	817
Paid dividend	-	-	-	-249	-	-	-	-249	-	-249
Buy-back of treasury shares (Note 30)	-	-	-	-118	-	-	-	-118	-	-118
Exercise of share options (Note 9, 30)	-	-	38	-	-	-	-	38	-	38
Shares to employees (Note 9, 30)	-	-	28	-	-	-	-	28	-	28
Option costs (share-based payment)	-	-	10	-	-	-	-	10	-	10
Additions of non-controlling interests (Note 31)	-	-	-	-	-	-	-	-	2	2
<b>Equity 31 December 2021</b>	<b>100</b>	<b>1,346</b>	<b>822</b>	<b>1,804</b>	<b>11</b>	<b>98</b>	<b>41</b>	<b>4,222</b>	<b>84</b>	<b>4,306</b>
Profit/loss for the year	-	-	-	892	-	-	-	892	-41	851
Items in other comprehensive income	-	-	-	-	-323	110	1	-212	8	-204
The Group's comprehensive income	-	-	-	892	-323	110	1	680	-33	647
Paid dividend	-	-	-	-499	-	-	-	-499	-	-499
Buy-back of treasury shares (Note 30)	-	-	-	-68	-	-	-	-68	-	-68
Exercise of share options (Note 9, 30)	-	-	16	-	-	-	-	16	-	16
Shares to employees (Note 9, 30)	-	-	33	-	-	-	-	33	-	33
Option costs (share-based payment)	-	-	10	-	-	-	-	10	-	10
<b>Equity 31 December 2022</b>	<b>100</b>	<b>1,346</b>	<b>881</b>	<b>2,129</b>	<b>-312</b>	<b>208</b>	<b>42</b>	<b>4,394</b>	<b>51</b>	<b>4,445</b>



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## NOTE 01 GENERAL INFORMATION

The consolidated financial statements for Borregaard ASA (Borregaard/Group), including notes, for the year 2022, were endorsed by the Board of Directors (the Board) of Borregaard ASA on 21 March 2023. Borregaard ASA is a public limited company and its offices are located in Hjalmar Wessels vei 6, 1721 Sarpsborg, Norway. Borregaard develops, produces and markets specialised biochemicals and biomaterials to a wide range of customers in global niches. Borregaard's business model is linked to its advanced biorefinery that utilises the different components in the biomass to produce high value-added products that to a large extent can substitute petrochemical alternatives. Borregaard is an international company with production units and sales offices in the world's most important industrial markets.

The financial statements for 2022 have been prepared and presented in full compliance with the International Financial Reporting Standards (IFRS), as adopted by the EU. The valuation and recognition of the items in the financial statements have been carried out in accordance with current IFRS standards. The consolidated financial statements contain certain items that are crucial to understand the financial results for 2022. The most important principles are described below. Borregaard is exposed to currency risk for

most of its sales, primarily in USD and EUR. A substantial part of this exposure, defined as estimated net cash flow in USD or EUR, is routinely hedged on a rolling basis with a nine-month time horizon. Subject to certain criteria being met, the hedging horizon may be extended to three years in order to secure competitive margins. On the revenue side, most of Borregaard's business segments are exposed to price risk in international markets. The accounting policies regarding hedging are described in Note 29 and information regarding currency risks is provided in Note 28. Other income and expenses<sup>1</sup> (OIE) are presented as part of operating profit in the Income Statement but are presented after EBITDA<sup>1</sup> in the segment information in Note 7, which are reported according to management reporting. See Note 13 for details and specifications. The accounting policies for business areas are described in segment information for the various business areas in Note 7.

Borregaard has business areas as operating segments. The operating segments correspond to the way in which the business areas report figures to the Group Executive Management (key decision maker). The segments are BioSolutions, BioMaterials and Fine Chemicals.

## NOTE 02 BASIS FOR PREPARATION

Borregaard ASA was incorporated as a public limited liability company on 22 August 2012. The Borregaard Group includes subsidiaries, a joint venture and an associate company directly and indirectly owned by Borregaard ASA. The consolidated financial statements are primarily based on the historical cost principle.

Sales revenues from contracts with customers are recognised when control of the goods or services are transferred to the customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services. The Group has generally concluded that it is the principal in its revenue arrangements. However, when Borregaard acts as an agent related to freight services, Borregaard invoices the customer on behalf of the carrier and hence has no risk related to the freight services. See Note 8.

Sales revenues are presented after deducting discounts, value-added tax and other government charges and taxes. Borregaard sells goods in many different markets, and revenues from the sale of goods are recognised in the income statement when the risk and rewards of ownership

of the goods are passed to the buyer, in accordance with delivery terms. Interest income is recognised in the income statement when earned, while any dividends are recognised on the date they are approved for payment. Interest income and dividends are presented under "financial income".

The Group has at all times various contracts for the sale and purchase of goods and services in connection with the production. These contracts are regarded as part of Borregaard's ordinary operating activities and are therefore not specified or indicated in any other way. The contracts are deemed to be strictly sale or purchase contracts with no embedded derivatives. The company also enters into currency derivatives contracts.

Hedging instruments which satisfy the criteria for hedge accounting, are reported at fair value in the statement of financial position and changes in fair value are recognised in comprehensive income. Derivatives which do not satisfy the criteria for hedge accounting, are recognised at fair value through profit and loss.

Assets that no longer justify their value are written down to

<sup>1</sup> Alternative performance measures, see page 172 for definition.

the recoverable amount, which is the higher of value in use and fair value minus selling costs.

The accrual accounting principle and the going concern assumption are underlying assumptions for preparing the combined financial statements.

An asset is classified as current when: it is part of a normal operating cycle, it is held primarily for trading purposes, it expects to realise within twelve months or it consists of unrestricted cash or cash equivalents.

A liability is classified as current when: it is part of a normal operating cycle, it is held primarily for trading purposes, is due to be settled within twelve months or it does not have an unconditional right to defer settlement of the liability for at least twelve months after the reporting period.

Other items are non-current. A dividend does not become a liability until it has been formally approved by the General Meeting. The amortisation of intangible assets and other income and expenses<sup>1</sup> are presented on separate lines, broken down by segment.

All amounts are in NOK million unless otherwise stated. The functional currency of the parent company (Borregaard ASA) is NOK and the Group's reporting currency is NOK. Currency exchange rates as of 31 December are used in the balance sheet, whereas average currency exchange rates are used in the profit and loss.

### Consolidation principles

The consolidated financial statements show the overall financial results and the overall financial position when the parent company Borregaard ASA and its controlling interests are presented as a single economic entity. All the companies have applied consistent principles and all internal matters between the companies have been eliminated.

Interests in companies in which the Group alone has control (subsidiaries) have been fully consolidated, line by line, in the consolidated financial statements from the date the Group had control. These entities will be fully consolidated until the date such control ends. An investor controls an investee when the investor is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. If the Group controls a subsidiary, the noncontrolling interests' share of profit or loss after tax and their share of equity are presented on separate lines.

Interests in companies in which the Group together with others has joint control or has an ownership between 20-

50% (joint ventures and associate companies, see Note 6) are consolidated based on the equity method. The profit or loss from the joint venture is part of operating profit while profit or loss from the associate company is part of financial items. Business combinations are accounted for using the acquisition method. In connection with the acquisition of a subsidiary, the establishment of a joint venture or any acquisitions of significant influence in associates, a purchase price allocation is carried out. The acquisition is reported in the financial statements from the date the Group has control. The date of control is normally the date on which the acquisition agreement takes effect and has been approved by all relevant authorities. Assets and liabilities are measured at fair value at the time of acquisition. If there are non-controlling interests in the acquired company, these will be measured at their share of identified assets and liabilities. Goodwill allocated to non-controlling interests is considered separately in each acquisition. Goodwill is determined as the excess of the purchase price and the amount recognised as non-controlling interest over the fair value of identified assets and liabilities assumed.

### Other matters

*Emission rights.* Government granted and purchased CO<sub>2</sub> emission allowances expected to be used towards Borregaard's own emissions are recognised as intangible assets at nominal value (cost). In case there are actual CO<sub>2</sub> emissions exceeding the level covered by emission rights, those are recognised as a liability. Sale of government granted CO<sub>2</sub> emission rights are recognised at the time of sale at the transaction price. CO<sub>2</sub> emission allowances purchased for trading are measured and classified as inventory. As of 31 December 2022, Borregaard owns 690,066 CO<sub>2</sub> emission rights. However, Borregaard has an obligation to deliver 143,042 emission rights in 2023 for emissions in 2022.

*Contingent liabilities and contingent assets.* A contingent liability or asset is a possible obligation or a possible asset whose existence is uncertain and will be confirmed by the occurrence or non-occurrence of a future event, such as the outcome of legal proceedings or the final settlement of an insurance claim. Liabilities are recognised in the financial statements if there is a more than 50% probability that the liability has arisen; if the probability is lower, the matter is disclosed in notes to the financial statements unless the probability of payment is remote. An asset will only be recognised in the statement of financial position if it is virtually certain (95%) that the Group will realise the asset. The disclosure requirement applies to other contingent assets.

/ <sup>1</sup> Alternative performance measures, see page 172 for definition.

## NOTE 03 NEW ACCOUNTING STANDARDS

The consolidated financial statements will be affected by IFRS amendments in the future. Many IFRS projects are finalised, but some of them have either not been finally adopted or not been endorsed by the EU. It is highly likely that many of these projects will be adopted.

The Group's intention is to adopt the relevant new and amended standards and interpretations when they become effective and approved by EU. Amendments and interpretations that apply for the first time in 2022, do not have an impact on the consolidated financial statements of the Group.

## NOTE 04 USE OF ESTIMATES

The management has made use of estimates and assumptions in preparing the financial statements. This applies to assets, liabilities, revenues, expenses and supplementary information related to contingent liabilities.

Areas where estimates have considerable significance are, for example:

Amounts in NOK million	Note	Estimate/assumptions	Carrying value 31 December 2022	Carrying value 31 December 2021
Property, plant and equipment	18	Recoverable amount and estimation of correct remaining useful life	4,371	4,191
Right-of-use assets	12	Leases and discount rates used	345	351
Pension liabilities (net)	10	Economic and demographic assumptions	-14	-29
Environmental provisions	13, 35	Accrual related to ground conditions at the site in Norway	-20	-

Property, plant and equipment are largely based on a directly paid cost price and depreciated over estimated useful life. In the case of several of Borregaard's tangible assets, changes in assumptions may lead to substantial changes in value.

recognised in the financial statements when new estimates are prepared and whenever new requirements with regard to presentation are introduced. These matters are discussed in both the section on new accounting standards and other notes.

Other estimates and assumptions are reported in various notes and any information that is not logically included in other notes is presented in Note 37 "Other matters and subsequent events"

### Exercise of judgement

The financial statements may also be affected by the choice of accounting principles and the judgement exercised in applying them. This applies, for instance, to the assessment of items presented as other income and expenses on a separate line. It is important to note that a different set of assumptions for the presentation of the financial statements could have resulted in changes in the lines presented.

Future events and changes in operating parameters may make it necessary to change estimates and assumptions. New interpretations of standards may result in changes in the principles chosen and presentation. Such changes will be

## NOTE 05 IMPAIRMENT ASSESSMENTS

*Goodwill and intangible assets with an indefinite useful life must be tested annually for impairment to assess whether the values are recoverable. Borregaard carries out this test prior to preparing and presenting its financial statements for the 3<sup>rd</sup> quarter. If there are indications of impairments, the assets are tested immediately. A new impairment test is carried out in the 4<sup>th</sup> quarter, when necessary, for instance if the underlying assumptions have changed.*

of tangible (property, plant and equipment) and some minor intangible assets. An explanation of the details of and changes in these assets is presented separately in Note 17 and 18.

Borregaard has substantial non-current assets in the form

Estimate uncertainty, in some cases considerable, attaches to both property, plant and equipment and intangible assets. Both valuation and estimated useful lifetime are based on future information that is always subject to a great degree of uncertainty.

Borregaard routinely monitors assets and if there are indications that the value of an asset is no longer recoverable, an impairment test will be carried out to determine whether the asset can still justify its carrying value. If new estimates conclude that the value is no longer recoverable, the asset is written down to the recoverable amount, i.e. the greater of the net sales value and the value in use (discounted cash flow).

Cash flows relating to the assets are identified (see table below) and discounted. Future cash flow is based on specified assumptions and the plans adopted by the entity. If the discounted value of future cash flows is lower than the capitalised value of the unit's capital employed, the assets are written down to the recoverable amount. If the discounted value is higher than the capital employed, this means that the value of the intangible asset or goodwill is recoverable.

Borregaard's goodwill is related to the prior acquisition of Borregaard Czech and no impairment charges are identified:

Amounts in NOK million	GOODWILL	
	2022	2021
Borregaard Czech S. R. O	34	32
<b>Total goodwill</b>	<b>34</b>	<b>32</b>

#### Estimate assumptions and cash-generating units

A cash-generating unit (CGU) is the lowest level at which independent cash flows can be measured. Based on the forecasts, expectations and assumptions that were applied,

## NOTE 06 JOINT VENTURE AND ASSOCIATE COMPANY

The Group has a 50% interest in Umkomaas Lignin Ltd (LignoTech South Africa). The Group's interest in the joint venture is accounted for using the equity method in the consolidated financial statements. The result from the joint venture is accounted for as part of operating revenues.

The consolidated financial statements include the entire Borregaard Group, where the joint venture is accounted for using the equity method. The consolidated figures in the Sustainability and Corporate Responsibility Report do not include the joint venture as Borregaard does not control the operation of LignoTech South Africa.

Supply of lignin raw material to LignoTech South Africa was interrupted in late March 2020 due to Covid-19 related production curtailment of the calcium line at Sappi's Saiccor dissolving pulp mill and the lignin production was stopped. In May 2020, the owners of LignoTech South Africa and the

Borregaard Czech's capitalised value of goodwill at 31 December 2022 and the fair value exceeds the book value.

Calculations of future cash flows are based on a number of assumptions regarding both economic trends and the estimated useful life. Borregaard is affected by fluctuating markets and estimates made in weak markets can differ substantially from estimates made in stronger markets.

The discount rate applied is based on the Group's cost of capital, which has been estimated to be 9% before tax, based on a weighted average of required rates of return for the Group's equity and debt (WACC).

The required rate of return on the Group's equity is estimated by using the capital asset pricing model (CAPM). The required rate of return on debt is estimated on the basis of a long-term risk-free interest rate to which is added a credit margin derived from Borregaard's marginal long-term borrowing rate. The discount rate is adjusted for country risk, the level of inflation and operational risk, depending on the particular value being calculated.

Future cash flows are estimated on the basis of the budget for next year and the following two forecast years. As from year four a terminal value is calculated. Cash flow estimates are sensitive to changes in sales revenues, raw material and energy prices and the coherent ability to maintain margin assumptions. The sensitivity of the estimates, even when there is a reasonable possibility of a change in assumptions, did not give grounds for impairment charges.

Sappi Group, announced that the calcium sulphite line would be shut down for an extended period of time, and hence that the lignin plant would be mothballed. In October 2020, the owners of LignoTech South Africa, Borregaard and the Sappi Group announced the decision to permanently close the lignin production facility and to terminate the co-operation agreement. The closure is a consequence of Sappi's decision to convert their calcium sulphite pulp line, which is the source of lignin raw material, to magnesium technology. After the conversion, the spent liquor from the pulping process is burnt, and the energy and chemicals are recovered. The conversion of the pulp line was delayed and was completed in the first quarter of 2022. In the interim period, the calcium sulphite pulp line was operated to some extent, resulting in limited production of liquid lignin by LignoTech South Africa until the permanent closure came into effect with a positive effect for 2022 based on best estimate for remaining closure costs. See Note 13 "Other income and expenses" for further details.

As of 31 December 2022, total assets were NOK 6 million (NOK 68 million) in LignoTech South Africa and total liabilities were NOK 0 million (NOK 8 million). Borregaard's carrying amount of the investment is 50%. Sale of assets was higher than provision, affecting other income with NOK 26 million (Borregaard share NOK 13 million).

	2022	2021
Share in joint venture 1 January	30	38
Share of profit after tax	13	-
Dividend	-44	-6
Currency translation effect	4	-2
Share in joint venture 31 December	3	30

### Associate company

In 2021, Borregaard invested NOK 145 million in Alginor ASA and holds 25% of the shares as of 31 December 2022. The investment is accounted for using the equity method. Borregaard's share of Alginor's result after tax is recognised as part of Financial items.

Alginor is a Norwegian marine biotech company based in the Haugesund region of Southwestern Norway. The company is developing a fully integrated and sustainable value chain based on harvesting and biorefining of the brown kelp *Laminaria hyperborea* – a renewable marine resource growing in abundance along the Norwegian coastline. Alginor will target global markets for pharmaceutical and nutraceutical applications.

By the end of April 2024, Alginor will execute an additional direct equity issue exclusively to Borregaard. This equity issue will bring Borregaard's ownership in Alginor up to 35%

## NOTE 07 SEGMENTS

Borregaard has business areas as operating segments. The operating segments correspond to the way in which the business areas report figures to the Group Executive Management (key decision maker). All lignin-based products, including biovanillin, are organised under one management in BioSolutions. BioMaterials consist of products utilising wood fibres as the main raw material and include the speciality cellulose and cellulose fibrils businesses. Fine Chemicals include fine chemical intermediates mainly used for contrast agents and advanced bioethanol mainly for biofuel. Corporate overhead and certain other costs are allocated to the three business segments. Segment performance is primarily measured based on EBITDA<sup>1</sup>.

and bring another NOK 126 million in equity to Alginor. If Borregaard does not fully subscribe to this direct offering, Borregaard will have an obligation to pay a break fee of NOK 6 million. Through the described equity transactions, Alginor has secured the necessary funding to scale up its biorefinery concept in the Haugesund area.

Amounts in NOK million	2022	2021
Operating revenues	-	-
Profit before taxes	-12	-16
Profit/loss for the year before dividend	-12	-16
Borregaard's share of profit	-3	-2
Non-current assets	301	94
Current assets	97	337
Non-current liabilities	-5	-5
Current liabilities	-8	-29
Equity	385	397
Borregaard's share of equity	96	99
Goodwill	-	-
Other intangible assets	44	44
Borregaard's carrying amount of the investment	140	143

### Purchase price allocation

The difference between the purchase price of the shares in Alginor ASA and Borregaard's share of the booked equity at the time of the acquisition is allocated to intangible assets as it relates to development of the technology to be used in Alginor's business. The purchase price, including acquisition costs, of 25% of the shares is NOK 145 million of which NOK 44 million is allocated as intangible assets.

*BioSolutions* develops, produces and sells biopolymers and biovanillin from lignin.

*BioMaterials* develops, produces and sells speciality cellulose mainly for use as a raw material in the production of cellulose ethers, cellulose acetate and other speciality products. BioMaterials also includes cellulose fibrils for industrial applications, which are in the market introduction phase.

*Fine Chemicals* consists of fine chemical intermediates and advanced bioethanol.

The arm's length principle is applied to pricing of transactions between the various segments and companies. Borregaard AS

<sup>1</sup> Alternative performance measures, see page 172 for definition.

provides services to the companies in the Group and charges them for these services.

Figures for the geographical distribution of non-current operating assets, investments in property, plant and equipment, sales revenues and the number of man-years are also presented. See Note 8.

The Group applies the same principles for the presentation of segment information as for the rest of its consolidated financial statements, and the operating profit/loss in the segment information is identical to the information presented in the income statement for the Group. There is therefore no need for further reconciliation of these income statement items. Borregaard has a central finance function, and the financing of the various segments does not necessarily reflect the real financial strength of the individual segments. Financial items are therefore presented only for the Group as a whole.

The segment information tables show the key figures in which management monitors the business, such as total operating revenue, operating expenses, EBITDA<sup>1</sup>, depreciation, amortisation and impairment of intangible assets, other income and expenses<sup>1</sup> and operating profit for each business area. It does not disclose internal sales between the various segments as it is considered immaterial.

The table below shows the revenues generated by BioSolutions, BioMaterials and Fine Chemicals. Operating revenues consist of sales revenues (Note 8) and other revenues such as commissions, revenues from waste received for incineration etc.

The segment information also includes cash flow from operating activities, replacement investments, expansion investments<sup>1</sup> and working capital for each area.

## SEGMENTS 2022

Amounts in NOK million	Bio-Solutions	Bio-Materials	Fine Chemicals	Eliminations	Borregaard Group
<b>Income statement</b>					
Total operating revenues	4,050	2,250	632	-51	6,881
Operating expenses	-3,064	-1,823	-402	51	-5,238
EBITDA <sup>1</sup>	986	427	230		1,643
Depreciation	-212	-195	-37		-444
Amortisation and impairment intangible assets	-5	-	-		-5
Other income and expenses <sup>1</sup>	6	-12	-2		-8
Operating profit	775	220	191		1,186
Net financial items					-68
Profit before tax					1,118
<b>Cash flow</b>					
Cash flow from operating activities	639	6	90		735
Replacement investments	-123	-206	-30		-359
Expansion investments <sup>1</sup>	-92	-10	-3		-105
<b>Capital structure</b>					
Working capital at year-end	1,020	407	226		1,653
Capital employed <sup>1</sup> at year-end					6,802
Return on capital employed <sup>1</sup>					18.1 %

## SEGMENTS 2021

Amounts in NOK million	Bio-Solutions	Bio-Materials	Fine Chemicals	Eliminations	Borregaard Group
<b>Income statement</b>					
Total operating revenues	3,469	1,878	491	-33	5,805
Operating expenses	-2,527	-1,594	-345	33	-4,433
EBITDA <sup>1</sup>	942	284	146		1,372
Depreciation	-189	-193	-34		-416
Amortisation and impairment intangible assets	-4	-	-		-4
Other income and expenses <sup>1</sup>	-	-	-		-
Operating profit	749	91	112		952
Net financial items					-79
Profit before tax					873
<b>Cash flow</b>					
Cash flow from operating activities	860	376	195		1,431
Replacement investments	-124	-251	-23		-398
Expansion investments <sup>1</sup>	-166	-101	-36		-303
<b>Capital structure</b>					
Working capital at year-end	751	84	94		929
Capital employed <sup>1</sup> at year-end					6,043
Return on capital employed <sup>1</sup>					16.1 %

RECONCILIATION CAPITAL EMPLOYED<sup>1</sup>

Amounts in NOK million	2022	2021
<b>Capital employed<sup>1</sup></b>	<b>6,802</b>	<b>6,043</b>
Other non-current assets	204	155
Cash and cash equivalents	234	124
Net deferred tax	-132	-190
Interest-bearing liabilities	-2,072	-1,544
Income tax payable	-217	-195
Accumulated write-down and amortisation of goodwill and intangible assets	-187	-171
Other (derivatives, accruals, etc.)	-187	84
<b>Equity</b>	<b>4,445</b>	<b>4,306</b>

## RECONCILIATION WORKING CAPITAL

Amounts in NOK million	2022	2021
Receivables	1,387	1,107
Inventories	1,299	792
Other liabilities	-1,085	-864
Derivatives etc. not included in above items	52	-106
<b>Working capital</b>	<b>1,653</b>	<b>929</b>

/ <sup>1</sup> Alternative performance measures, see page 172 for definition.

## NOTE 08 REVENUES AND GEOGRAPHICAL BREAKDOWN

Revenue is recognised to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. IFRS 15 applies to all revenue contracts and provides a model for the recognition and measurement of sales of some non-financial assets (e.g. disposals of property, plant and equipment).

For contracts with customers, sale of Borregaard's products is generally expected to be the only performance obligation. The Group's revenue recognition occurs at a point in time

when control of the asset is transferred to the customer, generally on delivery of the goods. Borregaard also have some contracts that include volume rebates to some customers. The Group currently recognises rebates based on the most likely amount method which is also in line with IFRS 15.

Borregaard has operations in several countries and below is a summary showing the geographical breakdown of non-current operating assets, investments, number of man-years based on the geographical location of the operation. Sales revenues are based on the location of the customers.

Amounts in NOK million	Non-current operating assets		Investments		Number of man-years <sup>2</sup>		Sales revenues	
	2022	2021	2022	2021	2022	2021	2022	2021
Norway	3,846	3,748	424	663	795	768	319	243
Rest of Europe	82	78	5	2	91	92	2,876	2,560
Asia	13	5	3	-	48	48	1,591	1,307
America	857	800	32	36	171	162	1,931	1,544
Rest of the world					2	2	59	61
<b>Total</b>	<b>4,798</b>	<b>4,631</b>	<b>464</b>	<b>701</b>	<b>1,107</b>	<b>1,072</b>	<b>6,776</b>	<b>5,715</b>

### SALES REVENUES PER PRODUCT GROUP

Amounts in NOK million	2022	2021
BioSolutions	3,946	3,392
BioMaterials	2,205	1,840
Fine Chemicals	625	485
Eliminations	-	-2
<b>Total revenues</b>	<b>6,776</b>	<b>5,715</b>

Operating revenues consist of sales revenues and other revenues such as commissions, revenues from waste received for incineration etc.

## NOTE 09 PAYROLL EXPENSES AND REMUNERATION

Amounts in NOK million	2022	2021
Wages	-957	-893
Share-based payments (options and discounted shares)	-17	-15
Employer's national insurance contribution	-115	-126
Pension costs (Note 10)	-78	-77
Remuneration to Board Members	-3	-3
<b>Payroll expenses</b>	<b>-1,170</b>	<b>-1,114</b>
Average number of man-years	1,082	1,062

/ <sup>2</sup> Excluding employees in joint venture in LignoTech South Africa.

## REMUNERATION OF THE EXECUTIVE MANAGEMENT

Amounts in NOK thousand	CEO		Other members of the Group Executive Management		Total	
	2022	2021	2022	2021	2022	2021
Base salary	3,949	3,847	16,545	15,745	20,494	19,592
Bonus	1,955	1,900	7,400	6,640	9,355	8,540
Pension cost	832	800	2,411	2,255	3,243	3,055
Benefits in kind	266	244	1,702	1,759	1,968	2,003
<b>Total*</b>	<b>7,002</b>	<b>6,791</b>	<b>28,058</b>	<b>26,399</b>	<b>35,060</b>	<b>33,190</b>

Remuneration is actual paid remuneration in the respective years and includes vacation pay on salary earned the previous year. Bonuses however are accrued bonuses in the respective years to be paid out the following year.

\* There are 9 persons in the Group Executive Management including the CEO.

## Remuneration guidelines and report - 2022

Borregaard's remuneration guidelines for employees in managerial positions cover base salary, pension, annual bonus and long-term incentives (LTI). The remuneration guidelines and a more detailed description of executive

management remuneration are found in the separate report "Remuneration report 2022" at Borregaard's website (sustainability documentation).

## ISSUED AND OUTSTANDING SHARE OPTIONS AS OF 31 DECEMBER 2022:

Year issued	Number of share options issued	Exercised/ forfeited share options	Number of outstanding share options	Strike price*	Expire date	Number of employees**
2018	400,000	379,500	20,500	65.95	7 Feb 2023	26
2019	400,000	73,000	327,000	70.30	6 Feb 2024	27
2020	400,000	-	400,000	94.60	13 Feb 2025	28
2021	249,000	-	249,000	175.70	16 Feb 2026	31
2022	200,000	-	200,000	223.75	17 Feb 2027	31
	<b>1,649,000</b>	<b>452,500</b>	<b>1,196,500</b>			

\* The strike price has been adjusted for dividends. Strike prices were set at 10% above the share price at the issue date.

\*\* Including Group Executive Management.

Share-based related costs for 2022 for the Group Executive Management was NOK 3 million in total for all programs. 5,307 share options issued in 2017, 206,467 share options issued in 2018 and 28,000 share options issued in 2019 have been exercised in 2022.

Changes in outstanding share options for Borregaard's employees are shown in the table below:

Number of share options	2022		2021	
	No.	WAEP*	No.	WAEP*
Outstanding at the beginning of the year	1,236,274	103.66	1,428,000	86.76
Exercised during the year	-239,774		-440,726	
Granted during the year	200,000	223.75	249,000	180.70
Forfeited during the year	-		-	
Outstanding at year-end**	1,196,500	125.93	1,236,274	103.66
Exercisable options at year-end**	347,500		232,274	

\* Weighted average exercise price adjusted for dividend. Amounts in NOK.

\*\* Expire dates are 7 February 2023 for 20,500 options, 6 February 2024 for 327,000 options, 13 February 2025 for 400,000 options, 16 February 2026 for 249,000 options and 17 February 2027 for 200,000 options.

Borregaard has used the Black-Scholes model when estimating the value of the options. The volatility is calculated on the basis of the average volatility the past years for Borregaard and Borregaard peers. See Note 37 for share options issued in 2023.

Assumptions	2022	2021
Expected dividend-yield (%)	-	-
Expected volatility (%)	28.0	28.1
Historical volatility (%)	28.0	28.0
Risk-free return (%)	2.1	1.3
Expected life of option (years)	5.0	5.0
Weighted average share price (NOK)	202.00	160.60

#### SHARE OPTIONS AND SHARES HELD BY GROUP EXECUTIVE MANAGEMENT AND RELATED PARTIES AS OF 31 DECEMBER

	Issued 2018 Strike NOK 65.95*		Issued 2019 Strike NOK 70.30*		Issued 2020 Strike NOK 94.60*		Issued 2021 Strike NOK 175.70*		Issued 2022 Strike NOK 223.75*		Shares	
	No. of share options		No. of share options		No. of share options		No. of share options		No. of share options		No. of shares**	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
CEO	-	45,000	60,000	60,000	60,000	60,000	40,000	40,000	30,000	164,312	163,406	
Other members of the Group Executive Management	13,700	92,361	98,000	105,000	150,000	150,000	77,000	77,000	60,000	306,266	302,875	
<b>Total</b>	<b>13,700</b>	<b>137,361</b>	<b>158,000</b>	<b>165,000</b>	<b>210,000</b>	<b>210,000</b>	<b>117,000</b>	<b>117,000</b>	<b>90,000</b>	<b>470,578</b>	<b>466,281</b>	

\* The strike price has been adjusted for dividends.

\*\* Total share ownership including related parties.

#### Discounted shares for employees

The Group has a programme that gives employees, including the members of the Group Executive Management, the opportunity to buy a limited number of shares at a discount in relation to the market price. In 2022, Borregaard sold a total of 162,810 shares to employees. The share price was NOK 152.50 per share including a 25% discount. Costs in 2022, including administration costs, related to the programme in 2022 amounted to approximately NOK 9 million.

#### Special agreements with the President and CEO and other members of the Group Executive Management

If the President and CEO, Per A. Sørli, by mutual agreement and in the best interest of the company, terminates the employment contract, the employee will receive pay for up to 6 months after the period of notice. 75% of any income from another permanent post during the 6-month period will be deducted. The President and CEO is included in the company's ordinary pension schemes up to the retirement age of 68 years. In addition, the employee has a pension agreement which consists of 60% of annual pay in addition to full pension contribution (20% of 100% base salary) in the 2-year period from 65 to 67 years with no deduction for income from other permanent post.

The other members of the Group Executive Management have a six-months period of notice and no severance pay agreement.

There are no loans to the members of the Group Executive Management.

There are no other special agreements with the Group Executive Management team.

#### Remuneration of the Board of Directors

In the General Meeting in April 2022 it was determined that The Board of Directors is remunerated at annual rates for the period up to the next General Meeting in 2023:

Board of Directors			
Board chair	NOK	620,000	per year
Board member, shareholder-elected	NOK	350,000	per year
Board member, employee-elected	NOK	314,000	per year
Observer, employee-elected	NOK	105,000	per year
Deputy for observer	NOK	8,100	per meeting
Audit Committee			
Committee chair	NOK	100,000	per year
Member	NOK	66,000	per year
Compensation Committee			
Committee chair	NOK	59,000	per year
Member	NOK	46,000	per year

According to a resolution at the General Meeting in 2018, shareholder-elected Board members are required to use 20% of their annual remuneration to acquire shares in the Company, until the share value reaches an amount equivalent to one year's remuneration. For actual allowance to board members, see the "Remuneration report 2022" on Borregaard's website.

### Remuneration of the Nomination Committee

The chair of the Nomination Committee receives NOK 66,000 per year and an additional NOK 10,500 per meeting exceeding 4 meetings. Other members receive NOK 46,500 per year and an additional NOK 8,600 per meeting exceeding 4 meetings. For shares held by the Board of Directors, see Note 4 in the Financial Statement of Borregaard ASA.

For shares held by the Board of Directors, see Note 4 in the Financial Statement of Borregaard ASA.

### FEES TO GROUP EXTERNAL AUDITOR

Amounts in NOK million	2022	2021
Statutory audit	6	5
Other attestation services	1	-
Tax consultancy services	-	1
Other non-audit services	1	1
<b>Total fees to EY</b>	<b>8</b>	<b>7</b>

## NOTE 10 PENSIONS

Borregaard has a policy to use defined contribution pension plans. However, there are some defined benefit pension plans, primarily in the USA and Norway.

### Defined contribution plans

*In the defined contribution pension plans, the company is responsible for making an agreed contribution to the employee's pension assets. The future pension will be determined by the amount of the contributions and the return on the pension savings. Once the contributions have been paid, there are no further payment obligations attached to the defined contribution pension. As a result, there is no liability recorded in the statement of financial position. The pension costs related to defined contribution plans will be equal to the contributions to employees' pension savings in each reporting period.*

*Contribution plans also comprise pension plans that are common to several companies and where the pension premium is determined independently of the demographic profile in the individual companies (multi-employer plans). The company is obligated to follow the Act on Mandatory company pensions in Norway and the company meets the requirements.*

### Defined benefit plans

*Defined benefit plans are measured at the present value of accrued future pension benefits at the end of the reporting period. Pension plan assets are measured at their fair value.*

*Changes in accounting estimates for defined benefit plans are recognised in other comprehensive income and the net interest costs for the period is calculated by using the discount rate for the liability at the beginning of the period on the net liability. As such, the net interest cost consists of interest on the liability and the return on the plan assets, whereas both have been calculated by using the discount rate. Changes in net pension liabilities as a result of payments of premiums and pension payments have been taken into consideration. The difference between the actual return and the accounted return is*

*recognised continuously through other comprehensive income. The current service cost and net interest income/costs are recognised immediately. The financial part of the pension cost is recognised as part of financial items, the other part is recognised in the salary and personnel cost in the income statement. Changes in value, both in assets and liabilities, are recognised through other comprehensive income.*

*Gains or losses on the curtailment or settlement of a defined benefit plan are recognised through profit and loss when the curtailment or settlement occurs. A curtailment occurs when the Group decides to make a material reduction in the number of employees covered by a plan or amends the terms of a defined benefit plan such that a considerable part of the current employees' future earnings will no longer qualify for benefits or will qualify only for reduced benefits.*

*The introduction of a new defined benefit plan or an improvement to the current defined benefit plan will lead to changes in the pension liabilities. These will be charged to expenses in a straight line during the period until the effect of the change has been accrued. The introduction of new plans or changes to existing plans which take place with retroactive effect so that the employees immediately accrue a paid-up policy (or a change in a paid-up policy) are recognised in the statement of comprehensive income immediately. Gains or losses linked to curtailments or terminations of pension plans are recognised through profit and loss when they arise.*

Borregaard has pension plans that are classified as funded benefit plans and unfunded benefit plans. Expected contributions for the next year, 2023, to the defined benefit plan obligation is NOK 4 million. The largest part of the benefit plans are in the USA and Norway.

### USA

The pension plans in the USA contain three different plans; two defined benefit plans for salaried and hourly employees

and one supplemental post-retirement plan. In 2016, the defined benefit plans were closed for new employees and replaced with a contribution plan.

### Norway

The net pension liabilities consist of unfunded pension plans for key personnel and liabilities related to contribution-based plans for employees who earn more than twelve times the Norwegian National Insurance Scheme's basic amount (12G). The pension plan for employees in Norway who earn more than 12G is a contribution-based plan. The sum of the accrued contributions and the return on the plan assets are presented as a pension liability in the company's statement of financial position. The pension plan is therefore presented as a defined benefit plan.

The early retirement scheme, AFP, is recognised as a multiemployer defined contribution plan. This may change if there are sufficient reliable, consistent data to be able to recognise it as a defined benefit plan. In 2022, the premium for the early retirement scheme is 2.6% of total payments of wages between 1 and 7.1 times the average basic amount (G).

All employees in Norway younger than 62 years are included, 858 employees in 2022, and the cost in 2022 was NOK 12 million.

### Pension plan assets

The pension plans with pension plan assets are located in the USA. Pension plan assets are mainly invested in bonds and shares. The estimated return will vary depending on the composition of the various classes of assets. The breakdown of pension plan assets is presented below.

### Assumptions defined benefit plans

Borregaard uses the covered bonds interest rate on the Norwegian benefit plans. The discount rate is fixed at the rate on high quality corporate bonds with the same lifetime as the pension liabilities (AA-rated corporate bonds). As a rule, parameters such as wage growth, growth in G (future social security wage base) and inflation are set in accordance with recommendations on the various countries. The mortality estimate is based on up-to-date mortality tables for the various countries. Norway: K2013, USA: Pri-2012 collar base tables from 2012 projected forward using MP-2021.

### ASSUMPTIONS DEFINED BENEFIT PLANS

	NORWAY		USA	
	2022	2021	2022	2021
Discount rate	3.6 %	1.6 %	5.4 %	2.9 %
Rate of return on assets	NA	NA	5.4 %	2.9 %
Future salary adjustment	3.25 %	2.50 %	4.0 %	4.0 %
G-multiplier*/Future social security wage base	3.25 %	2.50 %	3.5 %	3.5 %
Turnover	2.0 %	2.0 %	2.5 %	2.5 %
Expected average remaining vesting period	10.5	10.1	-	-

\* 1G is NOK 111,477 as of 31 December 2022.

### BREAKDOWN OF NET PENSION COSTS

Amounts in NOK million	2022	2021
Contribution plans	-66	-59
Current service cost	-12	-18
<b>Net pension costs (incl. national insurance contributions)</b>	<b>-78</b>	<b>-77</b>

### BREAKDOWN OF NET PENSION LIABILITIES AS OF 31 DECEMBER

Amounts in NOK million	2022	2021
Present value of funded pension obligations	-333	-457
Pension plan assets (fair value)	409	523
Net funded pension assets/-obligations	76	66
Present value of unfunded pension obligations	-90	-95
<b>Capitalised net pension liabilities</b>	<b>-14</b>	<b>-29</b>

### CHANGES IN THE PRESENT VALUE OF PENSION OBLIGATIONS DURING THE YEAR

Amounts in NOK million	2022	2021
Pension obligations 1 January	-552	-568
Current service cost (incl. national insurance contributions)	-12	-18
Interest on pension obligations	-9	-22
Actuarial gains and losses	96	28
Benefits paid during the year	111	44
Currency translations	-57	-16
<b>Pension obligations 31 December</b>	<b>-423</b>	<b>-552</b>

## CHANGES IN PENSION PLAN ASSETS DURING THE YEAR

Amounts in NOK million	2022	2021
Pension plan assets (fair value) 1 January	523	478
Expected return on pension plan assets	16	13
Contributions and benefits paid during the year	-98	-29
Actuarial gains and losses	-94	45
Currency translations	62	16
<b>Pension plan assets (fair value) 31 December</b>	<b>409</b>	<b>523</b>

## BREAKDOWN OF PENSION PLAN ASSETS (FAIR VALUE)

As of 31 December	2022	2021
Cash and cash equivalents and money market investments	2 %	1 %
Bonds	32 %	36 %
Shares	66 %	63 %
<b>Total pension plan assets</b>	<b>100 %</b>	<b>100 %</b>

## SUMMARY OF NET PENSION LIABILITIES AND ADJUSTMENTS IN PAST FIVE YEARS

Amounts in NOK million	2022	2021	2020	2019	2018
Pension obligations	-423	-552	-568	-531	-478
Pension plan assets	409	523	478	435	399
Net pension liabilities	-14	-29	-90	-96	-79

## Sensitivity

The above pension cost and pension liabilities related to defined benefit schemes, are based on the assumptions outlined above. The actuarial calculations are sensitive to any changes in the assumptions. A 1% increase in wage adjustment would imply a 1% increase in pension liability and a 5% increase in pension cost (defined benefit schemes). A 1% increase in discount rate would imply an 8% decrease

in pension liability and 2% decrease in pension cost while a 1% reduction in discount rate would imply a 9% increase in pension liability and a 3% increase in pension cost. The calculation is based on the weighted average of the defined benefit schemes.

## NOTE 11 OTHER OPERATING EXPENSES

The Borregaard Group has chosen to present its income statement based on the nature of the item of income or expense. Operating expenses have been broken down into the following main items: Cost of materials, payroll expenses, depreciation, amortisation and other operating expenses. Thus, other operating expenses comprises all operating expenses that are not related to cost of materials, employee payrolls and capital costs in the form of depreciation. The most important items have been grouped into the following main items.

Amounts in NOK million	2022	2021
External distribution costs	-651	-527
Maintenance, repair and equipment costs	-313	-281
Consultants, legal advisors, temporary staff, etc.	-150	-131
Rental/leasing (Note 12)	-34	-44
Other	-292	-184
<b>Total other operating expenses</b>	<b>-1,440</b>	<b>-1,167</b>

## NOTE 12 LEASES AND LEASING

*IFRS 16 sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to account for all leases under a single on-balance sheet model.*

*The Group recognises right-of-use assets at the commencement date of the lease (i.e., the date the underlying asset is available for use). Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount of lease*

*liabilities recognised, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received. Right-of-use assets are depreciated on a straight-line basis over the shorter of the lease term and the estimated useful lives of the assets.*

*If ownership of the leased asset transfers to the Group at the end of the lease term or the cost reflects the exercise of a purchase option, depreciation is calculated using the estimated useful life of the asset.*

At the commencement date of the lease, the Group recognises lease liabilities measured at the present value of lease payments to be made over the lease term. The lease payments include fixed payments (including in substance fixed payments) less any lease incentives receivable, variable lease payments that depend on an index or a rate, and amounts expected to be paid under residual value guarantees, if any. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Group and payments of penalties for terminating the lease, if the lease term reflects the Group exercising the option to terminate. Variable lease payments that do not depend on an index or a rate are recognised as expenses (unless they are incurred to produce inventories) in the period in which the event or condition that triggers the payment occurs.

In calculating the present value of lease payments, the Group uses its incremental borrowing rate at the lease commencement date because the interest rate implicit in the lease is not readily determinable. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of lease liabilities is remeasured if there is a modification, a change in the lease term, a change in the lease payments (e.g., changes to future payments resulting from a change in an index or rate used to determine such lease payments) or a change in the assessment of an option to purchase the underlying asset.

#### Discount rates used

Machinery, vehicles and equipment: Incremental borrowing rate.

Buildings: Implicit interest rate if available

The incremental borrowing rate is based on interbank interest rate (NIBOR, EURIBOR or LIBOR) plus margin plus country risk mark-up.

The Group's lease of buildings have lease terms that vary from 3 years to 25 years, and several agreements involve a right of renewal which may be exercised during the last period of the lease terms. The Group assesses at the commencement whether it is reasonably certain to exercise the renewal right. Group's lease liabilities are included in interest-bearing liabilities. See Note 27.

The standard includes two recognition exemptions for lessees – leases of 'low-value' assets (e.g. personal computers) and short-term leases (i.e. leases with a lease term of 12 months or less) that Borregaard has adopted. Lease payments on short-term leases and leases of low-value assets are recognised as expense on a straight-line basis over the lease term.

#### Right-of-use assets

The Group leases several assets such as offices and other facilities, machinery and equipment and vehicles. The Group's right-of-use assets are categorised and presented in the table below:

#### RIGHT-OF-USE ASSETS

Amounts in NOK million	Land, buildings and other property	Machinery and plants	Fixtures, fittings, vehicles etc.	Other assets	Total
<b>Balance at 1 January 2021</b>	<b>294</b>	<b>1</b>	<b>70</b>	<b>16</b>	<b>381</b>
Depreciations	-25	-1	-31	-5	-62
Additions	6	-	19	-	25
Adjustments to existing contracts and terminations	7	-	-	-	7
<b>Balance at 31 December 2021</b>	<b>282</b>	<b>-</b>	<b>58</b>	<b>11</b>	<b>351</b>
Depreciations	-27	-	-32	-5	-64
Additions	14	-	29	2	45
Adjustments to existing contracts and terminations	10	-	-1	1	10
Effects of movements in exchange rates	2	-	1	-	3
<b>Balance at 31 December 2022</b>	<b>281</b>	<b>-</b>	<b>55</b>	<b>9</b>	<b>345</b>

## LEASE LIABILITIES

Amounts in NOK million	2022	2021
<b>Balance at 01 January</b>	<b>371</b>	<b>395</b>
Additions	45	25
Adjustments to existing contracts and terminations	10	7
Accretion of interests	21	21
Payments	-81	-77
Currency translations	5	-
<b>Balance at 31 December</b>	<b>371</b>	<b>371</b>

## LEASE LIABILITIES CONT.

Amounts in NOK million	2022	2021
<b>Maturity analysis - contractual undiscounted cash flows</b>		
Less than one year	64	71
One to two years	51	50
Two to three years	42	38
Three to four years	36	32
Four to five years	31	29
More than five years	324	337
<b>Total undiscounted lease liabilities at 31 December</b>	<b>548</b>	<b>557</b>
<b>Lease liabilities included in the statement of financial position at 31 December</b>	<b>371</b>	<b>371</b>
Current	44	52
Non-current	327	319

## AMOUNTS RECOGNISED IN PROFIT OR LOSS

Amounts in NOK million	2022	2021
Interest on lease liabilities	-21	-21
Depreciation of right-of-use assets	-64	-62
Gains (-) and losses (+) due to terminations, purchases, impairments, and other changes	0	1
Variable lease payments not included in the measurement of lease liabilities	-1	-2
Expenses relating to short-term leases	-31	-36
Expenses relating to leases of low-value assets, excluding short-term leases of low-value assets	-2	-6
<b>Total amount recognised in profit or loss</b>	<b>-119</b>	<b>-126</b>

## AMOUNTS RECOGNISED IN THE STATEMENT OF CASH FLOW

Figures in NOK	2022	2021
<b>Total cash outflow for leases</b>	<b>115</b>	<b>121</b>

The Group is committed to fulfil future cash outflows relating to leases amounting to NOK 30 million which is not recorded in the financial position as of 31 December 2022.

**Extension options**

Borregaard has lease contracts that include extension options. The Group determines the lease term as the non-

cancellable term of the lease, together with any periods covered by an option to extend the lease if it is reasonably certain to be exercised, or any periods covered by an option to terminate the lease, if it is reasonably certain not to be exercised. Set out below are the discounted liability effects related to extension options:

Amounts in NOK million	2022
Options to extend not yet recognised, discounted liability effect	49
Recognised options to extend, discounted liability effect	44

## NOTE 13 OTHER INCOME AND EXPENSES<sup>1</sup>

Other income and expenses<sup>1</sup> largely consist of material positive and negative non-recurring items, restructuring costs and any substantial write-downs of both tangible and intangible assets. The main purpose of this line is to present

material non-recurring items and items substantially relating to other periods separately to ensure that the changes in and comparability of the lines presented in EBITDA<sup>1</sup>, depreciation and amortisation are more relevant to the company.

Amounts in NOK million	2022	2021
Sale of assets in the closed lignin operation in South Africa. Realised value higher than provision made in 2020	12	-
Accrual related to ground conditions at the site in Norway	-20	-
<b>Total other income and expenses<sup>1</sup></b>	<b>-8</b>	<b>-</b>

## NOTE 14 NET FINANCIAL ITEMS

*Interest income and interest costs on loans and receivables are calculated using the effective interest method.*

*Commitment fees and costs related to borrowings are reported as part of interest costs. The financial element of pension costs is included in other finance costs and is disclosed in Note 10. Borrowing costs related to assets under construction are recognised in the statement of financial position together with the asset. Foreign currency gains or losses arising from operational assets and liabilities, and the hedging of such, are reported as operating revenues or operating costs. Other foreign currency gains or losses are reported as foreign exchange gain and foreign exchange loss. The foreign currency gains or losses related to net investments in subsidiaries are disclosed in Note 29.*

There are no major differences between recognised interest income and inflow of interests. There are no major differences between recognised interest expense and outflow of interests.

### FINANCE INCOME AND FINANCE COSTS

Amounts in NOK million	2022	2021
Interest income	12	3
Foreign exchange gain	326	226
Other finance income	7	-
<b>Total finance income</b>	<b>345</b>	<b>229</b>
Interest costs	-88	-62
Foreign exchange loss	-320	-234
Other finance costs	-2	-10
<b>Total finance costs</b>	<b>-410</b>	<b>-306</b>
<b>Share of profit/loss from associate</b>	<b>-3</b>	<b>-2</b>
<b>Net financial items</b>	<b>-68</b>	<b>-79</b>

## NOTE 15 TAXES

*Income tax expense consists of the total of current taxes and changes in deferred tax. Current taxes are recognised in the financial statements at the amount that is expected to be paid to the tax authorities based on taxable income reported for entities included in the combined financial statements. Current taxes and changes in deferred tax are taken to other comprehensive income to the extent that they relate to items that are included in other comprehensive income.*

*Deferred tax in the statement of financial position have been calculated at the nominal tax rate based on temporary differences between accounting and tax basis of assets and liabilities on the statement of financial position date.*

*Deferred tax liability relating to goodwill has not been recognised in the statement of financial position. Deferred tax assets are continuously assessed and are only recognised in the statement of financial position to the extent it is probable that future taxable profit will be large enough for the asset to be usefully applied. Deferred tax liability and deferred tax assets are offset as far as this is possible under taxation legislation and regulations.*

**TAX EXPENSE**

Amounts in NOK million	2022	2021
Profit before tax	1,118	873
Current tax expense	-260	-221
Change in deferred tax	-7	8
<b>Total tax expense</b>	<b>-267</b>	<b>-213</b>
Tax as % of Profit/loss before taxes	23.9 %	24.4 %

**Reconciliation of the group's tax rate**

In the following table, reported taxes are reconciled with the tax charge based on the Norwegian tax rate of 22%. The main tax components are specified.

Amounts in NOK million	2022	2021
22% of profit before taxes (tax rate in Norway)	-246	-192
Foreign operations with other tax rates than 22%	-6	-8
Joint venture	2	-
Permanent differences	-16	-6
Other current taxes	-1	-1
Correction previous years	1	-6
Other deferred taxes	-1	-
<b>The Group's total tax expense</b>	<b>-267</b>	<b>-213</b>

In addition to the compilation of the tax rates in the various countries in which Borregaard operates and has taxable

income, the income tax rate for the Group is also impacted by the following:

LignoTech Florida is a limited liability company (LLC) which is taxed on the owners' hand. Profit before tax is 100% consolidated in the Borregaard Group, whereas the tax expense is calculated based on Borregaard's 55% ownership. Consequently, profit attributable to non-controlling interests for LignoTech Florida (45%) is calculated on profit before tax.

Share of profit after tax from the joint venture, LignoTech South Africa, is accounted for as part of operating profit and profit before tax (due to IFRS 11). As such, the additional income related to sale of assets in the closed lignin operation in South Africa does not increase the tax expense and thus reduces the Group's tax rate.

There are carry forward tax losses in the Group which will not be recognised as deferred tax assets, and hence increase the Group's tax rate.

**Deferred tax liabilities**

Deferred tax liability consists of the Group's tax liabilities that are payable in the future. The table below lists deferred tax assets and liabilities relating to the timing differences between tax accounting and financial accounting. The table below shows the composition of the Group's deferred tax.

Amounts in NOK million	2022	2021
<b>Deferred tax on tax increasing/(reducing) differences</b>		
Hedging taken to comprehensive income	-33	41
Intangible assets and Property, plant and equipment	215	199
Net pension liabilities	1	-2
Gain and loss tax deferral	1	1
Other non-current items	-5	-10
Total non-current items	179	229
Current receivables	-2	-1
Inventories	55	36
Provisions	-12	-5
Other current items	-75	-52
Total current items	-34	-22
Losses/tax credits carried forward	-44	-45
Net deferred tax	101	162
Deferred tax assets, not recognised	31	28
<b>Net deferred tax, recognised</b>	<b>132</b>	<b>190</b>
Change in deferred tax	58	-38
Change in deferred tax taken to comprehensive income	-73	44
Acquisitions/sale of companies, translation effects, etc.	8	2
<b>Change in deferred tax income statement</b>	<b>-7</b>	<b>8</b>

NET DEFERRED TAX PRESENTED  
IN STATEMENT OF FINANCIAL POSITION

Amounts in NOK million	2022	2021
Deferred tax	136	197
Deferred tax assets	4	7
<b>Net deferred tax</b>	<b>132</b>	<b>190</b>

## LOSSES CARRIED FORWARD BY EXPIRY DATE

Amounts in NOK million	2022	2021
Without expiry date	171	282
<b>Total tax losses carried forward</b>	<b>171</b>	<b>282</b>

Deferred tax assets are only capitalised to the extent that it is probable that there will be sufficient future taxable profit for the tax asset to be used, either because the unit recently reported a profit or because assets with excess value have

been identified. If future profits are not likely to be sufficient to absorb the tax reducing timing differences, deferred tax assets are not recognised.

## TAX REDUCING TIMING DIFFERENCES WITH CORRESPONDING DEFERRED TAX ASSETS 2022

Amounts in NOK million	Tax reducing timing differences	Recognised deferred tax assets	Unrecognised deferred tax assets	Total deferred tax assets
<b>Losses/tax credits carried forward by country</b>				
Spain	122	-	31	31
USA	38	10	-	10
Germany	11	3	-	3
<b>Total</b>	<b>171</b>	<b>13</b>	<b>31</b>	<b>44</b>
Other tax reducing timing differences	583	125	-	125
<b>Total tax reducing timing differences</b>	<b>754</b>	<b>138</b>	<b>31</b>	<b>169</b>
Netted deferred tax	-619	-134	-	-134
<b>Net tax reducing timing differences</b>	<b>135</b>	<b>4</b>	<b>31</b>	<b>35</b>

Borregaard will always seek to meet the tax laws requirements in the countries where we have commercial activity. The company will not enter into arrangements which could be considered artificial, or which have tax avoidance as their sole or main objective. Borregaard uses the OECD guidelines for internal pricing, which is an important factor in ensuring that profits and taxes are distributed fairly among different countries.

## TAX PAYMENTS PER COUNTRY

Amounts in NOK million	Tax paid
Norway	186
United Kingdom	2
Spain	1
France	1
Austria	1
Czech Republic	4
USA	2
Brazil	5
Singapore	2
India	1
China	1
South Africa	2
<b>Total tax paid</b>	<b>208</b>

## NOTE 16 EARNINGS PER SHARE (EPS) AND DIVIDEND

Earnings per share are calculated on the basis of profit for the year after non-controlling interests. As a result of the Borregaard Group's option programme (see Note 9), outstanding shares may be diluted when options are exercised. In order to take into account this future increase in the number of shares outstanding, diluted earnings per share are calculated in addition to basic earnings per share. In this calculation, the average number of shares outstanding is adjusted to take into account the estimated dilutive effect of the option programme.

The share capital consists of 100 million shares including 434,552 treasury shares as of 31 December 2022. As of 31 December 2022, there are 99,752,815 diluted shares. There were 99,742,686 diluted shares as of 31 December 2021.

Amounts in NOK million	2022	2021
Profit/loss for the year after non-controlling interests for continuing operations	892	692
Profit/loss/gains discontinued operations	-	-
Profit/loss for the year after non-controlling interests	892	692
<b>Amounts in million shares</b>		
Weighted average number of shares outstanding	99.71	99.60
Estimated dilution effect option programme	0.24	0.10
Weighted average number of shares outstanding diluted	99.95	99.70

Amounts in NOK	2022	2021
Earnings per share	8.95	6.95
Earnings per diluted share	8.92	6.94
Ordinary dividend per share	3.25	2.75
Extraordinary dividend per share	-	2.25

## NOTE 17 INTANGIBLE ASSETS

Capitalised expenditure on internally generated or specially adapted computer programmes is presented as intangible assets. The reinvestment need of specially adapted computer programmes is similar to that of other tangible assets, and the amortisation of intangible assets are presented together with Borregaard's other depreciation.

Research and development (R&D) expenditure is the expenses incurred by Borregaard in conducting research and development, including studies of existing or new products and production processes in order to secure future earnings. Expenditure on research is always expensed as incurred, while expenditure on development is recognised in the statement of financial position if the underlying economic factors are identifiable and represent probable future economic benefits of which Borregaard has control. Borregaard has a large number of projects in process at all times, but the number of projects that end in capitalisation is limited. This is due to the considerable uncertainty throughout the decision-making process and the fact that only a small percentage of all projects culminate in commercial products. Furthermore, the portion of the total project expenses that qualify for recognition in the statement of financial position are relatively small, as it is only from the time the decision to develop the product is made it can be capitalised, and that decision-making point comes at a late stage of the process. The fair value of intangible assets acquired by the company through business combinations is capitalised. Intangible assets with indefinite life will not be amortised while other intangible assets will be amortised over their useful life.

Goodwill is initially measured at cost, being the excess of the aggregate of the transferred and the amount recognised for non-controlling interest over the net identified asset acquired and liabilities assumed. If this consideration is lower than the fair value of the net assets of the subsidiary acquired, the difference is recognised in income statement.

Amortisable intangible assets are amortised on a straight-line basis at the following rates: Development 20% and other intangible assets 10-15%. Development consists mainly of internal resources being involved in development projects. IT consists mainly of external costs.

Amounts in NOK million	Development and other intangible assets	IT	Goodwill	Total
Book value 1 January 2022	26	31	32	89
Additions	2	2	-	4
Depreciation/Amortisation	-8	-7	-	-15
Impairment	-	-	-	-
Currency translations	2	-	2	4
Book value 31 December 2022	22	26	34	82
Initial cost 31 December 2022	172	175	55	402
Accumulated amortisation and impairment	-150	-149	-21	-320
Book value 31 December 2022	22	26	34	82
Book value 1 January 2021	31	21	34	86
Additions	2	17	-	19
Depreciation/Amortisation	-8	-7	-	-15
Impairment	-	-	-	-
Currency translations	1	-	-2	-1
Book value 31 December 2021	26	31	32	89
Initial cost 31 December 2021	170	173	55	398
Accumulated amortisation and impairment	-144	-142	-23	-309
Book value 31 December 2021	26	31	32	89

In addition, Borregaard expensed NOK 97 million in 2022 in research costs (NOK 81 million).

The amounts include grants and other cost deductions. See Note 34.

## NOTE 18 PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment are tangible assets intended for production, delivery of goods or administrative purposes and have a lasting useful life. They are recognised in the statement of financial position at cost minus any accumulated depreciation and impairment. Annual major maintenance stops are capitalised as part of property, plant and equipment and depreciated over a period of 12 months. All other maintenance and repairs are expensed under operating expenses as and when the maintenance is carried out, while expenditure on replacements or improvements is added to the cost price of the assets. Borrowing costs related to the construction of the Group's own property, plant and equipment are capitalised as part of the cost of the asset.

Property, plant and equipment are depreciated on a straight-line basis over the useful life, at the following rates: buildings 2-5%, machinery, fixtures and fittings mainly 4-20%, vehicles 15- 25% and IT equipment 15-33%. The period of depreciation is reviewed each year and if there are changes in useful life, depreciation is adjusted. If there is any indication that an asset may be impaired, the asset will be written down to the recoverable amount if the recoverable amount is lower than the carrying value. The residual value is also calculated and if it is higher than the carrying value, depreciation is stopped. This applies in particular to buildings. The Group is committed to fulfil contracts amounting to NOK 42 million which is not recorded in the statement of financial position as of 31 December 2022 (NOK 53 million as of 31 December 2021).

Amounts in NOK million	Land, buildings and other property	Machinery and plants	Assets under constructions	Fixtures, fittings, vehicles, EDP, etc.	Total
Book value 1 January 2022	1,488	2,269	398	36	4,191
Additions	59	142	254	4	459
Disposals	-	-	-	-1	-1
Transferred assets under construction	92	233	-331	6	-
Impairment	-	-	-	-	-
Depreciation	-93	-262	-	-12	-367
Currency translation	21	66	1	1	89
Book value 31 December 2022	1,567	2,448	322	34	4,371
Initial cost 31 December 2022	2,846	7,440	322	232	10,840
Accumulated depreciation and impairment	-1,279	-4,992	0	-198	-6,469
Book value 31 December 2022	1,567	2,448	322	34	4,371
Book value 1 January 2021	1,323	2,213	397	40	3,973
Additions	66	189	279	3	537
Disposals	-	-	-	-1	-1
Transferred assets under construction	174	100	-280	6	-
Impairment	-	-	-	-	-
Depreciation	-81	-249	-	-12	-342
Currency translation	6	16	2	-	24
Book value 31 December 2021	1,488	2,269	398	36	4,191
Initial cost 31 December 2021	2,665	6,973	398	220	10,256
Accumulated depreciation and impairment	-1,177	-4,704	0	-184	-6,065
Book value 31 December 2021	1,488	2,269	398	36	4,191

## NOTE 19 OVERVIEW OF FINANCIAL INSTRUMENTS

Loans, as well as trade receivables, are held to collect contractual cash flows and are expected to give rise to cash flows solely representing payments of principal and interest. The Group analysed the contractual cash flow characteristics of those instruments and concluded that they meet the criteria

for amortised cost measurement under IFRS 9. The Group applied the simplified approach and record lifetime expected losses on all trade receivables.

The Group has considered that due to the historical low level of

credit losses, the loss allowance will not be materially different from the current level. Transactions in foreign currencies are recognised at the exchange rate on the date of the transaction, while monetary items in foreign currencies are presented at the exchange rate on the balance sheet date, and any gain/loss is reported in the income statement as financial items. Revenues and expenses in subsidiaries with a functional currency different from the Group's presentation currency are translated monthly at the average exchange rate for the month and accumulated. Statement of financial position items in subsidiaries with a different functional currency are translated at the exchange rate on the balance sheet date. Translation differences are reported in comprehensive income.

The Group uses the following hierarchy for determining and disclosing the fair value of financial instruments, by valuation technique:

**Level 1:** Quoted market prices in an active market (that are

unadjusted) for identical assets and liabilities.

**Level 2:** Valuation techniques (for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable).

**Level 3:** Valuation techniques (for which the lowest level input that is significant to the fair value measurement is unobservable).

The foreign exchange element in currency forward contracts is measured at observable market prices using the foreign exchange rate set by Norges Bank, Norway's central bank. Different maturity dates add an interest rate element resulting in an estimated fair value of the currency forward contracts. There were no transfers from one level to another in the measurement hierarchy in 2021 and 2022. Borregaard has no items defined as level 1. A description of how the derivatives are measured is provided in Note 29.

#### OVERVIEW OF FINANCIAL INSTRUMENTS 2022

Amounts in NOK million	Note	Measurement level	Financial instruments at fair value through profit and loss	Financial instruments at fair value - hedging instruments	Financial liabilities measured at amortised cost	Deposits and receivables measured at amortised cost	Total	Of this interest-bearing	Fair value
<b>Non-current assets</b>									
Non-current financial receivables	20	2	-	-	-	193	193	2	193
Non-current derivatives	20, 29	2	-	46	-	-	46	-	46
<b>Total</b>			-	<b>46</b>	-	<b>193</b>	<b>239</b>	<b>2</b>	<b>239</b>
<b>Current assets</b>									
Accounts receivable	22		-	-	-	988	988	-	988
Other current receivables	22		-	-	-	37	37	-	37
Current derivatives	22, 29	2	-	49	-	-	49	-	49
Cash and cash equivalents	23		-	-	-	234	234	234	234
<b>Total</b>			-	<b>49</b>	-	<b>1,259</b>	<b>1,308</b>	<b>234</b>	<b>1,308</b>
<b>Non-current liabilities</b>									
Non-current financial liabilities	12, 27	2, 3	-	-	1,372	-	1,372	1,370	1,372
Non-current derivatives	24, 29	2	-	144	-	-	144	-	144
<b>Total</b>			-	<b>144</b>	<b>1,372</b>	-	<b>1,516</b>	<b>1,370</b>	<b>1,516</b>
<b>Current liabilities</b>									
Current financial liabilities	12, 27	2	-	-	702	-	702	702	702
Accounts payable	25		-	-	497	-	497	-	497
Other current liabilities	25		-	-	6	-	6	-	6
Current derivatives	25, 29	2	2	100	-	-	102	-	102
<b>Total</b>			<b>2</b>	<b>100</b>	<b>1,205</b>	-	<b>1,307</b>	<b>702</b>	<b>1,307</b>
<b>Total financial instruments</b>			<b>-2</b>	<b>-149</b>	<b>-2,577</b>	<b>1 452</b>	<b>-1,276</b>	<b>-1,836</b>	<b>-1,276</b>
Total measurement level 1									
Total measurement level 2, assets			-	95	-	193	288	2	288
Total measurement level 2, liabilities			-2	-244	-1,674	-	-1,920	-1,672	-1,920
Total measurement level 3			-	-	-400	-	-400	-400	-400

## OVERVIEW OF FINANCIAL INSTRUMENTS 2021

Amounts in NOK million	Note	Measurement level	Financial instruments at fair value through profit and loss	Financial instruments at fair value - hedging instruments	Financial liabilities measured at amortised cost	Deposits and receivables measured at amortised cost	Total	Of this interest-bearing	Fair value
<b>Non-current assets</b>									
Non-current financial receivables	20	2	-	-	-	187	187	3	187
Non-current derivatives	20, 29	2	-	136	-	-	136	-	136
<b>Total</b>			<b>-</b>	<b>136</b>	<b>-</b>	<b>187</b>	<b>323</b>	<b>3</b>	<b>323</b>
<b>Current assets</b>									
Accounts receivable	22		-	-	-	770	770	-	770
Other current receivables	22		-	-	-	15	15	-	15
Current derivatives	22, 29	2	7	109	-	-	116	-	116
Cash and cash equivalents	23		-	-	-	124	124	124	124
<b>Total</b>			<b>7</b>	<b>109</b>	<b>-</b>	<b>909</b>	<b>1,025</b>	<b>124</b>	<b>1,025</b>
<b>Non-current liabilities</b>									
Non-current financial liabilities	12, 27	2, 3	-	-	1 322	-	1 322	1 320	1 322
Non-current derivatives	24, 29	2	-	30	-	-	30	-	30
<b>Total</b>			<b>-</b>	<b>30</b>	<b>1,322</b>	<b>-</b>	<b>1,352</b>	<b>1,320</b>	<b>1,352</b>
<b>Current liabilities</b>									
Current financial liabilities	12, 27	2	-	-	224	-	224	224	224
Accounts payable	25		-	-	435	-	435	-	435
Other current liabilities	25		-	-	1	-	1	-	1
Current derivatives	25, 29	2	3	29	-	-	32	-	32
<b>Total</b>			<b>3</b>	<b>29</b>	<b>660</b>	<b>-</b>	<b>692</b>	<b>224</b>	<b>692</b>
<b>Total financial instruments</b>			<b>4</b>	<b>186</b>	<b>-1,982</b>	<b>1,096</b>	<b>-696</b>	<b>-1,417</b>	<b>-696</b>
Total measurement level 1									
Total measurement level 2, assets									
			7	245	-	187	439	3	439
Total measurement level 2, liabilities									
			-3	-59	-1,146	-	-1,208	-1,144	-1,208
Total measurement level 3									
			-	-	-400	-	-400	-400	-400

For current assets and liabilities, fair value is estimated close or equal to book value. The bond is determined as measurement level 3. The fair value of the bond is deemed

to equal book value. The bond carries floating interest terms and the issuer's credit quality is not considered to have changed since the bond was issued in June 2018.

## NOTE 20 OTHER ASSETS (NON-CURRENT)

Receivables are initially recognised at fair value which is generally the original invoice amount. For trade receivables see Note 22. The interest rate element is disregarded if it is insignificant, which is the case for the majority of receivables.

Amounts in NOK million	2022	2021
Share investments	11	9
Non interest-bearing derivatives (Note 19)	46	136
Receivables interest-bearing (Note 19)	2	3
Receivables non interest-bearing (Note 19)	191	184
<b>Total other assets</b>	<b>250</b>	<b>332</b>

## NOTE 21 INVENTORIES AND COST OF MATERIALS

Inventories are measured at the lower of cost and net realisable value. Purchased goods are measured at purchase cost according to the FIFO principle, while internally manufactured finished goods and work in progress are measured at production cost. Deductions are made for obsolescence. Net realisable value is the estimated selling price minus selling costs.

As of 31 December 2022, there is a total write-down of inventories of NOK 14 million (NOK 3 million) related to inventories measured at net realisable value total NOK 160 million (NOK 33 million). There are no reversed write-downs from earlier years.

Amounts in NOK million	2022	2021
Raw materials	186	149
Work in progress	63	59
Finished goods and merchandise	1,050	584
<b>Total inventories</b>	<b>1,299</b>	<b>792</b>

Amounts in NOK million	2022	2021
Wood costs	-482	-403
Energy costs	-855	-499
Other materials	-1,761	-1,133
Change in work in progress and finished goods	470	-117
<b>Cost of materials</b>	<b>-2,628</b>	<b>-2,152</b>

## NOTE 22 RECEIVABLES (CURRENT)

Receivables are initially recognised at fair value which is generally the original invoice amount. For trade receivables the Group applies a simplified approach in calculating expected credit losses. Therefore, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime expected credit losses at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

Current receivables are both operating receivables and interest-bearing receivables. Operating receivables are broken down into trade receivables, accrued advance payments to suppliers and other current receivables. Trade receivables are non interest-bearing and are generally on terms of 30 to 90 days.

Amounts in NOK million	2022	2021
Accounts receivable (Note 19)	988	770
Non interest-bearing derivatives (Note 19)	49	116
Other current receivables (Note 19)	37	15
<b>Total financial receivables</b>	<b>1,074</b>	<b>901</b>
Advance payment to suppliers/earned income	287	173
Tax receivables	26	33
<b>Total current receivables</b>	<b>1,387</b>	<b>1,107</b>

### CHANGE IN PROVISIONS FOR BAD DEBT:

Amounts in NOK million	2022	2021
Provisions for bad debts 1 January	8	9
Bad debts recognised as expense (- income)	3	2
Realised losses	-1	-3
Translation effects	-1	-
<b>Provisions for bad debts 31 December</b>	<b>9</b>	<b>8</b>

### ACCOUNTS RECEIVABLE HAVE THE FOLLOWING DUE DATES:

Amounts in NOK million	2022	2021
Accounts receivable not due	886	689
Overdue receivables 1-30 days	97	78
Overdue receivables 31-60 days	10	9
Overdue receivables 61-90 days	3	1
Overdue receivables over 90 days	1	1
<b>Accounts receivable carrying amount 31 December</b>	<b>997</b>	<b>778</b>

## NOTE 23 CASH AND CASH EQUIVALENTS

Cash and cash equivalents are held for the purpose of meeting short-term fluctuations in liquidity rather than for investment purposes. Cash and cash equivalents consist of cash, bank deposits and current deposits with a maturity of three months or less. Company policy is to channel excess liquidity in wholly owned subsidiaries to Borregaard's cash pools (with DNB and Handelsbanken) or placed as deposits with Borregaard AS. In some countries, however, there are legal or technical impediments on participation in Borregaard's cash pools or making deposits with Borregaard AS.

Amounts in NOK million	2022	2021
Cash and cash equivalents	234	124
Bank overdraft	-123	-119
<b>Net cash and cash equivalents</b>	<b>111</b>	<b>5</b>

Bank deposits of NOK 9 million related to tax deductions from employees are restricted as of 31 December 2022. Borregaard has a bank guarantee for the majority of the tax deductions. As of 31 December 2022, the liability related to tax deductions was NOK 31 million (NOK 30 million).

## NOTE 24 PROVISIONS AND OTHER NON-CURRENT LIABILITIES

Provisions are recognised in the financial statements in the case of onerous contracts or when restructuring measures have been adopted. Future operating losses will not be part of the provisions. In the case of restructuring provisions, there must be a detailed plan that identifies which parts of the business are to be restructured. The location and number of employees affected, and a valid expectation must have been created among those concerned that the restructuring will be carried out. In addition, it must be possible to provide a reliable estimate of the amount of the liability. It is a condition that the restructuring materially changes the size of the business or the way in which it is operated. The provision is calculated

on the basis of the best estimate of expenses. If the effect is material, anticipated future cash flows will be discounted using a current pre-tax interest rate that reflects the risks specific to the provision.

Amounts in NOK million	2022	2021
Pension liabilities (Note 10)	14	29
Derivatives (Note 19)	144	30
Other non-current liabilities	1	1
<b>Total provisions and other non-current liabilities</b>	<b>159</b>	<b>60</b>

## NOTE 25 OTHER LIABILITIES (CURRENT)

Current liabilities are operating liabilities (trade accounts payable, unpaid public taxes/charges, prepaid revenues, other accruals, etc.) and financial liabilities (payable interest). All these items are interest-free borrowings. Dividend does not become a liability before it has been approved by the General Meeting.

Amounts in NOK million	2022	2021
Accounts payable (Note 19)	497	435
Derivatives (Note 19)	102	32
Other current liabilities (Note 19)	6	1
Total financial liabilities non interest-bearing	605	468
Value-added tax, employee taxes, etc.	75	72
Accruals	405	324
<b>Total other liabilities</b>	<b>1,085</b>	<b>864</b>

## NOTE 26 CAPITAL MANAGEMENT

Borregaard's financial policy shall ensure short-term and long-term financial flexibility for the Group.

Borregaard aims to maintain key financial ratios corresponding to an investment grade rated company in order to ensure access to debt capital on favourable terms and conditions. Borregaard shall manage financial risks, primarily related to currency fluctuations in a prudent manner and in accordance with established guidelines. Borregaard shall develop and maintain relationships with a core group of

banks, based on long-term financing commitments.

### Long-term funding

On 24 March 2022, Borregaard entered into a USD 50 million sustainability linked term loan with the Nordic Investment Bank (NIB). The loan has a tenor of ten years with a grace period of four years. In July 2020, Borregaard replaced the existing long-term revolving credit facilities with sustainability linked revolving credit facilities. The total amount of the Bank Facilities Agreements is NOK

1,500 million, with equal portions of NOK 500 million being provided by each of the three banks (Handelsbanken, DNB and SEB). The facilities mature in 2025 and 2027. The term loan and credit facilities are linked to Borregaard's sustainability targets and the margins can be adjusted based on the progress on three parameters: Borregaard's 2030 target of reducing greenhouse gas emissions (scope 1 and 2) as approved by the Science Based Targets initiative in 2019, reduction of the Group's total recordable injuries and finally, keeping emissions of organic compounds to the Glomma river below certain levels. All outstanding loans and all other sums due and outstanding must be repaid in full on the termination date specified for each tranche under the Bank Facilities Agreements. Borregaard also has a term loan from the Nordic Investment Bank maturing in 2024. This term loan was originally EUR 40 million and the remaining balance was EUR 8 million on 31 December 2022.

The Bank Facilities Agreements and the term loan agreements with NIB, granted to Borregaard ASA and Borregaard AS on a joint and several basis, are unsecured (negative pledge), but contain a financial covenant and some limitations on new indebtedness beside change of control and cross-default provisions. The financial covenant is as follows: Leverage ratio<sup>1</sup>: the ratio of Net Interest-Bearing Debt<sup>1</sup> to Consolidated EBITDA<sup>1</sup> including other income and expenses<sup>1</sup>, shall not exceed 3.50:1 during the life of the agreements.

Borregaard's policy for long-term funding is for debt to have an average maturity of at least 2.5 years, with a maturity profile spread over several years. Refinancing risk shall be actively managed and the refinancing process for maturing loans shall preferably commence at least one year ahead of scheduled maturity. Borregaard shall seek to diversify its long-term funding sources, supplementing bank loans with debt capital markets and other sources, subject to availability and conditions. The company may utilise commercial paper markets and/or short-term bank loans as sources of liquidity, provided that such loans can be substituted by undrawn long-term committed loan facilities.

Partially owned companies including the joint venture or companies whose domestic legislation prevents them from entering into loan agreements with Borregaard AS, will need either to be financed on equal (pro rata) terms by the partners or will have to establish independent funding.

In June 2017, LignoTech Florida LLC entered into a USD 60 million loan agreement with SEB. The loan facility is guaranteed 70% by The Norwegian Export Credit Guarantee Agency and has a tenor of 8.5 years from commercial completion of the plant. As of 31 December 2022, the

remaining balance of the loan was USD 57.5 million. Furthermore, an overdraft facility of USD 15 million was established to meet short term liquidity needs. The owners of LignoTech Florida (see Note 31) will guarantee the loan and the overdraft facility on a pro rata basis until certain financial conditions are met. As an industrial group, Borregaard is not subject to any external capital requirements.

#### Liquidity and cash management

At 31 December 2022, Borregaard had a multi-currency overdraft facility of 125 million NOK linked to its international cash pool with DNB, a 100 million NOK overdraft limit linked to its cash pool (Group account system) with Handelsbanken and an intra-day facility of NOK 75 million with Nordea related to salary payments. Group liquidity shall be managed in cash pools, with Borregaard AS as owner of top accounts and legal counterpart to relevant banks. Group companies shall participate in cash pools to the extent possible, with allocated internal credit lines. Group companies which are prevented from participating in cash pools, shall enter into deposit and/or loan agreements with Borregaard AS and shall aim at keeping locally held cash balances at a near-zero level. Excess liquidity shall primarily be used to repay debt. Alternatively, excess liquidity can be placed with relationship banks or other well-rated banks.

Partially owned companies including the joint venture or companies whose domestic legislation prevents them from entering into deposit and/or loan agreements with Borregaard AS, shall invest surplus cash in low-risk deposits and/or pay dividend.

/ <sup>1</sup> Alternative performance measures, see page 172 for definition.

## NOTE 27 FUNDING AND INTEREST-BEARING LIABILITIES

Loans and receivables are carried at amortised cost. Thus, changes in fair value resulting from changes in interest rates during the interest rate period are not reported in the income statement. Borrowing costs related to the long-term funding are capitalised over the period of the loan facilities.

### Funding

Borregaard's main sources of financing are proceeds from its USD 50 million term loan and EUR 40 million term loan (remaining balance EUR 8 million on 31 December 2022) with the Nordic Investment Bank, its bond issue of NOK 400 million, and its long-term revolving credit facilities totalling NOK 1,500 million from three Scandinavian banks.

In June 2017, LignoTech Florida entered into a USD 60 million loan agreement. The loan has a remaining balance of USD 57.5 million on 31 December 2022. To meet short term liquidity needs, an overdraft facility of USD 15 million was established.

For liquidity and cash management purposes two multicurrency overdraft facilities totalling NOK 225 million are in place.

Amounts in NOK million	Book value		Fair value	
	2022	2021	2022	2021
<b>Non-current interest-bearing liabilities</b>				
Bank loans/bond	1,043	1,001	1,043	1,001
Other interest-bearing liabilities	327	319	327	319
<b>Total non-current interest-bearing liabilities</b>	<b>1,370</b>	<b>1,320</b>	<b>1,370</b>	<b>1,320</b>
<b>Current interest-bearing liabilities</b>				
Bank loans/overdraft/commercial paper/bond	658	172	658	172
Other interest-bearing liabilities	44	52	44	52
<b>Total current interest-bearing liabilities</b>	<b>702</b>	<b>224</b>	<b>702</b>	<b>224</b>
<b>Total interest-bearing liabilities</b>	<b>2,072</b>	<b>1,544</b>	<b>2,072</b>	<b>1,544</b>
<b>Interest-bearing receivables</b>				
Non-current interest-bearing receivables	2	3	2	3
Cash and cash equivalents	234	124	234	124
<b>Total interest-bearing receivables</b>	<b>236</b>	<b>127</b>	<b>236</b>	<b>127</b>
<b>Net interest-bearing debt<sup>1</sup></b>	<b>1,836</b>	<b>1,417</b>	<b>1,836</b>	<b>1,417</b>

### RECONCILIATION OF LIABILITIES ARISING FROM FINANCING ACTIVITIES

	1 January 2022	Cash flows	Additions/ transfer leases	Foreign exchange movement	Fair value changes	31 December 2022
Long-term borrowings	1,320	-24	3	71	-	1,370
Short-term borrowings excluding overdraft	105	423	52	-1	-	579
Overdraft	119	-10	-	14	-	123
<b>Total liabilities from financing activities</b>	<b>1,544</b>	<b>389</b>	<b>55</b>	<b>84</b>	<b>-</b>	<b>2,072</b>

/ <sup>1</sup> Alternative performance measures, see page 172 for definition.

	1 January 2021	Cash flows	Additions/ transfer leases	Foreign exchange movement	Fair value changes	31 December 2021
Long-term borrowings	1,381	-49	-25	13	-	1,320
Short-term borrowings excluding overdraft	512	-456	57	-8	-	105
Overdraft	111	4	-	4	-	119
<b>Total liabilities from financing activities</b>	<b>2,004</b>	<b>-501</b>	<b>32</b>	<b>9</b>	<b>-</b>	<b>1,544</b>

There were no drawings under the Bank Facilities Agreements as of 31 December 2022. Drawings originating from the bond issue, the term loans with Nordic Investment Bank, and the term loan related to LignoTech Florida

amounted to NOK 1,544 million as of 31 December 2022. The maturity profiles of the Group's interest-bearing liabilities are shown in the table below.

#### MATURITY PROFILE INTEREST-BEARING LIABILITIES AND UNUTILISED CREDIT FACILITIES

Amounts in NOK million	Gross interest-bearing liabilities		Unutilised credit facilities	
	2022	2021	2022	2021
Maturity < 1 year	702	224	250	238
Maturity 1-3 years	245	676	500	500
Maturity 3-5 years	519	171	1,000	1,000
Maturity 5-7 years	181	265	-	-
Maturity > 7 years	425	208	-	-
<b>Total</b>	<b>2,072</b>	<b>1,544</b>	<b>1,750</b>	<b>1,738</b>

## NOTE 28 FINANCIAL RISK

### (I) ORGANISATION OF FINANCIAL RISK MANAGEMENT

Borregaard operates internationally and is exposed to financial risks like currency risk, interest rate risk, commodity price risk, climate risk, liquidity risk and credit risk. Borregaard uses derivatives and other financial instruments to reduce these risks in accordance with the Group's finance policy.

Responsibility for managing financial risk in Borregaard is divided between business areas, which manage risk related to business processes and corporate functions, which manages risk related to centralised activities like funding, interest rate management, cash management, currency risk management and credit management policy. Borregaard's CFO and the Group's Treasury Department are responsible for managing centralised financial risk elements.

#### Financial risks

This section describes the most important risk factors within the Group and the management of these risks. In this context, financial risk is defined as risk related to financial

instruments. These may either be hedging instruments for underlying risk, or viewed as inherently a source of risk.

Borregaard is exposed to currency risk for most of its sales, primarily in USD and EUR. A substantial part of this exposure, defined as estimated net cash flow in USD or EUR, is routinely hedged on a rolling basis with a nine-month time horizon. In order to secure medium-term competitiveness, the hedging horizon may gradually be extended to three years for a EUR/NOK hedging rate in the range of 9.25-9.75 and gradually to three years for USD/NOK hedging rates in the 8.00-8.50 range. For USD/NOK exposure, hedging levels may be reduced for hedging rates below 6.00.

On the revenue side, all of Borregaard's business segments are exposed to price risk in international markets. Borregaard is also exposed to price risk on wood, energy (heat energy and electric power) and other strategic raw materials. In 2011, Borregaard entered into a long-term hydroelectric power contract with Eidsiva Vannkraft AS for delivery of a total of 6.1 billion kilowatt hours (6.1 TWh) to be supplied in the period 2013-2024. In 2018, Borregaard and Eidsiva Vannkraft AS entered into a new long term supply contract for electric

power for a total of 2.8 TWh to be supplied to the Sarpsborg site in the period 2020 to 2029. The new contract replaces the existing contract between the parties for the period 2020 to 2024, with a gradual reduction of annual deliveries from about 420 GWh in 2020 to about 130 GWh in 2029. The agreement between Eidsiva and Borregaard secures power deliveries for Borregaard's plants in Sarpsborg from January 2013 until December 2029. In 2019, Borregaard and E-CO Energi entered into a long-term contract for hydroelectric power for a total of 1.66 TWh to be supplied to the Sarpsborg site in the period 2022 to 2033, with annual deliveries increasing from 88 GWh to 175 GWh. In 2019, Borregaard also entered into a new long-term contract with Statkraft for delivery of renewable electric power to the Sarpsborg site. A total of 1.75 TWh will be supplied in the period 2020 to 2029, with annual deliveries of 175 GWh. This is energy to be used by Borregaard solely for production purposes. Borregaard also has a hedging strategy which enables hedging of part of its future expected power consumption. The purpose of this hedging is to reduce the risk from volatility in the power prices.

## (II) CATEGORIES OF FINANCIAL RISKS FOR THE BORREGAARD GROUP

### Currency risk

As NOK is the presentation currency for the Group, Borregaard is exposed to currency translation risk for net investments in foreign operations. Borregaard hedges this category of risk using currency forward contracts for USD and a mix of forward contracts and loan for EUR.

Transaction risk is hedged against each entity's functional currency. Borregaard applies hedge accounting for most hedges of future transactions, either cash flow hedges or fair value hedges of firm commitments. The different types of hedges are described in Note 29.

The Group's aggregated outstanding currency hedges of future transactions on the balance sheet date are shown in the tables below.

### FOREIGN EXCHANGE CONTRACTS LINKED TO HEDGING OF FUTURE REVENUES AND COSTS

2022

Amounts in million

Purchase currency	Amount	Sale currency	Amount	Maturity
USD	3	NOK	33	2023
NOK	1 331	USD	144	2023
NOK	1 275	USD	141	2024
NOK	893	USD	93	2025
EUR	2	USD	2	2023
EUR	2	NOK	18	2023
NOK	1 513	EUR	141	2023
NOK	1 287	EUR	122	2024
NOK	913	EUR	86	2025
SEK	48	NOK	46	2023

2021

Amounts in million

Purchase currency	Amount	Sale currency	Amount	Maturity
USD	5	NOK	43	2022
NOK	1 344	USD	151	2022
NOK	1 280	USD	139	2023
NOK	832	USD	95	2024
EUR	2	USD	2	2022
NOK	1 247	EUR	118	2022
NOK	1 189	EUR	110	2023
NOK	789	EUR	74	2024
SEK	48	NOK	48	2022

### Interest rate risk

Borregaard's interest rate risk is mainly related to the Group's interest-bearing liabilities and assets. This risk is managed at parent level. Borregaard shall primarily follow a floating rate strategy, but may consider fixed rates for a maximum of 50% of its debt, using appropriate derivatives. As of 31 December 2022, Borregaard has the following fixed rate exposure:

2022

Amounts in NOK million

Currency	Interest-bearing debt	Maturity
NOK	200	2023
USD	18	2023

### Liquidity risk

Liquidity risk is the risk that Borregaard is not able to meet its payment obligations. This risk is managed centrally, but in close concert with affected subsidiaries. Borregaard AS initiates measures deemed necessary to maintain a strong liquidity. Cash flow from operations, which among other factors is affected by changes in working capital, is managed operationally at Group level, and is relatively stable. Borregaard monitors liquidity flows, short and long-term, through reporting and selected forecasting routines. Due to the aforementioned measures, the Group has limited liquidity risk.

The table below shows the maturity profile for the Group's contractual financial liabilities, including liabilities which are not recognised in the financial position.

The amounts represent undiscounted future cash flows and may therefore deviate from recognised figures. The table also

includes derivatives recognised as assets on the balance sheet date, as derivatives may include both positive and negative cash flows, and the fair value fluctuates over time. Forward prices are used to determine the future settlement amounts for electric power and currency derivatives.

#### MATURITY PROFILE FINANCIAL LIABILITIES 2022

Amounts in NOK million	Book Value	Contractual cash flows	< 1 year	1-3 years	3-5 years	5-7 years	> 7 years
Interest-bearing liabilities excluding lease liabilities	1,701	1,701	658	186	482	152	223
Lease liabilities	371	547	63	93	67	26	298
Interest payable bank loans & bonds	6	333	81	126	78	33	15
Accounts payable	497	497	497	-	-	-	-
Gross settled derivatives*	151	-	-	-	-	-	-
Inflow	-	-7,564	-3,609	-3,955	-	-	-
Outflow	-	7,715	3,664	4,038	7	6	-
<b>Total</b>	<b>2,726</b>	<b>3,229</b>	<b>1,354</b>	<b>488</b>	<b>634</b>	<b>217</b>	<b>536</b>

\* Including derivatives recognised as assets.

#### MATURITY PROFILE FINANCIAL LIABILITIES 2021

Amounts in NOK million	Book Value	Contractual cash flows	< 1 year	1-3 years	3-5 years	5-7 years	> 7 years
Interest-bearing liabilities excluding lease liabilities	1,173	1,173	172	621	141	239	-
Lease liabilities	371	557	71	88	61	24	313
Interest payable bank loans & bonds	1	81	30	30	17	4	-
Accounts payable	435	435	435	-	-	-	-
Gross settled derivatives*	-190	-	-	-	-	-	-
Inflow	-	-7,903	-3,805	-4,095	-2	-1	-
Outflow	-	7,713	3,724	3,989	-	-	-
<b>Total</b>	<b>1,790</b>	<b>2,056</b>	<b>627</b>	<b>633</b>	<b>217</b>	<b>266</b>	<b>313</b>

\* Including derivatives recognised as assets.

The financial liabilities are serviced by cash flow from operations, liquid, and interest-bearing assets, and, when necessary, drawings on unutilised credit facilities.

#### Credit risk

The management of credit risk related to accounts receivable and other operating receivables is handled as part of the business risk but based on guidelines set by Borregaard AS and continuously monitored by the operating entities. There is no significant concentration of credit risk in respect of single counterparts. A credit management policy is in place. Credit losses are historically modest due to a stable and financially healthy customer base as well as stringent monitoring of trade receivables. See Note 22. For sales to

countries or customers associated with high political or commercial risk, trade finance products are widely used to reduce credit risk. With these risk mitigation measures in place, the current credit risk is considered to be acceptable. See Note 8 for geographical breakdown of sales revenues.

Borregaard considers its credit risk related to other financial instruments to be low. Firstly, only relationship banks act as counterparts for financial hedge transactions. Secondly, bank accounts are mainly held with relationship banks. For deposits of liquidity with other counterparts in countries where relationship banks are not present, Borregaard has requirements relating to the bank's credit rating.

### Maximum credit risk

The maximum credit exposure for the Group related to financial instruments corresponds to total gross receivables. In the hypothetical and highly unlikely event that no receivables are redeemed, this amounts to:

Amounts in NOK million	2022	2021
Cash and cash equivalents	234	124
Accounts receivable	988	770
Other current receivables	37	15
Non-current receivables	193	187
Derivatives	95	252
<b>Total</b>	<b>1,547</b>	<b>1,348</b>

### Commodity price risk

The Group is exposed to price risks in respect of a number of raw materials, of which electric power, liquefied natural gas and wood are the most substantial. However, prices of sold products are also affected by raw material prices, and it is generally Borregaard's policy to reduce the price risk through commercial contracts.

### Climate risk

Climate risk assessments comply with the Task Force on Climate-related Financial Disclosures (TCFD). The short and medium-term climate risk is considered to be low. See page 39. In the table below, climate risks and opportunities as described from page 38 and in the TCFD report, are included with current exposure, current price level/cost and future expected exposure.

## CLIMATE RISKS

	CURRENT EXPOSURE	CURRENT PRICE LEVEL & COST	FUTURE (2030) EXPOSURE
Current and emerging carbon pricing mechanism	EU ETS: 143.042 t CO <sub>2</sub> CO <sub>2</sub> Tax for waste incineration: 37,970 t CO <sub>2</sub> Emission rights owned 690,066. Scope 3 emissions at 354,303 for 2022.	EU ETS 85 EUR/t CO <sub>2</sub> , free allowances covers the demand. CO <sub>2</sub> Tax 238 NOK/t CO <sub>2</sub>	EU ETS: Remaining exposure in 2030 20,000 t CO <sub>2</sub> /year, future EUA price and no free allowances (unlike today). Expect free allowances to more than cover CO <sub>2</sub> emissions to end of 2025. Plan to reduce CO <sub>2</sub> emissions will reduce future need for emission rights.  Emissions from transportation within EU-ETS.  CBAM*: Main raw materials locally/EU sourced.
Increased energy prices	Total energy 1,781 GWh, heat energy is 1,235 GWh (from LNG, light oil, biofuel, biogas, waste and electricity), whereas 546 GWh is power supply.	Energy 16% of total cost in 2022, NOK 855 million.	Increased electric power supply from the grid (35 MW), but maintained flexibility for variable load in strained periods.  Reduced dependency for auxiliary fuel.  Total energy at the same level as today, energy efficiency is offset by volume increase. The share of electricity for power supply will increase and energy for heat will decrease.
Availability of forest raw material	1 million fm <sup>3</sup> , 98 % certified wood PEFC/FSC standard.	Wood 9% of total cost in 2022, NOK 482 million.	Sourced volume of wood will increase with 5-10% to 1.05 - 1.10 million m <sup>3</sup> due to debottlenecking.  Future price level will be based on availability.  Availability can be reduced due to stricter certification schemes for PEFC/FSC.
Physical acute (change in weather conditions)	Supply chain/Operations - Challenging river conditions (Rhine & Glomma).  Operations: Hurricanes in Florida.  Operations: Investigation and measures to reduce risk related to ground conditions due to heavy precipitation.	Supply chain alternatives - cost below NOK 10 million.  NAT/CAT Insurance in place.  Cost related to ground conditions, NOK -20 million.	More challenging river conditions (Glomma and Rhine) can increase supply chain cost.  Increased risk of hurricanes and possible downtime cost for the operations.  Increased precipitation may impact ground conditions (may lead to higher investments for new buildings/plants) and increased costs for wood harvesting.  NAT/CAT cost is expected to increase.
Physical chronic (sea level rise)	Current exposure low, the risk is not likely to have consequence before 2030.	N/A	Sea level rise in Florida could have an effect after 2030, but relevant climate scenarios was considered when the plant was built.

\*Carbon Border Adjustment Mechanism

## CLIMATE OPPORTUNITIES

	CURRENT EXPOSURE	CURRENT PRICE LEVEL & COST	FUTURE (2030) EXPOSURE
Resource efficiency (high utilisation of raw materials/energy)	94% utilisation of wood. Energy conservation program: 21.4 GJ/TAD cellulose in 2022.	Average price 2020-2022 at 930 NOK/MWh for spot electricity.	Utilise bark from wood debarking at the wood yard for energy 75 GWh/year.  100% material or energy recovery of waste streams that was landfilled in 2022.  Increased energy efficiency allows for higher production without increasing energy consumption.  Heat recovery solutions reduces demand for new renewable energy capacity.
Renewable energy (reduced GHG exposure)	Total energy 1,781 GWh, 1,051 GWh from renewable sources. CO <sub>2</sub> emissions from energy is the major emissions source - technology is available to invest in more renewable energy solutions to achieve our science based emission targets.  Flexibility for variable load (LNG, electricity and light oil).	Energy 16% of total cost in 2022, NOK 855 million.	Investments of NOK 650-850 million in 2023 - 2025 to reduce emissions by 83,000 t CO <sub>2</sub> (scope 1 and 2). In February 2023, the first investment (NOK 230 million) was approved. This investment will reduce CO <sub>2</sub> emissions and increase energy flexibility, enabling a potential cost reduction (see page 15).  Maintained flexibility for variable load in strained periods for renewable energy, results in reduced energy cost.  Spraydriers at the site in Norway independent of fossil energy.
Product and services (Products that replaces fossil based)	About 60% (NOK 4.1 billion) of Borregaard's sales revenues in 2022 came from biobased products with lower climate/environmental footprint compared with fossil-based products.	Sales revenue for biobased products.	Increased value of biobased products.
Capital markets	Sustainability linked margin on long-term loans.	Benefit not possible to quantify at present.	Premium pricing as "green" may impact the share price.  Potentially lower interest expense on future loans.
Resilience	800 different products in numerous applications, reduced exposure to cyclical markets. Markets that will grow or decline due to climate changes are identified.	Average price: BioSolution products NOK 10,369 per mtds.  BioMaterials products NOK 16,179 per mt.	Upgrading the product portfolios in both BioSolutions and Speciality Cellulose.  Innovation portfolio and sustainability offering new opportunities.  Maintained/increased flexibility in sourcing, especially within energy and basic chemicals.

### Sensitivity analysis

The financial instruments of the Borregaard Group are exposed to different types of market risk which can affect the income statement or equity. Financial instruments, in particular derivatives, are applied as means of hedging both financial and operational exposure.

In the table below, Borregaard presents a partial analysis of the sensitivity of financial instruments, where the isolated effect of each type of risk on the income statement and on equity is estimated. This is done on the basis of a selected reasonably possible change in market prices/rates on the statement of financial position as of 31 December.

According to IFRS, the analysis covers only financial instruments and is not meant to give a complete overview of the Group's market risk, for instance:

- For currency hedges of contracts entered into, changes in fair value of the hedging instrument will affect the income statement, while changes in the fair value of the underlying hedged contract offset by the hedging instrument will not be shown, as it is not a financial instrument.

- If one of the parameters changes, the analysis will not take account of any correlation with other parameters.
- Financial instruments denominated in the entities' functional currencies do not constitute any currency risk and are therefore not included in this analysis. Nor is the currency exposure on translation of such financial instruments to the presentation currency of the Group included, for the same reason.
- No sensitivity analysis is performed for the power hedges as the exposure is considered immaterial.

Generally, the effect on the income statement and equity of financial instruments in the table below is expected to offset the effects of the hedged items where financial instruments are part of a hedging relationship.

### SENSITIVITY FINANCIAL INSTRUMENTS

2022

Amounts in NOK million	ACCOUNTING EFFECTS ON			
	Income statement of		Equity of	
	Increase	Decrease	Increase	Decrease
<b>Financial instruments in hedging relationships</b>				
Interest rate risk: 100 bp parallel shift in interest curves all currencies	-12	12	-	-
Currency risk: 10% change in FX-rate USD/NOK	-	-	-286	286
Currency risk: 10% change in FX-rate EUR/NOK	-	-	-286	286
Currency risk: 10% change in FX-rate SEK/NOK	-	-	4	-4

### SENSITIVITY FINANCIAL INSTRUMENTS

2021

Amounts in NOK million	ACCOUNTING EFFECTS ON			
	Income statement of		Equity of	
	Increase	Decrease	Increase	Decrease
<b>Financial instruments in hedging relationships</b>				
Interest rate risk: 100 bp parallel shift in interest curves all currencies	-6	6	-	-
Currency risk: 10% change in FX-rate USD/NOK	-	-	-263	263
Currency risk: 10% change in FX-rate EUR/NOK	-	-	-241	241
Currency risk: 10% change in FX-rate SEK/NOK	-	-	4	-4

Accounting effects of changes in market risk are classified to income statement and equity according to where the effect of the changes in fair value will be recognised initially. Effects

recognised in the income statement will also affect equity beyond the figures presented in the table.

## NOTE 29 DERIVATIVES AND HEDGING

Derivatives are measured at fair value on the balance sheet date and reported as receivables or liabilities. Changes in fair value are reported in the income statement in cases where the derivative is not part of a hedge relationship that satisfies the criteria for hedge accounting. Embedded derivatives in contracts are identified and measured separately. Purchases and sales of derivatives are recognised at trade date. The Group applies IFRS 9 on its financial instruments.

### Hedge accounting

The Group's existing hedge relationships designated in effective hedging relationships qualify for hedge accounting under IFRS 9. The Group uses the following criteria for classifying a derivative or another financial instrument as a hedging instrument:

- (1) the hedging instrument is expected to be highly effective in offsetting the changes in fair value or the cash flow of an identified object,
- (2) the hedging effectiveness can be measured reliably,
- (3) satisfactory documentation is established before entering into the hedging instrument, showing among other things that the hedging relationship is effective,
- (4) for cash flow hedges, that the future transaction is considered to be highly probable, and
- (5) the hedging relationship is evaluated regularly and is considered to be effective.

The table below shows the fair value of all outstanding derivative financial instruments grouped according to treatment in the financial statements.

### DERIVATIVES AND HEDGING

Amounts in NOK million	2022		2021	
	Assets	Liabilities	Assets	Liabilities
<b>Cash flow hedges</b>				
Currency forwards, currency swaps	94	219	225	53
Power hedges	-	-	-	-
Interest swaps	1	-	-	6
Embedded derivative	-	25	9	-
<b>Hedges of net investments</b>				
Currency forwards, currency swaps	-	-	11	-
<b>Other derivatives - Fair value changes recognised in income statement</b>				
Currency forwards, currency swaps, options	-	2	7	3
<b>Total derivatives</b>	<b>95</b>	<b>246</b>	<b>252</b>	<b>62</b>

### Calculation of fair value

- Currency forwards and currency swaps are measured at fair value using the observed forward exchange rate for contracts with a corresponding term to maturity at the balance sheet date.
- The fair value of currency options is calculated using Garman-Kohlhagen's version of the Black Scholes Option pricing method, and the variables are based on observed indicative market prices at the balance sheet date.

These derivative financial instruments are designated in hedge relationships as follows:

### Cash flow hedges

The effective part of changes in the fair value of a hedging instrument is recognised in comprehensive income and reclassified to the income statement when the hedged transaction affects profit or loss and is presented on the same line as the hedged transaction. The ineffective part of the hedging instrument is reported in the income statement. When a hedging instrument is sold, exercised or terminated, the accumulated gains and losses at this point will remain in hedging reserve of equity and will be recognised in the income statement when the hedged transaction affects profit or loss. The group has established a hedge ratio of

1:1 for the hedging relationship as the underlying risk of foreign exchange are identical to the hedged components. If the hedged transaction is no longer expected to occur, the accumulated unrealised gain or loss recognised in the hedging reserve of equity will be recognised in the income statement immediately. Embedded EUR derivatives in power contracts are designed as hedging instruments to hedge currency fluctuations of highly probable future sales.

In 2022, a loss of NOK 0.4 million (2021: loss of NOK 0.6 million) was recorded in the income statement as a result of hedging inefficiency. All expected cash flows which have been hedged during 2022 still qualify for hedge accounting.

#### DEVELOPMENT IN THE EQUITY HEDGING RESERVE

Amounts in NOK million	2022	2021
<b>Opening balance hedging reserve before tax</b>	<b>5</b>	<b>-93</b>
Reclassified to P/L - operating revenues	-72	59
Reclassified to P/L - operating costs	-3	2
Reclassified to P/L - net financial income	4	9
Reclassified to Balance sheet	-	2
Fair value change cash flow hedges	-254	38
Change in gain/(loss) on hedges of net investments in subsidiaries	-90	-12
<b>Closing balance hedging reserve before tax</b>	<b>-410</b>	<b>5</b>
Deferred tax and tax payable hedging reserve	98	6
<b>Closing balance hedging reserve after tax</b>	<b>-312</b>	<b>11</b>

A negative hedging reserve means a negative recognition in the income statement in the future. In 2022, the impact of hedging activities on the operating profit was NOK -50 million (NOK -29 million). Hedging gains from cash flow hedges recognised in the equity hedging reserve as of 31 December 2022 are expected to be recycled to the income statement as follows (before tax):

2023: NOK -51 million

After 2023: NOK -98 million

#### Hedges of net investments in foreign currencies

Currency risk on foreign net investments is hedged with currency forward contracts and currency loans. Realised and unrealised effects of the effective part of the hedging instrument are recognised through comprehensive income. Effects from ineffective parts of the hedging instrument are recognised through profit and loss. The group has established a hedge ratio of 1:1 for the hedging relationship as the underlying risk of foreign exchange are identical to the hedged components.

#### Fair value hedges

Gains and losses on derivatives designated as hedging instruments in fair value hedges are reported in the income statement and are offset by changes in the value of the hedged item.

There have not been any significant fair value hedges in the period 2022-2023.

## NOTE 30 EQUITY AND SHARE CAPITAL

Borregaard ASA was established on 22 August 2012 with a share capital of NOK 1 million. As part of establishing the Borregaard Group, capital transactions to increase share capital and share premium fund was made. Share capital,

share premium fund, other paid-in equity and retained earnings are presented from the establishment of the Borregaard Group in October 2012.

Date/year	Number of shares	Nominal value (NOK)	Share capital (NOK million)
31 December 2022	100,000,000	1	100
31 December 2021	100,000,000	1	100

### THE 20 LARGEST SHAREHOLDERS AS OF 31 DECEMBER 2022\*

Shareholder	Number of shares	% of capital
1 FOLKETRYGDFONDET	9,464,496	9.46 %
2 NN INVESTMENT PARTNERS	7,306,274	7.31 %
3 ERIK MUST A/S	7,252,755	7.25 %
4 IMPAX ASSET MGT	6,262,097	6.26 %
5 NORDEA BANK ABP	4,874,522	4.87 %
6 ODIN FUND MGT	4,516,230	4.52 %
7 ABERDEEN STANDARD INVESTMENTS (STANDARD LIFE)	3,882,180	3.88 %
8 THE VANGUARD GROUP, INC	3,542,431	3.54 %
9 SCHRODER INVESTMENT MGT	3,208,937	3.21 %
10 SVENSKA HANDELSBANKEN GROUP	3,144,676	3.14 %
11 PARETO ASSET MGT	3,043,839	3.04 %
12 STOREBRAND INVESTMENTS	2,496,955	2.50 %
13 ARCTIC ASSET MGT	2,362,897	2.36 %
14 BLACKROCK INC	2,067,842	2.07 %
15 KLP KAPITALFORVALTNING	1,664,120	1.66 %
16 ALFRED BERG	1,591,954	1.59 %
17 BARINGS	1,499,179	1.50 %
18 DIMENSIONAL FUND ADVISORS	1,305,588	1.31 %
19 ALLIANZ GLOBAL INVESTORS	1,218,781	1.22 %
20 JUPITER ASSET MGT	1,096,096	1.10 %
Total shares	71,801,849	71.80 %

\* The list of top 20 shareholders is based on information from Orient Capital Ltd in their capacity as shareholder analysis provider. In preparing this report, Orient Capital has used data sourced from third parties. None of the third parties have been involved in the preparation of this report and do not accept any liability for its contents. The information disclosed is factual information only and is not financial product advice. Neither Borregaard, Orient Capital or any third party supplier of data accepts any responsibility for any investment decision or action taken or not taken.

## TREASURY SHARES OWNED BY BORREGAARD ASA

	Nominal value (NOK)	Number of shares	Fair value (NOK million)
1 January 2021	384,678	384,678	55
Exercise of share options in 2021	-440,726	-440,726	
Shares to employees	-173,383	-173,383	
Purchase/Buy-back of treasury shares	644,293	644,293	
31 December 2021	414,862	414,862	92
Exercise of share options in 2022	-239,774	-239,774	
Shares to employees	-162,810	-162,810	
Purchase/Buy-back of treasury shares	422,275	422,275	
31 December 2022	434,553	434,553	66

## NOTE 31 NON-CONTROLLING INTERESTS

As of 31 December 2022, non-controlling interests consist of LignoTech Ibérica SA and LignoTech Florida LLC. Borregaard owns 60% of LignoTech Ibérica located in Spain and 55% of LignoTech Florida located in USA. In 2020, LignoTech Iberica lost its local lignin source when Sniace's cellulose business went bankrupt and had to close. Production at the lignin plant was discontinued. The entities are fully consolidated into the Borregaard Group's financial statements and minority interests are recognised.

As of 31 December 2022, current assets were NOK 144 million (NOK 115 million) in LignoTech Florida and non-current assets amounted to NOK 830 million (NOK 792 million). Current liabilities were NOK 274 million (NOK 181 million) and non-current liabilities amounted to NOK 613 million (NOK 557 million). LignoTech Florida had a loss for the year of NOK -104 million in 2022 (NOK -84 million).

Amounts in NOK million	2022	2021
<b>Changes in non-controlling interests:</b>		
Non-controlling interests 1 January	84	110
Non-controlling interests' share of profit/loss	-41	-32
Additions of non-controlling interests	-	2
Translation differences, etc.	8	4
<b>Non-controlling interests 31 December</b>	<b>51</b>	<b>84</b>

## NOTE 32 PLEDGES AND GUARANTEES

In 2017, LignoTech Florida LLC (55% owned by Borregaard) entered into a USD 60 million loan agreement as well as a USD 15 million overdraft facility. The owners will guarantee the loan and the overdraft facility on a pro rata basis until

relevant financial conditions are met. As of 31 December 2022, USD 57.5 million of the facility was drawn. See Note 26 and 31.

## NOTE 33 RELATED PARTIES

Activity within the Group is reported in the segment information disclosed in Note 7.

Borregaard has one joint venture, Umkomaas Lignin (proprietary) Limited trading as LignoTech South Africa (50%). This company is jointly owned with Sappi Southern Africa

Ltd. The equity method is used for consolidation according to IFRS 11 for joint arrangements (see also Note 6). In 2020, the operation at LignoTech South Africa was mothballed and later the decision to permanently close the operation was taken. In 2022, some of Borregaard's production entities acquired equipment from LignoTech South Africa at the value

set in a valuation assessment made by a 3<sup>rd</sup> party.

Internal trading within the Group is carried out in accordance with special agreements on an arm's length basis, and joint expenses in Borregaard are distributed among the Group companies in accordance with distribution formulas, depending on the various types of expense. For further information on intercompany transactions, see

## NOTE 34 GOVERNMENT GRANTS

*Government grants are recognised in the financial statements when there is a reasonable assurance that the requirements of the grants will be complied with and that the grants will be received. Grants related to income are presented as reduction of expenses they are intended to compensate for. Government grants that relate to assets are recognised as a reduction in the acquisition cost of the asset. The grant reduces the depreciation of the asset.*

Borregaard recognised NOK 106 million in government grants in 2022 (NOK 85 million)<sup>3</sup>. Of this amount, NOK 91 million was recognised as reduced expenses (NOK 55 million), while NOK 15 million was recognised as a

Note 7 "Segments". The members of the Group Executive Management of Borregaard hold a total of 588,700 stock options in the Company. Further information regarding the Group Executive Management is disclosed in Note 9.

Other transactions with related parties are part of ordinary business operations.

reduction of the acquisition cost of the asset concerned (NOK 30 million). The grants are provided by the Norwegian government mainly for research and development projects, environmental investments and CO<sub>2</sub> compensation.

The current regulation on CO<sub>2</sub> compensation for industrial enterprises for the period 1 January 2021 to 31 December 2030 was approved during the 4<sup>th</sup> quarter of 2022. Based on the approved regulation, Borregaard has recognised the CO<sub>2</sub> compensation for 2022 in the financial statement. Of the recognised government grants of NOK 106 million (NOK 85 million), NOK 62 million was related to CO<sub>2</sub> compensation (NOK 30 million).

## NOTE 35 ENVIRONMENT, HEALTH AND SAFETY MATTERS

*A provision is recognised when the Group has a present obligation (legal or constructive) following a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the balance sheet date, taking into account the risks and uncertainties surrounding the obligation. When a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of the cash flows.*

Environment, Health and Safety issues (EHS): Sulphur dioxide (SO<sub>2</sub>) is one of the most important chemicals used in the production processes at Borregaard. There are several EHS regulations to secure safe operations, a safe working environment and low emissions to the environment. The use of SO<sub>2</sub> has been regulated for many years, but the authorities both in the EU and in Norway have enhanced the regulations during the last years and new demands are coming. Borregaard decided to introduce new technology to substantially reduce the amount of SO<sub>2</sub> stored at the plant in Sarpsborg in order to further improve safety. The majority of the installation was done in 2020 and finalised in 2022.

Technology for recovering and scrubbing of emissions will be installed in different process areas during the next years, as well as measures to reduce the exposure to SO<sub>2</sub> in the working environment. In 2022, there were six hourly exceedances of local air quality, compared to four in 2021. The exceedances were mainly a result of the commissioning of a new plant for production of SO<sub>2</sub>. The new plant is expected to give an improvement in local air quality.

*Cuts in COD effluents:* Borregaard has identified both short-term and long-term goals for further cuts in COD effluents. In 2021, Borregaard transmitted its long-term plan for reduction of COD to water to the Norwegian Environmental Authorities. The plan included several measures to reduce the emission of COD from 57 tonnes/day to a level below 47 tonnes/day in 2026. In 2022, Borregaard has completed a plan for how to reach the new target below 40 tonnes of COD/day by 2030.

*Chlor-alkali plant:* From 1949 to 1997, Borregaard used mercury-based technology for chlor-alkali production at the site in Sarpsborg. This process led to pollution of the soil in the area surrounding the plant. In 1994, a ground water barrier was built and a water monitoring programme was established.

/ <sup>3</sup> Figures in parentheses are for the corresponding period in the previous year.

Total emissions of mercury were 800 grams in 2022. The area will be continuously monitored in close co-operation with the authorities to secure stable and acceptable mercury levels. Borregaard reports progress to the Norwegian Environment Agency quarterly.

*Old landfills:* The permanent seal off of the Opsund landfill was completed in 2020. In 2020, Borregaard identified damages in soil related to a former waste disposal site on the premises in Sarpsborg which has been fallow for decades. Measures to secure the landfill were implemented in 2021.

*Ground conditions:* In 2022, a provision of NOK 20 million was made related to ground conditions at the site in Norway. The measures will be implemented in 2023.

#### ENVIRONMENTAL ACCRUALS

Amounts in NOK million	Chlor-alkali plant	Opsund landfill	Former waste disposal	Ground conditions	Total
Initial accrual	60	30	16	-	-
Utilised prior to 2021	-51	-30	-1	-	-
<b>Accrual 1 January 2021</b>	<b>9</b>	<b>-</b>	<b>15</b>	<b>-</b>	<b>24</b>
Accrual related to matters identified in 2021	-	-	-	-	0
Utilisation in 2021 of initial accrual	-9	-	-15	-	-24
Utilisation of additional accrual in 2021	-	-	-3	-	-3
<b>Accrual 31 December 2021</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Accrual related to matters identified in 2022	-	-	-	-20	-20
Utilisation in 2022 of initial accrual	-	-	-	-	-
Utilisation of additional accrual in 2022	-	-	-	-	-
<b>Accrual 31 December 2022</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-20</b>	<b>-20</b>

Borregaard's site in Norway has several areas that are defined as polluted by the Norwegian Environment Agency, due to former operations. Borregaard's future costs for environmental remediation depends on a number of uncertain factors, such as changes in regulations or approval from authorities for the extent of actions. Monitoring of contaminated areas will continue to confirm that implemented measures are sufficient. Borregaard submitted a Baseline

report according to the Industry Environmental Directive to the Norwegian Environment Agency at the end of 2022.

Conditions which could require future expenditures may be determined to exist for various sites, including Borregaard's major production facilities and warehouses.

## NOTE 36 COST INCREASES AND COVID-19

The Covid-19 pandemic situation was challenging for Borregaard's operations and employees in 2022. However, only minor disturbances have occurred in production, sales, logistics and investment projects.

In line with the Group's values, safety and health have been put first. Logistical and other practical challenges have been managed without significant adverse effects on deliveries and production. Travel activities were limited in the beginning of 2022 but has increased in the second half of 2022. Reduced travel activity has led to reduced travel costs compared to a normal year.

2022 was a year with significant price and cost increases, mainly driven by increased energy prices following the Russian invasion of Ukraine. An overall strong demand for Borregaard's products, price increases, cost mitigation and positive currency effects more than offset the financial impact of the cost inflation.

Borregaard's diversified market strategy has proven its value as a safety net during difficult financial times. This strategy enables the Group to reduce its exposure to cyclical market segments through reallocation of volumes across several applications and geographical markets. Overall, there have been only minor interruptions in operations as a result of the pandemic.

As a global supplier of products, Borregaard may be affected by possible further consequences of the Russian invasion of Ukraine, cost inflation and Covid-19 pandemic. Borregaard will continue to focus on maintaining sufficient financial capacity to responsibly manage and mitigate any potential effects from such risks and will continue to monitor the risks.

## NOTE 37 OTHER MATTERS AND SUBSEQUENT EVENTS

*Shares to employees:* As part of the employee share programme, Borregaard has sold a total of 169,213 shares to employees in February 2023. The share price was NOK 132.46 per share including a 25% discount. Costs in 2023, including administration costs, related to the employee share programme amount to approximately NOK 8 million. For more details, see notifications to the Oslo Stock Exchange on 6 and 13 February and 2 March 2023.

*Share options issued:* In February 2023, 250,000 share options at a strike price of NOK 194.00 were granted under the long-term incentive programme. The options will expire after five years, the vesting period is three years and the options may be exercised during the last two years. For more details, see notification to the Oslo Stock Exchange on 1 March 2023.

There have been no events after the balance sheet date that would have had a material impact on the financial statements, or the assessments carried out.





## **BORREGAARD ASA FINANCIAL STATEMENTS**

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## INCOME STATEMENT

Amounts in NOK thousand	Note	2022	2021
Other operating expenses	4, 8	-10,054	-7,984
<b>Operating profit</b>		<b>-10,054</b>	<b>-7,984</b>
Finance income	5, 8	644,390	623,776
Finance costs	5	-10,205	-6,527
Financial items, net	5, 8	634,185	617,249
<b>Profit/loss before taxes</b>		<b>624,131</b>	<b>609,265</b>
Taxes	6	-137,315	-134,040
<b>Profit/loss for the year</b>		<b>486,816</b>	<b>475,225</b>
Proposed dividend		-323,588	-497,926

## STATEMENT OF FINANCIAL POSITION

Amounts in NOK thousand	Note	2022	2021
<b>Assets</b>			
Deferred tax assets	6	196	127
Shares in subsidiaries	7	1,158,347	1,158,347
Loans to Group companies	8	1,345,599	1,349,028
Non interest-bearing receivables		-	360
<b>Non-current assets</b>		<b>2,504,142</b>	<b>2,507,862</b>
Receivables	8	600,369	600,439
Cash, cash equivalents and deposits in Group cash pool	8	3,518	2,235
<b>Current assets</b>		<b>603,887</b>	<b>602,674</b>
<b>Total assets</b>		<b>3,108,029</b>	<b>3,110,536</b>
<b>Equity and liabilities</b>			
Share capital	9	100,000	100,000
Treasury shares	9	-435	-415
Share premium		1,758,347	1,758,347
Other paid in equity		67,594	62,881
Retained earnings		320,170	156,051
<b>Equity</b>		<b>2,245,676</b>	<b>2,076,864</b>
Interest-bearing liabilities	10	-	400,000
<b>Non-current liabilities</b>		<b>-</b>	<b>400,000</b>
Interest-bearing liabilities	10	400,000	-
Dividends		323,588	497,926
Income tax payable	6	137,384	134,068
Accounts payable	8	223	949
Other liabilities		1,158	729
<b>Current liabilities</b>		<b>862,353</b>	<b>633,672</b>
<b>Equity and liabilities</b>		<b>3,108,029</b>	<b>3,110,536</b>

Sarpsborg, 21 March 2023  
The Board of Directors of Borregaard ASA

<i>Signed</i> HELGE AASEN <i>Chair</i>	<i>Signed</i> TERJE ANDERSEN	<i>Signed</i> TOVE ANDERSEN	<i>Signed</i> MARGRETHE HAUGE
<i>Signed</i> JOHN ARNE ULVAN	<i>Signed</i> ARUNDEL KRISTIANSEN	<i>Signed</i> RAGNHILD ANKER EIDE	<i>Signed</i> PER A. SØRLIE <i>President and CEO</i>

## STATEMENT OF CASH FLOW

Amounts in NOK thousand	2022	2021
Profit/loss before taxes	624,131	609,265
Changes in net working capital, etc.	133	-289,529
Taxes paid	-134,068	-70,591
<b>Cash flow from operating activities</b>	<b>490,196</b>	<b>249,145</b>
<b>Cash flow from investing activities</b>	<b>-</b>	<b>-</b>
Dividends	-498,758	-248,864
Proceeds from sales of treasury shares	74,190	113,400
Buy-back of treasury shares	-67,774	-118,206
<b>Net paid to shareholders</b>	<b>-492,342</b>	<b>-253,670</b>
Change in interest-bearing liabilities	-	-400,000
Change in interest-bearing receivables	3,429	397,482
<b>Change in net interest-bearing liabilities</b>	<b>3,429</b>	<b>-2,518</b>
<b>Cash flow from financing activities</b>	<b>-488,913</b>	<b>-256,188</b>
<b>Change in cash and cash equivalents</b>	<b>1,283</b>	<b>-7,043</b>
Cash and cash equivalents as of 1 January	2,235	9,278
Change in cash and cash equivalents	1,283	-7,043
<b>Cash and cash equivalents as of 31 December</b>	<b>3,518</b>	<b>2,235</b>

The cash flow statement has been prepared according to the indirect method and reflects cash flows from operating, investing and financing activities and explains changes in cash and cash equivalents in the reporting period.

## STATEMENT OF CHANGES IN EQUITY

Amounts in NOK thousand	Share capital	Treasury shares	Share premium	Other paid-in equity	Retained earnings	Total equity
<b>Equity 31 December 2020</b>	<b>100,000</b>	<b>-385</b>	<b>1,758,347</b>	<b>10,534</b>	<b>235,701</b>	<b>2,104,197</b>
Profit/loss for the year	-	-	-	-	475,225	475,225
Proposed dividend for 2020	-	-	-	-	249,038	249,038
Actual paid-out dividend in 2021	-	-	-	-	-248,864	-248,864
Proposed dividend for 2021	-	-	-	-	-497,926	-497,926
Buy-back/sales of treasury shares	-	-30	-	52,347	-57,123	-4,806
<b>Equity 31 December 2021</b>	<b>100,000</b>	<b>-415</b>	<b>1,758,347</b>	<b>62,881</b>	<b>156,051</b>	<b>2,076,864</b>
Profit/loss for the year	-	-	-	-	486,816	486,816
Proposed dividend for 2021	-	-	-	-	497,926	497,926
Actual paid-out dividend in 2022	-	-	-	-	-498,758	-498,758
Proposed dividend for 2022	-	-	-	-	-323,588	-323,588
Buy-back/sales of treasury shares	-	-20	-	4,713	1,723	6,416
<b>Equity 31 December 2022</b>	<b>100,000</b>	<b>-435</b>	<b>1,758,347</b>	<b>67,594</b>	<b>320,170</b>	<b>2,245,676</b>

# NOTES TO THE FINANCIAL STATEMENTS

## NOTE 01 GENERAL INFORMATION

Borregaard ASA ("The Company") was incorporated as a public limited liability company on 22 August 2012. On 17

September 2012, The Company was inserted as a holding company of Borregaard AS.

## NOTE 02 ACCOUNTING PRINCIPLES

The financial statements for Borregaard ASA have been prepared and presented in accordance with the Norwegian Accounting Act and generally accepted accounting principles in Norway (Norwegian GAAP). The annual accounts give a true and fair view of assets and liabilities, financial status and result.

### Classification of items in the financial statements

An asset or liability is classified as current when it is part of a normal operating cycle, when it is held primarily for trading purposes, when it falls due within 12 months and when it consists of cash or cash equivalents on the statement of financial position date. Other items are non-current.

All amounts are in NOK thousand unless otherwise stated. The functional currency of Borregaard ASA is NOK.

## NOTE 03 PAYROLL AND PENSIONS

Borregaard ASA has no employees and therefore no pension plan. The executive management is employed in Borregaard AS. For matters relating to the remuneration of the

executive management, reference is made to Note 9 in the Consolidated Financial Statements and the separate report "Remuneration report 2022" at the company's website.

## NOTE 04 REMUNERATION AND CONTRACTUAL ARRANGEMENTS

### Remuneration of the Board of Directors

At the Annual General Meeting of the Company's shareholders in April 2022 it was determined that The Board of Directors is remunerated at annual rates for the period up to the next Annual General Meeting in 2023:

<b>Board of Directors</b>			
Board chair	NOK	620,000	per year
Board member, shareholder-elected	NOK	350,000	per year
Board member, employee-elected	NOK	314,000	per year
Observer, employee-elected	NOK	105,000	per year
Deputy for observer	NOK	8,100	per meeting
<b>Audit Committee</b>			
Committee chair	NOK	100,000	per year
Member	NOK	66,000	per year
<b>Compensation Committee</b>			
Committee chair	NOK	59,000	per year
Member	NOK	46,000	per year

**Remuneration of the Nomination Committee**

The Chair of the Nomination Committee receives NOK 66,000 per year and an additional NOK 10,500 per meeting exceeding four meetings. Other members receive NOK 46,500 per year and an additional NOK 8,600 per meeting exceeding four meetings.

**FEES TO EXTERNAL AUDITOR**

Amounts in NOK thousand	2022	2021
Statutory audit	662	422
Specific scope audit subsidiaries	500	-
Other attest services	604	425
Other non-audit services	58	50
<b>Total</b>	<b>1,824</b>	<b>897</b>

**SHAREHOLDINGS OF CEO AND MEMBERS OF THE BOARD OF DIRECTORS**

	Number of shares*
<b>President &amp; CEO</b>	
Per A. Sørli	164,312
<b>Shareholder-elected Board members</b>	
Helge Aasen	4,500
Terje Andersen	4,371
Tove Andersen	6,000
Margrethe Hauge	4,077
John Arne Ulvan	3,500
<b>Employee-elected Board members</b>	
Ragnhild Anker Eide	3,699
Arundel Kristiansen	906
<b>Employee-elected Board observers</b>	
Bente Seljebakken Klausen	1,402
Roy Kåre Appelgren	1,911
<b>Total</b>	<b>194,678</b>

\* Total share ownership including related parties

**NOTE 05 FINANCE INCOME AND FINANCE COSTS**

Amounts in NOK thousand	2022	2021
Group contribution	600,000	600,000
Interest income from Borregaard AS	44,284	23,761
Interest income	106	15
<b>Total finance income</b>	<b>644,390</b>	<b>623,776</b>
Interest costs	-10,194	-6,527
Foreign exchange loss	-11	-
<b>Total finance costs</b>	<b>-10,205</b>	<b>-6,527</b>
<b>Financial items, net</b>	<b>634,185</b>	<b>617,249</b>

**NOTE 06 TAXES**

Deferred tax shows the company's tax liability assuming its assets and debt are realised at book value by year-end. Positive temporary differences state that book value is higher than taxable value, and vice versa for negative differences. The item Taxes in the profit and loss statement, consists of two elements: The tax payable, and the change in deferred tax. Deferred tax/tax benefit is reflected as long-term debt/non-current assets in the balance sheet.

**TAX EXPENSE**

Amounts in NOK thousand	2022	2021
Profit before tax	624,131	609,265
Current tax expense	-137,384	-134,068
Change in deferred tax	69	28
<b>Total tax expense</b>	<b>-137,315</b>	<b>-134,040</b>
Tax as % of Profit before taxes	22 %	22 %

**Deferred tax liabilities**

Deferred tax liability consists of the tax liabilities that are payable in the future. The table below lists deferred tax assets and liabilities relating to the timing differences between tax accounting and financial accounting.

Amounts in NOK thousand	2022	2021
<b>Deferred tax on tax increasing/reducing differences</b>		
Provisions	-196	-127
<b>Deferred tax liabilities/assets</b>	<b>-196</b>	<b>-127</b>
This year's change in deferred tax	69	28
<b>Change in deferred tax income statement</b>	<b>69</b>	<b>28</b>

Deferred tax assets are only capitalised to the extent that it is probable that there will be sufficient future taxable profit for the tax asset to be used, either because the unit recently reported a profit or because assets with excess value have been identified. If future profits are not likely to be sufficient to absorb the tax reducing timing differences, deferred tax assets are not recognised.

**Reconciliation of total tax expense**

Amounts in NOK thousand	2022	2021
Deferred tax	-	-
Deferred tax assets	196	127
<b>Net deferred tax</b>	<b>-196</b>	<b>-127</b>

The tax rate in Norway is 22%.

**NOTE 07 SHARES IN SUBSIDIARIES**

Long-term investments in subsidiaries, associated companies and other shares and bonds, which are held to maturity date, are classified as non-current assets in the balance sheet and entered at the lower of cost and market value.

Only directly owned subsidiaries are included in the below table.

Amounts in NOK thousand	Book value	Group's share of capital
Borregaard AS, Sarpsborg, Norway	1,158,347	100 %
<b>Total</b>	<b>1,158,347</b>	<b>-</b>

Borregaard ASA also has indirect ownership in the following subsidiaries, joint venture and associate company, of which the profit/loss and equity are important in the valuation of the above company.

	Group's share of capital
<b>Indirectly owned subsidiaries</b>	
Borregaard, Inc.	100 %
Nutrancell AS	100 %
Borregaard Austria GmbH	100 %
Borregaard Czech s.r.o.	100 %
Borregaard UK Ltd.	100 %
Borregaard Deutschland GmbH	100 %
Borregaard S.E.A. Pte. Ltd	100 %
Borregaard Poland sp. z.o.o.	100 %
Borregaard France SarL	100 %
Borregaard Ibérica, S.L.	100 %
LignoTech Ibérica SA	60 %
Borregaard Synthesis Inc.	100 %
Borregaard USA, Inc.	100 %
Borregaard North America, Inc.	100 %
Borregaard Brasil LTDA	100 %
Borregaard South Asia Pvt. Ltd	100 %
Borregaard China Company Limited	100 %
SenseFi Inc.	100 %
LignoTech Florida LLC	55 %
Borregaard South Africa (Pty) Ltd.	100 %
<b>Indirectly owned joint ventures</b>	
Umkomaas Lignin (Pte) Ltd	50%
<b>Indirectly owned associate company</b>	
Alginor ASA	25%

## NOTE 08 RELATED PARTIES

### INTERCOMPANY RELATIONS WITH BORREGAARD AS

Amounts in NOK thousand	2022	2021
Other operating expenses (Note 4)	3,781	3,633
Group contribution	600,000	600,000
Interest income from Group companies (Note 5)	44,284	23,761
Loans to Group companies*	1,345,599	1,349,028
Current receivable Group contribution	600,000	600,000
Deposits in Group cash pool	2,235	3,518
Accounts payable	-	677

\* The loan is interest-bearing and the interest is calculated in accordance with market conditions.

## NOTE 09 SHARE CAPITAL AND SHAREHOLDERS

Information about the share capital and a list of the largest shareholders in Borregaard ASA is presented in Note 30 in

the Consolidated Financial Statements for the Borregaard Group.

## NOTE 10 INTEREST-BEARING LIABILITIES

### Unsecured bond loan 2018-2023

On 7 June 2018, Borregaard issued NOK 400 million in a new open bond issue with a tenor of 5 years and a coupon

of 3 months NIBOR plus 77 basis points. Settlement of the transaction took place on 20 June 2018. Maturity is 20 June 2023.

## NOTE 11 GUARANTEES

### MORTGAGES AND GUARANTEES

Amounts in NOK thousand	2022	2021
Guarantees to subsidiaries	1,500,000	1,500,000
<b>Total guarantee commitments</b>	<b>1,500,000</b>	<b>1,500,000</b>

Borregaard ASA is jointly and severally liable as guarantor and as borrower for the long-term credit facilities entered into by Borregaard AS (NOK 1,500 million).

In 2017, LignoTech Florida LLC (55% owned by Borregaard) entered into a USD 60 million loan agreement as well as a USD 15 million overdraft facility. The owners will guarantee the loan and the overdraft facility on a pro rata basis until certain financial conditions being met.

In addition, Borregaard ASA is jointly and severally liable borrower with Borregaard AS for the EUR 40 million term loan and USD 50 million term loan contracted with Nordic Investment Bank.

## NOTE 12 OTHER MATTERS AND SUBSEQUENT EVENTS

There have been no events after the balance sheet date that would have had a material impact on the financial statements.

# STATEMENT FROM THE BOARD OF DIRECTORS

We confirm that the financial statements for the period 1 January up to and including 31 December 2022, to the best of our knowledge, have been prepared in accordance with applicable accounting standards and give a true and fair view of the assets, liabilities, financial positions and profit or loss of the Company and the Group as a whole. The Board

of Directors' report includes a fair review of the development and performance of the business and the position of the Company and the Group as a whole, together with a description of the principal risks and uncertainties that they face.

Sarpsborg, 21 March 2023

## THE BOARD OF DIRECTORS OF BORREGAARD ASA

*Signed*

**HELGE AASEN**  
*Chair*

*Signed*

**TERJE ANDERSEN**

*Signed*

**TOVE ANDERSEN**

*Signed*

**MARGRETHE HAUGE**

*Signed*

**JOHN ARNE ULVAN**

*Signed*

**ARUNDEL KRISTIANSEN**

*Signed*

**RAGNHILD ANKER EIDE**

*Signed*

**PER A. SØRLIE**  
*President and CEO*

# AUDITOR'S REPORT



Statsautoriserte revisorer  
Ernst & Young AS

Dronning Eufemias gate 6a, 0191 Oslo  
Postboks 1156 Sentrum, 0107 Oslo

Foretaksregisteret: NO 976 389 387 MVA  
Tlf: +47 24 00 24 00

www.ey.no  
Medlemmer av Den norske Revisorforening

## INDEPENDENT AUDITOR'S REPORT

To the Annual Shareholders' Meeting of Borregaard ASA

### Report on the audit of the financial statements

#### Opinion

We have audited the financial statements of Borregaard ASA (the Company) which comprise the financial statements of the Company and the consolidated financial statements of the Company and its subsidiaries (the Group). The financial statements of the Company comprise the balance sheet as at 31 December 2022 and the income statement, statement of cash flows and statement of changes in equity for the year then ended and notes to the financial statements, including a summary of significant accounting policies. The consolidated financial statements of the Group comprise the balance sheet as at 31 December 2022, the income statement, statement of comprehensive income, statement of cash flows and statement of changes in equity for the year then ended and notes to the financial statements, including a summary of significant accounting policies.

In our opinion

- the financial statements comply with applicable legal requirements,
- the financial statements give a true and fair view of the financial position of the Company as at 31 December 2022 and its financial performance and cash flows for the year then ended in accordance with the Norwegian Accounting Act and accounting standards and practices generally accepted in Norway,
- the consolidated financial statements give a true and fair view of the financial position of the Group as at 31 December 2022 and its financial performance and cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the EU.

Our opinion is consistent with our additional report to the audit committee.

#### Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the financial statements* section of our report. We are independent of the Company and the Group in accordance with the requirements of the relevant laws and regulations in Norway and the International Ethics Standards Board for Accountants' *International Code of Ethics for Professional Accountants (including International Independence Standards)* (IESBA Code), and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

To the best of our knowledge and belief, no prohibited non-audit services referred to in the Audit Regulation (537/2014) Article 5.1 have been provided.

We have been the auditor of the Company for 11 years from the election by the general meeting of the shareholders on 22 August 2012 for the accounting year 2012 (with at renewed election on the 7 April 2022)



## Key audit matters

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Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements for 2022. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor's responsibilities for the audit of the financial statements* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the financial statements.

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### Hedging of cash flows related to sales

#### *Basis for the key audit matter*

The Group is exposed to currency risk as a significant part of sales are invoiced in foreign currencies. A portion of future forecasted cash flows from sales are hedged using currency forward contracts. Borregaard applies hedge accounting for cash flow hedges. The use of hedge accounting requires effective hedging relationships and supporting documentation. Accounting for cash flow hedging related to sales is material to Borregaard and we consider this a key audit matter.

#### *Our audit response*

We assessed the Group's requirements for use of hedge accounting. We tested, on a sample basis, whether the documentation of cash flow hedging meets the requirements of IFRS as adopted by EU and that the hedging instruments therefore are eligible for hedge accounting. We examined the assessments of cash flows forecasts from sales and the relationship between hedging instruments and hedged items. Furthermore, we considered the retrospective effectiveness testing to assess that the ineffective part of the hedge has been calculated accurately. We reconciled the outcome of the retrospective effectiveness testing resulting in the hedge adjustment to the financial statements. We obtained external confirmations for unrealized forward contracts at year-end and assessed the changes in fair value of forward contracts and changes in foreign exchange for hedged items. Further, we assessed the impact on profit and loss, comprehensive income and the balance sheet.

We refer to note 28 financial risk and note 29 derivatives and hedging.



## Environmental obligations

### *Basis for the key audit matter*

The Group operates in an industry with risk of environmental contamination. The site in Norway has, due to former operations, areas that are defined as polluted by the Norwegian Environment Agency. Contaminated areas are monitored on a continuous basis to assess if implemented measures are sufficient. Environmental provisions are recognized when contamination and environment clean up obligations are identified, and a reliable estimate can be made of the amount of the obligation. Since environmental obligations may be material and subject to estimation uncertainty, we consider recognition and measurement of environmental provisions to be a key audit matter.

### *Our audit response*

We read correspondence with the Group's external advisors on the current situation and risks regarding potential environmental obligations and potential provisions and correspondence with environmental authorities to assess the recognition criteria and suggested measures. In addition, we inspected the Group's litigation and compliance reports and held discussions with the Group's internal counsel. We also held discussions with management and internal representatives responsible for monitoring and assessing potential environmental obligations. We refer to note 35 environment, health and safety matters.

## Other information

Other information consists of the information included in the annual report other than the financial statements and our auditor's report thereon. Management (the board of directors and the general manager) is responsible for the other information. Our opinion on the 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 financial statements, our responsibility is to read the other information, and, in doing so, consider whether the board of directors' report contains the information required by legal requirements and whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information or that the information required by legal requirements is not included, we are required to report that fact.

We have nothing to report in this regard, and in our opinion, the board of directors' report is consistent with the financial statements and contains the information required by applicable legal requirements.

## Responsibilities of management for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements of the Company in accordance with the Norwegian Accounting Act and accounting standards and practices generally accepted in Norway and of the consolidated financial statements of the Group in accordance with International Financial Reporting Standards as adopted by the EU, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's and 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 Company or the Group, or to cease operations, or has no realistic alternative but to do so.



## Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the 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 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 financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's and 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 Company's and 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 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 Company and the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the 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 board of directors 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 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 board of directors, we determine those matters that were of most significance in the audit of the 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 requirement

### Report on compliance with regulation on European Single Electronic Format (ESEF)

#### *Opinion*

As part of our audit of the financial statements of Borregaard ASA we have performed an assurance engagement to obtain reasonable assurance whether the financial statements included in the annual report, with the file name *borregaardasa-2022-12-31-en.zip*, has been prepared, in all material respects, in compliance with the requirements of the Commission Delegated Regulation (EU) 2019/815 on the European Single Electronic Format (ESEF Regulation) and regulation given with legal basis in Section 5-5 of the Norwegian Securities Trading Act, which includes requirements related to the preparation of the annual report in XHTML format and iXBRL tagging of the consolidated financial statements.

In our opinion, the financial statements included in the annual report have been prepared, in all material respects, in compliance with the ESEF Regulation.

#### *Management's responsibilities*

Management is responsible for the preparation of an annual report and iXBRL tagging of the consolidated financial statements that complies with the ESEF Regulation. This responsibility comprises an adequate process and such internal control as management determines is necessary to enable the preparation of an annual report and iXBRL tagging of the consolidated financial statements that is compliant with the ESEF Regulation.

#### *Auditor's responsibilities*

Our responsibility is to express an opinion on whether, in all material respects, the financial statements included in the annual report have been prepared in accordance with the ESEF Regulation based on the evidence we have obtained. We conducted our engagement in accordance with the International Standard for Assurance Engagements (ISAE) 3000 – “Assurance engagements other than audits or reviews of historical financial information”. The standard requires us to plan and perform procedures to obtain reasonable assurance that the financial statements included in the annual report have been prepared in accordance with the ESEF Regulation.

As part of our work, we performed procedures to obtain an understanding of the company's processes for preparing its annual report in XHTML format. We evaluated the completeness and accuracy of the iXBRL tagging and assessed management's use of judgement. Our work comprised reconciliation of the iXBRL tagged data with the audited financial statements in human-readable format. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Oslo, 24 March 2023  
ERNST & YOUNG AS

*The auditor's report is signed electronically*

Kjetil Rimstad  
State Authorised Public Accountant (Norway)

# HISTORICAL KEY FIGURES

	Definitions	2022	2021	2020	2019	2018
<b>Profit &amp; loss</b>						
Operating revenues	(mill.NOK)	6,881	5,805	5,328	5,063	4,785
EBITDA <sup>1</sup>	(mill.NOK)	1,643	1,372	1,132	1,007	903
Depreciation and write-down	(mill.NOK)	-444	-416	-443	-418	-323
Amortisation intangible assets	(mill.NOK)	-5	-4	-5	-4	-4
Other income and expences <sup>1</sup>	(mill.NOK)	-8	-	-116	-27	-
Operating profit	(mill.NOK)	1,186	952	568	558	576
EBITDA margin <sup>1</sup>	(%)	23.9	23.6	21.2	19.9	18.9
Ordinary profit before taxes	(mill.NOK)	1,118	873	496	467	562
Profit/loss for the year	(mill.NOK)	851	660	379	351	425
<b>Cash flow</b>						
Cash flow from operating activities	(mill.NOK)	735	1,431	886	697	558
<b>Return</b>						
Return on capital employed <sup>1</sup>	(%)	18.1 %	16.1 %	11.4 %	10.5 %	12.7 %
<b>Capital as of 31 december</b>						
Book value of total assets	(mill.NOK)	8,114	7,166	7,003	6,744	5,951
Market capitalisation	1 (mill.NOK)	15,134	22,108	14,125	9,465	7,446
Equity ratio <sup>1</sup>	(%)	54.8	60.1	53.9	51.4	55.8
Net interest-bearing debt <sup>1</sup>	(mill.NOK)	1,836	1,417	1,794	1,876	1,297
Leverage ratio <sup>1</sup>		1.12	1.03	1.58	1.86	1.44
Share of floating interest-bearing liabilities	(%)	81.8	74.5	78.9	77.7	66.8
<b>SHARES</b>						
Number of shares outstanding diluted	(x 1,000)	99,753	99,743	99,712	99,807	99,901
Shares outstanding excluding treasury shares	(x 1,000)	99,565	99,585	99,615	99,633	99,550
<b>Share-related key figures</b>						
Share price at 31 December	(NOK)	152	222	142	95	75
Earnings per share diluted	2 (NOK)	8.92	6.94	4.37	4.18	4.76
Ordinary dividend per share (proposed for 2022)	(NOK)	3.25	2.75	2.50	2.30	2.25
Extraordinary dividend	(NOK)		2.25			
Payout ratio	3 (%)	36.43	72.05	57.21	55.16	47.27
Price/earnings ratio	4	17.04	31.99	32.45	22.78	15.71
<b>Personell</b>						
Number of man-years at 31 December (excluding JV)		1,107	1,079	1,091	1,103	1,097

## DEFINITION:

1 Market capitalisation is calculated on the basis of number of shares outstanding multiplied by the share price at year end

2 Profit for the year after minority interests/Average number of shares outstanding diluted at year end

3 Total dividend per share/Earnings per share diluted

4 Share price/Earnings per share diluted

# AUDITOR'S REPORT GRI



Statsautoriserte revisorer  
Ernst & Young AS

Dronning Eufemias gate 6a, 0191 Oslo  
Postboks 1156 Sentrum, 0107 Oslo

Foretaksregisteret: NO 976 389 387 MVA  
Tlf: +47 24 00 24 00

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## INDEPENDENT ACCOUNTANT'S ASSURANCE REPORT

To the board of directors in Borregaard ASA

### Scope

We have been engaged by Borregaard ASA to perform a limited assurance engagement, as defined by International Standards on Assurance Engagements, here after referred to as the engagement, to report on Borregaard ASA's sustainability reporting as defined in the Borregaard ASA's GRI Index (see the document GRI index 2022 on <https://www.borregaard.com/sustainability/sustainability-documentation/>) (the "Subject Matter") as of 31 December 2022 and for the period from 1 January to 31 December 2022.

Other than as described in the preceding paragraph, which sets out the scope of our engagement, we did not perform assurance procedures on the remaining information included in the sustainability reporting, and accordingly, we do not express a conclusion on this information.

### Criteria applied by Borregaard ASA

In preparing the Subject Matter, Borregaard ASA applied the relevant criteria from the Global Reporting Initiative (GRI) sustainability reporting standards as well as own defined criteria (the "Criteria"). The Criteria can be accessed at [globalreporting.org](http://globalreporting.org) and in Borregaard ASA's GRI Index and are available to the public. Such Criteria were specifically designed for companies and other organizations that want to report their sustainability impacts in a consistent and credible way. As a result, the Subject Matter information may not be suitable for another purpose.

### Borregaard ASA's responsibilities

The Board of Directors and Group Chief Executive Officer (management) are responsible for selecting the Criteria, and for presenting the Subject Matter in accordance with that Criteria, in all material respects. This responsibility includes establishing and maintaining internal controls, maintaining adequate records and making estimates that are relevant to the preparation of the Subject Matter, such that it is free from material misstatement, whether due to fraud or error.

### EY's responsibilities

Our responsibility is to express a conclusion on the presentation of the Subject Matter based on the evidence we have obtained.

We conducted our engagement in accordance with the International Standard for Assurance Engagements *Other Than Audits or Reviews of Historical Financial Information* ('ISAE 3000'). This standard requires that we plan and perform our engagement to obtain limited assurance about whether, in all material respects, the Subject Matter is presented in accordance with the Criteria, and to issue a report. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risk of material misstatement, whether due to fraud or error.

We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusions.

### Our Independence and Quality Control

We are independent of the company in accordance with the requirements of the relevant laws and regulations in Norway and the International Ethics Standards Board for Accountants' International Code of Ethics for Professional Accountants (including International Independence Standards) (IESBA Code), and



we have fulfilled our other ethical responsibilities in accordance with these requirements. Our firm applies *International Standard on Quality Control 1, Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance and Related Services Engagements*, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

### Description of procedures performed

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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 if a reasonable assurance engagement had been performed. Our procedures were designed to obtain a limited level of assurance on which to base our conclusion and do not provide all the evidence that would be required to provide a reasonable level of assurance.

Although we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within IT systems.

A limited assurance engagement consists of making enquiries, primarily of persons responsible for preparing the Subject Matter and related information and applying analytical and other appropriate procedures.

Our procedures included:

- Conducted interviews with key personnel to understand the business and reporting process
- Conducted interviews with key personnel to understand the process for collecting, collating and reporting the Subject Matter during the reporting period
- Checked on a sample basis the calculation Criteria against the methodologies outlined in the Criteria
- Performed analytical review procedures of the data
- Identified and tested the assumptions supporting the calculations
- Tested, on a sample basis, the underlying source information
- Checked the presentation requirements outlined in the Criteria

We believe that our procedures provide us with an adequate basis for our conclusion. We also performed such other procedures as we considered necessary in the circumstances.

### Conclusion

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Based on our procedures and the evidence obtained, we are not aware of any material modifications that should be made to the Subject Matter as of 31 December 2022 and for the period from 1 January 2022 to 31 December 2022 in order for it to be in accordance with the Criteria.

Oslo, 24 March 2023  
ERNST & YOUNG AS

*The assurance report is signed electronically*

Kjetil Rimstad  
State Authorised Public Accountant



## ALTERNATIVE PERFORMANCE MEASURES

In the discussion of the reported operating results, financial position and cash flows, Borregaard refers to certain measures which are not defined by generally accepted accounting principles (GAAP) such as IFRS. Borregaard management makes regular use of these Alternative Performance Measures and is of the opinion that this

information, along with comparable GAAP measures, is useful to investors who wish to evaluate the company's operating performance, ability to repay debt and capability to pursue new business opportunities. Such Alternative Performance Measures should not be viewed in isolation or as an alternative to the equivalent GAAP measure.

MEASURE	DESCRIPTION	REASON FOR INCLUDING
EBITDA	EBITDA is defined by Borregaard as operating profit before depreciation, amortisation and other income and expenses.	Shows performance regardless of capital structure, tax situation and adjusted for income and expenses related transactions and events not considered by management to be part of operating activities. Management believes the measure enables an evaluation of operating performance.
EBITDA MARGIN	EBITDA margin is defined by Borregaard as EBITDA divided by operating revenues.	Shows the operations' performance regardless of capital structure and tax situation as a ratio to operating revenue.

EBITDA	2022	2021
Operating profit	1,186	952
Other income and expenses	8	-
Amortisation intangible assets	5	4
Depreciation and impairment property, plant and equipment	444	416
<b>EBITDA</b>	<b>1,643</b>	<b>1,372</b>

EBITDA MARGIN	2022	2021
EBITDA	1,643	1,372
Operating revenues	6,881	5,805
<b>EBITDA margin (%) (EBITDA/operating revenues)</b>	<b>23.9</b>	<b>23.6</b>

MEASURE	DESCRIPTION	REASON FOR INCLUDING
EQUITY RATIO	Equity ratio is defined by Borregaard as equity (including non-controlling interests) divided by equity and liabilities.	Equity ratio is an important measure in describing the capital structure

EQUITY RATIO	2022	2021
Total equity	4,445	4,306
Equity & liabilities	8,114	7,166
<b>Equity ratio (%) (total equity/equity &amp; liabilities)</b>	<b>54.8</b>	<b>60.1</b>

MEASURE	DESCRIPTION	REASON FOR INCLUDING
EXPANSION INVESTMENTS	Borregaard's investments are either categorised as replacement or expansion. Expansion investments is defined by Borregaard as investments made in order to expand production capacity, produce new products or to improve the performance of existing products. Such investments include business acquisitions, pilot plants, capitalised research and development costs and new distribution set-ups. In 2022, the expansion investments were mainly related to specialisation projects within BioSolutions.	Borregaard's strategic priorities are specialisation and diversification, increase value-added from the biorefinery, develop business areas and to continue emphasis on ESG along the entire value chain. To be able to deliver on those priorities, expansion investments are needed. As such, expansion investments are important information for investors. One of Borregaard's financial objectives is to have an internal rate of return >15% pre-tax for expansion investments.

EXPANSION INVESTMENTS	2022	2021
Investments property, plant and equipment and intangible assets	464	701
Replacement investments	-359	-398
<b>Expansion investments</b>	<b>105</b>	<b>303</b>

MEASURE	DESCRIPTION	REASON FOR INCLUDING
OTHER INCOME AND EXPENSES	Other income and expenses is defined by Borregaard as non-recurring items or items related to other periods or to a discontinued business or activity. These items are not viewed as reliable indicators of future earnings based on the business areas' normal operations. These items will be included in the Group's operating profit (See Note 13).	To be able to compare the EBITDA from year to year, significant non-recurring items not directly related to operating activities, are included in Other income and expenses.

OTHER INCOME & EXPENSES	2022	2021
Other income & expenses	-8	-

MEASURE	DESCRIPTION	REASON FOR INCLUDING
LEVERAGE RATIO	Leverage ratio is defined by Borregaard as net interest bearing debt (see note 27) divided by last twelve months' (LTM) EBITDA.	Leverage ratio is an indicator of the overall strength of the statement of financial position. Borregaard has a targeted leverage ratio between 1.0 and 2.25 over time. Leverage ratio is one of Borregaard's financial covenants on long-term credit facilities.

LEVERAGE RATIO	2022	2021
Net interest-bearing debt	1,836	1,417
EBITDA	1,643	1,372
<b>Leverage ratio (net interest-bearing debt/EBITDA)</b>	<b>1.12</b>	<b>1.03</b>

MEASURE	DESCRIPTION	REASON FOR INCLUDING
NET INTEREST-BEARING DEBT	Net interest-bearing debt is defined by Borregaard as interest-bearing liabilities minus interest-bearing assets (see Note 26 and 27).	Net interest-bearing debt provides an indicator of the net indebtedness and an indicator of the overall strength of the statement of financial position. Net interest-bearing debt is part of Borregaard's financial covenants (leverage ratio) and is important in understanding the capital structure.

NET INTEREST-BEARING DEBT	2022	2021
Total non-current interest-bearing liabilities	1,370	1,320
Total current interest-bearing liabilities including overdraft of cashpool	702	224
Non-current interest-bearing receivables (included in "Other assets")	-2	-3
Cash and cash equivalents	-234	-124
<b>Net interest-bearing debt</b>	<b>1,836</b>	<b>1,417</b>

MEASURE	DESCRIPTION	REASON FOR INCLUDING
CAPITAL EMPLOYED	Capital employed is defined by Borregaard as the total of net working capital, intangible assets, property, plant and and right-of-use assets minus net pension liabilities.	Borregaard uses capital employed as basis for calculating ROCE.

CAPITAL EMPLOYED (END OF YEAR)	2022	2021
Receivables	1,387	1,107
Inventories	1,299	792
Other liabilities	-1,085	-864
Derivatives, etc. not included in above items	52	-106
<b>Working Capital</b>	<b>1,653</b>	<b>929</b>
Intangible assets ex historical amortisation & impairment	269	259
Property, plant & equipment	4,371	4,191
Right-of-use assets	345	351
Investment in joint venture & associate	142	173
Capitalised net pension liabilities (note 10)	-14	-29
Other items (part of "Other assets")	36	169
<b>Capital employed (end of year)</b>	<b>6,802</b>	<b>6,043</b>

MEASURE	DESCRIPTION	REASON FOR INCLUDING	
RETURN ON CAPITAL EMPLOYED (ROCE)	Return on capital employed (ROCE) is defined by Borregaard as last twelve months' (LTM) capital contribution (operating profit before amortisation and other income and expenses) divided by average capital employed based on the ending balance of the last five quarters (See Note 7).	ROCE is an important financial ratio to assess Borregaard's profitability and capital efficiency. One of Borregaard's financial objectives is to have ROCE >15% pre-tax over a business cycle.	
<b>RETURN ON CAPITAL EMPLOYED (ROCE)</b>		<b>2022</b>	<b>2021</b>
Q4'20			5,904
Q1'21			5,884
Q2'21			5,854
Q3'21			5,991
Q4'21		6,043	6,043
Q1'22		6,421	
Q2'22		6,779	
Q3'22		7,015	
Q4'22		6,802	
<b>Average capital employed</b>		<b>6,612</b>	<b>5,935</b>
<b>EBITA</b>		<b>2022</b>	<b>2021</b>
EBITDA		1,643	1,372
Depreciation and impairment property, plant and equipment		-444	-416
EBITA		1,199	956
<b>RETURN ON CAPITAL EMPLOYED (ROCE)</b>		<b>2022</b>	<b>2021</b>
EBITA		1,199	956
Average capital employed		6,612	5,935
<b>Return on capital employed (ROCE) (%) (EBITA/average capital employed)</b>		<b>18.1</b>	<b>16.1</b>



**HEAD OFFICE**

**BORREGAARD ASA**  
 PO Box 162  
 1701 Sarpsborg  
 Norway  
 T: +47 69 11 80 00  
 E: borregaard@borregaard.com  
[www.borregaard.com](http://www.borregaard.com)

**IR CONTACTS**

**KNUT-HARALD BAKKE**  
*Director Investor Relations*  
 T: +47 905 79 164  
 E: knut.harald.bakke@borregaard.com

**LOTTE KVINLAUG**  
*Investor Relations Officer*  
 T: +47 922 86 909  
 E: lotte.kvinlaug@borregaard.com

**PRESS CONTACT**

**TONE HORVEI BREDAL**  
*Director Communications*  
 T: +47 924 67 711  
 E: tone.horvei.bredal@borregaard.com

**PRODUCTION UNITS & SALES OFFICES**

SP **BORREGAARD AS**  
 Hjalmar Wessels vei 6  
 PO Box 162  
 1701 Sarpsborg, Norway  
 T: +47 69 11 80 00  
 E: borregaard@borregaard.com

SP **BORREGAARD USA, INC**  
 100 Grand Avenue  
 Rothschild  
 Wisconsin 54474, USA  
 T: +1 715 359 6544

S One Park Ten Plaza  
 16225 Park Ten Place Drive  
 Houston, Texas 77084, USA  
 T: +1 281 4977824

P **LIGNOTECH FLORIDA LLC**  
 6 Gum Street  
 Fernandina Beach  
 Florida 32034, USA

SP **BORREGAARD UK LTD.**  
 Clayton Road, Birchwood  
 Warrington  
 Cheshire WA3 6QQ, England  
 T: +44 1925 285400  
 E: enquiries.uk@borregaard.com

SP **BORREGAARD DEUTSCHLAND GMBH**  
 DEA-Scholven Strasse 9  
 DE-76187 Karlsruhe, Germany  
 T: +49 721 55 99 10

S **BORREGAARD POLAND SP.ZO.O**  
 ul. Ziebicka 2  
 PL-60-164 Poznan, Poland  
 T: +48 61 8615379

S **BORREGAARD CHINA COMPANY LIMITED**  
 RM2801, Tower 1, Grand Gateway, No. 1  
 Hongqiao Road,  
 Shanghai 200030, China  
 T: +86-21-33568200

S **BORREGAARD JAPAN**  
 5F Tokyo Toranomon Global Square,  
 1-3-1 Toranomon,  
 Minato-ku, Tokyo 1050001  
 JAPAN  
 T: +81 3 6206 7412

S **BORREGAARD SOUTH ASIA PVT. LTD.**  
 Plot No. A-80, T.T.C Industrial Area  
 Thane-Belapur Road, MIDC Khairane  
 Navi Mumbai - 400 705,  
 Dist. Thane. (MS), India  
 T: + 91-22-41841750/59/65

S **BORREGAARD FRANCE SARL**  
 122, avenue Charles de Gaulle,  
 92200 Neuilly sur Seine, France  
 T: +33 6 33 34 57 72

S **BORREGAARD IBÉRICA, S.L.**  
 Parc de Negocis Mas Blau  
 C/ Garrotxa, 6-8 2º C  
 08820.- El Prat de Llobregat,  
 Barcelona, Spain  
 T: +34 93 479 11 01

S **BORREGAARD S.E.A. PTE. LTD.**  
 10 Anson Road #23-07  
 International Plaza  
 Singapore 079903  
 T: +65 6778 0008

S **BORREGAARD BRASIL LTDA**  
 Rua Tito, 678 - 3º and. Cj 308  
 São Paulo – CEP 05051-000  
 Vila Romana, Brazil  
 T: +55 11 3674 9500

P **BORREGAARD CZECH S.R.O**  
 Místecká 762  
 739 21 Paskov, Czech Republic  
 T: +420 558 671 741







Borregaard ASA  
PO Box 162, NO-1701 Sarpsborg, Norway  
Telephone: (+47) 69 11 80 00 Fax: (+47) 69 11 87 70  
E-mail: [borregaard@borregaard.com](mailto:borregaard@borregaard.com) [www.borregaard.com](http://www.borregaard.com)

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