

# SUSTAINABLE FINANCING

INVESTOR REPORT 2024

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# CONTENTS

Sustainability at Borregaard	3
Green Financing Framework	4
Selection of eligible projects	5
Use of proceeds	6
Description of financed projects and annual costs	7
Investment in increased production capacity for highly specialised lignin-based biopolymers	7
R&D costs related to improving bio-based products	7
Sourcing of raw materials – purchase of certified wood	8
Investment in increased utilisation of residuals from production processes as bioenergy	9
Investment to reduce CO <sub>2</sub> emissions and improve energy efficiency	9
Independent statement	10



# SUSTAINABILITY AT BORREGAARD

Borregaard’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.

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

Borregaard contributes to sustainable development, both through minimising negative environmental impact from its 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 Sustainable Development Goals (SDGs) set out in the UN 2030 Agenda for Sustainable Development. The Group’s innovative products and solutions can play an important role in addressing

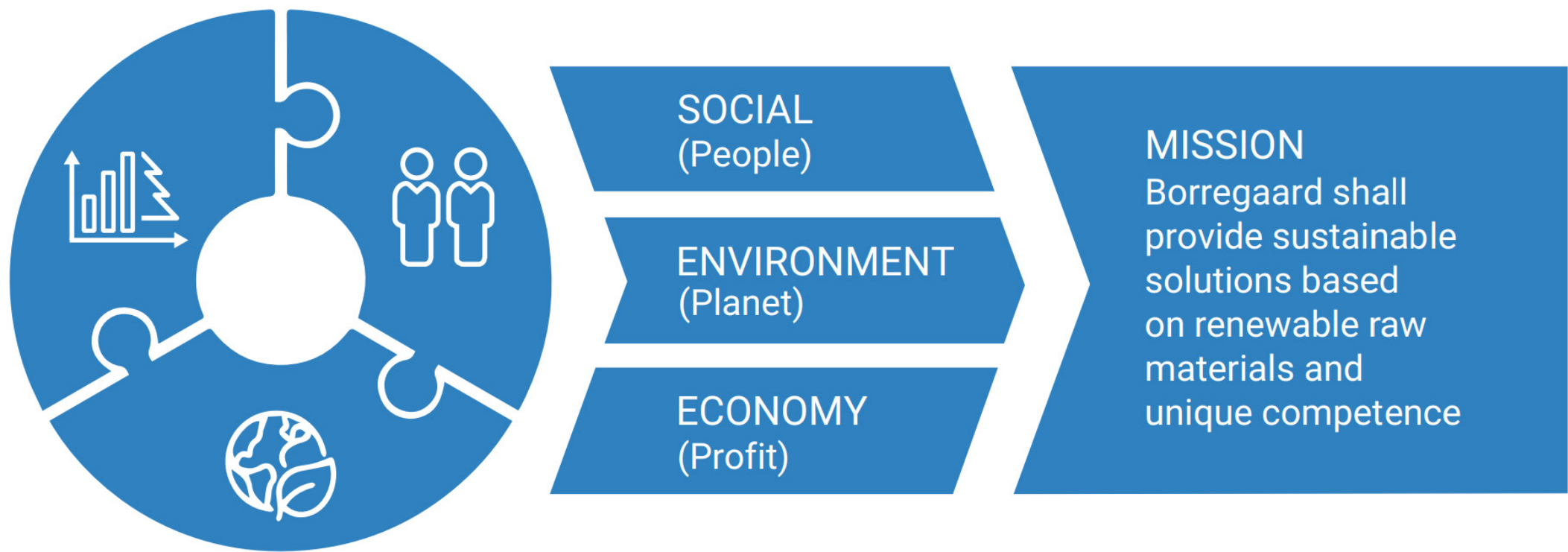
some of the world’s biggest sustainable development challenges: Population growth, climate change and resource scarcity. Detailed information about Borregaard’s sustainability efforts and goals can be found in the Annual Report for 2024 or in the Green Financing Framework.

## 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).

*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)



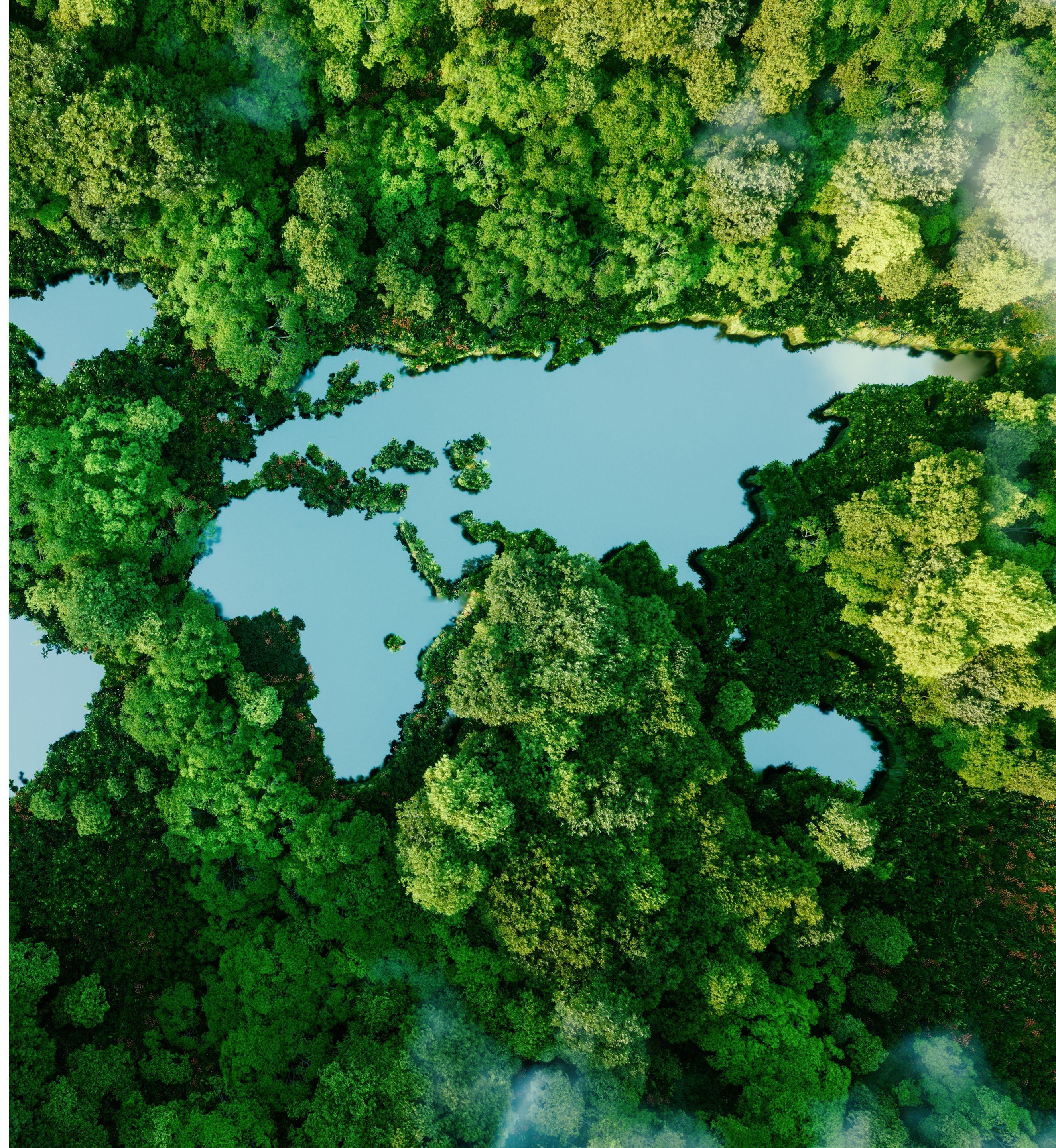


# GREEN FINANCING FRAMEWORK

Borregaard established its first [Green Financing Framework](#) in June 2023. Under the framework, Borregaard can issue green financing instruments. The framework is structured in accordance with the 2021 ICMA Green Bond Principles (GBP), as well as the 2023 LMA, APLMA and LSTA Green Loan Principles (GLP). The net proceeds of the green financing instruments issued by Borregaard will be used to finance or refinance eligible projects or costs that have been evaluated and selected in accordance with the criteria in the Green Financing Framework. Refinancing of capital expenditures will have a look-back period of no longer than five years. For operational expenditures the previous year's expenditures will be eligible (on an annual rolling basis).

The Green Financing Framework received a [Second Party Opinion](#) from S&P Global Ratings and was assessed as aligned with the relevant international guidelines stated above.

In June 2023, Borregaard successfully issued its inaugural green bond structured under the framework. The bond has a tenor of 5 years and an annual coupon of 3-month NIBOR + 1.25%.







# SELECTION OF ELIGIBLE PROJECTS

The net proceeds of the green financing instruments issued by Borregaard will be used to finance or refinance eligible projects and operational expenditures that have been evaluated and selected by Borregaard in accordance with this Green Financing Framework.

The net proceeds shall be used for financing or refinancing of eligible projects and operational expenditures in one of the following categories:

- 1. Eco-efficient and/or circular economy-adapted products, production technologies and processes
  - a. Investments in bio-based products and solutions
  - b. R&D
  - c. Sourcing of raw materials
- 2. Renewable energy
- 3. Energy efficiency
- 4. Pollution prevention and control
- 5. Sustainable water and wastewater management

In 2023, Borregaard issued a green bond totalling NOK 500 million.

ISIN	ISSUE DATE	MATURITY DATE	INTEREST	OUTSTANDING AMOUNT
NO0012943838	20.06.2023	20.06.2028	3-months NIBOR + 1.25% p.a.	NOK 500 million



# USE OF PROCEEDS<sup>1</sup>

The net proceeds from the green bond issue have been allocated as follows (amounts in NOK million):

CATEGORY		USE	AMOUNT	IMPACT ASSESSMENT
1a	Investments in bio-based products and solutions	Investment in increased production capacity for highly specialised lignin-based biopolymers. First full year of operation in 2025.	76	These specialised bio-based products have a 70% lower CO <sub>2</sub> footprint (GHG) when replacing fossil-based products. Change from fossil to renewable energy for drying with a potential reduction of 3,900 tCO <sub>2</sub> e from 2025.
1b	R&D	Improving bio-based products.	104	Expensed research and development costs in 2024.
1c	Sourcing of raw materials	Purchase of certified wood.	43	95% of purchased wood FSC and/or PEFC certified in 2024.
2	Renewable energy	Investment in increased utilisation of residuals. First full year of operation in 2023.	90	11,500 tCO <sub>2</sub> e reduction, 57 GWh increase in renewable energy in 2024, of which 42 GWh is increased bioenergy.
3	Energy efficiency	Investment to reduce CO <sub>2</sub> emissions and improve energy efficiency. First full year of operation in 2025.	187	Up to 30,000 tCO <sub>2</sub> e reduction and 50 GWh energy savings from 2025. Actual impact in 2024 was 16,000 tCO <sub>2</sub> e.
Total			500	

<sup>1</sup>See Borregaard's Green Financing Framework for more details about use of proceeds and eligibility

In 2024, Borregaard used the funds from the green bond issue to finance an investment to increase utilisation of residuals from production processes as bioenergy. In addition, ongoing investments to increase the production capacity for highly specialised lignin-based biopolymers and to reduce CO<sub>2</sub> emissions and improve energy efficiency at the biorefinery in Norway were financed by the bond. Allocation made for the purchase of raw materials (certified wood) and R&D expenditure related to improving bio-based products are meant to cover the reporting year's costs.

Please refer to the independent accountant's assurance report from EY enclosed in Appendix 1.

<sup>1</sup> See Borregaard's Green Financing Framework for more details about use of proceeds and eligibility



# DESCRIPTION OF FINANCED PROJECTS AND ANNUAL COSTS

## INVESTMENT IN INCREASED PRODUCTION CAPACITY FOR HIGHLY SPECIALISED LIGNIN-BASED BIOPOLYMERS

Borregaard is increasing the production capacity for highly specialised lignin-based biopolymers. The volume expansion will be achieved through debottlenecking of existing facilities at the Sarpsborg biorefinery and use of known technology to Borregaard, making it a low-risk investment. The upgrade of the production process will also lead to reduced CO<sub>2</sub> emissions.

An Environmental Product Declaration (EPD) in accordance with ISO 14025 has been worked out by Norsus and verified by EPD Norway for these highly specialised lignin-based biopolymers (Registration Number NEPD-3615-2301-EN). The EPD is based on a life cycle analysis (LCA) according to ISO 14040/44 and has been performed by a third party (Norwegian Institute for Sustainability Research (NORSUS)). Compared with a synthetic (fossil-based) dispersant, Borregaard’s lignin-based biopolymers have a 70% lower CO<sub>2</sub> footprint through the overall life cycle.

The production capacity for highly specialised lignin-based biopolymers was increased in 2024 with an investment totalling close to NOK 80 million.

The new capacity was in operation in 2024, and will gradually be phased into attractive niche markets. The targeted area is mainly within batteries, but applications will also include oilfield chemicals, agrochemicals, pigments and dyes. Net proceeds from the green bond issue have been allocated to the NOK 76 million spent on the investment by the end of 2024.

The project has a potential of a reduction of 3,900 tCO<sub>2</sub>e due to changes from light oil to renewable steam for drying of the product.

## R&D COSTS RELATED TO IMPROVING BIO-BASED PRODUCTS

Maintaining strong innovation efforts is one of Borregaard’s strategic priorities and sustainability has become a key driver in the company’s innovation processes. Borregaard has a leading research centre combining various chemistry disciplines,







biotechnology and microbiology, developing new or improved products, applications and production technologies.

Long-standing research and development have resulted in sustainable solutions with documented lower GHG footprint that responds to important long-term global challenges. Innovation also plays a key role in developing the sustainability aspect of our business model through solutions that reduce our process emissions and environmental impacts as we improve the environmental footprint of our products.

Research and development costs related to improving bio-based products are eligible under the Green Financing Framework. Improving bio-based products includes increased utilisation of existing raw material, the biorefinery concept through identification of new bio-based raw materials, process improvements, as well as solutions that improve products' environmental impact, increase efficiency, and/or reduce process emissions, reduction in use of chemicals or substitution of chemicals and other forms of negative environmental impact.

In 2024, Borregaard expensed NOK 121 million in research costs. Out of this, NOK 104 million were costs deemed eligible under the Green Financing Framework.

#### **SOURCING OF RAW MATERIALS – PURCHASE OF CERTIFIED WOOD**

Wood is the essential raw material for Borregaard. 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 converts 94 percent of the feedstock to biochemicals, biomaterials and energy that can replace oil-based alternatives.

Wood is one of the few renewable raw materials that can be produced in large quantities. However, it is not an unlimited resource. Forestry and harvesting impact nature and people and is vital from a climate perspective. In addition, the biodiversity of forests provides habitat for a variety of important species as well as recreational areas for humans. 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, and includes measures to maintain biodiversity. The company ensures that suppliers comply with the applicable certification schemes, laws, and regulations in the countries where the wood is sourced.

In 2024, 95% of the purchased wood to Borregaard’s biorefinery in Norway was PEFC and/or FSC certified. The wood was sourced from forestry operations mainly in Norway and to a lesser degree from Sweden.

The Borregaard biorefinery’s total cost for wood in 2024 was NOK 783 million. The net proceeds from the green bond issue have been allocated to a smaller portion (NOK 43 million) of the total wood cost.

**INVESTMENT IN INCREASED UTILISATION OF RESIDUALS FROM PRODUCTION PROCESSES AS BIOENERGY**

In 2019, Borregaard decided to invest NOK 131 million in a project aimed at increasing the use of bioenergy from production residuals at the Sarpsborg site in Norway. The bioenergy produced as a result of this project was expected to be approximately 20 GWh per year, representing a reduction of CO<sub>2</sub> emissions of 1,200 tonnes. Longer term, a potential to increase production to 34 GWh per year was expected corresponding to a reduction of 1,400 tonnes CO<sub>2</sub> emissions.

Enova SF, a state enterprise under the Norwegian Ministry of Climate and Environment, supported the project by a grant of NOK 46.2 million, thus reducing Borregaard’s project cost to a net amount of NOK 90 million.

The investment project was completed in 2022, and the actual net investment (net of the Enova grant) was NOK 90 million. Net proceeds from the green bond issue have been allocated to the net investment amount.

The result in 2024 was 42 GWh of bioenergy produced. In addition, the energy content of the bioenergy increased, resulting in reduced use of liquid natural gas (LNG) as auxiliary fuel, thus less steam from LNG was produced in the bio-boiler. This was compensated with steam produced from renewable electricity, resulting in a total of 57 GWh coming from renewable energy (bioenergy and electricity) instead of LNG, representing a reduction of CO<sub>2</sub> emissions of 11,500 tCO<sub>2</sub>e.

**INVESTMENT TO REDUCE CO<sub>2</sub> EMISSIONS AND IMPROVE ENERGY EFFICIENCY**

Early 2023, Borregaard decided to invest NOK 230 million to cut CO<sub>2</sub> emissions, improve energy efficiency and increase energy flexibility at the biorefinery in Norway. The investment is part of Borregaard’s transition plan to reduce scope 1 and scope 2 CO<sub>2</sub> emissions by 42% in 2030 compared with 2020 (base year). In 2022, Borregaard revised

its GHG emissions reduction target according to the 1.5°C ambition. The new target has been approved by the Science Based Targets initiative (SBTi).

This investment is expected to allow for a 30,000 tonnes annual reduction of CO<sub>2</sub> emissions by replacing liquified natural gas (LNG) in the drying process with steam produced from electricity and by improved energy efficiency from the utilisation of access low temperature heat. In total, the investment can allow for replacing up to 50 GWh, which today is based on LNG, with renewable energy. In addition to reduced emissions and enhanced energy efficiency, there is a significant cost reduction potential by removing absolute dependency on LNG and introducing more options to switch between alternative energy sources.

The project was operational from the 3<sup>rd</sup> quarter of 2024. Net proceeds from the green bond issue have been allocated to the NOK 187 million spent on the investment by the end of 2024.



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 selection process for the financing and the allocation of proceeds from Borregaard ASA Sustainable Financing Investor Report 2024 (the "Subject Matter") against the relevant criteria in the Borregaard ASAs Green Financing Framework as of 31 December 2024.

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 report, and accordingly, we do not express a conclusion on this information. This includes statements related to environmental effects of the use of net proceeds from Borregaard ASA's Green Financing Framework.

Criteria applied by Borregaard ASA

In preparing the Subject Matter, Borregaard ASA applied the relevant criteria from the Borregaard ASA Green Financing Framework issued June 2023 (the "Criteria"). The Criteria can be accessed at Borregaard ASA's website ([Green Financing Framework - Borregaard](#)) and are available to the public.

Borregaard ASA's responsibilities

Borregaard ASA's 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 conclusion.

Our Independence and Quality Control

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.

EY also applies International Standard on Quality Management 1, *Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services engagements*, which requires that we design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Description of procedures performed

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:

- Review of Borregaard ASA's process to prepare and present the Sustainable Financing Investor Report in order to develop an understanding of how the reporting is carried out in the company
- Conducted interview with the one in charge of Borregaard ASA's Green Financing Framework to develop an understanding of the process for the use of proceeds in accordance with Borregaard ASA's Green Financing Framework
- Reviewed, on a sample basis, the information in the Sustainable Financing Investor Report against source data and other information prepared by the responsible individuals
- Assessed the overall presentation of the Sustainable Financing Investor Report against 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.

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 for the year then ended in order for it to be in accordance with the Criteria.

Restricted use

This report is intended solely for the information and use of Borregaard ASA and the bondholders for the purpose of Green Financing Framework and is not intended to be and should not be used by anyone other than those specified parties.

Oslo, 08 April 2025  
ERNST & YOUNG AS

*The assurance report is signed electronically*

Kjetil Rimstad  
State Authorised Public Accountant (Norway)