Norske Skog ASA - Climate Change 2023

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Norske Skog is a world leading producer of publication paper with strong market positions and customer relations in Europe and Australasia. The Norske Skog group operates four mills in Europe, of which two will also produce recycled containerboard following the completion of the conversion projects in 2023. In addition, the group operates one publication paper mill in Tasmania in Australia.

Norske Skog aims to further diversify its operations and continue its transformation into a growing and high-margin business through a range of promising conversions, energy and bio products projects. The business strategy consist of three legs:

Publication paper: Improve and optimize publication paper cash flows

Packaging paper: Become a leading European producer of renewable packaging

Fibre and energy: Diversify and innovate within fibre and energy

The group has approximately 2100 employees in seven countries, is head-quartered in Norway and listed on the Oslo Stock Exchange under the ticker NSKOG.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

Reporting year

Start date
January 1 2022

End date
December 31 2022

Indicate if you are providing emissions data for past reporting years
No

Select the number of past reporting years you will be providing Scope 1 emissions data for
<Not Applicable>

Select the number of past reporting years you will be providing Scope 2 emissions data for
<Not Applicable>

Select the number of past reporting years you will be providing Scope 3 emissions data for
<Not Applicable>

C0.3

(C0.3) Select the countries/areas in which you operate.
Australia
Austria
France
Germany
Italy
Norway
Switzerland
United Kingdom of Great Britain and Northern Ireland

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.
NOK

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.
Operational control

C-AC0.6/C-FB0.6/C-PF0.6

(C-AC0.6/C-FB0.6/C-PF0.6) Are emissions from agricultural/forestry, processing/manufacturing, distribution activities or emissions from the consumption of your products – whether in your direct operations or in other parts of your value chain – relevant to your current CDP climate change disclosure?

	Relevance
Agriculture/Forestry	Elsewhere in the value chain only [Agriculture/Forestry/processing/manufacturing/Distribution only]
Processing/Manufacturing	Both direct operations and elsewhere in the value chain [Processing/manufacturing/Distribution only]
Distribution	Elsewhere in the value chain only [Agriculture/Forestry/processing/manufacturing/Distribution only]
Consumption	Elsewhere in the value chain only [Agriculture/Forestry/processing/manufacturing/Distribution only]

C-AC0.6b/C-FB0.6b/C-PF0.6b

(C-AC0.6b/C-FB0.6b/C-PF0.6b) Why are emissions from agricultural/forestry activities undertaken on your own land not relevant to your current CDP climate change disclosure?

Row 1

Primary reason
Do not own/manage land

Please explain
Norske Skog ASA do not own land/forest. We are a manufacturing company and source wood and related raw materials from suppliers. This is the reason why we do not have direct emissions from agricultural/ forestry activities.

C-AC0.6f/C-FB0.6f/C-PF0.6f

(C-AC0.6f/C-FB0.6f/C-PF0.6f) Why are emissions from distribution activities within your direct operations not relevant to your current CDP climate change disclosure?

Row 1

Primary reason
Outside the direct operations of my organization

Please explain
We do not own or control the means of transport used to ship or distribute products upstream or downstream in our value chain. We source transport and distribution activities from third parties, and the emissions linked to these activities are therefore outside the direct operations of our company.

C-AC0.7/C-FB0.7/C-PF0.7

(C-AC0.7/C-FB0.7/C-PF0.7) Which agricultural commodity(ies) that your organization produces and/or sources are the most significant to your business by revenue? Select up to five.

Agricultural commodity
Timber

% of revenue dependent on this agricultural commodity
60-80%

Produced or sourced
Sourced

Please explain
Timber is the main raw material in our print paper manufacturing. More than 80 % of our revenue in the past financial year was thus dependent on timber. To calculate this figure, we have considered all of our timer-based paper manufacturing and their associated revenue in the past financial year.

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	NO0010861115

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual or committee	Responsibilities for climate-related issues
Board Chair	In Norske Skog ASA, the Board Chair is responsible for overseeing the company's climate-related issues in the board room. This includes defining Board Meeting agendas, proposing, promoting and addressing strategic development and the sustainability related work of the Board of Directors. The Board of Directors jointly make formal resolutions regarding strategic climate-related issues, but the Board Chair has the casting vote in the event of an equal number of votes for and against a proposal. An example of a climate-related decision made by the Board Chair in 2021 was to make CEO remuneration linked to ESG and climate-related performance a topic on the Board Meeting agenda. The Board of Directors unanimously approved the proposal.
Board-level committee	The Board of Directors are responsible for promoting and addressing climate-related issues, including goals, strategic development and investment decisions. The Board of Directors jointly make formal resolutions regarding such matters. Climate-related issues are addressed on an ongoing basis in addition to the annual risk assessment for the group. Climate related decision made by the Board of Directors in 2020 include (i) financing of a large-scale waste-to-energy plant at our mill in Bruck, Austria, which significantly reduces GHG emissions and gas exposure for the mill and the group as a whole, (ii) funding and completion of a takeover to Norway and public listing on Euronext Growth of formerly Australian based Circa Group Ltd (now Circa Group AS), a green chemistry company producing biobased chemicals replacing petroleum based chemicals, (iii) increased investments in process and heat recovery equipment/infrastructure at the Saugbrugs mill in Halden, Norway, (iv) the emission reduction target for 2030 and net Zero target for 2050, and (v) approval of the group's prioritisation of SDGs.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Reviewing and guiding annual budgets Overseeing major capital expenditures Overseeing acquisitions, mergers, and divestitures Overseeing and guiding employee incentives Reviewing and guiding strategy Overseeing and guiding the development of a transition plan Monitoring the implementation of a transition plan Overseeing and guiding scenario analysis Overseeing the setting of corporate targets Monitoring progress towards corporate targets Reviewing and guiding the risk management process	<Not Applicable>	Climate-related issues are addressed by the Board of Directors on an ongoing basis, and development of environmental performance is part of all Board Meetings. Recurring and specific issues are scheduled as appropriate and needed in addition to being a scheduled agenda item in the annual risk assessment for the group. Review of the climate-related targets and KPIs are also an integral part of the annual business budget and strategy process and are also addressed related to major investment / divestment decisions. In 2021, some of the topics that were reviewed and approved by the Board of Directors were: (i) investment in Circa Group AS to support capital for construction of production plant for green chemicals to replace petroleum based chemicals, (ii) inclusion of a clearly stated KPI regarding the group's ESG performance in the CEO's annual performance (bonus) contract, (iii) large-scale investment in the conversion of a publication paper machine into recycled containerboard machine at the mill in Bruck, Austria, (iv) large-scale investment in the conversion of a publication paper machine into recycled containerboard machine at the mill in Golbey, France, and (v) large-scale investment in biomass plant (combined heat and power plant providing 200 GWh of green electricity and 700 GWh of green steam with 235 kt of waste wood collected) at the mill in Golbey, France.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	Criteria used to assess the Board of Directors' climate-related competence include experience from executive management positions within Renewable Energy, Process Industry and Finance. Two new members were appointed to the Board of Directors this year, and these have significant experience and competence within the defined climate-related criteria and strengthen the composition of our Board of Directors in line with our strategic development plans.	<Not Applicable>	<Not Applicable>

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Position or committee
Chief Executive Officer (CEO)

Climate-related responsibilities of this position
Managing annual budgets for climate mitigation activities
Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Managing climate-related acquisitions, mergers, and divestitures
Providing climate-related employee incentives
Developing a climate transition plan
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Conducting climate-related scenario analysis
Setting climate-related corporate targets

Monitoring progress against climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line
More frequently than quarterly

Please explain
The CEO reports to the Board of Directors and is responsible for the overall business strategy which is to improve and optimize the publication paper cash flow business, become a leading producer of renewable packaging and diversify and innovate within fiber and energy. This means that the CEO carries the ultimate overall responsibility for low emission value creation in Norske Skog. The CEO is also responsible for assessing and managing climate related risks and opportunities including developing and implementing the climate transition plan and general monitoring of performance on climate related KPIs.

Rationale: The rationale for assessing climate-related responsibilities to the CEO is to reflect the importance of climate-change to our business strategy and his position to drive change within the group.

Processes by which the position/committee is informed: The CEO is involved in the assessment of climate relate risk and opportunities with potential financial impacts. Issues of substantial financial or strategic impact are managed by CEO and the Management Leadership Team and shared with the board.

Position or committee
Chief Operating Officer (COO)

Climate-related responsibilities of this position
Managing annual budgets for climate mitigation activities
Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Developing a climate transition plan
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Conducting climate-related scenario analysis
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
More frequently than quarterly

Please explain
The COO reports directly to the CEO. The COO is part of the Corporate Management Team and as such responsible for managing climate related issues related to operations across the Norske Skog group. The COO is also responsible for managing climate related risks and opportunities as well as overall responsibility for the sustainability strategies, targets and monitoring of KPIs.

Rationale: Assigning climate-related responsibilities to the COO ensures that climate considerations are integrated into our strategic priorities, operational planning and daily operations.

Processes by which the position/committee is informed: The COO actively follows up with the business unit management on the internal monthly Environmental-index performance and related KPIs assessing recent developments. Monthly reports are shared with the CEO.

Position or committee
Chief Sustainability Officer (CSO)

Climate-related responsibilities of this position
Developing a climate transition plan
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Conducting climate-related scenario analysis
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets
Managing value chain engagement on climate-related issues
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
Operations - COO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
More frequently than quarterly

Please explain
The CSO (Title at Norske Skog is "Head of Sustainability") reports directly to the COO. The CSO is responsible for the development of climate related strategies and targets

and support the implementation and follow up with the business units. The CSO is also responsible for managing the internal processes related to assessing climate-related risks and opportunities, climate-related scenario analysis, as well as monitoring and reporting of climate-related impact and actions for the group as a whole.

Rationale: The rationale for assigning these climate-related responsibilities to the CSO is to ensure that the organization has a dedicated person responsible for developing and implementing sustainability strategies, assessing risks and overseeing the sustainability performance of the group.

Processes by which the position/committee is informed: One example is the development of a Scope 3 inventory and identification of emission reduction initiatives in cooperation with the mills and value chain partners that was carried out in 2022. A related strategy for reducing value chain emissions and related targets is developed and reported to the COO and subsequently approved by the CEO and Corporate Management Team and finally approved by the board.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive
Chief Executive Officer (CEO)

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary
Salary increase
Other, please specify (Synthetic options as basis for cash bonus (Long Term Incentive plan))

Performance indicator(s)
Achievement of climate transition plan KPI
Progress towards a climate-related target
Achievement of a climate-related target

Incentive plan(s) this incentive is linked to
Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)
Bonus % of salary: Our CEO is entitled to maximum bonus opportunity corresponding to 50 % of annual base salary. For 2022 the CEO received 90 % of maximum. Environmental and ESG performance accounts for approximately 15 % of the final score. The environmental performance score is based on Norske Skog Environmental Index (E-Index) which is an internally defined KPI for measuring environmental performance based on six key climate related parameters critical to our operations and based on Best Available Technology (BAT) published by The EU Commission under the Industrial Emissions Directive 2010/75EU in September 2014. The ESG performance score is based on ESG rating performance scores like CDP.

Long-Term Incentive Plan: The current long-term incentive program was launched in October 2019 and is based on a scheme with award of synthetic options targeting a positive share price development over a three to five years period from the date of award of the relevant synthetic options. Climate-related performance is one of the drivers in the share price development and the CEO carries the ultimate overall responsibility for Norske Skog's low emission value creation and related net zero strategy for 2050.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
These incentives are linked to our commitment and targets to minimize negative impact on the environment and to our net zero strategy for 2050.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?
Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	1	5	Aligned with the annual strategy process and financial planning horizon.
Medium-term	5	10	Aligned with our emission reduction target (target year 2030).
Long-term	10	30	Aligned with our Net Zero Target (target year 2050).

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

During the risk assessment process, Norske Skog corporate management has defined that a substantive financial income effect for the group will be 5 % of EBITDA average for the last 5 years, a substantive balance sheet effect would be 5 % of the gross balance sheet average for the last 5 years. In 2022, the average EBITDA for the last 5 years was NOK 1495 million; thus, a substantial effect for the group would be about NOK 75 million. At the end of 2022, the average balance sheet for the last 5 years was NOK 9,865 million; thus a substantive amount would be about NOK 490 million.

Norske Skog is performing a risk assessment, including climate-related risks, for the entire group annually. All the reporting business units assess the main risk related issues concerning their individual operations. The corporate management review all these business unit evaluations and assess the main risk factors for the group collectively. The risk assessment process is part of the annual budget process and strategy revision.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered
Direct operations
Upstream
Downstream

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
More than once a year

Time horizon(s) covered
Short-term
Medium-term
Long-term

Description of process
Norske Skog's enterprise risk management processes are based on COSO's Enterprise Risk Management framework, and cover financial, operational, market and organisational risks. All parts of the value chain are covered in this assessment. By this delineation of risk control, all sustainability areas covered by Norske Skog's Steering Guidelines, including climate-related risks and opportunities, are also covered by the group's enterprise risk management processes, and is reported to the board of directors. This company-wide risk assessment process is integrated into multi-disciplinary management processes and contribute to clarity, responsibility and means that the group is well suited to manage climate-related risks and create value in a low carbon economy. Annually, the board, corporate and business unit management make an extensive and systematic climate-related risk and opportunity evaluation. In addition, environmental and climate related issues are reported monthly and is part of the agenda on the monthly business review meetings between the corporate management and business unit meetings. Below is a description of the processes applied to identify, assess and respond to such risks.

IDENTIFICATION: Identification of climate-related risk and opportunities are done both in bottom-up and top down processes.
The BOTTOM-UP process is based on the management teams in each business unit annually performing a risk- and opportunity analysis using the framework of Task Force on Climate-related Financial Disclosures (TCFD). The teams are made up by the mill manager and senior subject matter experts in different functional areas, including finance, with local knowledge on topics with strategic importance to the mills. At each mill, the managing director is the main responsible for environmental issues. Each mill also has a responsible manager for environmental and climate related issues. Each mill has regular contact with national permit agencies and immediately reports any irregularities and deviations from the permits. Some mills have partnerships, memberships or collaboration with external environmental and certification NGOs, professional national trade organisations and Forest Owner Association that support the identification of topics with strategic and financial importance. The local management team identify different types of climate related risks and opportunities across the whole value chain, including policy, physical, technology and market related and assess the probability that each of these will affect our mill within a short (1-5 years), medium (5-10 years) and long-term (10 -30 years) perspective, as defined in C2.1a. The management teams in each business unit report the summary to the company's corporate sustainability function and represents the bottom-up process for identification of climate related risks.
TOP-DOWN: At group level, the corporate management team is also responsible for identifying climate-related risk and opportunities in their functional areas. The corporate management team summaries the risks of substantial financial impact and present them to the board together with substantial risks identified in the bottom-up process.

ASSESSMENT AND RESPONSE: Climate-related risk and opportunities identified in the bottom-up and top-down process are reported to the corporate sustainability function at Group level, which in turn consolidates and assesses the related quantitative impact for the group. This provides the basis for the agenda of the corporate management meetings and adequate follow up measures based on the threshold for financial and strategic impact, measured as EBIDTA effect, as described in C2.1b. Risks and opportunities with lower impact are monitored and managed by local management teams whereas salient risks are reported to the Board. The business risks and opportunities are discussed and considered in defining the business plans. Capitalizing on identified opportunities typically require investment decisions in operations and R&D. In an annual risk review process for the entire group, the board set ambitious targets, especially for environmental and climate-related issues and reviews the long-term climate-related targets as an integral part of the business budget and strategy process.

CASE STUDY Regulatory Risk. SITUATION; Energy constitute on average about 15-20% of the mill gate cash cost for the group annually, but it varies somewhat between the mills depending on local conditions. The high energy prices seen during 2021 and into 2022 in Europe presents a risk in the short term. In addition, Norske Skog is subject to many regulatory requirements relating to climate change, including the EU Emissions Trading Scheme (ETS), which include CO2 compensation scheme, and CO2-allowances. Because the development of both systems are closely linked with political response to limit climate change this risk is identified and monitored in our risk-assessment process covering all time horizons, from short to long-term. Our mill in Bruck, Austria, was particularly exposed to these risks due to the dependency on gas in production processes and local CO2 regulations. TASK: Due to the financial impact that energy prices and CO2 regulations have on our business unit in Bruck, and on the group as a whole, the associated risks has to be assessed. ACTION: The risk and opportunity linked to volatile energy prices and increased costs of CO2 has been identified and assessed in both bottom-up and top-down processes described above. The assessment showed that the financial effects from these CO2 schemes are substantive and more than 5% of the annual average EBITDA. As a result, risk mitigation actions was reported and evaluated by the corporate management team and the board. The RESULT: It was decided to invest in an on-site renewable-energy plant based on waste material from the Bruck mill vicinity in order to reduce the exposure to volatile gas prices and to cut emissions from fossil energy sources. The board approved the resolution. The Norske Skog Bruck mill will reduce direct CO2-emission by 75-80%, which is around 150-180 000 tonnes of CO2, due to reduction in natural gas consumption substituted by energy based on waste residue material. In addition, this plant will supply the local community with renewable energy and be a source of income for the mill.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Relevance and inclusion of risk: Norske Skog is subject to many regulatory requirements relating to climate change, including the EU Emissions Trading Scheme (ETS), which include CO2 compensation scheme, and CO2-allowances. Due to the financial impact such regulations have on our business, we monitor associated risks closely. Risk Example: Financial effects from these schemes are substantive and more than 5% of the annual average EBITDA and as a result closely monitored as part of our climate related risk assessment. The EU-ETS is under revision and the financial effect from ETS and the not yet implemented Carbon Boarder Adjustment Mechanism (CBAM) may pose a substantive financial effect. Norske Skog holds a pro-active membership in the Norwegian Federation of Trade and Industry and the pan-European pulp and paper association, CEPI, to monitor and influence the regulatory work both in EU and the respective national government where Norske Skog operates. Regulatory challenges and changes will be included and evaluated in the annual risk assessment and budget processes. The financial effect of removal of the entire ETS will be substantial and constitute about NOK 200-250 per tonne publication paper. The direct effect of the EU-ETS carbon pricing mechanisms and the volatile energy market led to the EUR 75 million investments in a waste to energy plant at Bruck in Austria. The Norske Skog Bruck mill will reduce direct CO2-emission by 75-80%, which is around 150-180 000 tonnes of CO2, due to reduction in natural gas consumption substituted by energy based on waste residue material.
Emerging regulation	Relevant, always included	Relevance and inclusion of risk: We continually monitor and assess proposed and incoming regulatory change as part of our climate related risk assessment process. One example is The EU Taxonomy which the EU is planning to implement for relevant industrial sectors within the EU. Risk Example: Because the specific requirements and guidelines is still in the making it is still unclear to what extent our business will be affected. We are following the development closely and are planning to implement measures to reduce potential significant financial risks. Our ongoing risk assessment indicate that if the EU taxonomy is implemented for the pulp and paper industry, it will in the long term affect the pricing and tariffs put on the finished goods depending on the product carbon footprint. When fully implemented The EU taxonomy will have substantial effect on how production processes, especially raw material, energy and transport, are handled. If implemented in the pulp and paper sector, the EU taxonomy may have neutral to positive effects for Norske Skog.
Technology	Relevant, always included	Relevance and inclusion of risk: Our ability to adapt and develop low emission technology at competitive cost structure will impact our ability to reach our climate ambitions. Risk Example: Norske Skog has set ambitious target for reducing CO2-emission by 55% within 2030 and 100% by 2050 compared with 2015 levels. The risk of not reaching these targets will be (1) a result of the level of investments by Norske Skog, (2) the available technology to reduce energy consumption and implement adequate technological production processes and (3) the ability of European energy producers to deliver renewable energy. To mitigate these risks and meet our climate ambitions we have implemented a set of measures. We have defined a company strategy to abstain from using direct fossil-based energy sources within our production facilities. At the same time, we are making substantial progress to substitute fossil fuel by bio based fuel and electricity from the grid and alter means of transportation from fossil fuel based vehicles to electricity based railway. Norske Skog will after implementing a complete set of fossil free measures at each respective mill be dependent on Energy Attribute Certificate (EACs, such as Guarantees of Origin) to fully reach the net zero target. This is dependent upon the energy mix in Europe. In addition, Norske Skog participates in two different carbon capture usage and storage (CCS/CCU) projects in Norway in collaboration with external parties to remove biogenic CO2. The progress of the CCU/CCS technology development is partly dependent on the authorities' willingness to fund these types of projects. Norske Skog is working through different political channels, national industry associations and environmental NGOs to influence the government to finance and support CCU/CCS technology based projects.
Legal	Relevant, always included	Relevance and inclusion of risk: In every country we operate, there are national, regional and local governments procedures for operational production process and emission permits. The legislation, emission standard levels and climate-risk elements may vary somewhat from country to country, but the common features are that any breach in permits be directly reported to relevant government body. Failure to comply with such obligations presents key risk to our business. Risk Example: Norske Skog has strict and written internal corporate control routines for reporting breach in permits and implementation of corrective actions. Material changes in permits may constitute substantial financial effects if it triggers new investments. Different climate-related regulatory requirements across peer countries may constitute a competitive disadvantage to our business. This will have a long-term effect on financial operating results but may also have significant effect on the investment attractiveness of specific countries.
Market	Relevant, always included	Relevance and inclusion of risk: Changing consumer behaviour and preferences towards climate friendly products is a key market risk that is always included in our risk assessment. Our ability to mitigate this risk depends on our ability to turn this risk into a market opportunity and calls for innovation and change management. Risk Example: As consumers increasingly demand new and alternative low-carbon products, Norske Skog is investing in new fiber-based product development. Norske Skog is committed to deliver climate-friendly and renewable bio-based products. Market research reflect an increased demand for packaging made from renewable sources that supports the circular economy. Norske Skog's main strategy is to convert existing publication paper machines into renewable and recyclable packaging paper machines, produce bio-based energy and develop new bio material products. Norske Skog has launched new bio products the last year: (1) CEBINA: a nanocellulose product being used as an ingredient to epoxy and paint, (2) CEBICO: a biocomposite substituting typical fossil-based products like plastic and (3) Stabinor: ash from bio fuel production substituting cement based products. Norske Skog has spent considerable amount to develop for example CEBICO, which is a bio composite. Together with partners, Norske Skog has invested more than NOK 150 million in research and development and a pilot plant. New technology has made it possible to mix pulp and fossil-based product into a new bio composite. The biocomposite product has a lower CO2-footprint than comparable products. A related risk of this product development, is that new product developments, new regulation like the EU SUP-directive (single-use-plastic directive), will alter the commercial opportunities. These changes do not constitute substantive negative effects to Norske Skog because there will be alternative commercial opportunities for the bio composite raw material.
Reputation	Relevant, always included	Relevance and inclusion of risk: Our goal is to obtain a reputation as a sustainable company with recyclable products based on renewable raw material and energy. Norske Skog has for decades systematically aimed to be perceived as a leader in environmental stewardship. The group strategy is to deliver climate-friendly products based on renewable sources of raw material and energy. Failure to live up to this goal, and not meet the expectations from different stakeholder groups, may damage our reputation, trust and brand. The most relevant risk factors of not being viewed as a sustainable company may be (1) emissions from production processes beyond allowed permits, (2) new expectations on climate action in our value chain, or (3) social media campaigns based on misconception or misinterpretations of our main messages. Norske Skog aims to comply with current expectations from customers, investors, local community and other stakeholders. In our external communication we aim to convey an honest, cooperative and open dialogue with our stakeholders to avoid any perception among our stakeholders of greenwashing. Norske Skog has a market and communication team ready to alleviate any misconceptions of the company and any misinterpretations of message from the company. Risk Example: Norske Skog has certified processes and documented steering guidelines for our business approach and specific external certification for purchase of bio-materials (FSC/PEFC), production processes (ISO standards) and finished product specifications (CEPI Carbon Footprint and Paper Profile) in accordance with global and national standards. The risk of non-compliance may affect our reputation severely and may as worst-case scenario result in loss of customers and investor interest. Norske Skog evaluate our reputational standing annually during the risk assessment process and through an on-going dialogue with customers and investors and more sporadic with other stakeholder groups. Norske Skog has a market and communication team ready to alleviate any misperceptions of the company and any misinterpretations of message from the company.
Acute physical	Relevant, always included	Relevance and inclusion of risk: Acute and extreme weather events may pose challenges to our operations and assets in locations that that are located in high risk areas. Risk Example: Norske Skog has operations in five countries in 2021. One of our mills in Norway is exposed to flooding from the nearby river, in case of extreme weather such as heavy rainfall. Certain flood protection has been organized. But in extreme cases, the mill may have to halt production as part of the plant will be under water. The most critical part, in a worst case scenario, is that the waste water treatment plant will be under water, which may result in a leakage of unfiltered process water into the local river.
Chronic physical	Relevant, always included	Relevance and inclusion of risk: the availability of sustainable and affordable biomass for production of publication paper in Norway and Australia will be affected by longer-term shifts in climate patterns. Risk Example: The opportunity to harvest wood from the forest may be more cumbersome as cold and long winters simplifies the transportation of timber from wetland areas. Warmer climate will disrupt this opportunity or shorten the time when transport on frozen land is possible. These kind of disruptions will affect harvesting methods and means of transportation from the forest to available infrastructure and may also affect the availability and price of timber. At the same time, elevated mean temperatures and dryer climate, especially in Australasia, may lead to more frequent forest fires that also impacts the supply and price of timber.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier
Risk 1

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Current regulation	Carbon pricing mechanisms

Primary potential financial impact
Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Norske Skog Bruck (Austria) consumes about 0.7 TWh of fossil fuel to produce energy for publication paper production; hence, Bruck is subject to the current EU-ETS regulation and has a net CO2 quota cost of energy amounting to NOK 70-80 million. This financial impact is more than 5% of the annual average EBITDA (C2.1b). To mitigate the risk, it was decided to invest in a waste to energy plant. This has been under construction during 2020 and 2021 and will be commissioned in 2022. The main goals are (1) to reduce the CO2 emissions and thus the climate footprint substantially, (2) to reduce dependency of imported gas and (3) achieve lower and more predictable cost of energy. Bruck's operation in Austria is within the EU-ETS (energy trading system) and holds a permit for climate gas emissions from the Austrian Environment Agency. In addition to emitting about 200,000 tonnes of CO2 (2021), the mill also receives free allowances of 90,000 tonnes/CO2 for the period 2021-2025. Norske Skog has, based on EU policy, invested in alternative energy sources to diminish the use of fossil fuel based energy sources. The waste to energy plant will with its technology and source of energy replace fossil based energy sources with climate friendly energy sources. Also the European energy market is transforming from fossil based to renewable energy sources like solar, wind and hydro electric power. The entire European energy system will then be dependent on weather conditions to produce energy and thus be exposed to more volatile energy supply and consequently greater price fluctuations than under a fossil based energy system. The risk of changes in climate will make the entire energy supply system more volatile and unpredictable. Norske Skog has relieved this climate risk by constructing a long term, climate friendly waste-to-energy plant based on bio materials and waste from household. A removal or changes in the EU-ETS will hamper economic incentives to reduce CO2, and thus reduce the financial benefit of implementing energy efficiency and climate friendly energy sources; hence this will constitute not only a business risk but also a climate risk of not reaching the 2050 EU target of a climate neutral industry. To have a well-functioning CO2 quota market is a prerequisite to eliminate the climate risk. Norske Skog is working actively through European and national trade organisations to create incentives for the development of a green industry in Europe and Australia.

Time horizon
Long-term

Likelihood
Virtually certain

Magnitude of impact
High

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
93000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
The EU-ETS provides free allowances for the entire EU and EEA. Norske Skog Bruck receives free allowances, and because the mill uses/has used fossil-based fuel, the mill must also purchase CO2-quotas in order to operate. The investment in the energy plant will eliminate the need to purchase CO2-quotas. From 2023 onward, the mill will only have biogenic CO2-emissions and will thus from the time the waste to energy plant is fully operative not be subject to purchase CO2-quotas according to the EU-ETS scheme. The reduction of CO2 from this investment is between 150-200,000 tonnes CO2e / year. With the average price of CO2e in 2021 at 60EUR/ 620 NOK the potential financial impact figure is estimated at 150,000 t CO2e / year * 620 NOK = 93'000 NOK/ year. This is above the threshold described in C2.1b and has a substantive financial impact on the group EBITDA.

Cost of response to risk
720000000

Description of response and explanation of cost calculation
CASE STUDY: Financial effects from these EU Emissions Trading Scheme (EU ETS) schemes are substantive and represent more than 5% of the annual average EBITDA. As a result, they are closely monitored as part of our climate related risk assessment. In addition the EU-ETS is under revision and the financial effect from ETS and our risk assessment show that the not yet implemented Carbon Boarder Adjustment Mechanism (CBAM) may pose a substantive financial effect.

RISK RESPONSE ACTIVITIES: Norske Skog is engaged in two main risk response activities in order to mitigate identified risks: (A) Norske Skog holds an pro-active membership in Industry Associations such as the Norwegian Federation of Trade and Industry and the pan-European pulp and paper association, CEPI, to monitor and influence the regulatory work both in EU and the respective national government where Norske Skog operates. (B) Norske Skog Bruck in Austria invested NOK 720 million in CAPEX for the on-site waste to energy plant in order to mitigate the identified risks related to operating cost. This investment will reduce our exposure to fossil based electricity costs, and thus reduce our emissions from fossil-energy sources (liquefied natural gas). The final investment decision was made in 2019 and was part of the Norske Skog long-term strategy to (1) use climate friendly energy sources at all our mills, (2) secure energy supply at predictable prices and (3) reach the 2030 target of 55% reduction in group emissions from 2015 to 2030, and be climate neutral within 2050.

Explanation of cost calculation: The total planned investment is NOK 720 million. The investment includes three main cost elements: (1) construction of new storage for

waste material (fuel) amounting to about NOK 200 million, (2) turn key delivery of a new Bubbling Fluidized-Bed Boiler, including civil work amounting to about NOK 420 million, and (3) integration to existing mill infrastructure including engineering and project management amounting to about NOK 100 million (NOK 200 million + NOK 420 million + NOK 100 million = NOK 720 million).

Comment
The board decision is aligned with the company SDG-targets (sustainable development goals). Norske Skog has followed the procedures described in the TCFD (task force on climate-related financial disclosure) framework, as described in our annual report.

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?
Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier
Opp1

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Energy source

Primary climate-related opportunity driver
Use of lower-emission sources of energy

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
The pulp and paper industry is an energy-intensive sector, which accounted for approximately 6% of global industrial energy consumption in 2017 (International Energy Agency (IEA) 2020a). Energy constitutes on average about 15-20% of our mill's gate cash cost. Norske Skog Bruck (Austria) consumes about 0.7 TWh of fossil fuel to produce energy for publication paper production; hence, Bruck is subject to the current EU-ETS regulation. Norske Skog Bruck (Austria) emitted about 200,000 tonnes of CO2e annually in 2021 and received free allowances of 90,000 tonnes CO2e for this period. For the period 2021-2025 Bruck will receive similar size of free quotas. To cover the gap in emitted emissions and free quotas Norske Skog Bruck purchased 120,000 tonnes of emission quotas in 2021 and has a net CO2 quota cost of energy amounting to NOK 70-80 million. This presents an opportunity to evaluate own generation of low emission sources of energy to cover our consumption needs and reduce exposure to price volatility in the energy market and market for CO2 quotas.

Norske Skog has capitalized on this opportunity by constructing a long term, climate friendly energy plant based on bio materials and waste from household. The waste to energy plant will, with its technology and source of energy, replace fossil-based energy sources with climate friendly energy sources. Also, the European energy market is transforming from fossil based to renewable energy sources like solar, wind and hydroelectric power. The entire European energy system will then be dependent on weather conditions to produce energy and thus be exposed to more volatile energy supply and consequently greater price fluctuations than under a fossil based energy system. The risk of changes in climate will make the entire energy supply system more volatile and unpredictable.

A removal or changes in the EU-ETS will hamper with economic incentives to reduce CO2, and thus reduce the financial benefit of implementing energy efficiency and climate friendly energy sources; hence this will constitute not only a business risk but also a climate risk of not reaching the 2050 EU target of a climate neutral industry. To have a well-functioning CO2 quota market is a prerequisite to eliminate the climate risk. Norske Skog is working actively through European and national trade organisations to create incentives for the development of a green industry in Europe and Australia.

Time horizon
Long-term

Likelihood
Virtually certain

Magnitude of impact
High

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
93000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
The EU-ETS provides free allowances for the entire EU and EEA. Norske Skog Bruck receives free allowances, and because the mill use/ has used fossil-based fuel, the mill must also purchase CO2-quotas in order to operate. The investment in the energy plant will eliminate the need to purchase CO2-quotas. From 2023 onward, the mill will only have biogenic CO2-emissions and will thus from the time of starting up the waste to energy plant not be subject to purchase CO2-quotas according to the EU-ETS scheme. The reduction of CO2 is between 150-200,000 tonnes CO2e / year. With the average price of CO2e in 2021 at 60EUR/ 620 NOK the potential financial impact figure is estimated at 150,000 t CO2e / year * 620 NOK = 93'000 NOK/ year. This is above the threshold described in C2.1b and has a substantive financial impact on the group EBITDA.

Cost to realize opportunity
720000000

Strategy to realize opportunity and explanation of cost calculation
Financial effects from these EU Emissions Trading Scheme (EU ETS) schemes are substantive and more than 5% of the annual average EBITDA and as a result closely monitored as part of our climate related risk and opportunity assessment. In addition the EU-ETS is under revision and the financial effect from ETS and our risk assessment show that the not yet implemented Carbon Boarder Adjustment Mechanism (CBAM) may pose a substantive financial effects.

Norske Skog has engaged in two main activities in order to capitalize on this opportunity: (A) Norske Skog holds an pro-active membership in Industry Associations such as the Norwegian Federation of Trade and Industry and the pan-European pulp and paper association, CEPI, to monitor and influence the regulatory work both in EU and the respective national government where Norske Skog operates. (B) Norske Skog Bruck in Austria invested NOK 720 million in CAPEX for the on-site waste to energy plant in order to capitalize on this opportunity. This investment will reduce our exposure to fossil based electricity costs, and thus reduce our emissions from fossil-energy sources (liquefied natural gas). The final investment decision was made in 2019 and was part of the Norske Skog long term strategy to (1) use climate friendly energy sources at all our mills, (2) secure energy supply at predictable prices and (3) reach the 2030 target of 55% reduction in group emissions from 2015 to 2030, and be climate neutral within 2050.

Explanation of cost calculation: The total planned investment is NOK 720 million. The investment includes three main cost elements: (1) construction of new storage for waste material (fuel) amounting to about NOK 200 million, (2) turn key delivery of a new Bubbling Fluidized-Bed Boiler, including civil work amounting to about NOK 420 million, and (3) integration to existing mill infrastructure including engineering and project management amounting to about NOK 100 million.

Comment
The board decision is aligned with the company SDG-targets (sustainable development goals). Norske Skog has followed the procedures described in the TCFD (task force on climate-related financial disclosure) framework, as described in our annual report.

Identifier
Opp2

Where in the value chain does the opportunity occur?
Upstream

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Use of more efficient modes of transport

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
Raw materials like wood and wood chips for publication paper production, have been transported by fossil fuel based trucks. Norske Skog aims to reduce the scope 3 carbon footprint and transfer as much purchased wood and wood chips from trucks to railway as possible. The use of electric railway as means of transportation will substantially reduce the emission from transportation of inbound materials and offer an opportunity to reduce Scope 3 emissions.

Norske Skog has invested in train carriages and has also led a national project to build a new timber terminal located close to the timber harvesting area at Hauerseter (Norway). This terminal will serve the entire wood processing industry in Norway and be an important cost effective measure to keep cost of materials and transportation low. Norske Skog has a climate strategy to transport all long distance transport on non-fossil fuel based means of transportation. So far only one mill has reached this target. The company strategy is to reach the same scope 3 goal for every group mill.

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
10000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
In building a new railway terminal for handling of timber, Norske Skog will save about NOK 50 per m3. Norske Skog will transport about 50% of the purchased timber from this terminal. Today, timber is transported through Sweden (a de-tour) at an added cost of NOK 50 per m3, and the cost of transporting timber on trucks is NOK 50 per m3 more expensive than railway. This opportunity investment has both a positive climate effect and reduce the cost of transportation. Norske Skog will handle about 200,000 m3 through this terminal, offering a potential savings potential of NOK 10 million. (Total amount of wood transported 200,000 m3 x 50 NOK savings /m3 = 10,000,000 NOK total financial impact figure)

Cost to realize opportunity
2500000

Strategy to realize opportunity and explanation of cost calculation
Improved location for timber terminal reducing the transportation cost from the forest fields to the production site. The cost for Norske Skog and the entire vale chain is about NOK 2-3 million. The investment in the timber terminal will be granted, built, owned and served by the Norwegian government railway company, BaneNOR. The opening of the terminal is planned for 2027. Norske Skog took the initiative to build a terminal at this relevant location and has been active in pushing for this investment with local authorities and business partners. The alternatives to this terminal is to use other more expensive terminal, resulting in longer distance to transport the timber from harvesting area to the production site, which will give higher costs per tonne m3. To act on this opportunity, Norske Skog has therefore been pro-active in defining, planning and establishing this terminal.

Explanation of cost calculation: This will be a public terminal for handling wood. Norske Skog together with the pulp and paper industry initiated and presented the results of a preliminary project in which the total investment costs are projected. Norske Skog's share of the total investment will be about NOK 2.5 million, where about NOK 1 million will be technical project consultants, NOK 1 million will be machinery and equipment to handle the timber and NOK 0.5 million in IT- systems (1 million NOK + 1 Million NOK + 0,5 Million NOK = 2,5 million NOK)

Comment

In Norway, infrastructure like rail terminals are for the most part owned and run by BaneNOR, which is a government agency, specifically offers train companies a safe and efficient transport system. BaneNOR plans, expands and maintains the railway, stations and terminals throughout Norway.

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a climate transition plan that aligns with a 1.5°C world?

Row 1

Climate transition plan

Yes, we have a climate transition plan which aligns with a 1.5°C world

Publicly available climate transition plan

Yes

Mechanism by which feedback is collected from shareholders on your climate transition plan

We have a different feedback mechanism in place

Description of feedback mechanism

The board of director has adopted the transition plan, which has sections of financial targets as well as specific environmental and climate action targets. This plan is part of the annual report, which is presented on the annual general meeting, but the shareholders do not vote or adopt the plan. The formal procedures on the Annual General Meeting (AGM) require that the shareholders adopt the financial statements and the board of the directors report, which to some extend state the most vital part of the forthcoming business strategy and climate targets.

Frequency of feedback collection

Annually

Attach any relevant documents which detail your climate transition plan (optional)

(1) The annual report of Norske Skog ASA for 2022 (2) The Norwegian process industries roadmap, summary.pdf
the-norwegian-process-industries-roadmap-summary.pdf
Norske+Skog+annual+report+2022.pdf

Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future

<Not Applicable>

Explain why climate-related risks and opportunities have not influenced your strategy

<Not Applicable>

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative and quantitative	<Not Applicable>	<Not Applicable>

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios: IEA NZE 2050	Company-wide	<Not Applicable>	Norske Skog has carried out a revision of its identified risks and opportunities following the Task Force on Climate-related Financial Disclosures (TCFD) framework. A process of risk prioritization has been undertaken, ultimately identifying two risks as most material to the company and set as the scope for the scenario analysis. In defining the most material risks, financial impact, time horizon, and the likelihood of occurrence were utilized as determining factors. The risks identified for the scenario analysis are i) access to electricity (transition risk) and ii) access to process water (physical risk). Transition risk: Access to electricity has been classified as a transition risk as it depends on many factors outside of the physical environment. Although the ramp-up of renewable energy is heavily dependent on the weather and its development, there are other pressing concerns found within the transitional realm. Items reviewed in this scenario analysis include but are not limited to, the electricity mix composition, the grid and infrastructure, the availability of storage and grid flexibility solutions, carbon pricing mechanisms, and the requirement for investments in renewable energy solutions. This risk is placed in IEA's Net Zero scenario, a scenario following a 1.5°C pathway. The parameters and assumptions used in the scenario analysis follow the variables presented in the IEA NZE scenario. Key assumptions in the IEA Net Zero: - Global energy sector achieves net zero CO2 emissions by 2050 (advanced economies 2045). - Achieving key energy-related UN SDGs, such as universal energy access by 2030. - 60% of global car sales are electric in 2030. - Carbon price level: $250/tCO2e in 2050 for advanced economies. - Nearly 90% renewable electricity generation in 2050.
Physical climate scenarios: RCP 8.5	Company-wide	<Not Applicable>	Norske Skog is highly dependent on process water in their manufacturing processes. With mills in Norway, Austria, France, and Australia Norske Skog are facing different challenges in terms of access and the report analyses the physical risk of access to process water in each location. Therefore, a deeper understanding of how access to process water might change if we fail to both mitigate and adapt to climate-related challenges is vital to building resiliency in the product portfolio. This scenario analysis examined a 4°C narrative using climate variables under The Intergovernmental Panel on Climate Change's (IPCC) Social Socioeconomic Pathways (SSP) SSP5-8.5 scenario. Variables examined included: - Projected mean-temperature (annually and monthly) - Projected warm spell duration index - Projected precipitation (annually and monthly) - Projected annual SPEI drought index - Projected maximum number of consecutive dry days The dataset with the climatology variables in question is extracted from the Climate Change Knowledge Portal (CCKP) for Development Practitioners and Policy Makers by the World Bank Group (WBG) Key assumptions in the IPCC SSP5-8.5: - RCP 8.5 represents the IPCC's high-end pathway in which radiative forcing reaches greater than 8.5 W/m2 by 2100, and continues to rise for some time afterwards. - High economic growth: The scenario assumes that global economic growth continues at a rapid pace. This results in high energy demand and greenhouse gas emissions. - Fossil fuel dominance: SSP5-8.5 assumes that fossil fuels, remain the dominant source of energy throughout the century. This leads to high levels of carbon dioxide emissions and contributes to climate change. - Limited climate change mitigation: The scenario assumes limited international cooperation and weak policy efforts to mitigate climate change. There is a lack of strong emissions reduction targets or effective policies to transition to low-carbon energy sources. - Limited technological innovation: SSP5-8.5 assumes slow progress in developing and deploying clean energy technologies and low levels of energy efficiency improvements. This results in a continued reliance on fossil fuels and high emissions. - Limited adaptation measures: The scenario assumes that societies have limited capacity to adapt to the impacts of climate change. Fewer investments in infrastructure and disaster preparedness, lead to increased vulnerability to climate-related risks.

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

Following the revision of Norske Skogs identified risks and opportunities in 2022, using the Task Force on Climate-related Financial Disclosures (TCFD) framework, a process of risk prioritization was undertaken, ultimately identifying two risks as most material to the company and set as the scope for the scenario analysis. As part of building the foundation for a TCFD-aligned scenario analysis process, focal questions were developed in preparation for the analysis. The focal questions were developed to direct focus on the scenario analysis and to provide guidance on the potential actions required to respond to the development of the risks and opportunities analysed.

The focal questions for Norske Skog for the conducted scenario analysis were identified to be:
• Focal Question 1: How could climate change affect Norske Skog's operations' access to process water in a 4°C world dominated by physical climate-related risks, and what data is needed to support actions to reduce operational and financial risks in the medium (2030) and long term (2050)?
• Focal Question 2: How could climate change affect Norske Skog's operations access to affordable and renewable electricity in a 1.5° world dominated by transitional climate-related risks, and what future developments need to be prepared for in order to reduce operational and financial risks in the medium (2030) and long term (2050)?

From these focal questions, a need for a scenario in which global mitigation and adaptation to climate-related challenges fall well short of any intergovernmental targets was required to accurately represent the physical risks. With this it was decided to utilize IPCC SSP5-8.5 as it highlights the potential challenges of reaching a 4°C world dominated by physical climate-related risks. Contrary, reviewing a world that follows the pathway of highest ambition was necessary to review the changes of the global energy market. IEA NZE, a scenario that showcases necessary actions to limit global warming to 1.5° was decided as a suitable narrative for this focal question.

Results of the climate-related scenario analysis with respect to the focal questions

As a result of the scenario analysis undertaken in spring 2023, Norske Skog has improved its understanding of exposure to climate-related risks, grounded in publicly available scenarios. With respect to focal question 1, Norske Skog has improved its quantitative understanding of how its access to process water may develop in the future in a scenario with major physical climate risks. All locations where Norske Skog has operations were reviewed and it was uncovered that similar to Norske Skog's previous understanding, the Golbey mill located in the Vosges region of France is the location with highest exposure to physical climate-related risks (access to process water). The mill, using process water from the Moselle River, has already experienced signal effects of climate change where water flow has reduced its velocity and water levels in the summer months. Using data from the SSP5-8.5 scenario, it was uncovered that there will be an increase in mean temperature and consecutive very hot days (warm spell duration index). We also discovered that projected precipitation would remain somewhat stable in the coming 30 years. Norske Skog analyzed both the geographical area in which the mill is located and the location of the origin of the Moselle River. These results may impact our strategic and financial planning for the Golbey mill in the long term related to new investments in e.g. in a closed water system that will reduce risk exposure on access to process water.

With respect to focal question 2, one important finding in the net zero scenario is that the energy system remains in balance, with the surplus of energy supply increasing in both the reviewed time horizons (medium-term 2030 and long-term 2050). Being in an energy-intensive industry, Norske Skog is strongly impacted by changes in the energy systems and their related mechanisms. One concern that arises from the scenario analysis is the sharp increase in carbon prices for electricity, industry, and energy, rising from a predicted $75 level to $250 in 2050, without a mention of carbon compensation schemes. Rising electricity costs associated with transitioning towards renewables continue to be a material risk for Norske Skog.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Energy has become a new strategic leg. Before the climate-related transition plan, Norske Skog was a pure publication paper company. With change in climate-related goals, change in consumer patterns and customer demand, Norske Skog has expanded and diversified its business strategy from publication paper to three more legs: 1) publication paper 2) packaging paper, and 3) bio- and energy products. All strategic legs are aligned with the environmental and climate action targets. An example is: The change from fossil based fuel to bio mass and bio residual based boiler fuel combustion generators have resulted in new external markets for the Bruck and Golbey mills. Surplus energy will be transmitted and sold as energy to household.
Supply chain and/or value chain	Yes	Norske Skog has increased attention from its customer to use certified wood and wood chips as raw material. Norske Skog uses 100% certified wood in Europe, which encompasses both FSC and PEFC certifications. Norske Skog has been active in establishing a FSC branch in Norway, and also in the revision of the PEFC certification. Norske Skog has systems and processes to make sure that all wood used in Norske Skog's products comes from sustainably managed forests. All Norske Skog mills utilizing fresh fiber have third-party verified Chain of Custody (CoC) certification systems in place. Forestry and use of forest products play an important role in the combat of climate change. For the forest value chain to be a part of the climate change solution, the forests must be managed sustainably. Norske Skog has systems and processes to make sure that all wood used in Norske Skog's products comes from sustainably managed forests. All Norske Skog mills utilising fresh fiber have third-party verified Chain of Custody (CoC) certification systems in place. Our goal is to have 100% certified wood in our products including operations outside Europe. The main global forest challenges are related to deforestation in developing countries and forest biodiversity degradation through the logging of high-conservation areas in many parts of the world. In order to meet these challenges, we need to ensure that more of the world's forest areas are managed on a sustainable basis. Forest certification is an important tool in this context.
Investment in R&D	Yes	The goal is to develop new sustainable products and production processes. All mills participate in projects to find alternative or additional methods of reusing the by-products from the production processes. Our products come with an environmental product declaration for paper (Paper Profile) which guide the paper buyer according to environmental performance on standardized environmental parameters. All of Norske Skog's business units are certified in accordance with ISO 9001 and ISO 14001. Norske Skog actively works to realize value from the industrial sites by developing existing infrastructure and industry competence. The group is also engaged in developing nanofibrils for strengthening paper products, enhancing paint and glue, developing 3D composites and additives in nutritional products. Following significant marketing efforts and customer testing in 2021, CEBINA is now sold and delivered to customers in Norway and internationally. CEBINA is a natural fiber product developed at Norske Skog Saugbrugs, which adds rheology control in fluids and armouring in solid materials. Norske Skog has built a 300 tonnes capacity pilot plant for fiber composites at the Saugbrugs mill in Norway, which Innovation Norway has granted NOK 15 million. In early 2022, Norske Skog Saugbrugs, together with its research and industry partners, have been granted NOK 60 million in research funding from the Research Council of Norway and Innovation Norway under the Green Platform Programme. The portfolio of products to be developed aims to remove or greatly reduce the use of petroleum-based raw materials and harmful materials, as well as to contribute to increased recycling of plastics.
Operations	Yes	Our climate related targets within the production process activities are: (A) Ensure sustainable use of materials and energy in our operations, which includes (1) to achieve efficient use of biprocess streams in the production process to create bio based-energy or biproducts for sale, and (2) to utilize bi-products from the entire production process. (B) Operate mills with high focus on energy efficiency KPIs in thermo-mechanical pulp facilities, paper machines, heat recovery and fuel-mix, which include (1) to measure the level of CAPEX used on energy efficiency/energy-source improvements; (2) to establish specific activities and investments in energy efficiency and changes in energy source, i.e. activities from the CAPEX-lists and the continuous improvement programs. (C) Reduce Chemical Oxygen Demand (COD) to recipient, which include (1) to install anaerobic wastewater treatment and biogas at all European mills (75% installed) within 2030; (2) to invest in anaerobic waste water treatment and biogas production at all European mills. (D) Reduce emissions of Sulphur Dioxide (SO2) and Nitrogen Oxide (NOX) from our operations, which means (1) to ensure compliance with emission permits and regulations; (2) to perform mill activities related to SO2 and NOX improvements. (E) Reduce waste from our operations, which relates to (1) deliver no ash to landfill in 2030; (2) establish procedures and/or ash product development. (F) Ensure sustainable sourcing of raw material, which implies (1) to achieve 100% certification of all wood used for our products. (2) Review internal control routines to measure and reach the certification target. (G) Ensure responsible supplier value chain handling, which result in (1) to ensure supplier adherence to Norske Skog code of conduct within 2023; (2) to mature sustainable sourcing practices by updating code of conduct, questionnaire for suppliers on ESG-topics and routines for audit of suppliers.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Capital expenditures	The new business strategy for a low emission society has three strategic legs : - Improve and optimize publication paper cash flows - Become a leading producer of renewable packaging paper - Diversify and innovate within bio- and energy products This strategy will require Norske Skog to build resilient infrastructure, promote inclusive and sustainable industrialization, foster innovation and develop company competence. Norske Skog plans to become a leading European producer of recycled containerboard by converting two newsprint machines, one at Norske Skog Bruck and one at Norske Skog Golbey. The conversions will introduce 760 000 tonnes of competitive containerboard capacity to meet the growing demand for renewable packaging. The Skogn mill produces Skogn inter-liner on one of its three newsprint machines to serve the Asian packaging markets. The financial implications of these investments require a total investment of NOK 3500 million, being financed through the bond market, bank market, government grants and retained cash flows from operations. Following the conversions, both mills will have access to renewable energy and will have reduced their carbon footprints to become among the best performers in the industry. The instalment of a 50 MW renewable waste-to-energy boiler in Austria started operating in the first half of 2022. Norske Skog also plans to participate in constructing bio mass boiler at Golbey in France, which will deliver 0,7 TWh heat to the Golbey mill and 0.2 TWh to the national grid in France. Both projects will require substantial financing either directly through Norske Skog (Bruck) or indirectly through joint venture (Golbey). The total investments for these projects are NOK 750 million for the Austrian Bruck investment and NOK 1800 million at Golbey in France, in which Norske Skog has a 10% partnership in a joint venture. Norske Skog is the largest shareholder in Circa Group, which has been granted EUR 9.2 million from the EU Flagship Grant for the production of a first-of-its-kind 1 000 tonnes biochemicals plant in France. The NOK 575 million proceeds from a private placement at the Euronext Growth market in Oslo , will be used to fund the construction of the ReSolute plant in France, further market development, and development of new products. Norske Skog Australasia has worked closely with Circa since 2015 at its Boyer Mill in Tasmania, providing significant industrial and process competence to enable the scalability of Circa's unique and patented Furacell technology. Norske Skog spends substantive amount to develop new products within nanofibrils and bio composites, which are expected to be new revenue streams for the company. Following significant marketing efforts and further customer testing in 2021, CEBINA, which is a nanofibril bio product, is now sold and delivered to customers in Norway and internationally. CEBINA is a natural fibre product developed at Norske Skog Saugbrugs, which adds rheology control in fluids and armouring in solid materials. The continued development of CEBICO (bio composites) progressed well during the year. The installation of a NOK 25 million extruder or pilot-plant at Norske Skog Saugbrugs, enabling a significant increase in the ability and quality of testing with potential customers, was installed and is now effectively producing bio-composites. Innovation Norway has granted NOK 15 million to a pilot bio-compositte plant. Through the partnerships with Ocean GeoLoop at Norske Skog Skogn and Borg CO2 at Norske Skog Saugbrugs, Norske Skog aims to pursue the opportunity to become CO2 net negative, and to explore economically viable models for utilisation of biogenic CO2.

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	Yes, we identify alignment with our climate transition plan	<Not Applicable>

C3.5a

(C3.5a) Quantify the percentage share of your spending/revenue that is aligned with your organization's climate transition.

Financial Metric
CAPEX

Type of alignment being reported for this financial metric
Alignment with our climate transition plan

Taxonomy under which information is being reported
<Not Applicable>

Objective under which alignment is being reported
<Not Applicable>

Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)
360000000

Percentage share of selected financial metric aligned in the reporting year (%)
50

Percentage share of selected financial metric planned to align in 2025 (%)
50

Percentage share of selected financial metric planned to align in 2030 (%)
50

Describe the methodology used to identify spending/revenue that is aligned
Rational for the 50% alignment to the 1.5C target:
Norske Skog Bruck (Austria) consumes about 0.7 TWh of fossil fuel to produce energy for publication paper production; hence, Bruck is subject to the current EU-ETS regulation and has a net CO2 quota cost of energy amounting to NOK 70-80 million. A waste to energy plant has been under construction during 2020 and 2021, and was commissioned in 2022. The main goals are (1) to reduce the CO2 emissions and thus the climate footprint substantially, (2) to reduce dependency of imported gas and (3) achieve lower and more predictable cost of energy. Bruck's operation in Austria is within the EU-ETS (energy trading system) and holds a permit for climate gas emissions from the Austrian Environment Agency. In addition to be charged for about 200,000 tonnes of CO2, the mill also receives free allowances of 100,000 tonnes/CO2 for the period 2021-2025. Norske Skog has, based on EU policy, invested in alternative energy sources to diminish the use of fossil fuel based energy sources and to reach the 1.5C degree target by 2030. 50% of the investment relates to the 1.5C target; whereas, 50% relates to the economic benefit of switching energy supply from a volatile fossil based market to a bio residual sourcing. The total planned investment for the new Waste-to-Energy plant at Norske Skog Bruck was NOK 720 million.

An analysis of the market conditions:
The waste to energy plant will with its technology and source of energy replace fossil based energy sources with climate friendly energy sources. Also the European energy market is transforming from fossil based to renewable energy sources like solar, wind and hydro electric power. The entire European energy system will then be dependent on weather conditions to produce energy and thus be exposed to more volatile energy supply and consequently greater price fluctuations than under a fossil based energy system. The risk of changes in climate will make the entire energy supply system more volatile and unpredictable. Norske Skog has relieved this climate risk by constructing a long term, climate friendly energy plant based on bio materials and waste from household. A removal or changes in the EU-ETS will hamper with economic incentives to reduce CO2, and thus reduce the financial benefit of implementing energy efficiency and climate friendly energy sources; hence this will constitute not only a business risk but also a climate risk of not reaching the 2050 EU target of a climate neutral industry. To have a well-functioning CO2 quota market is a prerequisite to eliminate the climate risk. Norske Skog is working actively through European and national trade organisations to create incentives for the development of a green industry in Europe and Australia.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?
Intensity target

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number
Int 1

Is this a science-based target?
No, but we anticipate setting one in the next two years

Target ambition
<Not Applicable>

Year target was set
2020

Target coverage
Company-wide

Scope(s)
Scope 1
Scope 2

Scope 2 accounting method

Location-based

Scope 3 category(ies)
<Not Applicable>

Intensity metric
Metric tons CO2e per metric ton of product

Base year
2015

Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)
201

Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)
366

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for total Scope 3 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)
567

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure
100

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure
100

% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure
<Not Applicable>

% of total base year emissions in all selected Scopes covered by this intensity figure
100

Target year
2030

Targeted reduction from base year (%)
55

Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated]
255.15

% change anticipated in absolute Scope 1+2 emissions
67

% change anticipated in absolute Scope 3 emissions
0

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)
172

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)
104

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for total Scope 3 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)
276

Does this target cover any land-related emissions?
No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]
93.3140933140933

Target status in reporting year
Underway

Please explain target coverage and identify any exclusions
The target coverage is company wide . No exclusion.

Plan for achieving target, and progress made to the end of the reporting year
We plan to achieve this target by reducing our dependency on fossil fuels in our direct and indirect operations while continuing to strengthen the production capacity of our mills and related profitability. We have already made good progress on our target to date, by shutting down onsite energy boilers that run on fossil fuels and investing in new boilers that run on renewable sources . The rate of progress towards the target is anticipated and/or observed to change from year to year (variable).

List the emissions reduction initiatives which contributed most to achieving this target
<Not Applicable>

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?
Net-zero target(s)

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number
NZ1

Target coverage
Company-wide

Absolute/intensity emission target(s) linked to this net-zero target
Int1

Target year for achieving net zero
2050

Is this a science-based target?
No, but we anticipate setting one in the next two years

Please explain target coverage and identify any exclusions
The target covers all our operations as per reporting boundary disclosed in C0.5 (Scope 1 & 2 according to the GHG protocol).

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?
Yes

Planned milestones and/or near-term investments for neutralization at target year
Norske Skog is already investing in carbon dioxide removal and storage technologies. Through our partnership with Ocean GeoLoop at Norske Skog Skogn Mill and Borg CO2 at Norske Skog Saugbrugs Mill, Norske Skog aims to pursue the opportunity to neutralize CO2, and to explore economically viable business models for utilization of biogenic CO2.

Planned actions to mitigate emissions beyond your value chain (optional)

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.
Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	3	810000
To be implemented*	2	9000
Implementation commenced*	2	261000
Implemented*	1	150000
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Low-carbon energy generation	Solid biofuels

Estimated annual CO2e savings (metric tonnes CO2e)
150000

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
200000000

Investment required (unit currency – as specified in C0.4)
720000000

Payback period
1-3 years

Estimated lifetime of the initiative
21-30 years

Comment
In 2022 the construction of a new waste to energy plant at Norske Skog Bruck was completed and the energy production started. Norske Skog Bruck reduce direct CO2-emission by 75-80%, which is around 150 tonnes of CO2, due to reduction in natural gas consumption substituted by energy based on waste residue material.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	We continually monitor and assess current and proposed and regulatory change. Such as the EU ETS and CBAM. This may trigger investments in low emission technologies for production processes or investments in new product development.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?
Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation
Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon
No taxonomy used to classify product(s) or service(s) as low carbon

Type of product(s) or service(s)

Pulp and paper	Other, please specify (Publication paper)

Description of product(s) or service(s)
Norske Skog is investing in low emission product development. We have launched new bio products the last year: (1) CEBINA: a nanocellulose product being used as an ingredient to epoxy and paint, (2) CEBICO: a biocomposite substituting typical fossil based products like plastic and (3) Stabinor: ash from bio fuel production substituting cement based products. Today, the revenues derived from fossil resource-substitution activities and the low-carbon economy represent about 10% of the total revenue. In 2030, the group revenues from such activities is assumed to constitute about 50%. 2050 is too long term to make relevant assumptions.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)
No

Methodology used to calculate avoided emissions
<Not Applicable>

Life cycle stage(s) covered for the low-carbon product(s) or services(s)
<Not Applicable>

Functional unit used
<Not Applicable>

Reference product/service or baseline scenario used
<Not Applicable>

Life cycle stage(s) covered for the reference product/service or baseline scenario
<Not Applicable>

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario
<Not Applicable>

Explain your calculation of avoided emissions, including any assumptions
<Not Applicable>

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year
10

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?
No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?
No

Name of organization(s) acquired, divested from, or merged with
<Not Applicable>

Details of structural change(s), including completion dates
<Not Applicable>

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in methodology	In 2022, Norske Skog applied the location- and market based accounting for Scope 2 emissions, according to the GHG protocol.

C5.1c

(C5.1c) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in C5.1a and/or C5.1b?

	Base year recalculation	Scope(s) recalculated	Base year emissions recalculation policy, including significance threshold	Past years' recalculation
Row 1	No, because we do not have the data yet and plan to recalculate next year	<Not Applicable>	In 2022, Norske Skog applied the location- and market based accounting for Scope 2 emissions, according to the GHG protocol, which was applied to data covering 2021 and 2022 to allow for comparison.	Yes

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start
January 1 2015

Base year end
December 31 2015

Base year emissions (metric tons CO2e)
474946

Comment
Base year emission reduction target.

Scope 2 (location-based)

Base year start
January 1 2015

Base year end
December 31 2015

Base year emissions (metric tons CO2e)
865236

Comment
Base year emission reduction target.

Scope 2 (market-based)

Base year start
January 1 2015

Base year end
December 31 2015

Base year emissions (metric tons CO2e)
865236

Comment
The location-based result has been used as a proxy since a market-based figure cannot be calculated.

Scope 3 category 1: Purchased goods and services

Base year start
January 1 2022

Base year end
December 31 2022

Base year emissions (metric tons CO2e)
148000

Comment
Emissions related to purchased goods and services have been calculated based on purchased volumes and the use of generic emission factors from trusted sources.

Scope 3 category 2: Capital goods

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 4: Upstream transportation and distribution

Base year start
January 1 2022

Base year end
December 31 2022

Base year emissions (metric tons CO2e)
167000

Comment
Emissions related to upstream transportation and distribution have been calculated based on purchased volumes and the use of generic emission factors from trusted sources.

Scope 3 category 5: Waste generated in operations

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 6: Business travel

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 7: Employee commuting

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 9: Downstream transportation and distribution

Base year start
January 1 2022

Base year end
December 31 2022

Base year emissions (metric tons CO2e)
201000

Comment
Downstream transportation cover distribution from the printing house to the final customer for printed magazines and printed newspaper. This downstream category have been estimated based on annual production volume and emission factors from trusted research papers.

Scope 3 category 10: Processing of sold products

Base year start
January 1 2022

Base year end
December 31 2022

Base year emissions (metric tons CO2e)
224000

Comment
Processing of sold products cover emissions generated during the printing process by our customers. This downstream category have been estimated based on annual production volume and emission factors from trusted research papers.

Scope 3 category 11: Use of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 12: End of life treatment of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 13: Downstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
European Union Emission Trading System (EU ETS): The Monitoring and Reporting Regulation (MMR) – General guidance for installations
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
The Greenhouse Gas Protocol: Scope 2 Guidance
The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Standard

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)
294926

Start date
<Not Applicable>

End date
<Not Applicable>

Comment

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
We are reporting a Scope 2, market-based figure

Comment
In 2022, Norske Skog applied the location- and market based accounting for Scope 2 emissions, according to the GHG protocol, which was applied to data covering 2021 and 2022 to allow for comparison.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based
177808

Scope 2, market-based (if applicable)
1162024

Start date
<Not Applicable>

End date
<Not Applicable>

Comment

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?
No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
148000

Emissions calculation methodology
Hybrid method
Average data method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Emissions related to purchased goods and services have been calculated based on purchased volumes of direct materials (primary data) and the use of generic emission factors from trusted sources (secondary data). Data cover direct materials like forest and recycling operations as well as non-wood based raw materials like chemicals and fillers. We do not yet account for emission linked with indirect sourcing of goods and services. We are planning to introduce this in the next two years. We have applied the Greenhouse Gas Protocol method for Scope 3 accounting.

Capital goods

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Several LAC studies performed on the pulp and paper industry conclude that infrastructure represent less than 1 % of GHG emissions. We therefore consider this category not relevant.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Estimated emissions from fuel and energy-related emissions in (not including Scope 1 or 2) in 2022 represent less than 2% of total scope 3 emissions for the Norske Skog Group and is therefore not considered a material category in our Scope 3 inventory.

Upstream transportation and distribution

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
167000

Emissions calculation methodology
Hybrid method
Average data method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Data cover transport emissions for the same procurement categories as covered in category 1 (Purchased goods and services). Data also cover product deliveries from our mills to customers because cost of transport is covered by Norske Skog (in line with the Greenhouse Gas Protocol method for Scope 3 accounting). Emissions related to upstream transportation and distribution have been calculated based on the hybrid method. Primary data on distance traveled have been collected from suppliers and secondary data is represented by generic emission factors from trusted sources (life cycle stage covered in emission factor: Well-to-Wheel). We have applied the Greenhouse Gas Protocol method for Scope 3 accounting.

Waste generated in operations

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
All residues from the production processes are reused or disposed of either through internal energy recovery for the bio boilers at the mills (80 %), agricultural fertilizer (9%) , sale/delivery (9%) or landfill (2%). Emissions linked to waste are therefor largely accounted for in Scope 1. Remaining emissions from waste is linked to collection of waste (landfill and third party treatment) is accounted for in "outgoing transport (non paper)" in line with the Greenhouse Gas Protocol method for Scope 3 accounting. Waste generated in operations is therefore not a relevant Scope 3 category for Norske Skog.

Business travel

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Emissions from business air travel in 2022 represent less than 1% of total scope 3 emissions for the Norske Skog Group and is therefore not considered a material category in our Scope 3 inventory.

Employee commuting

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Emissions from employee commuting in 2022 represent less than 1% of total scope 3 emissions for the Norske Skog Group and is therefore not considered a material category in our Scope 3 inventory.

Upstream leased assets

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
All transport and distribution costs are reported in Scope 3 category "upstream transportation and distribution" (C6.5).

Downstream transportation and distribution

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
201000

Emissions calculation methodology
Hybrid method
Average data method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Emissions related to downstream transportation cover distribution from the printing house to the final customer for printed magazines and printed newspaper. Emissions have been calculated using primary data for production volumes (newsprint and magazine paper), whereas secondary data is represented by product-specific emission factors from VTT’s report 2560 “Print products from cradle to grave” from 2010. We have applied the Greenhouse Gas Protocol method for Scope 3 accounting.

Processing of sold products

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
224000

Emissions calculation methodology
Hybrid method
Average data method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Emissions related to processing of sold products cover emissions generated during the printing process. Emissions have been calculated using primary data for production volumes (newsprint and magazine paper), whereas secondary data is represented by product-specific emission factors from VTT's report 2560 "Print products from cradle to grave" from 2010. We have applied the Greenhouse Gas Protocol method for Scope 3 accounting.

Use of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Our products due not consume energy in the use phase, and this category is therefore not relevant to our Scope 3 inventory.

End of life treatment of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Studies from VTT Technical Research Centre of Finland and others show that the end of life treatment for printed paper products is less than 1 % of total scope 3 emissions in pulp and paper sector. This is based on the assumptions that only 5 % of printed paper end up in land fill. The rest is recycled or incinerated. Emissions in this category is therefore not considered a material category in our Scope 3 inventory. This is backed up by internal estimates.

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We do not have downstream leased assets.

Franchises

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We do not engage in franchise activities.

Investments

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We do not engage in investment activities.

Other (upstream)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We do not engage in other upstream activities.

Other (downstream)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We do not engage in other downstream activities.

C-AC6.8/C-FB6.8/C-PF6.8

(C-AC6.8/C-FB6.8/C-PF6.8) Is biogenic carbon pertaining to your direct operations relevant to your current CDP climate change disclosure?
Yes

C-AC6.8a/C-FB6.8a/C-PF6.8a

(C-AC6.8a/C-FB6.8a/C-PF6.8a) Account for biogenic carbon data pertaining to your direct operations and identify any exclusions.

CO2 emissions from biofuel combustion (processing/manufacturing machinery)

Emissions (metric tons CO2)
457451

Methodology
Default emissions factors

Please explain
We collect and calculate greenhouse gas emissions (biogenic carbon) for timber sourced for our global production processes. The reported figure include wood and bark residues only. This is part of pour Scope 3 inventory and is calculated applying the methodology of the GHG Protocol.

C-AC6.9/C-FB6.9/C-PF6.9

(C-AC6.9/C-FB6.9/C-PF6.9) Do you collect or calculate greenhouse gas emissions for each commodity reported as significant to your business in C-AC0.7/FB0.7/PF0.7?

Agricultural commodities
Timber

Do you collect or calculate GHG emissions for this commodity?
Yes

Reporting emissions by
Total

Emissions (metric tons CO2e)
457451

Denominator: unit of production
<Not Applicable>

Change from last reporting year
About the same

Please explain
We collect and calculate greenhouse gas emissions (biogenic carbon) for timber sourced for our global production processes. The reported figure include wood and bark residues only. This is part of pour Scope 3 inventory and is calculated applying the methodology of the GHG Protocol.

Explain why you do not calculate GHG emission for this commodity and your plans to do so in the future
<Not Applicable>

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure
0.0000311

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
472734

Metric denominator
unit total revenue

Metric denominator: Unit total
15214000000

Scope 2 figure used
Location-based

% change from previous year
50

Direction of change
Decreased

Reason(s) for change
Change in renewable energy consumption
Other emissions reduction activities

Please explain
Our GHG emissions intensity (total gross Scope 1 and 2 GHG emissions per unit revenue) decreased by 50% from 2021 to 2022. At the same time our total revenue increased by 47 % over the same period. One major emission reduction initiative had effect during the same period, our new new waste-to-energy boiler at Norske Skog Bruck in Austria went into operation. The new boiler is based on waste residue material and has led to a strong reduction in consumption of natural gas throughout 2022.

Our gross Scope 1 & 2 emissions emissions decreased from 613 998 t CO2 in 2021 to 472 734 t CO2 in 2022 (-26 %) mainly due the impact from the new waste-to energy boiler. The total volume of paper produced decreased by -11 % during the same period. At the same time our total revenue increased by 47 %. This led to strong decrease in intensity figure of CO2 (Scope 1&2) per unit total revenue equal to -50 %.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?
Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	293631	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	17.5	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	3	IPCC Fourth Assessment Report (AR4 - 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/area/region.

Country/area/region	Scope 1 emissions (metric tons CO2e)
Europe	96721
Australasia	198205

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By facility

C7.3b

(C7.3b) Break down your total gross global Scope 1 emissions by business facility.

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Norske Skog Bruck, Austria	67458	47.417956	15.27818
Norske Skog Golbey, France	25324	48.207966	6.42469
Norske Skog Skogn, Norway	3231	63.711839	11.16283
Norske Skog Saugbrugs, Norway	708	59.125256	11.39685
Norske Skog Boyer, Australia	198205	-42.780133	147.10262

C-AC7.4/C-FB7.4/C-PF7.4

(C-AC7.4/C-FB7.4/C-PF7.4) Do you include emissions pertaining to your business activity(ies) in your direct operations as part of your global gross Scope 1 figure?

Yes

C-AC7.4b/C-FB7.4b/C-PF7.4b

(C-AC7.4b/C-FB7.4b/C-PF7.4b) Report the Scope 1 emissions pertaining to your business activity(ies) and explain any exclusions. If applicable, disaggregate your agricultural/forestry by GHG emissions category.

Activity

Processing/Manufacturing

Emissions category

<Not Applicable>

Emissions (metric tons CO2e)

294926

Methodology

Default emissions factor

Please explain

For the manufacturing of publication paper, direct emissions from stationary fuel consumption as well as transportation is accounted for. We used default emissions factors as inputs to calculate our total CO2e inventory from Scope 1.

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/area/region.

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Europe	61632	1045849
Australasia	116176	116176

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By facility

C7.6b

(C7.6b) Break down your total gross global Scope 2 emissions by business facility.

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Norske Skog Bruck, Austria	20817	86100
Norske Skog Golbey, France	30496	36144
Norske Skog Skogn, Norway	6381	568448
Norske Skog Saugbrugs, Norway	3938	355156
Norske Skog Boyer, Australia	116176	116176

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

Not relevant as we do not have any subsidiaries

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	114606	Decreased	19	Our consumption of renewable sources during the reporting year increased as a result of the new waste to energy plant at Norske Skog Bruck which became operative in 2022. This led to a strong reduction in gas consumption. This is represented by a 19 % decrease in emissions change from this activity between 2021 and 2022 for the group as a whole (change in emissions from this category / emissions in previous year = -114606 / 613 998 = -19 %)
Other emissions reduction activities	744	Decreased	0.1	The effect from 'other emissions reduction activities' implemented during the year was 744 t CO2e from phasing out of heavy oil at Norske SKog Saugbrugs. Our gross scope 1 and 2 emissions for teh group in in the previous year was 613 998 tCO2e. This represents a -0,1 % decrease in emissions due to these emission reduction activities (Calculation: -744/ 613 998= -0,1%)
Divestment	18459	Decreased	3	Between 2021 and 2022 the divestment in our business at Tasman, New Zealand led to a 3% reduction (change in emissions from this category / emissions in previous year = -18459 / 613 998 = -3 %).
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output		<Not Applicable>		
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions	7455	Decreased	1.2	From 2021 to 2022 we saw a decrease in total Scope 1 and 2 emissions related to physical operating conditions of 7455 t CO2e. This increase is related to temporary shut down of production capacity at Norske Skog Golbey due to the construction phase for conversion of one paper machine to container board production.
Unidentified		<Not Applicable>		
Other		<Not Applicable>		

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 25% but less than or equal to 30%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	1153000	1090000	2243000
Consumption of purchased or acquired electricity	<Not Applicable>	3649000	250000	3899000
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	20000	<Not Applicable>	20000
Total energy consumption	<Not Applicable>	4822000	1340000	6162000

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	No
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

Heating value
LHV

Total fuel MWh consumed by the organization
1153000

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
1153000

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Biomass boilers supplied with waste wood and wood residues from internal production processes, generate steam for internal production.

Other biomass

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
No other biomass fuels consumed.

Other renewable fuels (e.g. renewable hydrogen)

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
No other biomass fuels consumed.

Coal

Heating value
LHV

Total fuel MWh consumed by the organization
660000

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
660000

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment

Oil

Heating value
LHV

Total fuel MWh consumed by the organization
5000

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
5000

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Oil used to restart bioenergy boilers after shut down due to maintenance. This is necessary to achieve required temperature levels.

Gas

Heating value
LHV

Total fuel MWh consumed by the organization
424000

MWh fuel consumed for self-generation of electricity
424000

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Gas used to supply gas turbine with fuel to generate electricity (Process used at Norske Skog Bruck, Austria). The gas consumption dropped significantly in 2022 as a result of the new waste to energy plant which became operative in the end of 2022. The consumption of Gas is expected to drop further in 2023 when the waste to energy plant will operate on full capacity.

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
No other non-renewable fuels consumed.

Total fuel

Heating value
LHV

Total fuel MWh consumed by the organization
2243000

MWh fuel consumed for self-generation of electricity
424000

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
1819000

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
In 2022 we consumed 2243000 MWh of fuel.

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	444000	444000	20000	20000
Heat	0	0	0	0
Steam	1819000	1819000	1153000	1153000
Cooling	0	0	0	0

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.

Country/area of low-carbon energy consumption
Norway

Sourcing method
None (no active purchases of low-carbon electricity, heat, steam or cooling)

Energy carrier
<Not Applicable>

Low-carbon technology type
<Not Applicable>

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
<Not Applicable>

Tracking instrument used
<Not Applicable>

Country/area of origin (generation) of the low-carbon energy or energy attribute
<Not Applicable>

Are you able to report the commissioning or re-powering year of the energy generation facility?
<Not Applicable>

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment
We do not actively purchase any contractual instruments for low-carbon electricity as part of our Scope 2 market-based figure in Norway.

Country/area of low-carbon energy consumption
Austria

Sourcing method
None (no active purchases of low-carbon electricity, heat, steam or cooling)

Energy carrier
<Not Applicable>

Low-carbon technology type
<Not Applicable>

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
<Not Applicable>

Tracking instrument used
<Not Applicable>

Country/area of origin (generation) of the low-carbon energy or energy attribute
<Not Applicable>

Are you able to report the commissioning or re-powering year of the energy generation facility?
<Not Applicable>

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment
We do not actively purchase any contractual instruments for low-carbon electricity as part of our Scope 2 market-based figure in Austria.

Country/area of low-carbon energy consumption
France

Sourcing method
None (no active purchases of low-carbon electricity, heat, steam or cooling)

Energy carrier
<Not Applicable>

Low-carbon technology type
<Not Applicable>

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
<Not Applicable>

Tracking instrument used
<Not Applicable>

Country/area of origin (generation) of the low-carbon energy or energy attribute
<Not Applicable>

Are you able to report the commissioning or re-powering year of the energy generation facility?
<Not Applicable>

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment
We do not actively purchase any contractual instruments for low-carbon electricity as part of our Scope 2 market-based figure in France.

Country/area of low-carbon energy consumption
Australia

Sourcing method
None (no active purchases of low-carbon electricity, heat, steam or cooling)

Energy carrier
<Not Applicable>

Low-carbon technology type
<Not Applicable>

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
<Not Applicable>

Tracking instrument used
<Not Applicable>

Country/area of origin (generation) of the low-carbon energy or energy attribute
<Not Applicable>

Are you able to report the commissioning or re-powering year of the energy generation facility?
<Not Applicable>

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment
We do not actively purchase any contractual instruments for low-carbon electricity as part of our Scope 2 market-based figure in France.

C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

Country/area
Norway

Consumption of purchased electricity (MWh)
2219000

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
1357000

Total non-fuel energy consumption (MWh) [Auto-calculated]
3576000

Country/area
France

Consumption of purchased electricity (MWh)
744000

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
636000

Total non-fuel energy consumption (MWh) [Auto-calculated]
1380000

Country/area
Austria

Consumption of purchased electricity (MWh)
176000

Consumption of self-generated electricity (MWh)
107000

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
387000

Total non-fuel energy consumption (MWh) [Auto-calculated]
670000

Country/area
Australia

Consumption of purchased electricity (MWh)
730000

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
576000

Total non-fuel energy consumption (MWh) [Auto-calculated]
1306000

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
BDO_Verification_letter_CDP_signed.pdf

Page/ section reference
Page 1 and 2.

Relevant standard
ISAE3000

Proportion of reported emissions verified (%)
100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach
Scope 2 market-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
BDO_Verification_letter_CDP_signed.pdf

Page/ section reference
Page 1 and 2.

Relevant standard
ISAE3000

Proportion of reported emissions verified (%)
100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category
Scope 3: Purchased goods and services
Scope 3: Upstream transportation and distribution
Scope 3: Downstream transportation and distribution
Scope 3: Processing of sold products

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
BDO_Verification_letter_CDP_signed.pdf

Page/section reference
Page 1 and 2.

Relevant standard
ISAE3000

Proportion of reported emissions verified (%)
100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?
Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C6. Emissions data	Energy consumption	ISAE	Biogenic Carbon from combustion of biofuel is part of our emission disclosure and verificaion process. This is not included in scope 1, 2 or 3, but is reported separately. See attachment, page 1 and 2. BDO_Verification_letter_CDP_signed.pdf

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?
Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.
Australia ERF Safeguard Mechanism - ETS
EU ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

Australia ERF Safeguard Mechanism - ETS

% of Scope 1 emissions covered by the ETS
100

% of Scope 2 emissions covered by the ETS
0

Period start date
January 1 2022

Period end date
December 31 2022

Allowances allocated
0

Allowances purchased
0

Verified Scope 1 emissions in metric tons CO2e
0

Verified Scope 2 emissions in metric tons CO2e
0

Details of ownership
Facilities we own and operate

Comment
The Australia ERF Safeguard Mechanism - ETS is taking effect from 1 July 2023. No CO2 quotas has been allocated or purchased in 2022. 100 % of Scope 1 emissions at Norske Skog Boyer mill will be covered from the date the Australia ERF Safeguard Mechanism - ETS is taking effect (1st of July 2023).

EU ETS

% of Scope 1 emissions covered by the ETS
100

% of Scope 2 emissions covered by the ETS
0

Period start date
January 1 2022

Period end date
December 31 2022

Allowances allocated
409000

Allowances purchased
0

Verified Scope 1 emissions in metric tons CO2e
167000

Verified Scope 2 emissions in metric tons CO2e
0

Details of ownership
Facilities we own and operate

Comment
100 % of Scope 1 emissions for mills located in Europe are subject to EU-ETS. Verified Scope 1 emissions reported (167 000 t CO2e) cover European mills. In 2022 Norske Skog received 409 000 free allowances through EU ETS and emitted 167 00 t CO2e. The net surplus of 242 000 quotas for 2022 was sold in the market. The net surplus represents an income generating activity for our mills. This is possible due to exceptionally low emissions from mills located in Norway, Austria and France.

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

Norske Skog is subject to many regulatory requirements relating to climate change, including the EU Emissions Trading Scheme (ETS), which include CO2 compensation scheme, and CO2-allowances. Due to the financial impact such regulations have on our business we monitor associated risks closely. Norske Skog's strategy is to comply with any regulatory requirements and systems, now and in the future.

Financial effects from these schemes are substantive and more than 5% of the annual average EBITDA for the last 5 yeears and as a result closely monitored as part of our climate-related risk assessment. The EU-ETS is under revision and the financial effect from ETS and the not yet implemented Carbon Boarder Adjustment Mechanism (CBAM) may pose substantive financial effects to Norske Skog.

Norske Skog holds an pro-active membership in the Norwegian Federation of Trade and Industry and the pan-European pulp and paper association, CEPI, to monitor and influence the regulatory work both in EU and the respective national government where Norske Skog operates. Regulatory challenges and changes will be included and evaluated in the annual risk assessment and budget processes. The financial effect of removal of the entire ETS will be substantial and constitute about NOK 200-250 per tonne publication paper.

Results of Actions : The direct effect of the EU-ETS carbon pricing mechanisms and the volatile energy market led to the EUR 75 million investments in a waste to energy plant at Bruck in Austria. The Norske Skog Bruck mill will reduce direct CO2-emission by 75-80%, which is around 150-180 000 tonnes of CO2, due to reduction in natural gas consumption substituted by energy based on waste residue material.

Timescale: This action was implemented in 2021 when the construction of the plant started. The impact of this action started in 2022 when the operation of the plant started and will become fully operational in 2023.

C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?
No

C11.3

(C11.3) Does your organization use an internal price on carbon?
Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Type of internal carbon price
Shadow price

How the price is determined
Alignment with the price of allowances under an Emissions Trading Scheme

Objective(s) for implementing this internal carbon price
Change internal behavior
Drive low-carbon investment

Scope(s) covered
Scope 1

Pricing approach used – spatial variance
Differentiated

Pricing approach used – temporal variance
Evolutionary

Indicate how you expect the price to change over time
Our internal price on carbon is aligned with the market price in the EU Emissions Trading Scheme (ETS). The market price developments is driven by supply and demand. Norske Skog expect that the price will change over time due to two main factors: (1) The number of free CO2 allowances provided to companies like Norske Skog is reduced at an annual rate of -4,2 %, as defined by the EU-ETS. In 20230 there will be no more free allowances. (2) The demand for CO2 quotas will increase in parallel with the reduction of free allowances. (3) The EU-ETS is under revision and will integrate emissions from new activities, like Waste-to energy operations, from 2026. Norske Skog expect that these factors will result in increased market prices for CO2 quotas over time. Our estimated price for CO2 quotas in 2023 is 70 NOK. We expect the price to reach 2000 NOK in 2030, a percentage increase of 185 %. Expected percent increase from 2023 to 2030: ((200/ 70 -1)*100 = 185%

Actual price(s) used – minimum (currency as specified in C0.4 per metric ton CO2e)
800

Actual price(s) used – maximum (currency as specified in C0.4 per metric ton CO2e)
1000

Business decision-making processes this internal carbon price is applied to
Capital expenditure
Operations
Procurement
Product and R&D
Risk management

Mandatory enforcement of this internal carbon price within these business decision-making processes
Yes, for some decision-making processes, please specify (applied in : 1) Annual Budgeting and monthly financial reports 2) evaluation of investment decisions, and 3) New product development. The carbon price is always used in these processes as long as the activity considered is subject to the EU ETS.)

Explain how this internal carbon price has contributed to the implementation of your organization's climate commitments and/or climate transition plan
Norske Skog is subject to the EU Emissions Trading Scheme (ETS), which include CO2 compensation scheme, and CO2-allowances. Due to the financial impact such regulations have on our business we monitor the development of CO2 prices closely. The processes where this is applied is; 1) budgeting processes and in monthly financial reporting 2) evaluation of investment decisions, and 3) New product development. 1) In budgeting processes we apply the average price on CO2 based on the most recent year. The CO2 prices are applied to the European Business Units subject to the EU ETS scheme.

How this internal carbon price has contributed to the implementation of our climate commitments: Norske Skog is using the internal carbon price to drive low carbon investments. This carbon price is applied to inform CAPEX investment decisions. One example is the CAPEX investment decision in a waste-to energy plant at Norske Skog bruck in Austria. The Norske Skog Bruck mill in Austria is subject to the current EU-ETS regulation. In 2021 the mill received free allowances covering 50 % of its emissions. The remaining CO2 emissions have to be covered by purchased quotas that had a net cost of NOK 70-80 million in 2021. The direct effect of the EU-ETS carbon pricing mechanisms and the volatile energy market led to the EUR 75 million investments in a waste to energy plant at this mill. The internal carbon pricing represented a key element in the final investment decision that was made in Q2 2019. At this time the carbon price used was 289 NOK/ tonne CO2. The Norske Skog Bruck mill will reduce direct CO2-emission by 75-80%, which is around 150-180 000 tonnes of CO2, due to reduction in natural gas consumption substituted by energy based on waste residue material. Starting from 2023, when this plant is fully operational, Norske Skog Bruck will not need to purchase any CO2 allowances.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?
Yes, our suppliers
Yes, our customers/clients

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement
Engagement & incentivization (changing supplier behavior)

Details of engagement
Directly work with suppliers on exploring corporate renewable energy sourcing mechanisms

% of suppliers by number
50

% total procurement spend (direct and indirect)

% of supplier-related Scope 3 emissions as reported in C6.5
49

Rationale for the coverage of your engagement
Norske Skog uses around 2-2.5 million tonnes of recovered paper, wood and wood chips at the European mills. In 2022 we also shipped 1.7 million tons of finished paper products to customers. As such, transport represents a significant spend factor. In 2022, 49% of our total Scope 3 inventory was related to transport (Inbound and outbound transport combined). Emissions from upstream transport and distribution alone, represented 22 % of our total Scope 3 emissions, and downstream transport 27% (2022). It is of strategic importance to reduce Scope 3 emissions and related costs. Furthermore, the implementation of the green deal in European industry and the fulfillment of emission obligations in the Glasgow agreement will require that our inbound and outbound transport take place with emission-free transport solutions by 2050.

Up until now, raw materials like wood and wood chips for publication paper production, have been transported by fossil fuel based trucks. Norske Skog aims to reduce the scope 3 carbon footprint and transfer as much purchased inbound wood and wood chips from trucks to railway as possible. The use of electric railway as means of transportation will substantially reduce the emission in the inbound materials.

ENGAGEMENT ACTIVITIES example: Norske Skog has invested in train carriages. Norske Skog has also led a national project to build a new timber terminal located close to the timber harvesting area in Norway by cooperating with local authorities and business partners. This terminal in Hauerseter, Norway, will be operative from 2027 and will serve the entire wood processing industry in Norway and be an important cost effective measure to keep cost of materials and transportation down. The Rational for switching from truck as mean of transportation for wood and wood chips to railway is that it will reduce the total CO2 emission in our value chain and improve the cost position for all parties involved. The inbound suppliers represented in this example (category 4 upstream transportation and distribution) represent 22 % of total Scope 3 emissions (2022).

50 % of our current inbound transport suppliers can deliver timber to railway terminals and is therefore covered by the scope of this engagement activity. Our strategy is to have more suppliers deliver timber directly to railway terminals.

Impact of engagement, including measures of success
We are a producer of publication paper within the pulp and paper sector. Norske Skog is dependent on sourcing timber from locations within a radius of 400 km from the production sites. Norske Skog has invested in train carriages to transport wood and wood chips to our mill in Halden, Norway. All long distance transport of wood is now transported by rail way. This change has raised positive media attention, reduction in CO2 emissions and reduction in transportation and handling costs.

Company-specific description of the impact: In building a new rail way terminal for handling of timber, Norske Skog will save about NOK 50 per m3. Norske Skog will transport about 50% of the purchased timber from this terminal. Today, timber is transported through Sweden (a de-tour) at an added cost of NOK 50 per m3, and the cost of transporting timber on trucks is NOK 50 per m3 more expensive than railway. This opportunity investment has both a positive climate effect and reduce the cost of transportation. Norske Skog will handle about 200,000 m3 through this terminal, giving a savings potential of NOK 10 million.

Measure of Success: Success will be measured by achievement of the target to have all long distance transport on non-fossil fuel based means of transportation by 2050. When the terminal in Hauerseter becomes operative in 2027, this will cut our gross Scope 3 emissions from upstream transport and distribution with an estimated 20 % . Our aim is to achieve zero emissions from long distance transport for all mills by 2050 (Threshold).

Comment
Raw materials like wood and wood chips for publication paper production, have been transported by fossil fuel based trucks. Norske Skog aims to reduce the scope 3 carbon footprint and transfer as much purchased wood and wood chips from trucks to railway. The use of electric railway as means of transportation will substantially reduce the emission in the inbound materials. Norske Skog has invested in train carriages. Norske Skog has also led a national project to build a new timber terminal located close to the timber harvesting area. This terminal will serve the entire wood processing industry in Norway and be an important cost effective measure to keep cost of materials and transportation low. Norske Skog has a climate strategy to transport all long distance transport on non-fossil fuel based means of transportation. So far only one mill has reached this target. The company strategy is to reach the same scope 3 goal for every group mill.

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement & Details of engagement

Education/information sharing	Share information about your products and relevant certification schemes (i.e. Energy STAR)

% of customers by number
95

% of customer - related Scope 3 emissions as reported in C6.5
0

Please explain the rationale for selecting this group of customers and scope of engagement
There has been request from customers, representing approximately 95 % of Norske Skog's customers, to use FSC and PEFC certified wood in the production of paper. Along with the forest-based industry in Norway, Norske Skog initiated and supported the process of reviewing and establishing the Norwegian controlled wood FSC-system and PEFC system. During a three year period, there was a process to establish a Norwegian based FSC-system and PEFC system. The process included collaboration between the industry, environmental groups, ethnic minorities, representatives for forest owners, academia, and other NGOs, The FSC has established a branch in Norway with a separate board for surveillance of the Norwegian FSC standard. PEFC has already existed in Norway for a while.

The implication of not implementing the FSC standard and/or PEFC standard may have resulted in loss of customers. The customers did not pay any premium on the paper produced on FSC certified wood. The implementation of the FSC standard was successful, due to the fact that all parties involved accepted the negotiated FSC-terms. Also the customers requiring FSC based paper products were pleased with the outcome.

Impact of engagement, including measures of success
We are a producer of publication paper within the pulp and paper sector. Norske Skog is dependent on sourcing timber from locations with the certifications that our customers demand. We are committed to supplying FSC/ PEFC certified wood to meet customer satisfaction.

The implication of not implementing the FSC / PEFC standard may have resulted in loss of customers. The customers did not pay any premium on the paper produced on FSC certified wood. The implementation of the FSC standard was successful, due to the fact that all parties involved accepted the negotiated FSC-terms. Also the customers requiring FSC based paper products were pleased with the outcome.

Measure of Success: We measure the success of our engagement strategy as % share of customer satisfaction with the FSC or PEFC standard (target = 100 %) . Following the adaptation of the FSC / PEFC standard in our sourcing of wood, 100% of customers were satisfied in 2022.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?
Yes, climate-related requirements are included in our supplier contracts

C12.2a

(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.

Climate-related requirement
Other, please specify (FSC certified wood for sustainable management)

Description of this climate related requirement
In Europe, Norske Skog uses 100% certified wood, either the PEFC or the FSC standards of certification. The customers require finished products based on certified wood. Both the FSC and the PEFC standards have been reviewed during the last two years. The revision of the PEFC standard was completed in 2022; whereas, the FSC standard was completed in 2021. Norske Skog follow up wood suppliers to see that the standards are followed.

% suppliers by procurement spend that have to comply with this climate-related requirement
100

% suppliers by procurement spend in compliance with this climate-related requirement
100

Mechanisms for monitoring compliance with this climate-related requirement
Certification

Response to supplier non-compliance with this climate-related requirement
Exclude

C-AC12.2/C-FB12.2/C-PF12.2

(C-AC12.2/C-FB12.2/C-PF12.2) Do you encourage your suppliers to undertake any agricultural or forest management practices with climate change mitigation and/or adaptation benefits?
No

C-AC12.2c/C-FB12.2c/C-PF12.2c

(C-AC12.2c/C-FB12.2c/C-PF12.2c) Why do you not encourage your suppliers to undertake any agricultural/forest management practices with climate change mitigation and/or adaptation benefits?

	Primary reason	Please explain
Row 1	Other, please specify (Norske Skog purchases wood fibre that is FSC and/or PEFC certified.)	This stringent means of certification set strict procedures for forest management. Any breach of following these certification methods will result in delivery from that specific supplier.

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

Yes

Attach commitment or position statement(s)

As an active member of the The Federation of Norwegian Industries (NI) Norske Skog is committed to, and share, the same net zero vision by 2050 as the federation. See attached road map from NI referencing this commitment (in English) , including one road map for the Norwegian forest industry(in Norwegian).
the-norwegian-process-industries-roadmap-summary.pdf

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan

Norske Skog has membership in national trade and industry organisation in all countries we operate. In addition, we are member of the Confederation of European pulp and paper association (CEPI). On specific issues, Norske Skog engages directly with government institutions and individual politicians. Also, Norske Skog has close collaboration with numerous NGO, also environmental groups. Norske Skog is cooperating with Zero (NGO) to establish common national financial models for biogenic carbon capture and storage in Norway.

Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Specify the policy, law, or regulation on which your organization is engaging with policy makers
EU emission trading system: In order to avoid carbon leakage, Norske Skog involves with politicians to promote the usefulness and importance of the EU-ETS schemes is to the energy intensive industry in Europe.

Category of policy, law, or regulation that may impact the climate
Carbon pricing, taxes, and subsidies

Focus area of policy, law, or regulation that may impact the climate
Emissions trading schemes

Policy, law, or regulation geographic coverage
Regional

Country/area/region the policy, law, or regulation applies to
Austria
France
Norway
Western Europe

Your organization's position on the policy, law, or regulation
Support with minor exceptions

Description of engagement with policy makers
Most contact with politicians are handled by the national and pan-European trade and industry organisations

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation
Norske Skog does not support the changes in the EU-ETS schemes. The CBAM will substitute the EU-ETS scheme in 2030. This will severely affect the competitiveness of the European export industry in comparison to non-European industry.

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?
The EU-ETS schemes are under revision and the financial effect from ETS and the not yet implemented Carbon Boarder Adjustment Mechanism (CBAM) may pose a substantive financial effect to Norske Skog if realized. A removal or changes in the EU-ETS will hamper economic incentives to reduce CO2, and thus reduce the financial benefit of implementing energy efficiency and climate friendly energy sources; hence this will constitute not only a business risk but also a climate risk of not reaching the 2050 EU target of a climate neutral industry. To have a well-functioning CO2 quota market is a prerequisite to eliminate the climate risk. Norske Skog is working actively through European and national trade organisations to create incentives for the development of a green industry in Europe and Australia.

We have defined ambitious targets to use sustainable energy sources, which will reduce the dependency of fossil energy sources. Norske Skog as already substantially invested and will invest in biomass-boilers to replace fossil energy sources at two European mills in France and Austria. In addition this has directly affect the business strategy where the group will participate in CCS and CCU activities in Norway at Norske Skog Skogn and Norske Skog Saugbrugs. The EU ETS scheme has an impact on the development and achievement of our climate transition plan.

C12.3b

(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association
Other, please specify (CEPI - confederation of European paper industries)

Is your organization's position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
CEPI is the European association representing the paper industry. CEPI offer a wide range of renewable and recyclable wood-based fiber solutions to EU citizens: from packaging to textile, hygiene and tissue products, printing and graphic papers as CEPI as specialty papers, but also bio-chemicals for food and pharmaceuticals, bio-composites and bioenergy. CEPI are a responsible industry: 86% of our raw materials are sourced from within the European Union and 78% of the wood comes from certified forests, 92% of the water CEPI use is returned in good condition to the environment. CEPI are the world champion in recycling at the rate of 73.9%. At the forefront of the decarbonisation and industrial transformation of our economy, CEPI embrace digitalisation and bring 18.5 billion value addition to the European economy and €4.5 billion investments annually. Through its 18 national associations, Cepi gathers 495 companies operating 895 mills across Europe and directly employing more than 180,000 people.

The position of Norske Skog is consitent with the position of CEPI in regards to....

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)
600000

Describe the aim of your organization's funding
Norske Skog supports CEPI goal:
- To secure pulp and paper industries competitiveness towards EU policy makers
- To represent the paper industry with EU institutions and Brussels based stakeholders
- To improve the image and visibility of the paper industry and other related industries
- To be the example of how competitiveness and sustainability can go hand in hand

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication
In mainstream reports, incorporating the TCFD recommendations

Status
Complete

Attach the document
Norske+Skog+annual+report+2022.pdf

Page/Section reference
Attached is the sustainability report for 2022 where the TCFD recommendations are incorporated on page 60-61.

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment
About the sustainability report: The report covers material sustainability topics to Norske Skog. For the environmental data, it covers the value chain of the group's activities. Sustainability data for 2022 includes the five Norske Skog paper mills at Boyer, Bruck, Golbey, Skogn and Saugbrugs operating at 31 December 2022.

Environmental data has been collected from the mills using established reporting routines. These include standard monthly reporting for the key environmental data as well as a standard collection of supplementary information on an annual basis. Data from this reporting is collected by the chief operating officer of the group in monthly reports to the corporate management and to the board quarterly. Similarly, people data, and health and safety data are collected from the mills with monthly reporting to the corporate management and quarterly to the board quarterly.

The sustainability report consists of two elements:
1 Materiality analysis and TCFD (task force on climate-related financial disclosures)
2 Sustainable Development Goals

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	Task Force on Climate-related Financial Disclosures (TCFD) UN Global Compact	TCFD: Norske Skog's has implemented the recommendations of the TCFD into our processes and disclosure as a tool to communicate to investors and other stakeholders about our climate commitment and how our startegy is aligned with a 1.5 degree world- UN Global Compact: Norske Skog supports the ten principles of the UN global compact and engage in discussions, knowledge sharing and networking with other member organizations.

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	Yes, both board-level oversight and executive management-level responsibility	The Board of Directors are responsible for promoting and addressing biodiversity-related issues, including goals, strategic development and investment decisions. The Board of Directors jointly make formal resolutions regarding such matters. Biodiversity-related issues are addressed on an ongoing basis in addition to the annual risk assessment for the Norske Skog group.	<Not Applicable>

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Yes, we have made public commitments and publicly endorsed initiatives related to biodiversity	Other, please specify (Commitment / Target to source 100 % certified wood (FSC / PEFC sustainable forest management certification))	SDG

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment
Yes

Value chain stage(s) covered
Upstream

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
Other, please specify (FSC / PEFC sustainable forest management certification)

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
The FSC / PEFC sustainable forest management certification include criteria for biodiversity. 91 % of wood sourced in 2022 was certified according to FSC / PEFC. Our goal is to source 100 % certified wood.

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment
No, but we plan to within the next two years

Value chain stage(s) covered
<Not Applicable>

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
<Not Applicable>

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?
No

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	No, we are not taking any actions to progress our biodiversity-related commitments, but we plan to within the next two years	<Not Applicable>

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No, we do not use indicators, but plan to within the next two years	Response indicators

C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Impacts on biodiversity	Page 34 and 35 Norske+Skog+annual+report+2022.pdf

C16. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Chief Executive Officer (CEO)	Chief Executive Officer (CEO)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

For the forest value chain to be a part of the climate change solution, the forests must be managed sustainably. Norske Skog promotes forest certification and chain of custody certification. We recognize our responsibility as a wood purchaser through our global wood purchasing policy, which states that all wood used in our paper originates from sustainably managed forests. Norske Skog has systems and processes to make sure that all wood used in Norske Skog's products comes from sustainably managed forests. All Norske Skog mills utilising fresh fibre have third-party verified Chain of Custody (CoC) certification systems in place. The average share of certified fresh fibre in 2022 was 91%, up from 89 % in 2021. Our target is to achieve 100 % certification of all wood used for our products. We also aim to mature our sustainable sourcing practices on ESG-aspects and routines for audit of supplies.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	15214000

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member
News Corp

Scope of emissions
Scope 1

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
<Not Applicable>

Allocation level
Facility

Allocation level detail
News Copr purchase publication paper from two mills in Norway 1) Norske Skog Skogn and 2) Norske Skog Saugbrugs and one mill in Australia 3) Norske Skog Boyer . The allocated emissions have been calculated based on the Scope 1 emissions from these three mills during the requested reporting year (2022).

Emissions in metric tonnes of CO2e
32000

Uncertainty (±%)
5

Major sources of emissions
Emissions from production processes at the three mills our customer News Corp sourced publication paper from during 2022. The majority (98%) of the 32 000 tons of CO2 emissions is from the Norske Skog Boyer mill, which is due to a coal fired boiler that produce steam. Norske Skog Boyer will in the first half of 2023 present a study to replace the mill's coal fired boiler. A new electrical or biomass boiler(s) will use alternate fuels when implemented. This has the potential to reduce Boyer's scope 1 carbon emissions by around 90%.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Market value or quantity of goods/services supplied to the requesting member
169000

Unit for market value or quantity of goods/services supplied
Metric tons

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Norske Skog ASA follow the GHG protocol guidance on how to identify emission sources. Major emission sources for Scope 1 include stationary fuel used in production processes. No major limitations or assumptions made. Because each mill produce a limited amount of products GHG data can be provided for the specific product purchased. Product specific Paper Profile declarations are available on our webpage https://www.norskeskog.com/sustainability/environment/paper-profile.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

Scope 1 data per production facility has been published in question C7.3b of Norske Skog's CDP Climate Change Questionnaire 2022. The breakdown of emissions categories per mill is also available in our Sustainability Report 2022 page 59 : https://www.norskeskog.com/investors/reports-and-presentations/sustainability-reports

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
We face no challenges	Norske Skog ASA can relatively easy allocate Scope 1 emissions to customers based on the mass of products sold. Norske Skog mills are also offering customers Product Carbon Footprint according to an industry standard developed by European Paper Producers covering Scope 1, 2 and 3 emissions . This include "CEPI Ten Toes, Carbon Footprints for Paper and Board Products". Norske Skog is also calculating and publishing Product Environmental Datasheet to guide the paper buyer. Paper Profile was developed by European paper manufacturers who use a standard format for product declarations and commonly agreed calculation rules. The declarations provide data on product composition and key environmental parameters. Product specific Paper Profile declarations are available on our webpage https://www.norskeskog.com/sustainability/environment/paper-profile.

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

Norske Skog production facilities produce a limited amount of products and GHG data are already available for the specific product purchased.

Product specific Paper Profile declarations are available on our webpage https://www.norskeskog.com/sustainability/environment/paper-profile for mills based in Europe. Product Carbon Footprint according to "CEPI Ten Toes, Carbon Footprints for Paper and Board Products" is available to customers upon request (all mills) .

Norske Skog is planning to work together with business partners up- and down stream in our value chain to improve our Scope 3 inventory and allocation of emissions to our customers in line with new standards and regulations.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

Requesting member
News Corp

Group type of project
Reduce Logistics Emissions

Type of project
Other, please specify (Norske Skog needs to cooperate with customers to access information about downstream emissions (transport emissions related to distribution of products from printing house to end customer))

Emissions targeted
Actions that would reduce our own supply chain emissions (our own scope 3)

Estimated timeframe for carbon reductions to be realized
3-5 years

Estimated lifetime CO2e savings
0

Estimated payback
Cost/saving neutral

Details of proposal
Norske Skog needs to cooperate with customers to access information about downstream emissions (Scope 3 category 9; downstream emissions related to distribution of products from printing house to the end customer). Norske Skog also needs allocated emissions from News Corp related to the printing processes (Scope 3 category 10; processing of sold products) to improve the scope 3 inventory and define emission reduction targets in dialogue with customers.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?
Yes, I will provide data

SC4.1a

(SC4.1a) Give the overall percentage of total emissions, for all Scopes, that are covered by these products.
100

SC4.2a

(SC4.2a) Complete the following table for the goods/services for which you want to provide data.

Name of good/ service
1) NorSC, 2) Nor Opaq and 3) Nor Opaq Plus produced at Norske Skog Saugbrugs, Norway.

Description of good/ service
Product Environmental Datasheet for three paper products from Norske Skog Saugbrugs, Norway, 1) NorSC, 2) Nor Opaq and 3) Nor Opaq Plus.

Type of product
Intermediate

SKU (Stock Keeping Unit)
7500 tons paper purchased by News Corp in 2022.

Total emissions in kg CO2e per unit
3.09

±% change from previous figure supplied
-18

Date of previous figure supplied
July 20 2022

Explanation of change

Methods used to estimate lifecycle emissions
Other, please specify (Method: Paper Profile. This is a voluntary, internationally-harmonized environmental product declaration to guide the paper buyer. Developed by European paper manufacturers.)

Name of good/ service
"Nornews" and "Norbright" produced at Norske Skog SkognNorway.

Description of good/ service
Product Environmental Datasheet for two products produced at Norske Skog Skogn, Norway, "Nornews" and "Norbright".

Type of product
Intermediate

SKU (Stock Keeping Unit)
73000 tons paper purchased by News Corp in 2022.

Total emissions in kg CO2e per unit
11.2

±% change from previous figure supplied
-8

Date of previous figure supplied
July 20 2022

Explanation of change

Methods used to estimate lifecycle emissions
Other, please specify (Method: Paper Profile. This is a voluntary, internationally-harmonized environmental product declaration to guide the paper buyer. Developed by European paper manufacturers.)

SC4.2b

(SC4.2b) Complete the following table with data for lifecycle stages of your goods and/or services.

SC4.2c

(SC4.2c) Please detail emissions reduction initiatives completed or planned for this product.

Name of good/ service	Initiative ID	Description of initiative	Completed or planned	Emission reductions in kg CO2e per unit
	Please select		Please select	

SC4.2d

(SC4.2d) Have any of the initiatives described in SC4.2c been driven by requesting CDP Supply Chain members?

No

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms