Stora Enso Green and Sustainability-Linked Financing Framework 2023

May 2023

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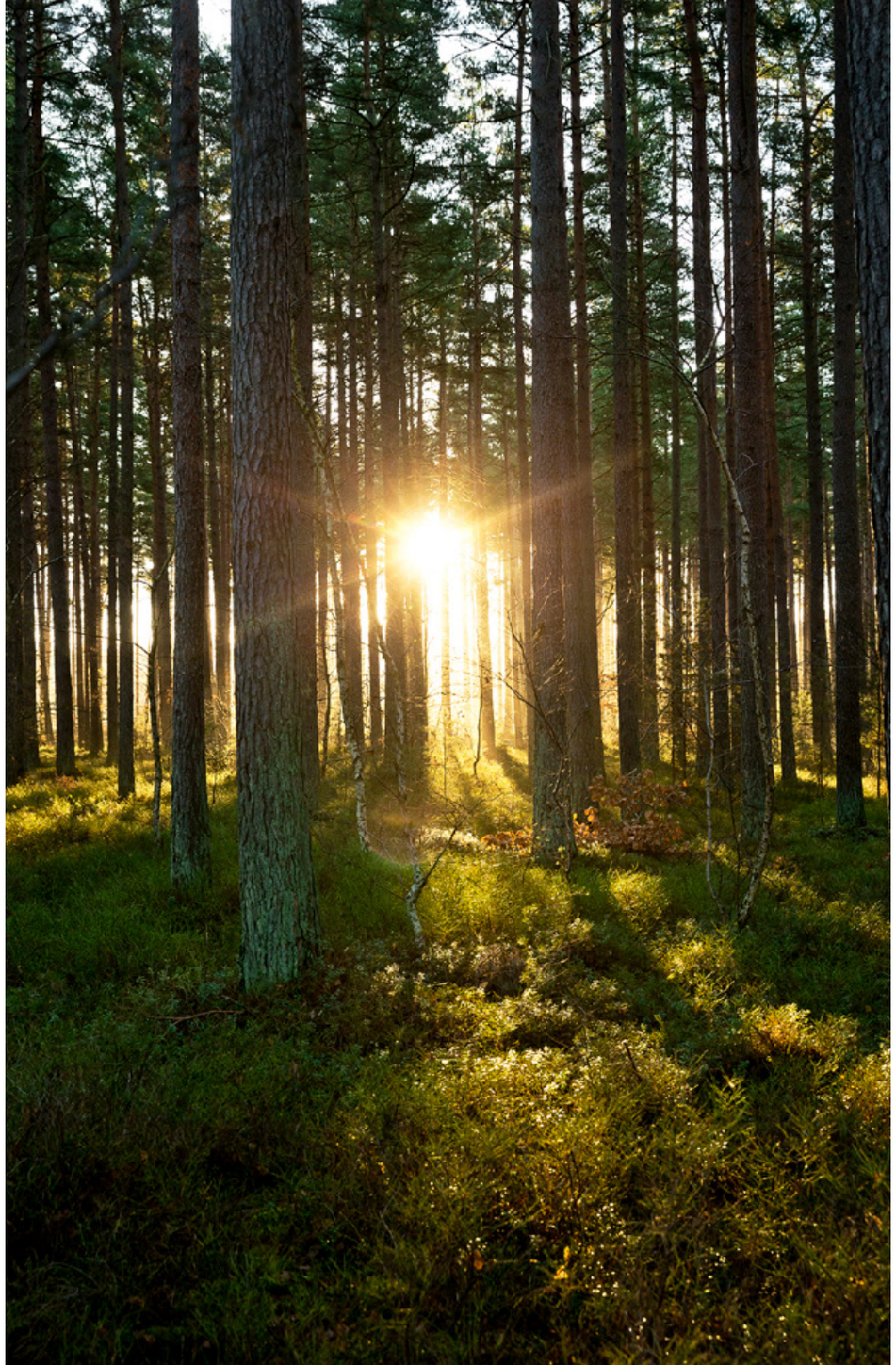

Background and rationale

Stora Enso has a long and rich history dating back to 1288. In recent years, the Group has been through a comprehensive transformation process, proactively repositioning its business from largely a pulp and paper company to a global renewable materials company, ensuring a future for many more years to come. Sustainability trends underpin the opportunities for long-term, profitable growth.

Stora Enso's products and solutions are renewable and circular, and the carbon they replace and store help to mitigate climate change for a sustainable and renewable future. The Group creates value by focusing on growing its leading positions in renewable packaging, building solutions and biomaterials innovations. As one of the world's largest private forest owners, the Group's forests are the foundation of its business.

With this Green and Sustainable-Linked Financing Framework, Stora Enso explains how it drives the transformation towards a bio-based circular economy and how investors can support that journey.

Helsinki, May 2023

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Summary of Stora Enso's Green and Sustainability-Linked Financing Framework

Green Financing
Use of Proceeds

1. **Sustainable forest management**
2. **Sustainable product processes**
3. **Energy efficiency**
4. **Renewable energy and waste to energy**
5. **Sustainable water management**
6. **Waste management and pollution control**

Sustainability-Linked Financing

Key Performance Indicators (KPIs)

KPI 1a: Reduce Scope 1 GHG Emissions and Scope 2 GHG Emissions. Including CO_2 and other GHG emissions as defined in the GHG Protocol from the 2019 baseline.

KPI 1b: Reduce Scope 3 GHG Emissions. Including CO_2 and other GHG emissions as defined in the GHG Protocol from the 2019 baseline.

KPI 2: Increase the level of technically recyclable products.

KPI 3: Number of birch seedlings planted.

Calibration of Sustainability Performance Targets (SPTs)

SPT 1a: Stora Enso's science-based target (**SBT**) is to reduce absolute Scope 1 GHG Emissions and Scope 2 GHG Emissions by 50% by 2030 from the 2019 baseline, in line with the 1.5-degree scenario.

SPT 1b: Stora Enso's science-based target (**SBT**) is to reduce absolute Scope 3 GHG Emissions by 50% by 2030 from the 2019 baseline, in line with the 1.5-degree scenario.

SPT 2: Achieve 100% technical recyclability of products by 2030.

SPT 3: Increase birch abundance in Stora Enso owned forests in Sweden reaching 3.4 million planted birch trees by the end of 2030.

Introduction

About Stora Enso

Stora Enso Oyj ("Stora Enso" or "the Company" or "the Group") is a leading provider of renewable products based on wood and biomass, with a strong focus on sustainability and innovation. Stora Enso was formed in 1998 through the merger of the Finnish company Enso Oyj and the Swedish company Stora Kopparbergs Bergslags Aktiebolag (STORA), and its roots go back as far as the 13th century.

Stora Enso uses its centuries-long heritage and know-how in forestry and trees to contribute to the bioeconomy through development of products and technologies based on renewable materials. Its solutions provide a strong alternative to products made from fossil-based materials. Today Stora Enso's solutions are found in segments such as building, retail, food and beverages, manufacturing, publishing, pharmaceutical, cosmetics, confectionary, hygiene and textiles.

With low-carbon, renewable and recyclable fiber-based products, Stora Enso aims to be a leading actor in driving the transformation towards a biobased circular economy. The Group's products offer solutions to climate change and promote positive impacts on the environment, supporting customers in meeting the demand for renewable eco-friendly products.

Stora Enso is one of the largest private forest owners in the world and owns or leases land covering a total area of approximately 2 million hectares. Stora Enso is publicly listed on the Helsinki and Stockholm stock exchanges. In addition, the shares are traded in the USA as ADRs.

Purpose and values

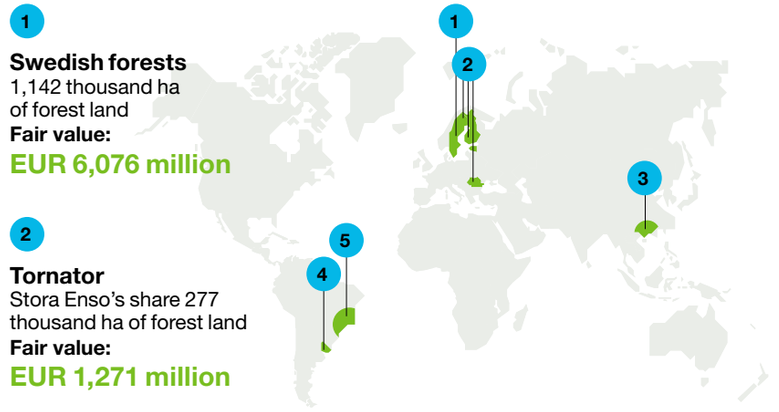
Stora Enso's purpose statement "Do good for people and the planet. Replace non-renewable materials with renewable products" underpins our belief that everything that can be made with fossil-based materials today can be made from a tree tomorrow, and highlights Stora Enso's opportunity to contribute to a more sustainable future.

With the values, "Lead" and "Do What's Right" the Group endeavours to set the example and to lead in all aspects of the business, including sustainability.

The purpose and values are underlined by Stora Enso' continuing commitment to promote a more sustainable future, one less dependent on fossil fuels and supporting a bioeconomy where the production and consumption of products are based on wood as a renewable resource. Wood fiber-based products store carbon and can also replace non-renewable materials such as plastic, glass, steel, concrete and fossil fuels. With global warming, growing populations, urbanisation, changing life-styles and eco-awareness, trees can be a big part of the solution for customers and their consumers towards a sustainable bioeconomy.

Stora Enso's commitment to renewability is not only about raw material. It is also linked to resource traceability, production and material efficiency, and logistics and supply chain. From the forest or plantation to the end product, Stora Enso works responsibly and with respect to local rules and regulations, and focuses on human rights and on-the-ground investments in communities where it operates.

Stora Enso's productive forest land areas at the end of 2022



1 **Swedish forests**
1,142 thousand ha of forest land
Fair value:
EUR 6,076 million

2 **Tornator**
Stora Enso's share 277 thousand ha of forest land
Fair value:
EUR 1,271 million

3 **Guangxi, Southern China (leased)**
64 thousand ha of forest land
Fair value:
EUR 362 million

4 **Montes del Plata, Uruguay**
Stora Enso's share 92 thousand ha of forest land
Fair value:
EUR 493 million

5 **Veracel, Brazil**
Stora Enso's share 47 thousand ha of forest land
Fair value:
EUR 134 million

Our products replace and substitute fossil-based products

Key strategic growth areas

Foundation

Strategy and innovation

Stora Enso's strategy is to focus growth in renewable packaging, building solutions and biomaterials innovation. Forest, traditional wood products and market pulp make up the foundation for value creation.

At Stora Enso, sustainability is embedded in key processes, such as strategy process and business reviews with the divisions, product management and innovation, investments, and mergers and acquisitions.

Innovation plays a key role in reaching Stora Enso's strategic growth ambitions and sustainability targets. Innovation initiatives focus on areas where we see strong business opportunities, including new sustainable packaging materials and barriers, low carbon building solutions, and breakthrough technologies in biomaterials, such as carbon for energy storage and bio-binders. In forestry, the innovation efforts are focused on digitalisation, such as new remote sensing technologies and data processing as tools in precision forestry development. Sustainability is a major driver in innovation. Stora Enso responds to customer demand for products which can reduce their carbon footprint and help them reach their sustainability targets.

Stora Enso works across the value chain with customers, partners, suppliers, research and academic institutions, and start-ups to drive open innovation and accelerate speed to market. Together, the Group can find and develop innovative ways to replace plastic, reduce carbon footprint and meet the demands of the eco-aware consumer, with the aim of offering 100% regenerative products.

Materiality assessment

Stora Enso acknowledges the concept of double-materiality in the Group's sustainability strategy and reporting. The topics that are considered to present the most significant financial risks and opportunities for Stora Enso are:

- Climate change – including topics such as reduction of GHG emissions along the value chain, products' positive impact to mitigate global warming and approach to adapt to climate-related risks and opportunities.
- Sustainable forestry and biodiversity – using forests and land efficiently while conserving natural ecosystems and biodiversity.
- Renewable and circular products – including product sustainability aspects, such as innovation and product circularity, and substituting fossil-based materials with renewable products.
- Other material topics include: water; materials, residuals and waste; energy; employees; safety; business ethics; communities; human rights and sustainable sourcing.

Sustainability targets

In 2017, Stora Enso became the first forest products company to set a Science Based Target for the reduction of its GHG emissions. Now the Group's ambition is to align with the 1.5 degree scenario.

By adopting a regenerative stance, Stora Enso is shifting its sustainability goals from minimising negative environmental impact to becoming a net positive contributor within the defined focus areas of climate, circularity and biodiversity by 2050.

To offer 100% regenerative products and solutions by 2050.

Being regenerative means providing renewable and fully circular products and solutions that help reduce climate impact and support biodiversity restoration. The Planetary Boundaries frame Stora Enso's strategy.

Stora Enso is also committed to 2030 science-based targets for its key sustainability priorities: climate change, biodiversity and circularity.

Stora Enso acknowledges the importance of the United Nations Sustainable Development Goals (SDGs) as part of a commonly agreed global ambition to end poverty, protect the planet and improve the lives and prospects of everyone, everywhere. Stora Enso supports all seventeen SDGs, and goals 12 (Responsible consumption and production), 13 (Climate action), and 15 (Life on land) have been identified as most relevant where the Group has the largest impact through its operations and products.

Climate

Stora Enso commits to reducing absolute Scope 1 and 2 GHG emissions from operations by 50% by 2030 from the 2019 baseline, aligned with the 1.5-degree scenario.

Combatting global challenges such as climate change does not happen in isolation. Value chain emissions often represent the largest portion of companies' carbon footprint. Therefore, Stora Enso is also committed to the target of reducing Scope 3 GHG emissions by 50% by 2030 from the 2019 baseline.

The targets set by Stora Enso are science-based and have been approved by the Science Based Targets initiative.

The Stora Enso Carbon Neutrality Roadmap is a key tool in GHG scenario assessment and key actions. The roadmap guides Stora Enso's long- and short-term fossil carbon reduction actions. To reach the target, Stora Enso will reduce fossil carbon emissions by further investing in improving the energy efficiency of production processes, and by continuing to reduce the use of fossil fuels. Instead, it will use more clean energy sources, including wood-based biofuels from sustainable sources.

One important tool in implementing and enforcing emission reductions is the Stora Enso Supplier Code of Conduct, which is the common set of requirements for all suppliers. It also includes requirements on GHG emission monitoring, reporting and reduction in suppliers' own operations and their value chain.

Circularity

The circular economy is regenerative by design, aiming to retain the value of the circulating resources, products, parts and materials by creating a system with innovative materials and business models.

Stora Enso's circularity target is to achieve 100% technically recyclable products by 2030. The goal for 2050 is to provide fully transparent and circular products that are recycled and designed to optimise the environmental and societal benefits of the wood and fiber used.

The Group's focus is on creating value through innovation and partnerships where new products, business models and recycling infrastructure support the development of a circular economy. Wood as a raw material gives a natural head start: trees grow back in sustainably managed forests that store carbon.

Wood fiber products are already extensively recycled. Wood fiber can typically be recycled 5–7 times, and in some cases over 20 times, continuously storing carbon. Once fibers get too degraded to recycle, they can be used to produce bioenergy. Recycling and a circular economy require collaboration across the value chain to drive change at all stages, from product design to collection and recycling systems.

Biodiversity

Biodiversity is fundamental to both planet and people as it provides functioning ecosystems that supply oxygen, clean air, water and food. Biodiversity has been declining globally for decades, and more action is needed to reverse this development.

Stora Enso has made a commitment to achieving a net-positive impact on biodiversity in its own forests and plantations by 2050 through active biodiversity management. Sustainable forest management safeguards forest health and productivity and protects biodiversity – whilst securing the long-term availability of renewable resources. Stora Enso has a solid track record of achievements in safeguarding biodiversity in its forests and tree plantations since the 1990s, for example by pioneering forest certification, restoration and various forest management practices.

The Group's ambition is to safeguard and enhance biodiversity with a new programme – The Biodiversity Leadership Programme – together with customers,

Examples of biodiversity management practices and indicators in Stora Enso's Northern forests

Biodiversity indicators

Decaying wood
Deadwood is an important habitat for many species.

Amount of deadwood; No damage to deadwood

Tree retention
Creating variability of trees of different ages and promoting natural creation of deadwood.

Number of retention trees; No damage to retention trees

Forest structure
Rich structural variation enhances biodiversity.

Forest age class distribution; Deciduous rich stands; Mixed species stands; Number of nature value trees; Stands with high age; Vertical layering of tree canopies

High stumps
High stumps created during harvesting are standing deadwood that can be inhabited by birds and insects.

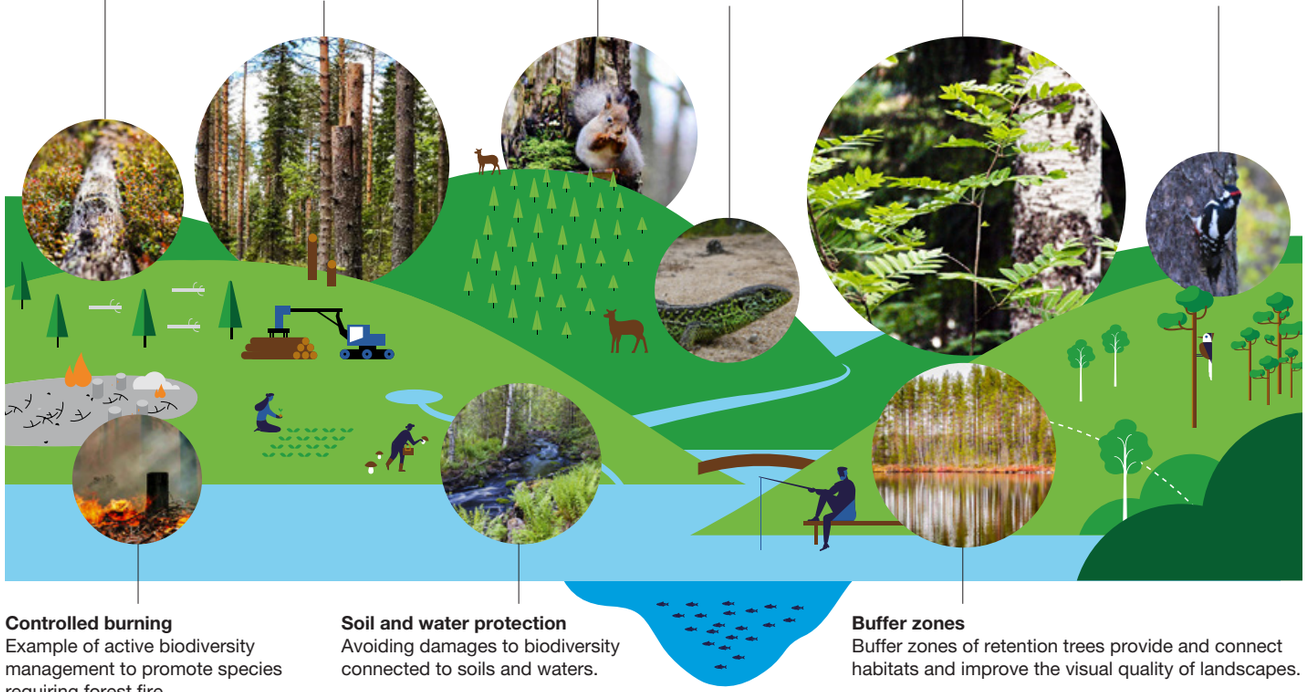
Amount of created high stumps

Protection of prioritised habitats
No harvesting done in ecologically and culturally valuable areas.

Area of the prioritised habitats; No damages to such habitats/areas

Species-specific conservation
Identifying species of particular conservation interests to actively enhance them.

Abundance of selected species



Controlled burning
Example of active biodiversity management to promote species requiring forest fire.

Size of the managed area

Soil and water protection
Avoiding damages to biodiversity connected to soils and waters.

No dispersal barriers in streams; Streams with hight nature quality

Buffer zones
Buffer zones of retention trees provide and connect habitats and improve the visual quality of landscapes.

No harvesting in the buffer zones; No soil or water damages

academia, environmental organisations and other partners. Stora Enso has developed and initiated a set of actions for the period until 2030 to improve biodiversity on the species, habitat and landscape levels. The action programmes have defined specific focus areas and indicators for Stora Enso's own forests in Sweden and supplier forests in Finland. Similar programs are being developed also for supplier forests in the Baltics. The Group's own forest in Sweden is used as a development platform for enhancing biodiversity. The work is supported by a science-based monitoring programme and continuous research.

Sustainable forest management

Stora Enso is determined to be the leader in sustainable forest management. Sustainable forest management means the stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity and vitality.

Equally important is their potential to fulfil – now and in the future – relevant ecological, economic and social functions at local, national, and global levels, without causing damage to other ecosystems. While Stora Enso works towards these goals every day, it also acknowledges that there is a lot of work to be done for sustainability.

Stora Enso's approach to sustainable forest and tree plantation management is to ensure healthy and diverse ecosystems as well as the long-term availability of wood. Stora Enso actively supports and implements voluntary forest conservation and restoration measures on all the land it owns, leases and manages as well as in other areas where the Group purchases wood (read more in Stora Enso's Environmental Guidelines and on the Biodiversity website). To cover all aspects of sustainability in Stora Enso's forest and plantation management, the Group applies the same comprehensive wood procurement process in all operating regions. The Group's own forests and long-term supply agreements secure a sustainable and transparent wood supply.

Forest certification ensures that the raw material used in wood-based products comes from responsibly managed forests. Biodiversity is an integral part of forest certifications including protection of valuable ecosystems. Stora Enso's target is to maintain the forest certification coverage level of at least 96% for the company's own and leased forest lands.

Sustainability governance

At Stora Enso, sustainability is owned by the Board of Directors, the President and CEO, and the Group Leadership Team (GLT). The CEO has ultimate responsibility for the successful implementation of the Group's sustainability strategy. The sustainability work is led by the Executive Vice President, Sustainability, who reports directly to the CEO and is a member of the GLT.

The Board of Directors' Sustainability and Ethics Committee oversees the implementation of Stora Enso's sustainability strategy and the ethics and compliance strategy.

Alongside financial metrics, sustainability is one of the performance metrics in the remuneration of GLT members through Short-Term Incentive programmes. To ensure the leadership's long-term commitment to the Group's sustainability agenda, carbon emission reduction (10%), diversity and inclusion (10%) targets are also part of the Long-Term Incentive plan.

Progress against set sustainability targets and KPIs is regularly monitored at group-level and via division level business reviews. Consolidated results on the Group's performance are reported annually. Selected sustainability indicators are also reported quarterly in Stora Enso's Interim Reports.

Stora Enso has a long-term aim to secure funding partners that have sustainability as a fundamental part of their agenda.

Sustainable financing

Stora Enso's debt structure is focused on the capital markets and commercial banks. The Group maintains consistent dialogue with the fixed-income community by informative and transparent communication and meetings in conferences and roadshows. The Company's Treasury function is responsible for fixed-income investor communication.

In December 2017, Stora Enso signed a sustainability-linked EUR 600 million revolving credit facility (RCF) with 13 banks. The loan pricing had a direct link to the Group's science-based targets for reducing greenhouse gas emissions.

In 2019, Stora Enso issued its first Green Bonds. The total aggregated principal amount of the transaction was SEK 6 000 million, and the bonds were issued under Stora Enso's Green Bond Framework published in May 2018.

In 2021, Stora Enso signed a new EUR 700 million RCF agreement with 12 banks to refinance the existing facility. The five-year facility has two one-year extension options and is used as a backup for general corporate purposes. The pricing mechanism of the RCF is linked to Stora Enso's updated science-based climate targets, which is in line with the 1.5-degree scenario.

Stora Enso has integrated sustainability agenda to its funding and financial services. The Group has the long-term aim to secure funding partners that have sustainability as a fundamental part of their agenda. Stora Enso aims to influence and develop financial markets to ensure that sustainability is an integral part of financing decisions and credit evaluation. For more information, please visit storaenso.com/investors.

EU Taxonomy

Stora Enso supports the ambitious goals set by the EU Commission in the EU Taxonomy. The Taxonomy regulation is still developing regulation and does not yet cover all sustainable activities in the market. The forest industry is not at the core of the current legislation and therefore has only few relevant economic activities to report on. From Stora Enso's main products, only wood-based solutions for construction industry are included in the EU Taxonomy through their contribution to buildings' energy efficiency. Since the forest industry and its main products are largely out of the scope of the EU Taxonomy, the Taxonomy eligible figures are low.

Green and Sustainability-Linked Financing Framework

This Green and Sustainability-Linked Financing Framework will contribute to knowledge and understanding of Stora Enso's sustainability commitment and will serve as an opportunity to discuss with investors and other market participants the work within this area in a dedicated and frequent manner. For more information about our commitment, please see the individual sections in this Framework.

This Framework is intended to set out the terms under which Stora Enso may raise financing through both Green and Sustainability-Linked Financial Instruments, as well as a combination of the two. By creating a combined Framework, Stora Enso will be able to fund investments in Eligible Projects and Assets, as well as investments to increase its sustainability performance, defined in material and ambitious sustainability objectives through Key Performance Indicators (**KPIs**) and Sustainability Performance Targets (**SPTs**).

Sustainalytics will provide a Second Party Opinion on this Green and Sustainability-Linked Financing Framework, which will be made publicly available on Stora Enso's website.

In accordance with the Green Bond Principles 2021 and the Sustainability-Linked Bond Principles 2020, Stora Enso will provide an annual update covering information of all issued Green and Sustainability-Linked Financial Instruments issued by Stora Enso (the Green and Sustainability-Linked Financing Report).

Stora Enso aims to influence financial markets to ensure that sustainability is an integral part of financing decisions and credit evaluation.

Green Financing Framework

This section of the framework, the Green Financing Framework, has been developed in accordance with both the Green Bond Principles (**GBP**) 2021 (with June 2022 Appendix I), as well as the APLMA, LMA and the LSTA Green Loan Principles (**GLP**) 2023. Through this Framework Stora Enso may issue different Financial Instruments including, but not limited to, green bonds, loans or Schuldschein. This Green Financing Framework is aligned with the four core components of the GBP and GLP, as well as the recommended External Review component:

1. Use of Proceeds
2. Process for Project Evaluation and Selection
3. Management of Proceeds
4. Reporting
5. External Review

Use of Proceeds

Stora Enso has established this Framework to issue Green Debt Financial Instruments. Proceeds will be exclusively allocated to finance, or refinance, in whole or in part new and existing capital expenditures, R&D and assets that are owned, controlled and managed by Stora Enso, or its subsidiaries.

These Eligible Projects and Assets promote the transition towards a low-carbon and environmentally sustainable society in accordance with Stora Enso's sustainability strategy, policies and established long-term environmental and social sustainability agenda. Eligible Projects and Assets are determined by Stora Enso and are described in the categories presented below in this Framework.

Financing is defined as Projects and Assets that are approved by the Green Finance Council up to one year before the reporting year. Refinancing is defined as Projects that have been approved more than one year before the approval by the Green Finance Council and a maximum three-year look-back period. Assets will, however, qualify without a uniform look-back period. The distribution between new financing and refinanced Eligible Projects and Assets will be described in the Green and Sustainability-Linked Financing Report each year.

Capital expenditures and R&D will be financed to an amount corresponding to the associated investment cost whereas ownership of forest assets will be financed to an amount corresponding to its market values less debt from other sources. The legal documentation for each Green Debt Financial Instrument will refer to this Framework.

Eligible Categories

Eligible Projects and Assets must fall within one of the following Eligible Categories. Each Use of Proceed category is described through a non-exhaustive list.

1. Sustainable forest management
2. Sustainable product processes
3. Energy efficiency
4. Renewable energy and waste to energy
5. Sustainable water management
6. Waste management and pollution control

Exclusions

This Framework excludes funding of activities associated with fossil fuel and funding of genetically engineered trees. Stora Enso does not procure wood and fiber that has been illegally harvested; logged in protected areas or areas currently undergoing official processes of designation for protection; harvested in forests where High Conservation Values are threatened by logging; sourced from areas undergoing conversion from forest or other wooded ecosystems to plantations or non-forest uses, unless such conversion is justified on grounds of net social and environmental gain; or harvested in violation of traditional rights or civil rights.

Green bonds are used to finance projects that promote the transition towards a low-carbon and environmentally sustainable society.

1. Sustainable forest management

Green Project Category: Environmentally sustainable management of living natural resources and land use
Significant contribution to GBP Environmental Objective:
Climate change mitigation, Climate change adaptation, Natural resource conservation and Biodiversity conservation

Use of Proceeds	Proceeds in this category will be used to finance ownership, acquisition[1] and R&D with positive environmental impact on forest land in the Nordics. Proceeds will finance forest land with a certification under the Forest Stewardship Council (FSC[2]) or the Program for the Endorsement of Forest Certification (PEFC). Proceeds can also finance tree nurseries and silviculture with positive biodiversity impact.
Context	**Sustainable forest and plantation management is essential for Stora Enso in securing long-term availability of wood – our most important renewable raw material.** Stora Enso contributes to a low-carbon economy through its growing trees that absorb carbon dioxide (CO_2) from the atmosphere and, together with wood-based products, act as carbon storage. Stora Enso's products help customers and the society at large to reduce CO_2 emissions by providing low-carbon alternatives to solutions based on fossil fuels and other non-renewable materials. Stora Enso has a proactive and holistic approach to decrease the use of fossil fuels and reduce direct and indirect fossil carbon and other emissions. Such reduction could, for example, originate from projects to replace fossil-based or other non-renewable alternatives that provide significant benefits for society. Additionally, when the products eventually reach the end of their lifecycles, they can be used as renewable and carbon neutral energy that can again replace fossil-based energy.[3]
Sustainable Development Goals	This category refers to the SDGs 13.1, 15.1, 15.2, 15a and 15.b. 

[1] Only the value of Green Assets as defined in this framework within the acquired company is eligible for green financing.
[2] Stora Enso Communications' FSC® trademark license number is FSC-N001919.
[3] Beyond reducing emissions: positive climate benefit - more science-based evidence for climate impact.

2. Sustainable product processes

Green Project Category: Circular economy adapted products, production technologies and processes
Significant contribution to GBP Environmental Objective:
Climate change mitigation

Use of Proceeds	Proceeds in this category will be used to finance ownership, acquisition[4], R&D, equipment, processes and technologies used in the manufacturing of bioeconomy products. These projects will increase substitution from fossil alternatives and non-renewable materials, and will include production facilities such as mills or facilities where Stora Enso produces packaging, cross-laminated timber (CLT), laminated veneer lumber (LVL), and products developed from lignin.
Context	**Recycling is not enough. The world needs materials that are both renewable and recyclable – a circular bioeconomy – to combat climate change and to minimise waste.** Stora Enso's materials are renewable, reusable and recyclable and support our aim to increase circularity. CLT forms the building block for a range of innovative solutions in wooden construction and biomaterials that can help replace products based on fossil fuels and other non-renewable materials. An example of increased recycling is the replacement of plastic in take-out food packaging using Stora Enso's plastic-free, recyclable formed fiber products. These are made of renewable materials and aim to replace plastic consumables not only for food items but also non-food items in agriculture, electronics, and cosmetics packaging. Additionally, Stora Enso aims to increase the reuse of residuals at production sites to benefit operations and minimise waste.
Sustainable Development Goals	This category refers to the SDGs 9.1, 9.4, 12.4 and 12.5. 

[4] Only the value of Green Assets as defined in this framework within the acquired company is eligible for green financing.

3. Energy efficiency

Green Project Category: Energy efficiency
Significant contribution to GBP Environmental Objective:
Climate change mitigation

Use of Proceeds	Proceeds in this category will be used to finance energy efficiency improvements related to Stora Enso's production facilities. Energy efficiency improvements in this category will contribute to a minimum 30% saving compared to pre-investment and will include energy efficiency initiatives such as management systems at production facilities, heat recovery systems and exchange systems as well as upgrades of production units.
Context	**Most of Stora Enso's production processes are energy-intensive, and the Group has a continuous target to reduce energy usage.** Stora Enso is committed to continuous improvements in energy efficiency and energy self-sufficiency. We always assess the opportunities to use biomass fuels, low-carbon or fossil-free options when making energy investments. Stora Enso's central energy and water efficiency investment fund is a cornerstone of our work. Stora Enso constantly moves towards more clean energy sources, including wood-based biofuels from sustainable sources.
Sustainable Development Goals	This category refers to the SDGs 7.2, 7.3, 7a, 9.1 and 9.4. 

4. Renewable energy and waste to energy

Green Project Category: Renewable energy
Significant contribution to GBP Environmental Objective:
Climate change mitigation

Use of Proceeds	Proceeds in this category will be used to finance renewable energy from wind, solar or water. Proceeds will also be used to develop and upgrade facilities and recovery boilers used to produce energy out of biomass and waste products. These include, but are not limited to, by-products from packaging, pulp, paper, sawn goods production and residuals from harvesting as well as recovered wood and waste from local authorities. This category will also be used to finance supportive infrastructure related to renewable energy production.
Context	**Stora Enso aims to invest in renewable energy.** Stora Enso constantly invests to replace fossil-based fuels with renewable energy sources in order to reduce greenhouse gas emissions from its operation, including biomass fuels from sustainable sources.
Sustainable Development Goals	This category refers to the SDGs 7.2, 7.3, 7a, 9.1 and 9.4. 

5. Sustainable water management

Green Project Category: Sustainable water and wastewater management
Significant contribution to GBP Environmental Objective:
Pollution prevention and control

Use of Proceeds	Proceeds in this category will be used to finance equipment and systems involved in the process to reduce and recycle water and/or wastewater in Stora Enso's operations. This category also includes equipment used for reduction of water use at production facilities, recycling of water in industrial processes such as cooling towers, control and measurement equipment as well as equipment for wastewater treatment to recycle and reuse water. This category will also finance biological wastewater treatment plants, micro filters and aeration equipment.
Context	**Stora Enso invests in wastewater treatment, waste management and in soil and groundwater protection related to the construction, extension, and operation of wastewater collection and treatment.** The conversion and environmental improvements to reduce environmental impacts is continuously monitored. Stora Enso has a target to perform improvements including continuous investments in wastewater treatment to minimise the levels of dissolved organic materials in water and to restore water into pre-industrial levels. An example is the focus on water treatment that has reduced production site's freshwater intake by replacing it with recycled and cleaned water that has been filtrated in one of the board machines. At the same time, fiber from the water can be recovered to serve as raw material for new board.
Sustainable Development Goals	This category refers to the SDGs 6.3, 6.4, 6.5, 6a, 6b, 11.5 and 12.5. 

6. Waste management and pollution control

Green Project Category: Pollution prevention and control
Significant contribution to GBP Environmental Objective:
Pollution prevention and control

Use of Proceeds	Proceeds in this category will be used to finance equipment and management systems involved in the process of reducing, recycling, and managing waste and residuals from Stora Enso's operations. This includes equipment for reduction of waste, wastewater, residuals, and air emissions (e.g. air feed systems in boilers, (SNCR) technology, evaporators, automation equipment to monitor emissions, electrostatic precipitators, filtration devices, scrubbers, gas collection systems, non-condensable gas systems and carbon capture, and storage technology to reduce emissions) as well as equipment for processing and reusing waste and residuals (e.g. sludge and dewatering presses).
Context	**Stora Enso invests in environmental improvements of which many contribute to pollution prevention and control.** Investments into environmental improvements to reduce sites' environmental impacts such as the targeted improvements of reduced CO_2 and SO_2 emissions include new effluent treatment plant which will reduce the risk of environmental pollution by rain and process waters. Another example are the multi-stage combustion systems to prevent spread of odorous gases, but also similar investments including cascading of wood to eventually replace fossil-based materials.
Sustainable Development Goals	This category refers to the SDGs 11.6, 12.4 and 12.5. 

Process for Project Evaluation and Selection

Strategic investments are approved on group-level following the mandate by the CEO and Board of Directors. Each division will also be granted an annual allocation intended for smaller annual replacement and development needs in relation to investments. All large Projects are reviewed by the Investment Working Group which is headed by the CFO. Risks are mitigated through detailed pre-feasibility and feasibility studies which are prepared for each large investment. Group investment guidelines stipulate the process, governance, risk management, and monitoring procedures for strategic Projects. Post-completion audits are carried out for all significant investments.

To ensure a credible process for selecting Projects and Assets, Stora Enso has defined a set of Green Finance -specific steps, including, but not limited to, an assessment and compliance of Eligible Projects and Assets with the eligibility criteria outlined in the Use of Proceeds section of this framework, applicable laws and regulations, as well as Stora Enso's sustainability strategy, policies and established long term environmental and social sustainability work such as the environmental and social risk management system. These steps have been integrated into the existing governance model of Stora Enso.

The overall governance model for Stora Enso's Green Financing Framework, including the definition of Eligible Projects and Assets, has been further developed by a dedicated Green Finance Council consisting of Executive Vice President, Sustainability who holds a veto in the decision making, as well as the CFO and members from the Sustainability and Treasury departments.

While Green Financing Instruments are administered by the Treasury team, Stora Enso's governance model includes experts from across the company to ensure alignment to the Framework. Strategic guidance of Use of Proceeds is given by the Sustainability Council which consists of members from all divisions, Sourcing and Logistics function and the Group Sustainability team, and is chaired by the Executive Vice President, Sustainability.

Management of Proceeds

An amount equal to the net proceeds of any Green Debt Instrument raised will be credited to a separate register that will support Stora Enso's lending to Eligible Projects and Assets. Stora Enso will at all times keep and monitor a separate register of Eligible Projects and Assets and proceeds from the combined Green Debt Instruments. If, at any time, the total amount of proceeds from Green Financing exceeds the total value of Eligible Projects and Assets, the excess liquidity will be invested according to Stora Enso's liquidity and/or liability management activities. The Treasury team is responsible for managing this register.

Reporting

In accordance with the Green Bond Principles 2021, Stora Enso will provide an annual update on the activities related to its Green Bonds issuance. In such updates, the Group will seek to provide information on the allocation of the use of proceeds as well as relevant impact metrics. The information will be made publicly available via Stora Enso's website. The relevant information provided will include:

Allocation

- A breakdown of proceeds in accordance with the areas highlighted under Eligible Activities
- The amount of unallocated proceeds
- A closer description of some of the activities financed
- Geographical distribution

Impact reporting

For allocated and Eligible Projects and Assets, the actual or expected impact will be reported whenever relevant according to the proposed metrics outlined in the below table.

Stora Enso has developed relevant impact metrics (**KPIs**) for Eligible Projects and Assets which are presented in the table below. These KPIs may change over time subject to providing a relevant understanding of the impact. For Eligible Projects and Assets where KPIs cannot be systematically measured and reported on (e.g. R&D), Stora Enso will seek to provide information on the goals, assumed positive environmental impact, and results of the activities financed.

Outline of the project evaluation and selection process

Sustainability Council	Guidance of type of investments used for Green Financing are agreed in Sustainability Council	**Investment Working Group**	Stora Enso overall investment projects are reviewed in Investment Working Group
Green Finance Council	Individual Green Financing projects are approved in Green Finance Council	**CEO or Board of Directors**	Individual investments are approved by the President and CEO or the Board of Directors depending on the size of the investment

External review

Stora Enso will engage Sustainalytics as an external reviewer to provide, in accordance with the Guidelines for Green, Social, Sustainability and Sustainability-Linked Bonds External Reviews developed by the Green and Social Bond Principles, an independent, ex-ante Second Party Opinion on Stora Enso's Green and Sustainability-Linked Financing Framework. The Second Party Opinion will be made publicly available on Stora Enso's website.

External verification

On an annual basis, Stora Enso will engage an independent external auditor to provide a limited assurance on the processes and systems for the selection and evaluation of Eligible Green Projects and Assets, as well as on the allocation of proceeds from Stora Enso's Green Financing Instruments to Eligible Green Assets. The Green and Sustainability-Linked Financing Report and the related limited assurance report will be available on Stora Enso's website.

Publicly available documents

The Green Finance Framework, Second Party Opinion and Green and Sustainability-Linked Financing Report will be publicly available on Stora Enso's website.

Impact metrics for Stora Enso's Green Financing Instruments

Use of Proceeds category	Examples of proposed impact metrics (KPIs)
Sustainable forest management	Owned and leased lands covered by forest certification (%) Positive climate impact (CO_2) through forests' carbon sequestration (tonne)
Sustainable product processes	Total amount of products produced (tonne) Annual production capacity (m^3) Externally validated life cycle calculations such as product carbon footprints
Energy efficiency	Annual energy savings (MWh) Avoided or reduced CO_2 emissions (tonne) Amount of carbon captured (tonne)
Renewable energy and waste to energy	Total renewable/bioenergy energy generation (MWh) Avoided or reduced CO_2 emissions (tonne)
Sustainable water management	Amount of water withdrawal reduced per saleable tonne (m^3/tonne) Amount of process water discharges reduced per saleable tonne (m^3/tonne)
Waste management and pollution control	Amount of waste and residual reduced (tonne)

Sustainability-Linked Financing Framework

This section of the Framework, the Sustainability-Linked Financing Framework, has been developed in accordance with the Sustainability-Linked Bond Principles (**SLBP**), established by the International Capital Markets Association (**ICMA**) in June 2020, as well as the Sustainability-Linked Loan Principles (**SLLP**) established in February 2023 by the APLMA, LMA and the LSTA. Stora Enso may under this Framework raise financing through different forms of Sustainability-Linked Financial Instruments, including, but not limited to, bonds, loans or Schuldschein.

The Sustainability-Linked Financing Framework has been developed to be aligned with the five core components of the SLBP and SLLP:

1. Selection of Key Performance Indicators (**KPIs**)
2. Calibration of Sustainability Performance Targets (**SPTs**)
3. Financial Instrument Characteristics
4. Reporting
5. Verification

Selection of Key Performance Indicators (KPIs)

The KPIs that have been included for the purpose of the Sustainability-Linked Financing Framework mirror the key sustainability challenges Stora Enso, the ecosystem and humankind are facing. Sustainability is integral in Stora Enso's business strategy, it is at the core of what we do. We contribute to the transformation of the materials system in three areas where we have the biggest impact and opportunities: **climate change, circularity and biodiversity**. The legal documentation for each Sustainability-Linked Financial Instrument issued or obtained hereafter will refer to this Framework.

Key Performance Indicators

Climate change

Key Performance Indicator: Climate change

KPI 1a – Reduce Scope 1 GHG Emissions and Scope 2 GHG Emissions. Including CO_2 and other GHG emissions as defined in the GHG Protocol from the 2019 baseline.

KPI 1b – Reduce Scope 3 GHG Emissions. Including CO_2 and other GHG emissions as defined in the GHG Protocol from the 2019 baseline.

Stora Enso takes a regenerative stance within climate, circularity, and biodiversity. This means putting greater emphasis on rebuilding and making a positive climate contribution within the planetary boundaries, rather than just minimising impact. By 2050, Stora Enso aims to offer 100% regenerative solutions. To reach this goal, the Group has set ambitious 2030 science-based targets to reduce greenhouse gas emissions by 50%, aligning with the 1.5-degree scenario. Stora Enso's products help customers and society at large to reduce their CO_2 emissions by providing alternatives to fossil-based and other non-renewable materials. A sustainable managed forest absorbs carbon dioxide from the atmosphere and, together with wood-based products, acts as carbon storage.

Calculation methodology

Stora Enso calculates its Scope 1, 2 and 3 GHG Emissions in accordance with the GHG Protocol. Targets for these emissions are set towards at least a 1.5-degree scenario.

United Nations Sustainable Development Goal

These KPIs refers to the SDGs 12.2, 13.1, 15.5.

Circularity

Key Performance Indicator: Circularity

KPI 2 – Increased level of technically recyclable[8] products[9].

In only 50 years, global use of materials has nearly quadrupled—outpacing population growth. In six years since the adoption of the Paris Agreement, the global economy consumed 70% more than the Planet can safely replenish. In addition to this, with global recycling rates stagnant at around 8.6% for the last 5 years, over 90% of all materials extracted and used are wasted[5]. Besides the issue of resource scarcity, circularity and recycling can help climate mitigation. The Ellen Macarthur Foundation and Material Economics[6] make the case that 45% of the global greenhouse gas emissions need to be addressed by the adoption of a circular economy. Furthermore, SITRA shows that a rapid transition to a circular economy could halt global biodiversity loss[7], support biodiversity recover to its 2000 levels by 2035, and contribute to 28% of the required actions to meet ambitious biodiversity recovery goals set out by science.

Calculation methodology

$$\frac{\sum i \text{ volume of sales production i (tonnes) x technical recyclability of product i}}{\text{total volume of sales production (tonnes)}}$$

Technical recyclability is defined by international standards and tests, when available, and in the absence of these, by Stora Enso's tests that prove recyclability. Sales production means produced tonnes for sale during the year, which excludes test production and products not fit for sale.

United Nations Sustainable Development Goal

The KPI refers to the SDGs 12.2, 12.4, 12.5.

[5] Circular Gap Report 2022 – www.circularity-gap.world/2022
[6] Completing the picture – https://ellenmacarthurfoundation.org/completing-the-picture
[7] Tackling root causes – halting biodiversity loss through the circular economy – https://www.sitra.fi/app/uploads/2022/05/sitra-tackling-root-causes-1.pdf
[8] Technical recyclability means being capable of being reclaimed and reprocessed by means of a manufacturing process or otherwise and made into new commercially usable materials.
[9] Includes packaging, pulp, paper and solid wood products as well as biochemical by-products produced by the Group for sale.

Biodiversity

Key Performance Indicator: Biodiversity

KPI 3 – Number of birch seedlings planted

Biodiversity means the variety of life in genes, species, and in entire ecosystems. It is vital for both the planet and for people, and provides functioning ecosystems that supply clean air, water, and food. Stora Enso is determined to place biodiversity at the top of its forest management agenda. The Group strives to become industry leaders in biodiversity, letting this ambition lead how it manages its forests.

Stora Enso applies an adaptive management model to biodiversity. This means that biodiversity is measured with science-based indicators and that the resulting data is used for biodiversity modelling and decision making to improve biodiversity management actions. There are two main categories of indicators: the operational indicators and the state indicators. Currently there are eight operational indicators common for the three Nordic business units in Sweden, Finland and the Baltics. The indicators measure how well negative biodiversity impact is avoided during harvesting operations. The state indicators measure the state of biodiversity across time in the Group's own forest in Sweden. There are currently 12 indicators, and the number will increase as technology develops on how to measure the state of biodiversity. Amongst the current indicators are, for instance, the amount of deadwood, the number of nature value trees, the area of old forest, the area of prioritised habitats, the length of high nature value streams, the area of forest with full vertical layering, and the area of mixed species forest and broad-leaved dominated forest. The indicators are linked to Stora Enso's Biodiversity Action Program which currently encompasses 31 management actions with the aim to promote biodiversity. The outcomes of the actions will hence be measured by monitoring of the biodiversity impact indicators.

Increasing the area of birch dominated forests by planting birch seedlings is one of the leading indicators and will over time lead to a very tangible positive impact on biodiversity. Hereby, Stora Enso transitions from actively removing birches (in the period from early 1800s to late 1980s), to passively promoting birch (by removing conifer trees to increase the share of birch trees) and now, to actively promoting birch (by breeding, nursing and planting).

Calculation methodology

The KPI is calculated by measuring birch seedlings planted on Stora Enso's own forest lands in Sweden between the beginning of 2025 and end of 2030.

United Nations Sustainable Development Goal

These KPIs refers to the SDGs 13.1, 15.1, 15.2, 15.5, 15.A.

Calibration of Sustainability Performance Targets (SPTs)

The target trajectory consists of targets (per December 31st of each year) of which one or several will be designated as SPTs in the legal documentation relating to each Sustainability-Linked Financial Instrument.

Climate change

Sustainability Performance Target: Climate change

SPT 1a – Stora Enso's science-based target (SBT) is to reduce absolute Scope 1 GHG Emissions and Scope 2 GHG Emissions by 50% by 2030 from the 2019 baseline, in line with the 1.5-degree scenario.

SPT 1b – Stora Enso's science-based target (SBT) is to reduce absolute Scope 3 GHG emissions by 50% by 2030 from the 2019 baseline, in line with the 1.5-degree scenario.

These targets (the **2030 GHG Emission Reduction Targets**) have been approved by the Science Based Targets initiative (**SBTi**) that drives ambitious climate action in the private sector. They provide a clearly defined science-based pathway to reducing emissions. Stora Enso was the first forestry company to set a science-based target in 2017 and renewed the target in 2021, in line with the 1.5-degree scenario. In 2022, Scope 1 GHG Emissions accounted for 22% of Stora Enso's Total GHG Emissions, while Scope 2 GHG Emissions accounted for 2% of Total GHG Emissions. An estimated 76% of Total GHG Emissions was generated through Scope 3 GHG Emissions.

Historical performance

Fossil CO_2 equivalent (million tonnes)	**2019**	**2020**	**2021**	**2022**
Scope 1	2.23	2.02	2.09	1.77
Scope 2	0.45	0.31	0.22	0.19
Scope 3	8.18	7.38	7.83	6.01

Benchmark

The SBTi has approved Stora Enso's 2030 GHG Emission Reduction Targets. By benchmarking its ambition against the ambition stated in the Paris Agreement, Stora Enso has aligned its targets with both the expectations on climate action from customers and future policy initiatives.

Strategy to achieve the SPT

Stora Enso will continue to reduce Total GHG Emissions by further investing in improving the energy efficiency of production processes, and by continuing to reduce the use of fossil fuels. Instead, the Group will use more clean energy sources, including wood-based biofuels from sustainable sources. Stora Enso will also further improve efficiency and lower carbon-intensity with suppliers and logistics. One important tool in implementing and enforcing emission reductions is the Stora Enso Supplier Code of Conduct, which is the common set of requirements for all its suppliers.

Level of ambition

Stora Enso's 2030 GHG Emission Reduction Targets are consistent with reductions required to limit global warming by 2050 to 1.5°C, the most ambitious goal of the Paris Agreement. The 2030 target was assessed, approved and verified by the SBTi in 2021.

Circularity

Sustainability Performance Target: Circularity

SPT 2 – Achieve 100% technical recyclability[10] of products[11] by 2030.

Stora Enso's ambition is to offer 100% regenerative products and solutions by 2050. By adopting a regenerative stance, Stora Enso is shifting its sustainability goals from minimising negative environmental impact to becoming a net positive contributor within the defined focus areas of climate, biodiversity and circularity by 2050.

The circular economy is regenerative by design. The goal is to retain the value of the circulating resources, products, parts and materials by creating a system with innovative materials and business models. Stora Enso's goal for 2050 is to provide fully transparent and circular products – products that are designed and recycled to optimise the environmental and societal benefits of the wood and fiber used.

To ensure that Stora Enso with its value chain partners can deliver on this ambitious 2050 goal, the Group's interim targets include that by 2030 all its products will be technically recyclable, a prerequisite for working with value chain partners to achieve recycling at scale and to help address resource scarcity, pollution, climate change and biodiversity urgencies.

Historical performance

% of technically	**2020**	**2021**	**2022**
recyclable products	n/a	94%	94%

The technical recyclability of products was first reported in Stora Enso's Annual Report 2021.

Benchmark

Technical recyclability of the product portfolio is defined by international standards and tests[12] when available, and in the absence of international standards and tests, Stora Enso uses definitions developed by the industry, and/or value chain initiatives. Where none of the before mentioned standards, tests or definitions exist, Stora Enso will in good faith use its own definition and work with stakeholders to develop recognized definitions. Stora Enso will transparently disclose the standards, tests and definitions used in the Green and Sustainability-Linked Financing Report.

Strategy to achieve the SPT

To ensure achieving circularity and technical recyclability of its products, Stora Enso has, for example, focused on product design efforts on simplifying product and board structures and reducing the amount of coating used as well as proactive collaboration with customers. In addition, Stora Enso has developed a set of circular design principles, published in the Circular Design Guidelines[13]. These principles serve as guidance for all the divisions, whether planning to create new processes and solutions or to update existing ones. These guidelines will be fully adopted in the innovation and product management processes by 2025. In addition, the Group works with its customers and other value chain partners to deliver on the development of new circular solutions.

Level of ambition

The target for technical recyclability of Stora Enso's products is part of a set of interim targets for circularity, biodiversity and climate change that guide product development and innovation towards the target of 100% regenerative solutions by 2050. This means solutions that are fully circular and have a net-positive contribution to climate chance and biodiversity loss.

Stora Enso's strategy is to grow in packaging, building solutions and biomaterials innovations. Whilst today most of Stora Enso's products, such as pulp and the majority of packaging products, are already technical recyclable, this target applies to packaging, pulp, paper and solid wood products as well as biochemical by-products, produced by the Group for sale.Going forward, Stora Enso needs to ensure all current products, including all new innovations supporting the growth strategy are technically recyclable, and that it effectively manages changes in recyclability due to evolving standards and the need for more granular testing.

Furthermore, Stora Enso's 2030 goals includes a commitment to engage in value chain collaborations that help achieve actual recycling of its products. For packaging products this means engaging in value chain collaborations that help achieve an 85% actual recycling target for fiber-based packaging in Europe by 2030.

[10] Technical recyclability means being capable of being reclaimed and reprocessed by means of a manufacturing process or otherwise and made into new commercially usable materials.
[11] Includes packaging, pulp, paper and solid wood products as well as biochemical by-products produced by the Group for sale.
[12] Examples of testing methods in use by Stora Enso are the PTS RH 021/97 and Aticelca 501 (UNI 11743:2019) methods.
[13] https://www.storaenso.com/en/sustainability/policies-and-guidelines

Biodiversity

Sustainability Performance Target: Biodiversity

SPT3 – Increase birch abundance in Stora Enso owned forests in Sweden reaching 3.4 million planted birch trees by the end of 2030.

Stora Enso has committed to achieving a net-positive impact on biodiversity in its own forests and plantations by 2050 and developed a Biodiversity Leadership Programme with a set of actions to achieve the target. Stora Enso uses its own forest in Sweden as a development platform for enhancing biodiversity. Key actions to enhance biodiversity in its own forests in Sweden by 2030 are to increase abundance of birch by 1) breeding and growing birch seedlings in nurseries, 2) planting birch seedlings, and 3) tending to young forests to ensure birch dominance. The target is to increase birch planting progressively: in 2023–2025 the Group starts seedling production and plants a total of 300,000 birch seedlings, and in 2026–2030 plants 635,000 birch seedlings annually. By 2030, Stora Enso will have planted at least 3.4 million birch trees in its forests.

In the long-term, the efforts of this programme will enhance biodiversity and promote climate change adaptation and mitigation in the Group's own forests, but also in those of smallholders' forests since Stora Enso has the ambition to grow and sell birch seedlings also for other forest owners. The KPI focuses on Stora Enso's forests in Sweden, which cover approximately 70% of forest area owned and managed by Stora Enso, and make up 75% of the value of Stora Enso's forest assets.

Historical performance

	2020	2021	2022
Birch seedlings planted by Stora Enso	0 due to no available seedlings	0 due to no available seedlings	0 due to no available seedlings

Conifer species dominance in Swedish boreal forests
Birch seedling production in Swedish tree nurseries is currently not sufficient for Stora Enso's needs. Hence, the Group is on its way to start up its own birch seedling production.

The current dominance of conifer species in the Swedish boreal forest is a result of several historical and more recent human uses of the forests. From a historical perspective, potash (potassium carbonate; K_2CO_3) was one of the most important industrial chemicals in Europe prior to the 20th century. It was obtained from wood-ash from mainly birch, which was refined in several steps into the pure chemical. The production primarily took place in the northern periphery of Europe, and in Sweden, potash production started on a larger scale from the 17th century. The subsequent removal of large old broadleaved trees was one important step in the large-scale transformation of the forest landscape which has influenced the structure and function of today's Swedish forest ecosystems. Another broadly applied forestry practice from recent past was the application of herbicides from the end of the 1940s to the start of the 1980s to eradicate broadleaves in young managed forests dominated by Scots pine (Pinus sylvestris) and Norway spruce (Picea abies). Herbicides were used as complementary tools to other forestry measures for the purpose and were applied either by aircraft or manually. From the 1980s broadleaved trees have been removed manually when tending to young forests. While the efforts done by forestry to remove broadleaved trees have decreased over the last two decades, as their importance for biodiversity have been increasingly recognised, the browsing pressure has instead increased. Today browsing by ungulates (hoofed mammals, like for instance deer and moose) can in some areas be challenging for a successful regeneration of broadleaves. In summary, the historical forestry practice in combination with today's high browsing pressure calls for active management interventions to diversify the tree species composition with a larger share of broadleaves to enhance biodiversity of Swedish forests.

Benchmark

The certification standards (by FSC and PEFC) for Swedish forests have the ambition to increase deciduous trees to 10% in coniferous dominated stands. Stora Enso's target to increase birch abundance aims at not only increasing the number of birch trees in coniferous forests, but also at creating stands dominated by birch trees by planting birch seedlings and tending to young forests to ensure birch dominance. The species composition and ecological functions of these stands are different from coniferous stands with a smaller share of broad-leaved trees.

Strategy to achieve the SPT

In 2021, Stora Enso made a commitment to achieve a net-positive impact on biodiversity in its own forests and plantations by 2050. The Group has developed a Biodiversity Leadership Programme with a set of actions to achieve the target. These actions include various operational interventions, such as improvement of data and modelling, development and testing of new value innovation, and active engagement in advocacy and alignment locally and globally. The Programme is implemented together with customers, academia, environmental organisations and other partners.

In managing biodiversity, Stora Enso applies an adaptive model. This means that biodiversity is measured with science-based indicators to monitor the impacts of the operations. The resulting data is used for biodiversity modelling and decision-making to improve biodiversity management actions.

Digitalisation, remote sensing technology, and artificial intelligence enable us to take a step forward in the way Stora Enso operates in forests, in the wood supply chain and in the protection and restoration of biodiversity. The Group supports and encourages its partners to move in the same direction and it also aims to improve biodiversity globally, even beyond the forestry sector, through knowledge-sharing and active participation in formulating new policies and standards.

Level of ambition

Stora Enso has set the ambition to offer 100% regenerative products and solutions by 2050. By adopting a regenerative stance, Stora Enso is shifting its sustainability goals from minimising negative environmental impact to becoming a net positive contributor within the defined focus areas of climate, biodiversity and circularity by 2050. Being regenerative means providing renewable and fully circular products and solutions that help reduce climate impact and support biodiversity.

Financial Instrument Characteristics

The financial and structural characteristics of any Sustainability-Linked Financial Instrument issued under this Framework will be specified in the legal documentation relating to such Sustainability-Linked Financial Instrument, including the changes to the financial and/or structural characteristics which may follow the occurrence of a Trigger Event.

Trigger Events

The occurrence of any of the following events (Trigger Events) may trigger a change in the financial and/or structural characteristics of the relevant Sustainability-Linked Financial Instrument as described below in *Changes in Financial Instrument Characteristics*:

- Stora Enso's performance in relation to a KPI referenced in the terms of the Sustainability-Linked Financial Instrument fails to meet the related SPT for the relevant Target Observation Date(s) as reported on or before the Reporting End Date following the applicable Reference Year, or
- Stora Enso's reporting does not meet the requirements set out in the section *Reporting* of this Framework for any year up to and including the Target Observation Date relating to the Reference Year of the relevant Sustainability-Linked Financial Instrument, or
- verification of Stora Enso's KPI performance in accordance with section *Verification* of this Framework has not been provided and, where applicable, made public, by the Reporting End Date for any year up to and including the Target Observation Date relating to the Reference Year of the relevant Sustainability-Linked Financial Instrument.

The **Target Observation Date** is defined as any date on which KPI performance is to be observed and, if applicable, measured against a relevant target or an SPT.
The **Reporting End Date** for any given year up to and including the Reference Year shall be the date falling 120 days after the 31st of December of that year.
The **Reference Year** means the twelve-month period ending on the Target Observation Date.

Biodiversity is measured with science-based indicators to monitor the impacts of the operations. The data is used for biodiversity modelling and decision-making.

Changes in Financial Instrument Characteristics

The occurrence of a Trigger Event will result in a change in the financial characteristics of the relevant Sustainability-Linked Financial Instrument as described in the applicable legal documentation. The size of the change in the financial characteristics will be specified in the documentation applicable to each Sustainability-Linked Financial Instrument issued under this Framework.

Changes to the financial instrument characteristics of Sustainability-Linked Bonds issued under this Framework will take the form of (i) a step-up in the coupon payable under the bonds and/or (ii) a premium payable on the redemption price. Sustainability-Linked Loans will have financial characteristics that allow for both increases and decreases in the margin applicable to such loans.

Fallback mechanisms and exceptional events

The baselines, KPI(s) and/or SPT(s) may be recalculated by Stora Enso to reflect any significant[14] change in:

- the calculation methodology of the KPIs,
- a regulation which is relevant to the determination of the KPIs,
- the data due to better data accessibility or discovery of data errors, or
- the perimeter of the Group as a result of any acquisition, amalgamation, demerger, merger, corporate reconstruction, divestiture or disposal.

Any recalculation shall be performed in good faith, provided that:

- an External Verifier(s) has independently confirmed that the proposed revision:
  - is consistent with the Issuer's sustainable strategy; and
  - is in line with the initial level of ambition of the relevant SPT(s),

all as described in the specific documentation of each Sustainability-Linked Financial Instrument.

Any such change will be communicated as soon as reasonably practicable by Stora Enso in accordance with the conditions detailed in the specific documentation of each Sustainability-Linked Financial Instrument.

The KPIs and SPTs set out in this Framework will remain applicable regardless of any changes to Stora Enso's sustainability strategy and ambitions. This includes any changes related to the company's general sustainability targets and ambitions. Any new or updated Sustainability-Linked Financing Framework, in relation to any subsequent Sustainability-Linked Financial Instrument, shall not have any implications on the Sustainability-Linked Financial Instruments issued under this Framework.

Reporting

In order to provide investors and other stakeholders with adequate information about Stora Enso's implementation of its sustainability strategy, Stora Enso will provide relevant reporting on the progress made with respect to the KPIs, and (in relation to any Reference Year) on the performance of the KPIs in relation to the achievement of the SPTs set out in the documentation relating to the relevant Sustainability-Linked Financial Instrument. Such reporting shall be made publicly available on an annual basis in a Green and Sustainability-Linked Financing Report in relation to the previous calendar year. The Green and Sustainability-Linked Financing Report shall be published on Stora Enso's website no later than the Reporting End Date after the end of the year being reported on up to and including the Reference Year for the relevant Sustainability-Linked Financial Instrument. The Green and Sustainability-Linked Financing Report will form the basis for evaluating the impact on the characteristics of any Sustainability-Linked Financial Instrument issued under this Framework, as outlined in the section *Financial Instrument Characteristics*. If a change to the financial and/or structural characteristics of a Sustainability-Linked Financial Instrument is triggered due to a failure to report, such change will only occur after the Reporting End Date for the relevant Reference Year, regardless of when a failure to provide the report occurs.

The Green and Sustainability-Linked Financing Report will contain all the relevant information needed to assess the progress towards the SPTs as at the applicable Target Observation Date, including but not limited to:

- the performance of the KPIs, as per the relevant reporting period and when applicable, as per the Target Observation Date including the calculation methodology and baselines where relevant;
- information about recalculations, if any, of the KPI levels as set out in *Fallback Mechanisms and exceptional events*;
- a verification report relating to the KPI performance, outlining the performance against the SPTs and the related impact, and timing of such impact, on the Financial Instrument Characteristics; and
- information on relevant updates to Stora Enso's emission reduction strategy and governance with an impact on the KPIs and the target trajectory.

Where feasible and possible, the Green and Sustainability-Linked Financing Report will also include:

- qualitative and/or quantitative explanations of the contribution of the main factors, including M&A activities and changes to the organisation, behind the evolution of the performance on the KPIs on an annual basis;
- illustration of the positive sustainability impacts of any performance improvement;
- updates on new or proposed regulations from regulatory bodies, such as but not limited to the EU or Nordics, relevant to the KPIs and the target trajectory.

The Green and Sustainability-Linked Financing Report referred to above shall be verified by one or more External Verifiers as described in section *Verification*.

[14] The threshold value for a significant change is made in accordance with Stora Enso's internal principles for baseline adjustments as reported in the Green and Sustainability-Linked Financing Report.

Verification

In order to provide transparency to investors, lenders and other stakeholders, and in alignment with the SLBPs and the SLLPs, Stora Enso will ensure an external and independent verification by External Verifiers of its actual KPI performance level against the relevant SPTs. The verification shall be conducted with limited assurance by the External Verifier(s). Stora Enso has the discretion to change the External Verifier subject to fulfilling the requirements set out herein.

The verification shall be made public together with Stora Enso's annual Green and Sustainability-Linked Financing Report on Stora Enso's webpage no later than the Reporting End Date.

In relation to any SPT, the verification, together with the Green and Sustainability-Linked Financing Report, will form the basis for evaluating whether a Trigger Event has occurred with respect to any Sustainability-Linked Financial Instrument issued under this Framework as described in section Financial Instrument Characteristics above. If a change to the financial and/or structural characteristics of the security is triggered due to failure to provide verification, the change will only occur after the Reporting End Date relating to the relevant Reference Year, regardless of when a failure to provide the verification occurs.

Second Party Opinion

Stora Enso will engage Sustainalytics as an external reviewer to provide, in accordance with the Guidelines for Green, Social, Sustainability and Sustainability-Linked Bonds External Reviews developed by the Green and Social Bond Principles, an independent, ex-ante Second Party Opinion on Stora Enso's Green and Sustainability-Linked Financing Framework. The Second Party Opinion will be made publicly available on Stora Enso's website.

Appendix

Reporting on progress

Stora Enso publicly reports on its greenhouse gas (GHG) emissions in three categories:

Stora Enso calculates its **Scope 1, 2 and 3** GHG Emissions in accordance with the GHG Protocol

Stora Enso's board, pulp and paper facilities report fossil CO_2 emissions quarterly, and sawmills and converting facilities annually for Scopes 1 and 2. Material emission categories for Scope 3 emissions are updated annually. A group-level estimate for Scope 3 emissions is updated annually. Stora Enso carbon footprint accounting is based on guidelines provided by the Greenhouse Gas Protocol of the World Resources Institute and the World Business Council for Sustainable Development (WBCSD).

Stora Enso publicly discloses its GHG emissions and climate strategy in the annual and interim reports, including the Climate-related financial disclosures (TCFD), and to CDP, an organisation that primarily gathers this information to support financial decision making for investors. Stora Enso's full CDP disclosure is available through CDP website.

Science-Based Targets (SBT)

Following COP21, in December 2017, Stora Enso became the first forest products company in the world to have its science-based targets approved. The target was aligned with the below 2-degree scenario. In 2021 and prior to COP26, Stora Enso renewed its science-based targets to align with the 1.5-degree scenario.

Stora Enso's operational target is to reduce absolute GHG emissions from operations by 50%, compared to a 2019 baseline. It covers all direct and indirect GHG emissions and is reported as CO_2-equivalents including, in addition to fossil CO_2 emissions, greenhouse gases N_2O and CH_4.

Scope 3 target is a 50% reduction of (absolute) emissions, compared to a 2019 baseline.

Data collection

To collect information from our organisation and to ensure the accurate calculation of our Scope 1 and 2 CO_2 emissions, Stora Enso uses a web-based reporting tool with ready-made report templates. The tool uses reported energy data in combination with the relevant CO_2 emissions factors to consolidate CO_2 emissions from unit-level up to group-level.

The tool contains carbon data and all other environmental and energy related information for benchmarking, target follow up and reporting purposes.

The collection of data for Scope 3 estimates is a resource intensive task. The emissions are calculated using the volume-based method where volumes of supplies, products, transport modes and distances are used in combination with relevant carbon emission factors to estimate the absolute emissions. Currently most factors are generic and retrieved from external credible databases, but a transition is ongoing to utilise more primary data as it becomes available.

External assurance

Since 2015, a level of reasonable assurance with GHG Protocol as criteria has been provided for Stora Enso's reporting on direct and indirect fossil CO_2e emissions (Scope 1 and 2).

Definitions

External verifier means a qualified external reviewer, such as an auditor or an environmental consultant, with relevant expertise, as outlined in the ICMA's Guidelines for Green, Social, Sustainability and Sustainability-Linked Bonds External Reviews who will perform an independent and external verification (for example limited or reasonable assurance) of the performance level against each SPT for each KPI.

GHG Protocol means the document entitled "The Greenhouse Gas Protocol, A Corporate Accounting and Reporting Standard (Revised Edition)" published by the World Business Council for Sustainable Development and the World Resources Institute (as amended and updated from time to time).

Sustainability-Linked Financial Instrument means any type of financing instrument including but not limited to bonds, loans or Schuldschein for which the financial and/or structural characteristics can vary depending on whether the issuer achieves predefined Sustainability/ ESG objectives.

Total GHG Emissions means the sum of Scope 1, 2 and 3 GHG emissions.