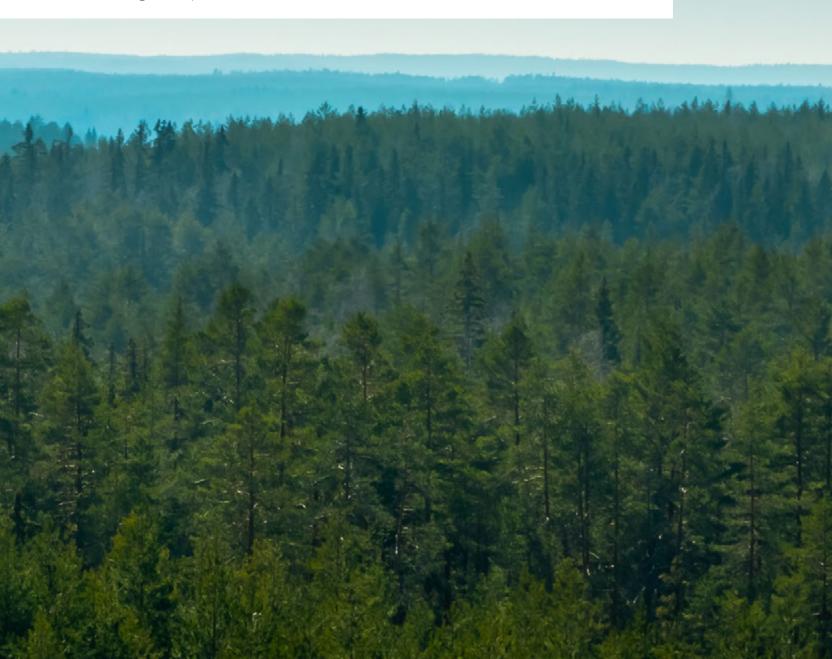
The Finnish Forest Industry's **Sustainability Commitments for 2025**

Second Progress Report



A SUSTAINABLE PATH TOWARDS 2025

In recent years, humankind has faced various global crises and challenges. The COVID-19 pandemic, the Russian invasion of Ukraine and the energy crisis have introduced a large variety of challenges. In the midst of all this, people also remain extremely worried about the climate and the loss of biodiversity.

The forest industry plays a role in tackling problems both old and new. The forest is a source of wellbeing in many different ways. Forests also offer us the opportunity to make wise and sustainable decisions.

The forest industry has a long track record of sustainability-related efforts, and the industry's first joint sustainability commitments were issued in 2012. The commitments were subsequently expanded in 2018 to cover not only environmental sustainability but also the areas of social and economic sustainability and responsibility in more detail. The goals were also made more ambitious. The voluntary sustainability commitments steer the entire industry in a more sustainable direction.

This progress report reflects positive development in most of the goals set out in the commitments. The previous progress report was published in 2020. The progress is depicted by means of traffic lights, figures and examples. The release is primarily based on data received from the member companies of the Finnish Forest Industries Federation. The forest industry constantly develops its operations, and the commitments serve as one of the tools for development.

Progress in meeting the sustainability commitments

- The objective has been met or is likely to be met by 2025.
- Progress has been made towards meeting the objective, but it is still uncertain whether the objective will be met by 2025.
- The objective has not been met, and it is unlikely that it will be met by 2025.

PROMOTING SUSTAINABLE ECONOMY AND WELFARE

- We promote a sustainable economy and increase welfare by creating added value, paying taxes and employing people in different parts of Finland both directly and through our value chain.
- We provide safe and ecologically sustainable products made of renewable raw materials. We continue to develop our current products and methods of operation, and we create new innovations to utilise wood in increasingly diverse ways to benefit people and society.
- Our actions are equally responsible on the national and international level, and we require responsibility from our cooperation partners throughout the value chain.

RESPONSIBLE EMPLOYERS

- We work constantly to develop occupational safety with the goal of ensuring accident-free workplaces.
- 5 We take care of the wellbeing of our employees, as well as the development of their competence.
- We acknowledge changes that occur in society and offer different ways to find employment in the industry. We promote apprenticeship training and the employment of young people by offering diverse opportunities for summer jobs and internships.

PROMOTING BIODIVERSITY AND THE SUSTAINABLE USE OF FORESTS

- 7 We verify the lawful origins of the wood we consume and promote the use of forest certification systems. Our aim is to ensure that at least 90 per cent of the wood and fibre used by the forest industry is certified by 2025.
- 8 We promote the nature management of commercial forests and the voluntary protection of forests and peatlands with the aim of reversing the decline of endangered forest species.
- We commit to reducing the impacts of our own forestry operations on water systems, and on a broader level we promote means to reduce the load to waterbodies resulting from forest management and use.

COMBATING CLIMATE CHANGE

- 10 We contribute to the transition to a carbon neutral society by offering climate-friendly products and supporting
 achieving the Paris climate agreement goals.
- 11 We increase the share of renewable energy production as a part of the emerging forest industry. Our aim is to increase the share of renewable energy in the forest industry energy production to 90 per cent by 2025.
- 12 We are committed to the continuous improvement of energy efficiency.

IMPLEMENTING SUSTAINABLE PRODUCTION AND CIRCULAR ECONOMY

- We continue to improve the efficiency of our water use and systematically reduce our water pollution load. Our aim
 is to reduce the nutrient emissions of our production facilities by 15 per cent per tonne of output by 2025 (year of
 comparison 2016).
- We are committed to improving material efficiency and promoting nutrient recycling. We develop solutions for improving the added value of side streams through, for example, industrial symbioses.

INCREASED RESPONSIBILITY THROUGH COOPERATION

- 15 We communicate openly on environmental and responsibility issues and conduct an active dialogue with key stakeholder groups.
- 16 We promote sustainable development in society by carrying out responsibility projects with our partners and collaborating with local communities.
- 17 We contribute to achieving the UN sustainable development goals.



Finnish forest industry companies play an integral role in the economic growth and wellbeing of Finland. The forest industry is a significant exporter, accounting for 19 per cent of the value of all Finnish exports of goods in 2021. The industry has an extensive domestic value chain from silviculture to processing of the raw material and the sales of the finished products. The forest sector directly or indirectly employs nearly 100,000 people in Finland.

Viable forest industry in Finland creates demand for services and promotes business operations in various regions. In recent years, the industry has made major investments in product development, fossil-free mill processes and active forest management. The forest industry has a considerable impact on the Finnish national economy in terms of tax revenues, employment and value creation.

19%

The forest industry's share of all Finnish exports of goods in 2021

~12_{bn €}

Direct and indirect value added of the entire procurement chain of the forest industry per year (EY 2020)

~3,6 bn €

Tax revenues of the forest industry value chain per year (EY 2020)

CASE STORA ENSO:

The conversion investment in the Oulu mill introduces nearly 2,000 new jobs in northern Finland

In the autumn of 2022, Stora Enso decided to invest about EUR 1 billion in transforming the decommissioned papermaking machine at the Oulu mill into a large-scale production line for consumer packing board. The production with the new line is expected to start in early 2025. The investment will create about 300 new jobs at the Oulu mill and indirectly employ about 1,500 people.

CASE METSÄ GROUP:

Rauma celebrates the largest sawmill investment of all time in Finland

Metsä Fibre has built a new, stateof-the-art sawmill in Rauma. The annual production capacity of the new sawmill is 750,000 cubic metres of pine timber, and the value of the investment was about EUR 260 million. It is the largest sawmill investment in Finnish history. Continuous production started in late September 2022.

The sawmill is a global trailblazer in terms of technology, efficiency and operating model. It directly employs about 100 people as well as 500 people in its direct value chain.

The forest industry is a significant employer across Finland

Locations with forest industry production facilities (member companies of the Finnish Forest Industries Federation)



100 000

The forest sector directly or indirectly employs nearly 100,000 people in Finland. (EY 2020)

CASE KUHMO:

A forward-thinking business makes investments in Kainuu

Kuhmo Oy is a local, sustainable and forward-thinking sawmill company hailing from Kainuu. The company employs 145 people and its direct, operations-targeted employment impact on the value chain amounts to about 430 people.

The company is undergoing an investment programme of about EUR 44 million to modernise its production facilities over a number of years. The investment will considerably increase the company's sawn timber production capacity and use of raw materials. It also secures the company's future and the employment of its staff and partners while bringing export revenues to the Kainuu region.

CASE SAPPI:

The Kirkniemi mill is the largest private employer in Lohja

The Sappi Kirkniemi mill is the largest private employer in Lohja. One in five people working industrial jobs in Lohja are employed by the Kirkniemi mill. The mill directly employs about 550 people, in addition to which about 80 partners work in the mill area every day. Every year, the mill also offers summer jobs for about 100 young people.

The mill indirectly employs people in the region and in Finland in industries such as transport, forestry and the manufacture of metal products and machinery. The mill procures products and services from about 1,000 Finnish suppliers, 350 of which are local to the mill. Finnish businesses account for 75 per cent of the mill's suppliers.

We provide safe and ecologically sustainable products made of renewable raw materials. We continue to develop our current products and methods of operation, and we create new innovations to utilise wood in increasingly diverse ways to benefit people and society.

The forest industry answers today's global challenges by making products from a renewable and recyclable raw material. The innovations of the industry can help mitigate climate change, now and in the future. In recent years, the selection of products made of wood has increased even further. The material offers interesting opportunities for product developers and material manufacturers while creating more and smarter climate-friendly and environmentally conscious options for consumer needs. Wood is already used to manufacture products from textiles to biochemicals and biofuels, as well as from biomedicine applications to anode materials for batteries.

The product development of new, wood-based innovations is a long process and the product's journey from the laboratory to large-scale use may take several years. In addition to developing new products, the innovation activities of the forest industry translate to improving the characteristics and manufacturing processes of existing products as well. The development shows that the industry is genuinely committed and able to offer our society sustainable solutions that benefit the environment.

Versatile innovations in the forest industry







CASE JUJO THERMAL

The recyclable and fibre-based SHIELDPLUS® products offer a sustainable option for packaging dry, fatty and moist food. Designed for flexible packaging of food, the SHIELDPLUS® material is based on a technology where woodbased fibres are coated with a waterbased barrier. The products help reduce the use of plastic or aluminium film in food packaging.

CASE UPM

UPM Raflatac Forest Film™ is a woodbased label material that performs exactly like the traditional film label materials, therefore sustainably replacing fossil-based film materials. It was developed out of the wood-based UPM BioVerno naphtha made of pulp production residues in accordance with circular economy. The use of residuebased solutions helps maximise the efficient use of raw materials while extending their lifecycle.

CASE FM-HAUS + METSÄ GROUP

Made of movable and reusable wooden modules, Little Finlandia represents construction in line with sustainable development and circular economy. The wooden elements enable the building to be reused after the renovations at Finlandia Hall are completed.

The Kerto LVL RIPA technology by Metsä Wood was used in the ceiling and floor structures of the modules so that the elements could be manufactured using an even smaller amount of raw material. The module method also cuts back the time spent at the construction site by two thirds.

CASE STORA ENSO

In the near future, wood may replace the carbon-based graphite used in batteries. Lignode® by Stora Enso is a **bio-based hard carbon material** that is being developed into a replacement for the fossil-based graphite carbon used in lithium ion batteries. Lignode is made of renewable lignin that is a side stream of pulp production. The material offers a more sustainable alternative for the development of the rapidly growing battery market.









CASE TERVAKOSKI

The recyclable and compostable food packaging paper by Tervakoski Oy offers the market an environmentally friendly alternative. Made of renewable raw materials, the products are treated to repel grease by means of plant-based technologies. The solutions replace products such as paper treated with fluorochemicals, waxed paper, aluminium-foiled paper and even purely plastic products.

Our actions are equally responsible on the national and international level, and we require responsibility from our cooperation partners throughout the value chain.

The Finnish forest industry engages in worldwide operations. The companies are committed to act sustainably and responsibly and comply with the rules and legislation of each country. The companies follow the same operating principles, regardless of the location. The industry respects international human rights and labour rights treaties. Respect for human rights and care for the environment are strongly embedded in the companies' own policies. Suppliers are required to commit to the suppliers' code of conduct.

The United Nations' guiding principles on business and human rights help companies assess the human rights and environmental impact of their operations and minimise negative impact. Many forest industry companies are also involved in the UN Global Compact initiative, in which companies commit to ten principles relating to human rights, labour standards, the environment and the fight against corruption. In recent years, the forest industry has worked hard to promote the sustainability of procurement chains. However, forest industry companies have a vast number of suppliers and ensuring the sustainability of the procurement chains requires constant development in cooperation with the suppliers.

CASE METSÄ GROUP:

Sustainability of supply chains as part of strategic goals

One of Metsä Group's strategic goals for 2030 is to ensure the sustainability of its supply chains. By the end of 2021, 96 per cent of the company's suppliers were committed to complying with Metsä Group's suppliers' code of conduct. The company defines joint goals for sustainable development in cooperation with the selected suppliers. Metsä Group also develops its operations by means of risk assessments integrated in the procurement processes, auditing and self-evaluations. Communicating about sustainability in cooperation with the supplier is also an important part of the company's sustainability efforts.

CASE UPM:

Working conditions evaluated in the wood supply chain

As the supply chain of UPM Forest becomes more international, the company has implemented a supply chain audit project to gain further visibility on recruitment, employment contracts, working hours, payroll policies, travel and accommodation of the companies operating in the chain. This also ensures that the chain complies with the UPM Supplier and Third-Party Code.

The audits will include assessments of the contractors' management systems, responsibility topics and external workforce management.

Launched in 2021, the goal of the project is to audit all of the contractors in the next few years.

CASE STORA ENSO:

Sustainable development criteria for suppliers

As part of its competitive bidding process, Stora Enso asks its suppliers to submit information about their safety and/or CO₂ emissions. These sustainable development criteria enable the company to make more balanced procurement decisions and encourage suppliers to invest in sustainable development. By the end of 2021, 96 per cent of the costs of Stora Enso's suppliers were covered by sustainable development criteria (77 per cent at the end of 2020).

RESPONSIBLE EMPLOYERS

COMMITMENT 4



We work constantly to develop occupational safety with the goal of ensuring accident-free workplaces.

The forest industry has systematically improved its occupational safety, and this is reflected in a significant drop in absences due to illnesses and accidents, especially in the previous decade. Since 2010, the number of accidents has decreased by about 70 per cent.

In recent years, the positive development has levelled off. The current, reasonably good situation is maintained and further improved in companies by continuous development of occupational safety culture.

Identifying and preventing occupational safety hazards is the starting point of all activities. When aiming to reduce occupational accidents, it is important to thoroughly investigate the reasons behind each accident and eliminate any factors that may result in a hazardous situation.

The considerable increase in the number of proactive reports on hazardous situations or safety observations in the paper industry compared to 2020 can be considered a great example of positive development in the corporate safety culture. Having each member of the work community commit to developing safety yields the best results.

7,7

accidents per one million working hours (LTAF*)

*Lost Time Accident Frequency (LTAF) in the Finnish pulp, paper, sawmill and board industry

CASE SAPPI:

The entire staff joins occupational safety development

The Sappi Kirkniemi mill aims for zero accidents per year. The goal is supported by the company's Turvallisuus ja minä ('Safety and I') project that is implemented in cooperation with representatives of personnel groups, occupational health and safety representatives and labour protection ombudsmen. The purpose of the workshops focusing on personal and team safety, work, practices and the work environment is to provide the teams with tools to put the lessons learned into practice. The attitude and the acceptance that each person can improve safety through their own actions guarantee that safety can be improved in cooperation throughout the Kirkniemi mill

CASE DS SMITH:

World class in occupational safety

In 2021, DS Smith Finland was granted the highest possible rating, Level I – World Class Achievement, in the occupational safety ranking of the Vision Zero Forum for the second year running. The goal of DS Smith is that none of its employees get injured at the workplace. To achieve this goal, the company adopted the 1 per cent of working hours for safety concept that encourages the employees to take action for safety.

CASE STORA ENSO:

Coworkers as safety coaches

Stora Enso's Packaging Materials division offered its staff personal safety coaching in 2021. The 3–4-hour personal coaching sessions were arranged by 150 members of the work community who volunteered as safety coaches. The goal of the coaching was to raise awareness of how each employee can take responsibility for their own safety. A total of 5,000 coaching sessions were completed during the year.

We take care of the wellbeing of our employees, as well as the development of their competence.

Ensuring occupational wellbeing is important for the success of companies and employees, and investing in wellbeing is financially profitable.

The investments have a cumulative effect on the improved working atmosphere, efficiency and productivity. The key is to develop the work and competence of the employees so that they are given the best chances to succeed in their work across all stages of their career.

In the present day, employees must be ready to develop their competence throughout their careers. The forest industry takes responsibility for maintaining and improving the competence of its employees by offering opportunities for training and development. Training can be provided inhouse or as outsourced services. In addition to formal training, companies use other forms of continuous learning, such as job rotation and electronic learning materials.

In addition to preventing occupational accidents, the industry particularly invests in maintaining employees' ability to work. In 2021, absences due to sickness in the Finnish paper, sawmill and board industry accounted for a total of 4.8 per cent of regular working hours. The rate of absences due to sickness increased only slightly, despite the spread of the Omicron variant of the COVID-19 virus at the end of 2021. The goal is to reduce sickness absences in the next few years by means such as work ability management and the early support model and by proactively addressing the causes of absences.

Each member of the work community is responsible for developing occupational wellbeing. In the forest industry, executives, supervisors and employees have mutually taken responsibility for promoting wellbeing.

CASE TERVAKOSKI:

Staff development in cooperation with educational institutions

Tervakoski Oy considers the development of its employees' competence and professional skills a prerequisite for a successful future. Tervakoski's special paper mill has invested in coaching for both supervisors and production workers. The mill's Tervakoski Akatemia enables the employees to complete various vocational qualifications, for example.

CASE UPM:

Proactively preventing COVID-19

UPM has offered its global personnel COVID-19 testing and encouraged them to get vaccinated. The goal has been to increase the wellbeing of the employees and secure undisrupted production. The company has used the most suitable methods available at each time for testing its employees. All the activities related to the pandemic are based on risk assessments and the local situation.

The forest industry offers employees opportunities for training and development.

CASE TORNATOR:

Extending careers benefits the employees and the company

As part of the continuous development of occupational wellbeing and safety, Tornator has launched the Ehjänä eläkkeelle ('Retiring in full health') training programme and created an early care model. The company has been able to reduce its number of employees retiring due to incapacity for work year after year. Moreover, many loggers and salaried employees who have reached the age of retirement have wanted to continue their careers in Tornator, either in a full-time or part-time day job or as summer workers. Extending careers has also enabled future experts to benefit from the tacit knowledge of the previous generations.

CASE NEOVA:

Annual wellbeing calendar offers a tool for developing the wellbeing of employees

For a few years, Neova Group has used a Group-wide annual wellbeing calendar to encourage the employees to develop their wellbeing. The wellbeing annual calendar is a dynamic model that Neova wellbeing team, with members from each operating country of the Group, is constantly developing. The activities include challenges or projects lasting about 1-3 months and focusing on building team spirit, promoting mental and physical wellbeing and enabling recovery. The employees also have access to various instructional videos to promote their wellbeing.

We acknowledge changes that occur in society and offer different ways to find employment in the industry. We promote apprenticeship training and the employment of young people by offering diverse opportunities for summer jobs and internships.

The forest industry offers meaningful work for skilled workers from various educational backgrounds. 60 per cent of forest industry employees have studied technology and engineering, but the industry employs a diverse range of experts, from forestry and commerce to social sciences. Retirement, renewal of the industry and investments increase the need for a skilled workforce.

The forest industry finds it important to provide diverse employment paths. Every year thousands of summer jobs are offered in production sites, forests and offices. Many companies offer young people apprenticeship positions, thesis work and trainee programmes. Various partnership agreements aiming to achieve systematic, long-term cooperation are great ways to increase cooperation between businesses and educational institutions. The partnership may be focused on finding new skills, creating new solutions or solving problems, for example.

Apprenticeship training in forest industry companies has been extremely popular. Apprenticeship training is considered an excellent solution for recruiting new people and developing the competence of the company's existing employees.

80%

of the member companies of the Finnish Forest Industries Federation utilise apprenticeship training

CASE VERSOWOOD:

Jobs for Ukrainians fleeing the

Versowood finds it important to support the employment and language skills of Ukrainians fleeing the war. In the spring of 2022, the company employed six job-seeking Ukrainians who had fled to Finland after Russia's attack.

The new employees have attended a Finnish language course at the Eastern Tavastia College at the end of their workdays. After working in fire guarding and warehouse duties for the summer, they were transferred to the sawmill's grading plant for production tasks. All the parties have been extremely pleased with the arrangement.

The forest industry provides diverse employment paths.

CASF:

The TET model makes it easier for companies to offer trainee positions

The Finnish Forest Industries Federation and its member companies prepared a model called 'A forest of opportunities' for Finnish pupils' work life orientation (TET). It is primarily targeted at forest industry companies and workplace instructors but is also communicated to guidance counsellors and teachers. The goal is to encourage forest industry companies to help young people learn about forestry with a template on how to prepare for and what to include in the orientation. TET orientation enables the forest industry to offer young people information about the industry, thus influencing their future choices of education and profession. One of the specific goals of the TET orientation is to reach young people who are unfamiliar with the forest industry. The model was deployed in the autumn of 2022.

CASE UPM:

The popular apprenticeship programme is a great pathway to employment

In the spring of 2022, UPM Communication Papers launched an apprenticeship programme for 40 students at the paper mills of Kymi and Kaukas. The programme received more than 600 applications. The programme, which will take about two years, will be organised in cooperation with the Saimaa Vocational College Sampo. The students will choose to study manufacturing, mechanical maintenance, automation or laboratory work. During the programme, the students develop their skills mainly learning by doing but also in theoretical studies. The apprenticeship programme usually results in a vocational qualification in process industry with the goal of getting employed by the company after completing the qualification.

The forest industry offers thousands of summer jobs around Finland each year.

CASE METSÄ GROUP:

The best competence of the future through university partnership contracts

Metsä Group has established a partnership with the universities of Oulu and Helsinki In addition to various types of research cooperation, the goal is to increase interaction and work life connections between students and the company. The cooperation includes guest lectures, company visits, thesis work and trainee positions. The purpose of the cooperation is to reach both Finnish and international students. Metsä Group has also made some Englishlanguage summer jobs available and participated in a mentoring programme for international Master's students of the University of Helsinki.

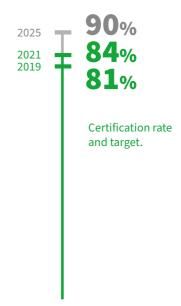
PROMOTING BIODIVERSITY AND THE SUSTAINABLE USE OF FORESTS

COMMITMENT 7

We verify the lawful origins of the wood we consume and promote the use of forest certification systems. Our aim is to ensure that at least 90 per cent of the wood and fibre used by the forest industry is certified by 2025.

Forest certification verifies the lawful origin of the wood used in products. Moreover, forest certification is one of the most important tools in promoting the sustainability of forest management. Two global forest certification systems are used in Finland: FSC and PEFC. The forest industry promotes the use of both systems and participates in their national and international development.

In Finland, 93 per cent of commercial forests are certified. In practice, nearly all the Finnish wood procured for the forest industry production plants is sourced from certified forests. In 2021, the certification rate for wood and fibre used in Finland was 84 per cent. The wood or fibre used for a product can be included in the company's certification rate when the entire chain from the forest to the production site uses a system to track the origin of the wood, verified by an independent party (Chain of Custody certification). The international certification rate of forests is considerably lower than that of Finland. In order to increase the certification rate of wood and fibre, it is important to develop forest certification outside the borders of Finland as well.



CASE:

Requirements of forest certification developed in extensive cooperation

From 2023 onwards, operating in certified forests will be subject to new requirements as the criteria for both forest certification systems used in Finland (FSC and PEFC) are updated. The updates will include stricter requirements for the retention trees to be left in the forests and the buffer zones of water systems, promoting forest biodiversity and water conservation. Forest industry operators will undergo training to ensure efficient deployment of the new requirements. The criteria for the forest certification systems are regularly updated in extensive stakeholder cooperation. The forest industry is actively involved in the updating processes.

CASE METSÄ GROUP:

FSC nature site service targets protection measures at the most valuable sites

FSC certification requires the forest owner to permanently exclude at least five per cent of the surface area of forestland from forestry use. In Metsä Group's FSC nature site service, valuable nature sites are leased to owner-members who belong to their FSC forest certification group and whose estates do not offer suitable sites with specific nature values. This ensures that protection measures are targeted at more valuable sites instead of commercial forests. The goal is to create a network of interconnected protected areas to form larger entities under protection.

CASE PÖLKKY:

FSC certification meets global demand

Companies making products from wood and consumers around the world want the raw materials and products to come from sustainably managed forests. FSC serves as an answer to the users' concerns over the origin of the raw materials. In 2021, Pölkky obtained FSC certification in order to ensure the sales of products in changing market situations. At the same time, Pölkky is developing and growing as a sustainable operator, creating financial wellbeing in northern Finland.

We promote the nature management of commercial forests and the voluntary protection of forests and peatlands with the aim of reversing the decline of endangered forest species.

Biodiversity is the basis of sustainable forestry. That is why the forest industry carries out active measures to promote biodiversity in forests.

The most recent assessment of threatened species in Finland was released in 2019. About 9 per cent of the evaluated forest species were threatened. The percentage remained unchanged from an assessment carried out ten years earlier. More than 50 per cent of the threatened forest species live in herb-rich forests and on sunny ridge slopes, even though these habitats only account for a few per cent of the total surface area of forests. By targeting biodiversity measures at these habitats, we can efficiently improve the status of a large amount of species.

The living conditions of threatened species in commercial forests are secured by means of nature management. Key measures include protecting valuable habitats, maintaining a good amount of retention trees, decaying wood and mixed forests and setting up protective belts around water systems.

Many structural features that are important for forest species have developed in a positive direction in forests. For example, the quantity of decaying wood as well as large and broad-leaved trees has increased. However, the changes manifest themselves relatively slowly, especially among the most endangered species.

The nature management measures conducted in commercial forests are supplemented by protecting the sites with the greatest natural value. The forest industry actively promotes the voluntary METSO and Helmi programmes that protect and manage sites such as forests and peatlands. In fact, the protected area of forests and peatlands in Finland is constantly increasing.

CASE:

Action programme for herb-rich forests promotes biodiversity

Nearly 50 per cent of the threatened forest species live in herb-rich forests even though they only account for a few per cent of the total area of Finnish forests. Since 2021, the Finnish Forest Industries Federation has implemented an action programme for the management of herb-rich forests, increasing the expertise of various operators in identifying and managing commercial herb-rich forests. The goal is that companies can more easily and uniformly offer forest owners management measures that promote biodiversity in herb-rich forests. More than 700 people interested in managing herb-rich forests have explored the online course and manual prepared by the project. The herb-rich forest action programme is part of the Forest Environment Programme of the Finnish Forest Industries Federation.

CASE STORA ENSO:

Bird nesting season observed more carefully

Most bird species favour lush forests rich in broad-leaved trees during the nesting season due to the ease of finding cover and food. Stora Enso has decided not to carry out any felling at forests with a large number of broad-leaved trees during the most important nesting season. The information system automatically excludes sites containing more than 50 per cent broad-leaved trees during the nesting season.

broad-leaved trees

buffer zones

retention trees decaying wood

controlled burning

high stump protective thickets natural sites mixed forests

CASE TORNATOR:

Burning felling areas expands the range of species

Controlled burning is one way of promoting biodiversity in commercial forests. The most significant finding in the beetle and flat bug survey conducted in the Ruokolahti burning site in 2020 and 2021 was the Aradus montandoni. The species is very rare in Europe. In Finland, it was first discovered in 2005, which is why it has not yet been possible to assess its conservation status.

The species survey showed that burning felled areas and leaving behind a large number of retention trees attracts a wide variety of insects dependent on forest fires and promotes the retention of demanding and endangered species in commercial forests as well.

CASE UPM:

The protection of the Siberian jay and wood sourcing can be combined

The Heinävesi forest holdings of UPM feature several Siberian jay territories that are usually quite rare in southern Finland. We developed a model to combine biodiversity efforts and wood sourcing with an external expert to protect the territories of the Siberian jay even better. The model includes measures such as conducting preliminary landscape planning, using continuous-cover silviculture and restoring old spruce mire. So far, UPM has protected nearly 300 hectares of the known core territories of the Siberian jay in its forest holdings.

CASE METSÄ GROUP:

High biodiversity stumps increase the biodiversity of forests

A 2021 survey by a researcher from the Natural Resources Institute Finland observed that high biodiversity stumps house a considerably higher number of species compared to normal stumps left behind after felling. Moreover, all the demanding species discovered in the survey were found in the high biodiversity stumps. High biodiversity stumps are an important nature management activity as they increase the number of species dependent on decaying wood in forests. Metsä Group has made two high biodiversity stumps per hectare in all its felling methods since 2016 and increased the number to four in 2020. Making high biodiversity stumps is a voluntary activity for forest owners. In 88 per cent of all wood trades in 2021, the forest owners decided in favour of making high biodiversity stumps.

We commit to reducing the impacts of our own forestry operations on water systems, and on a broader level we promote means to reduce the load to waterbodies resulting from forest management and use.

Forestry accounts for 12.4 per cent of phosphorus and 10.5 per cent of nitrogen load from human activities. The figures are based on an estimate published in 2021.

The figures depicting the nutrient load of the forestry are based on the results of the joint MetsäVesi project by the Finnish Environment Institute (SYKE) and the Natural Resources Institute Finland (Luke), according to which the share of the forestry load on water systems is larger than previously estimated. However, it is worth noting that the overall load from forests and peatlands has not increased; instead, the share of natural background sources was smaller than previously estimated.

The forest industry finds it important to minimise the impact of its operations on water systems. Reducing the load on water systems requires cooperation from the entire forest sector. The impact on water systems can be reduced by, for example, creating buffer zones for waterways, choosing silviculture methods according to the characteristics of each site, favouring water-friendly soil cultivation methods and protecting water systems in ditch network maintenance.

CASE:

Practical lessons from research cooperation

The forest industry regularly participates in research projects designed to promote the protection of water systems in forestry. For several years, the Finnish Forest Industries Federation has funded the SOMPA consortium project coordinated by the Natural Resources Institute Finland. The project develops ecologically and financially sustainable means of managing peatland forests and fields while mitigating climate change. The cooperation promotes a dialogue between the forest industry and research and makes it faster to put the results into practice. In the spring of 2022, researchers from the SOMPA project presented their findings to forest industry experts. The SOMPA cooperation is part of the Forest Environment Programme of the Finnish Forest Industries Federation, launched in 2016.

CASE:

Promoting continuous cover forestry in peatland forests

In recent years, forest industry companies have actively implemented new operating models for managing peatland forests. The goal is to simultaneously enhance water conservation while mitigating climate change. In practice, this means promoting continuous cover forestry in applicable sites, for example. This also reduces the need for ditch network maintenance. Companies have provided extensive training to employees on peatland forest management in order to support the decision-making of forest owners and carry out the work as instructed.

CASE TORNATOR:

Peatland restoration reduces the load on a nearby river

The Koitajoki fishing industry area and Tornator cooperated in restoring Sammalpuronsuo and Kiukoisensuo mires in Ilomantsi. The restored area spans 84 hectares and is located on Tornator's grounds. The sites were drained in the 1950s and 1960s to increase forest growth but the results were not satisfactory. The goal was to reduce the sediment load on Koitajoki river and to reestablish the original conditions of the peatlands. Restoration efforts bring back the natural water levels of peatlands.

COMBATING CLIMATE CHANGE

COMMITMENT (10)



We contribute to the transition to a carbon neutral society by offering climate-friendly products and supporting achieving the Paris climate agreement goals.

Finland is one of the pioneers in curbing climate change. The forest industry and forestry play a vital and strongly positive role in reaching the set goals.

Released in 2020, the 'Green and vibrant economy' climate roadmap of the Finnish forest industries has sparked extensive interest in Finland and across Europe. In Finland, business roadmaps have been used for drafting national climate and energy strategies, for example, which serves as excellent proof of the cooperation between state administration and industry.

The roadmap has enabled more and more citizens and decision-makers interested in climate issues to realise that wood processing is a great example of circular economy. While a tree grows, it captures carbon dioxide from the atmosphere. Choosing products made of wood instead of emissions-intensive products benefits the climate. Wood-based products act as carbon storage throughout their lifecycle. While the forest resources expand and carbon circulates between the atmosphere, wood and products, the forest industry also provides employment around Finland and boosts the economy.

CASE UPM:

Industrial fillers in line with sustainable development

UPM Biochemicals has developed wood-based Renewable Functional Fillers (RFF) to replace fossil-based raw materials in industrial use.

These fillers are considerably lighter, cleaner and more cost-efficient than traditional fillers in terms of environmental performance and technical properties. The production

of the 100 per cent wood-based fillers will soon begin at the biorefinery under construction in Leuna, Germany. Once they enter the market, they will significantly reduce the carbon footprint of various rubber and plastic products.

CASE METSÄ GROUP:

Lambi biogas trucks are a more climate friendly option for tissue transport

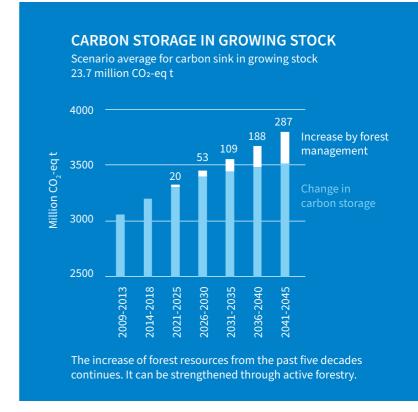
The Lambi brand of Metsä Tissue and Posti have launched a cooperation to enable more environmentally friendly transportation. The cooperation includes two Lambi-branded biogas trucks that deliver tissue papers to consumers with lower emissions. The trucks run on renewable liquefied biogas (LBG), reducing the lifecycle greenhouse gas emissions by up to 90 per cent compared to fossil-based diesel. In a year, this translates to about 128 tonnes of emissions saved per truck, corresponding to driving a passenger car for about 750,000 kilometers or nearly 19 times around the globe.

CASE TERVAKOSKI:

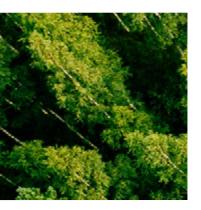
Warming up a mill with waste heat

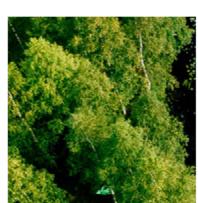
Tervakoski Oy has invested in new technology to reduce emissions. The new heat pump technology makes efficient use of waste heat. The investment will help reduce the mill's CO₂ emissions by more than 15,000 tonnes.

Forest industry climate roadmap for 2035











>16 MtCO₂



Products made of wood store carbon and replace other alternatives such as plastic, steel and cement.

MILLS RUN DOWN THE USE OF ALL FOSSIL MATERIALS



3 MtCO₂

2035 **0,3** MtCO₂

Mills are focusing on electrification, improving their energy efficiency and choosing fossil-free sources of energy.









HOW?





Replacing natural gas

Replacing fossil oil



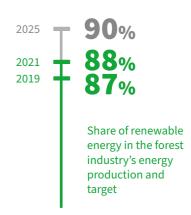




We increase the share of renewable energy production as a part of the emerging forest industry. Our aim is to increase the share of renewable energy in the forest industry energy production to 90 per cent by 2025.

Renewable energy in Finland is mostly based on bioenergy created out of wood not qualified for forest industry processing. Nearly two thirds of the renewable energy in Finland is dependent on the forest industry which is by far the largest bioenergy producer in the country. Tree bark and biosludge are some of the important sources of renewable energy.

Forest energy is clean, locally produced energy, as its origins are known and it is sourced in Finland. The share of renewable energy in the forest industry energy production has been considerably increased for a long time. As much as 88 per cent of fuels used by forest industry mills were renewable in 2021. This share will be further increased by investments to replace fossil fuels in combustion plants and by improving energy efficiency.



CASE SAPPI:

Replacing fossil fuels with renewable bioenergy

In early 2023, new reception, storage and processing equipment for solid biofuels, such as bark and forest chips, will be completed at the power plant of the Kirkniemi mill. The multifuel digester of the mill, completed in 2015, is able to use biofuels. The investment helps the mill replace fossil fuels with renewable, mostly Finnish energy, and reduces its direct CO₂ emissions by about 90 per cent, translating to about 230,000 tonnes of CO₂ per year. As a renewable source of energy, burning biofuel only releases the same amount of CO₂ as the biomass captured during its growing phase.

CASE UPM:

Ultracapacitor adds renewable energy to the grid

In the summer of 2022, UPM Energy deployed an ultracapacitor at its two hydroelectric power stations in Kainuu. In doing so, the company made history by combining a hydroelectric power system with an ultracapacitor for the first time in the world. The investment increases UPM Energy's ability to produce balancing power from its hydroelectric power stations faster and in larger quantities.

As the amount of renewable energy increases, the need for reserve capacity that can quickly respond to grid balancing needs increases as well. The full industrial scale project of UPM Energy pilots innovative technology that can meet the adjustment needs of the electricity market and enable an increased share of renewable energy in the grid.

CASE VERSOWOOD:

Renewable self-sufficiency through pellets

In 2021, the glued laminated timber mill in Heinola started using their own wood pellets as an energy source. Wood pellets are made out of byproducts of sawn timber. They are a clean, renewable form of bioenergy. The mill produces about 70,000 tons of pellets each year for heating purposes.

We are committed to the continuous improvement of energy efficiency.

Forest industry mills constantly invest in improving their energy efficiency. Production in the industry requires a great deal of energy, making energy efficiency a competitive asset for the companies. Forest industry mills saved a total of 426 gigawatt-hours of energy in 2021.

Energy efficiency has been improved in various ways. Enhancing the production processes of the mills by developing automation, for example, has been a key solution. Boosting the actual energy production, in other words carrying out energy efficiency improvements in the energy production units and optimising the use of steam, have also played a significant role. The amount of wasted steam has been reduced by means of heat recovery.

Forest industry companies are extensively involved in energy efficiency agreements and monitoring. The state and the industries have opted for voluntary energy efficiency agreements to promote energy efficiency in Finland. During the current agreement period, 31 forest industry companies in 120 locations aim for energy efficiency. The agreements are an important part of the energy and climate strategy and the primary means of promoting efficient use of energy. Sustainable and efficient use of energy reduces the CO₂ emissions that cause climate change.

426 GWh

Forest industry mills saved a total of 426 gigawatt-hours of energy in 2021 (Motiva). This corresponds to the annual energy consumption of 21,300 single-family homes.

CASE COREX FINLAND:

Saving energy by developing the lighting system

The lighting in the production facilities of the Pori mill was analysed and noted to be very uneven, lacking in energy efficiency and mostly did not reach lighting standard recommendations. The many operating hours combined with old lighting technology caused significant energy and maintenance costs, which is why the company wanted to improve its general lighting solutions. The goal for the plan and the implementation was to achieve safe lighting that would meet the requirements of the standard. A new control system and sensors installed in the facilities improved the users' comfort, aimed for additional cost savings and made the lighting more adjustable. The lighting levels can be optimised according to need and each lighting fixture can be individually adjusted.

The forest industry accounts for about 50 per cent of the energy savings of all Finnish industries.

CASE UPM:

Improving energy efficiency through process data and data analysis

The parts of paper machine lines consuming the most energy are a key part of the process, and their energy efficiency has been monitored and developed for a long time. However, the monitoring of smaller, individual energy streams not as apparent in the process has often been forgotten. Recently, the paper mills of UPM have developed methods for improving the efficiency of these smaller processes and energy-consuming parts as well. The company collects measured data from various systems around the parts and supplements it by using process modelling. Energy efficiency can be maintained and developed by analysing the data obtained from the process areas. Equipment maintenance can be scheduled to align with stoppages or the operating pattern can be adjusted for better energy efficiency.

CASE STORA ENSO:

Constant improvement of energy production

Stora Enso's packaging kraftliner mill in Varkaus has developed its energy production according to its new circumstances as the papermaking machine was converted into a kraftliner machine in 2015. The investments in the boiler in 2017 and 2019 were able to achieve 110 GWh per year in fuel savings. In addition, the fuel processing investment initiated in 2021 aims to achieve annual savings of more than 75 GWh. The total savings correspond to about 9 per cent of the mill's overall fuel consumption.

During the current agreement period, **31** forest industry companies in **120** locations aim for energy efficiency.

IMPLEMENTING SUSTAINABLE PRODUCTION AND CIRCULAR ECONOMY

COMMITMENT 13



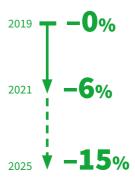
We continue to improve the efficiency of our water use and systematically reduce our water pollution load. Our aim is to reduce the nutrient emissions of our production facilities by 15 per cent per tonne of output by 2025 (year of comparison 2016).

The systematic water protection measures of the forest industry have been fruitful for decades. The emissions of suspended solids and oxygen-consuming loads to water systems, in particular, have decreased considerably. Nutrient emissions (nitrogen and phosphorus) have decreased moderately compared to other water emissions, but steadily nonetheless. The positive development in emissions is the result of developing processes and treatment methods as well as better control of disturbances.

The pulp and paper production accounts for only about 3 per cent of the entire nitrogen and phosphorus load from human activities ending up in Finland's waterways (source Finnish Environment Institute). The nutrient load of waste water relative to the production of pulp and paper in terms of nitrogen and phosphorus has decreased by around 6 per cent compared to 2016.

In the past five years, the forest industry has invested more than EUR 250 million in environmental protection. About EUR 100 million of these funds have been used on water protection investments. The development of measuring and modelling technology and modelling based on the measurements has enabled better control and management of emissions and optimisation of treatment processes. More efficient use of water also reduces the water pollution load of production facilities. The same litre of water circulates up to 15 times at a factory before it is treated and returned to the water systems.

In 2018, the forest industry was the first industry to join the national Water Stewardship Commitment promoting sustainable use and management of water.



Reducing the nutrient emissions of mills and reduction target



of the nutrient emissions in Finland originate from the pulp and paper industry

100 M€

invested in water protection between 2017 and 2021

CASE STORA ENSO:

Environmental investment reduces water emission load

Stora Enso's Oulu mills have invested EUR 40 million to reduce their environmental impact. The investment was made as part of the project of converting the paper machine into a kraftliner machine. The investment reduced the water emission load of the mills by 92 per cent in terms of chemical oxygen consumption and by more than 60 per cent in terms of nutrient emissions. Discontinuing the bleaching of pulp also considerably reduced the risks related to handling hazardous chemicals.

CASE METSÄ GROUP:

Water consumption reduction in all business areas

Metsä Group aims to reduce the unit water consumption of production (m3/tonne of product) in all of its production operations by 25 per cent compared to 2018. In 2021, the water consumption was reduced by 5.4 per cent through process enhancement and investments. Reducing water consumption also reduces the load to waters and nutrient emissions. More than 99 per cent of the water used in production facilities is surface water, and only a small amount is groundwater.

Long-term water protection has paid off.

CASE TERVAKOSKI:

New chemicals unloading station eliminated the risk of river contamination

The specialty paper mill of Tervakoski Oy in Janakkala implemented a new chemicals unloading station for its waterworks. The change significantly improved the environmental and chemical safety of the mill as well as the safety of passers-by. The covered unloading station for water treatment chemicals and its reservoir were removed from the public road and the immediate vicinity of the river to the mill area. The new unloading station eliminated the risk of water treatment chemicals leaking into the river.

We are committed to improving material efficiency and promoting nutrient recycling. We develop solutions for improving the added value of side streams through, for example, industrial symbioses.

of the production side streams are utilized.

Forest industry is circular bioeconomy at its finest. The activities focus on material efficiency, comprehensive use of raw materials and diverse use of side streams. Sustainably produced and renewable wood materials are used in a resource-efficient manner. The products can be recycled multiple times and, finally, used as bioenergy. The production side streams are also efficiently used, either in the mills' own processes or in industrial symbioses formed with partners, making it possible to minimise landfill waste. In recent years, a lot of effort has also been put into promoting the fertilizer use of side streams and recycling of nutrients.

The development of circular economy in the forest industry has been considerable; in 2021, 92 per cent of the side streams created in mill processes were used as materials or in the production of renewable energy. This has minimised the amount of landfill waste. The amount of landfill waste in proportion to production was considerably smaller (14 per cent) than the previous year, but slightly higher than in 2016 which was a benchmarking year for the sustainability commitments.

There is some annual fluctuation in the amount of landfill waste due to factors such as overall production volumes and the utilization possibilities of specific side streams, but in 30 years, the amount has dropped by an impressive 94 per cent.

CASE:

Nutrient survey highlights the opportunities of recycling of nutrients

In 2021, the Finnish Forest Industries Federation commissioned Vahanen Environment to analyse the nutrient balance and handprint of the industry's mill processes. The survey provides additional information on the opportunities for nutrient recycling. The nutrient handprint describes the positive impact of the forest industry in recycling nutrients by utilizing side streams. The work is influenced by the ambitious goals and commitments of the EU, Finland and the forest industry. New operating methods and innovations play a key role in harnessing the recycling potential. Monitoring the nutrient cycle and the recycling rate, making them visible and correctly targeting measures is important so that development can be made possible.

Resource-efficient use of wood material.

CASF:

New guidelines help put ash to good use

In 2021, the Finnish Forest Industries Federation in cooperation with Ramboll, the Finnish Transport Infrastructure Agency and the largest cities prepared guidelines for the use of ash materials produced by the forest industry in noise banks and other banks not subjected to traffic load. The detailed guidelines for planning and use include instructions on the types of ash used, planning, scaling and the related parameters, legislation and procurement. The guidelines helped in achieving the Finnish Transport Infrastructure Agency's general approval on the technical suitability of fly ash when used for this purpose. The decision eliminates the requirement of casespecific assessment, makes the materials approval process easier and promotes the use of recovered materials in groundworks.

CASE UPM:

Recycling options sought as additional sources of nutrients at wastewater treatment plants

One of UPM's environmental responsibility targets for 2030 is to only use recycled nutrients at their own wastewater treatment plants. The company aims to reduce the total amount of regional nutrient emissions. In 2021, the share of recycled nutrients was 35 per cent.

UPM has tested various side streams originating from its own production as well as side streams of other operators as potential sources of nutrients. In 2021, it also mapped potential partners for recycled nutrients throughout the company. As a result of these efforts, UPM has been able to replace some of the urea used as a nutrient with e.g. ammonium sulphate based side streams, reject water from the biogas plant and through co-treatment of municipal wastewater. The testing will continue at several mills with new sources of nutrients.

CASE ESSITY:

Taking advantage of a paper recycling side stream

The recycling process of recovered paper creates deinking sludge that can be used at the adjacent power plant. Previously, deinking sludge was used for earthworks, mostly in condensing landfills. Using the sludge for energy instead reduced the transportation needs by several hundreds of truckloads per year. The ash created in the energy process is also recycled and utilized. Due to its nutritional properties, ash is a sought-after material for fields, as a raw material for forest fertilisers and in groundworks.

CASE TERVAKOSKI:

Paper made from oat hulls

The Tervakoski paper mill cooperated with various partners to develop and produce ecological oat hull paper for Fazer's oatmeal bread packaging. 25 per cent of the paper's raw material is oat hull produced as a side stream of the Fazer mill. Oat hull paper is safe to use and keeps the bread fresh and soft. The packaging can be recycled as paperboard. The idea for developing oat hull paper came from the HerääPahvi! project, a joint effort between Tampere University of Applied Sciences (TAMK), the Natural Resources Institute Finland (Luke) and Design Forum Finland.

Collaboration creates new possibilities for innovative use of side streams.

CASE STORA ENSO:

Surplus fibres turned into recycled nutrients, helping water conservation efforts

Since 2020, Stora Enso's Anjalankoski mills have used the sludge from the wastewater treatment plant for soil improvement instead of energy production. This renewable source of nutrients replaces industrially produced, energy-intensive, fossilbased nitrogen fertilisers as well as phosphorus fertilisers that consume limited natural resources. The sludge also helps control the nutrient emissions of agriculture. The sludge acts as a recycled nutrient and increases the carbon sequestration of fields. Fibre sludge has been shown to increase the humus content and microbial activity of fields, improving the water and nutrient retention and fertility of the soil. Studies also show that the improvement of field water economy also reduces sediment and nutrient leaching. Sludge rich in calcium carbonate also has a positive impact on soil acidity, reducing the need for liming.

Diverse use of side streams.

INCREASED RESPONSIBILITY THROUGH COOPERATION

COMMITMENT (15)



We communicate openly on environmental and responsibility issues and conduct an active dialogue with key stakeholder groups.

Despite the COVID-19 pandemic, the forest industry and its stakeholders have continued their dialogue and cooperation. A recent stakeholder survey showed that most of the respondents felt that the forest industry is engaged in an active dialogue with its key stakeholders.

Cooperation with the forest industry is described as efficient but there was also some room for improvement. The respondents hoped that diverse voices would be heard even better in the future. More than 50 per cent of the respondents felt that the forest industry communicates openly about environmental and sustainability issues. Among other things, the forest industry companies include increasingly extensive accounts on responsibility and sustainability in their annual and sustainability reports. Since 1990, the Finnish Forest Industries Federation has released statistics on the emissions of the pulp and paper industry.

The forest industry engages in an active dialogue with its stakeholders

Cooperation with the forest industry is efficient

I feel I have been heard in a dialogue with the forest industry

The forest industry communicates openly about environmental and responsibility issues

*Source: Survey on sustainability and interaction 2022 by Proof Advisory Oy, commissioned by the Finnish Forest Industries Federation. The scale was 1–5, where 1 = Completely disagree, 5 = Strongly agree. In addition, the option "Cannot say" was included. N = 89 people from various stakeholder groups

CASE:

Dialogue increases understanding and cooperation

Every year, the Finnish Forest Industries Federation organises a series of discussions called Nuotiotulet ('Campfire talks') with its stakeholders, during which representatives of various stakeholder groups get together to discuss varying themes and current issues relevant to the industry. In the spring of 2022, stakeholders discussed topics such as the availability of skilled workforce, carbon offsets, developing cooperation between businesses and the research sector, securing forest biodiversity and the reputation of the forest industry. The dialogue was considered fruitful, and bringing together various parties for discussion was found necessary.

CASE STORA ENSO:

Recognition for sustainability reporting

In 2021, Stora Enso's sustainability report won the Finnish Sustainability Reporting Awards. The report was praised for its scale, comprehensiveness, structure and the strong connection between the reported topics and the core business operations of the company. Stakeholders also chose Stora Enso's report as their favourite. The purpose of the annual Sustainability Reporting Awards is to develop sustainability efforts and reporting in organisations, highlight good practices and acknowledge particularly distinguished corporate sustainability reports.

CASE SAPPI:

Kirkniemi mill keeps in touch with the neighbours

Once a year, the Sappi Kirkniemi mill invites the residents of the area for a neighbourhood meeting. The invitations are sent to about 600 households and holiday homes. The meeting covers current environmental protection topics of the mill as well as ongoing projects, results and future prospects. After an active discussion, the guests are sometimes given the chance to visit the production facilities, depending on the production status at the time.

The mill posts news on its social media channels 2–3 times a week. They offer an easy way to contact the mill.

We promote sustainable development in society by carrying out responsibility projects with our partners and collaborating with local communities.

CASE ESSITY:

Pupil and student groups visit the mill

The doors of the Essity Nokia mill are open to pupil and student groups. The groups are usually given a brief introduction of the company followed by a tour of the mill. The mill has a team to handle the arrangements of the visits in cooperation with the educational institution. In practice, visits can always be arranged one way or another. The goal of the tour is to introduce the mill to the young people, contribute to their environmental education and improve the employer image of the industry.

CASE:

School campaign introduces opportunities in the forest industry

The goal of the joint school project of the forest industry, called 'A forest of opportunities', is to raise awareness of the industry among young people. Organised since 2013, the campaign annually includes about 300-350 schools. According to the sign-up, the campaign reaches more than 20,000 pupils, in other words more than half of the age group across Finland. In the campaign, forest industry professionals visit schools to talk to eighth-graders about the diverse educational and professional opportunities offered by the industry, sustainability efforts made in the industry and the products that can be made from wood. This year will be the second time the campaign includes upper secondary schools, which will be visited by higher education students from the relevant fields of study. In addition to an inspiring class, the schools are given a portfolio of products to introduce some of the familiar forest industry products as well as new innovations.

CASE METSÄ GROUP:

Nature programme supports impressive development projects

In the autumn of 2021, Metsä Group launched a ten-year programme to financially support regionally effective development projects that are carried out in Finland outside commercial forests with the goal of supporting biodiversity and the state of waters. The projects may relate to bird waters and wetlands, watercourse routes, small waters and coastal environments, pollinator habitats or new water protection methods. Metsä Group chooses projects for its nature programme annually. So far, 16 projects have been selected for the programme and a total of about EUR 600,000 has been granted to the projects.

CASE SAPPI:

Help for children and young people in need of support

Each year, the employees of Kirkniemi receive 2 per cent of the savings incurred by ideas of continuous improvement for their personal use. The representatives of all the employee groups decided to share some of the remunerations with the children and young people in need of support in Lohja and the surrounding region. Between 2016–2021, the employees have donated a total of EUR 76,000 for this purpose. The funds have been divided between local operators, such as Hope Lohja and Save the Children Lohja. The donations have been used to support the education and hobbies of children of low-income families, organise birthday parties and procure hygiene products.

CASE STORA ENSO + TORNATOR:

Small water systems restored in cooperation with WWF

WWF, Stora Enso and Tornator launched a cooperation for forest streams with the goal of restoring habitats in small water systems in Finland. Practical measures include replacing or adjusting culverts acting as migration barriers, removing old, minor dam structures, restoring stream and river routes and constructing breeding grounds. Spanning several years, the goal of the project is to increase the number of habitats restored for migratory fish and other species dependent on rivers and streams.

CASE UPM:

Dialogue on climate change with the Guides and Scouts of Finland

The goal of the cooperation between UPM and the Guides and Scouts of Finland is to raise awareness and increase dialogue between young people and decision makers on climate change and sustainability. The cooperation has been extensively implemented between 2020 and 2022. The project has included discussions on climate change and the factors affecting it, sustainable choices and sustainable forestry. The cooperation with the scouts has included the Ilmastoreppu pääministerille ('Climate backpack for the Prime Minister') campaign, several forest-themed Timeout discussions, support for the Campfire Summit and participation in the Finnjamboree of the summer 2022.

CASE FM-HAUS:

EcoCompass certification promotes ecological construction

The Finnish Association for Nature Conservation has granted the EcoCompass certificate to FM-Haus Ltd. EcoCompass is an environmental management system that requires the fulfillment of ten environmental criteria. The certificate serves as tangible proof of the environmental efforts of FM-Haus. The company aims to promote ecological construction, and developing environmental responsibility has been part of all of its operations for a long time. Among other things, FM-Haus implemented a pilot project calculating the lifecycle carbon footprint of a building completed by the company. In addition to the pilot, the company makes environmental responsibility part of its employees' everyday life by means of training, for example.

We contribute to achieving the UN sustainable development goals.

The forest industry plays an important role in the implementation of the UN's Sustainable Development Goals (Agenda 2030), adopted in 2015, both in Finland and globally. The forest industry introduces ecologically sustainable products that are produced from renewable and recyclable materials to the markets. The products help to reduce the dependence of people and societies on depleting natural resources.

The UN Sustainable Development Goals were taken into account in the 2018 update of the Finnish forest industry's sustainability commitments. The member companies of the Finnish Forest Industries Federation have also renewed their own sustainability targets based on the goals and defined the goals that are most significant for their business. The forest industry's sustainability commitments are also linked to the national Society's Commitment to Sustainable Development.

CASF:

The forest industry plays an active role in the UN Global Compact initiative

The Finnish Forest Industries
Federation is committed to the UN
Global Compact initiative. It is the
largest global initiative in the world
promoting corporate sustainability for
businesses and other organisations.
The voluntary initiative offers its
members a sustainability framework,
the principles and goals of which are
known all over the world.

The Finnish Forest Industries Federation highlights the industry's commitment to the ten principles of the Global Compact concerning human rights, labour, the environment and anti-corruption. Forest industry companies have played an active role both in establishing the Finnish Global Compact network and in the international Global Compact work. As a member organisation, the Finnish Forest Industries Federation participates in the activities of the network and supports its member companies in their sustainability efforts.

Our sustainability commitments contribute to achieving the UN's Agenda 2030 Sustainable Development Goals in many ways.

PROMOTING BIODIVERSITY AND THE SUSTAINABLE USE OF FORESTS





COMBATING CLIMATE CHANGE











INCREASED RESPONSIBILITY THROUGH COOPERATION

PROMOTING SUSTAINABLE ECONOMY AND WELFARE















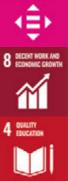








IMPLEMENTING SUSTAINABLE PRODUCTION AND CIRCULAR **ECONOMY**



RESPONSIBLE EMPLOYERS

