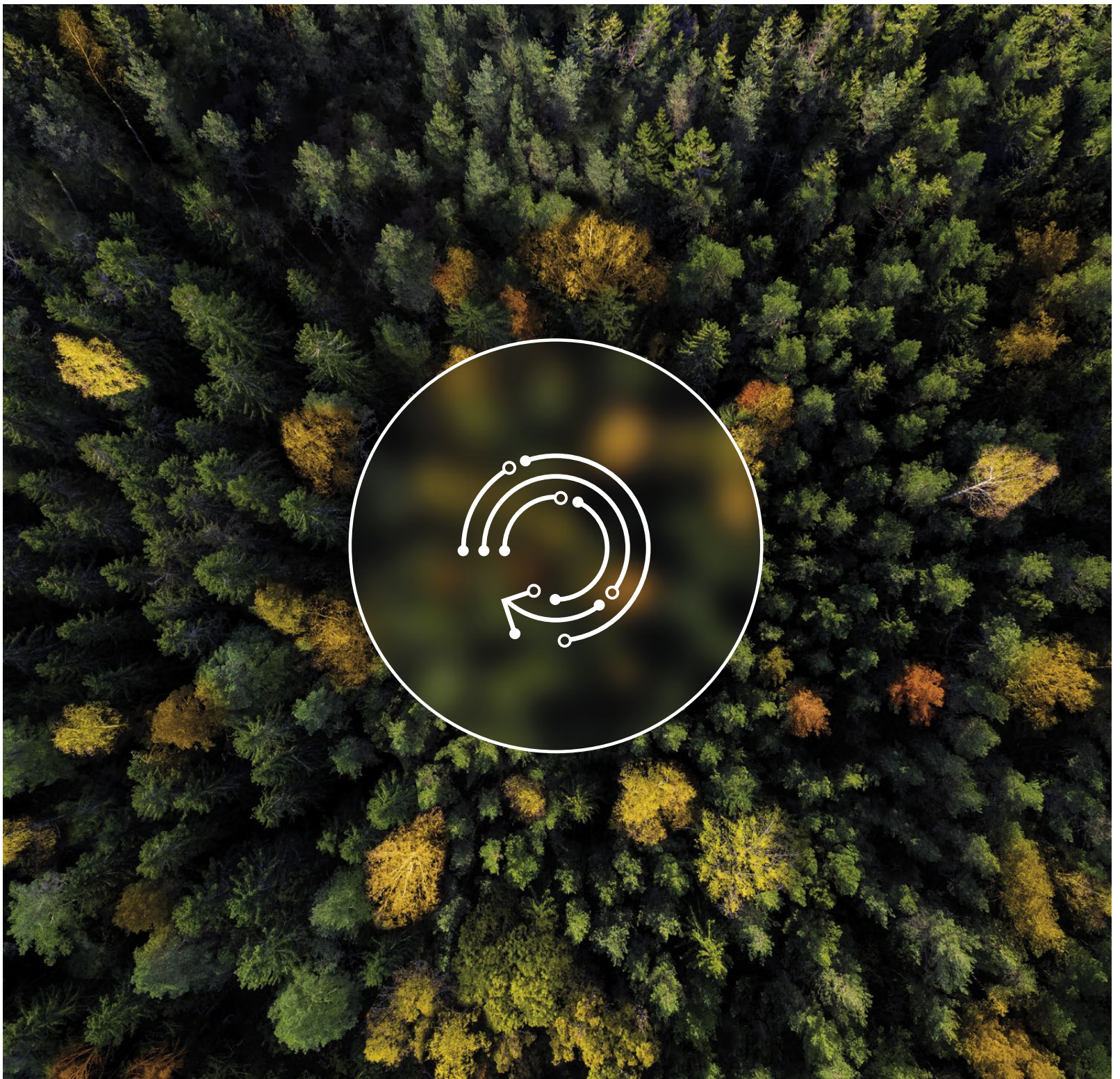


Metsä Group
Sustainability Report 2020

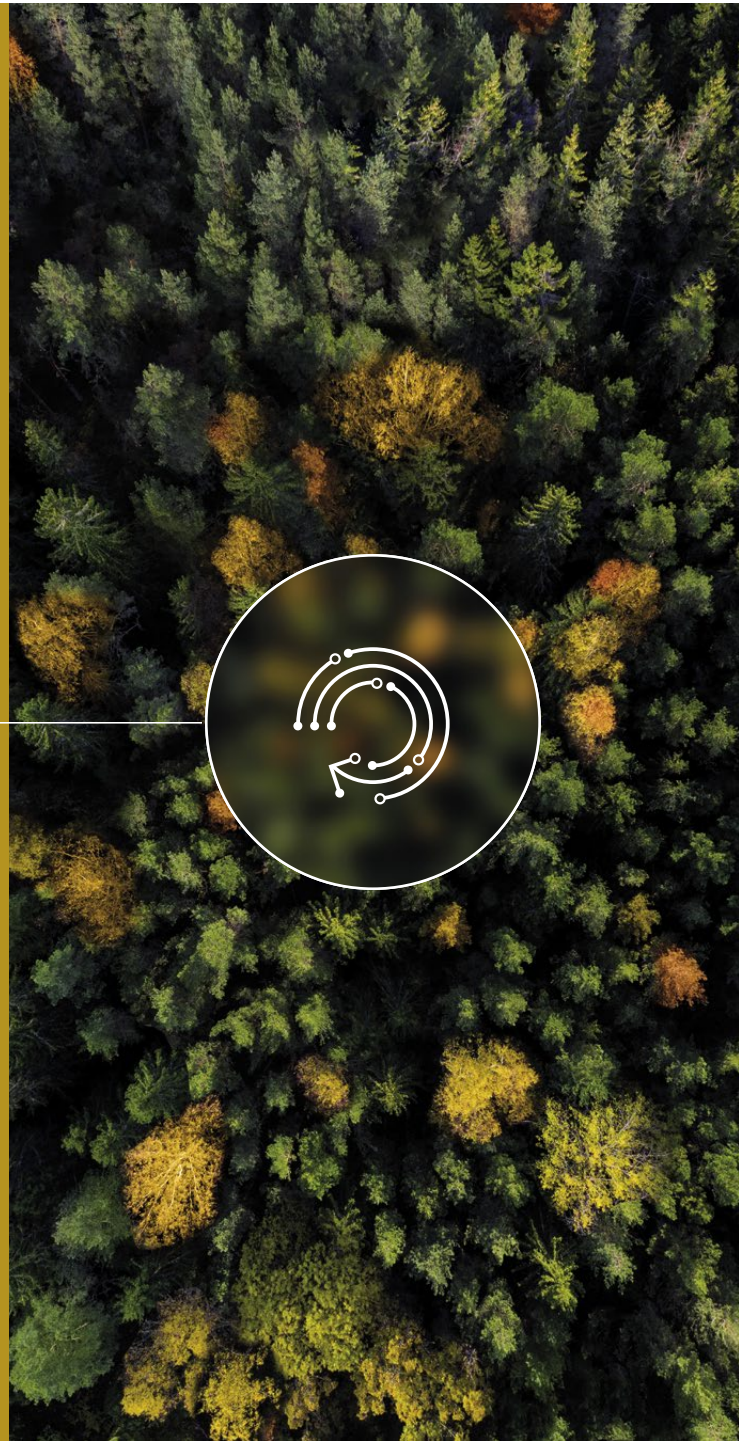




Sustainable growth from Metsä

Metsä Group is a Finnish forest industry company that operates on the international market. We focus on wood supply and forest services, wood products, pulp, paperboards, tissue and greaseproof papers.

In 2020, Metsä Group's sales totalled EUR 5.1 billion and it employs approximately 9,200 people. The company has 35 production units in eight European countries.



Metsä Group

These publications are available online at www.metsagroup.com

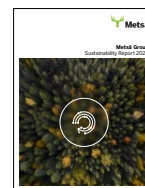
Please email any feedback to communications@metsagroup.com or communicate it to us via social media @MetsaGroup



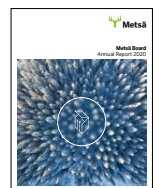
Metsä Group Brochure 2020



Metsä Group Annual Review 2020



Metsä Group Sustainability Report 2020



Metsä Board Annual Report 2020

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MAKING THE MOST OF PRODUCTION SIDE STREAMS

The utilisation of industrial side streams is an important way to improve resource efficiency. Currently Metsä Group utilises 93% of production side streams.



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SAFEGUARDING FOREST BIODIVERSITY

Increasing the amount of decaying wood in forests is one of the actions which supports our sustainability objective of safeguarding biodiversity.



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CREATING VALUE IN SOCIETY

We create value locally, nationally and internationally. Our aim is to be a responsible and active member in the communities where we operate. The majority of our products can replace the use of fossil resources.



2020 in a nutshell



Rauma investment – the world’s most modern sawmill

The Rauma sawmill is the largest sawmill investment ever to be made in Finland. The new sawmill will be a forerunner in technology and efficiency with the entire environmental impact of the sawmill minimised. The mill will be fossil free and utilise the integrated pulp mill’s energy, side stream and logistics synergies. Noise management has also been taken into consideration. The new sawmill will produce around 750,000 cubic metres of pine sawn timber per year that can, for example, be used as construction material storing carbon for a long period of time. The construction began in 2020 and production is set to start in the third quarter of 2022.

A new programme reinforces ecological sustainability practices

Metsä Group launched an ecological sustainability programme in 2020. Our most important goals are the strengthening of forest growth and carbon storage, the protection of biodiversity in forest nature and the enhancement of water protection in forest work. For example, at the beginning of 2020, we aimed to leave four high biodiversity stumps on each hectare in all felling operations. Regarding waterways and peatland forests, we participated in research projects led by the Finnish Environment Institute and the Natural Resources Institute Finland.

Improved workplace safety

Metsä Group’s long-term safety goal is to have zero accidents. We are proactive and monitor our safety performance with unified KPIs. Since 2020, Metsä Group has followed TRIF as the main safety KPI to be able to track our progress in an even more comprehensive manner than before, as we make our way towards an accident-free workplace. In 2020, workplace safety improved by 49%.



Working towards fossil free mills in Husum

Metsä Board made the final investment decision regarding the first phase of the pulp mill renewal in Husum, Sweden. The investment includes a new recovery boiler and turbine and its total value is approximately EUR 320 million. The renewal is a key step towards our strategic sustainability objective to have fossil free mills by 2030. After the renewal the energy efficiency of the mill will be improved significantly and the use of fossil fuels will decrease. The work is estimated to be done during H1 of 2022.



Further developing an ethical business culture

Metsä Group conducted a large-scale ethics barometer, the aim of which was to gain an insight into how our personnel perceives that business ethics and the Code of Conduct are realised in practice. The results of the first ethics barometer were good overall with some development needs identified in different areas of human resource management, equal

treatment of people and in a culture where people have the courage to report unethical conduct - with confidence that their concerns will be addressed. Metsä Group is launching new development measures identified by and based on the results to further promote an ethical company culture.

Ensuring supply chain sustainability

In late 2020, we renewed our Supplier Code of Conduct. This was done to support Metsä Group's supply chain related 2030 Sustainability Objectives. The renewal also allowed us to better align the Supplier Code of Conduct with our own Code of Conduct, renewed in 2019. Our Sourcing & Logistics function further improved its processes and tools concerning supplier assessments, compliance, and audits to help ensure our suppliers operate according to our sustainability requirements.

Operations remained stable despite the pandemic

Overall, the resource situation in Metsä Group has been normal during the coronavirus pandemic. We have mostly been able to continue our business and development projects as planned. During our annual maintenance shutdowns this autumn, a total of nearly 2,000 coronavirus tests were performed. Metsä Group is currently producing for example pulp, paperboard and tissue papers that are particularly necessary at present to promote hygiene, protect consumer goods and ensure consumer safety.

Creating value

Inputs



COMPETENT AND MOTIVATED PERSONNEL:

9,200 employees in 27 countries

35 production facilities in 8 countries

SECURE SUPPLY OF RAW MATERIALS:

100,000 owner-members in the cooperative

50% of the privately owned forests in Finland held by the cooperative members

32.7 million m³ wood procured

79% of wood comes from Finland

100% traceable wood from sustainable sources

87% of the used wood from certified sources

STEADY OUTLOOK FOR THE FUTURE:

2,005 Liquidity EUR million

57.2% Equity ratio

4.3% Net gearing

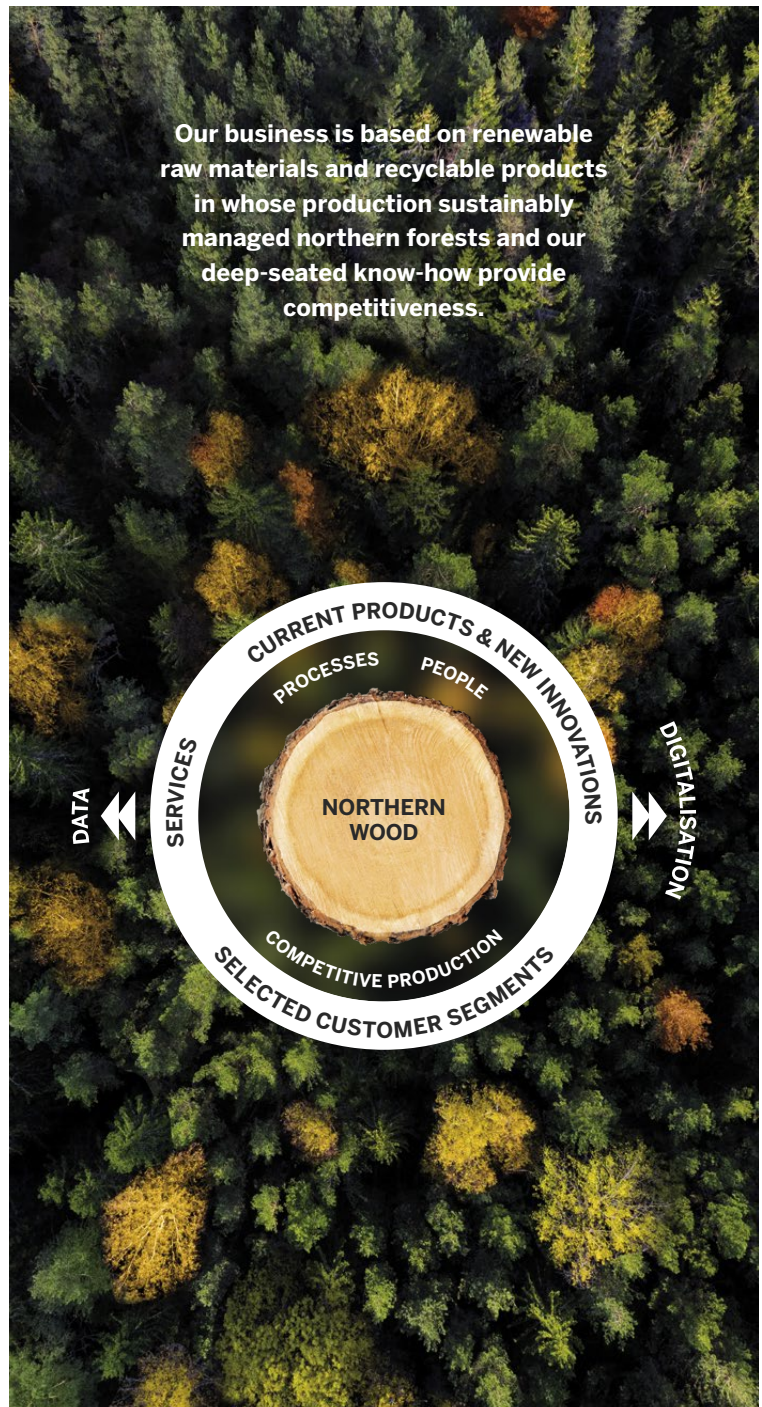
5,303 Capital employed EUR million

425 EUR million in investments and R&D

Group strategy



Our business is based on renewable raw materials and recyclable products in whose production sustainably managed northern forests and our deep-seated know-how provide competitiveness.



Outputs and impacts

SUSTAINABLE FOREST MANAGEMENT:

- We promote sustainable forest management and accelerate the growth of forests. We use trees from forests that grow more than they are used. We plant four seedlings per each harvested tree in regeneration fellings. We deliver approx. 33 million seedlings to forest owners annually.
- High biodiversity stumps are left in 84% of thinning and regeneration fellings and retention trees in 94% of regeneration fellings.
- We aim to increase the proportion of mixed forests.
- Forests act as carbon sinks as they store carbon dioxide while growing.

REPLACING FOSSIL RESOURCES:

- The majority of our products can replace the use of fossil resources.
- We utilise all resources efficiently. Each part of the wood is used for the highest added value products.
- 90% of the fuels used in production are renewable and our aim is to be fossil free by 2030.
- We produce over 15% of the renewable energy in Finland.

NATIONAL VALUE:

- The value of exports from Metsä Group's Finnish mills is EUR 2.8 billion, equivalent to nearly 5% of Finnish exports.
- EUR 66.6 million paid as corporate income and property taxes.

SECURE AND LONG-TERM JOBS:

- In Finland, Metsä Group's operations create up to 15,000* jobs indirectly around the country. The impact is realised especially in rural areas.
- 92% of employees have a permanent contract
- On average, employees have worked for Metsä Group for 15.8 years
- Retention rate of employees was 97.3% in 2020

WELFARE TO STAKEHOLDERS:

- EUR 615 million paid as wages, salaries and benefits
- EUR 510 million to Finnish forest-owners from wood sales
- EUR 370 million to harvesting and transportation entrepreneurs in Finland
- EUR 66 million paid as interests to Metsäliitto Cooperative's owner-members

* According to Finnish Forest Industries Federation

Sustainability management

Metsäliitto Cooperative is a Finnish cooperative and Metsä Group's parent company, owned by approximately 100,000 forest-owner members. In Metsäliitto Cooperative, the highest administrative body to steer sustainability is the Board of Directors. The President & CEO is responsible for strategic sustainability in Metsä Group operations.

The Metsäliitto Cooperative Board of Directors approves all group policies, long-term strategic objectives, targets and guidelines. Metsä Group's President and CEO manages the Group's operations in accordance with the law and the cooperative's rules, as well as in accordance with the decisions and instructions of the Board of Directors and the other administrative bodies. The President and CEO is assisted by the Group's Executive Management Team, which jointly oversees the implementation of strategy, in which sustainability is in a key role.

STRATEGIC SUSTAINABILITY 2030 OBJECTIVES

Sustainability has a core role in Metsä Group's strategy. It is central when developing our operations and in advancing bioeconomy and a circular economy by efficiently processing northern wood into first-class, carbon-storing and recyclable products. Our strategic 2030 sustainability

objectives help guide us in prioritising our sustainability related effort and work. The objectives support the UN Sustainable Development Goals to which we can most contribute.

In terms of our strategic objectives, our priorities remain the same. We are committed to increasing the role of forests as carbon sinks as well as to increasing the amount of carbon stored in products. To support the development of a low-carbon society, we invest in our mills to generate no fossil CO₂ emissions. To improve resource efficiency, we will continue working towards using energy and processing water more efficiently. All the production side streams will be used for added-value products. We will continue to work towards fossil free raw materials for our products by 2030. In our own operations, we further develop safety at work, as well as strive towards an overall improved ethical company culture. Our suppliers operating in our supply chain are expected to share our sustainability expectations and to work towards improving their own practices, where needed.

Each objective is systematically followed, to ensure efficient execution. The objectives are operationalised by our various business areas and functions. They have created roadmaps to guide development in relevant objectives, as well as indicators to inform us of their progress. The Metsä Group Sustainability Process Management Team regularly monitors progress and ensures that we are on the right track.

Comprehensive sustainability management has strong roots in Metsä Group, which is an excellent foundation for achieving our 2030 sustainability objectives. We have been a signatory of the UN Global Compact sustainability initiative since 2003 and support its ten principles regarding human rights, labour, environment and anti-corruption. We report our progress on an annual basis

Metsä Group sustainability governance model

GOVERNANCE BODY	RESPONSIBILITIES
Metsäliitto Cooperative Board of Directors	is the highest management body approving policies and long-term strategic objectives for sustainability.
Metsä Group CEO and President	is the highest representative of the company to give the Group's commitment to sustainability and its strategic significance.
Metsä Group Executive Management Team	and its members are responsible for reaching the sustainability objectives in their respective organisations.
Metsä Group Sustainability Process Management Team	consists of the business area representatives and function heads that are responsible for ensuring that the sustainability targets are implemented in the organisation, as well as reporting back on the progress.
Sustainability	is implemented through the business areas' and functions' processes and through annual plans to daily actions.



in this report. In addition to shared global sustainability goals and initiatives, the views and expectations of our primary stakeholders pave the way for our sustainability work.

INTEGRATED SUSTAINABILITY

We operate a model of sustainability management, which is based on the notion of strategic, operational, and cultural integration. Sustainability is a mindset that concerns everybody at Metsä Group, as each of us plays a role in contributing to our strategic 2030 sustainability objectives. The process model is how we manage all three dimensions of sustainability – economic, social, and ecological – and ensure they are considered across our operations by default, and that they become an inherent part of planning and decision-making.

The path towards integrated sustainability, as described above, requires conscious effort. Various measures are ongoing to implement the model, such as the roadmaps that business areas and functions have developed to translate the 2030 objectives into tasks as part of daily work. Improving internal sustainability data collection and its flow is an important development area in improving overall sustainability management.

A specific Sustainability Process Management Team assesses progress made towards our 2030 objectives. It consists of business area representatives and function heads who are responsible for ensuring that the sustainability objectives are implemented in the organisation and reporting back on progress, as well as Metsä Group’s VP, Sustainability, and the Sustainability Process owner, SVP, Corporate Affairs.

Metsä Group's material topics:

- Safety at work
- Resource efficiency
- Product safety
- Innovations
- Renewable energy
- Sustainable forest management
- Sustainable supply chain
- Emissions to water and air
- Circular economy
- New bioproducts
- Water use
- Supporting local livelihoods and society



The challenges and requirements of all three areas of sustainable development, economic, social and ecological sustainability, must be met in a balanced way and with continuous performance improvement.

– Ilkka Hämmälä, President and CEO of Metsä Group

Read more in our Annual Review



Metsä Group's strategic sustainability 2030 objectives



We bring the forest to you

Increasing the amount of carbon stored in forests

- Our objective is to increase the area of regeneration and management of young stands by 30% from the 2018 level and increase the amount of products storing carbon.

Safeguarding biodiversity

- Our objective is to increase the amount of decayed wood by which we mean leaving high biodiversity stumps and retention trees in regeneration logging sites and thinnings.

We work for a better climate and environment

Fossil free mills

- Our objective is to produce zero fossil CO₂ emissions.

Resource efficient production

- Our objective is to utilise our production side streams by 100%.
- Our objective is to decrease the use of process water by 25% from the 2018 level.

Sustainability is part of everything we do. The foundation of our sustainability work consists of four themes covering all our operations. With the strong commitment to our new strategic sustainability 2030 objectives we are building a path to a climate neutral society. Our sustainability work supports reaching the global Sustainable Development Goals (SDGs) set by the United Nations.



We offer sustainable choices

Fossil free raw materials

- Our objective is to have fossil free raw materials and packaging materials.

Sustainable supply chain

- Our objective is that 100% of our suppliers are sustainable.
- Our objective is that 100% of our raw materials are traceable.

We create well-being

Responsible corporate culture

- Our objective is that the result of the ethics barometer is 100%.

Accident free work environment

- Our objective is to have zero workplace accidents.

We bring the forest to you



Metsä Group's main raw material, wood, comes from sustainably managed northern forests where growth exceeds use. We always know the origin of the wood we procure and ensure sustainable forest management with forest certification. We safeguard biodiversity of forests by various means.

INCREASING THE AMOUNT OF CARBON STORED IN FORESTS AND PRODUCTS

Target	Performance in 2020	Comment
Area of regeneration and management of young stands:		Management of young stands has increased 14% compared to the base year as a result of dedicated efforts. However, the land mass of forest regeneration has declined by 11% due to smaller volumes of felling.
+30% vs. 2018	0%	



SUSTAINABLE FOREST MANAGEMENT

In 2020, Metsä Group's wood procurement totalled 32.7 million m³ (34.7). Out of this, 24.6 million m³ (25.5) was used by Metsä Group's own mills. 79% of the wood was procured from Finland, 7% from Russia, 7% from Sweden and 7% from the Baltic countries.

Our sustainable forest management practices ensure that different aspects of sustainability are considered and the use does not exceed the rate of growth. Metsä Group applies the same sustainable forest management practices in all wood procurement areas. The most significant tools to ensure sustainable forest management are the certification schemes PEFC™ (Programme for the Endorsement of Forest Certification) and FSC® (Forest Stewardship Council®; Licence Code FSC-C014476). Forest certification and chain of custody certification are comprehensive ways to ensure the sustainable and traceable origin of wood. Forest certification takes into account social, ecological and economical aspects in forest management operations. By setting requirements that assure a certain level of performance, irrespective of country, forest certification is a valuable tool to increase sustainability.

In 2020, 87% (85) of the wood used by Metsä Group was PEFC™ and/or FSC® certified.

All the wood that Metsä Group uses meets, at minimum, the requirements of FSC Controlled Wood and PEFC Controlled Sources. In order to ensure compliance with the FSC Controlled Wood requirements, Metsä Group in Finland has conducted a variety of control measures and applies these in all the procurement of wood material supplied without an FSC claim. For example, data and maps of potential high conservation value forest areas are included in the data systems utilised in the planning and conducting of wood purchase and harvesting operations of Metsä Group.

Metsä Group's forestry services help to ensure the future growth of the forests, including services such as tending young stands and forest regeneration. In 2020, Metsä Group delivered approximately 33 million seedlings to Finnish forest owners. The forest owners planted about half of these and the rest of the seedlings were planted by contract entrepreneurs. In regeneration felling, on average four new seedlings are planted for every harvested tree. Pine forests are often regenerated by sowing seeds. In addition, multiple broad-leaved trees appear naturally in regenerated areas compared with the amount of seedlings planted.

INCREASING THE AMOUNT OF CARBON STORED IN FORESTS AND PRODUCTS

Target	Performance in 2020	Comment
Amount of carbon stored in products (t):		In 2020 the production of sawn timber and wood products decreased due to the COVID-19 pandemic and the strikes that occurred in Finland in early 2020.
+30% vs. 2018	-8.9%	In 2020, an investment decision was made to construct a major sawmill in Rauma, Finland, which will greatly increase our volume of carbon-storing products.



We invest in long-lasting wood products that store carbon for a long time. Metsä Group aims to increase the amount of products that store carbon with a long life span. Those products have a clear role in mitigating climate change. As an example, in buildings wood products store carbon for a long time. In the future, the portfolio may include for example, textile fibres.

The current scope of this objective concerns production of Metsä Wood's Kerto LVL and Metsä Fibre's sawn timber. Using this scope, we stored 1 505 510 CO₂ in 2020. Compared to the 2018 reference year, it represents 8.9% decrease.




Highlights of 2020 include the decision to build the world's most modern sawmill in Rauma, Finland. The new unit will produce around 750,000 cubic metres of pine sawn timber a year, which should bring us a step closer to our

2030 objective. Construction began in the spring of 2020. Production at the sawmill is set to begin during the third quarter of 2022, although the COVID-19 pandemic may impact the schedule. Another highlight concerns starting production at the MI Demo Oy textile fibre demo plant, which is a joint venture with Itochu Corporation. If proven commercially viable, the joint venture's textile fibre has the capability to provide a sustainable alternative to the textile fibre market.

We continued to promote wood-based construction with policymakers, architects, and other stakeholders with fact-based information. Challenges include the large change that is required in the construction industry supply chain to accommodate for further wood-based solutions.



SAFEGUARDING BIODIVERSITY

Target	Performance in 2020		Comment	
Increasing the amount of decayed wood (high biodiversity stumps in 90% of thinnings and regeneration logging sites and retention trees in all regeneration logging sites)	High biodiversity stumps	Retention trees	In 2020, high biodiversity stumps were left in over 84% of thinnings and regeneration logging sites. This supports the biodiversity of forests through leaving vital habitats for hole nesters and species dependent on decaying wood. Retention trees were left at 94% of all regeneration logging sites. They have two principal purposes: providing a forest with trees of various ages, and with decaying wood.	  
	84%	94%		

Consideration for nature values and biodiversity is an integral part of sustainable forest management measures and wood supply. Biodiversity can be considered in various ways, such as leaving retention trees in regeneration felling, and a mixture of broadleaved trees in thinning. In terms of biodiversity, it is important to support mixed forests wherever the fertility of the site allows for it. Biodiversity can also be safeguarded by protecting key habitats and making buffer zones to protect the cleanliness of watercourses and to provide connectivity.

Increasing the amount of decaying wood in forests is one of the actions which supports Metsä Group's sustainability objective of safeguarding biodiversity. The amount of decaying wood in a forest is actively increased by both the retention of decaying trees already there and the creation of new ones. The most important and visible element for this process is to leave a group of retention trees standing after a felling. At least ten trees are left standing on each hectare, preferably in small groups. The retention trees have two principal purposes: they provide a forest with trees of various ages, and with decaying wood.

Metsä Group monitors the quality of retention trees left in a felling. In 2020, we left an average of 15.6 (14.5) retention trees on each hectare. Broadleaved trees – such as birch, aspen and alder – are the most valuable retention trees as in Finland they are rarer than pine and spruce.

From 2020 onwards, forest owners have been encouraged to leave four high biodiversity stumps per hectare in all fellings. Increasing the amount of decayed wood is an important measure in safeguarding biodiversity.

Since late 2016, all types of felling operations carried out by Metsä Group have included the creation of high biodiversity stumps. High biodiversity stumps are made by cutting a tree's trunk at the height of 2–4 metres. A high biodiversity stump starts decaying after a few years, benefiting fungi, insects and a number of forest-dwelling birds. High biodiversity stumps are a forest owner's voluntary addition to efforts aimed at supporting the biodiversity of forest nature. In 2020, high biodiversity stumps were created on approximately 84% of Metsä Group's felling sites.

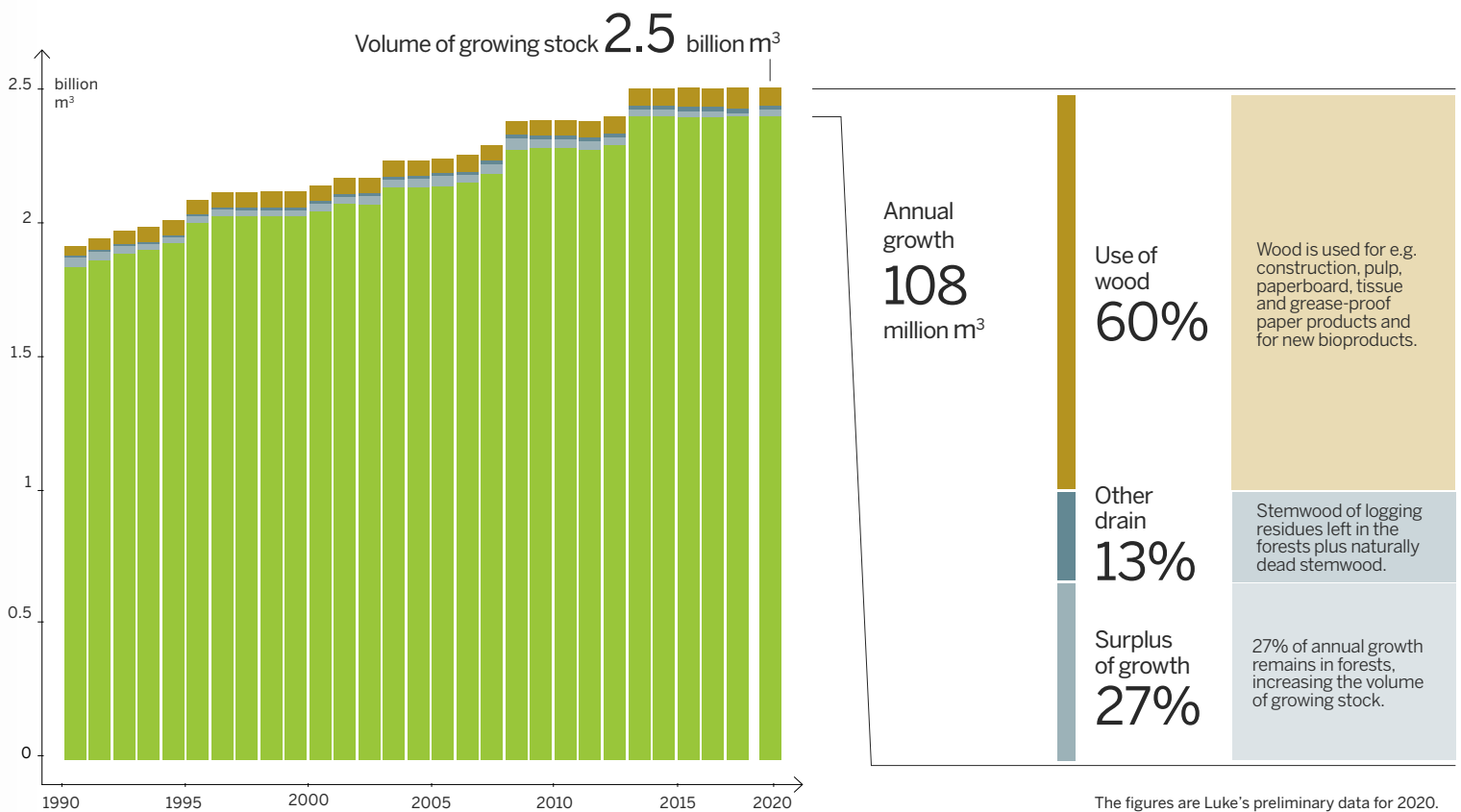


Forest data
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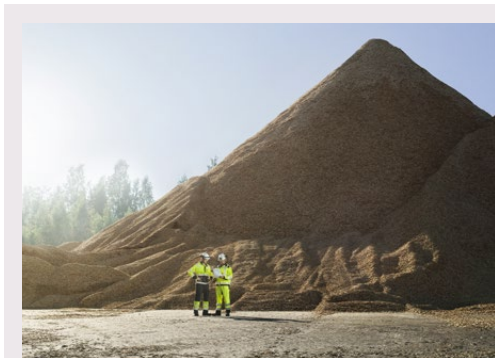
THE AMOUNT OF WOOD IN FINNISH FORESTS INCREASES EVERY YEAR

Forests cover roughly 75% of Finland's land area. Finland's forests contain some 2.5 billion m³ of wood and the annual growth of forests is 108 million m³. The volume of wood in Finland's forests has increased by approximately 70%, or around a billion m³, over 50 years. Generally northern forests grow well and applied sustainable forest management practices ensure that different aspects of sustainability are considered and the use does not exceed the rate of growth.

Source: Natural Resources Institute Finland (Luke)



We work for a better climate and environment



Metsä Group strives to operate as resource wisely as possible and minimise our impacts on the environment. Each part of the wood is utilised to the most valuable purpose and we optimise the use of other resources needed for production. Our long-term target is that our mills are fossil free.

FOSSIL FREE MILLS

Target	Performance in 2020	Comment
Fossil CO ₂ emissions:	The amount of fossil CO ₂ emissions was	Fossil CO ₂ emissions in Metsä Group decreased in 2020 by 6% compared to 2019. The main influencing factors for the change have been the reduction of production due to the shutdowns at the beginning of the year and the decreased usage of peat. Äänekoski and Simpele as single mills and Metsä Wood as a business area have made good progress in decreasing their emissions. The sale of the Stotzheim mill in Germany reduced Metsä Tissue's CO ₂ emissions by 10,000 tonnes.
0 tonnes	676,000 tonnes	



Preventive environmental management is a guiding principle of Metsä Group's production. Efficient control and mitigation of emissions to air and water are the cornerstones of managing the environmental impacts of production. Metsä Group's operations are guided by our Environmental Policy and its principles on sustainable forest management, environmental responsibility, continuous improvement of environmental performance, resource-efficiency and environmental and social responsibility of our suppliers. Our production units are regulated by environmental permits and emission limits set and controlled by the authorities. We monitor our compliance with regulative requirements and continuously aim to reduce our emissions. All our mills are certified according to the ISO 14 001 environmental management system standard.

Our pulp mills and power plants are the main sources of air emissions for Metsä Group. Primary emissions to air are carbon dioxide (CO₂), sulphur dioxide (SO₂), nitrogen oxides (NO_x) and particles from pulp production and power plants. In addition, small amounts of total reduced sulphur (TRS) are emitted from pulp mills. Efficient control of the combustion processes and treatment of flue gases ensure low emissions to the atmosphere. Our emissions to air causing acidification (SO₂, NO_x) reduced by 3% in 2020. Emissions of particles reduced by 3% (reduced by 1%) and odorous compounds (TRS) increased by 2% (decreased by 15%).

Energy is a key resource in the forest industry, especially in the production of forest based products. Metsä Group's energy production is largely based on renewable fuels, ensuring low emissions of fossil carbon dioxide into the atmosphere. Our aim is to use no fossil-based fuels in production and thereby cause zero fossil CO₂ emissions by the year 2030.

In 2020, our direct greenhouse gas emissions (Scope 1) were 676,000 (717,000*) tonnes of fossil carbon dioxide (CO₂). Fossil greenhouse gas emissions from the consumption of purchased electricity and heat (Scope 2) calculated with a market-based method were 494,000 (595,000) tonnes and 608,000 (727,000) tonnes when calculated with a location-based method. Emissions of fossil CO₂ have decreased by 48% (46) per product tonne since 2009.

In 2020, 86% (86) of our production was run with fossil free (inc. nuclear) energy (Scope 1 and 2). The share of bio-based fuels was 90% (90) (Scope 1). The used renewable bio-based fuels mainly consisted of wood-based production side streams as well as harvesting residues. Stem wood is not used for energy generation. The total energy use of the Group in 2020 was 34.7 (32.4*) TWh. At the same time, wood-based renewable fuel production was 27 (28) TWh, of which 24 (25) TWh was used in our own processes. The surplus of wood-based fuels from mill processes and forestry, such as bark and branches, are sold to external partners.

In 2020, the energy content of these biomass-based fuels represented 3 (3) TWh, which when replacing fossil-based fuels saved CO₂ emissions of up to 0.7 (0.9) million tonnes. Long-term work for reducing fossil CO₂ emissions continues.

We have made long-term investments in the production and utilisation of renewable energy and improved our performance significantly, but we still have work to do. To achieve our strategic objective of having fossil free mills by 2030, we will put our focus into three main development areas:

- improving energy efficiency
- investing in new technologies and electrification
- utilisation of bio-based fuels.

A large-scale harmonisation programme for improving energy efficiency has been started throughout Metsä Group's mills and operations. An investment and development roadmap has been made by thoroughly mapping the currently

applied technologies and ways of operating. Internal best practices and external potential benchmarks have been identified to support this work. The energy efficiency programme is expected to generate improved energy efficiency measures, and better operational security and direct cost saving results. For example, improving the utilisation of process water gives improved energy efficiency by using smaller volumes of water for pumping, heating and drying. It is also good to recognise that the cold weather conditions in the Nordics increase the need for energy, for example, in the heating of process water. It is therefore important to consider how we can operate efficiently. For continuous improvement, we plan to apply and adapt our production, as well as other projects, to modern technologies. The progress of energy efficiency work and the introduction of modern technologies will be reported regularly. This is part of our certified ISO50001:2018 energy management system.

*The accounting principle has changed.



RESOURCE EFFICIENT PRODUCTION

Target	Performance in 2020	Comment
Utilisation of side streams:		
100%	93% of the production side streams.	In 2020 pulp production decreased due to COVID-19 and the strikes in Finland which resulted in slightly less landfilled waste and thus the share of utilised production side streams increased slightly. We are constantly looking for ways to utilise our production side streams even more efficiently.



In circular economy, raw materials and products are reused or recycled, and their value endures for as long as possible. The utilisation of industrial side streams is an important way to improve resource efficiency. Our partner network plays a significant role in this.

Cooperation with smaller and industrial partners is key to creating efficient ecosystems as part of sustainable bioeconomy and circular economy. Resource efficiency and a broad network of partners enables us to make bioproducts for a variety of end uses such as wood products, pulp for board, papers, wood-based textiles, composite materials for the electronics industry, and raw materials for paints, tyres, perfumes, agriculture fertilisers and many more.

With collaboration and partners, Metsä Group aims to achieve its objective of 100% utilisation of production side streams by 2030. Of all the production, the share of side streams accounts for 5%. The utilisation rate of this was 93% in 2020. The utilisation is split by material use, fertilisers and soil improvement, industrial use and energy. The share of fertiliser use has been increasing constantly during the past five years. Presently 8% of Metsä Group's utilised side streams are used as fertilisers or landscaping materials.

Metsä Group still has work to do in developing solutions for utilisation of green liquor dregs and minimising its landfilling. Being able to take advantage of the full potential of production side streams requires scientific research and cross-industry collaboration.



Each part of the wood is used efficiently

The wise use of resources steers our operations. Each part of the wood is used for the most valuable product.



Branches and top
15%

Renewable energy

- Biogas
- Electricity, heat

Pulpwood
25%

Pulp

- Paperboard
- Tissue and greaseproof paper
- Printing and speciality paper
- Textiles
- 3D fibre packages
- (Biocomposites)*

Other bioproducts

- Tall oil, turpentine
- Product gas
- Sulphuric acid
- Methanol
- Lignin (in R&D phase)
- (Perfumes, paints, tyres)*
- (Glues, filler materials)*

Logs
60%

Wood products

- Sawn timber
- Kerto® LVL
- Plywood
- (Windows, doors)*
- (Furniture)*
- (Buildings)*
- (Vehicles)*

The use of a tree in the regeneration felling phase

*Further processed by other companies

RESOURCE EFFICIENT PRODUCTION

Target	Performance in 2020	Comment
Process water use per product tonne (m ³ /t)		In 2020, the use of process water increased by 2.6% compared to 2019. The increase was largely due to production interruptions resulting from maintenance shutdowns and strikes.
-25% vs. 2018	+0.2%	   

Water is an essential resource for the forest industry. Ensuring that water use in production is optimised and that wastewater is treated efficiently are both guiding principles of our water management.

Metsä Group's objective is to improve the use of process water by 25% per product tonne in 2018-2030. In 2020, the use increased by 0.2% compared to the base year 2018. Since 2010, the Group's use of process water has decreased by 19% (21) per product tonne. The start-up of Äänekoski bioproduct mill and improvements in water use at Husum mill have significantly decreased our process water usage per product tonne during the last few years.

Metsä Group's production units are mostly located in the Nordic area where water resources are abundant. Over 99% of the water we use is surface water with minimum quantities of ground water used. Approximately half of the water is used in the production process and the other half directed for cooling purposes. Cooling water does not come into contact with any materials used

in the production process, and the only impact on this water is temporary warming with some evaporation. Metsä Group's operations do not presently, or potentially in the future, prevent any other parties' access to water.

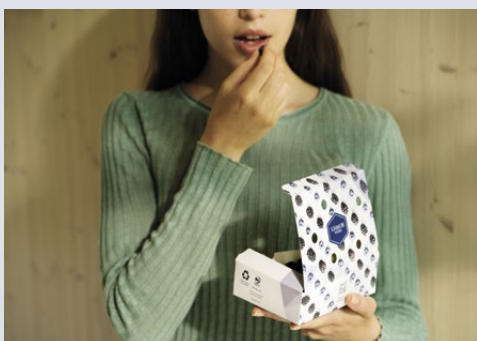
Before process water is returned to the watercourse, it is carefully treated with an efficient waste water treatment. The main waste water emissions from Metsä Group's production units are phosphorus, nitrogen, solid matter and organic matter, which is measured as chemical (COD) and biological (BOD) oxygen demand. Emissions from pulp mills also contain organic chlorine compounds (AOX), sodium and sulphates. The state of water bodies surrounding the production units and their fish stocks are carefully monitored. Emissions to the water in the pulp and paper industry have fallen considerably over the last 25 years. In particular, the load of organic matter and solids have decreased significantly. The importance of this is reflected by the fact that the lakes and rivers around Metsä Group mills are largely used for recreational purposes.



Production data
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We offer sustainable choices



Metsä Group's products, made from renewable raw materials, help to reduce dependence on fossil resources. We want to ensure that our suppliers follow our high ethical standards. We are working towards not using any fossil oil-based raw materials or packaging materials. We also aim to be able to trace the origin of our raw materials and packaging materials.

FOSSIL FREE RAW MATERIALS

Target	Performance in 2020	Comment
Share of fossil free raw materials and packaging materials:		Fossil oil-based raw materials and packaging materials have been identified and roadmaps to find alternative raw materials have been created by research and development teams. Sourcing teams work in co-operation with business areas to find bio-based alternatives for fossil oil-based raw materials. Calculation of chemical raw material volume was refined and is partly the reason for a small reduction in the share of fossil free raw materials.
100%	99.6%	



RAW MATERIALS

Our main raw material is wood, which is a renewable raw material originating from sustainably managed forests. Currently, most of our raw materials are already obtained from renewable sources. Our target, in our efforts to contribute towards a low carbon society, is that by 2030 we will eliminate the use of any fossil oil-based raw materials or packaging materials.

Our aim is to seek bio-based alternatives for the fossil oil-based raw materials and packaging materials that we currently use. This review will be done taking into account the environmental aspects of the alternative material. Targets comprise of raw materials and packaging materials included in the finished products which are produced by Metsä Group.

In 2020, the share of fossil free raw materials was 99.6% (99.7) of volume (dry tonnes). Our main raw material, wood, accounts for 95% of all raw materials. In 2020, we enhanced the calculation of chemical raw material volumes and the calculated weight of raw materials is now more accurate than before. This has partly been the reason for the decrease in the KPI performance.

The main fossil oil-based raw materials that we are looking to replace are latex, plastic coatings and hydrophobic sizing agents which are used in board

production; converting and wet strength glues used in tissue production; phenolic resins used in wood products production and as packaging materials used in multiple business areas. For most of the raw materials, alternatives have been sought and, for some of them, a replacement already found. Business areas' research and development teams and centralised raw material sourcing teams have planned activities to find and evaluate alternative raw materials and estimate any impact they may have on our product portfolio. Follow-ups of targets and the reviewing of roadmaps are done by Metsä Group's Sustainability Process Management Team. These roadmaps have been updated in 2020, and have also been considered in the long-term plans of relevant sourcing categories.

There are, however, challenges in replacing fossil oil-based raw materials with fossil free raw materials. One example is latex which is used to enable good printing quality of coatings and provide stiffness and toughness when the paperboard is converted or bent to form boxes and other forms. We encourage our suppliers to actively develop their product offering to support this fossil free objective.

SUSTAINABLE SUPPLY CHAIN

Target	Performance in 2020			Comment
Sustainable suppliers:	Supplier Code of Conduct coverage	Know your supplier check	Supplier sustainability evaluation	The share of purchases from suppliers who have committed to our sustainability principles increased by 2 percentage points. We were also able to increase the use of know your supplier checks. The supplier assessment and audit processes were also developed.
100%	94%	78%	48%	



SUSTAINABLE SUPPLY CHAIN

Metsä Group’s external purchases, excluding wood, were nearly EUR 3 billion in 2020, and we cooperated with nearly 20,000 suppliers. Our suppliers are mainly European and we aim to use local suppliers where possible. In 2020, 85% (85**) of our purchases came from suppliers located in countries where we have production sites. Our purchases from high risk countries are very low (1.5% of spend). In 2020, we employed nearly 80 professionals in the fields of category management, investment and area sourcing, operative purchasing, and development and management of procurement processes and sustainability. The SVP, Sourcing and Logistics, is part of the Metsä Group Sustainability Process Management Team. Targets and roadmaps related to ensuring the sustainability of the supply chain are reviewed by the Sustainability Process Management Team.

ENSURING THE SUSTAINABILITY OF OUR SUPPLIERS

We require all our suppliers to commit to the Metsä Group Supplier Code of Conduct, and further sustainability requirements are often agreed in individual contracts based on specific risk. We have further developed our processes to verify that all suppliers act according to our environmental, social and economic responsibility requirements. We employ a risk-based approach and have a number of tools to aid this. Currently, these practices include risk analyses and background checks, as well as supplier assessments and audits. These have been integrated into our procurement processes.

We evaluate the sustainability risks of our suppliers by analysing category specific risks and by using risk country classifications. These analyses are part of long-term planning of our sourcing categories. We have identified that the chief adverse impacts in the supply chain are predominantly related to environmental

effects in the operations of our suppliers and logistics service providers, and to the risks related to health and safety and fair employment practices. Know your supplier checks are conducted as part of the tendering and negotiation processes, and the result is continuously monitored. It ensures the supplier’s compliance with applicable laws and regulations. In 2020, Supplier Code of Conduct covered 94% (92%*) of our total spend and know your supplier checks have been conducted on suppliers representing 78% (71% *) of our spend.

We renewed our Supplier Code of Conduct in 2020. The new version takes into account our stakeholders’ greater expectations, our strategic sustainability 2030 targets and has been aligned with the ethical principles guiding our work in Metsä Group. We have also created a process for how supplier sustainability and compliance deviations will be handled in our organisation. We will implement the new Supplier Code of Conduct in 2021.

We have also further developed our supplier assessments and audits. Sustainability issues will be better taken into account in assessments and audits and in the selection of the suppliers that will be audited. In addition, we have trained our procurement personnel on sustainability issues and how to utilise our supplier sustainability evaluation methods. In total, 650 hours were spent on this training.

Supplier self-assessment questionnaires and on-site audits are used to evaluate how our suppliers perform against our sustainability requirements. These supplier self-assessment questionnaires currently make up 48% (48%*) of our spend. Due to the COVID-19 restrictions, we conducted fewer audits than normal; 33 (45) on-site audits of which 13 (19) were third-party audits, including sustainability criteria, covering environmental as well as social responsibility aspects.

Based on assessment and audit results, we give recommendations to suppliers and follow the development actions of those suppliers who we expect to improve

*We changed the calculation method of KPIs during 2020 and reported 93% for Supplier Code of Conduct, 77% for supplier background check and 53% for supplier self-assessment questionnaires for 2019 in previous report. The new reporting method is stricter as it is based on monthly development instead of year-end status. **The figure of 2019 has been corrected as UK was not included in the previous figure.

their sustainability management. In 2020, no such deviations were found in our supplier compliance and sustainability evaluation which would have alone affected our choice not to select or continue using a certain supplier. However, we understand that it is difficult to assess certain ethical and sustainability related issues using questionnaires and audits. Our compliance and ethics channel is now open for our suppliers to raise concerns, and this will help us to identify any misconduct and also the responsibility risks related to the supply chain. We also understand that we should extend our focus deeper into the supply chain. Often the most severe sustainability risks are not related to our

first-tier suppliers, but to the suppliers of our suppliers or even deeper into the chain.

In 2021, our plan is to implement our new supplier assessment and audit model, deepen our understanding of the sustainability risks related to our supply chains and have a dialogue with selected suppliers related to reductions of greenhouse gas emissions. In order to mitigate climate change, we encourage our suppliers to set ambitious emission reduction targets. This topic has also been taken into consideration in our supplier assessment and audits and in the renewed Supplier Code of Conduct.



SUSTAINABLE SUPPLY CHAIN

Target	Performance in 2020	Comment
Traceability of raw materials:		Traceability of our main raw material wood is 100% and we improved the traceability of chemicals and packaging materials in 2020 by extending the use of product safety questionnaires and requesting manufacturing location information from our suppliers. Disclosing information about raw material manufacturing was also added as a requirement to our renewed Supplier Code of Conduct.
100%	91.4%	



TRACEABILITY OF RAW MATERIALS

To ensure the sustainability of our supply chain, we want to ensure that we know the origin of our raw materials and packaging materials used in the production of products by Metsä Group. Our main raw material is wood, which is 100% traceable and 87% is obtained from certified sources. We also know the origin of the pulp we purchase externally. Wood and pulp cover over 70% of our raw material spend. We have also developed the traceability of the other raw materials such as process, basic and coating chemicals, as well as recovered paper and packaging materials. For these materials, we are typically aware of their origin but data has not yet been systematically collected and tracked.

Recovered paper is normally collected from the country, or neighboring country, where it is purchased. Our target is to identify the collection country. This

information is gathered from suppliers with supplier self-assessment questionnaires. Our suppliers are expected to disclose the manufacturing locations of our chemical raw materials and packaging materials in product safety questionnaires.

Our focus currently is to trace the origin of manufacture of the raw materials we purchase, but in the future we plan to extend the analyses further into the supply chain. Currently, not all suppliers disclose this information in the product safety questionnaires, but in 2020, we added the obligation to our renewed Supplier Code of Conduct to provide this information. We have also expanded the use of the product safety questionnaires and improved the reporting of the origin of raw materials as part of those questionnaires. However, we do not currently fully utilise the collected information, and we are planning to take this information into account in our risk analysis in the future.



Supply chain data
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We create well-being



Metsä Group's operations create value, both economic and social, for stakeholders at a local, national and international level. We strive to be a responsible and active member in the communities where we operate. We value our employees and invest in their professional development, well-being and safety.

RESPONSIBLE CORPORATE CULTURE

Target	Performance in 2020	Comment
Ethics barometer:		In 2020, the first ethics barometer was conducted, which resulted in a good ethics index score of 84.4%. The results show that business ethics are seen as important at Metsä Group, and that people act ethically at the workplace. Further development of a culture where people are encouraged to report unethical conduct was identified as an area for improvement.
100%	84.4%	



BUSINESS INTEGRITY

Ensuring a responsible corporate culture is highly important at Metsä Group. The foundation for responsible corporate culture is set out in Metsä Group's ethical principles (Code of Conduct), renewed in 2019. Responsible corporate culture is measured through an ethics barometer, which was conducted for the first time in 2020. The ethics barometer was targeted to all employees and the aim was to gain insight into how our personnel view Metsä Group's ethical principles and how they are realised in daily work. The survey response rate was 66.1%.

The results showed that business ethics are seen as important at Metsä Group, and people act ethically at the workplace. The ethics index, consisting of the five areas of the survey, was at a good level (84.4%). The results were positive as a whole, even though some differences were found between business areas, countries and functions.

Based on the results, development needs have been identified in different areas of human resource management, such as the equal treatment of people and the promotion of a culture where people have the courage to report unethical conduct with confidence that their concerns will be addressed.

Metsä Group is launching development actions based on the results to further promote an ethical company culture. The development will be followed at a management team level. The ethics barometer will be repeated in 2022.

NEW EQUALITY TARGETS AND TRAINING

Metsä Group is committed to developing an equal and inclusive culture where everyone can succeed in their career and be accepted as a member of the work community. New equality targets and related concrete development actions have been set to ensure that the progress in this area can be measured.

Although the new targets are defined from a gender equality perspective, the concrete development measures will also take into account a wider perspective on diversity and inclusion whenever possible.

A new, Diversity, Equality and Inclusion e-learning course for all employees was launched in September 2020. So far 69% of our personnel have completed the training and in the long-term we are aiming for a 100% completion rate.

CODE OF CONDUCT, SUPPLIER CODE OF CONDUCT AND GRIEVANCE MECHANISM

96% (95%) of our personnel have completed our Code of Conduct e-learning course, whilst the long-term target is to reach a 100% completion rate. In addition to the e-learning course, so far almost 3000 Metsä Group employees have participated in a global training programme which was initiated in 2019 and designed to give a deeper insight into business ethics and offer the possibility for an open discussion.

All our personnel are expected to comply with applicable laws, act with integrity and make ethically sound decisions in their daily work. We also require the same level of ethical business practices from our suppliers – these practices and principles are stated in our Supplier Code of Conduct which was renewed during 2020.

We encourage our personnel to raise concerns immediately if they encounter misconduct or ethical dilemmas. In addition to other reporting channels such as contacting a HR representative or the employee’s manager, we have a Compliance and Ethics Channel available for our personnel and external stakeholders. The Compliance and Ethics Channel is hosted by a third party and notifications can be made anonymously. In 2020, there were a total of 52 (49) non-compliance investigations varying from external fraud attempts and conflicts of interest cases to various personnel and personal data related topics. No severe human rights violations were reported.

Metsä Group is committed to protect the rights and privacy of individuals who raise concerns, report in good faith breaches of law, our Code of Conduct or other non-compliance issues. Metsä Group does not tolerate any form of retaliation against persons reporting concerns in good faith. In year 2020, Metsä Group did not become aware of any retaliation measures.

KNOW YOUR BUSINESS PARTNER PROCESS

Metsä Group is committed to responsible business practices and expects the same from its business partners. In addition to our own aspirations to develop our business responsibly, the constantly changing political situation, various cultural aspects and new legal obligations highlight the need to carry out due diligence on our current and future business partners.

During 2020 we improved both our supplier and customer ‘Know your business partner’ processes and continued to train our personnel.

Transparency with our business partners is important to ensure regulatory compliance and preventive actions to mitigate trade sanction, corruption, fraud, money laundering and human rights violation risks. The improvement of own understanding also enables us to react in a more agile manner when necessary.

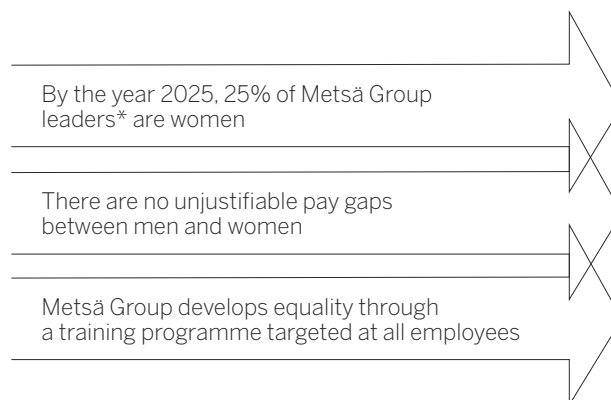


Compliance data
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Non-compliance case categories

- Fraud or other criminal activity
- Corruption or hospitality
- Competition law
- Conflict of interest
- General human resources
- Discrimination
- Privacy or data security
- Health & safety
- Environment
- Breaches of Supplier Code of Conduct
- Miscellaneous

Metsä Group equality targets



*Vice President or above. In year 2020, the realization was 19.6%.

Figures presented here exclude leaders from group companies Hangö Stevedoring, Silva Shipping, Mäntän Energia and Kumpuniemen Voima.

ACCIDENT-FREE WORK ENVIRONMENT

Target	Performance in 2020	Comment
0 accidents	8.7 TRIF	In 2020, workplace safety improved significantly, as our total recordable incident frequency (TRIF) was 49% lower than in the previous year. Systematic efforts in safety at work support the continuous development of operations and the achievement of the Group's objectives. High-quality proactive safety work, risk identification, intervention in unsafe working and the importance of personal risk assessments play a key role.



SAFE WORKING ENVIRONMENT FOR EVERYONE

At Metsä Group, safety at work is an integral part of day-to-day management and monitored Group-wide. Safety management at Metsä Group includes the safety of our partners, the subcontractors who work for us, and stakeholders while they are on our premises. The principle is that Metsä Group provides a safe working environment for everyone.

Metsä Group's long-term safety goal is zero accidents. We are proactive and monitor our safety performance with unified KPIs. In 2020, the KPI for our accident-free work environment objective was changed from LTA1 into TRIF, because this helps to correct all deviations on our path to a safe workplace. In 2020, TRIF was 8.7 (17).

We comply with each country's local regulations and legislation on collective agreements and working conditions, including health and safety. We are all responsible for our own and others' safety and personally accountable for complying with local safety laws, as well as Metsä Group's safety processes, standards and instructions. The management of the company bears the overall responsibility for safety, and it ensures that safety is developed consistently.

The Metsä Group security policy and safety management principles guide all actions regarding security and safety. Metsä Group's safety processes and

standards form our guidelines for ensuring safe working practices across the company. They standardise our safety work across the company. All our employees and subcontractors must go through safety training before working on mill premises.

Local labour protection committees play an important role in providing training and promoting safety at work. These committees cover our employees in our key countries of operation.

Best practices are shared between the mills and businesses. Training is one of the most important factors in our preventative work. Preventative measures, such as risk analyses, safety inductions and regular safety tours, are of crucial importance. Everyone is responsible for following instructions, identifying defects and shortcomings, and eliminating the causes of hazards. Every accident and critical near miss are investigated and reported. It is extremely important to investigate the root causes of accidents and with corrective actions, prevent them from happening again.

We are continuing our extensive work to improve safety and prevent all work accidents. Key steps towards an accident-free work environment include proactive safety work, recognising risks, intervention when unsafe work is detected, and highlighting the significance of evaluating personal risks.



Safety data
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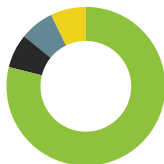
Sustainability figures and data

Wood supply and forest services

WOOD PROCUREMENT BY COUNTRY 2020

Country/area, %

■ Finland	79
■ Baltic countries	7
■ Russia	7
■ Sweden	7



SHARE OF CERTIFIED WOOD OF USED WOOD 2020

	%
Metsä Wood	93
Metsä Fibre	90*
Metsä Board	80
Metsä Tissue	91*
Metsä Group	87

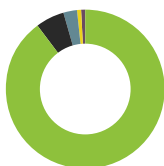
* certified pulp

Production

FUEL CONSUMPTION,

%

■ Wood-based fuels	89,9
■ Gas	5,8
■ Oil	3,0
■ Peat	0,8
■ Coal	0,6



SHARE OF BIOFUELS OF THE FUELS USED IN PRODUCTION (scope 1)

Wood supply and forest services	98,5
Metsä Fibre	95,8
Metsä Board	82,7
Metsä Tissue	18,5

FOSSIL GREENHOUSE GAS EFFECT (1000 TONS OF CO₂)

by business area	2020	2019	2018	2017	2016	2015
Metsä Wood	2	3	3	5	2	7
Metsä Fibre	229	241	176	210	248	244
Metsä Board	240	248	289	301	279	317
Metsä Tissue	206	224	227	231	232	234
Metsä Group total	676	717	694	747	760	802

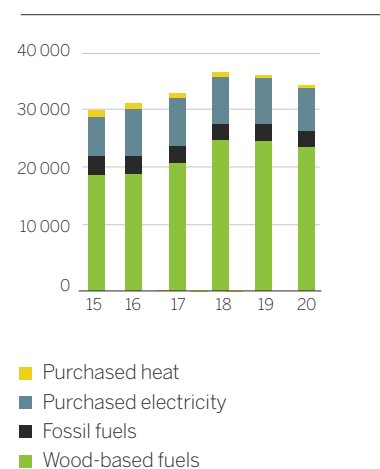
EUTROPHICATION (P EQUIVALENT TONS) BY BUSINESS AREA

by business area	2020	2019	2018	2017	2016	2015
Metsä Wood	1,3	1,2	3	2	2	3
Metsä Fibre	102	114	109	98	94	84
Metsä Board	58	59	51	59	63	53
Metsä Tissue	10	12	12	12	11	12
Metsä Group total	171	190	174	170	170	152

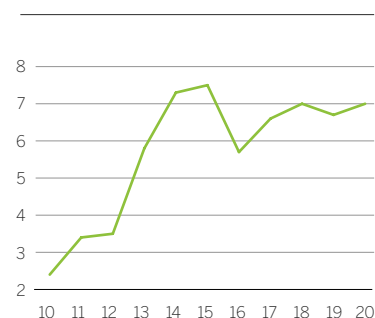
ACIDIFICATION (SO₂ EQUIVALENT TONS)

by business area	2020	2019	2018	2017	2016	2015
Metsä Wood	125	149	161	179	167	212
Metsä Fibre	4 029	4 215	3576	3575	3506	4186
Metsä Board	1173	1187	1590	1867	1732	1826
Metsä Tissue	148	159	152	209	231	133
Metsä Group total	5 475	5 710	5478	5830	5636	6357

PRIMARY ENERGY CONSUMPTION, GWh



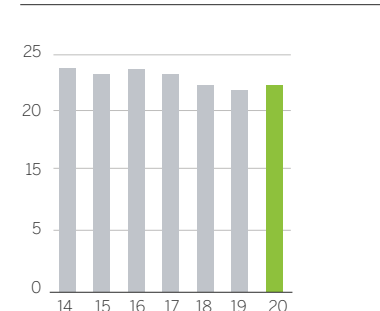
ENERGY EFFICIENCY IMPROVEMENT SINCE 2009, Metsä Group total



Metsä Group's energy efficiency index has improved from the base year 2009 by 6.7% (7.2). The energy efficiency improvement target for 2009–2020 has been set to 10%. The index is calculated as specific energy consumption of electricity and heat, electricity consumption with multiplier two. From 2020 on, the Metsä Group energy efficiency index has followed EU calculation methods, where electricity, heat and fuels are summarised with no multipliers.

Year 2018 specific energy consumption based target for energy efficiency improvement by 2030 is 10%. An ambitious target set in 2009 was not fully achieved due to multiple reasons. The main factor was startups and renovations of multiple production lines and even a bioproduct mill. In addition, the strikes in 2019 and 2020 caused unplanned production losses.

PROCESS WATER USAGE per product tonne



Side streams (~5% of the production)

UTILISATION OF PRODUCTION SIDE STREAMS

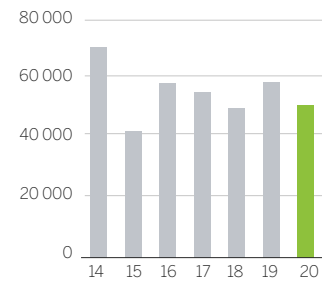
About 672,130 tonnes, 93% of side streams in 2020

Waste to energy utilisation	41
By-product for industrial use	18
Waste to material utilisation	16
By-product for fertilising	13
Landfill waste	7
By-product for fuel	5
Hazardous waste treatment	0.3



LANDFILLED PROCESS WASTE

About 51,990 tonnes,
7% of side streams in 2020



Material streams

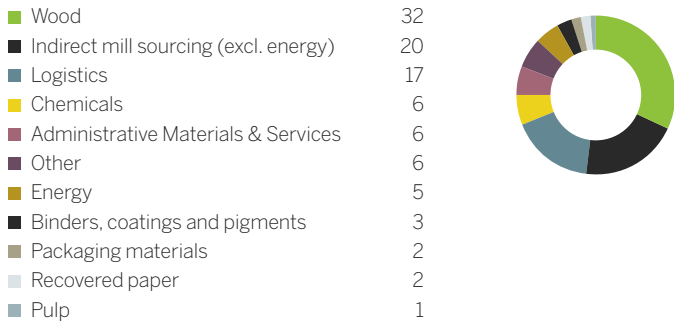
MATERIAL STREAMS	2020	2019		
Wood based raw materials				
Wood, 1,000 m ³	24,487	25,380		
Pulp, 1,000 t	90	121		
Recovered paper, 1,000 t	406	422		
Other raw materials, 1,000 t				
Pigments	238	239		
Adhesives	67	68		
Packaging materials	116	-		
Purchased energy, TWh				
Fossil fuels	2.7	2.9		
Wood based fuels	1.1	1.2		
Electricity*	2.8	3.0		
Heat*	0.5	0.5		
Renewable energy				
Wood based fuels, TWh	3	3		
Renewable energy used in own production, TWh	24	25		
Water intake, 1,000 m³				
Surface water	392,147	381,228		
Groundwater	951	1,375		
Emissions to air, 1,000 t				
Biogenic carbon (CO ₂)	9,551	9,980		
Fossil carbon (CO ₂)	676	717		
Nitrogen oxides (as NO ₂)	6.5	6.9		
Sulphur (as SO ₂)	0.9	1.1		
Particles	0.9	1.0		
			Discharges to water	
			Waste water flow, 1,000 m ³	146,772 145,978
			Chemical oxygen demand, t	43,342 47,332
			Biological oxygen demand, t	1,110 1,124
			Phosphorus, t	48 53
			Nitrogen, t	618 692
			Total suspended solids, t	3,484 3,858
			AOX, t	405 423
			Products	
			Pulp, 1000 t	4,190 4,321
			Mechanical wood products, 1000 m ³	2,367 2,488
			Paperboard, 1000 t	1,842 1,816
			Tissue papers, 1000 t	560 593
			Greaseproof papers, 1000 t	54 54
			Other bioproducts, 1000 t	107 123
			Utilised side streams, 1000 t	672 690
			Waste	
			Landfill waste, 1000 t	53.6 58.0
			Hazardous waste, 1000 t	2.2 2.4

* The accounting principle has changed.

Supply chain and raw materials

COMPOSITION OF EXTERNAL PURCHASES IN 2020

% of material and service purchases



PURCHASES BY SUPPLIERS' COUNTRY IN 2020

%



BREAKDOWN OF LOGISTICS MODES

Share of total logistics, %



RAW MATERIALS BY WEIGHT

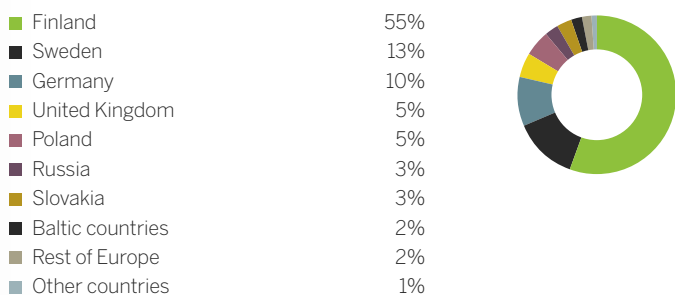
%, dry tonnes



HR & Safety

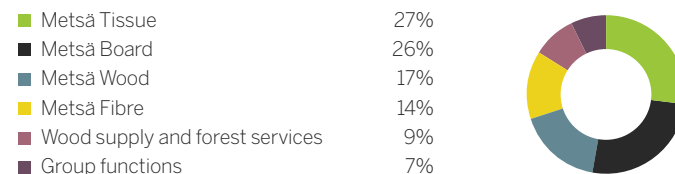
PERSONNEL BY COUNTRY

on 31 Dec 2020, %



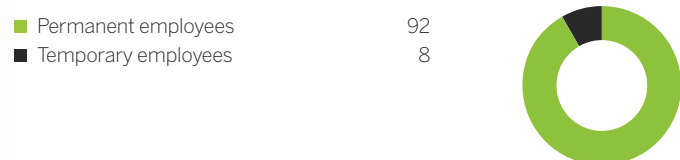
PERSONNEL BY BUSINESS AREAS

on 31 Dec 2020, %



DISTRIBUTION OF EMPLOYMENT TYPE

%



REMUNERATION DATA 2020

Compensation per production country ¹⁾	Finland	Germany	Slovakia	UK	Poland	Russia	Sweden
Ratio of annual total compensation for organisation's highest paid individuals (highest 1%) to median annual total compensation	4.3	3.1	4.4	3.3	5.9	5.1	3.4
Ratio of percentage increase of highest individual salaries (highest 1%) to average percentage increase	0.5	0.3	0.1	0.7	0	0.1	3.2
Ratio of basic salary and remuneration of women to men, based on comparable average job grades index	0.9	0.9	0.8	0.9	1	0.8	0.9

¹⁾ Including 32% of the whole personnel; 90% of white-collar personnel

HR & Safety

KEY PERSONNEL DATA

	2020	2019	2018	2017	2016	2015
Number of employees ¹⁾	9,213	9,265	9,310	9,126	9,300	9,599
Share of permanent employees, %	92.1	91.9	91.9	92.7	93.2	93.5
Share of employees working full time	97	97	96	97	97	97
Average age, years	44.7	44.8	44.7	44.9	44.8	44.6
Average years served, years	15.8	16.3	16.0	16.4	16.6	16.7
Employee turnover, % ²⁾	6.2	8.3	6.5	6.8	8.0	7.9
Ratio between men/women, %	77/23	78/22	77/23	77/23	78/22	78/22
Share of women in management, % ³⁾	21.6	19.2	21.8	16.1	15.8	15.8
Share of women at management level VP, SVP, CEO, %	19.6					

1) Full-time equivalent (FTE) on 31 Dec.

2) The figure includes also redundancies caused by restructuring of business.

3) Management includes Board of Directors, Executive Management Team and business areas' management teams.

KEY PERSONNEL DATA BY BUSINESS UNIT

2020	Wood supply and forest services	Metsä Wood	Metsä Fibre	Metsä Board	Metsä Tissue
Number of employees ¹⁾	842	1551	1331	2370	2504
Share of permanent employees, %	97.9	93.8	90.1	94.0	88.6
Share of employees working full time, %	98	97	98	96	96
Average age, years	45.7	44.1	44.2	46.4	44.2
Average years served, years	14.8	14.1	15.9	18.6	16.4
Employee turnover, % ²⁾	6.4	7.1	5.8	4.5	7.0
Ratio between men/women, %	79/21	75/25	84/16	79/21	81/19
Share of women in management, % ³⁾	25.0	42.9	15.4	26.7	12.5

OTHER HR DATA

	2020	2019
Number of people affected by restructuring of business and co-operation negotiations	805	908
Number of people made redundant	30	94
Number of employees temporarily laid off	615	496
Number of people recruited	679	705
Number of employees	9,213	9,265
Training days	12,746	20,626
Employees within the scope of collective agreements	74	77
Summer jobs offered	800	1,000

In Finland, 2,794 people participated in strikes lasting for 7-27 days in 2020. 224 people were affected by a lockout in Finland in 2020.

HR & Safety

SAFETY AND WELL-BEING DATA, GROUP TOTAL	2020	2019	2018	2017	2016	2015
Sickness absenteeism, % ¹⁾	4.0	4.4	4.0	3.9	3.9	3.9
Work accident absenteeism, % ¹⁾	0.14	0.14	0.10	0.10	0.14	0.20
Accident rate LTA1 ²⁾	5.1	5.9	6.4	5.9	7.4	9.5
Registered occupational diseases, no. of cases	5	6	2	4	6	6
Work related fatalities, no. of cases	0	1 ³⁾	2	2 ⁴⁾	1	1 ³⁾
TRIF ⁵⁾	8.7	17.0	19.8	-	-	-
LTA severity rate ⁵⁾	21.3	20.0	-	-	-	-
High consequence injuries ⁷⁾	1	-	-	-	-	-

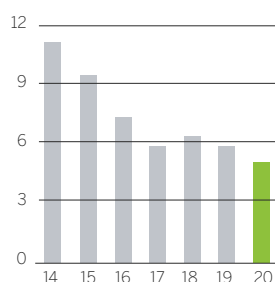
- 1) % of theoretical working time
- 2) Lost time accident 1 frequency rate. Accidents at work resulting to at least one day sickleave per million worked hours.
- 3) External employee
- 4) One fatal commuting accident and one fatal accident to an external service provider
- 5) TRIF is reported from 2018. 2020 is not totally comparable to previous years, due to updated instructions on reporting TRI.
- 6) LTA severity rate is reported from 1.1.2019 on
- 7) High Consequence Injuries is reported from 2020

SAFETY AND WELL-BEING DATA, BY BUSINESS AREA	Wood supply and forest services													
	2020		2019		Metsä Wood		Metsä Fibre		Metsä Board		Metsä Tissue		Metsä Group	
	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019
Sickness absenteeism, % ¹⁾	1.6	1.6	4.0	4.2	3.7	4.1	3.9	4.0	5.3	6.0	4.0	4.4	4.0	4.4
Work accident absenteeism, % ¹⁾	0.03	0.07	0.18	0.23	0.17	0.20	0.15	0.16	0.16	0.11	0.14	0.14	0.14	0.14
Accident rate LTA1 ²⁾	2.0	6.1	9.9	9	6.5	8.6	5.7	5.5	3.4	4.3	5.1	5.9	5.1	5.9
Registered occupational diseases, no. of cases	0	0	2	3	0	0	3	3	0	0	5	6	5	6
Work related fatalities, no. of cases	0	0	0	0	0	0	0	0	0	1 ³⁾	0	1	0	1
TRIF ⁴⁾	6.8	13.5	15.0	30.3	8.3	20.0	8.4	10.2	7.7	17.5	8.7	17.0	8.7	17.0
LTA severity rate ⁴⁾	15.7	13.6	13.8	25.8	12.0	27.7	9.2	18.6	63.5	10	21.3	20	21.3	20
High consequence injuries ⁶⁾	0	-	0	-	0	-	0	-	1	-	1	-	1	-

- 1) % of theoretical working time.
- 2) Lost time accident 1 frequency rate. Accidents at work resulting to at least one day sickleave per million worked hours.
- 3) One fatal accident to an external service provider
- 4) TRIF is reported from 2018. 2020 is not totally comparable to previous years, due to updated instructions on reporting TRI.
- 5) LTA severity rate is reported from 1.1.2019 on
- 6) High Consequence Injuries is reported from 2020

ACCIDENT RATE

(LTA1)



Ethics and compliance

ETHICS BAROMETER	2020
Metsä Fibre (incl. Silva Shipping)	83.50%
Metsä Wood (incl. Kumpuniemen Voima)	81.90%
Metsä Tissue (incl. Mäntän Energia)	83.50%
Metsä Board (incl. Hangö Stevedoring)	85.10%
Wood supply and forest services	87.40%
Group Services	87.1%
Metsä Group total	84.4%

CODE OF CONDUCT E-LEARNING	31.12.2020
Metsä Fibre (incl. Silva Shipping)	99%
Metsä Wood (incl. Kumpuniemen Voima)	93%
Metsä Tissue (incl. Mäntän Energia)	93%
Metsä Board (incl. Hangö Stevedoring)	99%
Wood supply and forest services	100%
Group Services	97%
Metsä Group total	96%

NON-COMPLIANCE INVESTIGATIONS	2020
Metsä Fibre (incl. Silva Shipping)	8
Metsä Wood (incl. Kumpuniemen Voima)	7
Metsä Tissue (incl. Mäntän Energia)	10
Metsä Board (incl. Hangö Stevedoring)	10
Wood supply and forest services	14
Group Services	3

Figures presented here exclude leaders from group companies Hangö Stevedoring, Silva Shipping, Mäntän Energia and Kumpuniemen Voima.

Financials

KEY FIGURES	2020
Sales, EUR billion	5.1
Comparable operating result, EUR million	368
Comparable ROCE, %	7.1
Equity ratio, %	57.2
Net gearing, %	4
Research and development, EUR million	24.8

PAID TAXES	2020	2019
Finland	51.4	116.7
Sweden	6	1.7
others	9.2	9.8
Total	66.6	128.3

Wood supply and forest services

Country	Estonia	Finland	Latvia	Russia, St. Petersburg	Russia, Podporozhye	Sweden	Others	Total
PERSONNEL								
Number of employees ¹⁾	28	595	42	17	152	3	4	842
TRIF	0	6.7	0	0	11.0	-	-	6.8
LTA1 fr ²⁾	0	1	0	0	7.3	-	-	2.0
Sickness absenteeism % ³⁾	0.9	1.2	0.5	1.3	3.4	-	-	1.6
WOOD PROCUREMENT								
1,000 m ³	1,276	25,702	975	146	1,008	2,425	123	32,738
MANAGEMENT SYSTEMS								
ISO 9001	x	x	x	x ⁴⁾	x ⁴⁾	x		
ISO 14001	x	x	x	x ⁵⁾	x	x		
CHAIN OF CUSTODY								
PEFC™	x	x	x	x	x	x		
FSC®	x	x	x	x	x	x		

1) Full-time equivalent on 31 December 2020

2) Lost-time accident 1 frequency rate. Accidents at work resulting to at least one day sickleave per million worked hours.

3) % of theoretical working time

4) Includes all wood procurement from Russia

5) Included in Metsäliitto Cooperative's quality systems (ISO 9001)

6) Included in Metsäliitto Cooperative's environmental systems (ISO 14001)

Metsä Wood

Mill	Pärnu	Lohja ⁵⁾	Punkaharju ⁵⁾	Suolahti ⁵⁾	Äänekoski	Boston	King'sLynn	Widnes	Others ⁶⁾	Total
Country	Estonia	Finland	Finland	Finland	Finland	UK	UK	UK		
PERSONNEL										
Number of employees ¹⁾	147	111	401	356	24	260	38	103	111	1,551
TRIF	7.4	18.0	21.6	19.0	0	14.3	12.9	11.2	-	15.0
LTA1 fr ²⁾	7.4	12.0	11.6	17.1	0	8.2	0	5.6	-	9.9
Sickness absenteeism % ³⁾	3.7	5.2	5.6	4.4	1.7	2.3	2.5	3.6	-	4.0
PRODUCTION (1,000 m³)										
Wood products	plywood	Kerto® LVL	Kerto® LVL and plywood	plywood	veneer	further processing	further processing	further processing		
Production	32	74	185	165	47	141	47	63		755
MANAGEMENT SYSTEMS										
ISO 9001	x	x	x	x	x	x	x	x		
ISO 14001	x	x ⁴⁾	x ⁴⁾	x ⁴⁾	x	x ⁴⁾	x ⁴⁾	x ⁴⁾		
ISO 45001/OHSAS 18001	ISO 45001	ISO 45001	ISO 45001	ISO 45001	ISO 45001	OHSAS 18001	OHSAS 18001	OHSAS 18001		
CHAIN OF CUSTODY										
PEFC™	x	x	x	x	x	x	x	x		
FSC®	x	x	x	x	x	x	x	x		
EMISSIONS TO AIR (t)										
CO ₂ bio	0	34,353	70,659	94,464	0	0	0	0		199,476
CO ₂ fossil	0	708	787	206	0	0	0	0		1,701
Sulphur as SO ₂	0	0.88	1.3	0.07	0	0	0	0		2.3
Nitrogen oxides as NO ₂	0	14	66	95	0	0	0	0		175
Particles	0	2.1	1.6	39	0	0	0	0		43
DISCHARGES TO WATER (t)										
COD	0	1.6	57	9	0.8	0	0	0		68
BOD	0	0.26	34.5	11	0	0	0	0		46
Total phosphorus	0	0.0045	0.02	0.19	0	0	0	0		0.22
Total nitrogen	0	0.035	0.10	0.25	0	0	0	0		0.39
Total suspended solids	0	0.29	1.1	5	0	0	0	0		6.0
WATER USE (1,000 m³)										
Water sourcing	13.5	93	236	1,216	20	0	4.5	0		1,582
Waste water flow	7.7	55	40	28	8	0	0	0		139
WASTE AND SIDE STREAMS (t)										
Utilised	110	277	235	510	100	660	114	414		2,421
Landfill	0	182	0	0	0	0	0	0		182
Hazardous	189	204	279	149	0	8	0	1		830

1) Full-time equivalent on 31 December 2020

2) Lost-time accident 1 frequency rate. Accidents at work resulting to at least one day sickleave per million worked hours.

3) % of theoretical working time

4) ISO 14001 standard includes the Energy Efficiency System (EES).

5) Emissions, water use and wastes: Lohja includes 46% of Lohjan Biolämpö, Punkaharju includes 100% of Punkavoima and Suolahti includes 100% of Kumpuniemen Voima.

6) Includes personnel from sales operations and management. Personnel figures of Others are included in Metsä Wood's total figures.

Metsä Fibre

Mill	Joutseno	Kemi	Rauma	Äänekoski	Kyrö	Lappeenranta	Merikarvia	Renko	Vilppula	Svir	Others ⁴⁾	Total
Country	Finland	Finland	Finland	Finland	Finland	Finland	Finland	Finland	Finland	Russia		
PERSONNEL												
Number of employees ¹⁾	138	161	124	181	75	75	75	82	104	117	199	1,331
TRIF	4.2	7.2	4.7	3.2	32.8	0	16.3	7.7	36.6	0	-	8.3
LTA1 fr ²⁾	4.2	7.2	4.7	3.2	32.8	0	8.1	0	24.4	0	-	6.5
Sickness absenteeism % ³⁾	3.3	4.2	4.4	3.6	2.5	5.2	5.4	4.0	6.3	3.0	-	3.7
PRODUCTION												
Chemical pulp (1,000 t)	574	570	541	1134								2,819
Sawn timber (1,000 m ³)					197	208	190	262	492	264		1612
MANAGEMENT SYSTEMS												
ISO 9001	x	x	x	x	x	x	x	x	x	x		
ISO 14001	x	x	x	x	x	x	x	x	x	x		
ISO 50001	x	x	x	x	x	x	x	x	x	x		
ISO 45001	x	x	x	x	x	x	x	x	x	x		
ISO 22000	x	x	x	x								
CHAIN OF CUSTODY												
PEFC™	x	x	x	x	x	x	x	x	x	x		
FSC®	x	x	x	x	x	x	x	x	x	x		
EMISSIONS TO AIR (t)												
CO ₂ bio	1,439,266	1,372,205	1,273,491	3,177,108	23,252	24,628	22,701	28,335	65,097	28,661		7,454,743
CO ₂ fossil	26,684	63,153	85,255	49,105	863	40	524	620	2,479	0		228,724
Sulphur as SO ₂	262	119	54	125	3	0	0.038	0	14	0.14		577
Nitrogen oxides as NO ₂	990	1,139	864	1756	20	22	16	23	79	23		4,930
Particles	230	69	178	30	19	2	11	5	11	1.2		557
TRS	5	15	17	12	0	0	0	0	0	0		49
DISCHARGES TO WATER (t)												
AOX	97	54	69	133	0	0	0	0	0	0		353
COD	7,144	7,545	8,390	8,150	0.37	0.09	0.23	0.23	0.65	7		31,238
BOD	189	126	69	143	0.0061	0.0014	0.0038	0.0038	0.0109	0.6		527
Total phosphorus	7.9	4.8	3.3	6.7	0.00031	0.00007	0.00019	0.00019	0.00054	0		23
Total nitrogen	138	114	52	85	0	0	0	0	0	0		389
Total suspended solids	844	496	165	508	0.0061	0.0014	0.0038	0.0038	0.0109	2.5		2,015
WATER USE (1,000 m³)												
Water sourcing	68,127	37,045	19,163	139,524	12	5	8	36	96	152		264,169
Waste water flow	17,230	17,609	17,024	24,267	7.3	1.7	4.5	4.6	13	345		76,505
WASTE AND SIDE STREAMS (t)												
Utilised	49,874	20,457	210	28,741	1,782	260	522	162	200	16,052		118,260
Landfill	9,405	7,111	9,127	15,791	0	0	76	712	0	6		42,227
Hazardous	121	38	66	38	15	56	9.4	7	8.4	0		360

1) Full-time equivalent on 31 December 2020

2) Lost-time accident 1 frequency rate. Accidents at work resulting to at least one day sickleave per million worked hours.

3) % of theoretical working time

4) Includes personnel from sales operations, a subsidiary and management. Personnel figures of Others are included in Metsä Fibre's total figures.

At Metsä Fibre sawmills in Finland, waste water is treated in clarification basins, the volumes are very small and measurements of discharges to watercourse are not required.

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Metsä Board

Mill	Joutseno	Kaskinen	Kemi	Kyro	Simpele	Tako	Äänekoski	Husum	Others ⁴⁾	Total
Country	Finland	Finland	Finland	Finland	Finland	Finland	Finland	Sweden		
PERSONNEL										
Number of employees ¹⁾	56	82	118	152	269	213	196	674	610	2,370
TRIF	0.0	0.0	5.0	3.9	8.6	14.1	3.1	6.0	-	8.4
LTA1 fr ²⁾	0	0	5	3.9	2.2	2.8	0	4.3	-	5.7
Sickness absenteeism % ³⁾	3.5	3.2	4.3	3.3	3.0	4.9	4.4	4.4	-	3.9
PRODUCTION										
Chemical pulp and CTMP	327	380						665		1,372
Paperboard			399	181	265	202	237	557		1,842
MANAGEMENT SYSTEMS										
ISO 9001	x	x	x	x	x	x	x	x		
ISO 14001	x	x	x	x	x	x	x	x		
ISO 50001	x	x	x	x	x	x	x	x		
ISO 45001	x	x	x	x	x	x	x	x		
ISO 22000/ FSSC 22000	ISO 22000	ISO 22000	ISO 22000, FSSC 22000	ISO 22000, FSSC 22000	ISO 22000, FSSC 22000	ISO 22000	ISO 22000, FSSC 22000	ISO 22000, FSSC 22000		
CHAIN OF CUSTODY										
PEFC™	x	x	x	x	x	x	x	x		
FSC®	x	x	x	x	x	x	x	x		
EMISSIONS TO AIR (t)										
CO ₂ bio	0	170,874	0	0	151,577	0	0	1,490,500		1,812,952
CO ₂ fossil	31,275	5,874	5,935	4,509	63,146	74,044	0	55,253		240,036
Sulphur as SO ₂	0	16	0	0	76	0.038	0	263		356
TRS	0	0	0	0	0	0	0	79		79
Nitrogen oxides as NO ₂	16	167	2.5	0	133	45	0	805		1,168
Particles	11	8	0	0	1.3	0	0	289		309
DISCHARGES TO WATER (t)										
AOX	0	0	0	0	0	0	0	52		52
COD	588	1,358	260	163	442	178	451	7,425		10,864
BOD	4.8	45	38	37	41	64	203	0		433
Total phosphorus	0.23	2.4	1.5	0.87	1.4	1.2	0.24	13.9		22
Total nitrogen	4.2	22	29	18	12	0.77	8	101		195
Total suspended solids	25	77	129	76	53	32	87	803		1,283
WATER USE (1,000 m³)										
Water sourcing	6,503	15,155	9,757	4,206	27,546	3,927	4,439	42,101		113,633
Waste water flow	607	4,096	7,481	3,310	4,733	2,571	2,090	34,003		58,891
WASTE AND SIDE STREAMS (t)										
Utilised	10,716	21,379	4,778	14,681	31,771	3,967	2,374	14,379		104,045
Landfill	0	759	329	2.6	34	0	0	0		1,124
Hazardous	13	53	0.5	8.5	52	42	33	481		685

1) Full-time equivalent on 31 December 2020

2) Lost-time accident 1 frequency rate. Accidents at work resulting to at least one day sickleave per million worked hours.

3) % of theoretical working time

4) Includes personnel from sales and logistics operations, management and subsidiaries. Production, emissions and waste originate from Äänevoima's production of energy sold for external use. Personnel figures of Others are included in Metsä Board's total figures.

5) Husum mill's BOD not measured.

Metsä Tissue

Mill	Mänttä ⁷⁾	Düren	Kreuzau	Raubach	Krapkowitz	Žilina	Katrinefors	Nyboholm ⁵⁾	Paulström	Others ⁶⁾	Total
Country	Finland	Germany	Germany	Germany	Poland	Slovakia	Sweden	Sweden	Sweden		
PERSONNEL											
Number of employees ¹⁾	426	142	447	280	302	313	353	-	171	70	2,504
TRIF	11.3	20.4	8.4	4.3	9.1	3.8	6.8	-	3.5	-	7.7
LTA1 fr ²⁾	1.4	4.1	4.2	2.1	5.5	3.8	5.1	-	3.5	-	3.4
Sickness absenteeism % ³⁾	4.7	6.8	7.6	5.4	5.8	6.0	4.1	-	3.5	-	5.3
PRODUCTION (1,000 t)											
Tissue papers	92	0	143	60	55	78	76	29	27		560
Greaseproof papers	19	35	0	0	0	0	0	0	0		54
MANAGEMENT SYSTEMS											
ISO 9001	x	x	x	x	x	x	x	x	x	x	
ISO 14001	x	x	x	x	x	⁴⁾	x	x	x		
ISO 50001	x	x	x	x	x	x	x	x	x	x	
ISO 45001/OHSAS 18001	ISO 45001	ISO 45001	ISO 45001	ISO 45001	OHSAS 18001	ISO 45001					
ISO 22000 / BRC / IFS	ISO 22000	BRC, IFS	BRC, IFS	BRC, IFS	BRC	BRC					
CHAIN OF CUSTODY											
PEFC™	x	x	x	x	x	x	x	x	x	x	
FSC®	x	x	x	x	x	x	x	x	x	x	
EMISSIONS TO AIR (t)											
CO ₂ bio	0	0	8,934	0	0	0	46,332	17,753	10,617		83,635
CO ₂ fossil	11,546	22,290	84,018	25,335	23,173	12,178	14,165	5,673	7,317		205,695
Sulphur as SO ₂	0	0	0.76	0.011	0.84	0.057	2.5	0.54	0.51		5.2
Nitrogen oxides as NO ₂	0	12	86	15	4.4	10	33	15	28		204
Particles	0	0	0.37	0	28	0.47	0.5	4.4	7.2		41
DISCHARGES TO WATER (t)											
COD	279	19	420	95	25	110	185	15	43		1,191
BOD	31	3.2	22	5	2.4	8.4	24	5.7	16		117
Total phosphorus	1.2	0.16	1.09	0.25	0.22	0.42	0.29	0.048	0.033		3.7
Total nitrogen	16	0	0	0	4.7	0	11.2	1.31	0.84		34
Total suspended solids	74	3.2	22	5	2	8.4	45	10.1	10.1		179
WATER USE (1,000 m³)											
Water sourcing	3,384	991	3,382	576	738	915	2,688	663	377		13,713
Waste water flow	4,380	317	2,178	502	479	845	1,772	473	291		11,237
WASTE AND SIDE STREAMS (t)											
Utilised	16,921	859	114,621	42,239	214	2,472	37,836	1,540	1,951		218,653
Landfill	0	0	6,468	0	2,059	1,533	0	0	0		10,060
Hazardous	33	56	45	7.8	1.6	64	40	1.7	26		275

1) Full-time equivalent on 31 December 2020

2) Lost-time accident 1 frequency rate. Accidents at work resulting to at least one day sickleave per million worked hours.

3) % of theoretical working time

4) ISO 14001 standard includes the Energy Efficiency System (EES).

5) Nyboholm mill's personnel figures are included in Paulström mill's figures.

6) Includes personnel of others than mill locations.

7) Includes all the personnel in Finland.

FSC Licence Code FSC-C014476

Stotzheim mill was sold in the first quarter of 2020 and thus its figures are not included in the table.

Main memberships in third-party organisations

- National forest industry federations: Finnish Forest Industries Federation (FFIF),
- The Swedish Forest Industries and the German Pulp and Paper Association (VDP)
- Finnish Chamber of Commerce and International Chamber of Commerce (ICC)
- Confederation of European Paper Industries (CEPI) and 4evergreen alliance
- Business Europe's Corporate Advisory and Support Group
- Bio-based Industries Consortium (BIC)
- Programme for the Endorsement of Forest Certification (PEFC™)
- Forest Stewardship Council (FSC®) (License Code FSC-C014476)

Environmental permit limit violations

In the reporting year, there were no incidents at the mills that would have caused significant environmental impacts, and that would have been followed by claims, compensations or significant media coverage. All incidents that have caused violations of monthly, quarterly or annual permit limit values are detailed with description and corrective actions in the table below. In addition, minor and momentary environmental permit violations with no perceptible environmental effects were reported at Rauma and Simpele mills.

The authorities have been informed and corrective actions have been taken in all cases.

Business area	Unit	Incident	Corrective actions
Metsä Fibre	Äänekoski	The monthly permit limit for total reduced sulfur compounds (TRS) exceeded in January due to the insufficient washing of lime.	Maintenance and process optimisation was done and the emissions have returned to a normal level.
Metsä Fibre	Äänekoski	Nitrogen oxide (NOx) emissions to the air from the spare boiler exceeded the permit limit in annual measurements in June.	Maintenance and optimization of combustion conditions. Emissions have returned to a normal level.
Metsä Fibre	Joutseno	The monthly limit for treatment rate of diluted odorous gases from lime kiln and recovery boiler was not fulfilled in October after the annual maintenance break.	Treatment of diluted gases was ensured and monitoring of treatment rate was ensured. The treatment rate of diluted gases has been in compliance with the permit limits after that.
Metsä Fibre	Joutseno	The permit limit for exhaust gases for chlorine dioxide plant's exceeded the permit limit in annual measurements in December.	The process parameters were adjusted and the emissions returned to a normal level.
Metsä Board	Kyro	Monthly permit limit for total nitrogen emissions to water was exceeded in January due to operative problems concerning nutrient dosing to effluent treatment plant.	Nitrogen dosage level was corrected and operation of the treatment plant returned to normal.
Metsä Board	Kyro	Monthly permit limit of phosphorous was exceeded in March.	Balanced dosing of ferric sulphate and phosphorus acid.
Metsä Board	Kyro	Monthly waste water permit limit exceedings in September. Suspended solids and phosphorus were at high level because of treatment plant failure.	Balanced dosing of nutrients.
Metsä Board	Kaskinen	The permit limit for total phosphorus emissions to water was exceeded in July due to evaporation plant washing chemical and low consistency of aeration basin in the waste water plant.	Treatment of used evaporation plant chemical was changed and sludge removal of aeration was turned to lower level.
Metsä Tissue	Mänttä	Monthly waste water solids content permit limit exceeded in March and April because of shut down and waste water process interference.	Process optimization and sufficient nutrient adding.

Scope of the report

Metsä Group comprises of Wood supply and forest services, Metsä Wood, Metsä Fibre, Metsä Board and Metsä Tissue. Our reporting covers the whole Group, including production, warehousing and sales units. Sustainability reporting follows the same principles of consolidation as our Financial Statements. Metsä Wood's sawmills were transferred to Metsä Fibre in 2016. Sawmills are now reported in Metsä Fibre figures.

Metsä Group reports its sustainability performance at the Group, business area and product levels. The Sustainability Report 2020 has been prepared according to the Global Reporting Initiative (GRI) standards (2016 and 2018). We have selected indicators most relevant to our operations, products and stakeholders based on an assessment of the most significant sustainability issues for the company and its stakeholders. The report covers major permit violations, claims, compensations and topics related to the Group that have gained public attention or may have caused a reputation risk in environmental or human resource management, or ethical business practices.

The Sustainability Report 2020 presents Metsä Group's approach to sustainability management and detailed performance indicators. The Group's subsidiaries Metsä Board and Metsä Fibre publish individual annual reports with brief presentations on sustainability work. The sustainability performance data in this report and claims based on the data have been externally assured by an independent third party, Mitopro Oy p. 46.

MEASUREMENT TECHNIQUES FOR ENVIRONMENTAL DATA

The calculation coverage of the environmental parameters follows that of the financial accounting with the following amendments:

- Only material flows to and from industrial sites are included.
- Discharges to water through external wastewater treatment plants (typically municipal) are taken into account assuming an 85% reduction for COD. Emissions

of BOD, phosphorus and suspended solids are calculated according to the flow with the following residual concentrations: BOD 10 mg/l; total phosphorus 0.5 mg/l; and total suspended solids 10 mg/l. The total nitrogen emission is regarded as zero because there is surplus nitrogen in municipal wastewaters and the reduction of our BOD binds nitrogen to biomass thus reducing the plant's total nitrogen emission.

- The emissions of external wastewaters treated at our wastewater treatment plants are excluded. The allocation of emissions between internal and external inflows is carried out assuming theoretical COD reductions for each inflow, which are then corrected according to the real COD reduction for the whole plant. Other emissions are allocated according to the flow.
- The emissions of external wastewaters treated at our wastewater treatment plants are excluded. The allocation of emissions between internal and external inflows is carried out assuming theoretical COD reductions for each inflow, which are then corrected according to the real COD reduction for the whole plant. Other emissions are allocated according to the flow.

Total energy consumption is expressed as primary fuel consumption. The fuel consumption of purchased electricity is calculated using 40% efficiency factor for combustion energy production, 33% for nuclear energy and 100% for hydro, wind and solar energy. Total energy of purchased heat is determined according to actual fuel consumption.

Environmental impacts, acidification and eutrophication are calculated by multiplying impact-causing emissions by coefficients. Acidification is expressed as sulphur dioxide equivalents. The coefficient for sulphur dioxide (SO₂) is 1 and for nitrogen oxide (NO_x) 0.7. Eutrophication is expressed as phosphorus equivalents. The coefficient for total phosphorus is 1; for BOD 0.0088; for total nitrogen 0.14; and for NO_x 0.0041. The greenhouse effect only consists of carbon dioxide

emissions and has a co-efficient of 1. The biogenic CO emission coefficient for wood-based fuels of 396 tonnes CO₂/GWh has been used.

In unit-specific data, discharges from wastewater plants serving several mills are allocated to units using the methodology explained above. Emissions from power plants are allocated to mills using the energy. In this allocation, the use of 1 MWh of electricity is double the value compared to the use of 1 MWh of heat.

The figures for BOD emissions do not include Husum mill as the measurement is not required by the authorities.

Waste volumes are reported including moisture. The use of temporary waste storage before final disposal at some mills gives some variations to the waste figures depending on how much waste is channeled to temporary storage and how much is taken from there on each year. Waste figures include volumes to final disposal (incl. material/ energy recovery, landfill, and hazardous waste disposal). Part of this volume comes straight from the mill process and a part is from the temporary storage. Waste volumes from mill process to temporary storage are not included.

CO₂ emissions in Group are calculated for Scope 1 and Scope 2. Scope 1 CO₂ emissions cover emissions from the Group. Emissions from purchased heat and electricity together compose Scope 2 emissions. Since 2020 Metsä Group Scope 2 started to calculate purchased electricity according to GHG Protocol by using gross purchases. Scope 2 CO₂ emission calculation consists of two methods. Market based method uses electricity supplier specific emissions coefficients completed with the national residual mix emission coefficients for non-tracked purchased electricity. Location based method uses the total supplier mix emission coefficients by country. Coefficients for total supplier mix and residual mix are taken from the AIB (Association of Issuing Bodies) European Residual Mixes report.

TECHNIQUES IN MEASURING HR DATA

The data coverage follows that of the financial accounting with the following amendments:

- The coverage of the personnel data was 98%, except number of employees, safety and well-being key figures, training hours and coverage of code of conduct, where Hangö Stevedoring is included and the coverage is 100%
- The number of employees is reported as full-time equivalent (FTE). The sickness absenteeism % and work accident absenteeism % are calculated per theoretical working hours. The lost time accident frequency rate (LTA1 fr) includes all accidents at work that have resulted in at least one disability day. The LTA1 fr is calculated as: lost time accidents at work per million worked hours. Only accidents involving Metsä Group's personnel are included in the TRIF and LTA1 fr indicator.
- The share of women in management includes women in the Board of Directors, the Executive Management Team and the business area's management teams at the end of the year.
- New entries only include new permanent employees. Leavers only include permanent employees who left Metsä Group. Employee turn-over includes all permanent leavers and redundancies as a result of the restructuring of the businesses, and is calculated against the average permanent head count. Calculation for retention rate is headcount of permanent employees subtracted with voluntary turnover divided by headcount of permanent employees.

Independent assurance statement

To the Management and Stakeholders of Metsä Group

SCOPE AND OBJECTIVES

The Management of Metsäliitto Cooperative commissioned us to perform a limited assurance engagement on the Metsä Group Sustainability Report 2020 (“the Report”) for the reporting period 1st January to 31st December 2020.

The assurance engagement was conducted in accordance with the AA1000 Assurance Standard (AA1000 AS v3, 2020), and as a type 2 engagement.

We have duly performed an independent external assurance, the objective of which was to evaluate:

- Metsä Group’s adherence to the AA1000 Accountability Principles of inclusivity, materiality, responsiveness and impact;
- the reliability of performance information presented in the Report according to the Principles for defining report quality specified in the Global Reporting Initiative’s GRI Standard 101 Foundation (2016); and
- the compliance with the GRI Standards in accordance criteria at the Comprehensive option.

RESPONSIBILITIES

Metsä Group’s Management is responsible for the preparation of the Report and the performance data and statements presented therein, which the Board of Directors of Metsäliitto Cooperative has approved. Our responsibility as assurance providers is to express a conclusion based on our work performed. The criteria used for our assessment include the GRI Standards (2016, 2018) and Metsä Group’s own internal reporting guidelines.

ASSURANCE PROVIDER’S INDEPENDENCE AND COMPETENCE

We have conducted our assessment as independent and impartial from the reporting organisation. We were not committed to any assignments for Metsä Group that would conflict with our independence, nor were we involved in the preparation of the Report. Our team consists of competent and experienced sustainability reporting experts, who have the necessary skills to perform an assurance process.

BASIS OF OUR OPINION

Assurance providers are obliged to plan and perform the assurance process to ensure that they collect adequate evidence for the necessary conclusions to be drawn. The procedures selected depend on the assurance provider’s judgement, including their assessment of the risk of material misstatement adhering to the reporting criteria.

Our opinion is based on the following procedures performed:

- Interviews with five senior management representatives from Metsä Group and business areas to gain an understanding of the major impacts, risks and opportunities related to Metsä Group’s sustainability agenda.
- Assessment of the procedures Metsä Group has in place to ensure the inclusivity of stakeholder engagement processes, the identification of material stakeholder expectations, the responsiveness to stakeholder concerns and the assessment of impacts.
- Interviews with Metsä Group specialists responsible for sustainability performance data collection at Group-level and in selected sites.
- Review of Group-level systems and procedures to generate, collect and report sustainability performance data for the Report.
- Review of data sources, data generation and reporting procedures at Metsä Board Joutseno mill in Finland, Metsä Fibre Joutseno mill in Finland, Wood Supply and Forest Services in Russia and Metsä Tissue Katrinefors mill in Sweden.

CONCLUSIONS

ADHERENCE TO AA1000 ACCOUNTABILITY PRINCIPLES

Metsä Group has made a commitment to active stakeholder dialogue. Metsä Group has stakeholder engagement processes in place in order to understand stakeholder expectations and to respond to stakeholder concerns. The material topics presented in the Report correspond to stakeholder interests and major economic, environmental and social impacts in Metsä Group’s value chain. Metsä Group has identified impacts related to the material sustainability topics and committed to manage and disclose comprehensive and balanced information of these impacts. It is our opinion that the Report gives a fair and balanced view on the material topics and stakeholder interests; and that Metsä Group adheres in its sustainability practices to the AA1000 Accountability Principles of inclusivity, materiality, responsiveness and impact.

SUSTAINABILITY PERFORMANCE DATA

We have reviewed the basis of the sustainability information provided in the Report. It is our opinion that the Report provides adequate information of Metsä Group’s sustainability performance and the information is presented in accordance with the reporting criteria.

GRI IN ACCORDANCE CRITERIA

The Report complies with the GRI Standards: Comprehensive option.

OBSERVATIONS AND RECOMMENDATIONS

Based on our review, we present the following observations and recommendations, which do not affect the conclusions presented above.

- Metsä Group’s strategic 2030 sustainability objectives define the Group’s sustainability priorities. In 2020, despite of the pandemic situation the progress against the long-term objectives has been notable in many areas. The business areas and functions conducted several actions to implement the 2030 objectives to concrete tasks as part of daily work. We recommend that Metsä Group continues the ambitious target-driven sustainability work by ensuring proactive and solid involvement of all units across the Group.
- In 2020, Metsä Group conducted the first ethics barometer highlighting the importance of business ethics and ethical behavior at workplace. The results indicate that business ethics is introduced to the core of Metsä Group way of working. Some improvement areas were identified, and Metsä Group has developed actions to further develop the responsible corporate culture. We recommend that Metsä Group continues efforts to build systematically responsible business practices and awareness of ethical issue at workplace.
- Safety at work is an integrated part of Metsä Group management and monitored Group-wide. In 2020, the safety work was further developed, which improved the safety performance towards the long-term objective of an accident-free work environment. We recommend that Metsä Group continues significant efforts to build safety culture among own employees and subcontractors, and to prevent all work accidents.

Helsinki, Finland, 19th February 2021

Mitopro Oy

Mikael Niskala
Independent Sustainability
Practitioner

Tomi Pajunen
Independent Sustainability
Practitioner

GRI content index

Metsä Group's Sustainability Report 2020 has been prepared according to the Global Reporting Initiative (GRI) standards (2016, 2018). Material topics have been selected based on a materiality analysis. This table specifies where you will find more information on the GRI disclosures. Mitopro Oy has externally assured all indicators presented in the report. It has confirmed the report to comply with the Global Reporting Initiative standards in accordance criteria at the Comprehensive level.

SR Sustainability Report | AR Annual Review

Standard and disclosure	References and comments	UN Global Compact
GRI 102 ORGANISATIONAL PROFILE		
102-1 Name of the organization	SR front cover inlet	
102-2 Activities, brands, products and services	www.metsagroup.com/en/about-us	
102-3 Location of headquarters	www.metsagroup.com/en/about-us	
102-4 Location of operations	www.metsagroup.com/en/about-us	
102-5 Ownership and legal form	www.metsagroup.com/en/about-us	
102-6 Markets served	www.metsagroup.com/en/about-us	
102-7 Scale of the organization	www.metsagroup.com/en/about-us	
102-8 Information on employees and other workers	SR 33–34	UNGC P6
102-9 Supply chain	SR 32	
102-10 Significant changes to the organization and its supply chain	SR 21–23, AR 8	
102-11 Precautionary Principle or approach	SR 6, 14	UNGC P7
102-12 External initiatives	SR 6–7	
102-13 Membership of associations	SR 43	
GRI 102 STRATEGY		
102-14 Statement from senior decision-maker	AR 2–3	
102-15 Key impacts, risks and opportunities	SR 6–9, AR 10–15	UNGC P7
GRI 102 ETHICS AND INTEGRITY		
102-16 Values, principles, standards and norms of behavior	SR 24–25	
102-17 Mechanisms for advice and concerns about ethics	SR 25	
GRI 102 GOVERNANCE		
102-18 Governance structure	AR 102-105	
102-19 Delegating authority	SR 6–7	
102-20 Executive-level responsibility for economic, environmental and social topics	SR 6–7	
102-21 Consulting stakeholders on economic, environmental and social topics	SR 6–7	
102-22 Composition of the highest governance body and its committees	AR 102–109	
102-23 Chair of the highest governance body	AR 102–109	
102-24 Nominating and selecting the highest governance body	AR 102–109	
102-25 Conflicts of interest	AR 102–109	

Standard and disclosure	References and comments	UN Global Compact
102-26 Role of highest governance body in setting purpose, values and strategy	SR 6–7	
102-27 Collective knowledge of highest governance body	AR 102–109	
102-28 Evaluating the highest governance body's performance	AR 102–109	
102-29 Identifying and managing economic, environmental and social impacts	SR 6–7	
102-30 Effectiveness of risk management processes	SR 6–7	
102-31 Review of economic, environmental and social topics	SR 6–7	
102-32 Highest governance body's role in sustainability reporting	SR 6–7	
102-33 Communicating critical concerns	SR 25	
102-34 Nature and total number of critical concerns	SR 25	
102-35 Remuneration policies	www.metsagroup.com/en/Documents/Corporate-governance/Metsa-Group-Remuneration-policy-2019.pdf	
102-36 Process for determining remuneration	www.metsagroup.com/en/Documents/Corporate-governance/Metsa-Group-Remuneration-policy-2019.pdf	
102-37 Stakeholders involvement in remuneration	www.metsagroup.com/en/Documents/Corporate-governance/Metsa-Group-Remuneration-policy-2019.pdf	
102-38 Annual total compensation ratio	SR 33	
102-39 Percentage increase in annual total compensation ratio	SR 33	
GRI 102 STAKEHOLDER ENGAGEMENT		
102-40 List of stakeholder groups	www.metsagroup.com/en/Sustainability/sustainability-management/stakeholder-engagement	
102-41 Collective bargaining agreements	SR 34	UNGC P3
102-42 Identifying and selecting stakeholders	www.metsagroup.com/en/Sustainability/sustainability-management/stakeholder-engagement	
102-43 Approach to stakeholder engagement	www.metsagroup.com/en/Sustainability/sustainability-management/stakeholder-engagement	
102-44 Key topics and concerns raised	SR 25	
GRI 102 REPORTING PRACTICE		
102-45 Entities included in the consolidated financial statements	AR 66–67	
102-46 Defining report content and topic boundaries	SR 44–45	
102-47 List of material topics	SR 7. Based on materiality analysis a total of 12 topics has been identified as material. Indicators for identified aspects are reported, corresponding 26 GRI topics listed in the general content index.	
102-48 Restatements of information	SR 15, 21, 23. Corrections on figures marked in data by unit tables.	
102-49 Changes in reporting	206-1 was no longer seen material during this reporting period.	
102-50 Reporting period	1 Jan – 31 Dec 2020	
102-51 Date of most recent report	26 Feb 2020	
102-52 Reporting cycle	Annual	
102-53 Contact point for questions regarding the report	SR front cover inlet and back cover	
102-54 Claims of reporting in accordance with the GRI Standards	The report has been prepared in accordance with the GRI Standards: Comprehensive option.	
102-55 GRI content index	SR 47–52	
102-56 External assurance	SR 46	

Standard and disclosure	References and comments	UN Global Compact
MANAGEMENT APPROACH		
GRI 103 MANAGEMENT APPROACH		
103-1 Explanation of the material topic and its Boundary	SR 10–26	
103-2 The management approach and its components	SR 6–7, 25	
103-3 Evaluation of the management approach	SR 25, AR 102–109	
ECONOMIC STANDARD SERIES		
Economic performance		
GRI 201 ECONOMIC PERFORMANCE		
201-1 Direct economic value generated and distributed	SR 4–5	
201-2 Financial implications and other risks and opportunities due to climate change	AR 12–15	
201-3 Defined benefit plan obligations and other retirement plans	AR 32	
201-4 Financial assistance received from government	AR 27	
Indirect economic impacts		
GRI 203 INDIRECT ECONOMIC IMPACTS		
203-1 Infrastructure investments and services supported	SR 2	
203-2 Significant indirect economic impacts	SR 4–5	
Procurement		
GRI 204 PROCUREMENT		
204-1 Proportion of spending on local suppliers	SR 20–22, 32	
Anti-corruption		
GRI 205: ANTI-CORRUPTION		
205-1 Operations assessed for risks related to corruption	SR 24–25, AR 10-13	
205-2 Communication and training about anti-corruption policies and procedures	SR 24–25, SR 10–13	
205-3 Confirmed incidents of corruption and actions taken	SR 24–25, SR 10–13. No confirmed incidents of corruption during the reporting period.	
		UNGC P10

ENVIRONMENTAL STANDARD SERIES

Materials		UNGC P7, P9
GRI 301 MATERIALS		
301-1 Materials used by weight or volume	SR 20, 31–32	
301-2 Recycled input materials used	SR 31–32	
301-3 Reclaimed products and their packaging materials	www.metsagroup.com/en/Sustainability/bioeconomy	
Energy		
GRI 302 ENERGY		
302-1 Energy consumption within the organization	SR 15, 29, 31	
302-2 Energy consumption outside of the organization	No data available. Most important sources: raw material and product transport, purchased pigment and chemical production.	
302-3 Energy intensity	SR 15, 29	
302-4 Reduction of energy consumption	SR 15, 29	
302-5 Reductions in energy requirements of products and services	Not applicable for Metsä Group.	
Water and effluents		
GRI 303 WATER AND EFFLUENTS (2018)		
303-1 Interactions with water as a shared resource	SR 18, 29, 31	
303-2 Management of water discharge related impacts	SR 18	
303-3 Water withdrawal	SR 18, 31	
303-4 Water discharge	SR 18, 31	
303-5 Water consumption	SR 18, 31	
Biodiversity		
GRI 304 BIODIVERSITY		
304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	metsagroup.com/csr	
304-2 Significant impacts of activities, products and services on biodiversity	SR 10–13	
304-3 Habitats protected or restored	SR 10–13	
304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	www.metsaforest.com/fi/Vinkit-ja-faktat/Pages/Talousmets%C3%A4n-luonnonhoito	
Emissions		
GRI 305 EMISSIONS		
305-1 Direct (Scope 1) GHG emissions	SR 15, 29, 31	
305-2 Energy indirect (Scope 2) GHG emissions	SR 15, 29, 31	
305-3 Other indirect (Scope 3) GHG emissions	No data available. Most important sources: raw material and product transport, purchased pigment and chemical production.	UNGC P8
305-4 GHG emissions intensity	SR 15, 29, 31	
305-5 Reduction of GHG emissions	SR 15, 29, 31	
305-6 Emissions of ozone-depleting substances (ODS)	Not applicable for Metsä Group	
305-7 Nitrogen oxides (NO _x), sulphur oxides (SO _x), and other significant air emissions	SR 14–15, 29, 31	
Effluents and waste		
GRI 306 EFFLUENTS AND WASTE		

Standard and disclosure	References and comments	UN Global Compact
306-1 Water discharge by quality and destination	SR 18, 29, 31	
306-2 Waste by type and disposal method	SR 16, 31	
306-3 Significant spills	No significant spills, SR 43	
306-4 Transport of hazardous waste	Not applicable for Metsä Group.	
306-5 Water bodies affected by water discharges and/or runoff	SR 18, 29, 31	
Environmental compliance		UNGC P8
GRI 307 ENVIRONMENTAL COMPLIANCE		
307-1 Non-compliance with environmental laws and regulations	No major violations. SR 43	
Supplier environmental assessment		UNGC P8
GRI 308 SUPPLIER ENVIRONMENTAL ASSESSMENT		
308-1 New suppliers that were screened using environmental criteria	SR 21–23	
308-2 Negative environmental impacts in the supply chain and actions taken	SR 21–23	
SOCIAL STANDARDS SERIES		
Employment		UNGC P6
GRI 401 EMPLOYMENT		
401-1 New employee hires and employee turnover	SR 35	
401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	All Metsä Group employees have the same benefits regardless of their employment type. Benefits might vary depending on the operating country.	
401-3 Parental leave	The GRI indicators are not reported. We comply with local labour agreements and legislation and the employment contracts continue unchanged after parental leave.	
Labour/management relations		UNGC P2
GRI 402 LABOUR/MANAGEMENT RELATIONS		
402-1 Minimum notice periods regarding operational changes	We comply with local agreements and legislation in redundancy situations.	
Occupational health and safety		
GRI 403 OCCUPATIONAL HEALTH AND SAFETY (2018)		
403-1 Occupational health and safety management system	SR 38–42	
403-2 Hazard identification, risk assessment, and incident investigation	SR 26	
403-3 Occupational health services	www.metsagroup.com/en/Documents/Sustainability/Metsa-Group-Occupational-Safety-and-Wellbeing-Instructions.pdf	
403-4 Worker participation, consultation, and communication on occupational health and safety	www.metsagroup.com/en/Documents/Sustainability/Metsa-Group-Human-Resources-Policy.pdf	
403-5 Worker training on occupational health and safety	SR 26, AR 12	
403-6 Promotion of worker health	www.metsagroup.com/en/Documents/Sustainability/Metsa-Group-Occupational-Safety-and-Wellbeing-Instructions.pdf	
403-7 Prevention and mitigation of occupational health and safety impacts directly by business relationships	SR 21–22	
403-8 Workers covered by an occupational health and safety management system	SR 38–42	
403-9 Work-related injuries	SR 34, 38–42	
403-10 Work-related ill health	SR 34, 38–42	

Standard and disclosure	References and comments	UN Global Compact
Training and education		UNGC P6
GRI 404 TRAINING AND EDUCATION		
404-1 Average hours of training per year per employee category	SR 35. Training reported as days/year.	
404-2 Programs for upgrading employee skills and transition assistance programs	SR 35	
404-3 Percentage of employees receiving regular performance and career development reviews	All Metsä Group's employees are entitled to a Personnel Development Appraisal (PDA).	
Diversity and equal opportunity		UNGC P6
GRI 405 DIVERSITY AND EQUAL OPPORTUNITY		
405-1 Diversity of governance bodies and employees	AR 102–109	
405-2 Ratio of basic salary and remuneration of women to men	SR 33	
Non-discrimination		UNGC P6
GRI 406 NON-DISCRIMINATION		
406-1 Incidents of discrimination and corrective actions taken	SR 24–25	
Human rights assessment		UNGC P1, P2
GRI 412 HUMAN RIGHTS ASSESSMENT		
412-1 Operations that have been subject to human rights reviews or impact assessments	AR 9–12	
412-2 Employee training on human rights policies or procedures	SR 24–25, 37	
412-3 Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	In 2020, Metsä Group concluded 358 investment project agreements and 100% included a commitment to our Supplier Code of Conduct.	
Local communities		UNGC P1
GRI 413 LOCAL COMMUNITIES		
413-1 Operations with local community engagement, impact assessments, and development programs	SR 4–5, AR 102–109, www.metsagroup.com/en/Documents/Sustainability/Metsa-Group-Environmental-Policy.pdf , https://www.metsagroup.com/en/Documents/Sustainability/Metsa-Group-Human-Resources-Policy.pdf , www.metsagroup.com/en/about-us/code-of-conduct	
413-2 Operations with significant actual and potential negative impacts on local communities	SR 43	
Supplier social assessment		UNGC P2, P4, P5
GRI 414 SUPPLIER SOCIAL ASSESSMENT		
414-1 New suppliers that were screened using social criteria	SR 21–25	
414-2 Negative social impacts in the supply chain and actions taken	SR 21–25	
Public policy		UNGC P10
GRI 415 PUBLIC POLICY		
415-1 Political contributions	None were made	
Customer health and safety		
GRI 416 CUSTOMER HEALTH AND SAFETY		
416-1 Assessment of the health and safety impacts of product and service categories	www.metsagroup.com/en/Sustainability/product-safety/product-safety-starts-with-raw-materials	
416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	No incidents reported during 2020.	
Marketing and labelling		
GRI 417 MARKETING AND LABELLING		
417-1 Requirements for product and service information and labeling	www.metsagroup.com/en/Sustainability/product-safety/product-safety-starts-with-raw-materials	
417-2 Incidents of non-compliance concerning product and service information and labeling	No incidents reported during 2020.	
417-3 Incidents of non-compliance concerning marketing communications	No incidents reported during 2020.	
Customer privacy		
GRI 418 CUSTOMER PRIVACY		
418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	SR 25	
Socioeconomic compliance		
GRI 419 SOCIOECONOMIC COMPLIANCE		
419-1 Non-compliance with laws and regulations in the social and economic area	In 2020, Metsä Group companies faced fines in one relevant instance, a 30,000 EUR fine for safety related non-compliance.	



Your partner in sustainable growth

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