SUSTAINABLY FROM METSÄ
FORERUNNER IN SUSTAINABLE BIOECONOMY

We are Metsä Group, a Finnish forest industry group that operates in international markets. We use the best renewable raw material in the world – northern wood – sustainably and resource-wisely.

Metsä Group manufactures products from renewable wood that replaces the need to use fossil-based raw materials. The importance of renewables is emphasised as the world population grows and consumption increases.

We know wood. Our products are tissue and cooking papers, paperboard, pulp, wood products, and wood supply and forest services. These growing markets all have a bright future.

We manage forests sustainably, and take care of the growth and nature values of these forests. We produce significant amounts of renewable energy from production side streams.

There are eight sustainability targets that guide our operations – from sustainable forest management and well-being at work to efficient production. Sustainability is a part of everything we do.

This is sustainable bioeconomy, where Metsä Group is a forerunner. Our strength continues to grow in the northern forests.
WE WORK FOR A BETTER CLIMATE AND ENVIRONMENT

CLIMATE
Fossil CO₂ emissions -30% per produced tonne 2009–2020 -35%

ENERGY
Improving energy efficiency by 10% 2009–2020 6%

RESOURCE EFFICIENCY
Process water use -17% per produced tonne 2010–2020 -13%

WE CREATE WELL-BEING

ETHICAL BUSINESS
Coverage of code of conduct training 100% 92%

SAFETY AT WORK
Lost-time accidents frequency annually -10% (LTA 1.7.4, long-term goal 0) -22%

WELL-BEING
Sickness absenteeism <3% 3.9%
DEGREE OF FOREST CERTIFICATION IN METSÄ GROUP’S WOOD SUPPLY AREA

- **North America**: 34%
- **South America**: 2%
- **Western Europe**: 64%
- **Africa**: 1%

DEGREE OF FOREST CERTIFICATION GLOBALLY

- **Finland**: 75%
- **Sweden**: 60%
- **Russia**: 5%
- **Estonia**: 60%
- **Latvia**: 55%
- **Lithuania**: 50%
- **Sweden**: 60%
- **Latvia**: 55%
- **Lithuania**: 50%
The wood Metsä Group uses is supplied from Northern densely forested areas. Here the forest growth exceeds their use. Most of the wood comes from Finnish forest owners, the owner-members of Metsäliitto Cooperative. Also, all other wood from outside the Cooperative is traceable to its origin – Northern forests.

Forest certification is the most reliable tool to ensure sustainable forest management and legal use of forests. Both PEFC™ and FSC® forest certification schemes consider the economic, social and environmental aspects and are based on internationally agreed forest management principles. Therefore, certification provides real proof of a sustainable value chain for both the forest owner and the customer purchasing the certified products. It’s a true business card for the world.
In the land of green gold – as forests are called in Finland – forests are used in many ways. They provide wood, berries, game and recreation. Forests are home to thousands of species which Metsä Group wants to preserve. Biodiversity is maintained by keeping forests as forest, ensuring varied forest landscapes, planting new seedlings and protecting valuable habitats.

Metsä Group will continue to develop sustainable forest management methods that increase biodiversity.

Controlled burnings safeguard biodiversity effectively. We know this approach works as we have monitored species development with WWF Finland in controllably burned areas. In four years, tens of types of poly- pores have found their way onto these sites, including some species classified as rare throughout Finland.
20 YEARS OF NATURE MANAGEMENT TRAINING

Nature management is a basic skill for everybody working in the forests. To ensure up-to-date know-how of nature management for its employees, Metsä Group annually runs training for forest specialists. The training programme has been running for over 20 years. To pass the training the forest specialists take part in an exam with extensive questions about species, habitats, water protection and landscape.

CREATING HOMES IN THE FOREST

When harvesting, we leave two high biodiversity stumps per hectare. From these stumps several birds find homes: woodpeckers, titmice and owls for example. In time, the stumps decay and become habitats for many species such as beetles, polypores, fungi and moss.
**Metsä Board’s American** customers are interested in our over 30% lighter paperboards compared to competing grades. Sustainable forest management is discussed often.

**Metsä Board’s Central European** customers appreciate Metsä Group’s unique value chain that guarantees sustainability from wood to tissue paper.

**Breakdown of Sales**

**Americas**

- **7%**

**EMEA**

- **77%**

**Metsä Board’s Global** customers value our comprehensive and transparent reporting. These include performance targets and their follow-up.

**Metsä Tissue’s Central European** customers appreciate Metsä Group’s unique value chain that guarantees sustainability from wood to tissue paper.

**Metsä Tissue’s Global** customers find product safety important in baking and cooking papers. Key ingredients are traceable raw materials.

**Metsä Wood’s Middle Eastern** customers value customer-focused services. These include for example ethical business practices and reliability.

**Metsä Wood’s Global** customers value our comprehensive and transparent reporting. These include performance targets and their follow-up.
Metsä Group offers its customers products and solutions for sustainable choices. The wood products we manufacture store carbon from the atmosphere, products made from pulp are recyclable, paperboard is a safe packaging material, and tissue papers improve hygiene. Therefore, our sustainable products are in high demand.

**OUR PRODUCTS BENEFIT THE WORLD**

**METSÄ FOREST**
- Sustainably grown and supplied raw material
- 100% traceable, certified or controlled wood

**METSÄ WOOD**
- Strong, light and consistent wood products
- Building with wood is fast, and the products store carbon

**METSÄ FIBRE**
- Pure and safe pulp and other bioproducts
- Products with excellent environmental performance

**METSÄ BOARD**
- Pure, safe and lightweight paperboard
- Lightweight paperboards have a smaller environmental impact and produce less waste

**METSÄ TISSUE**
- Tissue papers improve health, hygiene and well-being
- Cooking papers reduce food waste and use of energy and water
In this resource-wise bioeconomy, every part of the tree is used for the highest value-added products as effectively as possible. In Metsä Group, every production side stream is valuable and nothing goes to waste. We produce renewable energy from production side streams and logging residues.

Our partner network plays an important role in utilising even the smallest side streams in the best possible way. Cooperation with small and industrial partners is key to creating efficient ecosystems as part of sustainable bioeconomy.

Resource efficiency and extensive partner network make it possible for wood-based products to be used in a variety of end uses; not only in wood products, paperboard and paper, but also in textiles and the electronics industry. Wood is also an important raw material for the production of fertilisers, paint, tyres and perfume.

Renewable wood is the best building block for resource-wise bioeconomy.
XXX = made by Metsä Group
Xxx = made in the ecosystem
Our production units are located within regions with abundant forests and water supply. This provides a strong basis for sustainable operations – today and in the future.

It is important for us that our mills run smoothly. That’s why we invest in them regularly. The best available technology ensures good environmental performance and lower emissions. With investments, we have also reduced fossil CO₂ emissions, improved energy efficiency and increased the share of renewable energy in production.

Metsä Group works resource-wisely with all raw materials. Our water use is efficient, and most of our mills are located by lakes and rivers.

In addition to the targets we have set ourselves, our operations are guided by EU-level emission limits. As our emissions are clearly below these levels, we know that our environmental performance is world class.
WE GENERATE
14% OF FINLAND’S RENEWABLE ENERGY.

WE RECYCLE – NOT JUST USE WATER
We have made significant developments with our water use by utilising more closed loops and new technology. Our process water use has decreased by 13% since 2010. Efficient use of water reduces the amount of waste water, which in turn reduces the need for energy. All of this ultimately has a positive impact on the climate.

MORE RENEWABLE ENERGY FROM OUR MILLS
When 23 of our 35 production units produce renewable energy, it’s a lot. Metsä Group has invested systematically in increasing the production of renewable energy as it’s one of the best ways to mitigate climate change. We generate renewable energy resource-efficiently from production side streams, whereby the value of our treasured raw material is recovered to products. We generate renewable energy beyond our own need, for society as well. This makes a difference as we produce 14% of Finland’s renewable energy.

BIOPRODUCT MILL GOES FOSSIL FREE
Metsä Group’s bioproduct mill supports the development towards a carbon neutral society. The mill doesn’t use any fossil fuels because all its energy needs are met from production side streams. The electricity self-sufficiency rate is very high at 240%. Wood barking, warehouse and some parts of the wood transport have been electrified. Environmental and material efficiency were key factors in the design of the mill.
As the population grows, competition for natural resources and energy increases. Therefore, resources must be used wisely. In circular economy, the production and use of biobased products will reduce the amount of waste and enable the recycling of materials and the preservation of their value.

Metsä Group’s operations are based on circulation – from renewable forests through to processes with closed loops as well as making full use of side streams. In addition, our products are recyclable and can store carbon for a long-time.

Our resource-efficient approach also supports the achievement of the UN Sustainable Development Goals (SDGs).

**RESPONSIBLE CONSUMPTION AND PRODUCTION**

Our environmentally-efficient mills use 13% less water than in 2009. Over 90% of our production side streams are utilised.

**AFFORDABLE AND CLEAN ENERGY**

We produce 14% of Finland’s renewable energy, and 86% of our production is made with renewable energy.
CLEAN WATER AND SANITATION
99.6% of water we use is surface water. Our activities don’t weaken others’ access to water.

CLIMATE ACTION
By using renewable energy, we have reduced fossil CO₂ emissions by 35% per produced tonne since 2009.

LIFE ON LAND
We will ensure the sustainable future of forests by planting four domestic seedlings for each harvested tree.

DECENT WORK AND ECONOMIC GROWTH
We employ 9,300 people and in Finland indirectly three times more. We take care of our employees well-being.

INDUSTRY, INNOVATION AND INFRASTRUCTURE
In 2015–2017, we invest EUR 2 billion in our production units and renewable energy.
Make the most of Metsä