METSÄ GROUP
SUSTAINABLY FROM THE FOREST
NORTHERN BIOPRODUCTS TO THE WORLD

METSÄ GROUP produces renewable products from northern forests that provide a substitute for the use of fossil-based raw materials. We use the best raw material in the world responsibly and wisely. We focus on wood supply and forest services, wood products, pulp, fresh fibre paperboard, as well as tissue and cooking papers.

All our business areas have good growth and profitability outlooks. Metsä Group’s investments in 2015–2017 totalled EUR 2 billion, of which approximately 85 per cent related to investments in Finland. In future, these investments will increase our annual sales by approximately 20 per cent. We are growing worldwide – in Europe, North America, Asia and Oceania.
YEAR 2017

SALES
EUR MILLION
5,040
+8%
2016: 4,658

COMPARABLE OPERATING RESULT
EUR MILLION
566
+29%
2016: 439

COMPARABLE RETURN ON CAPITAL EMPLOYED
%
12.3
2016: 10.2

INVESTMENTS
EUR MILLION
608

PRODUCTION IN 7 COUNTRIES
AND 29 FACILITIES

72% OF THE ENERGY USED IN PRODUCTION IS RENEWABLE

100% TRACEABLE WOOD

88% OF SOURCED WOOD IS CERTIFIED

METSÄ GROUP

SALES* 5.0 EUR BILLION
PERSONNEL 9,100

METSÄLIITTO COOPERATIVE | GROUP’S PARENT COMPANY | OWNED BY 104,000 FINNISH FOREST OWNERS

METSÄ FOREST
WOOD SUPPLY AND FOREST SERVICES
Sales EUR 1.6 billion
Personnel 850
Holding Metsaliitto Cooperative 100%

METSÄ WOOD
WOOD PRODUCTS
Sales EUR 0.5 billion
Personnel 1,400
Holding Metsaliitto Cooperative 100%

METSÄ FIBRE
PULP AND SAWN TIMBER
Sales EUR 1.9 billion
Personnel 1,200
Holding Metsaliitto Cooperative 50.1%
Itochu Corporation 25.0%
Metsä Board Corporation 24.9%

METSÄ BOARD
PAPERBOARD
Sales EUR 1.8 billion
Personnel 2,350
Holding Metsaliitto Cooperative 41.5%
61.4% of votes

METSÄ TISSUE
TISSUE AND COOKING PAPERS
Sales EUR 1.0 billion
Personnel 2,800
Holding Metsaliitto Cooperative 100%

* internal sales eliminated

RENEWABLE ENERGY 24 TWh
YEAR 2017 HIGHLIGHTS

SUSTAINABILITY

FIRST-CLASS ENVIRONMENTAL PERFORMANCE

Metsä Group’s mills use the best available technology. The environmental performance of our mills is world-class and we are continuously striving to improve. For example, our fossil CO₂ emissions per product tonne have decreased by 38% compared to the level in 2009.

EXTRUSION COATING LINE STARTED UP AT HUSUM

Metsä Board’s new extrusion coating line, started up in 2017, expanded the product selection for food service packaging with a PE-coated paperboard. The annual production capacity of the production line in Husum, Sweden is 100,000 tonnes. The paperboards meet the strict requirements for food and food service packaging in terms of, product safety, purity and the protection of the product. PE is the most widely used barrier against moisture and water in food and food service packaging.

CUSTOMER-ORIENTED PRODUCT DEVELOPMENT

During 2017, Metsä Tissue introduced many new consumer and large-scale consumer products to the market. Lambi continues to be the most popular tissue paper brand in the Nordic countries, and strong position was supported by new product launches. Serla re-designed the household paper category by launching several products for different end-uses. Mola and Tento have a strong position in Eastern-Central Europe and this was strengthened by several launches. In the large-scale consumer market, Katrin Hand Towels introduced a new compression pattern to improve the softness and absorption of the product. In Finland, SAGA launched a new product particularly suitable for cold cooking in industrial kitchens.

A FORERUNNER IN DEVELOPING DIGITAL SERVICES

More than 25% of the wood trade of Metsä Group’s wood supply and more than 35% of the sales of the forest management services were conducted digitally in 2017. The value of the wood trade in Metsä Group’s digital Metsäverkko service over a period of roughly two years totals more than EUR 200 million. The new virtual forest demonstration allows a forest owner to compare the impact that different felling alternatives could have on their income and on the forest scenery.
Metsä Group’s next-generation bio-product mill was completed precisely on schedule and on budget. The mill’s annual capacity is 1.3 million tonnes of pulp. Deliveries started at the beginning of September 2017, and the mill will achieve its nominal capacity within a year from its start-up. Besides pulp, the mill also produces other bioproducts, including tall oil, turpentine and energy. The new bioproducts manufactured at the bioproduct mill or in the industrial ecosystem around the mill include product gas from bark, sulphuric acid made from the mill’s odorous gases, as well as biogas and biofuel pellets refined from sludge. Metsä Fibre is investigating several different processes and product paths, which will be implemented in phases. Potential new bioproducts include biocomposites, textile fibres and lignin products.

Metsä Group utilises its production side streams efficiently, either as material or energy. We have systematically invested in technologies that support the use of renewable energy. 88% of the fuels used in our production in 2017 were biobased. We also produced 15% of the renewable energy in Finland.

The benefits of wood construction – faster construction, the lightness of the material and a smaller impact on the environment – give it great possibilities in urban environments. Metsä Wood invests in improving the competitiveness of its Kerto® LVL production in Finland. In 2017, a new Kerto LVL production line started its operation at Lohja and a new production line at the Punkaharju mill is planned to start up in the first half of 2019.
STRATEGY OF GROWTH

Metsä Group produces products from northern wood that millions of people around the world need. The world’s population is growing and competition for energy and natural resources is becoming tighter, which is why resources must be used more efficiently. As a forerunner of the bioeconomy, the changes in the operating environment create versatile opportunities for Metsä Group.

RENEWABLE RAW MATERIAL

Our business is based on the use of high-quality, renewable northern wood, the origin of which we always know. We source the majority of the wood we use from our Finnish owner-members. Our business areas form a strong value chain, where we always utilise wood as efficiently as possible for the use that creates the most value.

A RESPONSIBLE EXPERT

Our core business consists of wood supply and forest services, wood products, pulp, paperboard, as well as tissue and cooking papers. We focus our operations in areas where we have a clear competitive advantage and where the outlook for growth and profitability are good. The owner-members of our parent company, Metsäliitto Cooperative, bring continuity and long-term focus to our operations.

A FORERUNNER IN BIOECONOMY

Our products offer a unique combination of customer focus, innovation and sustainability. Our premium-quality products have been developed to promote the well-being of people and the environment. Our products, made of renewable and recyclable raw materials, offer sustainable solutions for global challenges.

PROFITABLE GROWTH

Thanks to carefully planned investments, our production units are at the cutting edge of the industry, whether measured by environmental performance, energy efficiency or profitability. Our global sales network is actively seeking new applications together with our customers.
POPULATION GROWTH
By 2050 the world population is forecasted to grow by a further 2 billion. Due to the increased consumption and resource use resulting from population growth, we need biobased products to substitute products made of fossil-based raw materials.

RESOURCE SCARCITY
Bioproducts made of renewable wood material are sustainable and resource-wise solutions that meet the challenge of increasing demand. Resource-wise production enables making more out of less.

URBANISATION
Urbanisation and related lifestyles change consumer behaviour and needs. Therefore we need sustainable and recyclable solutions for everyday living, such as packaging and construction.

CLIMATE CHANGE
From the climate perspective, recyclable and compostable bioproducts made of renewable raw material are one of the best options. Wood is a renewable raw material that binds carbon dioxide even when it is manufactured into a product.
SUSTAINABILITY TARGETS

The foundation of Metsä Group’s sustainability work consists of four themes covering all our operations and eight targets that guide our everyday work. Sustainability is part of everything we do.

Read more about Metsä Group’s sustainability themes and targets from our Sustainability Report 2017

ETHICAL BUSINESS

Coverage of Code of Conduct training for personnel:

<table>
<thead>
<tr>
<th>TARGET</th>
<th>PERFORMANCE 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>91%</td>
</tr>
</tbody>
</table>

SAFETY AT WORK

Lost-time accidents frequency annually (LTA1: 5.9):

<table>
<thead>
<tr>
<th>TARGET</th>
<th>PERFORMANCE 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>-10%</td>
<td>-20%</td>
</tr>
</tbody>
</table>

WELL-BEING

Sickness absenteeism:

<table>
<thead>
<tr>
<th>TARGET</th>
<th>PERFORMANCE 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;3%</td>
<td>3.9%</td>
</tr>
</tbody>
</table>

WE OFFER SUSTAINABLE CHOICES

PRODUCTS AND SERVICES

- Sustainable, safe and recyclable products from renewable wood
- Customer-focused services and solutions
- Innovations and renewal

WE CREATE WELL-BEING

STAKEHOLDERS AND SOCIAL IMPACTS

- Ethical business practices
- Responsible employer
- Safety at work
- Partnerships and industrial ecosystems
- Value creation in society
WOOD
The share of certified wood:

<table>
<thead>
<tr>
<th>TARGET</th>
<th>PERFORMANCE 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;80%</td>
<td>88%</td>
</tr>
</tbody>
</table>

LOGISTICS
Ensure sustainability of the main logistics flows:

<table>
<thead>
<tr>
<th>TARGET</th>
<th>STATUS 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>In the end of 2017, all 481 main logistics partners included in the sustainability survey fulfilled Metsä Group’s sustainability criteria.</td>
</tr>
</tbody>
</table>

WE BRING THE FOREST TO YOU

RAW MATERIALS AND SUPPLY CHAIN
- Sustainable forest management, biodiversity, multiple use of forests
- Traceability of raw materials
- Sustainable supply chain

WE WORK FOR A BETTER CLIMATE AND ENVIRONMENT

RESOURCE EFFICIENCY AND ENVIRONMENTAL IMPACTS
- Efficient use of raw materials, energy and water
- Valuable side streams
- Renewable energy
- Emissions to water and air

CLIMATE
Fossil CO₂ emissions per product tonne 2009–2020:

<table>
<thead>
<tr>
<th>TARGET</th>
<th>PERFORMANCE 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>-30%</td>
<td>-38%</td>
</tr>
</tbody>
</table>

ENERGY
Energy efficiency improvement 2009–2020:

<table>
<thead>
<tr>
<th>TARGET</th>
<th>PERFORMANCE 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>7%</td>
</tr>
</tbody>
</table>

RESOURCE EFFICIENCY
Process water use per product tonne 2010–2020:

<table>
<thead>
<tr>
<th>TARGET</th>
<th>PERFORMANCE 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>-17%</td>
<td>-15%</td>
</tr>
</tbody>
</table>
SUSTAINABLE PRODUCTS ARE IN DEMAND

Metsä Group’s business areas create a strong value chain where wood is used efficiently. The side streams generated in the production are utilised either as material or in energy production. Products made from renewable raw materials can replace the use of fossil raw materials.

SALES BY AREA

- **AMERICAS**
  - 8%

- **EMEA**
  - 74%

- **APAC**
  - 18%

### METSÄ FOREST
- Renewable and sustainably grown raw material
- The wood is fully traceable; certified and/or controlled

### METSÄ WOOD
- Strong, lightweight wood products of a consistent quality
- Construction with wood products is fast, and the products store carbon

### METSÄ FIBRE
- Premium pulp, sawn timber and other bioproducts
- Fibre expertise, services and long-term cooperation create added value for customers

### METSÄ BOARD
- Pure, safe and lightweight paperboards
- Lightweight paperboards have a smaller environmental impact and they generate less waste

### METSÄ TISSUE
- Tissue papers that improve hygiene and well-being
- Baking and cooking papers that reduce food waste and the consumption of energy and water
METSÄ FOREST represents Metsä Group’s wood supply, nature management and forest services. Metsä Forest serves forest owners and industries that use wood.

Metsä Forest is responsible for purchasing, harvesting and measuring wood, and for its transportation to our production units and other selected customers.

Wood Supply purchases more than 32 million cubic metres of wood every year, the majority of which is supplied by Finnish forest owners. In addition to Finland, we purchase wood from Sweden, the Baltic countries and Russia.

With us, forest owners can increase their forest holdings sustainably. Metsä Forest is Finland’s biggest purchaser of wood and a forerunner in digital services for forest owners – now and in the future.
WOOD PRODUCTS WITH INDUSTRIAL EFFICIENCY

Metsä Wood’s main products are Kerto® LVL as well as birch and spruce plywood. In addition, Metsä Wood sells sawn timber produced by Metsä Fibre.

Made from spruce veneer, Kerto® LVL is the best choice for fast, light and environmentally friendly construction. Birch plywood products are suitable for various uses in the transport and construction industries, for example. Spruce plywood sheets with special surface treatments are easy to use on construction sites.

Metsä Wood works with close cooperation with its customers in a partnership network to create increasingly efficient products that meet their needs even better than before.

Metsä Wood has a strong position in Europe and ambitious global growth targets.

Metsä Wood manufactures industrial-scale wood products for the construction, industrial and distribution sectors.
BIOPRODUCTS TO GROWING MARKETS

METSÄ FIBRE is the world’s biggest producer of softwood market pulp and Finland’s biggest producer of sawn timber.

The bleached softwood and birch pulps of Metsä Fibre’s Botnia product family have been developed for the manufacturing of high-quality paperboard, tissue paper, printing paper and speciality products. Metsä Fibre also produces sawn timber, biochemicals and renewable energy.

The sawmills use the best properties of high-quality raw material and, with the help of cutting edge production technology, sawn timber can be customised according to the individual wishes of each customer.

Metsä Fibre’s fibre expertise, services and long-term cooperation create added value for customers.

The profitable business operations generate growth, of which the next-generation bioproduct mill at Äänekoski is an excellent example. The bioproduct mill is bringing growth to Finland and will increase the annual value of Finland’s exports by roughly EUR 0.5 billion.
METSÄ BOARD is a leading European producer of premium and lightweight fresh fibre paperboards.

Metsä Board’s product range includes folding boxboard and food service paperboards, as well as white kraftliner. Metsä Board’s lightweight, safe and eco-friendly paperboards are suitable for food, cosmetics, pharmaceutical and electronic appliance packaging, as well as for various kinds of retail sales racks and packaging.

The product range is complemented by a range of expert services in packaging analysis and design, technical expertise as well as in research and product development.

Metsä Board is growing profitably and globally together with brand owners, converters and merchant customers in businesses that benefit from safe and sustainable paperboards.

GLOBAL DEMAND FOR FOLDING BOXBOARD AND WHITE KRAFTLINER GROWS BY SOME 3-4% ANNUALLY
CONVENIENCE WITH HIGH-QUALITY TISSUE AND COOKING PAPERS

METSÄ TISSUE manufactures tissue paper products and cooking paper products for households and professionals.

Metsä Tissue’s consumer brands – Lambi, Serla, Mola and Tento – offer a comprehensive range of toilet papers and household towels as well as handkerchiefs. SAGA’s multi-purpose cooking and baking papers, deli bags and other products have been designed for use in cooking and baking at home and in big professional kitchens and bakeries.

The Katrin product line, designed for industrial-scale kitchens and professional use, includes hand towels, toilet papers, facial tissues, paper napkins and industrial wipes, as well as dispensers, soaps and accessories. Metsä Tissue also manufactures products for customers’ private labels.

Metsä Tissue’s growth is driven by the systematic development of product brands.
MAKING THE MOST OF WOOD

Metsä Group is a forerunner in sustainable bioeconomy. Our operations are based on efficient circulations and resource-wise utilisation of our renewable raw material, northern wood.

We use every part of the tree as effectively as possible for the purpose which creates the most value. Every production side stream is important and barely nothing goes to waste.

Circular economy works best in industrial ecosystems. These networks consist of partners manufacturing products for various end-uses. Thanks to this variety of requirements someone’s waste can be another’s valuable raw material. Industrial ecosystems create conditions for developing applications where wood can be used in a new innovative way.

Wood is a versatile material which, in addition to traditional wood products, can be used in textiles and the electronics industry, for example. Renewable wood is one of the best building blocks for resource-wise bioeconomy.

OVER
90%
OF OUR PRODUCTION SIDE STREAMS ARE USED AS MATERIAL OR ENERGY

All products in BOLD are manufactured by Metsä Group.

All other products are manufactured within the industrial ecosystem.
Each part of the wood is used for the highest value products.
Metsä Group creates value, both economic and social, to stakeholders through its operations at a local, national and international level.

We provide jobs for over 9,000 employees and our purchases indirectly enable thousands of jobs, for example, in the harvesting and transportation sectors.

In addition, our contribution to Finnish exports is significant and we also produce renewable energy for Finland.

We strive to operate responsibly and be an important member of society. We also expect our partners to act sustainably.
STAKEHOLDERS

- Local communities
- Schools and universities
- Metsäliitto Cooperative’s owner-members
- Other forest owners
- NGOs
- Customers and consumers
- Associations
- Corporate networks
- Media
- Authorities, legislators and political decision-makers
- Own personnel
- Shareholders
- Investors and analysts
- Research organisations
- Subcontractors and suppliers

LOCAL VALUE

93% permanent employees
over 1,000 summer jobs
EUR 621 million in wages, salaries and benefits
Each forest industry job creates 3 new ones indirectly
EUR 500 million to Finnish forest owners from wood sales
EUR 330 million to harvesting and transportation entrepreneurs in Finland
~30 million seedlings delivered to forest owners annually

NATIONAL VALUE

The value of exports from Metsä Group’s Finnish mills is EUR 2.8 billion, corresponding to 5% of Finnish exports
Producing 15% of renewable energy in Finland
Partnering in circular economy: 92% of production side streams utilised
92% of wood and 85% of other purchases from production countries in Europe
Ensuring biodiversity by leaving at least 2 biodiversity stumps per hectare in forests
63 million paid as interests to Metsäliitto Cooperative’s owner-members

INTERNATIONAL VALUE

Reducing the dependence on fossil resources:
- Wood products that store carbon
- Pulp for recyclable products
- Paperboards for safe packaging
- Tissue papers for improving hygiene

Sales EUR 5.0 billion:
8% from Americas | 74% from EMEA | 18% from APAC

EUR 85 million as interest expenses
EUR 71 million as dividends
CERTIFICATION INDICATES SUSTAINABLE FOREST MANAGEMENT

Metsä Group procures wood from sustainably managed Northern forest areas where forest growth exceeds use. We always know the origin of the wood. 88% of the wood we procure is certified according to PEFC™ and/or FSC® systems. The majority of the wood we use comes from Finland which is known as a forerunner in sustainable forest management.

Forest certification ensures that the forest has been used legally and managed sustainably. It’s proof of sustainable operations throughout the entire value chain, for both the forest owner as well as to the customer. Both forest certification schemes used by Metsä Group have comprehensive requirements for economic, social as well as environmental aspects.

88% OF THE WOOD PROCURED BY METSÄ GROUP IS CERTIFIED

APPROXIMATELY 10% OF THE WORLD’S FORESTS ARE CERTIFIED

DEGREE OF FOREST CERTIFICATION GLOBALLY

NORTH AMERICA

34%

SOUTH AMERICA

2%
DEGREE OF FOREST CERTIFICATION IN METSÄ GROUP’S WOOD SUPPLY AREA

- FINLAND: 80%
- SWEDEN: 60%
- NORTHWEST RUSSIA: 20%
- ESTONIA: 70%
- LATVIA: 55%
- LITHUANIA: 50%
- WESTERN EUROPE: 55%
- CIS: 7%
- ASIA: 4%
- AFRICA: 1%
- OCEANIA: 14%
We succeed together

We are proud of our skills at Metsä Group. Every one of us has the chance to be successful in our work and develop professionally.

Our success is supported by clear goals and supervisory work in line with our values. Renewal, cooperation, reliability and responsible profitability are the values that guide our work. We renew actively, learn from each other and carry the responsibility for our own work and competence.

We achieve results together, responsibly, for the good of our customers. We want to be a step ahead. By challenging ourselves and our partners continuously, we are building the future Metsä together.
FROM FOREST TO BROCHURE

The covers of Metsä Group’s 2017 reports are made from folding boxboard produced at Äänekoski, Finland.

The wood used in Metsä Group’s products is traceable all the way to the stump. The value chain, traceable to the forest, guarantees the sustainability and safety of our products.

Approximately 88 per cent of the wood purchased by Metsä Group is certified.

Metsä Board’s Joutseno mill produced the bleached chemi-thermomechanical pulp of the middle layer.

The chemical pulp for the surface and backing layer of the folding boxboard was produced at Metsä Fibre’s Äänekoski bioproduct mill.

Metsä Board’s Äänekoski mill produced the MetsäBoard Prime FBB Bright folding boxboard used for the covers of these publications. It is a coated paperboard made from pure fresh fibre and ideal for packaging and graphics end uses.

PUBLISHER: METSÄ GROUP

This publication and further information are available online at www.metsagroup.com

Metsä Group’s annual reporting comprises this brochure, the Financial Statements and the Sustainability Report all available in English. The Financial Statements include a Corporate Governance Statement.

In addition, Metsa Board Corporation and Metsä Fibre Oy publish their own annual reports.

Please send your feedback to communications@metsagroup.com, or on social media @MetsaGroup.
Make the most of Metsä