

METSÄ GROUP

ANNUAL
BROCHURE
2016



NORTHERN BIOPRODUCTS TO THE WORLD

Metsä Group produces renewable products from northern forests that replace the use of fossil raw materials. We manage our forests sustainably, and secure their growth and nature values. We produce renewable energy and act resource-wisely.

This is sustainable bioeconomy, where Metsä Group is a forerunner. Our strength continues to grow in the northern forests.

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Our bioproduct mill is the heart of a unique industrial ecosystem



PUBLISHER: METSÄ GROUP

This publication and additional information is available online at www.metsagroup.com. Metsä Group's annual reporting consists of the following reports: Annual Brochure, Financial Statements, including the Corporate Governance statement, and Sustainability Report. In addition, Metsä Board and Metsä Fibre publish their own reports. Kindly send your feedback to communications@metsagroup.com or on social media @MetsaGroup.



Metsä Group
Annual Brochure
2016



Metsä Group
Financial
Statements
2016



Metsä Group
Sustainability
Report
2016



Metsä Board
Annual Report
2016



Metsä Fibre
Annual Review
2016

We focus on wood supply and forest services, wood products, pulp, fresh fibre paperboards and tissue and cooking papers.

Metsä Group's sales totalled EUR 4.7 billion in 2016, and it employs approximately 9,300 people. The Group operates in some 30 countries. Metsäliitto Cooperative is the parent company of Metsä Group and owned by approximately 104,000 Finnish forest owners.

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Sustainability is part of everything we do



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Metsä offers wide range of opportunities



The Carta Integra folding boxboard used for the cover of this Annual Brochure is manufactured at Metsä Board's Äänekoski mill. The surface layers of the three-layer folding boxboard are made from chemical pulp from Metsä Fibre's Äänekoski pulp mill, and the bleached mechanical pulp of the middle layer is manufactured at Metsä Board's Joutseno and Kaskinen mills. Carta Integra is made from pure fresh forest fibre. It is a fully coated paperboard, suitable for packaging and graphics end uses.

YEAR 2016 HIGHLIGHTS

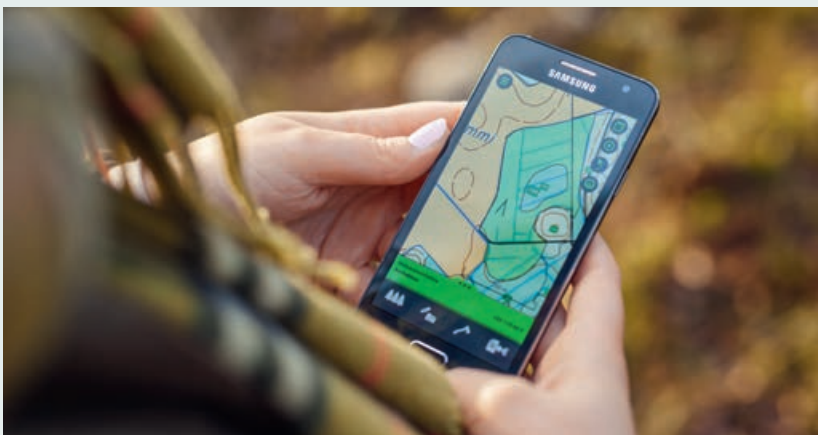
The positive momentum within and around Metsä Group continues. We are investing in growth and in growing production capacity in pulp, paperboard and wood products.



SIGNIFICANT ADDED VALUE

Metsä Group is Finland's fourth most important company in terms of added value and economic growth.

The research institute Etna states also that the effects of Metsä Group's bioproduct mill are significant. Over the next three decades, the bioproduct mill is expected to generate nearly EUR 12 billion worth of added value in Finland.



THE POPULARITY OF DIGITAL TRADE IS GROWING

In 2015, Metsä Group began conducting business digitally with its owner-members, i.e. the members of Metsäliitto Cooperative.

Owner-members can sell wood and buy forest management services through the digital Metsäverkko service. In 2016, the volume of digital trading accounted for 20% of all trading.

NEARLY

20%

OF WOOD SOURCED FROM PRIVATELY OWNED FORESTS WAS PURCHASED DIGITALLY IN 2016



MORE QUALITY, EFFICIENCY AND GROWTH

Metsä Wood's EUR 100 million investment programme, announced in June 2016, is progressing according to plan. We are replacing two of the oldest lines at Lohja's Kerto® mill with a new birch veneer peeling and drying line at Äänekoski and a birch plywood mill in Estonia, and planning to start the production of a new spruce plywood product at Suolahti. The investments are planned to be completed by the end of 2018.



**METSÄ
FIBRE**

SAWMILLS INTEGRATED INTO METSÄ FIBRE

Metsä Group's Finnish sawmills and their personnel joined Metsä Fibre in November 2016. This is particularly beneficial for the management of transportation costs and the use of wood raw material. The annual production volume of the six sawmills, formerly part of Metsä Wood, is roughly 1.6 million cubic metres. Metsä Wood now serves as Metsä Fibre's sales channel for sawn timber.



**METSÄ
BOARD**

A GENUINE PAPERBOARD COMPANY

Metsä Board's new folding boxboard machine started up at the Husum mill in February 2016. The production line's annual volume of 400,000 tonnes is directed at the Americas and globally at food service packaging. The new folding boxboard machine was the most significant part of the investment programme of the Husum integrated mill. When the production of fine paper at the Husum mill and the production of wallpaper base at the Kyro mill in Kyröskoski ended in 2016 became Metsä Board a genuine paperboard company.



**METSÄ
TISSUE**

NO COMPROMISES ON OCCUPATIONAL SAFETY

Metsä Tissue has the goal of zero accidents at all of its ten mills. For example, during the past year, the company's safety culture has taken big steps forward at the Žilina mill in Slovakia and the Mänttä mill in Finland. This is demonstrated not only in the number of days with no accidents, but also in the activities regarding safety observations. The Düren mill in Germany is a clear pacesetter. It holds Metsä Tissue's record for the number of days with no accidents: 1,424 days.

A LEADER IN THE GLOBAL BIOECONOMY

Metsä Group's EUR 1.2 billion bioproduct mill is the biggest bioeconomy investment in Finland – and all of Europe. In addition to high-quality pulp and other bioproducts produced in an environmentally and resource-efficient manner, it will generate economic growth and well-being.

The core of the bioproduct mill is the energy and environmentally efficient pulp mill, which will produce pulp and other bioproducts. This cutting-edge mill is the heart of a unique ecosystem of companies that will produce a variety of bioproducts.

THE BIOPRODUCT MILL CREATES GROWTH

The investment is based on the steady growth in global demand for northern long-fibre pulp. The mill – set to start up in the third quarter of 2017 – will produce 1.3 million tonnes of softwood and hardwood pulp a year, most of which will be sold in Europe and Asia. The mill will use 6.5 million cubic metres of wood a year.

The bioproduct mill will increase the value of Finland's exports by approximately EUR 0.5 billion a year, and its income effect on Finland will also be EUR 0.5 billion. During its construction, the mill's personnel impact will be more than 6,000 person-years. After production commences, its employment impact throughout its value chain in Finland will be around 2,500 jobs.

TOP-CLASS ENVIRONMENTAL EFFICIENCY

In terms of its material, environmental and energy efficiency, the bioproduct mill will be second to none, even on a global scale. It will not use fossil fuels, instead generating all the energy it needs from its production side streams. Despite the nearly threefold production capacity increase in comparison to the existing pulp mill at Äänekoski, the bioproduct mill will operate within the same emission limits and wastewater conditions as the existing mill.

THE BIOPRODUCT CONCEPT IS PROGRESSING

Agreements on the production of biogas and biocomposites were made with partners in 2016. A decision was also made on the world's first large-scale sulphuric acid plant integrated into a pulp production process, which will be constructed in conjunction with the bioproduct mill.

The bioproduct mill aims to function as a growth platform for business partnerships and to expand and diversify the existing forest industry network at Äänekoski. Our concept will bring about a unique economic ecosystem that will make use of the side streams generated by the main production and create extensive value chains.

We will continue to actively and systematically conduct research and development work into the bioproduct concept.

A UNIQUE INDUSTRIAL ECOSYSTEM

BIOPRODUCTS

The bioproduct mill will produce pulp, biochemicals and renewable energy. The product portfolio will be complemented with new bioproducts: product gas, sulphuric acid, biogas and biocomposites. The new bioproducts will improve the competitiveness of the entire ecosystem.

CURRENT BIOPRODUCTS



PULP



RENEWABLE ENERGY



TALL OIL AND TURPENTINE

The network of companies around the mill will produce numerous bioproducts.



CORE: THE WORLD'S MOST MODERN PULP MILL

0%
OF FOSSIL FUELS

1.3
MILLION
TONNES
OF PULP
PER YEAR

SELF-SUFFICIENCY IN
ELECTRICITY

240%

NEW BIOPRODUCTS

BIOGAS

Eco Energy SF Oy will use the sludge generated in pulp production to produce biogas, which can be refined into biomethane for traffic use.

SULPHURIC ACID

The odorous gases will be used to make sulphuric acid, which is needed in the production of tall oil, for example. The production of sulphuric acid will take the mill closer to a closed chemical cycle.

PRODUCT GAS

Tree bark will serve as a raw material for product gas used as fuel by the mill. The mill will therefore not use any fossil fuels at all.

BIOCOMPOSITE

The production of biocomposites will first begin at the Rauma mill. Aqvacomp will use pulp fibre and plastic to produce a biomaterial that can replace plastic in the electronics and car industries.

BIOPRODUCTS IN THE RESEARCH PHASE

TEXTILE FIBRES AND PROCESSED LIGNIN PRODUCTS

We are studying several different processes and product paths, which will be implemented in systematic phases. Possible new bioproducts include lignin and wood-based textile fibres. We are studying the production of textiles with an ecological method that uses ionic liquids. Mill-scale tests will be conducted in 2017.

VALUE FOR FINNISH SOCIETY

TOTAL INVESTMENT
EUR

1.2
BILLION

EMPLOYS

2,500

PEOPLE IN THE
DIRECT VALUE CHAIN
IN FINLAND

INCREASES THE
VALUE OF FINNISH
EXPORTS BY EUR

0.5
BILLION PER YEAR

INCREASES THE
SHARE OF RENEWABLE
ENERGY IN FINLAND BY

more than 2
PERCENTAGE POINTS

Read more › Metsä Group's Sustainability Report 2016 p. 19

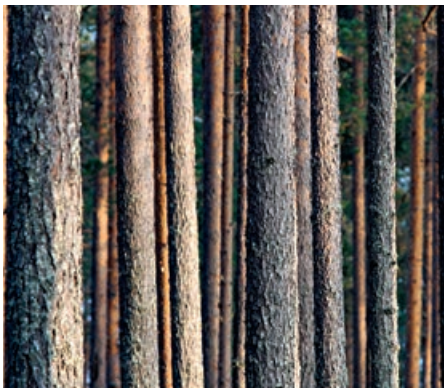
METSÄ GROUP

Metsä Group's mission is to be a profitable and competitive forest industry group that utilises wood grown by its owner-members.

OUR BUSINESS AREAS

Our business areas create a strong value chain where we use wood as efficiently as possible at every stage.

Side streams generated in production are utilised in production units and energy production. All the products we manufacture can be, for example, used as energy at the end of their life-cycles.



METSÄ FOREST

WOOD SUPPLY AND FOREST SERVICES

Forestry, nature management, and wood trade services for forest owners. Wood and energy wood deliveries to Group's production units and other industrial customers.



METSÄ WOOD

WOOD PRODUCTS

Kerto® LVL products, birch and spruce plywood for construction, industrial and distribution customers. Sells also Metsä Fibre's pine and spruce sawn timber.

OUR VALUES

RELIABILITY

Our success is based on long-term cooperation with our stakeholders. We appreciate the work and competence of each other and strengthen the confidence of our various stakeholders by acting in a consistent and predictable way.

RESPONSIBLE PROFITABILITY

We bear responsibility for the environment, our partners and each other to ensure successful business activities and forestry. Profitability is an absolute prerequisite for the continuous development of operations.

COOPERATION

We develop our operations in cooperation with our customers and share information and best practices with each other. We operate as one group of companies, utilising mutual synergies and relying on common benefits.

RENEWAL

We are aware of future challenges and have the courage to question old practices in order to provide better products and services to our customers in support of their business operations.



**METSÄ
FIBRE**

PULP

Bleached softwood and birch pulp for the production of premium printing and tissue paper, paperboard and speciality products. A significant producer of sawn timber, renewable energy and biochemicals.



**METSÄ
BOARD**

PAPERBOARD

Main products are fresh fibre-based folding boxboards and linerboards for consumer, retail and food service packaging.



**METSÄ
TISSUE**

TISSUE AND COOKING PAPERS

Lambi, Serla, Mola and Tento tissue papers for consumers, Katrin products and hygiene solutions for public facilities, and SAGA baking and cooking papers for home and professional use.

OPERATING ENVIRONMENT AND STRATEGY

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

RESPONSIBLE EXPERT

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

BIOECONOMY FORERUNNER

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

RENEWABLE RAW MATERIAL

Our business is based on 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 bioeconomy value chain, thus maximising the use of wood at every phase.

PROFITABLE GROWTH

Thanks to carefully planned investments, our production units are in the forefront of the industry, whether measured by environmental performance, energy efficiency or profitability. Our main market is Europe, and we are pursuing growth outside Europe, especially in North America and Asia.

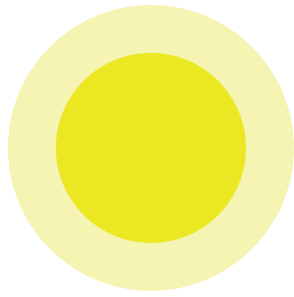
POPULATION DYNAMICS

Our planet will have one billion more people by 2025. Urbanised, connected, wealthier, and ageing people consume more of our sustainable products.

GLOBAL NEIGHBOURHOOD

The world is becoming one big connected market area. Our stakeholders put emphasis on value chain efficiency and transparency.





EXCELLENT EXPERIENCE

Customer experience is the key, since purchase decisions are driven by values. Our engagement with our stakeholders is based on well-designed offerings and cooperation.

SUSTAINABLE FUTURE

Bioproducts, made from renewable wood raw material, are resource-smart solutions to meet increasing consumption demands. We create well-being for people and society.

DIGITAL EVERYDAY

The technological breakthroughs of the digital revolution impact all businesses and individuals. In collaboration with our stakeholders, we create fast, intelligent, and mobile solutions.



PART OF EVERYTHING

Metsä Group invests in partnerships within its value network – from sustainable forest management and personnel well-being, to efficient production and high-quality end products. Sustainability is part of everything we do.



WE OFFER SUSTAINABLE CHOICES

Our core competence lies in high-quality, safe products made from renewable raw materials. Our recyclable products provide an excellent alternative to products made from non-renewable natural resources. We help our customers in sustainable forest management and in effective product and service design. We develop new bioproducts and materials to provide solutions for the increasing global scarcity of resources.

WE BRING THE FOREST TO YOU

Metsä Group supplies its main raw material from the northern wood regions, where forests grow faster than they are used. We always know the origin of the wood and ensure its legality. To the markets, forest certification is an indication of sustainable forest management and responsible operations.

Metsä Group's roots are in Finland and its markets are located around the world. We promote sustainability in networks with our customers and service providers wherever we operate.

Metsä Group's sustainability targets are linked to the United Nations' Sustainable Development Goals. Their primary objective is to create well-being and a more sustainable future for the world. You can find further information on this issue in our Sustainability Report.

WOOD

Share of certified wood

Target
>80%

Performance in 2016

86%

Our sustainability work is divided into four main themes that cover all our activities and where our actions have the most significant impact. Our activities are guided by eight targets, which also support sustainability management. In addition to the targets explained below, the targets include the sustainability of the main logistics flows, the reduction of process water consumption, ethical business practices and well-being at work. Read more about our themes, targets and performance in our Sustainability Report or on our website.

→ www.metsagroup.com/en/Sustainability



WE WORK FOR A BETTER CLIMATE AND THE ENVIRONMENT

We use raw materials, energy and water as efficiently as possible. In our value network, we use each part of the tree for the purpose it is most suitable for: wood products from logs, pulp and other bioproducts from pulpwood. We use pulp to make fresh fibre paperboards as well as tissue and baking and cooking papers. From the side streams of our operations, we produce renewable energy, and with renewable energy we also manufacture most of our products. The environmental performance of our production is leading the way, even on a global scale.



WE CREATE WELL-BEING

Metsä Group is an international company rooted in Finland. We employ 9,300 people, in addition to which we create three times as many jobs indirectly in our value network. Occupational safety and good leadership play key roles in our everyday activities. We create well-being internationally as well as locally, recognising that our products are a part of the daily lives of millions of people in more than 80 countries.

CLIMATE

Fossil CO₂ emissions per product tonne

Target

-30%

Performance in 2016

-35%

SAFETY AT WORK

Lost-time accidents frequency (LTA1: 7.4)

Target

-10%

Performance in 2016

-22%



FORERUNNER IN FOREST ASSET MANAGEMENT

Metsä Forest is responsible for Metsä Group's wood supply and offers Metsäliitto Cooperative's owner-members services that grow the value of forest assets.

We offer forest owners the best ways for sustainable growth of forest assets. We are the most competitive raw material supplier for Metsä Group's production units and for our other selected key customers.

We are the market leader in wood trade and energy wood deliveries in Finland. We supply all the wood used by Metsä Group. Every year we deliver about 30 million cubic metres of wood, most of it comes from Finnish forest owners.

FROM THE FOREST TO CUSTOMERS

Wood sourcing gives preference to Metsäliitto Cooperative's members. We pay a bonus to members who regularly sell wood and also to

members who buy forest services. One third of Finnish forest owners belong to the Cooperative, and they own about half of the private forest area in Finland.

In addition to Finland, we source wood in Sweden, the Baltic countries and Russia, primarily for use by the production units located in these countries. Every year, we do approximately 35,000 wood trade transactions in Finland. We are responsible for wood sourcing, harvesting, measuring and transporting to production units and to our other industrial customers.

All of the wood we source comes from sustainably managed forests. Our comprehensive tracking systems mean that we always

know the origin of the wood we supply. We can trace the origin of wood right to the forest and the forest owner.

BEST SERVICES FOR FOREST OWNERS

In addition to wood trade, we offer forest owners comprehensive forest and nature management services and the best way to sustainably grow forest-based assets. Each member has an assigned forest expert. We are the forerunners in developing forest management solutions and electronic services. In 2016, we achieved a clean record in customer satisfaction.

Metsäliitto Cooperative's members can sell wood and buy forest services online through the Metsäverkko service available to them. With the unique Metsäverkko mobile application, forest owners have instant access to information about their forest assets. This lets members manage their assets with their mobile device – whenever they want and wherever they are. Forest asset data can also be updated with the mobile app.

Construction of the bioproduct mill in Äänekoski, Finland, will boost the demand for our wood supply and forest management services in the coming years. This will improve our owner-members' opportunities to grow their forest assets.

MORE DECAYING WOOD AND TREES WITH NESTING HOLES IN FORESTS

Metsä Group's thinning and regeneration felling involves leaving two high stumps in each hectare of forest. This practice is voluntary for forest owners and asked for when they sell wood.

The volume of wood purchased by Metsä Group will grow considerably in the future, and we want to carry increasingly our responsibility over the sustainable use of forests. The diversity of forests and endangered species can be protected by carrying out these everyday measures in large areas.

Biodiversity stumps are living trunks, which meet the requirements for pulpwood, but are cut by the harvester at a height of a few metres. The stump, most often a hardwood, will start decaying within a few years, benefitting fungi, insects and several forest-dwelling birds.

Forest owner **Jorma Kuukkeenmäki** (right), gave an immediate positive reply to forest specialist **Janne Muhonen** when he was asked whether he wanted to leave biodiversity stumps in his forest; "Biodiversity stumps are a sensible way of promoting the diversity of forest ecosystems."





100%

WE DELIVER FOREST OWNERS ONLY TREE SPECIES AND SEEDLINGS ORIGINATING FROM FINLAND





WOOD PRODUCTS WITH INDUSTRIAL EFFICIENCY

Metsä Wood focuses on the industrial production and sale of high-quality wood products for the purposes of construction, industrial and distribution customers. Our products include Kerto® LVL, birch and spruce plywood. We also sell spruce and pine sawn timber produced by Metsä Fibre.

The core of our strategy is industrial efficiency in everything we do. We aim to be our customers' best partner. Thanks to professional services and first-rate products, our customers can focus on their own core competence and growth.

In November 2016, Metsä Wood's sawmills transferred to Metsä Fibre as part of an internal arrangement of Metsä Group, aiming for the better exploitation of industrial synergies between sawn timber and pulp. We serve as Metsä Fibre's sales channel for sawn timber.

The wood we use always comes from sustainably managed forests, and its origin is always known. We make wood products for the varied needs of the construction, transport equipment and distribution segments. Together with our key partners and other stakeholders, we aim to create an ecosystem that benefits wood construction.

Wood is an excellent construction material. Demand for it is growing continuously, and wood works well in both new buildings and renovations, such as the construction of additional floors. The benefits of wood construction are consolidated through the fast progress of projects, the lightness of the elements and the sustainable materials.

MORE COMPETITIVENESS, QUALITY AND EFFICIENCY

In June 2016, we announced a EUR 100 million investment programme that will allow us to meet the growing demand for wood prod-

ucts and improve our competitiveness on the global market. The plan is to implement the programme in steps by the end of 2018. The full impact of the measures will be visible in our result in 2019.

As part of the investment programme, Metsä Wood will replace two of the oldest production lines at the Kerto mill at Lohja with a new line. In addition, we will build a birch veneer peeling and drying line at Äänekoski and a birch plywood mill in Estonia. Our plans also include a new spruce plywood prod-

uct, the production of which will start at Suolahti. Product innovations that generate added value for customers, industrial efficiency and a world-class service concept will enable sales growth in Asia and the United States. They will also strengthen Metsä Wood's position in Europe.

We continuously develop and improve the efficiency of our production units. We don't make compromises when it comes to the safety, the environmental performance of our units, or the quality of our products.

FAST BUILDING WITH WOOD ELEMENTS

There are many benefits to the light-weight wood elements manufactured by Metsä Wood. Given that the wood elements are manufactured at a mill, they are delivered to the customer dry and clean, and they are quick to install. Light wood products can be transported to sites in large quantities, reducing the environmental burden. Thanks to prefabrication, material loss is minor compared to construction with wood on site. The light-weight, yet strong wood elements allow for lighter building foundations and thereby also faster and more cost-effective building. Light, prefabricated elements are quick to assemble. During one day, for example, you can assemble as much as 1,500 square metres of Kerto® LVL roof elements.



AT BEST, WOOD ELEMENTS
EXPEDITE CONSTRUCTION
UP TO 25% AND LIGHTEN
STRUCTURES BY SOME

70%



Photo: Felix Gerlach and architecture firm Tengbom



BIOPRODUCTS TO GROWING MARKETS

Metsä Fibre is a pioneer in the global bioeconomy, and a manufacturer of one of Finland's most important export products. Our product range includes pulp, sawn timber, renewable energy as well as other bioproducts.

Our main products are bleached softwood and birch pulps of the highest quality. Every year, we produce some 2.4 million tonnes of these pulps for the market under our Botnia brand. Once the bioproduct mill currently under construction starts up and is in full production, our annual pulp production capacity will increase to over 3 million tonnes.

Our customers use the premium pulp we make from northern wood in the manufacture of premium-quality tissue and printing papers and as raw material for speciality products and paperboards.

In addition to our Botnia pulp products, we generate added value for our customers by providing them with technical services and fibre expertise that allow them to achieve a high degree of competitiveness. The best possible end results are achieved through cooperation.

In November 2016, Metsä Group's Finnish sawmills were integrated into Metsä Fibre. Their combined annual production volume is approximately 1.6 million cubic metres.

THE PREFERRED SUPPLIER OF BIOPRODUCTS AND SERVICES

Metsä Fibre's goal is to be the most preferred supplier of bioproducts and services that create added value to the business of our customers. Our operations are defined by the principle of continuous improvement.

Our four pulp mills in Finland are cost-effective and, in terms of their environmental performance, at the top of their class; this is how we are able to meet the high quality demands set for our products. In the future, the importance of the side streams of pulp

production will continue to increase, given that products with high added value are needed to meet the growing demand for wood-based bioproducts.

Our bioproduct mill at Äänekoski, set to start up in the third quarter of 2017, is the

biggest investment in the history of the Finnish forest industry. Our next-generation mill will be a pioneer of the bioeconomy and demonstrates our ability to renew and will ensure our market leading position in the years to come.

CONSISTENT QUALITY WITH HIGH USABILITY

Metsä Fibre has systematically improved the production efficiency of its mills. A good example of this is the Rauma mill, which was operated without a break for 169 days with 100 per cent usability.

"We have systematically improved efficiency in all departments with the help of capacity test runs. By analysing the results of these test runs and performing corrective measures, we can make the most of every mill's production capacity," says **Ilkka Poikolainen**, VP, mill manager of the Rauma pulp mill.

Our partner in this development work is Metsä Fibre's maintenance service company, Botnia Mill Service. The results are significant as the average availability of our four mills has improved by as much as three percentage points.

The development work has included internal mill availability audits, from which we have identified both mill-specific targets and development targets that apply to all our mills. In everything we do, our strengths are based on investing in developing our personnel's competence and creating a culture that encourages the open sharing of information, being methodical and producing accurate forecasts.

"Developing production efficiency has an impact on product quality, the mill's environmental performance, cost effectiveness, and on well-being and safety at work. The consistent, efficient and uninterrupted operation of our mills is visible in the consistent quality of the pulp, which is, after all, what our customers value above all else," says Poikolainen.





140 %

METSÄ FIBRE'S
SELF-SUFFICIENCY
IN ELECTRICITY



PREMIUM PAPERBOARDS FOR PACKAGING

Metsä Board is a leading European producer of folding boxboards and white fresh fibre linerboards. Our lightweight paperboards are developed as the perfect fit for consumer goods, retail-ready and food service packaging.

Metsä Board focuses on paperboards made from fresh fibre that are suitable for packaging food, cosmetics, pharmaceuticals and electronic appliances, as well as for various kinds of retail sales displays and packages. The most recent additions to our product range include paperboards developed for food service packaging – such as cups, plates and trays – providing a replacement for plastic products.

We support our customers with a variety of services, such as recommendations concerning packaging materials; technical consultation concerning converting and packaging, research and product development, as well as sustainable development and packaging design services. Our customers include brand owners, converters and merchants around the world.

CDP, an international non-profit organisation that manages the world's biggest environmental impact reporting system, included Metsä Board on its A list in both its Climate and Water programmes in 2016. In addition, Metsä Board was recognised with Leadership status in CDP's Forest programme.

Metsä Board's shares are listed on the Nasdaq Helsinki.

FRESH FIBRE – A SAFE SOLUTION

Metsä Board's paperboards offer many advantages throughout the supply chain – from production to converting, all the way through to stores and consumers. The production of ecological and lightweight paperboards

requires less raw materials, water and energy. As premium products, they are ideal for packaging manufacture, fast-moving packaging lines and improved logistics. When made from fresh fibre, paperboard is a safe material even for sensitive products, such as food and pharmaceuticals. Paperboard is also well-suited for the circular economy, given that the fibres used in its production can be re-used several times.

FIBRES ENSURING CONSISTENT QUALITY

Metsä Board is self-sufficient in terms of pulp made from wood fibre used in paperboards. This operating method helps us ensure the consistent quality of the fibre raw material and paperboards.

A combination of pulps made from softwood and hardwood grown in northern forests gives our paperboard strength and qualities that support printing. The fresh fibre we use in paperboards derives from sustainably managed forests in northern Europe. Our production relies solely on raw materials with a verifiable origin.

PE-COATED PAPERBOARDS ENTER THE MARKET

Metsä Board's new folding boxboard machine started up at the Husum mill at the beginning of February 2016. The production volume will be directed at the Americas and, in terms of a global perspective, at food service packaging. In November 2015, we announced investments in a new extrusion coating line and the related infrastructure at Husum mill. The installation work began in the autumn of 2016, and the line will be fully operational during the first half of 2017. The line's capacity will be approximately 100,000 tonnes a year.

PE, or polyethylene, is currently the most common barrier material against moisture and grease in food and food service packaging. Metsä Group is continuing to develop new barrier solutions, including bio-based materials.

Before the start-up of the new extrusion coating line, we provided PE-coated food service packaging paperboards using external suppliers. These products are used for, among other things, cups, plates, trays and fast-food packages.



THE PRODUCTION CAPACITY
FOR FRESH FIBRE FOLDING
BOXBOARD AND WHITE
LINERBOARDS IS

more than **2**

MILLION T/A





CONVENIENCE WITH PREMIUM TISSUE AND COOKING PAPERS

Metsä Tissue is one of Europe's leading suppliers of tissue paper products for households and professionals, and the world's leading supplier of cooking papers.

The product ranges of Metsä Tissue's consumer brands – Lambi, Serla, Mola and Tento – consist of toilet papers, household towels and handkerchiefs. Katrin products and solutions are intended for use in public premises. SAGA cooking products are suitable for both home kitchens and professional use. Metsä Tissue is also a major supplier of tissue papers tailored for private labels.

We aim to be our customers' best growth partner in all of our product categories. Understanding our customers' businesses, meeting

their needs, and close collaboration to generate growth are the cornerstones of our strategy.

MINIMISING ENVIRONMENTAL IMPACT

We want to minimise the environmental impact of our operations. All of our products are manufactured responsibly, safely and with respect for the environment. Our products are made from fresh fibre, recycled fibre or a combination of both. The wood we use for fresh fibre pulp derives from responsibly managed forests. Our mills have quality and environ-

mental certificates that comply with the international ISO 9001 and ISO 14001 standards.

Metsä Tissue is seeking growth in both the European tissue paper and global cooking paper markets. Consumers are increasingly interested in their own well-being and health, as well as in the sustainability of the products they buy. Metsä Tissue is responding to these global trends with products that bring convenience and well-being into everyday life.

KATRIN DISPENSERS ARE DESIGNED FOR ALL

Metsä Tissue's Katrin makes public toilet facilities increasingly easy to use. The new Katrin Inclusive dispenser series considers all user groups, with the design of the dispensers paying special attention to the needs of children, the ageing population and those with impaired eyesight or mobility.

Katrin Inclusive toilet paper, hand towel and soap dispensers combine accessibility, convenience of use, clean-lined Nordic design and the best technical qualities. The product design is based upon recommendations and usage experiences collected from the users of toilet facilities, which provided the design team with valuable insights, particularly on the requirements of people with special needs.

The new dispensers have received positive feedback from both users and maintenance and cleaning staff. The dispensers also gained recognition and awards in a number of competitions in 2016, both for their design and their convenience.



METSÄ TISSUE'S TISSUE
PRODUCTS ARE USED
EVERY DAY IN MORE THAN

30

COUNTRIES



THE RENEWING METSÄ OFFERS A WIDE RANGE OF OPPORTUNITIES

As an international and responsible operator, we have succeeded thanks to our skilful and motivated personnel. Our values – responsible profitability, reliability, cooperation and renewal – form the basis for all our activities.

We look to the future with an open mind, and we continuously evolve and develop our operations, products, services, production processes and operating methods. Now and in the future, we want to recruit the top talent in all fields, people who want to develop on the front line of the forest industry.

We invest in future know-how by engaging in active and varied cooperation with comprehensive and vocational schools, as well as with institutes of higher education. Numerous theses are completed at Metsä Group every year, in addition to which we participate in several events at various educational institutes.

We also offer summer internships and hundreds of summer jobs in Finland and in the other countries in which we operate. We engage in interesting and important work involving products made from high-quality, renewable raw materials as well as helping to develop our services.

Thanks to clear goals and good leadership, every Metsä Group employee has the opportunity to succeed in their work and further develop their know-how. Occupational safety is an integral part of daily leadership at Metsä Group. We also invest actively in well-being at work and the advancement of work ability.



AVERAGE TERM OF
EMPLOYMENT

16.6

YEARS

PERSONNEL
IN FINLAND

5,000

IN OTHER COUNTRIES

4,300

METSÄ NEEDS EXPERTS

The video series, Metsä Inside Out, introduces job and career opportunities at Metsä Group with a fresh approach. At Metsä Group, you can get excited, be proud of your own work and develop your competence. We value one another's work and listen to each other. We share our experiences and assume responsibility for our own motivation and job satisfaction. Consideration of colleagues and a sense of humour bring enjoyment to the working day and create a positive working atmosphere.

➔ www.metsagroup.com/en/careers



GROWING METSÄ GROUP

We are a Finnish forest industry group that operates on the international market. Our production units are at the top of the industry, and their efficiency and environmental performance are continuously being developed by a systematic investment programme.

Sales companies, retailers and agents sell our products around the world. Europe is our main market area. We are seeking growth in Asia and North America.

Metsä Group is supporting many projects and initiatives to mark the centenary. We will also be showcasing the Finnish consumer products of Metsä Tissue. The year will culminate in the start-up of our bioproduct mill.



INVESTMENTS IN
2015–2017
APPROXIMATELY

EUR **2** BN

OF WHICH 85% TO
FINLAND

METSÄ GROUP

SALES EUR **4.7** BILLION | PERSONNEL **9,300**

METSÄLIITTO COOPERATIVE

GROUP'S PARENT COMPANY

OWNED BY 104,000 FINNISH FOREST OWNERS

METSÄ FOREST

WOOD SUPPLY AND FOREST SERVICES

SALES
EUR 1.5 BILLION

PERSONNEL
900

HOLDING
METSÄLIITTO
100%

METSÄ WOOD

WOOD PRODUCTS

SALES
EUR 0.5 BILLION

PERSONNEL
1,500

HOLDING
METSÄLIITTO
100%

METSÄ FIBRE

PULP AND SAWN TIMBER

SALES
EUR 1.6 BILLION

PERSONNEL
1,250

HOLDING
METSÄLIITTO 50.2%,
METSÄ BOARD 24.9%,
ITOCHU 24.9%

METSÄ BOARD

PAPERBOARD

SALES
EUR 1.7 BILLION

PERSONNEL
2,500

HOLDING
METSÄLIITTO 41.8%,
61.5% OF VOTES

METSÄ TISSUE

TISSUE AND COOKING PAPERS

SALES
EUR 1.0 BILLION

PERSONNEL
2,750

HOLDING
METSÄLIITTO 100%

RENEWABLE ENERGY 22.3 TWh

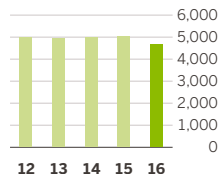


SALES BY COUNTRY %

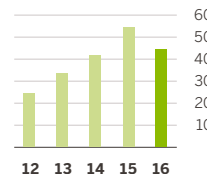


Finland	16
Germany	11
China	9
United Kingdom	8
Italy	5
Sweden	5
USA	5
Rest of Europe	30
Other countries	11

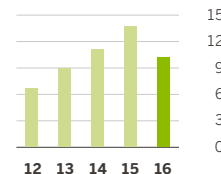
SALES EUR MILLION



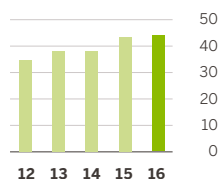
OPERATING RESULT, COMPARABLE EUR MILLION



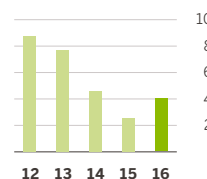
ROCE, COMPARABLE %



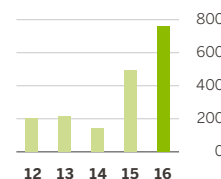
EQUITY RATIO %



NET GEARING RATIO %



INVESTMENTS EUR MILLION



KEY FIGURES	2016	2015	2014	2013	2012
Sales, EUR million	4,658	5,016	4,970	4,938	5,001
Operating result, EUR million	442	542	417	335	241
Operating result, comparable, EUR million	439	537	418	343	256
Return on capital employed, %	10.2	13.7	11.1	8.9	6.7
Return on capital employed (ROCE), comparable, %	10.2	13.6	11.4	9.1	7.1
Equity ratio, %	43.9	43.2	37.9	37.9	34.7
Net gearing ratio, %	40	25	46	77	87
Investments, EUR million	758	492	143	214	204
Personnel, 31 December	9,300	9,599	10,410	10,736	11,447
Share of certified wood, %	86	84	84	82	82
Lost-time accident rate, per million worked hours	7.4	9.5	11.2	13.2	15.7
Fossil CO ₂ emissions, 1,000 tonnes	760	802	803	855	962

Make the most of Metsä



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