

## SUSTAINABILITY REPORT

## 2013









## WE PROMOTE SUSTAINABLE FUTURE

Metsä Group is a responsible forest industry group whose products' main raw material is renewable and sustainably grown Northern wood. Metsä Group focuses on tissue and cooking papers, consumer packaging paperboards, pulp, wood products, and wood supply and forest services. Its high-quality products combine renewable raw materials, customer-orientation, sustainable development and innovation. Metsä Group's sales totalled EUR 4.9 billion in 2013, and it employs approximately 11,000 people. The Group operates in some 30 countries. Metsäliitto Cooperative is the parent company of Metsä Group and is owned by approximately 123,000 Finnish forest owners.

Sustainability is a driver for us in everything we do. It means that our products are recyclable and safe for both people and the environment, and that our main raw material is renewable wood that is sourced from sustainably managed Northern forests. We believe that economic growth and sustainability go hand in hand enabling better quality of life for everyone.

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Wood is an endlessly renewable resource. We turn wood into safe and recyclable products that improve quality of life.





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## A BETTER ENVIRONMENT FOR ALL IN 2013

Aiming for better results every day and everywhere is how we work and we are proud to share a few examples of our accomplishments from 2013.



## PREVENTING SOCIAL EXCLUSION OF CHILDREN AND TEENS

Metsä Tissue's Serla brand is participating in the charity campaign 'Nuorten hyväksi' (Let's Help Young People) organised in Finland by the Tukikummit Foundation. Through the Foundation, Serla granted EUR 100,000 to support underprivileged children and teens living in Finland. The funds will go in full towards improving their prospects and circumstances. The aim of the campaign is to encourage people to make donations that will be used to improve and promote the discussion on the wellbeing of the young.

## COOPERATION WITH WWF FINLAND

Metsä Group and WWF Finland have been cooperating actively since 2011 with an aim to promote sustainable forestry. In 2012. Metsä Group and WWF Finland conducted the prescribed burning of retention tree groups forests in Metsä Group's forests in Rovaniemi, Finland. The burned areas have been monitored closely in 2013 and the points of interest include the spreading of fire-favoured species. Another project involves the preservation of endangered natural habitats as part of forestry in southern Finland. Guidelines have been drawn up and the Group's employees are trained preserve the specific characteristics of herb-rich forests and esker forests on sunlit slopes.

In the Autumn, Metsä Tissue arranged a SAGA seminar to discuss the reduction of food waste and its environmental and financial impacts on industrial kitchens. SAGA Cooking Paper offers one solution whereby food does not stick to oven dishes and trays, reduces food waste and eases daily dishwashing. The seminar also included expert views by WWF Finland, the ELO Foundation, which promotes Finnish food culture, and Lahden Ateria, a municipal foodservice.

Metsä Group participated in the WWF Environmental Paper Company Index comparison in 2013 for the first time in all product categories: pulp, board, graphic paper and tissue paper. The index is a tool where companies report their environmental footprint openly. The evaluation comprises the use of wood fibre sourced from sustainably managed forests, energy consumption and transparent operations.

#### SUPPORTING FOREST CERTIFICATION

In November, Metsä Group together with other world's leading forest product companies released a leadership statement that commits to sustainable forest management. Metsä Group is a member of the World Business Council for Sustainable Development (WBCSD), and a core member in WBCSD's Forest Solutions Group where it also held a co-chair position. The Group seeks to ensure that the supply of independently verified sustainable wood and other forest products continues to increase to meet the growing demand also in the future.

Altogether, 26 companies – responsible for nearly 40% of annual global forest, paper and packaging sales have committed to the statement.

#### **AN AWARD FOR** SUSTAINABLE FOREST **MANAGEMENT**

The Committee for Natural Resources of Leningrad Region awarded Metsä Forest Podporozhe 'Best Forest Leaseholder' for its contribution to sustainable use, regeneration and the protection of forests in Leningrad region, Russia. The company received a free batch of 10.000 pieces of potted seedlings from a new forest nursery in Luga.

Metsä Group promotes sustainable forest management and forest certification in all wood supply regions. In Russia, Metsä Forest Podporozhye has been the forerunner in promoting forest certification, receiving the country's first certificate in 2010 and the first double certificate in

#### **MORE BIOENERGY IN SWEDEN**

Katrinefors Kraftvärme AB. a joint venture owned by Metsä Tissue and the local municipal energy company VänerEnergi AB, will build a new biomass combined heat and power plant in Mariestad, Sweden, in conjunction with the Metsä Tissue mill.

The new bioenergy production will reduce Mariestad mill's oil usage by 90% and will decrease the mill's CO<sub>2</sub> emissions by approximately 4,000 tonnes, i.e. by 25%. In addition to producing electricity and heat to the mill, the plant will also provide renewable energy for the surrounding community.

The construction started in April 2013 and the plant is expected to be operating by the end of 2014. The total investment will amount to EUR 30 million.

#### THE FINNISH FOREST **INDUSTRY COMMITS** TO RESPONSIBILITY

The Finnish forest industry demonstrates its work towards a more sustainable value chain in the form of the commitments that were released in spring 2013. These commitments deal with issues related to society, natural resources and the environment, while accentuating the role of a forerunner in the bio-economy. For this reason, responsibility lies at the core of everything that the industry does.

There are altogether 12 different commitments by all the member companies in the Finnish Forest Industry Federation covering topics from transparent reporting to reducing the environmental impact of the products.

#### **EMPLOYMENT OPPORTUNITIES TO** YOUNG PEOPLE

In addition to our traditional cooperation with educational institutions, Metsä Group participated in a campaign targeting vocational schools to promote a dialogue to create a better working environment for the future industry employees.

The Finnish Forest Industry Federation started a national school campaign aimed to attract ninth graders to work and study in the forest sector. More than 200 employees from Metsä Group, Stora Enso, UPM and the Finnish Forest Association acted as ambassadors throughout Finland to share their experiences from the forest industry. Schools were also given product samples from the industry.

As part of the campaign, the ninth graders were asked to design a job advertisement that would attract future employees to the forestry industry. The top prize, EUR 10,000 for a class trip, was divided between seven classes.

Metsä Group continued the nearly 20-year-long traditional school cooperation with the Finnish Forest Association along with other forestry organisations. Metsä Group acted as a 'forest mentor' in the forest quiz 'Metsävisa' that was organised in 118 schools across Finland. The quiz is an annual competition for eighth and ninth grade students with the goal of enhancing their knowledge of forests and forestry. Metsä Forest's specialists in all 14 districts organised lectures and forest visits for all interested schools.



## SUSTAINABLE THROUGH TANGIBLE ACTIONS

Metsä Group's Sustainability Report 2013 is the third of its kind to be published. It focuses on the further development of our target-setting, supply chain management and stakeholder engagement practices.

#### LONG TRADITION IN SUSTAINABILITY

At the beginning of 2014, Metsä Group's parent company, Metsäliitto Cooperative, celebrated its 80<sup>th</sup> anniversary. The Cooperative was founded in 1934 to promote the export of Finnish wood and its mission has remained unchanged ever since: to support its members in forest management and to follow the principles of sustainable development.

The founders of the Cooperative were the forerunners in promoting renewable and sustainably grown raw material – wood. Today, our skilled personnel refine this northern wood into safe and recyclable products and we do it sustainably. One of Metsä Group's main assets is that we cover the whole value chain from forest operations to tissue, board, paper, pulp and wood products. Today, there is a clear need for sustainable choices – and we are proud to say that our products enable our customers make these choices.

#### TARGETS MEASURE OUR PERFORMANCE OPENLY

One of our main accomplishments was that we achieved our target to reduce fossil  $\mathrm{CO}_2$  emissions in production by 30% per product tonne from the 2009 level. The total reduction so far of 32% has been made possible by the completed bioenergy investments over the past few years.

As our progress towards the sustainability targets has been so encouraging, we decided to aim even higher. We tightened some of the targets and we also wanted to show our commitment to resource efficiency by reducing our process water use. We are pleased to present part of our work towards achieving these targets on the following pages of this report.

#### RESOURCE EFFICIENCY IS SIMPLY SMART

Growing global scarcity and competition for resources have raised the importance of resource efficiency – the efficient use of materials, energy and water as well as the efficient re-use of waste and residuals. The forest industry can be used as a benchmark for since we utilise renewable wood raw material with high efficiency. Our bio-based products are an

alternative that help to save other fossil-based resources. For example, packaging made of our lightweight cartonboard minimises waste along

**BIOECONOMY IS THE FOUNDATION OF THE** FOREST INDUSTRY. WE **USE RENEWABLE RAW MATERIALS AND BIOFUELS TO PRODUCE SAFE AND RECYCLABLE PRODUCTS WITH EFFICIENT PRODUCTION** PROCESSES.

the supply chain while buildings made of wooden elements are both energy and cost-efficient.

Metsä Group has concentrated on improving energy and material efficiency already for years. We also stress the importance of using raw materials in end-uses where they add the most value. We will continue to develop our processes to become even more

resource efficient and sustainable also in the future. Emphasis has also been put in further developing our reporting.

#### INDUSTRY COMMITMENTS TO PROMOTE SUSTAINABILITY

Sustainability is tightly integrated in all of our operations and strategy as well as in our mission, vision and values. To this end, Metsä Group has committed to the ten principles of the UN Global Compact that highlight the respect for human and labour rights, environmental responsibility and anti-corruption.

In spring 2013, the Finnish forest industry companies demonstrated their pledge towards a more sustainable value chain by releasing a set of sustainability commitments that accentuates its role as a forerunner in the bio-economy.

At the same time, the leading international forest companies in the Forest Solutions Group of the World Business Council for Sustainable Development (WBCSD) released a statement that commits them to sustainable forest management. With the commitment, the companies want to ensure that the supply of sustainable wood continues to increase to meet the growing demand also in the future.

#### SUSTAINABILITY AT THE HEART OF THE SUPPLY CHAIN

Our commitment to sustainability covers the entire supply chain – we require that our suppliers act upon the same high ethical standards as we do. In 2013, we further developed our risk assessment process to identify potential risk suppliers regarding sustainability. We must ensure that the Supplier Code of Conduct is followed thoroughly and that there is no risk of corruption, child labour or human rights abuses in our supply chain.

#### CLOSE STAKEHOLDER COOPERATION

Along with other members of the Finnish Forest Industry Federation, we participated in a dialogue with the industry's key stakeholders from governmental officials representing different parties to nongovernmental organisations. We gained a great deal of constructive

#### **SUSTAINABILITY MEANS TANGIBLE ACTIONS FOR BOTH** PEOPLE AND NATURE.

feedback and now want to advance these development ideas that aim to safeguard the forests' biodiversity, among others.

In 2013, we also further developed our

processes for stakeholder engagement and gathering weak signals in order to get a broader view of our operating environment and to assess what effects the global sustainability megatrends will have on our company.

In 2014, these themes will also be the basis of our stakeholder discussions to gather insights into what the world will look like in 2030 and beyond. We welcome you to join the discussion so that together we can create an even more sustainable future for generations to come.

Sustainably yours

#### Riikka Joukio

SVP, Sustainability and Corporate Affairs

#### **REVISED SUSTAINABILITY TARGETS FROM 2014 ONWARDS**

| TARGET              | THEME   | READ MORE ON PAGES |
|---------------------|---|--------------------|
| Wood                | To sustain the amount of certified wood above 80%   | p. 22–25           |
| Supplier management | To audit all risk-rated key material suppliers against sustainability criteria by 2015                        | p. 26              |
| Energy and climate  | To reduce fossil CO <sub>2</sub> emissions in production by 30% per product tonne by 2020 from the 2009 level | p. 28-31           |
|                     | To improve energy efficiency by 10% by 2020 from the 2009 level   | p. 28-31           |
| Resource efficiency | To reduce process water use by 10% by 2020 from the 2010 level  | p. 32-33           |
| Ethical business    | To train the whole personnel in the Code of Conduct   | p. 12-14           |
| Safety              | Zero lost-time accidents, to decrease lost-time accident frequency rate by 10% annually                       | p. 38-39           |
| Well-being          | To retain the sickness absenteeism rate below 3% at all times   | p. 38-39           |

## **COOPERATIVE BASED ON SUSTAINABLE OPERATIONS**

Metsä Group's products are safe, sustainable and recyclable, and are made of renewable, sustainably grown wood. Our products are





Metsäliitto Cooperative, the parent company of Metsä Group, is owned by some 123,000 Finnish forest owners. The Cooperative's primary mission is to support its ownermembers in forest management and to follow the principles of sustainable development.

#### **METSÄ GROUP IS A COOPERATIVE OWNED BY SOME 123,000 FINNISH FOREST OWNERS.**

SOLID DEMAND FOR SUSTAINABLE BUSINESS

Global over-consumption has led to climate change, polarisation of water resources globally and an unsustainable use of natural resources such as deforestation and water scarcity. Changes in consumption habits to favour renewable and sustainable products also endorse Metsä Group's mission of promoting bioeconomy and sustainable bio-based products.

Wood as a continuously renewable and recyclable raw material offers good growth opportunities for businesses focusing on

renewable packaging solutions, hygiene products and wooden constructions, among others. Our main operating countries have vast forest and water resources, and since we use them responsibly, they will be available for generations to come. Additionally, the forest industry is a global benchmark for resource efficiency. We continue to invest significantly into making our processes more material efficient.

With our knowhow and skilled personnel, we turn wood – an endlessly renewable resource – into safe and recyclable products sustainably. One of Metsä Group's main assets is that it covers the whole value chain from forest operations to the wood industry and pulp production all the way to board and tissue manufacturing.

#### WE COVER THE WHOLE **VALUE CHAIN FROM THE** FOREST TO THE CUSTOMER.

Metsä Group's mission and values guide us in our daily activities towards the target of improving profitability while at the same time bearing responsibility for both its stakeholders and nature. Our vision will be achieved by focusing on our selected core businesses. In their strategies, the business areas integrate sustainability with customer focus and innovations.

METSÄ TISSUE produces tissue and cooking papers, and leads the industry in developing low-impact processes and practices throughout the product life cycles. METSÄ BOARD focuses on ecological and

safe lightweight paperboards. A significant amount of energy consumed by Metsä Board is generated internally at integrated pulp and paper or paperboard mills.

METSÄ FIBRE produces pulp using raw materials and energy with high efficiency. Metsä Fibre is also a major producer of bioenergy and its mills are leaders in environmental performance.

METSÄ WOOD produces wood products that are based on premium Northern raw material. High environmental standards and safety performance are integral elements of Metsä Wood's management system and are continuously improved.

**METSÄ FOREST** provides its owner-members with comprehensive services for sustainable forest management in all stages of forest ownership. Metsä Forest ensures the growth and diversity of forests and steady wood production. Some 80% of the wood Metsä Forest procures is sourced from certified forests.

### WEAK SIGNALS TO GUIDE FUTURE BUSINESS DECISIONS

In 2013, we started to systematically gather weak signals related to global sustainability trends that have an effect on Metsä Group's business. The signals will be used in directing the Group's business operations in the long run. In 2014, these themes will also be the basis of our stakeholder discussions to gather insights on what the world will look like in 2030. The weak signals are gathered around these 12 global macro trends:

- Climate change
- Energy
- Buildings
- Transport
- Waste
- Water
- Biodiversity
- Integrating sustainability
- Communication
- Ethical business practices
- Security
- Equality

### SUSTAINABILITY RISKS RELATED TO OUR OPERATIONS

Demand for forest biomass is increasing, particularly for energy production. This may present challenges to today's forest products as the availability of wood is under threat due to government subsidies being granted to direct energy uses of wood. This may disturb the competition on the raw material markets.

# STAKEHOLDER DISCUSSIONS UNFOLD WHAT THE WORLD LOOKS LIKE IN 2030.

Additionally, demands for increased resource efficiency and improving value added in wood-based products are increasing.

Climate change is leading to global warming; consequently, it is putting pressure to increase regulations on available energy sources, limit energy use and strive for a more efficient use of resources. These also have a direct impact on the industry in the forms of increased taxation or related costs as well as tighter environmental permits. Furthermore, the renewable wood raw material from sustainably managed forests should maintain its carbon neutral status.

### METSÄ GROUP'S MISSION, VISION AND VALUES



Due to the remote location of Finland and the structure of its economy, the need for energy and transportation is higher than the average in Europe and may thus cause a risk of further restrictions in transport modes and emissions.

On the global scale, unevenly distributed scarce water sources and the availability of clean water are increasing the need for tighter regulations.

Since a substantial number of our personnel will retire in the coming years, a risk of replacing them and building up the required competencies is evident. We have long-term plans in place in order to ensure the availability of future employees in all our locations.

#### WIDE-RANGING RISK MANAGEMENT

Metsä Group assesses risks on all levels – Group, business area and production unit –

also in supplier operations. Since active cooperation with the insurance industry is an essential part of risk management, insurance companies perform annual technical risk surveys focusing on key property damage and business interruption risks.

Our risk assessment covers the whole value chain in all five business areas from securing the availability of wood to being prepared for possible product liability cases. One of its most important tasks is to ensure undisturbed operations and continuous production by preventive damage and loss control. The major hazard risks, such as fires, machine breakdowns and environmental damages, are covered by global policies through insurance companies.



In 2013, one of our goals was to develop our stakeholder engagement processes. Although the megatrends shape the global business environment continuously, our business characteristics define what changes actually affect us the most. In order to better understand this, we want to engage with our stakeholders as they often either create these megatrends or mirror them to our company.

In 2014, we will continue in the quest to understand these trends by interviewing our own and external experts, and by evaluating the best channels for each stakeholder group to engage in constructive dialogue.

#### WBCSD FOREST SOLUTIONS GROUP

Metsä Group is a member of the World Business Council for Sustainable Development (WBCSD) and a core member in WBCSD's Forest Solutions Group where it also held a

#### **WE ARE COMMITTED TO** THE TEN PRINCIPLES OF THE UN GLOBAL COMPACT.

co-chair position. The Group aims to be recognised as the leading platform for the global forest-based industry and its value chain partners. By bringing together suppliers, producers, buyers, customers as well as innovation and technology partners, the Forest Solution Group can strategically collaborate to expand sustainable forest-based solutions to meet future societal demands.

#### COMMITTED TO THE UN GLOBAL COMPACT

We promote sustainable development in all our business activities and operations. We have demonstrated our aim by committing to the ten principles of the UN Global Compact initiative. These universally accepted principles highlight the respect for human and labour rights, environmental responsibility and anti-corruption, and are the basis of the Group's Sustainability Principles.

#### DISCUSSIONS WITH IMPORTANT FORESTRY STAKEHOLDERS

The Finnish Forest Industry Federation with its member companies set a goal to develop the dialogue with their key stakeholders who represent different parties from governmental officials and non-governmental organisations, among others. In general, the received feedback was positive and the Federation gained valuable development ideas as the stakeholders expressed their views for example on forests' diversity and the industry's social responsibility.



#### THE TEN PRINCIPLES OF THE UN GLOBAL COMPACT — OUR COMMUNICATION ON PROGRESS

|                 | PRINCIPLES   | READ MORE |  |  |  |  |
|-----------------|--|-----------|--|--|--|--|
| HUMAN RIGHTS    | 1. Businesses should support and respect the protection of internationally proclaimed human rights.  |           |  |  |  |  |
|                 | 2. Businesses should make sure that they are not complicit in human rights abuses.   | p. 12-15  |  |  |  |  |
| LABOUR RIGHTS   | <ol> <li>Businesses should uphold the freedom of association and the effective recognition of the right to<br/>collective bargaining.</li> </ol> |           |  |  |  |  |
|                 | 4. Businesses should uphold the elimination of all forms of forced and compulsory labour.  |           |  |  |  |  |
|                 | 5. Businesses should uphold the effective abolition of child labour.   |           |  |  |  |  |
|                 | 6. Businesses should uphold the elimination of discrimination in respect of employment and occupation.   | p. 12-15  |  |  |  |  |
| ENVIRONMENT     | 7. Businesses should support a precautionary approach to environmental challenges.   |           |  |  |  |  |
|                 | 8. Businesses should undertake initiatives to promote greater environmental responsibility.  |           |  |  |  |  |
|                 | 9. Businesses should encourage the development and diffusion of environmentally friendly technologies.   | p. 12-15  |  |  |  |  |
| ANTI-CORRUPTION | 10. Businesses should work against corruption in all its forms, including extortion and bribery.   | p. 12–15  |  |  |  |  |

#### ACTIVE PARTICIPATION IN ADVOCACY

Metsä Group actively participates in the development of regulatory frameworks and focuses on key policy files that affect the Group's operational conditions and market access, and which are strategic for its businesses. Metsä Group's overall aim is to promote recyclable and safe bioeconomy products, sustainable forest management, and the use of renewable wood raw materials.

#### **OUR AIM IS TO GUARANTEE** THE GLOBAL **COMPETITIVENESS OF** THE EUROPEAN **FOREST INDUSTRY.**

While our advocacy is mainly channelled through industry and trade associations at the national, European and international levels, we also take direct actions. We provide industry and trade associations as well as legislators and decision makers with information on trade barriers in the countries where we operate and the impacts of various legislative initiatives on our operational environment. We work closely with the industry associations to monitor, identify and analyse main policy files.

Climate change, energy and environmental policies, product and food safety, industrial and transport policies as well as resource efficiency, waste and innovation policies are the most crucial themes in our advocacy. The ultimate aim is to guarantee the global competitiveness of the European forest industry to maintain and increase industrial production in Europe. Maintaining the forest industry in Europe is beneficial for the economy, the climate and the environment.

Metsä Group and its business areas follow high moral and integrity in advocacy activities as described in the Group's Code of Conduct and Sustainability Principles. Metsä Group is also registered in the EU's Transparency register, operated by the European Parliament and the European Commission, and has signed the Transparency Register Code of Conduct. The register provides information on who is engaged in activities aiming at influencing the EU's decision-making processes, what interests are being pursued and what level of resources are invested in these activities.

#### BROAD RANGE OF CHANNELS TO ENGAGE WITH OUR MOST IMPORTANT STAKEHOLDER GROUPS

| THE STAKEHOLDER GROUP  | THE MAIN COMMUNICATION CHANNELS   |  |  |  |  |  |
|--|---|--|--|--|--|--|
| Customers and end-users  | Personal contacts<br>Customer experience surveys  |  |  |  |  |  |
| Personnel  | Personnel Development Assessments (PDA)<br>Organisational functionality surveys<br>Internal training programmes                             |  |  |  |  |  |
| Raw material and service suppliers                               | Meetings and negotiations<br>Supplier assessments and audits  |  |  |  |  |  |
| Equity and debt investors, analysts                              | Annual General Meeting<br>Meetings and roadshows<br>Capital Markets Day<br>Quarterly and annual reporting                                   |  |  |  |  |  |
| Members of the Cooperative                                       | Diverse, targeted services Dedicated contact person Satisfaction surveys Participation in Cooperation's governance bodies                   |  |  |  |  |  |
| Society, local communities and NGOs                              | Cooperation projects<br>Image and brand surveys<br>Site visits, hearings, meetings and interviews   |  |  |  |  |  |
| Legislators and decision makers, industry and trade associations | Participation in industry and trade associations' work<br>Replies to public consultations and hearings<br>Personal meetings and site visits |  |  |  |  |  |
| Academics  | Joint research programmes with universities and research institutes   |  |  |  |  |  |
| Media  | Meetings, interviews, press events and site visits<br>Brand survey  |  |  |  |  |  |

#### **MEMBERSHIPS AND ASSOCIATIONS**

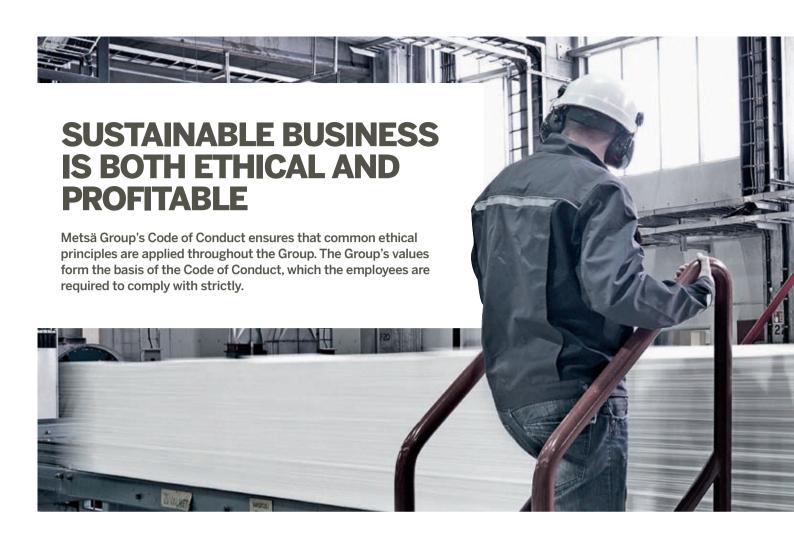
Metsä Group and its business areas participate actively in numerous international, European and national industry and trade associations. We want to be a credible discussion partner. The forums we are involved in include:

- The World Business Council for Sustainable Development (WBCSD) and its sector-specific network Forest Solutions Group
- The UN Global Compact Nordic Network
- The UN's CEO Water Mandate
- The forest certification associations: the Programme for the Endorsement of Forest Certification (PEFC) and the Forest Stewardship Council (FSC® 1)
- The Confederation of European Paper Industries (CEPI)
- The European Confederation of Woodworking Industries (CEI-Bois)
- Nordic family forestry, the Nordic Forest Owners' Associations NSF
- The Finnish Forest Industry Federation (Metsäteollisuus ry)
- The Confederation of Finnish Industries (Elinkeinoelämän Keskusliitto)
- The Confederation of Finnish Construction Industries (Rakennusteollisuus ry)
- Finland Chamber of Commerce (Keskuskauppakamari)

Metsä Group and its business areas also take part in several national forest industry associations in the main operating countries, such as the Swedish Forest Industries Federation and the German Pulp and Paper Association. There are also several sector-specific organisations, in which Metsä Group or its business areas participate, such as the European organisation of the tissue producers (European Tissue Symposium, ETS) and the European Organisation of Packaging and the Environment (Europen).

1) FSC Licence Code: FSC-C014476





Each employee attends Code of Conduct training upon starting work at Metsä Group. The training is managed by an eLearning tool for white-collar workers and the blue-collars are trained by their superiors at the mills.

The Code of Conduct instructs employees to report any misconduct to his/her superior or to the Group General Counsel. All reports will be investigated and any necessary actions taken. In 2013, two suspected cases of misconduct by individual employees were reported to the General Counsel and investigated, of which one led to disciplinary actions.

Metsä Group is developing its compliance function actively and as a part of the development work, a new Group Compliance Officer was appointed on 1 February 2013. Her task is to monitor that all operations are carried out in accordance with applicable laws and the Group's internal policies.

While the Code of Conduct is the foundation of Metsä Group's ethical business practice, several other policies and related instructions have been issued, which include Environmental, Human Resources, Equal Opportunities and Purchasing policies as well

To train the whole personnel in the Code of Conduct

#### **PROGRESS**

84% of white-collar and a vast majority of blue-collar employees have been trained by the end of 2013.

We will further proceed with the target to ensure that the Code of Conduct training covers the whole personnel with an emphasis on new employees

as a Supplier Code of Conduct. Metsä Group's sustainability management is guided by the Group's Sustainability Principles.

#### SUSTAINABILITY GOVERNANCE

The Group takes shared responsibility for managing sustainability on all operational levels in order to ensure that it is integrated into all our business operations.

The responsibility of the Cooperative's Board of Directors is to approve the guiding policies and outline the Group's ambition level in sustainability. The annual sustainability report is also presented to the Board.

The Executive Management Team prepares the guiding policies, outlines both the sustainability and the advocacy targets, and monitors the performance against them.

The Sustainability Steering Team (SST) is a network that steers the Group's sustainability issues, identifies opportunities and risks as well as approves the content of and the statements in the sustainability report. The steering team also accepts the working programme of the Sustainability and Corporate Affairs function. The SST has a representative from each business area in addition to relevant corporate function representatives.

The Sustainability and Corporate Affairs function promotes sustainable operations in Metsä Group throughout the value chain from forestry to production and final products. The function is responsible for the



#### **OUR RESPONSIBILITY IS** TO ENSURE THAT OUR **OPERATIONS ARE** SUSTAINABLE AND ALL OUR **PRODUCTS ARE SAFE FOR BOTH PEOPLE AND THE** ENVIRONMENT.

Group's sustainability communications and reporting on the performance of our production and products; coordinating and implementing the Group's advocacy according to the interests of the businesses; and conducting the Group's stakeholder engagement work in topics related to sustainability and in networks such as the World Business Council for Sustainable Development (WBCSD) and cooperation with WWF Finland.

> Read more about our stakeholder engagement on pages 9−11. •

#### SUSTAINABILITY GOVERNANCE CASES IN 2013

In March 2011, Metsähallitus, a state enterprise, filed a claim for damages at the District Court of Helsinki. It demanded that Metsäliitto Cooperative and two other forest industry companies jointly pay compensation for alleged damages caused by prohibited co operation with regard to prices in the raw wood market. The claim by Metsähallitus is pending and relates to the 3 December 2009 decision by the Market Court, according to which the above companies violated the Act on Competition Restrictions in the raw wood market from 1997 to early 2004. In addition, some municipalities, parishes and a group of Finnish individuals have instituted similar proceedings. Metsäliitto Cooperative considers the claims unfounded in their entirety.

In November 2012, the Espoo District Court deemed a former employee of the Group's internal bank, Metsä Group Financial Services, to have committed several frauds against the company. The employee was sentenced to imprisonment for three years. The employee filed a claim to the Court of Appeal; however, the court dismissed the claim and

the district court decision obtained legal validity in April 2013. As a result, all internal processes regarding money transfers were revised to the extent that individual user rights were reduced and no single employee is in power to control money transfers.

In April 2013, the Etelä-Karjala District Court deemed three Metsä Board employees to have committed an industrial safety offence in a fatal accident in 2011, in which an employee was trapped between board reels. The court ordered the three employees each to pay 30-day fines.

Two other industrial safety accidents resulted in minor injuries in 2011; in 2013, the local courts ordered the supervisors and foremen to pay day fines.

No other fines were paid or other monetary or non-monetary sanctions for noncompliance with laws or regulations were imposed in 2013.

#### PROFITABILITY IS THE BASIS OF **ECONOMIC RESPONSIBILITY**

The Cooperative's mission is to be a profitable and competitive forest industry company that adds value to the wood grown by its members. We strive to improve the profitability of the Group, bear responsibility for the environment, and base our operations on ethical business practices while listening to our stakeholders. Metsä Group applies the principles of good corporate governance and transparent accounting. The Group communicates in accordance with the disclosure obligation prescribed for listed companies by the Securities Markets Act and the Finnish Corporate Governance Code.

We acknowledge that our operations have economic impacts on all levels of the communities where we operate – local, national and global. Our contribution to the community's well-being derives from direct and indirect employment and paying taxes, among others. Metsä Group measures its financial performance with key figures including sales, operating result and return on capital employed.

Read more about our work in communities on pages 42–43.

The Group's key financial figures are published in Metsä

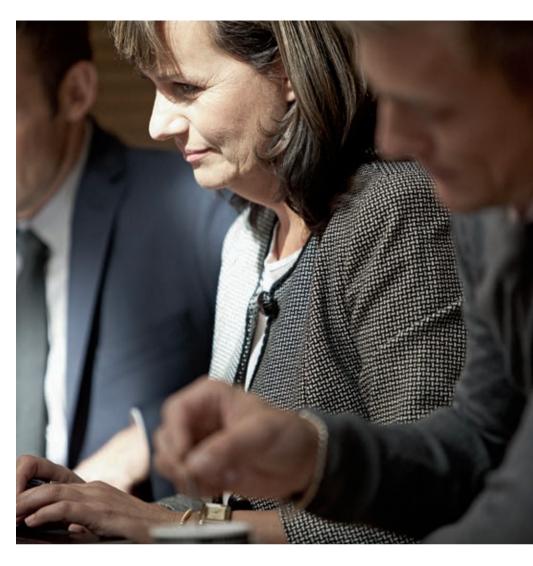
Group's Financial Statements 2013.

#### OUR BUSINESS COMES FROM THE NATURE

We continuously develop the productivity and efficiency of our production units with investments and development actions that improve profitability and result in targeted growth, while enhancing resource efficiency and environmental performance. Metsä Group follows its environmental impact, for example in the forms of greenhouse gas emissions, energy and water consumption as well as waste generation. One of our most fundamental duties is to guarantee that all our operations are sustainable and all our products are safe for both people and the environment.

Our environmental management is guided by our Environmental Policy and compliance with the ISO 14001 standard for environmental management. The main principles of the Group's Environmental Policy are environmental responsibility, energy and environmental efficiency, sustainable forestry, and requiring environmental responsibility from our suppliers. Almost all of the Group's produc-

## OUR EMPLOYEES ARE A KEY ELEMENT IN LONG-TERM BUSINESS SUCCESS.



tion units have a certified ISO 9001 quality system, an ISO 14001 environmental system and an ISO 50001 energy management system in place as well as a certified Chain-of-Custody forest certification system that enables the reliable verification of the amount of certified wood in the products.

#### PEOPLE MAKE THE DIFFERENCE

Metsä Group highly values its employees and considers them a key element in long-term profitability and business success. In addition to generating well-being at work, we actively work in the local communities where we operate and in society at large. By behaving responsibly towards our stakeholders, we can also improve their quality of life.

Our daily work on social responsibility is guided by the Equal Opportunities and Human Resource policies. Moreover, our employee and Supplier Code of Conduct both stress the respect for human rights and a safe working environment thus prohibiting the use of forced or child labour.

Metsä Group monitors its employee satisfaction by conducting annual organisational functionality studies. We want to be an attractive employer with extensive career and development possibilities. The certified occupational and product safety system OHSAS 18001 is in place at most of the Group's production plants.

Metsä Group aims to be an open and equal work community where freedom of association prevails globally. We value diversity, cultural differences and the fair treatment of employees regardless of their ethnic origin, nationality, religion, political views, gender, sexual orientation or age. Equal opportunities and work against discrimination are applied to all HR processes, for example in recruitment, career opportunities, training and remunerations. Furthermore, it is the responsibility of each employee to report any acts of discrimination they have noticed in their workplace.

## METSÄ GROUP'S SUSTAINABILITY AGENDA

#### WE CREATE WELL-BEING

We generate well-being at work, in local communities and in society at large, and commit to global sustainability principles. Of all things we endorse safety - of our employees as well as our partners. By behaving responsibly towards our employees and society, we can improve the quality of life of our stakeholders.

#### **EMPLOYEE AND SOCIETAL RELATIONS**

- Human rights
- · Ethical business practices
- · Responsible employer
- · Well-being for local communities



#### **WE BRING** THE FOREST TO YOU

Our products come from sustainably managed forests. For every tree that is harvested we make sure that new ones get planted for the coming generations. Together with our partners, we secure a sustainable supply of raw materials for our units and a supply of renewable products for our customers.

#### **RAW MATERIALS AND** SUPPLIER MANAGEMENT

- · Sustainable forest management and nature values
- · Sustainable supply chain
- · Partnership with suppliers and forest owners



All human activity leaves a mark on the planet. So does our production. What matters is using energy, raw materials and other resources efficiently and maintaining low levels of emissions and waste. We at Metsä Group have reached great results but we can always do

#### RESOURCE EFFICIENCY AND **ENVIRONMENTALLY EFFICIENT OPERATIONS**

- · Energy and climate
- Water
- · Material efficiency
- · Environmental risk management



Wood is an endlessly renewable resource. We turn wood into safe and recyclable products that improve quality of life. Our products are sustainable alternatives to many nonrenewable products and raw materials. We know the environmental footprints of our products and want to discuss them with you transparently.

#### SUSTAINABLE OFFERING

- Sustainable products, services and innovations
- Product safety





## BRINGING QUALITY TO EVERYDAY LIFE

Metsä Group's products demonstrate how we in practice and in a sustainable way improve the well-being of everyone.

#### LIGHTER AND WHITER **FOLDING BOXBOARDS**

In the spring 2013, Metsä Board launched the enhanced Avanta Prima, Simcote and Carta Elega folding boxboards. For

property requirements better than before. The already-low grammages of Avanta Prima and Simcote were reduced by an additional 2-3%. The products' technical properties, thickness and stiffness remained unchanged. Lightweight cartonboards provide savings throughout raw materials, transported quantities and waste. Metsä Board's folding boxboards are in total as much as 30% lighter than some competing cartonboards, thus providing customers with a considerable vield benefit.













## LARGE-SCALE WOODEN STRUCTURES

Cost-effectiveness, schedules and environmental values matched the needs of DB Schenker when they selected a wooden solutions supplier for their new terminal in Vantaa, Finland. For this transport and logistics company, Metsä Wood's wooden structures' extremely small carbon footprint in comparison with other materials on the market was an important criterion. The centre was built according to the Building Research Establishment's Environmental Assessment Method (BREEAM) certification.

Metsä Wood's delivery covered an installation of the glulam frame, Kerto-Ripa roof elements, and exterior walls of an approximately 12,000 m² extension to a terminal. Despite its size, the assembly was completed in August 2013, precisely on schedule.

Rapid construction, lightness and durability are some of the fundamental qualities of Metsä Wood's solutions. Large industrial buildings can be installed with prefabricated frames and elements, allowing the work on the interior to get off to an efficient start. This shortens the overall time spent on the construction work.

#### NEW PULP SAVES ENERGY

Strength is one of the most important characteristics of northern softwood fibre when manufacturing tissue paper, board and coated printing paper used in brochures and annual reports, among others. With polysulphide pulp, Metsä Fibre's new product, paper and board customers get a suitable tensile strength for their product with less energy used than before.

Manufacturing the new pulp will improve the efficiency of Joutseno mill as

now even more of the wood used in the process can be turned into pulp. In addition, the production capacity of the mill will increase by 10%.

Manufacturing of the Botnia Nordic Pine+ and Botnia Nordic Strong+ polysulphide pulp types commenced in summer 2013 when the new production process was introduced at Joutseno mill. Metsä Fibre continues product development with its customers so that the new pulp types will function optimally in their processes.





## BROAD PRODUCT RANGE MADE OF RENEWABLE RAW MATERIAL

Metsä Group's main raw material, sustainably grown wood, is renewable and recyclable. Our products enable our customers to make sustainable choices and improve their environmental footprint. All of our products provide good alternatives to many carbon-intensive products and raw materials.

Metsä Group's sustainable offering includes tissue and cooking papers; board for packaging and the graphic industry; office papers; pulp; wood products for exteriors and interiors; and forestry services. This wide range of high-quality products is produced from renewable northern wood and wood fibre.

## DIFFERENT COVERAGE IN DIFFERENT PRODUCT DECLARATIONS

Since knowing the environmental impact of our products is essential to our customers, we use various methods to communicate the environmental impacts of both our products and processes. All these tools differ somewhat in what is reported and how wide the scope is.

The Life Cycle Assessment (LCA) assesses the environmental impacts associated with all stages of a product's life cycle. The Environmental Product Declaration (EPD) is based on LCA calculations and reports the product's potential environmental impacts from raw material source to production, and provides information on both renewable and non-renewable materials and energy resources. The Paper Profile or carbon footprint calculations are more limited in scope.

Metsä Wood issued an EPD for its plywood products and it is verified against the European Standard EN 15804, which serves as core product category rules for construction products. Metsä Wood has also produced an EPD for Kerto\* laminated veneer lumber. An EPD has also been prepared earlier for Simcote, a folding boxboard product by Metsä Board.

#### CONSUMERS DEMAND FOR ECOLABELS

Consumers are increasingly interested in the environmental impacts of the choices they make when purchasing a product. Ecolabels help consumers make those choices. Metsä Group is involved in the development of the EU Ecolabel as well as the Nordic Swan criteria. We work continuously at our mills to improve their environmental performance in order to fulfil the demanding criteria.

Ecolabels are essential for both Metsä Tissue's products and Metsä Board's office paper range. Since Metsä Fibre's and Metsä Board's pulps are also used as raw materials in various eco-labelled products, they must fulfil the same criteria.

During 2013, Metsä Fibre and Metsä Board pulps were made available also to the new Nordic Ecolabel database (My Swan Account).

In spring, Metsä Tissue had a promotion with love poems printed on Lambi toilet paper. Despite pre-screening, two poems with their origin in the Bible were detected in Norway. The incident was reported in the social media and in newsfeeds in many countries. Metsä Tissue's apology was also acknowledged in the media. The poems were subsequently removed from the Norwegian print originals.

#### CE MARKING FOR CONSTRUCTION PRODUCTS

Starting from 1 July 2013, the Construction Product Regulation entered into force and CE marking became mandatory for all construction products covered by a harmonised standard or a European Technical Assessment. The manufacturer has the obligation to issue a Declaration of Performance (DoP) and affix a CE marking to be able to sell the products within the EU.

Metsä Wood's Declaration of Performance documents are available online at: www.metsawood.com/DoP

#### NO COMPROMISE ON PRODUCT SAFETY

The meaning of product safety depends on the type and end-use of a product. Ensuring product safety is extremely important in products that are used in human or food contact applications such as packaging boards, napkins or cooking and baking products. As a minimum requirement, all our mills that manufacture food contact materials or chemical pulp used in manufacturing these products are certified according to ISO 22000 or BRC food safety management systems.

In building and construction materials, product safety means that there are no emissions of harmful chemicals into indoor air or that the strength properties of a building are sufficient, among others.

Most customer complaints are filed due to visual or mechanical damages originating from production. Product complaints related to product safety are extremely rare.

Metsä Group does not use genetically modified trees or raw materials. In 2011, the European Commission adopted a recommendation on the definition of nanomaterial that is based purely on particle size and applies to naturally occurring, man-made or specially engineered materials. Metsä Group does not approve of nanotechnology-based new substances until more information on their safety becomes available. Metsä Group continues to actively follow-up and participates in the research in these areas.

#### STRENGTHENING R&D COOPERATION

Metsä Group's R&D strategy focuses on material, energy and water efficiency. In addition, finding value-added use to all sidestreams is highlighted. R&D cooperation between Metsä Group's business areas has been systematically deepened over the past few years. This work is led by Metsä Group's R&D team, which comprises representatives from each business area and the Group's sustainability function. At the same time, the importance of external R&D networks has also been emphasised. By cooperating more closely among the business areas, synergies can be found and the R&D process improved.

An R&D roadmap for 2020 identifies three focus areas:

- Process efficiency and resource value
- Renewable raw materials as a competitive
- Value-added products and services

Process efficiency and resource value contains several R&D topics that need continuous efforts including increasing the yield of production, minimising the use of energy and finding optimal use for the side-streams.

Value-added products and services means making customers more content and their lives easier. Linking ICT solutions to our operations, and thus facilitating the cooperation between Metsä Group and its partners, is one of the R&D directions.

In 2013, Metsä Group invested about EUR 18 million in R&D (excluding capital expenditure; EUR 20 million in 2012), which accounts for 0.4% of total operating expenses (0.4% in 2012).

#### RESEARCH NETWORKS ON BIOECONOMY

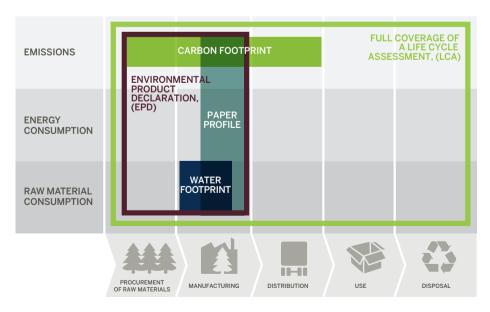
To strengthen the external R&D networks, Metsä Group co-founded and acts as a chairman in the Finnish Bio-economy Cluster, FIBIC Ltd, an umbrella organisation for large, forward-looking research programs.

At the end of 2012, Metsä Group was involved in establishing an international industry consortium to advance the development of bioeconomy in Europe. The Biobased Industries Consortium (BIC) aims to catalyse the unique partnerships between the industry's companies and the European Commission which would, in practice, co-fund high-risk piloting and demonstration projects of European companies of the bio-based industries. One of the key targets of the partnership is to strengthen the competitiveness of European bio-based industries.

As a consequence of the efforts of the BIC, the European Commission proposed to establish said partnership, also known as the Bio-based Industries Public-Private Partnership (BBI PPP) in July 2013. The final decision is due in early 2014.

#### METHODS TO COMMUNICATE ENVIRONMENTAL IMPACT

The various tools used to describe a product's environmental impacts and production chains do so in very different ways. Life Cycle Assessment (LCA) typically contains all relevant emissions and resource use as well as the whole production chain from material procurement to product disposal. Other tools have a much narrower view.





Metsä Group has a long tradition of working closely with its key stakeholders, especially with Finnish forest owners, and the wood we use mainly originates from family-owned forests that belong to the members of the Cooperative. In addition to Finland, Metsä Group has wood supply operations in Sweden, Russia and the Baltics.



The northern forests play a significant role as a source of wood raw material and income to forest owners. They also provide a wide range of benefits from recreation possibilities and berry and mushroom picking to the maintenance of hydrological systems and soil quality.

Regionally, Metsä Group is an important employer when utilising services from local entrepreneurs in harvesting, transport and forest services. Metsä Group's wood mainly originates from family-owned forests that belong to the members of the Cooperative – some 123,000 Finnish forest owners. Metsä Forest provides forestry services for its ownermembers with the goal of enhancing the value of members' forest assets and ensuring wood supply to Metsä Group's mills.

#### **■ TARGET**

#### **PROGRESS**

#### **COMMENTS**

To sustain the amount of certified wood above 80%.

82% in 2013.

We are constantly aiming to maintain the high share of certified wood raw material and are actively promoting forest management certification in the areas where we operate.

### NATURE MANAGEMENT TO MAINTAIN BIODIVERSITY

In 2013, Metsä Group continued to advance its five environmental goals for wood supply:

- Maintain biodiversity
- Decrease impacts to water
- Reduce operations' emissions
- Ensure legal and sustainable wood supply
- Secure the knowledge of personnel and contractors.

In addition to enhancing nature management in private forests, Metsä Group endorses nature management in its own and leased forests. These operations imitate natural processes, such as prescribed burning, in order to safeguard biodiversity. Due to the small size and rarity of forest fires in Finland, prescribed burning has become essential for those species dependent on burned wood. Metsä Group started surveying species dependent on forest



LESS THAN 10 % OF ALL THE FORESTS IN THE WORLD ARE CERTIFIED



ONLY 25 % OF THE RECOVERABLE FORESTS HAVE BEEN CERTIFIED



MORE THAN 80 % OF THE WOOD USED BY METSÄ GROUP IS CERTIFIED



planning forest management and guidance on how to create and maintain the required features of the habitats will be published in 2014.

The survey of the biodiversity values of Metsä Group's leased forests in Podporozhye, Russia, that was commissioned in 2007 continues. The experts in birds, vascular plants, lichens, mosses and fungus took part in field work during the year. Some 378 hectares of biologically valuable forests have been established to safeguard the valuable habitats.

In 2013, water protection actions included a completion of extensive training for forest specialists in Metsä Forest's Finnish operations on the new water protection requirements on peat lands.

#### **ENSURING SUSTAINABILITY** IN FOREST MANAGEMENT

Metsä Group makes regular and extensive field audits to ensure that the nature management of harvesting operations complies with legislation and forest certification criteria. Metsä Group's and its suppliers' performance in harvesting operations is constantly evaluated internally and by external auditors. The results of these evaluations are part of the incentive scheme and they help in assessing the development needs.

Metsä Forest Finland, Russia, Estonia and Latvia perform regular wood supplier and logging site audits to verify the wood origin and sustainability of the wood supply. One serious malpractice was found in 2013 and it

led to a termination of the wood delivery contract with the supplier.

In order to ensure the wood supply's upto-date knowledge and the subcontractors' competence in quality and environmental issues, Metsä Forest has established an online training platform. The plan is to extend the use of the online tool to cover all subcontractors during 2014 including forest services, harvesting, wood energy and wood transportation contractors.

As an indicator of a strong commitment to sustainability, Metsä Forest Podporozhe was awarded a title of the best forest leaseholder for its contribution to sustainable use, regeneration and protection of forests in the Leningrad region, Russia.

#### TRACEABLE WOOD

Regardless of the country of origin or whether it comes from certified or non-certified forests, Metsä Group always knows the origin of the wood it uses, ensures its legality and takes measures to prevent the risk of unacceptable practices in the supply chain. Metsä Group holds Chain-of-Custody certificates in all wood supply and production units.

Because Metsä Group was one of the pioneers in developing the wood origin tracing systems in Russia, it gave us a solid base for adapting to the EU Timber Regulation's requirements. We have gathered wood origin information right from the beginning of our

fires in its northern Finland forests in 2013 and will continue this work in the coming years.

Metsä Group participated in a cooperation network under the METSO programme in 2011-2013 aiming to develop the nature

#### 2/3 OF METSÄ GROUP'S **WOOD SUPPLIES IN** FINLAND ORIGINATE FROM **FAMILY-OWNED FORESTS.**

management of the ecotones of forest areas towards enhancing game species' habitat requirements. As a result, a guidebook for











#### THE EU TIMBER REGULATION – KEY ELEMENTS OF THE SUPPLY CHAIN

The aim of the EU Timber Regulation (EUTR) is to ensure that companies take actions to avoid illegally harvested timber entering the EU market. The regulation entered into force in all 27 member states in March 2013 and covers a broad range of

timber products including roundwood, solid wood products, plywood, pulp, paper and paperboard.

Metsä Group has the necessary process in place to fulfil the EUTR obligations. Metsä Forest, as a wood importer, acts as an 'operator' with the

obligation to prove legality to the authorities. Metsä Wood, Metsä Fibre, Metsä Board, Metsä Tissue as well as their customers act as a 'Trader' with obligation to keep a record for five years of their suppliers and customers.

#### **EU INTERNAL MARKET SOURCES OUTSIDE THE EU OPERATOR TRADER TRADER END-USER** WOOD SUPPLY e.g. Metsä Forest e.g. Metsä Board e.g. brand owner, retailer Prohibition on · Details of supplier · Details of supplier illegal timber · Details of customer Due diligence systems (DDS) PROCESSORS AND **MANUFACTURES**

Source: Agency for Rural Affairs.

wood supply operations in Russia to avoid it originating from unacceptable sources.

#### ACTIVELY DEVELOPING FOREST CERTIFICATION

Metsä Group considers forest management and Chain-of-Custody certifications to be excellent tools to both ensure and further evolve the sustainability of the supply chain and forestry operations. This is why Metsä Group actively takes part in the development of the certification schemes and promotes forest certification initiatives in all wood supply regions.

While only some 10% of all the forests in the world have been certified, the target of Metsä Group is to sustain the amount of certified wood in our operations above 80%. In 2013, some 82% of the wood supplied by Metsä Group was PEFC and/or FSC® (Licence Code FSC-C014476) certified (82% in 2012). Additionally, Metsä Forest offers forest owners who have a forest management agreement with the company the possibility to join the Group's PEFC and/or FSC group certifications.

### **EXCHANGING SUSTAINABLE** FORESTRY PRACTICES BETWEEN FINLAND AND RUSSIA

Metsä Forest Podporozhye has been active in exchanging sustainable forest management practices between Finland and Russia since 2007. Some 20 employees from the forestry and road construction departments, mostly foremen and planning engineers as well as Russian representatives of local Podporozhye and regional Leningrad forest authorities, have taken part in forest management training.

Training has mainly focused on reforestation methods, pre-commercial thinning and forest road construction. The goal of the training has been to acknowledge good

practices on sustainable forest management and discuss with the relevant parties about the best implementation possibilities in Russia. It has been highly beneficial to discuss the challenges of implementation with the authorities in the forest sample plots.

As a result of adapting new practices, the quality of forestry roads has improved significantly in the Podporozhye area. Metsä Forest Podporozhye has also recently started to use potted seedlings in the forest plantations, make soil scarifications with mounders and perform intensive pre-commercial thinnings.

#### CHANGES IN THE BUSINESS ENVIRONMENT

The certification systems adapted the EU Timber Regulation's requirements by revising those of the Chain-of-Custody to be in line with the new regulation. The Finnish PEFC forest management certification criteria were under revision in 2013 and work will continue in 2014. The Russian PEFC forest management standard is also under revision.

The new Finnish Forest Act entered into force at the beginning of 2014. The renewed regulation enables forest owners to decide more freely on forest regeneration and forest management, such as having the possibility to use loggings that aim at the uneven-age structure of a forest stand. Metsä Group participated in the revision working group of the Forestry Development Centre Tapio's Forest Management Recommendations. Metsä Forest has been preparing for the forthcoming changes already in 2013 by organising training on Forest Act changes and on uneven-aged silviculture, among others.

Moreover, the Act on the Prevention of Forest Damages entered into force at the beginning of 2014. The Forest Management Association Act will come into force in 2015. The Nature Conservation Act and the Act on the Financing of Sustainable Forestry are under revision in 2014.

### **CLOSE COLLABORATION** WITH FOREST OWNERS

Metsä Group's parent company, the 80-yearold Metsäliitto Cooperative, is owned by some 123.000 Finnish forest owners and boasts a long tradition of working in cooperation with its owner-members.

An owner-member has influence over the Cooperative by having the right to stand as a candidate in the representative council elections that take place every four years covering all of Finland in 14 districts. Every member has one vote. The representative council consists of 62 members and holds the highest decision-making power in the Cooperative, for example on adopting the profit and loss account.

The district councils have 125 elected members across the districts and meet twice a year. The councils' most important task is to act as an information channel between the members and the Cooperative's wood supply and forest services organisation. Metsä Forest.

Metsä Forest continuously develops its service portfolio in collaboration with forest owners, and has over 300 forest specialists located in over 100 offices across Finland. In addition to forest management and consultation services, such as forest taxation, Metsä Forest continuously gathers customer service feedback on each forest management operation.

In 2013, approximately 30,000 responses were received (response rate 35%) to gather the forest owners' wishes and ideas on how to improve the services. The results have been very good and they have further improved during the last few years.

#### MAIN FOREST AREAS OWNED OR LEASED BY METSÄ GROUP

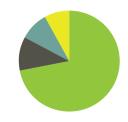
| COUNTRY | FOREST OWNER /<br>LEASEHOLDER   | TOTAL AREA,<br>HECTARES <sup>1)</sup> | OF WHICH PROTECTED AREAS, HECTARES | CERTIFICATION |  |
|---------|---------------------------------|---------------------------------------|------------------------------------|---------------|--|
| Finland | Metsä-Botnia, Metsät Oy         | 35,448                                | 960 <sup>2)</sup>                  | PEFC and FSC  |  |
|         | Kirkniemen Kartano Oy           | 961                                   | 217 2)                             | PEFC          |  |
| Russia  | 000 Metsä Forest<br>Podporozhye | 215,330                               | 55,054 <sup>3)</sup>               | PEFC and FSC  |  |
|         | ZAO Petrovles<br>Podporozhye    | 56,525                                | 19,715 <sup>3)</sup>               | PEFC and FSC  |  |

Excellent

- 1) Including forestry land and other land within the forest estate / area.
- 2) Including Nature Conservation Areas, Natura 2000 areas and Conservation Programme areas. Small-scale valuable forest habitats and the buffer zones of watercourses are not included in the figures.
- Including forests with a protective function (e.g. forests along watercourses); those with special limitations of the utilisation regime; and biologically valuable forests that have been excluded from commercial use by the company. Strictly protected areas are excluded from the lease areas in Russia. Small-scale valuable forest habitats are not included in the figures.

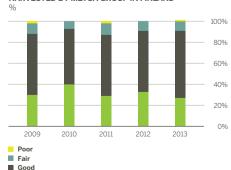
In addition to the areas presented in the table, Metsä Group owns small forest estates in Finland and in Estonia (altogether 290 ha ). Further, Metsä Group owns shares (<50%) in the Finnish forest owning entities Finsilva Oyj and Suomen Metsäsijoitus Oy, and in the Russian forestry holding Vologodskie Lesopromyshlenniki.

#### THE GROUP'S WOOD SUPPLIES BY COUNTRY IN 2013

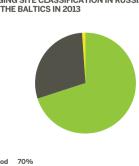




#### **EVALUATION OF NATURE MANAGEMENT IN STANDS** HARVESTED BY METSÄ GROUP IN FINLAND



#### LOGGING SITE CLASSIFICATION IN RUSSIA AND THE BALTICS IN 2013



















Ethical business practices are the foundation of Metsä Group's purchasing operations. Transparency and responsibility of the entire supply chain are of rising interest to our customers and other stakeholders.

Metsä Group's materials and services purchases mainly originate from Europe accounting for 98% (99% in 2012) and mostly from countries with the Group's own manufacturing operations meaning 87% (88%).

The purchasing is organised into 17 main categories including pulps, chemicals, pigments and fillers, energy and logistics. Wood procurement is operated by Metsä Forest and therefore outside the scope of Metsä Group's centralised purchasing function.

In 2013, Metsä Group's spend excluding wood procurement amounted to EUR 2 billion (slightly lower than in 2012).

#### SUPPLIERS ARE OUR LONG-TERM PARTNERS

We only deal with reliable suppliers who act responsibly and are committed to sustainability. Our suppliers must agree to Metsä Group's Supplier Code of Conduct. All our suppliers are required to act upon the same high ethical standards as we do and that there is no risk of

#### **TARGET**

To include the Supplier Code of Conduct in all new supplier contracts.

#### **PROGRESS**

Included in 216 contracts, accounting for 50% of all new and renewed supplier contracts in 2013.

#### **COMMENTS**

In 2013, we have continued with the work to include the Supplier Code of Conduct in all supplier contracts. At the same time, we have developed a risk assessment process for our raw material suppliers in order to identify risk-rated suppliers that are to be audited from a sustainability point of view.

Our new target is to audit all of risk-rated key material suppliers against sustainability criteria by 2015.

corruption, child labour or human rights abuses in our supply chain.

We want to ensure that all parties in the supply chain act responsibly. The requirement for transparency and responsibility of the supply chain comes also from our customers and other stakeholders.

Metsä Group has altogether 20,000 active supplier relationships, of which some 200 are determined as key vendors – active suppliers who bring significant value to our business. Key vendors are selected based on strategic importance, a wide variety of unique products or services, strategic criticality, significant spend or a long-term partnership.

### NEWLY IMPLEMENTED SUPPLIER RISK ASSESSMENT

During 2013, we have further developed our risk assessment process in order to identify potential risk suppliers regarding sustainability. Audits are prepared and carried out annually for each of the purchasing categories.

The aim is to ensure that the Supplier Code of Conduct is followed in practice throughout the supply chain. As we strive to increase transparency in all our operations, we only do business with suppliers we know.

In 2013, Metsä Group performed 65 (52) supplier audits.

## **EFFICIENT AND RELIABLE LOGISTICS** AS A COMPETITIVE ADVANTAGE

The most crucial task of Metsä Group's logistics is to ensure the continuous flow of products to customers and raw materials to the mills. New solutions for more efficient. reliable and sustainable logistics throughout the whole transportations chain are continuously developed.

Several transportation modes road - rail, maritime transport and log floating – are needed to transport the Group's wood raw material, pulp and products. To this end, transport efficiency is one of the key performance indicators and part of the bonus systems in certain positions within the Group. We are committed to reduce emissions in a cost-effective way.

Efficient and reliable logistics is something we consider as a competitive advantage; and as managing transportation would not be possible without our extensive vendor network, it is important that sustainability is taken into account in cooperation with them. Consequently, Metsä Group's Supplier Code of Conduct is included in contracts with both wood harvesting and transportation service providers. We also audit our selected transport vendors systematically in all geographical regions.

Our mills in Finland are located in remote areas where we are a significant employer. In many regions, our transportation and harvesting operations also provide work for many local entrepreneurs.

#### THE EU'S SULPHUR DIRECTIVE **ENTERING IN FORCE**

The amendments to the EU's Sulphur Directive regulating ship emissions will come into force from the beginning of 2015 without a transition period and in a more strict form than earlier agreed by the International Maritime Organization (IMO). In the IMO regulations, the target is to decrease the sulphur content in Sulphur Emission Control Areas (SECA), namely the Baltic Sea, the North Sea, the English Channel and the coastal areas of North America. In these areas, the maxi-

#### **BIGGER TRUCKS FOR MORE EFFICIENT TRANSPORT**

Road transport is vital to Metsä Group due to the high number of wood supply locations and product destinations that cannot be feasibly covered by other transport modes. Finland has allowed the use of heavier vehicles (76 tonnes instead of 60 tonnes) since 1 October 2013. Longer and heavier trucks are more eco-efficient as they bring significant emission and cost savings as well as positive effects on road safety. Metsä Group has actively studied the advantages of heavier trucks together with its transportation entrepreneurs and has implemented mechanisms to support extending the utilisation of higher transportation capacity.

#### **LESS EMISSIONS -SAFER LOADS**

A more sustainable, efficient and safe solution to pulp transportation has been introduced at Metsä Fibre's Kemi mill. A new type of truck that runs between Kemi mill and Aios harbour has a larger load space designed to meet the requirements of pulp transportation, better driver comfort and improved safety standards. The large load space means that the truck drives 33,000 kilometres less each year with lower emissions. There is unobstructed view to the load space which can be opened from the cab – the driver can thus stay inside during pulp loading and fastening which is automatised, making it a quick and secure process. In addition, the new truck has an alcolock, excellent daytime running lights and efficient lighting in the load space.

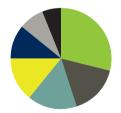
mum sulphur content of marine fuel will decrease from 1.0% to 0.1% as of 1 January 2015. In other European sea areas, the maximum sulphur content of marine fuel will decrease from 3.5% to 0.5% by 2020 based on the EU Directive.

With these regionally tighter regulations and timeframe, it is challenging to find feasible solutions to fully mitigate the negative impact to Metsä Group's logistics costs. In

order to maintain our competitiveness, we are evaluating possible low-emission maritime transportation options as well as re-considering our routings, alternative modes of transportation and other ways to improve the efficiency of the logistics chain.

We are carefully following all plans and preparations that might further increase environmental regulations in logistics and transportation.

#### THE GROUP'S PURCHASES IN 2013



Wood

■ Pulp and recovered fibre

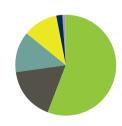
Logistics
Indirect materials and services

■ Chemicals, pigments and fillers

Other (e.g. packaging materials)

#### THE GROUP'S PURCHASES 1) BY COUNTRY IN 2013

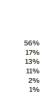




16% 16% 11%

Sweden Other EU countries Germany Outside Europe Other European countries

1) Wood procurement excluded





Due to the latest bioenergy investments, Metsä Group has been able to reach its target to reduce fossil CO<sub>2</sub> emissions by 30%. Increasing the share of bioenergy along with improving energy efficiency are the Group's main means to combat climate change. In addition to environmental benefits, the work towards these targets also improves cost efficiency and competitiveness.

Metsä Group's total primary energy consumption was 29.7 TWh (29.0 TWh in 2012). The share of direct energy consumption – primary fuel consumption at the mills - reached 22.8 (22.7) TWh.

Indirect energy consumption as purchased electricity was 2.6 (2.4) TWh and as purchased heat 0.34 (0.2) TWh. Indirect energy

#### **TARGET**

To reduce fossil CO<sub>2</sub> emissions in production by 30% per product tonne by 2020 from the 2009 level.

To improve energy efficiency by 10% by 2020 from the 2009 level

#### **PROGRESS**

-32% (2009-2013).

5% (2009-2013).

#### COMMENTS

Thanks to the full-year impact of the bioenergy investments completed during 2012 and the good energy efficiency development, we were able to achieve the CO<sub>2</sub> reduction target already in 2013.

The considerable production efficiency improvements at mills combined with continued specific energy saving actions resulted in a big improvement in the energy efficiency.

was produced mainly by using carbon-neutral energy sources such as nuclear and hydro power.

The Group supplied 4.4 TWh woodbased fuels originating from process side streams and logging residuals. This fuel enables our customers to replace fossil fuels and reduce their fossil CO, emissions by some

1,200,000 tonnes annually. This is 40% more than the Group's annual CO<sub>2</sub> emission load.

#### HIGH SHARE OF BIOENERGY STILL INCREASES

The share of wood-based biofuels in the Group's own energy production accounted for 85% (83%), partly as a result of the bioenergy projects taken into use at Kyro and Joutseno

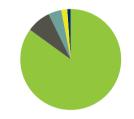


#### REDUCED CLIMATE CHANGE EFFECT

The GHG Protocol, which categorises the emissions from direct and indirect sources, is the most widely used tool to quantify greenhouse gas (GHG) emissions. Scope 1 covers all direct GHG emissions from own energy production; Scope 2 indirect GHG emissions from consumption of purchased electricity, heat or steam; Scope 3 includes other indirect emissions, such as the production of purchased materials and fuels, transport-related activities and waste disposal.

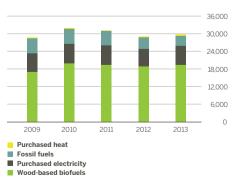
In Metsä Group, Scope 1 fossil CO<sub>2</sub> emissions amounted to 855,000 tonnes (962,000 tonnes in 2012). They were lower than the previous year due to replacing fossil fuel with wood-based fuels as process fuel at Husum and Joutseno pulp mills and changes in Kyro mill's energy production where the new biopower plant was in use for the first full year. Scope 2 emissions were 521,000 (392,000) tonnes. Together, Scope 1 and 2 emissions per tonne of production decreased by 32% from the 2009 emission level, more than our 30% reduction target from 2009 to 2020. Roughly 50% of the emissions materialised in Finland.

THE GROUP'S FUEL CONSUMPTION IN 2013 %





THE GROUP'S PRIMARY ENERGY CONSUMPTION GWh



Currently, Metsä Group does not have sufficient data for calculating Group-wide emissions from producing and transporting the main raw materials (Scope 3).

#### 85% OF THE FUELS USED BY METSÄ GROUP ARE BIO-BASED.

#### LOWER ENERGY USE MEANS LESS COST

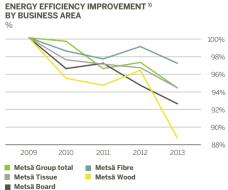
Energy efficiency is optimised jointly with other aspects of production and resource efficiency, mainly utilising the wood-based raw materials as efficiently as possible. Energy efficiency is improved mainly by conducting energy analyses, modifying processes and cooperating with equipment manufacturers. The work is supported by the Energy Efficiency Systems and the ISO 50001 Energy Management Systems.

In 2013, altogether 96 actions (87 in 2012) were completed that will potentially reduce annual electricity consumption by

### THE GROUP'S PRIMARY ENERGY CONSUMPTION OF PURCHASED ELECTRICITY AND HEAT IN 2013







 $1) \ {\sf Expressed} \ {\sf as} \ {\sf specific} \ {\sf energy} \ {\sf consumption} \ {\sf development}$ 

mills in late 2012. The full potential of these investments was not reached in 2013 as the biomass gasification plant at Metsä Fibre Joutseno mill in Finland failed to reach its full capacity due to problems in the ramp-up phase. However, together they reduced  ${\rm CO}_2$  emissions by 140,000 tonnes with a further 35,000 tonnes expected to be reduced later on.

A new biomass plant is being built in conjunction with Metsä Tissue Mariestad mill in Sweden. It will reduce the mill's oil use by 90% and decrease the mill's  $\mathrm{CO}_2$  load by approximately 4,000 tonnes, i.e. 25% from the present. The mill will use energy wood and recycled fibre residues from the mill as fuels. In addition to producing heat to the mill, it will provide renewable energy for the surrounding community in the form of district heat and bio-based electricity to the grid. The plant is expected to be operating by the end of 2014.









some 32 (101) GWh and heat by 148 (179) GWh, thus eliminating fossil  $CO_2$  emissions by approximately 17,000 (38,000) tonnes annually.

Improving energy efficiency is an integral part of all major investments in production capacity. In Metsä Tissue's renewed Krapkowice mill inaugurated in October 2013, for example, world-class energy efficiency was one of the design principles from the outset. The over EUR 55 million investment includes two new, state-of-the-art tissue paper machines.

Our long-term target is to enhance our energy efficiency by 10% by 2020 from the 2009 level. To date, we have improved it by 5%.

#### OUR FOSSIL CO<sub>2</sub> LOAD HAS BEEN CUT BY 32% PER TONNE OF PRODUCT SINCE 2009.

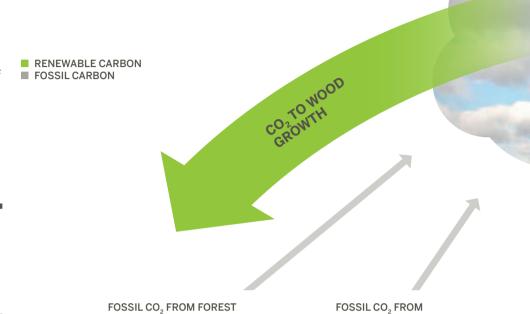
#### CHANGES IN THE BUSINESS ENVIRONMENT

The final decisions on the allocations of free-of-charge  $\mathrm{CO}_2$  allowances per mill for the EU's third  $\mathrm{CO}_2$  Emissions Trading Scheme (EU ETS) for the period 2013–2019 were still somewhat unclear at the end of 2013. Thanks to its high share of bioenergy, Metsä Group expects to receive sufficient  $\mathrm{CO}_2$  allowances.

The EU is preparing a 2030 Climate Change and Energy Package in a situation where the economic and political landscape has drastically changed and the global competitiveness of Europe has weakened. Metsä Group sees that in the future, the EU should have only one CO2 reduction target and it should not set binding targets on renewable energy or energy efficiency. Herewith, the selection of CO, emission reduction measures would be left to the member states. Furthermore, the EU should not unilaterally tighten its CO2 reduction target since combating climate change requires global actions. The EU's unilateral measures might even have a negative impact on the climate if it leads to the transfer or growth of industrial production in areas with higher CO, emissions compared to the EU. In order to avoid this 'carbon

### CO, EMISSIONS ALONG THE VALUE CHAIN

The value chain of wood-based products is largely paved with green renewable carbon recycling from forest to product and through product degradation to the atmosphere and back to new wood growth. Part of the wood material is used as bioenergy at the mills. The grey fossil emissions increasing the atmosphere's climate effect are smaller and come from transportation and energy production at the mills.





MANAGEMENT OPERATIONS



DIESEL FUEL

leakage', the EU should ensure a competitive market conditions for its globally operating industries.

The European Commission is preparing a review on carbon leakage and will present its proposal in early 2014. This is an essential tool when trying to safeguard the global competitiveness of European industries. It minimises the negative impacts of the European Trading Scheme on the industry as long as our competitors outside the EU do not have similar requirements, and as long as there is no inter-

nationally binding climate agreement. It is crucial, therefore, that the forest industry remains a carbon leakage sector.

In 2013, the national implementation plans of the new Energy Efficiency directive were prepared. For the time being, Metsä Group expects that our Energy Efficiency System and on-going continuous efforts are for the most part sufficient for compliance.

Emission data at the Group, business area and mill levels are available on pages 46–49.









**PRODUCT TRANSPORTATION** 



**END-USER** 



#### **ENERGY CONSUMPTION BY BUSINESS AREA**

|  | Metsä Tissue |      | Metsä Board |      | Metsä Fibre <sup>1)</sup> |      | Metsä Wood <sup>2)</sup> |      | Metsä Group total 3) |      | Metsä Group total<br>GWh |        |
|--|--------------|------|-------------|------|---------------------------|------|--------------------------|------|----------------------|------|--------------------------|--------|
|  | 2013         | 2012 | 2013        | 2012 | 2013                      | 2012 | 2013                     | 2012 | 2013                 | 2012 | 2013                     | 2012   |
| Wood-based biofuels                            | 0%           | 0%   | 17%         | 17%  | 46%                       | 45%  | 3%                       | 2%   | 66%                  | 65%  | 19,446                   | 18,934 |
| Fossil fuels                                   | 3%           | 4%   | 5%          | 6%   | 3%                        | 3%   | 0%                       | 0%   | 11%                  | 13%  | 3,342                    | 3,900  |
| Purchased electricity                          | 7%           | 7%   | 19%         | 18%  | -5%                       | -6%  | 2%                       | 2%   | 22%                  | 21%  | 2,590                    | 2,380  |
| Purchased heat                                 | 1%           | 2%   | 3%          | 2%   | -3%                       | -3%  | 0%                       | 1%   | 1%                   | 1%   | 337                      | 200    |
| Total primary energy consumption <sup>3)</sup> | 12%          | 12%  | 44%         | 44%  | 40%                       | 39%  | 5%                       | 5%   | 100%                 | 100% | 29,660                   | 29,018 |

Most of the energy that Metsä Fibre produces in excess of its own needs is sold. Metsä Fibre is a net seller of heat and electricity, and also sells part of its bark.
 Nearly all of the heat purchased by Metsä Wood is produced from the wood material by-products of its production plants.
 Total energy is shown in terms of fuel, i.e. the quantities of heat and electricity purchased have been converted to the corresponding amount of fuel that would be required to produce them.









## REDUCED WATER USE CUTS COSTS AND SAVES NATURE

As water is essential in our processes, our mills are located in areas with abundant water sources. All the same, we continuously seek new ways to reduce the use of fresh water. Metsä Group's newly established target is to reduce process water use by 10% by 2020.

In 2013, Metsä Group's fresh water intake totalled 302 million m³ (258 million m³ in 2012), almost all 99% (98%) was surface water from rivers and lakes. Process water intake decreased to 146 (149) million m³, and cooling water intake increased to 110 (95) million m³. Pulp and paper mills are usually

# ALMOST 95% OF WATER USED BY THE PULP AND PAPER INDUSTRY IS RETURNED TO ITS SOURCE.

located alongside a river in order to easily get enough water for the mill. As a mills' water intake is typically less than 10% of the total flow of a river or a lake, the mill does not limit other water uses in the region. When groundwater is used, the intake volume is determined and carefully controlled according to each mill's environmental permit.

#### MAKING MORE FROM LESS

Metsä Board's mills started a project aimed at reducing water intake and fibre loss, and making water use more effective. The action plan is now ready and the implementation at the mills will start in 2014.

#### MINIMISING IMPACTS FROM WASTEWATERS

Process waters are carefully cleaned before they are released back into the watercourse, ensuring that the environment surrounding

#### **TARGET**

To reduce process water use by 10% by 2020 from the 2010 level

#### **COMMENTS**

This new target was introduced in 2013 and the reporting against it starts in 2014. Some investments and improvements have already been carried out at Metsä Fibre Kemi and Joutseno mills, for example; several further actions are planned for 2014.

our mills is not threatened by our water use. In most cases, the mills have their own wastewater purification plants.

The main wastewater impacts are eutrophication and oxygen demand caused by phosphorus and nitrogen nutrients as well as organic matter. For this reason, discharged process waters and their impacts are systematically monitored and reported to the authorities. Each mill has its own specific environmental permit which sets limits for pollutants. Incidents of exceeding these limits are reported on page 37.

The Group's total wastewater volume totalled 146 (149) million m<sup>3</sup>. The Group's COD load was 42,934 (43,629) tonnes and phosphorus 54 (50) tonnes; nitrogen decreased to 624 (637) tonnes.

### WATER MANAGEMENT IS ESSENTIAL ALSO IN WOOD SUPPLY

Metsä Group has set a goal for its wood supply to decrease the impacts to water in forestry operations. We have defined actions to meet this target and developed a set of indicators to follow its implementation. The Group-level goal is realised via the environmental programmes in each wood supply country. During 2013, Metsä Group's subsidiaries specified their own goals unified with those of the Group.

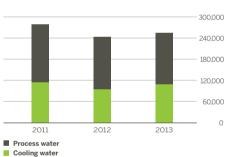
#### CHANGES IN THE BUSINESS ENVIRONMENT

The European Commission is considering follow-up actions on the Blueprint issued in November 2012. The aims are to guarantee good quality fresh water for everyone in Europe, reduce water scarcity and make water

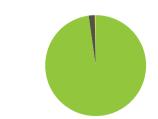
management more efficient. The Blueprint drives EU water policies over the long-term and enhances the implementation of the Water Framework Directive in all member states by 2015. The follow-up actions can set possible restrictions on the use and pricing of water as well as mandatory water footprint calculations.

#### THE GROUP'S WATER USE

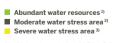
1,000 m



#### THE GROUP'S WATER USE BY WATER STRESS INDEX IN 2013



97%



1) Water stress index (WSI) < 0.1 2) WSI=0.1-0.5 3) WSI=0.5-1.0

<0.1%

Source: Pfister et al., 2009.
The water stress index is calculated based on the total annual fresh water withdrawals versus local hydrological availability.

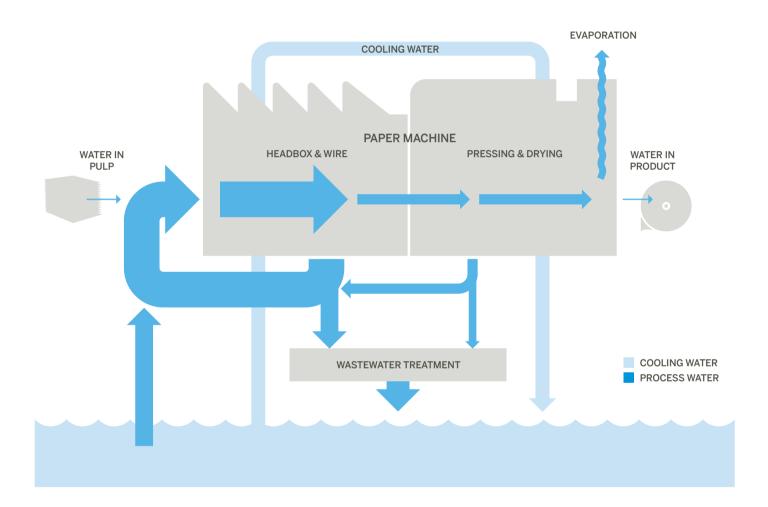
Metsä Board's Simpele and Joutseno mills in Finland investigated their raw materials and process chemicals for priority substances listed in the Water Framework Directive and sent the results to the authorities. Priority substances are potential pollutants. A conclusion was that most of the priority substances are not present in our raw materials or chemicals nor do they form in our processes. Only eutrophication causing nutrients and some metals taken up by growing trees from natural forestlands can be found in our processes.

## WATER FLOWS AND WATER RECYCLING IN PAPER PRODUCTION

Pulp and paper mills use water in their processes and for cooling. Cooling water is used to remove heat from the process; and as it is not contaminated in the process, it can be recycled directly back to the nature.

Process water is used to help separate and bind the fibres, and transport them in the process. It also serves as a medium for chemical reactions and as a carrier of heat energy in the form of steam. The process water is continuously recycled throughout the process and reused several times, either directly or after the internal purification. It is also effectively cleaned before releasing it back to the watercourse. Only the smaller amount of water that is run to wastewater treatment is substituted by fresh water from the water source.

Water consumption varies significantly between mills as it depends on the production process design, paper grade and the raw materials used. Only a very small fraction of the water is lost through evaporation as the paper is dried to its final moisture content.



WATER USE BY BUSINESS AREA

%

|                 | Metsä Tissue |      | Metsä Board |      | Metsä Fibre |      | Metsä Wood |      | Metsä Group total |      | 1,000 m <sup>3</sup> |         |
|-----------------|--------------|------|-------------|------|-------------|------|------------|------|-------------------|------|----------------------|---------|
|                 | 2013         | 2012 | 2013        | 2012 | 2013        | 2012 | 2013       | 2012 | 2013              | 2012 | 2013                 | 2012    |
| Process water   | 5%           | 5%   | 28%         | 31%  | 24%         | 25%  | 0.1%       | 0.1% | 57%               | 61%  | 145,588              | 149,096 |
| Cooling water   | 1%           | 1%   | 19%         | 18%  | 23%         | 20%  | 0.6%       | 0.3% | 43%               | 39%  | 109,502              | 94,560  |
| Total water use | 6%           | 6%   | 47%         | 48%  | 47%         | 45%  | 0.7%       | 0.4% | 100%              | 100% | 255,090              | 243,656 |









## RESOURCE EFFICIENCY REDUCES ALSO WASTE

Material efficiency means efficient use of natural resources and efficient re-use of waste and residuals. It incorporates process efficiency, improved raw material yield and good environmental management. Metsä Group continuously seeks new ways to re-use residuals and reduce the amount of waste by enhancing recovery processes and increasing the energy use of organic waste.

It is essential to use raw materials where they add most value. The primary use for residuals and waste is first material recycling then energy recovery. Residuals and waste will be landfilled only if they cannot be used elsewhere.

The amount of waste generated at the production units varies greatly between the Group's business areas as different processes generate different types and amounts of residuals. However, all mills have significant poten-

## MOST OF OUR PROCESS WASTE IS A VALUABLE RAW MATERIAL ELSEWHERE.

tial to improve their resource efficiency. In Metsä Wood, the low waste amount is mainly ash from energy generated by the re-use of wood-based waste. As a contrast, Metsä Tissue's higher waste volumes are generated in the de-inking process of recycled paper.

In future, Metsä Group will focus on diminishing fibre losses at board mills and improving dry matter content in all waste fractions, especially in de-inking sludge.

#### REDUCING THE WASTE GENERATION

In 2013, the total amount of residuals and waste generated by Metsä Group's production units was 845,000 tonnes (805,000 tonnes in 2012) mainly consisting of fibre sludge, ashes

### FERTILISING FORESTS WITH ASH CIRCULATES NUTRIENTS BACK INTO NATURE

Some 50,000 tonnes of wood-based and mixed ash is generated annually as a byproduct in energy production at Metsä Group's mills. The ash is further used as construction material in roads, sports grounds and landfill sites, for example, and as a forest fertiliser for peatlands.

Metsä Group has some 20 years' experience in forest peatland improvements. The benefits of ash fertiliser are significant when adapted to an appropriate forest site. The nutrients in the ash dissolve slowly so the

effect is long lasting compared to many other fertilisers.

Metsä Group offers peatland recovery services to forest owners. They include an analysis of the forest site as well as the planning and execution of required forestry operations including water and forest management procedures. An extensive training programme on peatland forest management was completed for Metsä Group's forest specialists in 2013

from energy production and green liquor sludge from chemical pulp production. From this, only 76,000 (81,000) tonnes were landfilled consisting mostly of green liquor sludge. Furthermore, 766,000 tonnes representing 91% of the total waste amount was recycled (608,117 tonnes i.e. 88%) in bioenergy production or as fertiliser, for example. The amount of hazardous waste was 1,256 (2,021)

tonnes and mainly contained oils, chemicals and batteries.

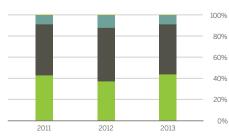
#### ACTIVE R&D

During 2013, Metsä Group was active in R&D projects related to the re-use of waste. A fine example is the TUULI project in Finland, which is a national scale collaboration project

#### THE GROUP'S RESIDUES BY SOURCE IN 2013



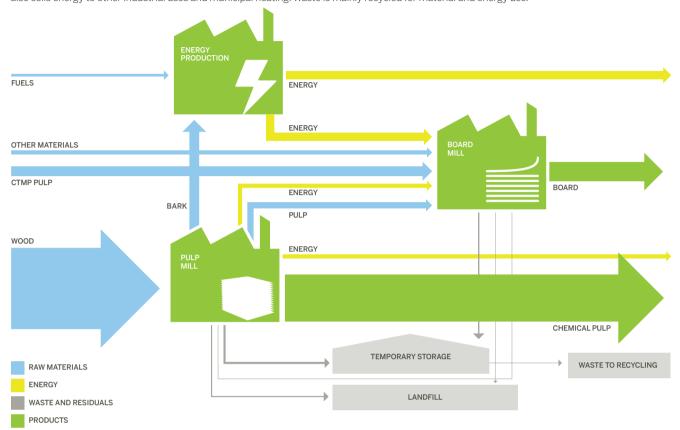
#### THE GROUP'S RESIDUES BY DESTINATION IN 2013





#### MATERIAL AND ENERGY FLOWS AT MILL INTEGRATE

Wood for the pulp making is by far the biggest material flow at the mill integrate. The board mill gets chemical pulp and energy directly from the on-site pulp mill as well as from the local biopower plant, which uses bark from the pulp mill as fuel. The board mill's main external raw materials are CTPM pulp and filling and coating materials. The biopower plant also sells energy to other industrial uses and municipal heating. Waste is mainly recycled for material and energy use.



to create new products, materials and business opportunities from ashes derived from biomass. Metsä Group has also financed academic studies and other R&D projects related to the re-use of waste during 2013. Moreover, we are participating in the UUMA2 project through the Finnish Forest Industries Federation, which aims to increase the use of waste materials in soil and road construction.

#### CHANGES IN THE BUSINESS ENVIRONMENT

Since legislation in Europe is driving our industry to reduce and re-use waste, we must overcome the current barriers and develop new products and processes. By allowing inorganic wastes in landfilling and for re-use in earth construction, the authorities would encourage the forest industry to seek new solutions for wastes with high organic content from incineration. The industry welcomed the exclusion of both de-inking and green liquor sludge from the organic waste landfilling ban.

When the incineration potential and landfilling tax are dependent on the wet weight of the waste, it is clear that the industry needs to increase the solid content of the waste. In Metsä Group, deinking sludge is a prime example of reaching this target.

|                    | Metsä Tissue |      | Metsä Board Metsä Fibre |      |      | Metsä\ | Vood | Metsä Gro | oup total | Metsä Group total<br>tonnes |         |         |
|--------------------|--------------|------|-------------------------|------|------|--------|------|-----------|-----------|-----------------------------|---------|---------|
|                    | 2013         | 2012 | 2013                    | 2012 | 2013 | 2012   | 2013 | 2012      | 2013      | 2012                        | 2013    | 2012    |
| Material recycling | 17%          | 24%  | 17%                     | 9%   | 9%   | 3%     | 1%   | 1%        | 44%       | 37%                         | 374,901 | 257,198 |
| Energy recovery    | 27%          | 32%  | 13%                     | 12%  | 5%   | 7%     | 2%   | 0%        | 47%       | 51%                         | 390,740 | 350,919 |
| Landfilled waste   | 3%           | 2%   | 1%                      | 0%   | 5%   | 9%     | 0%   | 0%        | 9%        | 12%                         | 76,151  | 81,435  |
| Hazardous waste    | 0%           | 0%   | 0%                      | 0%   | 0%   | 0%     | 0%   | 0%        | 0%        | 0%                          | 1,256   | 2,021   |
| Total waste flow   | 46%          | 58%  | 31%                     | 21%  | 19%  | 19%    | 3%   | 1%        | 100%      | 100%                        | 843,048 | 691,573 |









# SMALLER ENVIRONMENTAL IMPACTS THROUGH EFFICIENT OPERATIONS



We continuously assess the environmental risks of both our own and our partners' operations. Environmental impacts and related risks are mitigated by sustained development of our production processes.

Each mill has environmental permits that set the limits for discharges to water, emissions to air and noise. In addition, mills carry out actions to prevent accidental releases and conduct regular environmental risk analyses. Metsä Group's crisis management team conducts regular training to prepare for possible emergency situations.

#### ENVIRONMENTAL IMPACTS DECREASED

Greenhouse gas emissions decreased to 855,000 tonnes  $CO_2$  (962,000 tonnes in 2012). The reduction is the result of replacing fossil oil with wood-based biofuels at Husum and Joutseno pulp mills, and changes in Kyro mill's energy production where the new biopower plant had been in operation for the first full year.

Acidification emissions increased to 6,698 (6,183) tonnes SO<sub>2</sub> eqv. due to higher sulphur emissions from the chemical pulp mills.

Eutrophication emissions were 179 (184) tonnes P eqv. Due to changes in the BOD measurement, the comparable figure for 2012 is 176 tonnes P eqv. resulting in a slight eutrophication increase. This increase, how-

ever, was smaller than the increase in production.

#### ENVIRONMENTAL LIABILITIES REMAIN THE SAME

We constantly evaluate our liabilities from closed down, sold or leased industrial properties as well as decommissioned landfills. We reduce our liabilities through thorough remediation work.

Metsä Group's environmental obligations at the end of 2013 totalled EUR 28 (27) million. In 2013, the capital expenditure totalled EUR 207 (204) million, and the Group received from the Government EUR 0.0 (2.0) million as support for investments.

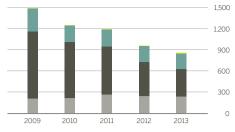
## ENVIRONMENTAL INCIDENTS WERE MAINLY MECHANICAL FAILURES

All environmental incidents that resulted in major permit violations, claims, compensations or significant media coverage are detailed in the following table. In addition, minor and short-term non-compliances with environmental permit requirements were also reported at Metsä Board Gohrsmühle mill in Germany and Simpele mill in Finland. The authorities were informed immediately and corrective actions were taken in all cases.

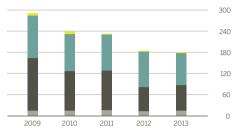
Traces of oil from Äänevoima's oil incident in 2011 were detected in Lake Kuhnamo at Äänekoski, Finland. The authorities were informed and oil traces exposed by the lake's

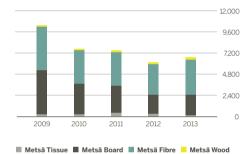
#### GREENHOUSE GAS EFFECT (CO<sub>2</sub> EQUIVALENT) BY BUSINESS AREA

1,000 TONNES



#### EUTROPHICATION (P EQUIVALENT) BY BUSINESS AREA TONNES





exceptionally low water level were cleaned immediately from the shoreline.

Metsä Fibre's Joutseno mill suffered from abnormally high emissions of reduced sulphur compounds during the year, which generated several complaints of bad odours in the surrounding residential areas. Corrective actions have been defined and they will be carried out during 2014.

Svir sawmill in Russia paid EUR 20,527 for exceeding the permit level for water discharges. In addition, a fine of EUR 622 was paid to the Russian Environmental Department in the North-Western Federal District. Several improvements have been made and more planned for the water treatment and monitoring system in order to cope with the local system of environmental permitting.

#### REDUCED AIR EMISSIONS AT KRAPKOWICE MILL

Metsä Tissue's EUR 55 million investment at Krapkowice mill, Poland, doubled the production capacity, yet significantly decreased emissions. The investment included two new tissue paper machines, a new converting line and a new energy plant using natural gas. By utilising the best available technology and cleaner fuels, Metsä Tissue will be able to cut the mill's  $\rm CO_2$  emissions per production by 60%;  $\rm NO_X$  emissions by over 50%; and virtually eliminate  $\rm SO_2$  emissions. The improvements in water usage and wastewater treatment have also reduced the amount of wastewater decreasing the mill's eutrophication impacts.

# LARGE IMPROVEMENTS WITH MODEST INVESTMENT AT KEMI MILL

Metsä Fibre's Kemi mill in Finland has decreased the use of process water by over 20% from 2010 amounting to some 3.6 million m³ of fresh water annually. A key element has been the careful monitoring of water use, which has led to many small improvements, for example in pulp washing and causticising processes and water temperature adjustments in water treatment process. The work has resulted in large savings without major investments.

# BETTER ENVIRONMENTAL PERFORMANCE AT VILPPULA SAWMILL

Metsä Wood's investment of EUR 30 million to upgrade Vilppula sawmill in Finland was allocated to build a new saw line and sorting lines. The benefits include improved material efficiency, reduced energy use and a lower noise level. Optimising the use of wood and more accurate de-barking saves raw material and improves yield. Additionally, the use of pine in the product range will shorten the average delivery distance of wood raw material.

#### CHANGES IN THE BUSINESS ENVIRONMENT

In July 2013, the European Commission issued the final draft of the revised Best Available Techniques Reference Document (BREF) for the production of pulp, paper and board, which sets the requirements for environmental permits for all pulp and paper mills in Europe. Metsä Group, along with other forest industry companies and associations, participated actively in the commenting process. The pro-

posed emission levels will require some investments and steady operations. The document will be finalised in early 2014 and the new requirements will enter into force by 2018.

The European Commission published also the first draft of the BREF document for large combustion plants in June 2013. The draft tightens the required emission levels from those set in the Industrial Emissions Directive.

Additionally, the Commission is planning to set more stringent limits also for small and medium size power plants as a part of the air quality review. Metsä Group considers the proposed emission limits too stringent and the relative cost of reducing the emissions too high compared to achievable environmental benefits. The new requirements are expected to enter into force by 2020.

#### **ENVIRONMENTAL INCIDENTS PER UNIT IN 2013**

| BUSINESS AREA | UNIT                        | INCIDENTS  | CORRECTIVE ACTIONS  |  |  |  |  |
|---------------|-----------------------------|--|---|--|--|--|--|
| METSÄ TISSUE  | Mänttä mill,<br>Finland     | The permit limits for COD and BOD emissions to water were exceeded in September and October due to mechanical problems in the wastewater treatment.  | Discussions on better preparedness and prompt actions in cases of unexpected mechanical failures were held with the operator of the wastewater treatment plant.   |  |  |  |  |
| METSÄ BOARD   | Simpele mill,<br>Finland    | Nitrogen emissions to water exceeded the permit limit slightly in April due to a momentary over-dosage of nitrogen into the waste water treatment plant.   | Training on the basics of the biological wastewater treatment and correct actions needed in solving such unexpected operational problems was arranged to all plant operators.   |  |  |  |  |
| METSÄ FIBRE   | Rauma mill,<br>Finland      | Daily limit for TRS emissions from the dedicated burner of odorous gases was exceeded on 21 June.  | Adequate dosing of NaOH to the venturi cleaners was ensured and the capacity of TRS burner was checked.   |  |  |  |  |
|               |                             | The monthly emission limit for $SO_2$ emissions to air was exceeded in June. Increased emissions were caused by the operational problems in the evaporation plant, forcing the use of heavy fuel oil as supplementary fuel in the recovery boiler. | Investigations on the causes and possible corrective actions for the operational problems of the evaporation plant were carried out.  |  |  |  |  |
|               |                             | Tall oil soap was accidentally released from the evaporation plant to the watercourse via the rainwater drainage in September.   | Additional risk surveys were conducted and the safety<br>measures updated around the evaporation plants. Safety<br>training to handle such incidents was held at all Metsä<br>Fibre mills.                            |  |  |  |  |
|               | Joutseno mill,<br>Finland   | Particle emissions to air from the lime kiln exceeded the permit limit in the bi-annual emission measurements due to a malfunctioning electrostatic precipitator.  | The electrostatic precipitator was repaired and the procest parameters adjusted. However, the emission levels stayed high towards the end of the year. Additional measures will be carried out in 2014.               |  |  |  |  |
|               | Kemi mill,<br>Finland       | Phosphorous emissions to water exceeded the permit limit in July due to the excess loading of phosphorous from the mill and internal loading from the plant's after-basin.   | The operation of the chemical recovery process was stabilised and phosphorous loading returned to normal.   |  |  |  |  |
| METSÄ WOOD    | Punkaharju mill,<br>Finland | The permit limits for COD and phosphorous emissions to water were exceeded in the 2 <sup>nd</sup> quarter of the year due to a peak in emissions resulting from exchanging the water in the log incubation basin.                                  | The amount of water in the system was increased and the emissions controlled with chemical precipitation. Discussions were held with the authorities on possible changes in the structure of the permit requirements. |  |  |  |  |





# WORK SAFETY IS OUR PRIORITY

Safety as a fundamental requirement applies to everything. It includes not just our working environment, but also the products we offer and the health of our employees, suppliers and partners. Ensuring a secure environment demands the continuous development and promotion of occupational safety and wellbeing at work along with the right attitude.

Preventive work is the most essential tool with which to secure a safe working environment. Metsä Group constantly educates its employees and management to create a healthy working environment for everyone. Safety reflects the overall quality of our operations.

Safety training is systematic and consistent, yet we aim to keep it customised as our employees are the best source of new ideas on how to develop the safety culture in their own

# SOLID LEADERSHIP AND INTERNAL COMMUNICATION ARE THE BEST TOOLS TO IMPROVE SAFETY.

operational environment. Also, Metsä Group carefully takes note of the employees' safety observations as they must be addressed immediately.

#### **▼ TARGET**

Zero lost-time accidents, to decrease lost-time accident frequency rate by 10% annually

To retain the sickness absenteeism rate below 3% at all times

#### A PROGRESS

13.2 in 2013 i.e. -16% compared to the previous year.

ness 4.0% in 2013.

Solid leadership and internal communication are the best tools with which to pay constant attention to safety matters. Aspiring targets and indicators press us to develop our preventive safety work and the ability to identify potential risks. In 2013, the lost-time accident frequency rate was 13.2 (15.7 in 2012), i.e. 16 % lower than the previous year.

#### **COMMENTS**

Business areas, together with Corporate Safety & Security and HR functions, are working closely with our personnel to reach the target of zero accidents. All units monitor safety statistics on a monthly basis.

In order to further improve our safety performance and to reach the level of zero accidents, we have carried out numerous actions and we will introduce a new HSE-tool in 2014.

An early intervention process is in place throughout the Group; additional actions to mitigate absenteeism have been taken at units with more than 5% absenteeism.

However, we still have room to improve our safety culture. In December 2013, one employee died after an accident at Punkaharju mill. The cause is currently under investigation. In addition, two other industrial safety accidents resulted in minor injuries in 2011; in 2013, the local courts have ordered the supervisors and foremen to pay day-fines. All

accidents were thoroughly investigated and actions were taken in order to prevent similar cases happening in the future.

There was also one serious incident in our supply chain. In January, a worker at Husum harbour was fatally injured during the docking of a ship that was transporting wood to the mill.

#### HEALTHY EMPLOYEES ARE OUR STRONGEST ASSET

When employees are healthy, motivated and satisfied, good results can be reached. Metsä Group wants to support its employees' work capacity throughout every phase of their working life. Our unified model includes early support, an assessment of work capacity and a personal work capacity development plan to ensure well-being for everyone every day.

#### **METSÄ GROUP SUPPORTS** ITS EMPLOYEES' WORK **CAPACITY IN EVERY PHASE** OF THEIR WORK LIFE.

This process safeguards a motivating work environment and facilitates equal treatment of all employees. In order to succeed, Metsä Group cooperates closely with occupational health care providers; moreover, our supervisors have been educated to identify potential situations that may risk the well-being of our employees. Our personnel have been very satisfied with the results.

Metsä Group also encourages its employees to take a proactive approach to their own health. For this reason, we constantly provide information on healthy eating and stress-preventive actions, among others. We also support recreational activities such as sports and culture.

#### WELL-BEING IS MONITORED THROUGH THE GROUP-WIDE TARGET

To ensure a healthy work environment, we have set a target to keep the sickness absenteeism rate at the best European level within the industry and below 3% at all times. In 2013, the rate was 4.0% (4.1%).

Local occupational health and safety committees play an important role in training and facilitating health and safety at the local level. These committees cover 100% of our employees in all main operating countries.

### **CONTINUOUS DEVELOPMENT IN** CORPORATE SAFETY AND SECURIT

Metsä Group believes that only by ensuring safety and security in every situation of our daily work we can aim for the best results. During 2013, Metsä Group has taken several steps to build up a more integrated approach to the Group's corporate safety and security practices. In particular, the focus has been on developing work safety at the mills, identifying good practices and applying them across the Group.

Metsä Group has introduced a new uniform model to measure overall corporate safety and security, to better compare the results and to recognise the prevailing issues that might need improvement. In addition, a system has been created to better observe and report possible accidents, injuries or general dangerous situations at the mills. This has strengthened our ability to prevent injuries and interruptions in production.

#### THE GROUP'S PERSONNEL DATA

|   | 2013   | 2012   | 2011   | 2010   | 2009   |
|---|--------|--------|--------|--------|--------|
| Number of employees 1)                            | 10,741 | 11,447 | 12,525 | 12,820 | 13,592 |
| Share of permanent employees, % 2)                | 94.3   | 94.0   | 94.2   | 94.0   | 95.0   |
| Average age, years <sup>2)</sup>                  | 44.4   | 44.1   | 43.8   | 43.5   | 44.0   |
| Average years served, years <sup>2)</sup>         | 16.7   | 16.3   | 15.6   | 15.2   | 16.8   |
| Employee turnover, % <sup>2) 3)</sup>             | 9.5    | 12.0   | 7.8    | 6.9    | 11.2   |
| Ration between men/women, % <sup>2)</sup>         | 78/22  | 78/22  | 79/21  | 81/19  | 81/19  |
| Share of women in management, % 4)                | 14.3   | 13.3   | 12.9   | 11.1   | 8.3    |
| Sickness absenteeism, % 5)                        | 4.0    | 4.1    | 4.4    | 4.2    | 4.3    |
| Work accident absenteeism, % 5)                   | 0.24   | 0.22   | 0.22   | 0.28   | 0.27   |
| Accident rate 6)                                  | 13.2   | 15.7   | 18.3   | 17.3   | 15.7   |
| Registered occupational diseases, no. of cases 7) | 2      | 2      | -      | -      | -      |
| Work related fatalities, no. of cases             | 1      | 1      | 1      | 1      | 1      |

not reported

or reported Full-time equivalent (FTE) on 31 December. The figures covered 99% of Metsä Group employees in 2010–2013. In 2008–2009 they covered 97% of employees. The figure includes all permanent leavers, also redundancies as a result of the resructuring of the businesses, and is calculated against the

4) Management includes Board 2013–2012.
5) % of potential working hours. ment includes Board of Directors, Executive Management Team and business areas' management teams. Change in calculation in

To potential morning notes.
 The lost-time accident 1 frequency rate includes all accidents at work that have resulted in at least one disability day. The LTA1 fr is calculated as accidents at work per million worked hours.
 The figures cover 85% of Metsä Group employees.

49%

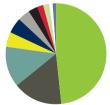
16%

5%

2%

#### THE GROUP'S PERSONNEL BY COUNTRY IN 2013

% ON 31 DEC 2013





#### THE GROUP'S PERSONNEL BY BUSINESS AREA IN 2013 ON 31 DEC 2013















In 2013, Metsä Group's overall situation stabilised after major re-structuring that was carried out during 2005–2012. In 2013, the focus was on developing operations further and securing future competences.



Many of our employees will retire in the coming few years. Plans for securing resources were made on a long-term basis and a recruitment training programme for blue-collar employees in Metsä Fibre started. Succession plans in all business areas have also been made.

Metsä Group promotes good employer practices to keep existing personnel and attract future potential. In 2013, we increased the cooperation with schools and universities in order to ensure that future employees know about career opportunities at Metsä Group.

We participated with other industry players in a nation-wide school campaign to promote the forest industry for 9th graders in Finland where we reached some 300 schools and about 20,000 pupils. We also took part in a Dialog project where students from vocational schools shared their views on their career expectations. In 2013, we offered over 900 summer jobs and internships.

At the end of 2013, Metsä Group had a total of 10,741 employees (11,447 in 2012), of whom 94% had permanent contracts. Part-

time employees accounted for 7% of all Metsä Group's personnel at the end of the year. As the roots of the company are in Finnish forestry and the majority of our operations are in Finland, almost half of our employees are based in Finland including a large group of senior management.

# WELL-BEING AT WORK WITH GOOD MANAGEMENT

Through effective management practices and leadership skills, such as personal development appraisals, we make sure that employees understand their responsibilities, have clear targets, get feedback on their performance and have an opportunity to discuss both their professional skills and development needs. We train our managers, supervisors and employees to understand and follow all our Group-wide policies and guidelines.

During 2013, common value-based principles for Metsä Group's management practices and leadership skills were defined. All Metsä Group's managers and supervisors will

be trained to implement these principles; the programme started with Metsä Fibre and Metsä Tissue. At the Group level, we continued the annual management development programme, Challenger, for the sixth time running. In addition, all business areas have their own training programmes in place for key personnel.

# CONTINUOUS LEARNING AND DEVELOPMENT IMPROVES JOB SATISFACTION

Metsä Group offers its employees the possibility to enhance their competences through training, internal job rotation and other learning opportunities. In addition to a large number of local training events, the Group's HRD function organised 94 training days attended by 791 employees.

The employee's annual personal development plan is made in the Personnel Development Appraisal (PDA). The PDA processes and practices for blue-collar employees vary and therefore PDA process harmonisation for blue-collar employees started in 2013 in pilot

units and will be phased-in Group-wide. In pilot units 94% of blue-collar employees held PDA discussion in 2013. In 2013, 94% of Metsä Group's white-collar employees in Finland and 86% abroad held PDA discussions. A Group-wide bonus system, of which the terms and target groups are decided by the Board of Directors annually, supports and motivates the personnel in reaching and surpassing agreed targets. In 2013, Metsä Group paid as salaries, wages and benefits including employee costs EUR 692 (710) million.

We post all job opportunities internally on our intranet site for all personnel. Our employees are encouraged to widen their work experience within the Group. The average years served in Metsä Group is 16.7 (16.3).

#### **OUR EMPLOYEES CAN ENHANCE THEIR COMPETENCES THROUGH** TRAINING AND JOB ROTATION.

#### CODE OF CONDUCT AND LABOUR RELATIONS

In all operating countries, Metsä Group conforms to the country-specific laws and agreements in terms of employment. Metsä Group's Code of Conduct and Sustainability Principles guide employees in the field of social responsibility, taking into consideration human rights and child or forced labour. Correspondingly, the Sustainability Principles state that our employees are free to associate with or join any union. In 2013, 98% of our employees in Finland were covered by collective bargaining agreements, of whom 74% were known to be members of trade

unions. Metsä Group applies country-specific collective bargaining agreements.

We promote equal opportunities and emphasise that discrimination may lead to disciplinary actions. It is the responsibility of each employee to report any discrimination. Any formal complaints will be systematically handled through the Group's Code of Conduct practices. One suspected case of discrimination was reported and investigated in 2013; however, it did not lead to any disciplinary actions.

We conduct a formal employee consultation process in our main operating countries. Metsä Wood's, Metsä Board's and Metsä Tissue's employee dialogue across European countries is developed through the European Works Council (EWC), a forum between management and employee representatives. During 2013, the most discussed themes were work safety and well-being at work. Organisational functionality results were also on the

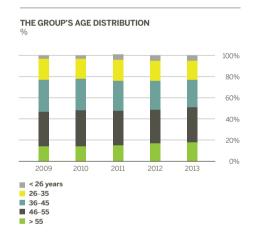
We meet with our labour union representatives regularly to discuss current situations and future plans in addition to meetings required by law. We comply with all local agreements and legislation in redundancy situations and assist those made redundant in finding new job opportunities with individual support.

The restructuring of our businesses affected a total of 2,607 employees during 2013, of whom 311 were made redundant and 155 contracts ended due to other reasons such as retirement, transfer of a business or the non-renewal of fixed-term contracts. Total of 657 employees were temporarily laid off in 2013. Two restructurings of business processes started during 2013 but they are still in-process. Total of 600 employees is affected by these restructurings. In addition, the restructuring which started in late 2012, made 33 employees redundant and 14 contract ended due to other reasons in 2013.

#### OUR GOAL IS A SATISFIED EMPLOYEE

In 2013, Metsä Group hired 206 new employees in Finland and 267 abroad. For all permanent, fixed-term and part-time employees we provide the benefits required by local legislation such as occupational health care, insurance against occupational diseases, parental leave and retirement benefits. In addition, we support our employees' recreation possibilities.

We continuously monitor employee satisfaction. In 2013, our employee satisfaction survey covered all business areas and included aspects of well-being at work and safety issues. The results are thoroughly analysed and appropriate development actions are implemented to support the Group and business areas reach their strategic goals. On a scale of 4 to 10, Metsä Group had an overall job satisfaction rating of 8.3 in 2013 (8.3) with a response rate of 73 % (82%).



#### **WELL-BEING INDICATORS BY BUSINESS AREA**

|   | Metsä Tissue |      | Metsä | Metsä Board |      | Metsä Fibre |      | Metsä Wood |      | Metsä Forest |      | Group |
|---|--------------|------|-------|-------------|------|-------------|------|------------|------|--------------|------|-------|
|   | 2013         | 2012 | 2013  | 2012        | 2013 | 2012        | 2013 | 2012       | 2013 | 2012         | 2013 | 2012  |
| Organisational functionality index                                | 8.3          | 4)   | 8.3   | 4)          | 8.4  | 8.45)       | 7.9  | 8.0        | 8.2  | 8.2 6)       | 8.3  | 8.3   |
| Organisational functionality research response rate, $\%$ $^{1)}$ | 72.0         | 4)   | 70.4  | 4)          | 79.1 | 78.2        | 65.8 | 81.6       | 87.5 | 92.8         | 73.1 | 82.0  |
| Sickness absenteeism, % 2)  | 4.8          | 4.8  | 3.9   | 3.9         | 4.1  | 4.2         | 4.4  | 4.9        | 2.1  | 2.1          | 4.0  | 4.1   |
| Work accident absenteeism, % 2)                                   | 0.2          | 0.2  | 0.3   | 0.2         | 0.1  | 0.3         | 0.3  | 0.3        | 0.2  | 0.1          | 0.2  | 0.2   |
| Accident rate 3)  | 7.5          | 11.3 | 12.2  | 13.2        | 8.4  | 7.7         | 26.8 | 32.4       | 6.5  | 2.3          | 13.2 | 15.7  |
| Registered occupational diseases, no. of cases                    | 0            | 1    | 1     | 1           | 0    | 1           | 0    | 0          | 0    | 0            | 2    | 2     |
| Work related fatalities, no. of cases                             | 0            | 1    | 0     | 0           | 0    | 0           | 1    | 0          | 0    | 0            | 1    | 1     |

Organisational functionality research covered 90% of Metsä Group's employees in 2013.
 Which is the lost-time accident 1 frequency rate includes all accidents at work that have resulted in at least one disability day. The LTA1 fr is calculated as accidents at work per million worked hours.
 Research was not conducted in 2012.

<sup>5)</sup> Data covers Metsä Fibre Finland (excluding Svir Timber) 6) Data covers Metsä Forest operations in Finland











Sustainability is an integral part of all our operations and products – we want to improve the quality of life of all our stakeholders and provide well-being for society as a whole.

#### 80 YEARS OF SUSTAINABLE FORESTRY

Metsä Group's parent company, Metsäliitto Cooperative, was founded 80 years ago in January 1934 to promote the export of Finnish wood. Today, the cooperative is owned by 123,000 Finnish forest owners. Its mission is to create value for its members and to provide them with a wide range of forest and nature services.

Metsä Group is a significant player in the Finnish forest economy: our ownermembers own approximately half of all Finnish privately-owned forests, amounting to 5.3 million hectares.

#### JOBS AND WELL-BEING IN COMMUNITIES

Most of Metsä Group's production units are located in remote areas, creating for example significant employment opportunities in local communities. We employ directly some 11,000 people, and indirectly tens of thousands through our partners, suppliers and subcontractors.



**MOST OF OUR PRODUCTION UNITS ARE LOCATED IN REMOTE AREAS CREATING** SIGNIFICANT EMPLOYMENT **OPPORTUNITIES IN LOCAL** COMMUNITIES.

# **A SQUIRREL'S TOUR - MEMORIES** IN NATURE FOR FAMILIES

Metsä Fibre Äänekoski mill and the local association of the Mannerheim League for Child Welfare arranged a fun-filled nature event for families in August where Serla 'squirrels' guided visitors along a nature trail organised by local guides. They learnt about pulp - what it looks and feels like, while the vounger visitors had to guess what pulp is made of...wood, milk or sand?

One of the most popular attractions along with grilling sausages - was the

chance to sit in a harvester's cabin and experience how it feels to control this huge machine

Altogether, 250 visitors enjoyed the event that was part of Tukikummit Foundation's activities. The purpose of these events is to show how everyday things, such as a camp fire or trip into nature, can be meaningful experiences to children and for adults to learn something about the forestry sector and the services it provides.

By creating job opportunities in rural areas, we support communities in providing services that might otherwise cease to exist.

We also understand our responsibility and the impact of our actions when we invest in existing facilities or new projects, for instance, or if we discontinue our operations. Open and continuous dialogue with our employees, local and regional authorities, partners and other stakeholders is vital.

#### SELECTED SUPPORT FOR YOUTH AND SUSTAINABILITY

Based on our Group-wide sponsorship and donation strategy, we focus on sponsoring sustainability initiatives, especially projects that aim to improve the well-being of children and young people. All support activities must also be in line with our business strategy and build a positive corporate image. Most activities are carried out at the local level in our operating countries.

In addition to monetary support, we participate in organising events and activities with local people and organisations. We do not sponsor political associations, religious organisations, motor sports or private individuals, including athletes.

#### WE FOCUS ON SPONSORING **SUSTAINABILITY INITIATIVES AND AIM TO IMPROVE THE WELL-BEING** OF CHILDREN AND YOUNG PEOPLE.

In 2013, our biggest initiative was the EUR 100,000 support to the 'Tukikummit' Foundation in Finland by Metsä Tissue's Serla brand. This collaboration, which aims at preventing social exclusion of unprivileged children and teens in Finland, will continue in 2014. Similar support activities have been carried out in Sweden, Poland, and Russia where we have granted support to youth clubs, deprived families and local schools.

In March 2013, Metsä Group's Kemi mill in Finland and the local taxi company were awarded for organising a theatre trip to 400 kindergarten children. The granted monetary prize given by Teatterijärjestöjen Keskusliitto was later forwarded to a local youth association that provides musical and theatrical performances in local retirement homes.

# METSÄ GROUP BALANCE

# **RAW MATERIAL USE** +1%

| RAW MATERIALS                        | 2013    | 2012    |
|--------------------------------------|---------|---------|
| WOOD-BASED RAW MATERIALS             |         |         |
| Wood (1,000 m <sup>3</sup> )         | 21,346  | 21,116  |
| Pulp (1,000 t)                       | 423     | 390     |
| Recovered paper (1,000 t)            | 256     | 287     |
| OTHER RAW MATERIALS (1,000 t)        |         |         |
| Pigments                             | 404     | 406     |
| Adhesives                            | 68      | 79      |
| PURCHASED ENERGY (GWh)               |         |         |
| Fuels                                | 3,992   | 4,583   |
| Fossil fuels                         | 3,342   | 3,900   |
| Biofuels                             | 649     | 683     |
| Electricity                          | 2,590   | 2,380   |
| Heat                                 | 337     | 200     |
| WATER INTAKE (1,000 m <sup>3</sup> ) | 301,707 | 258,000 |
| Surface water                        | 297,237 | 254,000 |
| Groundwater                          | 4,470   | 4,000   |

| PERSONNEL DATA              | 2013   | 2012   |
|-----------------------------|--------|--------|
| Number of employees         | 10,741 | 11,447 |
| Accident rate <sup>1)</sup> | 13.2   | 15.7   |
| Sickness absenteeism, %     | 4.0    | 4.1    |
| Organisational              |        |        |
| functionality index         | 8.3    | 8.3    |

Lost-time accident 1 frequency rate. Accidents at work per million worked hours.

#### ACCIDENT RATE



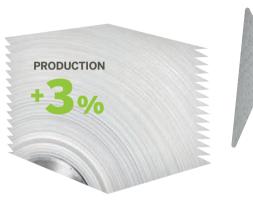






| EMISSIONS TO AIR (t)                             | 2013      | 2012      |
|--|-----------|-----------|
| Biogenic carbon dioxide (as CO <sub>2</sub> bio) | 7,070,458 | 6,884,288 |
| Fossil carbon dioxide (as CO <sub>2</sub> )      | 855,026   | 962,328   |
| Nitrogen oxides (as NO <sub>2</sub> )            | 6,482     | 6,432     |
| Sulphur (as SO <sub>2</sub> )                    | 2,160     | 1,681     |
| Particles  | 1,607     | 1,817     |





| PRODUCTS                            | 2013  | 2012  |
|-------------------------------------|-------|-------|
| Chemical and CTMP pulp (1,000 t)    | 3,546 | 3,471 |
| Board (1,000 t)                     | 1,174 | 1,090 |
| Paper (1,000 t)                     | 791   | 786   |
| Tissue and cooking papers (1,000 t) | 611   | 589   |
| Sawn timber (1,000 m³)              | 1,677 | 1,622 |
| Plywood (1,000 m <sup>3</sup> )     | 250   | 244   |
| Kerto® (1,000 m³)                   | 204   | 196   |
| Other upgrading products (1,000 m³) | 728   | 775   |
| By-products sold for energy         |       |       |
| production (GWh)                    | 1,914 | 2,166 |



| DISCHARGES TO WATER (t)                  | 2013    | 2012    |
|--|---------|---------|
| Waste water flow (1,000 m <sup>3</sup> ) | 145,307 | 149,096 |
| Chemical oxygen demand (COD)             | 42,934  | 43,629  |
| Total suspended solids                   | 3,660   | 3,161   |
| Biological oxygen demand (BOD)           | 1,228   | 2,107   |
| Nitrogen (N)                             | 624     | 637     |
| Phosphorus (P)                           | 54      | 50      |
| WASTE (t)                                |         |         |
| Recycled waste                           | 765,641 | 608,117 |
| Landfill waste                           | 76,151  | 81,435  |
| Hazardous waste                          | 1,256   | 2,021   |

# **SUSTAINABILITY DATA BY UNIT IN 2013**

#### METSÄ TISSUE

| Mill                 | Country  |                        | Country Personnel              |                                |  |                                 | Production (1,000 t) |                 | Mana         | gement sy      | Chain-of-Custody     |      |      |                        |
|----------------------|----------|------------------------|--------------------------------|--------------------------------|--|---------------------------------|----------------------|-----------------|--------------|----------------|----------------------|------|------|------------------------|
|                      |          | Number of employees 1) | Accident<br>rate <sup>2)</sup> | Sickness<br>absenteeism<br>%³) | Organisational<br>functionality<br>index <sup>4)</sup> | Tissue and<br>cooking<br>papers | ISO<br>9001          | ISO<br>14001    | ISO<br>50001 | OHSAS<br>18001 | ISO<br>22000/<br>BRC | PEFC | FSC* | CO <sub>2</sub><br>bio |
| Mänttä <sup>6)</sup> | Finland  | 366                    | 23.9                           | 5.2                            | 8.0  | 113                             | Х                    | X <sup>5)</sup> |              |                | Х                    | Х    | Х    | 0                      |
| Düren                | Germany  | 107                    | 4.8                            | 6.5                            | 8.1  | 20                              | Х                    | Х               | Х            | Х              | Х                    | Х    | Х    | 0                      |
| Kreuzau              | Germany  | 412                    | 4.4                            | 7.5                            | 8.4  | 148                             | Х                    | Х               | Х            | Х              | Х                    | Х    | Х    | 9,075                  |
| Raubach              | Germany  | 270                    | 2.2                            | 5.5                            | 8.7  | 50                              | Х                    | Х               | X            | Х              | Х                    | Х    | Х    | 0                      |
| Stotzheim            | Germany  | 299                    | 6.0                            | 7.3                            | 7.8  | 20                              | Х                    | X <sup>5)</sup> |              | Х              |                      | Х    | Х    | 0                      |
| Krapkowice           | Poland   | 295                    | 7.0                            | 3.7                            | 7.8  | 56                              | Х                    | Х               | Х            | Х              | Х                    | X    | Х    | 0                      |
| Žilina               | Slovakia | 325                    | 1.7                            | 2.0                            | 8.1  | 79                              | Х                    | X <sup>5)</sup> |              | Х              | Х                    | Х    | Х    | 0                      |
| Katrinefors          | Sweden   | 342                    | 0.0                            | 4.4                            | 8.1  | 75                              | Х                    | X <sup>5)</sup> |              |                |                      | X    |      | 0                      |
| Nyboholm             | Sweden   | 195                    | 15.3                           | 3.1                            | 8.5  | 26                              | X                    | X <sup>5)</sup> |              |                |                      | X    |      | 5,361                  |
| Pauliström 7)        | Sweden   | -                      | -                              | -                              | -  | 24                              | X                    | X <sup>5)</sup> |              |                |                      | X    |      | 10,701                 |
| Others 8)            |          | 226                    |                                |                                |  |                                 |                      |                 |              |                |                      |      |      |                        |
| Metsä Tissue Total   |          | 2,837                  | 7.5                            | 4.8                            | 8.3  | 611                             |                      |                 |              |                |                      |      |      | 25,137                 |

1) Full-time equivalent on 31 December 2013 2) Lost-time accident 1 frequency rate. Accidents at work per million worked hours. 3) % of potential working hours. 4) Organisational functionality indexes of Metsä Tissue mills are calculated based on responses of production personnel. 5) ISO 14001 standard includes the Energy Efficiency System (EES). 6) Includes Tissue and Baking and Cooking businesses. 7) Pauliström mill's personnel figures are included in Nyboholm mill's figures. 8) Includes personnel of Vorsino and others than mill locations. Personnel figures of Others are included in Metsä Tissue's total figures.

#### METSÄ BOARD

| METSA BOARD       |         |                        |                                |                                |                                    |                              |                       |             |                    |              |                |                      |      |                  |                        |  |
|-------------------|---------|------------------------|--------------------------------|--------------------------------|------------------------------------|------------------------------|-----------------------|-------------|--------------------|--------------|----------------|----------------------|------|------------------|------------------------|--|
| Mill              | Country |                        | Pe                             | ersonnel                       |                                    | Production (1,000 t)         |                       |             | Management systems |              |                |                      |      | Chain-of-Custody |                        |  |
|                   |         | Number of employees 1) | Accident<br>rate <sup>2)</sup> | Sickness<br>absenteeism<br>%³) | Organisational functionality index | Chemical<br>pulp and<br>CTMP | Board<br>and<br>paper | ISO<br>9001 | ISO<br>14001       | ISO<br>50001 | OHSAS<br>18001 | ISO<br>22000/<br>BRC | PEFC | FSC®             | CO <sub>2</sub><br>bio |  |
| Joutseno BCTMP    | Finland | 52                     | 11.1                           | 4.0                            | 8.8                                | 287                          |                       | Х           | Х                  | Х            | Х              | Х                    | Х    | Х                | 0                      |  |
| Kaskinen BCTMP    | Finland | 80                     | 36.5                           | 2.0                            | 8.2                                | 296                          |                       | Х           | Х                  |              | Х              |                      | Х    | X                | 116,440                |  |
| Kemi              | Finland | 103                    | 5.8                            | 3.9                            | 8.6                                |                              | 375                   | Х           | Х                  | Х            | Х              | Х                    | Х    | ×                | 0                      |  |
| Kyro              | Finland | 250                    | 11.8                           | 4.7                            | 8.0                                |                              | 218                   | Х           | Х                  | Х            | Х              | Х                    | Х    | X                | 0                      |  |
| Simpele           | Finland | 301                    | 9.4                            | 3.6                            | 8.4                                |                              | 251                   | Х           | Х                  | Х            | Х              | Х                    | Х    | Х                | 123,804                |  |
| Tako              | Finland | 202                    | 13.9                           | 4.8                            | 8.7                                |                              | 184                   | Х           | Х                  | Х            | Х              | Х                    | Х    | Х                | 0                      |  |
| Äänekoski Board   | Finland | 189                    | 0.0                            | 3.5                            | 8.4                                |                              | 216                   | Х           | Х                  | Х            | Х              | Х                    | Х    | ×                | 116,246                |  |
| Gohrsmühle        | Germany | 475                    | 19.1                           | 5.1                            | 8.3                                |                              | 47                    | Х           | Х                  | Х            | Х              | Х                    | Х    | X                | 0                      |  |
| Husum             | Sweden  | 842                    | 12.7                           | 3.6                            | 8.2                                | 666                          | 674                   | Х           | Х                  | Х            |                |                      | Х    | X                | 1,498,406              |  |
| Others 4)         |         | 622                    |                                |                                |                                    |                              |                       |             |                    |              |                |                      |      |                  | 3,508                  |  |
| Metsä Board Total |         | 3,116                  | 12.2                           | 3.9                            | 8.3                                | 1,249                        | 1,965                 |             |                    |              |                |                      |      |                  | 1,858,404              |  |

1) Full-time equivalent on 31 December 2013 2) Lost-time accident 1 frequency rate. Accidents at work per million worked hours. 3) % of potential working hours. 4) Includes personnel from sales and logistics operations, management and subsidiaries. Emissions and waste originate from Aanevoima's production of energy sold for external use. Personnel figures of Others are included in Metsa Board's total figures. 5) Not measured

#### METSÄ FIBRE

| Mill                 | Country |                        | Pe               | ersonnel                       |  | Prod  | uction                       | Management systems |                 |              |                |                      | Chain-of-Custody |      |                        |
|----------------------|---------|------------------------|------------------|--------------------------------|--|-------|------------------------------|--------------------|-----------------|--------------|----------------|----------------------|------------------|------|------------------------|
|                      |         | Number of employees 1) | Accident rate 2) | Sickness<br>absenteeism<br>%3) | Organisational<br>functionality<br>index <sup>4)</sup> | pulp  | Sawn<br>timber<br>(1,000 m³) | ISO<br>9001        | ISO<br>14001    | ISO<br>50001 | OHSAS<br>18001 | ISO<br>22000/<br>BRC | PEFC             | FSC* | CO <sub>2</sub><br>bio |
| Joutseno             | Finland | 133                    | 12.9             | 4.8                            | 8.3  | 604   |                              | Х                  | Х               | Х            | Х              | Х                    | Х                | Х    | 1,313,292              |
| Kemi                 | Finland | 169                    | 6.9              | 4.6                            | 8.5  | 564   |                              | X                  | Х               | X            | Х              | Х                    | Х                | X    | 1,303,905              |
| Rauma                | Finland | 120                    | 14.6             | 5.0                            | 8.0  | 612   |                              | X                  | Х               | Х            | Х              | Х                    | Х                | X    | 1,291,054              |
| Äänekoski            | Finland | 171                    | 11.0             | 4.6                            | 8.3  | 516   |                              | Х                  | Х               | Х            | Х              | Х                    | Х                | Х    | 981,334                |
| Svir                 | Russia  | 142                    | 3.6              | 2.6                            | 8.5  |       | 244                          | X                  | X <sup>5)</sup> |              | Х              |                      | Х                | Х    | 21,866                 |
| Others <sup>6)</sup> |         | 138                    |                  |                                |  |       |                              |                    |                 |              |                |                      |                  |      |                        |
| Metsä Fibre Total    |         | 873                    | 8.4              | 4.1                            | 8.4  | 2,297 | 244                          |                    |                 |              |                |                      |                  |      | 4,911,452              |

1) Full-time equivalent on 31 December 2013 2) Lost-time accident 1 frequency rate. Accidents at work per million worked hours. 3) % of potential working hours. 4) Organisational functionality index of Metsä Fibre Finnish mills are calculated based on responses of production personnel. 5) Svir Timber's ISO 14001 stardard includes the Energy Efficiency System (EES). 6) Includes personnel from sales operations, a subsidiary and management. Personnel figures of Others are included in Metsä Fibre's total figures.

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| Emissions    | to air (t)                    |  |           |       | Di   | scharges to wa | ter (t)  |                              | Water use (       | 1,000 m³)              | S         | olid waste ( | t)        | Mill                     |
|--------------|-------------------------------|--|-----------|-------|------|----------------|----------|------------------------------|-------------------|------------------------|-----------|--------------|-----------|--------------------------|
| CO<br>fossil | Sulphur<br>as SO <sub>2</sub> | Nitrogen<br>oxides<br>as NO <sub>2</sub> | Particles | COD   | BOD  | Phosphorus     | Nitrogen | Total<br>suspended<br>solids | Water<br>sourcing | Waste<br>water<br>flow | Recycling | Landfill     | Hazardous |                          |
| 13,204       | 0                             | 5.8                                      | 0         | 448   | 69   | 1.4            | 23       | 75                           | 5,257             | 5,261                  | 59,347    | 1,372        | 0         | Mänttä <sup>6)</sup>     |
| 34,397       | 0                             | 37                                       | 0         | 47    | 4.8  | 0.24           | 0        | 4.8                          | 968               | 479                    | 3,527     | 0            | 0.69      | Düren                    |
| 88,732       | 12                            | 95                                       | 0.25      | 396   | 17.9 | 0.90           | 0        | 18                           | 2,606             | 1,790                  | 107,720   | 7,639        | 4.5       | Kreuzau                  |
| 23,028       | 0                             | 20                                       | 0         | 3.0   | 4.5  | 0.23           | 0        | 4.5                          | 497               | 452                    | 39,844    | 0            | 87        | Raubach                  |
| 10,191       | 0                             | 1.9                                      | 0         | 43    | 2.2  | 0.11           | 0        | 2.2                          | 300               | 217                    | 1,839     | 21           | 1.2       | Stotzheim                |
| 21,291       | 0.70                          | 10                                       | 0.50      | 54    | 4.2  | 0.21           | 6.7      | 8.8                          | 819               | 708                    | 25,934    | 1,369        | 0         | Krapkowice               |
| 14,605       | 0                             | 7.2                                      | 0         | 159   | 10   | 0.51           | 0        | 10                           | 1,021             | 1,021                  | 55,106    | 11,639       | 2.9       | Žilina                   |
| 12,264       | 0                             | 5.4                                      | 0         | 317   | 74   | 0.52           | 16       | 14                           | 3,192             | 2,292                  | 77,332    | 0            | 3.0       | Katrinefors              |
| 11,437       | 2.5                           | 19                                       | 4.4       | 6.9   | 1.3  | 0.050          | 1.4      | 1.6                          | 299               | 299                    | 1,778     | 0            | 0.53      | Nyboholm                 |
| 6,461        | 0.40                          | 7.2                                      | 7.8       | 40    | 15   | 0.037          | 0.45     | 3.3                          | 274               | 273                    | 1,539     | 0            | 2.0       | Pauliström <sup>7)</sup> |
|              |                               |  |           |       |      |                |          |                              |                   |                        |           |              |           | Others 8)                |
| 235.609      | 15                            | 209                                      | 13        | 1,513 | 203  | 4.2            | 48       | 142                          | 15,233            | 12,793                 | 373,966   | 22,040       | 102       | Metsä Tissue Total       |

| Emissions                 | to air (t)                    |  |           |        | Di  | scharges to wa | ter (t)  |                              | Water use (       | 1,000 m³)              | S         | olid waste ( | t)        | Mill              |
|---------------------------|-------------------------------|--|-----------|--------|-----|----------------|----------|------------------------------|-------------------|------------------------|-----------|--------------|-----------|-------------------|
| CO <sub>2</sub><br>fossil | Sulphur<br>as SO <sub>2</sub> | Nitrogen<br>oxides<br>as NO <sub>2</sub> | Particles | COD    | BOD | Phosphorus     | Nitrogen | Total<br>suspended<br>solids | Water<br>sourcing | Waste<br>water<br>flow | Recycling | Landfill     | Hazardous |                   |
| 23,772                    | 0                             | 13                                       | 12        | 428    | 24  | 0.39           | 13.4     | 8.7                          | 5,738             | 622                    | 7,953     | 9.1          | 0         | Joutseno BCTMP    |
| 8,005                     | 104                           | 180                                      | 2         | 1.591  | 61  | 1.7            | 14       | 237                          | 9,828             | 3,628                  | 38,461    | 633          | 69        | Kaskinen BCTMP    |
| 5,684                     | 0                             | 2.5                                      | 0         | 283    | 27  | 1.0            | 39       | 85                           | 8,648             | 6,786                  | 7,506     | 932          | 18        | Kemi              |
| 5,999                     | 0                             | 3.0                                      | 0         | 246    | 29  | 0.48           | 16       | 76                           | 6,335             | 4,022                  | 41,686    | 58           | 18        | Kyro              |
| 85,058                    | 155                           | 159                                      | 1.4       | 340    | 25  | 1.3            | 14       | 40                           | 24,732            | 4,732                  | 22,532    | 140          | 43        | Simpele           |
| 70,690                    | 0                             | 68                                       | 0         | 130    | 60  | 0.94           | 0.81     | 27                           | 3,975             | 2,210                  | 4,996     | 321          | 82        | Tako              |
| 0                         | 6.1                           | 96                                       | 1.3       | 686    | 230 | 0.73           | 3.4      | 332                          | 4,039             | 3,230                  | 34,946    | 103          | 36        | Äänekoski Board   |
| 118,950                   | 265                           | 178                                      | 2.59      | 86     | 30  | 0.61           | 4.5      | 47                           | 3,167             | 3,268                  | 27,797    | 0            | 65        | Gohrsmühle        |
| 68,913                    | 411                           | 1,217                                    | 349       | 8,347  | _5) | 19             | 140      | 1284                         | 46,745            | 43,061                 | 64,378    | 7,338        | 3.0       | Husum             |
| 1,390                     | 3.0                           | 4.5                                      | 0.052     |        |     |                |          |                              |                   |                        | 6218      | 37           | 0.30      | Others 4)         |
| 388,461                   | 944                           | 1,920                                    | 368       | 12,137 | 486 | 26             | 245      | 2.136                        | 113,207           | 71,559                 | 256,473   | 9,572        | 334       | Metsä Board Total |

| Emissions                 | to air (t)                    |  |           |        | Discharges to water (t) |            |          | Water use (                  | 1,000 m³)         | S                      | olid waste ( | Mill     |           |                   |
|---------------------------|-------------------------------|--|-----------|--------|-------------------------|------------|----------|------------------------------|-------------------|------------------------|--------------|----------|-----------|-------------------|
| CO <sub>2</sub><br>fossil | Sulphur<br>as SO <sub>2</sub> | Nitrogen<br>oxides<br>as NO <sub>2</sub> | Particles | COD    | BOD                     | Phosphorus | Nitrogen | Total<br>suspended<br>solids | Water<br>sourcing | Waste<br>water<br>flow | Recycling    | Landfill | Hazardous |                   |
| 56,735                    | 351                           | 1,029                                    | 182       | 5,707  | 106                     | 5.6        | 83       | 234                          | 70,687            | 16,384                 | 19,744       | 11,693   | 31        | Joutseno          |
| 61,508                    | 205                           | 1,033                                    | 140       | 8,393  | 134                     | 6.5        | 126      | 400                          | 38,773            | 14,584                 | 72,862       | 0        | 52        | Kemi              |
| 45,637                    | 196                           | 1,082                                    | 208       | 10,260 | 133                     | 4.9        | 47       | 264                          | 19,470            | 14,500                 | 22,605       | 10,855   | 50        | Rauma             |
| 58,582                    | 431                           | 880                                      | 466       | 4,814  | 122                     | 6.1        | 72       | 461                          | 42,479            | 15,094                 | 2,322        | 14,415   | 44        | Äänekoski         |
| 141                       | 0.47                          | 22                                       | 22        | 49     | 6.7                     | 0.20       | 2.4      | 18.4                         | 239               | 393                    | 2,330        | 5,890    | 0.11      | Svir              |
|                           |                               |  |           |        |                         |            |          |                              |                   |                        |              |          |           | Others 6)         |
| 222,604                   | 1,183                         | 4,046                                    | 1,017     | 29,223 | 502                     | 23         | 331      | 1,378                        | 171,648           | 60,955                 | 119,863      | 42,853   | 177       | Metsä Fibre Total |

#### METSÄ WOOD

| Mill                       | Country Personnel Prod |                        | Production (1,00 | 00 m³)                                     | Management systems                 |                    |       | Chain-of-   | Custody                    |                 |      |      |                 |                           |
|----------------------------|------------------------|------------------------|------------------|--|------------------------------------|--------------------|-------|-------------|----------------------------|-----------------|------|------|-----------------|---------------------------|
|                            |                        | Number of employees 1) | Accident rate 2) | Sickness<br>absenteeism<br>% <sup>3)</sup> | Organisational functionality index | Wood products      |       | ISO<br>9001 | ISO<br>14001 <sup>4)</sup> | OHSAS<br>18001  | PEFC | FSC° | CO <sub>2</sub> | CO <sub>2</sub><br>fossil |
| Reopalu                    | Estonia                | 40                     | 0.0              | 2.2  | 8.0                                | sawn timber        | 76    |             |                            |                 |      | Х    | 8,324           | 72                        |
| Eskola                     | Finland                | 12                     | -                | -  | -                                  | sawn timber        | 58    |             | Х                          | Х               | X    | Х    | 0               | 0                         |
| Hartola                    | Finland                | 47                     | 85.3             | 2.8  | 7.8                                | glulam production  | 21    | Х           | Х                          |                 | X    |      | 212             | 0                         |
| Kaskinen TC and Thermowood | Finland                | 65                     | 19.6             | 2.6  | -                                  | further processing | 88    | Х           | Х                          | Х               | X    | Х    | 11,322          | 0                         |
| Kolho <sup>6)</sup>        | Finland                |                        |                  |  |                                    | further processing | 26    | Х           | Х                          | X               | X    |      | 0               | 425                       |
| Kyrö                       | Finland                | 74                     | 39.6             | 3.3  | 8.1                                | sawn timber        | 215   | Х           | Х                          | X               | X    | Х    | 21,161          | 542                       |
| Lappeenranta               | Finland                | 73                     | 30.5             | 5.0  | 8.0                                | sawn timber        | 228   | Х           | Х                          | Х               | X    | Х    | 23,061          | 0                         |
| Lohja                      | Finland                | 158                    | 24.8             | 6.4  | 7.7                                | Kerto®             | 92    | Х           | Х                          |                 | X    | Х    | 0               | 0                         |
| Merikarvia                 | Finland                | 78                     | 7.3              | 4.4  | 7.9                                | sawn timber        | 202   | Х           | Х                          | Х               | X    | X    | 24,425          | 789                       |
| Punkaharju                 | Finland                | 485                    | 43.5             | 6.0  | 7.9                                | plywood and Kerto® | 168   | Х           | Х                          | X <sup>5)</sup> | X    | Х    | 0               | 0                         |
| Renko                      | Finland                | 75                     | 22.5             | 4.1  | 8.4                                | sawn timber        | 298   | Х           | Х                          | Х               | X    | Х    | 28,239          | 139                       |
| Suolahti                   | Finland                | 455                    | 44.3             | 7.1  | 7.8                                | plywood            | 194   | Х           | Х                          | Х               | X    | Х    | 63,113          | 434                       |
| Vilppula                   | Finland                | 117                    | 21.1             | 3.2  | 8.2                                | sawn timber        | 351   | Х           | Х                          | Х               | X    | Х    | 65,442          | 4,903                     |
| Boulleville and Honfleur   | France                 | 122                    | 34.9             | 3.5  | -                                  | further processing | 102   |             |                            |                 | X    |      | 0               | 0                         |
| Casteljaloux               | France                 | 29                     | 0.0              | 1.4  | -                                  | further processing | 13    |             |                            |                 | X    |      | 3,120           | 0                         |
| Boston                     | Great Britain          | 286                    | 9.0              | 2.3  | -                                  | further processing | 252   | Х           | Х                          | Х               | X    | X    | 0               | 47                        |
| Grangemouth                | Great Britain          | 42                     | 0.0              | 1.6  | -                                  | further processing | 29    | Х           | Х                          | Х               | X    | ×    | 0               | 122                       |
| King's Lynn                | Great Britain          | 28                     | 8.2              | 1.3  | -                                  | further processing | 119   | Х           | Х                          | Х               | Х    | ×    | 0               | 124                       |
| Newport                    | Great Britain          | 27                     | 0.0              | 0.6  | -                                  | further processing | 35    | Х           |                            |                 |      |      | 0               | 569                       |
| Widnes                     | Great Britain          | 85                     | 11.5             | 3.3  | -                                  | further processing | 50    | Х           | Х                          | X               | X    | Х    | 0               | 0                         |
| Others 7)                  |                        | 192                    |                  |  |                                    |                    |       |             |                            |                 |      |      | 27,048          | 186                       |
| Metsä Wood Total           |                        | 2,490                  | 26.8             | 4.4  | 7.9                                |                    | 2,616 |             |                            |                 |      |      | 275,465         | 8,352                     |

 $Mets\"{a}\ Wood's\ emissions\ to\ water\ occur\ only\ in\ plywood\ production\ processes.\ St.\ Petersburg\ planing\ plant\ in\ Russia\ is\ not\ included\ in\ the\ figures\ above.$ 

#### METSÄ FOREST

| Country                |                        | Pers             | onnel                          |                                    | Wood procurement    | Manageme        | nt systems      | Chain-of- | Custody |
|------------------------|------------------------|------------------|--------------------------------|------------------------------------|---------------------|-----------------|-----------------|-----------|---------|
|                        | Number of employees 1) | Accident rate 2) | Sickness<br>absenteeism<br>%3) | Organisational functionality index | 1,000 m³            | ISO<br>9001     | ISO<br>14001    | PEFC      | FSC*    |
| Estonia                | 28                     | 0.0              | 0.7                            | 8.5                                | 1,386               | Х               | Х               | X         | Х       |
| Finland                | 580                    | 9.4              | 1.9                            | 8.2                                | 22,000              | Х               | Х               | X         | Х       |
| Latvia                 | 46                     | 0.0              | 1.2                            | 8.3                                | 1,451               | X               | Х               | Х         | Х       |
| Russia, St. Petersburg | 19                     | 0.0              | -                              | -                                  |                     | X <sup>4)</sup> | X <sup>5)</sup> | Х         | X       |
| Russia, Podporozhye    | 244                    | 2.2              | 3.1                            | 8.2                                | 2,590 <sup>6)</sup> | X <sup>4)</sup> | X               | Х         | X       |
| Sweden                 | 2                      | -                | -                              | -                                  | 2,031               | X               | X               | Х         | X       |
| Others                 |                        |                  |                                |                                    | 170 7)              |                 |                 |           |         |
| Metsä Forest Total     | 919                    | 6.5              | 2.1                            | 8.2                                | 29,628              |                 |                 |           |         |

<sup>1)</sup> Full-time equivalent on 31 December 2013 2) Lost-time accident 1 frequency rate. Accidents at work per million worked hours. 3) % of potential working hours. 4) Included in Metsäliitto Cooperative's quality systems (ISO 9001). 5) Included in Metsäliitto Cooperative's environmental systems (ISO 14001). 6) Includes all wood procurement from Russia. 7) Includes wood from Lithuania.

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<sup>-</sup> Not reported
1) Full-time equivalent on 31 December 2013
2) Lost-time accident 1 frequency rate. Accidents at work per million worked hours.
3) % of potential working hours.
4) ISO 14001 standard includes the Energy Efficiency System (EES).
5) OHSAS concerns only plywood production.
6) Kolho's personnel figures are included in Kaskinen TC and Thermowood's figures.
7) Includes personnel from sales operations and management. Personnel figures of Others are included in Metsä Wood's total figures. Emissions and water use originate from Kumpuniemen Voima's production sold for the external use.

| Mill                       | t)        | olid waste (1 | Sc        | ,000 m³)               | Water use (1      |                              | er (t)   | charges to wat | Dis |     |           | s to air (t)                             | Emission                      |
|----------------------------|-----------|---------------|-----------|------------------------|-------------------|------------------------------|----------|----------------|-----|-----|-----------|--|-------------------------------|
|                            | Hazardous | Landfill      | Recycling | Waste<br>water<br>flow | Water<br>sourcing | Total<br>suspended<br>solids | Nitrogen | Phosphorus     | BOD | COD | Particles | Nitrogen<br>oxides<br>as NO <sub>2</sub> | Sulphur<br>as SO <sub>2</sub> |
| Reopalu                    | 6.5       | 0             | 0         | 0                      | 0                 | 0                            | 0        | 0              | 0   | 0   | 8.3       | 8.3                                      | 0.0053                        |
| Eskola                     | 0         | 1.2           | 0.70      | 0                      | 0.58              | 0                            | 0        | 0              | 0   | 0   | 0         | 0  | 0                             |
| Hartola                    | 9.6       | 11            | 80        | 0.20                   | 1.0               | 0                            | 0        | 0              | 0   | 0   | 0.21      | 0.21                                     | 0                             |
| Kaskinen TC and Thermowood | -         | 292           | 59        | 1.8                    | 16                | 0                            | 0        | 0              | 0   | 0   | 11        | 11                                       | 0                             |
| Kolho <sup>6)</sup>        | 7.7       | 20            | 12        | 0                      | 11                | 0                            | 0        | 0              | 0   | 0   | 0.27      | 0.55                                     | 1.4                           |
| Kyrö                       | 3.9       | 17            | 1,936     | 7.3                    | 8.7               | 0                            | 0        | 0              | 0   | 0   | 21        | 22                                       | 0.040                         |
| Lappeenranta               | 10.2      | 19            | 65        | 0.075                  | 153               | 0                            | 0        | 0              | 0   | 0   | 23        | 23                                       | 0                             |
| Lohja                      | 72        | 7.3           | 222       | 72                     | 83                | 0.25                         | 0.016    | 0.011          | 1.3 | 2.8 | 2.4       | 0  | 0                             |
| Merikarvia                 | 1.7       | 46            | 4,199     | 4.5                    | 6.1               | 0                            | 0        | 0              | 0   | 0   | 24        | 25                                       | 0.058                         |
| Punkaharju                 | 251       | 448           | 41        | 35                     | 55                | 1.9                          | 0.11     | 0.042          | 31  | 53  | 0         | 0  | 0                             |
| Renko                      | 8.7       | 4.4           | 2,390     | 5.3                    | 87                | 0                            | 0        | 0              | 0   | 0   | 28        | 28                                       | 0.010                         |
| Suolahti                   | 135       | 124           | 271       | 80                     | 434               | 2.6                          | 0.14     | 0.09           | 5.4 | 4.6 | 13        | 80                                       | 0.13                          |
| Vilppula                   | 6.5       | 71            | 3,820     | 0                      | 0.46              | 0                            | 0        | 0              | 0   | 0   | 68        | 71                                       | 16                            |
| Boulleville and Honfleur   | 52        | 227           | 0         | 0                      | 0                 | 0                            | 0        | 0              | 0   | 0   | 0         | 0  | 0                             |
| Casteljaloux               | 6.0       | 3.0           | 10        | 2.8                    | 2.8               | 0                            | 0        | 0              | 0   | 0   | 3.1       | 3.1                                      | 0                             |
| Boston                     | 49        | 156           | 1,799     | 0                      | 0                 | 0                            | 0        | 0              | 0   | 0   | 0         | 0.084                                    | 0                             |
| Grangemouth                | 16        | 55            | 162       | 0                      | 1.6               | 0                            | 0        | 0              | 0   | 0   | 0         | 0  | 0                             |
| King's Lynn                | 0         | 60            | 35        | 0                      | 0                 | 0                            | 0        | 0              | 0   | 0   | 0.017     | 0.17                                     | 0.0090                        |
| Newport                    | 8.0       | 85            | 11.0      | 6.7                    | 0                 | 0                            | 0        | 0              | 0   | 0   | 0.077     | 0.77                                     | 0.042                         |
| Widnes                     | 0         | 39            | 227       | 0                      | 0                 | 0                            | 0        | 0              | 0   | 0   | 0         | 0  | 0                             |
| Others 7)                  |           |               |           | 0                      | 760               |                              |          |                |     |     | 5.7       | 34                                       | 0.054                         |
| Metsä Wood Total           | 643       | 1,686         | 15,339    | 216                    | 1,620             | 4.7                          | 0.27     | 0.14           | 37  | 61  | 209       | 308                                      | 17                            |

# GRI INDEX

The Sustainability Report 2013 has been prepared according to the Global Reporting Initiative (GRI) G3 guidelines (version G3.1). We have selected those indicators most relevant to our operations, products and stakeholders. The table specifies also where you can find more information on GRI standard disclosures. We have self-declared our reporting to be Application Level A+ of the GRI G3.1 Guidelines. Mitopro Oy has externally assured our reporting and has confirmed it to be Application Level A+.

AR Metsä Group Annual Review 2013

FS Metsä Group Financial Statements 2013

SR Metsä Group Sustainability Report 2013

GRI core indicator

Fully reported

O Partially reported

#### **GRI TABLE**

| 1.   | STRATEGY AND ANALYSIS   | More information   | Reporting level |
|------|---|--|-----------------|
| 1.1  | Statement from the CEO  | SR p. 4–5, AR p. 2–3   | •               |
| 1.2  | Description of key impacts, risks and opportunities   | SR p. 4-8, 15, AR p. 10-11   | •               |
| 2.   | ORGANISATIONAL PROFILE  |  |                 |
| 2.1  | Name of the organisation  | SR and AR coverpages, FS p. 113  | •               |
| 2.2  | Primary brands, products and /or services   | SR p. 7, 16-19, AR p. 5, 12-23   | •               |
| 2.3  | Operational structure of the organisation   | SR p. 7, AR p. 24  | •               |
| 2.4  | Location of the headquarters  | SR and AR coverpages, FS p. 113  | •               |
| 2.5  | Countries where the organisation operates   | SR p. 56–57  | •               |
| 2.6  | Nature of ownership and legal form  | SR p. 7, FS p. 113   | •               |
| 2.7  | Markets served  | SR p. 56-57, AR p. 14-25, FS Note 3 p. 56  | •               |
| 2.8  | Scale of the reporting organisation   | SR p. 12–14, FS p. 41–96   | •               |
| 2.9  | Significant changes during the reporting period   | FS p. 30   | •               |
| 2.10 | Awards received in the reporting period   | SR p. 2–3  | •               |
| 3.   | REPORT PARAMETRES   |  |                 |
|      | Report profile  |  |                 |
| 3.1  | Reporting period  | 1 Jan—31 Dec 2013  | •               |
| 3.2  | Date of the previous report   | March 2013   | •               |
| 3.3  | Reporting cycle   | Annual   | •               |
| 3.4  | Contact point for questions   | SR inner front cover, sustainability@metsagroup.com  | •               |
|      | Report scope and boundary   |  |                 |
| 3.5  | Process for defining the content of the report  | SR p. 9-11, 15, 53-54  | •               |
| 3.6  | Boundary of the report  | SR p. 53–54, FS Note 1 p. 41–43  | •               |
| 3.7  | Limitations on the scope or boundary of the report  | SR p. 53–54  | •               |
| 3.8  | Basis for reporting on joint ventures, subsidiaries, leased facilities etc.   | FS Note 1 p. 41–43, 107–108  |                 |
| 3.9  | Data measurement techniques and the bases of calculations   | SR p. 53-54  |                 |
| 3.10 | Explanation of the effect of any re-statements of information   | SR p. 53–54  |                 |
| 3.11 | Significant changes in the scope, boundary or measurement methods applied   | No changes, SR p. 53-54  | •               |
|      | Assurance   |  |                 |
| 3.13 | External assurance for the report   | SR p. 55   | •               |
| 4.   | GOVERNANCE, COMMITMENTS AND ENGAGEMENT  |  |                 |
|      | Governance  |  |                 |
| 4.1  | Governance structure  | FS p. 113–118 Corporate Governance Statement   | •               |
| 4.2  | Position of the Chair of the Board of Directors   | FS p. 113–118 Corporate Governance Statement   | •               |
| 4.3  | Independent and/or non-executive directors on the Board of Directors  | FS p. 113-118 Corporate Governance Statement   | •               |
| 4.4  | Mechanisms for shareholders and employees to provide recommendations to the highest governance body $\frac{1}{2} \left( \frac{1}{2} \right) = \frac{1}{2} \left( \frac{1}{2} \right) \left( \frac{1}{$ | FS p. 113–118 Corporate Governance Statement   | •               |
| 4.5  | Executive compensation  | FS Salary and remuneration report p. 119–121; Executive remuneration is based on the Group-level and personal targets, which depend on the person's area of responsibility incl. issues related to sustainability. | •               |
| 4.6  | Ensuring processes to avoid conflicts of interest   | FS p. 113-118 Corporate Governance Statement   | •               |
| 4.7  | Determining the composition, qualifications and expertise of the members of the highest governance body and its comittees   | FS p. 113–118 Corporate Governance Statement   | •               |
| 4.8  | Statements of mission or values, codes of conduct and sustainability principles   | SR p. 8, 12–14   | •               |
| 4.9  | Procedures of the highest governance body for overseeing the organisation's identification and management of economic, environmental and social performance incl. relevant risks  | SR p. 12–14, FS p. 113–118 Corporate Governance<br>Statement   | •               |
| 4.10 | Processes for evaluating the highest governance body's own sustainability performance   | SR p. 12–14, FS p. 113–118 Corporate Governance<br>Statement   | •               |
|      | Commitments to external initiatives   |  |                 |
| 4.11 | Addressing the precautinary approach  | SR p. 4-8, 10, FS p. 113-118 Corporate Governance<br>Statement   | •               |
|      |   |  |                 |
| 4.12 | Externally developed sustainability charters, principles or other initiatives   | SR p. 9–11   | •               |

| 4.    | GOVERNANCE, COMMITMENTS AND ENGAGEMENT  | More information  | Reporting leve |
|-------|---|---|----------------|
| 4.14  | Stakeholder engagement List of stakeholder groups engaged by the organisation                     | SR p. 9–11  |                |
| 4.15  | Basis for the identification and selection of stakeholders  | SR p. 9–11  | •              |
| 4.16  | Approaches to stakeholder engagement  | SR p. 9–11  | •              |
| 4.17  | Responding to key topics and concerns resulting from stakeholder engagements                      | SR p. 4–5, 9–11   | •              |
|       | ECONOMIC INDICATORS (EC)  | 5Kp. 1 5,5 11   |                |
|       | MANAGEMENT APPROACH TO ECONOMIC RESPONSIBILITY  | SR p. 12–13   | •              |
|       | Economic performance  |   | _              |
| EC1   | Direct economic value generated and distributed   | FS Consolidated Statement of Comprehensive Income   | 0              |
|       |   | p. 37; Figures not presented in GRI table format.   | O              |
| EC2   | Risks and opportunities due to climate change   | SR p. 6–8   | •              |
| EC3   | Coverage of the organisation's defined benefit plan obligations                                   | FS Note 23 p. 75-78; Retirement Obligations; Financial reporting is prepared in accordance with the International Financial Reporting Standards (IFRS).   | •              |
| EC4   | Significant financial assistance received from the government                                     | SR p. 36-37, FS Note 6 p. 58; No governmental support for investments in 2013.  | •              |
|       | Market presence   |   |                |
| EC6   | Policy, practices and the proportion of spending on locally-based suppliers                       | SR p. 22–27   |                |
| EC7   | Procedures for local hiring and proportion of senior management hired from the local community    | SR p. 40-41; Group-wide policy for local hiring does not exist.   | 0              |
|       | Indirect economic impacts   |   |                |
| EC8   | Development and impact of infrastructure investments and services                                 | SR p. 42–43; Due to developed infrastructure in our operating countries, no major in-kind or pro bono investments have been made in 2013.   | 0              |
| EC9   | Indirect economic impacts   | SR p. 9-11, 42-43   | 0              |
|       | ENVIRONMENTAL INDICATORS (EN)   |   |                |
|       | MANAGEMENT APPROACH ENVIRONMENTAL RESPONSIBILITY  Materials                                       | SR p. 12-14   | •              |
| EN1   | Materials used  | SR p. 44  |                |
| EN2   | Percentage of materials used that are recyled input materials                                     | SR p. 44  |                |
|       | Energy  | - CA P. 1.1   |                |
| EN3   | Direct energy consumption   | SR p. 28–31   |                |
| EN4   | Indirect energy consumption   | SR p. 28–31   | •              |
| EN5   | Energy saved due to conservation and efficiency improvements                                      | SR p. 28–31   | •              |
| EN6   | Renewable energy-based products   | SR p. 16–21, 28–31, AR p. 12–23   | •              |
| EN7   | Initiatives to reduce indirect energy consumption and reductions achieved                         | SR p. 28–31   | •              |
|       | Water   | 5.K.p. 20 01  |                |
| EN8   | Water usage by source   | SR p. 32–33, 44–49  | •              |
| EN9   | Water sources significantly affected by the withdrawal of water                                   | SR p. 32–33   | •              |
| EN10  | Percentage and total volume of water recycled and reused water                                    | SR p. 32-33; Amount of recycled water not disclosed.  | 0              |
|       | Biodiversity  |   |                |
| EN11  | Location and size of protected areas and areas of high biodiversity value outside protected areas | SR p. 22–25   |                |
| EN12  | Significant impacts of activities, products and services on biodiversity                          | SR p. 2, 22–25  | •              |
| EN13  | Protected or restored habitats  | SR p. 22–25   | •              |
| EN14  | Managing impacts on biodiversity (incl. engagement with relevant stakeholders)                    | SR p. 2–5, 9–11   | •              |
|       | Emissions, effluents and waste  | ·   |                |
| EN16  | Total direct and indirect greenhouse gas emissions  | SR p. 28-31   |                |
| EN17  | Other relevant indirect greenhouse gas emissions by weight  | SR p. 28–31; Currently Metsä Group does not have sufficient data for calculating the Group-wide emissions from producing and transporting the main raw materials (Scope 3 in the GHG Protocol). | 0              |
| EN18  | Reduction of greenhouse gas emissions   | SR p. 28–31   | •              |
| EN19  | Emissions of ozone-depleting substances by weight   | Not relevant in Metsä Group's operations as ozone depleting substances are related to energy production and are emitted   | •              |
| EN20  | NOx, SOx and other significant air emissions  | only in a very limited extent.  SR p. 44–49   | •              |
| EN21  | Nox, Sox and other significant air emissions  Water discharges                                    | SR p. 44–49   | •              |
| EN22  | Waste by type and disposal method   | SR p. 34–35, 44–49  |                |
| EN23  | Total number and volume of significant spills   | SR p. 36–37   | •              |
| EN24  | Transported, imported, exported or treated hazardous waste  | Not relevant for Metsä Group operations.  | •              |
| EN25  | Water bodies and related habitats affected by the discharges of water                             | SR p. 22–25, 32–33  | •              |
|       | Products and services   |   |                |
| EN26  | Initiatives to mitigate the environmental impacts of products                                     | SR p. 2-3, 16-21  |                |
| EN27  | Percentage of products and their packaging materials that are reclaimed by category               | SR p. 20–21, 34–35; All the Group's products are recyclable or biodegreable. Paper and board recycling is organised by local municipalities and no exact data related to this is available.     | 0              |
|       | Compliance  | aopairides and no exact data related to this is available.  |                |
| EN28  | Fines and sanctions for non-compliance with environmental laws and regulations                    | SR p. 36–37   |                |
| -1420 | Transport   | омр. 00-07  |                |
| EN29  | Environmental impacts of transportation   | SR p. 27–31   |                |
| L1123 | Overall   | οιτ p. 27 = 01  |                |
| EN30  |   | SR n 36_37 FS n 32_35 FS Note 24 n 79 FS Note 26 n 05   | •              |
| EN30  | Environmental expenditures and investments  | SR p. 36–37, FS p. 32–35, FS Note 24 p. 78, FS Note 36 p. 95  |                |

|      | INDICATORS FOR LABOR PRACTICES AND DECENT WORK (LA)   | More information  | Reporting lev |
|------|---|---|---------------|
|      | MANAGEMENT APPROACH TO LABOR PRACTICES  | SR p. 12–14   |               |
|      | Employment  |   |               |
| LA1  | Breakdown of workforce  | SR p. 39–41, 46–49. The Group, business areas and mill-level data reported. The regional breakdown by gender is not considered as material. | •             |
| LA2  | Employee turnover   | SR p. 39–41. Breakdown of new hires by age and gender not considered as material.   | •             |
| LA3  | Employee benefits   | SR p. 40-41   | •             |
| LA15 | Return to work after parental leave   | Not material as the work contracts continue unchanged after the parental leave.   | •             |
|      | Labour/management relations   |   |               |
| LA4  | Collective bargaining agreements  | SR p. 40-41   |               |
| _A5  | Minimum notice period(s) regarding operational change   | SR p. 40-41   | •             |
|      | Occupational health and safety  |   |               |
| LA6  | Workforce represented in formal joint management health and safety programs   | SR p. 38-41   | •             |
| LA7  | Rates of injury, occupational diseases, lost days and fatalities  | SR p. 38–41, 44–49; Business area breakdown provided, geographical breakdown not considered as material.                                    | •             |
| _A8  | Education, training, counselling, prevention and risk-control programs  | SR p. 38–41; Not material in Metsä Group's operations.  | 0             |
|      | Training and education  |   |               |
| LA10 | Average hours of training   | SR p. 38–41; The training of employees is reported in days per year. Only trainings organised by Metsä Group's HRD function are reported.   | 0             |
| LA11 | Programs for skill management and lifelong learning   | SR p. 40-41   | •             |
| LA12 | Employees receiving regular performance and career development reviews  Diversity and equal opportunity   | SR p. 40-41   | •             |
| LA13 | Composition of governance bodies and breakdown of employees   | SR p. 39–41, FS p. 124–125  |               |
|      | Equal remuneration for women and men  | 0((p. 00 +1,10 p. 12+ 120   |               |
| LA14 | Ratio of basic salary and remuneration of women to men  | SR p. 39; The ratio not reported. A Group-level comparison is not possible to obtain.   | 0             |
|      | HUMAN RIGHT INDICATORS (HR)   |   |               |
|      | MANAGEMENT APPROACH TO HUMAN RIGHTS   | SR p. 12-15   | •             |
|      | Investment and procurement practices  | ·   |               |
| HR1  | Percentage of significant investment agreements and contracts that include clauses incorporating human rights concerns  | SR p. 26; No investments with significant human rights impacts in 2013.   | 0             |
| HR2  | Significant suppliers and other business partners screening for human rights  | SR p. 26  | •             |
| HR3  | Employee training on human rights   | SR p. 12–14, 40–41; No data available on the number of hours devoted to training.   | 0             |
|      | Non-discrimination  |   |               |
| HR4  | Incidents of discrimination and corrective actions taken  | SR p. 40-41   |               |
| HR5  | Freedom of association and collective bargaining  Operations and significant suppliers identified for the risk of not to exercise freedom of association or                 | SR p. 10, 26; No geographical risk assessment currently   | 0             |
|      | collective bargaining   | available.  |               |
| HR6  | Child labour  Operations and significant suppliers identified as having significant risk for incidents  | SR p. 10, 26; No geographical risk assessment currently   | 0             |
|      | of child labour and measures taken to eliminate it  | available.  |               |
| HR7  | Forced and compulsory labour  Operations and significant suppliers identified as having significant risk for forced or compulsory labour and measures taken to eliminate it | SR p. 10, 26; No geographical risk assessment currently available.  | 0             |
|      | Indigenous rights   |   |               |
| HR9  | Incidents of violations involving rights of indigenous people and actions taken   | Metsä Group's operations have no significant impact on the rights of indigenous people. No incidents detected in 2013.                      | •             |
|      | Assessment  |   |               |
| HR10 | Percentage of operations that have been subject to human rights reviews   | Metsä Group's operations are located in nine European countries. Not material to Metsä Group's operations.                                  | 0             |
|      | Remediation   |   |               |
| HR11 | Grievances related to human rights field  | No reported grievances related to human rights in 2013.   | •             |
|      | SOCIETY INDICATORS (SO)   |   |               |
|      | MANAGEMENT APPROACH TO SOCIETY  | SR p. 9–14, 42–43   |               |
| 201  | Local communities   | CD = 40, 42 No Orecon with  |               |
| 501  | Management of impacts on communities in areas affected by activities  | SR p. 40–43; No Group-wide community engagement or impact assessment programmes available.  | 0             |
| SO9  | Operations with negative impacts on local communities   | SR p. 40–43   |               |
| SO10 | Prevention and mitigation measures implemented in operations with negative impacts on local communities   | SR p. 40–43   | •             |
|      | Corruption  |   |               |
| SO2  | Percentage of business units analysed for risks related to corruption   | SR p. 6–8, 12–14, FS Corporate Governance Statement p. 113–118; Corruption is included in the Internal Audit's risk assessment procedures.  | 0             |
| S03  | Employees trained in organisation's anti-corruption policies and procedures   | SR p. 12–14   | •             |
| SO4  | Actions taken in response to incidents of corruption  | SR p. 12–14   | •             |
| /    |   |   |               |

|     | SOCIETY INDICATORS (SO)   | More information   | Reporting leve |
|-----|---|--|----------------|
|     | Public policy   |  |                |
| S05 | Participation in public policy development and lobbying   | SR p. 11   |                |
| S06 | Contributions to political parties, politicians and related institutions  | SR p. 42–43. No political contributions in 2013.                           | •              |
|     | Anti-competitive behaviour  |  |                |
| S07 | Anti-trust and monopoly court cases   | SR p. 13, FS Report of the Board of Directors p. 34–35, FS Note 3 p. 92–93 | •              |
|     | Compliance  |  |                |
| S08 | Sanctions for non-compliance with laws and regulations  | SR p. 13   |                |
|     | PRODUCT RESPONSIBILITY INDICATORS (PR)  |  |                |
|     | MANAGEMENT APPROACH TO PRODUCT RESPONSIBILITY   | SR p. 20–21  |                |
|     | Consumer health and safety  |  |                |
| PR1 | Product safety  | SR p. 20–21  | •              |
| PR2 | Total number of incidents of non-compliance with regulations and voluntary codes concerning product safety                    | No incidents reported in 2013.   | •              |
|     | Product and service labelling   |  |                |
| PR3 | Product information   | SR p. 20–21  |                |
| PR4 | Non-compliance with regulations and voluntary codes concerning product information  | No incidents reported in 2013.   | •              |
| PR5 | Practices related to customer satisfaction  | SR p. 9–11, AR p. 12–23  | •              |
|     | Marketing communications  |  |                |
| PR6 | Programmes for adhere to laws, standards and voluntary codes related to marketing communications                              | SR p. 20-21  | •              |
| PR7 | Non-compliance with regulations and voluntary codes on marketing communications   | SR p. 20–21  | •              |
|     | Customer privacy  |  |                |
| PR8 | Number of complaints regarding breaches of customer privacy and losses of customer data                                       | No incidents reported in 2013.   | •              |
|     | Compliance  |  |                |
| PR9 | Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products | No incidents reported in 2013.   | •              |

# **SCOPE OF THE REPORT**

Metsä Group comprises Metsä Tissue, Metsä Board, Metsä Wood, Metsä Fibre and Metsä Forest. This report covers the whole Group, including the production, warehousing and sales units of the business areas. Sustainability reporting follows the same principles of consolidation as our Financial Statements.

Metsä Group reports its sustainability performance at the Group, business area and product levels. The Sustainability Report 2013 has been prepared according to the Global Reporting Initiative (GRI) guidelines (version 3.1). We have selected the indicators that are the most relevant to our operations, products and stakeholders based on the materiality analysis, an assessment of the most significant sustainability issues for the company and its stakeholders. The report also 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 2013 presents Metsä Group's approach to sustainability management and detailed performance indicators. The Annual Report 2013 includes a summary of the Group's sustainability work. Furthermore, the subsidiaries Metsä Board and Metsä Fibre publish individual annual reports in which their sustainability work is presented in brief.

The sustainability performance data in this report and claims based on the data have been externally assured by an independent third party, Mitopro Oy. Read more about the assurance process in the assurance report on page 55.

#### DATA MEASUREMENT TECHNIQUES

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 not included. 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 and calculated assuming 40% energy efficiency for purchased electricity production and 85% energy efficiency for purchased heat production.

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 is 1 and for NO<sub>v</sub> 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  $NO_v$  0.0041. The greenhouse effect only consists of carbon dioxide emissions and has a coefficient of 1. The following CO<sub>2</sub> emission coefficients have been used for fossil fuels: heavy fuel oil 279 kg CO<sub>2</sub>/MWh; light fuel oil 267 kg CO<sub>2</sub>/ MWh; natural gas 202 kg CO<sub>2</sub>/MWh; liquefied petroleum gas 227 kg CO<sub>2</sub>/MWh; coal 341 kg CO<sub>2</sub>/MWh; peat 381 kgCO<sub>2</sub>/MWh; and waste fuel according its specific content at each site.

In mill-specific data, discharges from wastewater plants serving several mills are allocated to mills using the methodology explained above. Emissions from power plants separate to mill units are also 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.

In 2013, the figures for BOD emissions do not include those from Husum mill. The measurement is not required by the authorities and is thus not taken anymore.

Waste volumes are reported including the 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 channelled to temporary storage and how much is taken from there each year. The storage provides two alternatives for total waste production: the volume generated by the mills and the volume chan-

nelled to final disposal from both the mills' processes (not including the volume led to temporary storage) and from the temporary storage. In 2013, some 845,000 tonnes were generated by the mill processes and some 843,000 tonnes were led to final disposal.

Part of the  $\rm CO_2$  from Äänekoski pulp mill is used to produce PCC at the site. Until 2012, this was shown as an emission reduction for the mill. From 2013, the emission is not reduced from the pulp mill's emissions.

#### TECHNIQUES IN MEASURING HR DATA

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

- The coverage of the employee data was 99% of employees in 2010–2013 and 97% in 2009. Employee data excludes statistics from Hangö Stevedoring.
- However, the number of employees, sickness absenteeism, work accident absenteeism and lost-time accident 1 frequency rate (LTA1 fr) cover 100% of the employees. The number of employees is reported as full-time equivalent (FTE). The sickness absenteeism % and work accident absenteeism % are calculated per potential working hours. The LTA1 fr includes all accidents at work that have resulted in at least one disability day. The LTA1 fr is calculated as accidents at work per million worked hours. Only accidents involving Metsä Group's personnel are included in the LTA1 fr indicator.
- The organisational functionality index is based on the results of the internal organisation functionality studies. The studies reflect the 26 defined Group-level topics that affect the functionality of the organisation, Metsä Tissue has its own four additional topics, from which the overall level of organisational functionality is calculated for each company on a scale of four to ten. The organisational functionality research is conducted for 90% of the employees.
- The registered occupational disease data covers 85% of employees. The figures cover all employees in other production countries excluding Sweden.

- The share of women in management includes women in the Board of Directors, the Executive Management Team and the business areas' management teams at the end of the year. Change in caluculation in 2012–2013.
- New entries include only new permanent employees. Leavers include only permanent employees who left Metsä Group.
   Employee turnover includes all permanent leavers, also redundancies as a result of the restructuring of the businesses, and is calculated against the average permanent head count.

# INDEPENDENT EXPERT REVIEW

#### TO THE MANAGEMENT AND STAKEHOLDERS OF METSÄ GROUP

#### SCOPE AND OBJECTIVES

The Management of Metsä Group commissioned us to prepare an independent expert review for the Metsä Group Sustainability Report 2013 ("the Report"). We have duly performed an independent expert review, the objective of which

- the selection of the most important topics for the Report;
- the presentation of material topics and responses to stakeholders' interests;
- the reliability of performance information presented in the Report according to the Reporting Principles for defining Quality in the Global Reporting Initiative Guidelines 3.1; and
- the GRI application level of the Report.

#### 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 an independent reviewer is to express a conclusion based on our work performed. The criteria used for our assessment include the Global Reporting Initiative Guidelines 3.1 and Metsä Group's own internal reporting guidelines.

#### REVIEWER'S INDEPENDENCE AND COMPETENCE

We have conducted our review as independent and impartial from the reporting organization. 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 and reporting experts, who have the necessary skills to perform a review.

#### BASIS OF OUR OPINION

Our opinion is based on the following procedures performed:

- Interviews with ten 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 and the responsiveness to stakeholder con-
- Peer review of sustainability reporting to compare Metsä Group's reporting against industry best practices.
- 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 Wood Renko sawmill in Finland and Metsä Tissue Krapkowice mill in Poland.

#### CONCLUSIONS

MATERIAL TOPICS AND STAKEHOLDER INTERESTS

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 response 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. It is our opinion that the Report gives a fair and balanced view on the material topics and stakeholder interests.

#### 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 APPLICATION LEVEL**

The Report corresponds to the GRI application level A+.

#### OBSERVATIONS AND RECOMMENDATIONS

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

- In Metsä Group, there is a solid foundation for sustainability with competent people and integration to management. Operational sustainability through tangible actions and targets is a strength of Metsä Group. Metsä Group is well positioned to meet growing stakeholder requirements for sustainability. We encourage Metsä Group to utilize this opportunity even better in its business development when anticipating the future.
- Metsä Group has made progress towards the Group-level sustainability targets. Metsä Group has made significant development in the reductions of fossil carbon emissions, increasing the share of bioenergy and the coverage of certified wood in operations. There is also a notable development in occupational health and safety performance, but further improvements are still needed. Some of the Group-level targets are now revised, but there is still room for more challenging targets covering the whole value chain from the forest to the customer.
- Metsä Group has developed further its processes on stakeholder engagement and gathering weak signals on megatrends potentially having impact on the company. This is supporting the future sustainability agenda and preparedness to changes in external environment. We encourage Metsä Group to further intensify this kind of stakeholder dialogue and also utilizing the existing stakeholder engagement channels even better for sustainability management purposes.

Helsinki, Finland, 25th February 2014 Mitopro Oy

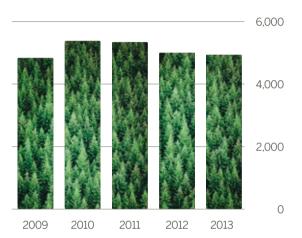
Mikael Niskala Independent Sustainability Expert

Tomi Pajunen Independent Sustainability Expert

# METSÄ GROUP IN FIGURES

Metsä Group is a Finnish forest industry company operating 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.

#### **SALES** EUR MILLION





# **METSÄ GROUP**

SALES TOTAL 4-9 EUR BILLION

PERSONNEL TOTAL 11,000

#### **METSÄLIITTO COOPERATIVE**

GROUP'S PARENT COMPANY

OWNED BY 123,000 FINNISH FOREST OWNERS

#### METSÄ TISSUE

#### TISSUE AND COOKING PAPERS

SALES EUR 1.0 BILLION

PERSONNEL

2,800

OWNERSHIP OF METSÄLIITTO COOPERATIVE 91%

#### METSÄ BOARD

# PAPERBOARD

SALES EUR 2.0 BILLION

PERSONNEL 3,100

OWNERSHIP OF METSÄLIITTO COOPERATIVE 42.8% (HOLDING OF VOTES 62.2%)

#### METSÄ FIBRE

## PULP

SALES EUR 1.3 BILLION

PERSONNEL 900

OWNERSHIP OF METSÄLIITTO COOPERATIVE 50.2%, METSÄ BOARD 24.9%, ITOCHU CORPORATION 24.9%

#### METSÄ WOOD

## WOOD PRODUCTS

SALES EUR 0.9 BILLION

PERSONNEL 2,500

OWNERSHIP OF METSÄLIITTO COOPERATIVE 100%

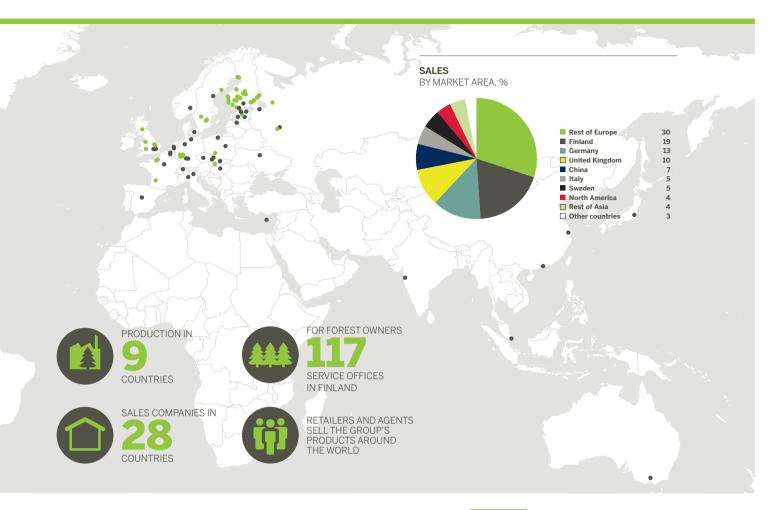
#### METSÄ FOREST

## WOOD SUPPLY AND FOREST SERVICES

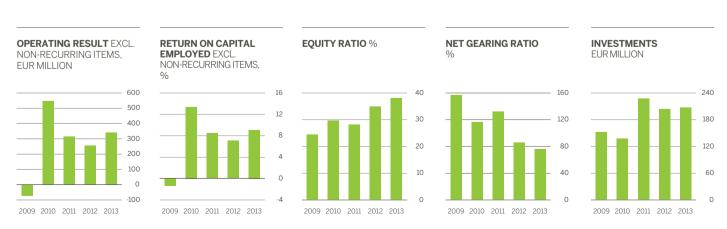
SALES EUR 1.6 BILLION

PERSONNEL 900

OWNERSHIP OF METSÄLIITTO COOPERATIVE 100%



| KEY FIGURES  | 2013   | 2012   | 2011   | 2010   | 2009   |
|--|--------|--------|--------|--------|--------|
| Sales, EUR million                                       | 4,932  | 5,001  | 5,346  | 5,377  | 4,837  |
| Operating result, EUR million                            | 334    | 241    | 29     | 497    | -169   |
| Operating result, excl. non-recurring items, EUR million | 342    | 256    | 314    | 547    | -75    |
| Return on capital employed, %                            | 8.9    | 6.7    | 1.1    | 11.8   | -3.3   |
| Return on capital employed, excl. non-recurring items, % | 9.1    | 7.1    | 8.5    | 13.4   | -1.4   |
| Equity ratio, %  | 38.1   | 34.8   | 28.1   | 29.7   | 24.5   |
| Net gearing ratio, %                                     | 76     | 86     | 132    | 116    | 157    |
| Investments, EUR million                                 | 207    | 204    | 227    | 138    | 152    |
| Personnel, 31 December                                   | 10,741 | 11,447 | 12,525 | 12,820 | 13,592 |
| Share of certified wood, %                               | 82     | 82     | 81     | 80     | 78     |
| Lost-time accident rate, per million worked hours        | 13.2   | 15.7   | 18.3   | 17.3   | 15.7   |
| Fossil CO <sub>2</sub> emissions, 1,000 tonnes           | 855    | 962    | 1,200  | 1,251  | 1,384  |







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