



MAKING
CERTIFICATION
SMART

PEFC Forest Certification Week

Helsinki • Finland • 13-17 November 2017

FIELD TRIP
16.-17.11.2017

Suomi
Finland
100

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Partners of the Field Trip

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Suomi
Finland
100

PEFC WEEK 2017 IS PART OF THE
PROGRAMME FOR THE CENTENARY OF
FINLAND'S INDEPENDENCE IN 2017

Welcome to Central Finland!

Getting out of the hotel and into the forest will give us the perfect opportunity to learn more about some of the SMART technologies currently leading the way in Finnish forest sector.

On this trip, we will get a first-hand introduction to family-owned and small-scale forestry in Finland, along with the management of PEFC group certification and we will enjoy an exclusive visit to the new Metsä Group's bioproduct mill in Äänekoski. Not to mention enjoying the traditional food and culture of Finland!

On Thursday evening, we will arrive to the beautiful city of Jyväskylä, where we will stay the night in the Hotel Verso.

Friday will begin in the forest as we continue to discover new and emerging technologies. We will be focusing on sustainable forest management, regional group certification and Finnish nature. Bring your warm clothes, waterproof jacket and outdoor shoes with you as we will be walking in the forest!

For lunch, we will enjoy traditional Finnish made from local materials at Varjola restaurant.

In the afternoon, it will be time for the highlight of the field trip, a visit to the brand new Metsä Group's Äänekoski mill, the first next-generation bioproduct mill in the world.

Welcome to the field trip to Central Finland!





FIELD TRIP

16.-17.11.2017 Timetable *

Thu 16 November

16:00 Buses leave to Central Finland from the Hotel Scandic Park, Helsinki

20:00 Arrival at the Hotel Verso, Jyväskylä

20:30 Dinner of locally produced food and beverages and an introduction to the Field Trip partners and Friday's program

Fri 17 November - Field Trip – Utilizing SMART Technologies

8:00 Departure from the Hotel Verso

Morning Session: Introduction to Sustainable Forest Management in Finland - Advanced wood logging technologies - PEFC FI Criteria and Group Certification - Wood procurement systems and verification of the origin of the wood

11:30 – 12:30 Lunch at Varjola Guesthouse - Introduction to Metsä Group

Afternoon session: Metsä Group's next-generation bioproduct mill in Äänekoski

14:30 Departure from the mill to Helsinki - Journey back to Helsinki includes a stop at Helsinki-Vantaa airport (app. at 18.30)

19:00 Arrival at the Scandic Park Hotel, Helsinki

**Changes in timetable might occur. PEFC reserves all rights to them.*

Welcome to the Hotel Verso!

A fresh hotel located at the very center of Jyväskylä.
Accommodation is easy and effortless and it is much more
than just a night in a hotel room.



CENTRAL HOTEL

Hotel Verso is located on the beautiful pedestrian street at the center of the city. Versatile shopping options, interesting cultural attractions and lively nightlife are right at your reach the moment you step out. The rhythm of Hotel Verso is equal to guests and for the people of the vibrant city of Jyväskylä.

*We will arrive to the hotel on Thursday
around 20:00.*



hotelliverso.fi

Hotel Verso
Kauppakatu 35
40100 Jyväskylä

+358 14 333 999
info@hotelliverso.fi



ROOMS

Beds and bed sheets were chosen to foster a good night's sleep. Some of the bathrooms are equipped with bathtubs, so be sure to ask for one if you prefer a bath alongside a shower. Staying the night always includes the unique Verso breakfast and the use of general customer Saunas.



BREAKFAST

Verso has one-of-a-kind Finnish breakfast and it's an experience on its own. We bake our breads with our own recipes and the flour used is always from local producers. Our chefs prepare omelets based on your preferences at our open kitchen. Breakfast always consists Finnish flavors of local production and the best of seasonal products.

*Breakfast will be served from 6:30.
We will depart from the hotel at 8:00.*



DINNER

Hotel Verso's dinner-menu varies based on the best and freshest seasonal ingredients. The chosen dish will be served to your table straight from the open kitchen. The dish, cooked to order, is always fresh, tasty and served with a smile.

*We will enjoy dinner at Verso's restaurant
on Thursday evening from 20:30 onwards.*

Lunch at Varjola Guesthouse

Varjola is famous for its delicious and high quality food. Local materials and goodies as much as possible in the menus which vary seasonally.

Varjola



Varjola is a versatile guesthouse in a picturesque sceneries of Kuusa rapids. Varjola Farm was founded in 1882 and has been held by the same family for five generations. Farming was the main income until 1999. In 2000, old cow shelter was turned into a nice Barn Restaurant, unique venue for meetings and family events. Since then the Barn restaurant has been the main building. The old main building was renovated into a summer restaurant Sylvi in 2011.

In Sylvi you may enjoy simple dishes or a cup of coffee and home made pastries while feeling the long history of the farm through old furniture and family pictures. Varjola is known for its homemade meals, sauna services and of the many activities it offers. Experience the Kuusa rapids by rafting, glide over the rapids on a cable or try the arctic floating in the winter time. Have ATW, snowmobile or husky safari or have a fishing session on the rapids. All together Varjola offers more than 30 different activities.

VARJOLA BUFFET MENU

Fri 17th of November

Starters

Onion herring
Green salad with house dressing
Chicken-pastasalat
Rosted beetrootsalat with bread-cheese

Main course

Game stew
Smoked salmon
Oven baked vegetables
Mashed potatoes

Dessert

Sweet berry soup

www.varjola.com

Varjola Guesthouse

Vilppulantie 51
41370 Kuusa

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varjola@varjola.com





forest management
association

Forest management associations in Finland

Forest owners own organisation

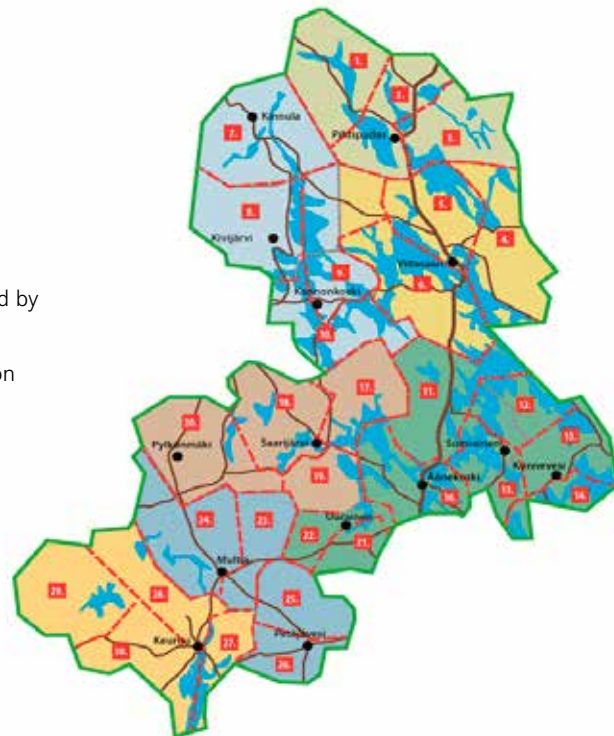
Forest Management Associations in brief



- 73 Forest Management Associations (FMAs) in Finland (2017)
 - about 300 offices, almost in every Finnish municipality
 - more than 1000 forestry professionals and 700 forest workers, and in addition also contractors and entrepreneurs employed by the associations
 - FMAs serve forest owners in all matters relating to forestry: e.g. planting, harvesting, ownership issues
- FMAs are members of the Central Union of
- Agricultural Producers and Forest Owners (MTK)
- Interests of forest owners' are promoted on national, regional and local levels
- Participation of family forest owners in PEFC regional group certification in large scale is organised through FMAs

Forest Management Association Keski-Suomi (Central Finland)

- Operational area of 423 000 ha
- Number of forest owners on the area is 11 500
- Average size of the forest holdings is 38 ha (private owners)
- Pine 59%, fir 33%, birch 6% and trees of other species 2%
- More than 50 workers at the office
- In the summertime more than 100 forest workers in the field
- Financed by incomes from business-based services (85% of net incomes) and by membership fees (15%)
- FMA Keski-Suomi contracts more than 60 forest machine and land preparation contractors and timber trucks



FMA's services



- Forest regeneration
- Tending of seedling stands and young forests
- Forest evaluation and planning
- Advisory services: personal advising, training and group meetings
- Timber sales services: About 50% of timber sales organised on forest owners' authority by FMA Keski-Suomi
- Energy wood procurement
- Fertilization service
- Forest management planning and planning of special habitat areas
- Forest damage assessments
- Forest taxation advising
- Forest road construction and maintenance

FMA Central Finland, Figures of the year 2017

- Timber sales planning - 1.4 mill. solid cubic meter (m³)
- Timber sales on forest owners authority - 850 000 m³
- Planting of seedlings – 2 300 hectares (ha)
- Sales of seedlings - 4 mill. €
- Tending of seedling stands and young forests – 4 100 ha
- Forest roads maintenance - 60 km
- Burn-clearing - 5 ha
- Turnover - 15 mill. €

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Inter-mediate thinning of a Pine stand

- Timber sales organised by the FMA
- Second thinning
- Pine-dominated stand
- Wood volume of 180 m³ per hectare
- Average age of 55-60 years
- Average height of 17 m
- Felling volume of about 45 m³ per hectare - 25% of sawlogs, 75% of pulpwood
- Forest owner's incomes of about 1200 €/per hectare
- PEFC certified forest estate
- Next operations will be decided by the forest owner – for example final cutting (clear cutting or seedwood cutting) twenty years from now



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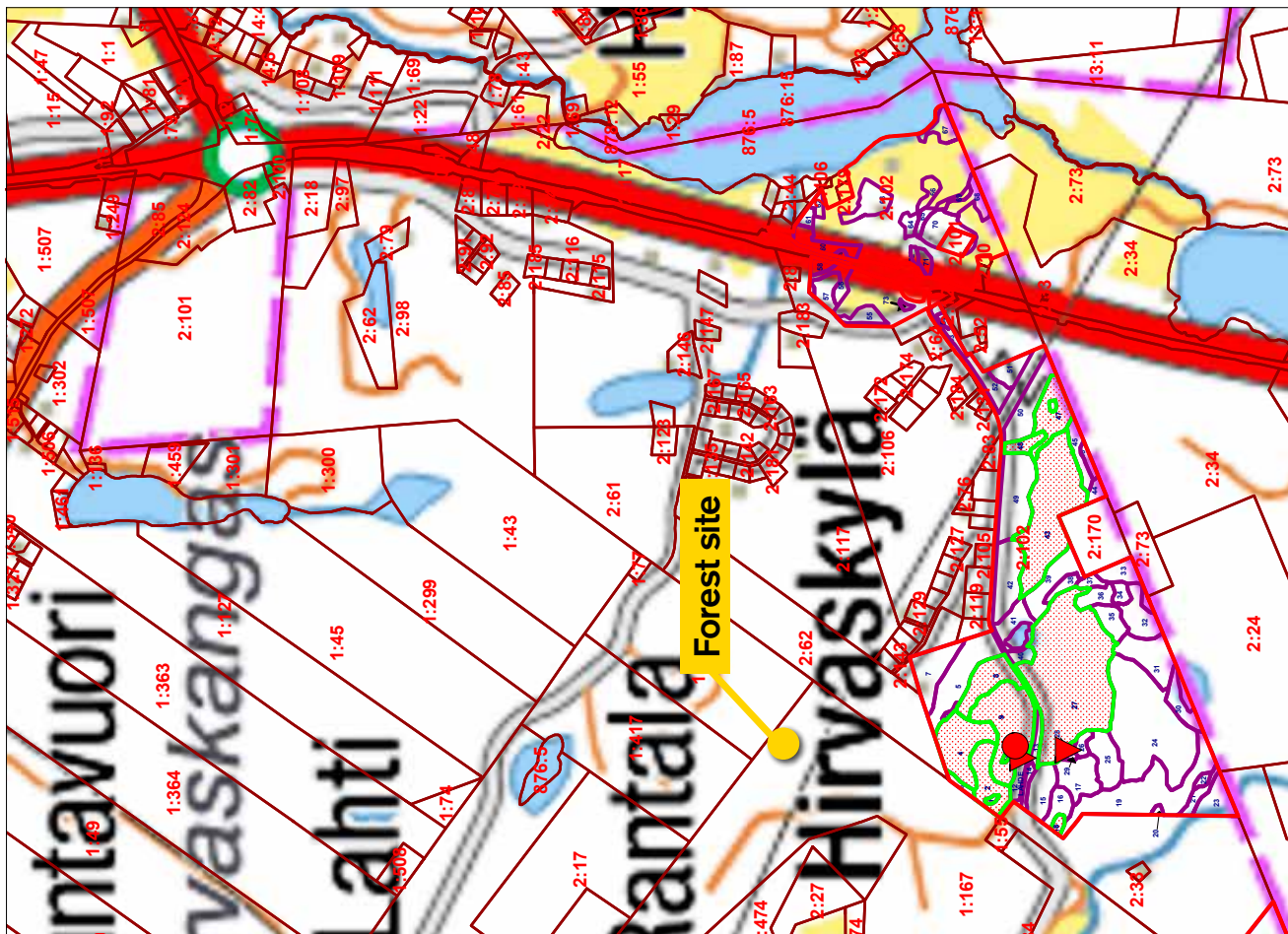


forest management
association

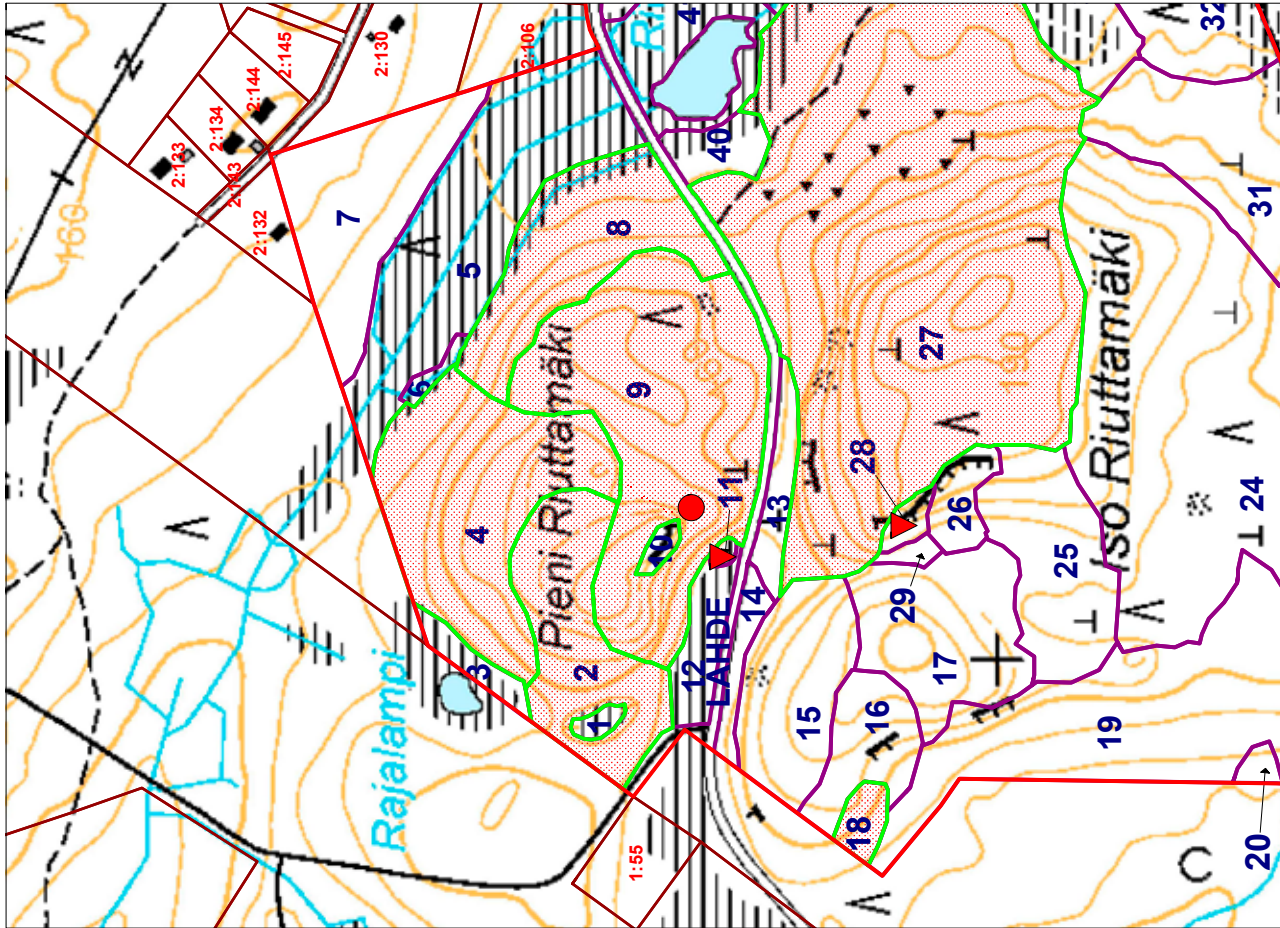
www.mhy.fi/keski-suomi

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Sustainable Forest Management Association

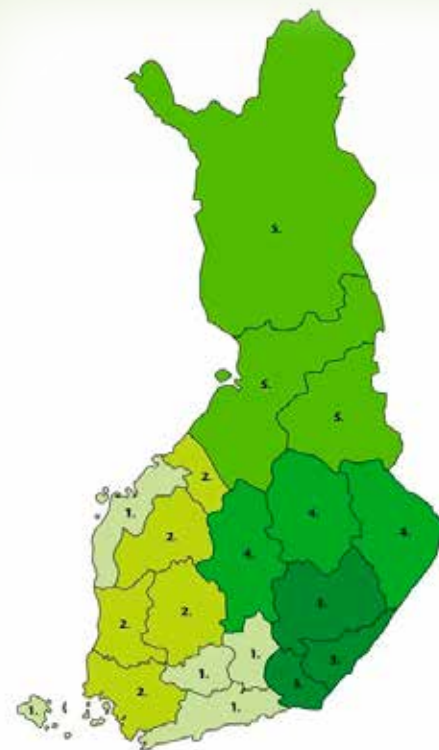


kmy

kestävämetsä.fi

Sustainable Forest Management Association (SFMA)

- The holder organization of five regional PEFC group certificates in Finland
- 12.4 million hectares of PEFC certified forests by SFMA
 - Represents 70% of the PEFC certified forests in Finland
 - No. of forests owners under a SFMA's PEFC certificate varies from 34 000 to 64 000
- Five PEFC group certification areas
- Regional certification committees take care of the tasks related to group certification



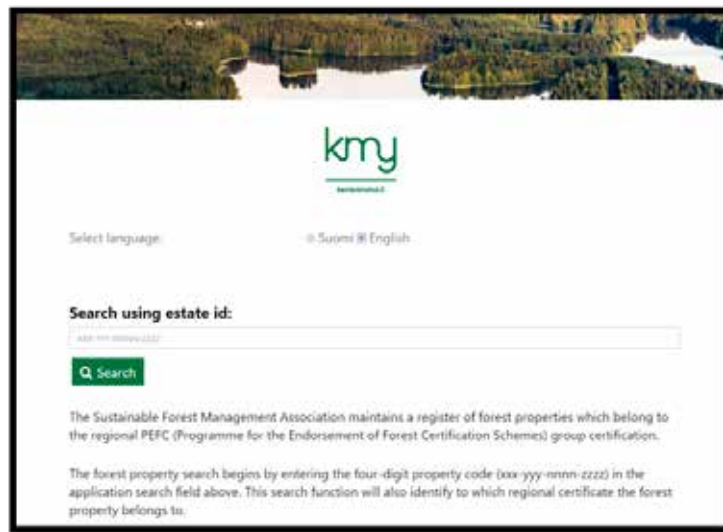
Regional PEFC group certification

- A voluntary, market based tool to verify that forests are managed sustainably
- A cost-effective way for small-scale forest owners to participate in PEFC forest certification
- In Finland forestry organizations improve actively the quality of their operations – PEFC certification verifies social, ecological and economical sustainability
- Requirements for regional PEFC group certification
 - PEFC FI 1001:2014 Implementation of PEFC Forest Certification System
 - PEFC FI 1002:2014 Criteria for PEFC Forest Certification



Application to survey forest estate's involvement

- SFMA has a free web-application to survey if a forest estate is registered to regional PEFC group certification
<https://www.kmyrekisteri.fi/#/kysely>
(available also in English)
- Used for example in timber sales and other forestry activities
- Document of forest owner's confirmation of participation is available to be printed or downloaded from the application



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kestavametsa.fi

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PEFC02:21-18
Promoting sustainable forest management

CONFIRMATION OF PARTICIPATION IN FOREST CERTIFICATION

Sustainable Forest Management Association

hereby verifies that forest property

892-402-2-102

*has given notification of participation in the
Eastern PEFC group certification area's
regional forest certification.*

Valid certificates can be found on www.kestavametsa.fi.

*Methods and practices used in the region's forest management comply with the requirements of
the Finnish PEFC forest certification standards PEFC FI 1001:2014 and PEFC FI 1002:2014.*

*If the requirements of the valid certificate are complied with,
this confirmation of participation is valid.*

*The Finnish PEFC forest certification system was endorsed by the international PEFC
(Programme for the Endorsement of Forest Certification Schemes) Council on 24th May 2000.*

Printed on
1.11.2017



Inspecta Sertifointi Oy has granted this certificate to

Sustainable Forest Management Association Helsinki

This certificate verifies that the forest management
complies with standards

PEFC FI 1001:2014 v3, PEFC FI 1002:2014

Certification covers

Eastern PEFC group certification area.

The owner of this certificate maintains data on the forest owners,
forest management associations and other parties committed to the certification.

The certificate is issued on 2017-03-08

(first issue 2016-09-20).

The certificate is valid until 2020-03-08.

Tomi Kasurinen

Tomi Kasurinen, Managing Director

The certificate is valid on condition that the forest management
remains in compliance with the aforementioned standards and the General Regulations ABC 700.
The validity of the certificate can be checked on the Internet at www.inspecta.fi



PEFC FI 1001
PEFC FI 1002



Inspecta Sertifointi Oy
P.O. Box 1000, Sörmästenkatu 2
FI- 00581 Helsinki, Finland
Tel. + 358 10 521 600

Group headquarters: Inspecta Group Oy, Helsinki, Finland

TRUST & QUALITY www.inspecta.com

KEITELE

group

Keitele Group – Wood from the top of the world

- Keitele Forest Oy is a family run business founded in 1981 that has grown into one of Finland's largest mechanical wood processing companies.
- The Keitele Group values are customer orientation, sustainable development and efficiency. We provide timber and processed wood to more than 40 countries.
- Our biggest market areas are Far East, Europe and North Africa. Our production plants are located in the heart of Finland.



Metsä Group

The next-generation
bioproduct mill in Äänekoski



Key figures 2016

METSÄ GROUP | Sales EUR 4.7 billion | Personnel 9,300

METSÄLIITTO COOPERATIVE | Group's parent company | Owned by 104,000 Finnish forest owners



METSÄ FOREST
Wood supply and forest services

Sales:
EUR 1.5 billion
Personnel:
900



METSÄ FIBRE
Pulp and sawn timber

Sales:
EUR 1.6 billion
Personnel:
1,250



METSÄ WOOD
Wood products

Sales:
EUR 0.5 billion
Personnel:
1,500



METSÄ BOARD
Paperboard

Sales:
EUR 1.7 billion
Personnel:
2,500



METSÄ TISSUE
Tissue and cooking papers

Sales:
EUR 1.0 billion
Personnel:
2,750

Renewable energy 22.3 TWh



The world's first next-generation bioproduct mill

- Investment of EUR 1.2 billion – the largest investment in the European forest industry
- Annual pulp production 1.3 million tonnes
- Use of wood 6.5 million m³ annually
- No fossil fuels used or fossil emissions caused at the mill
- 150 employees
- 2,500 jobs (of which 1,500 jobs are new) in the value chain
- Main markets for pulp: Europe and Asia
 - Sales will increase especially in China
- Top-level efficiency and cost competitiveness
- Start-up in 15 August 2017 at 6:00 in the morning
 - The nominal production capacity reached within a year

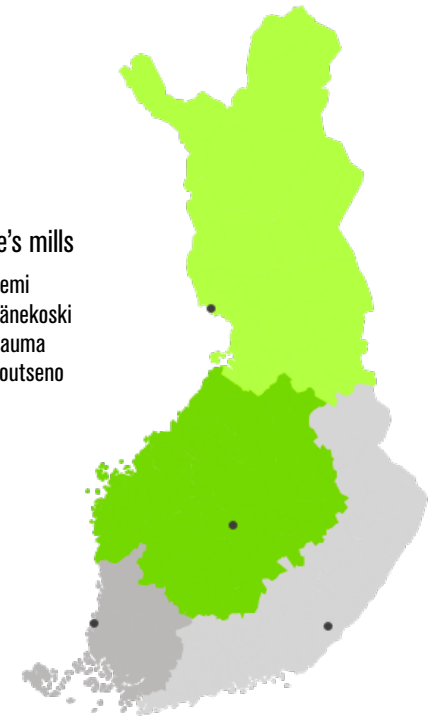
Sustainable wood supply

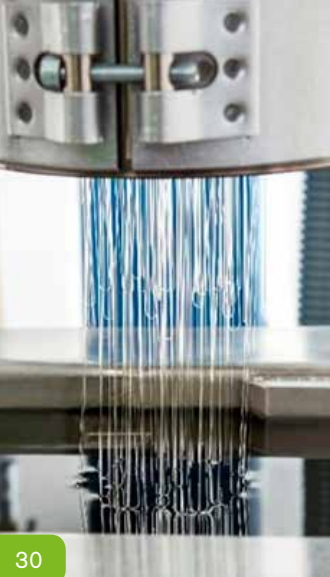
- The mill will affect wood supply across the country, increasing the use of pulp wood by around 4 million m³
 - The increase will be mainly softwood, with the sustainable increase potential for softwood fibre being 7 million m³
 - Wood can be sourced mainly from Finland
 - 100 % traceable
 - Over 90% certified wood – mainly PEFC
- Requires that
 - wood supply from privately owned
 - forests increases clearly in line with the growing demand
 - wood imports stay at least at the current level
- Wood supply guarded by
 - Metsäliitto Cooperative's extensive membership base
 - Use of logs in Metsä Group's strong wood products industry
- Central location of Äänekoski

2018

Metsä Fibre's mills

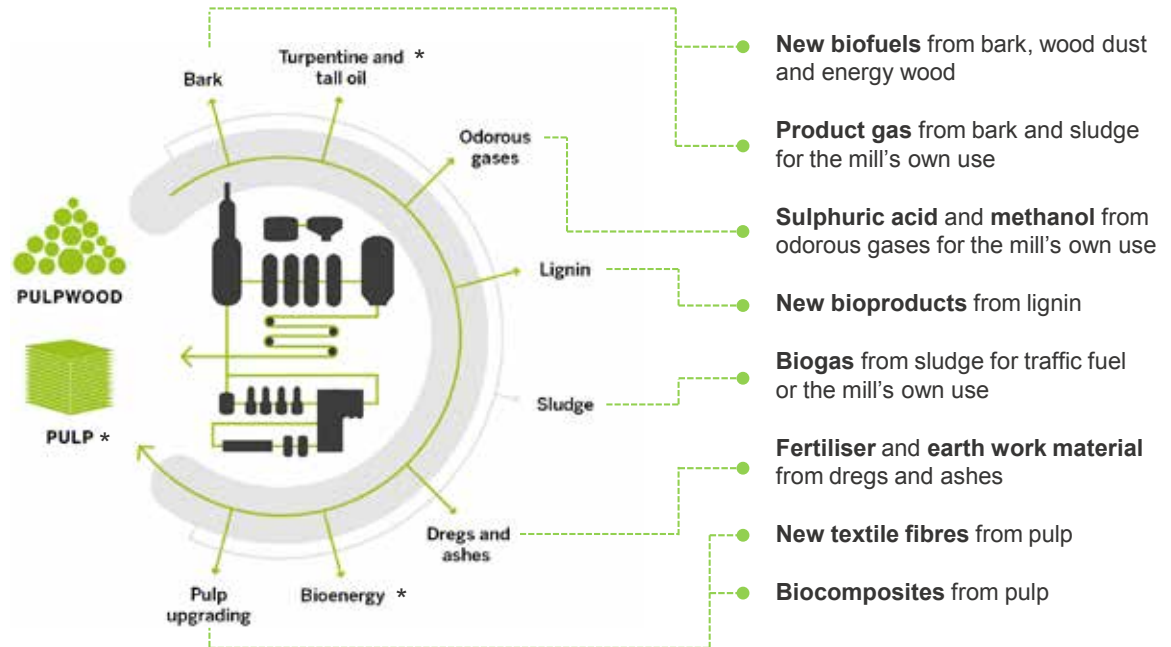
- Kemi
- Äänekoski
- Rauma
- Joutseno





Bioproduct concept:

all side streams **100%** utilised



Metsä

Large variety of fibre-based products in daily life



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www.metsagroup.com

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Riikka Liikanen | Communications Assistant
Metsä Fibre / Bioproduct mill in Äänekoski
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Stora Enso

The renewable materials company – our target

- Our roots are in the forest. It is sustainable and renewable.
- We are transforming from a traditional paper and board producer to a customer-focused renewable materials growth company
- Our ambition is to offer a competitive alternative to products based on fossil and other non-renewable materials

Everything that's made with fossil materials today can be made from a tree tomorrow.

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- Today, only about 50% of a tree is utilised. Mainly the cellulose. The rest is used for energy. We are looking into utilising the rest of the tree to manufacture e.g. biochemicals
- Stora Enso is investing in new technologies and processes, such as Micro Fibrillated Cellulose (MFC), which is a board with improved properties such as increased strength and reduced weight

For example, the demand for alternatives to plastic and aluminium packaging **will drive innovation in packaging solutions.**

Stora Enso in brief

Briefly, this is Stora Enso in images. ▼



- Our focus is on fibre-based packaging, plantation-based pulp, innovations in biomaterials, and sustainable building solutions.
- Our aim is to replace fossil based materials by innovating and developing new products and services based on wood and other renewable materials.
- Our products provide a climate-friendly alternative to many products made from non-renewable materials and have a smaller carbon footprint

Stora Enso worldwide

- A leading provider of renewable solutions
- Some 25 000 employees in 35 countries
- Sales in 2016: EUR 9.8 billion
- Shares listed on Nasdaq in Helsinki and Stockholm

25 000

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Stora Enso Wood Supply Finland in a Nutshell

- Stora Enso Wood Supply Finland delivers wood to Stora Enso's Finnish pulp and paper mills as well as to the company's sawmills. In addition we provide bioenergy to heating and power plants.
- We procure most of our wood from Finnish forest owners. We deliver wood from forest to internal and external mills about 23 million m³ annually.
- We offer services and tools for easier and more effective forest ownership.

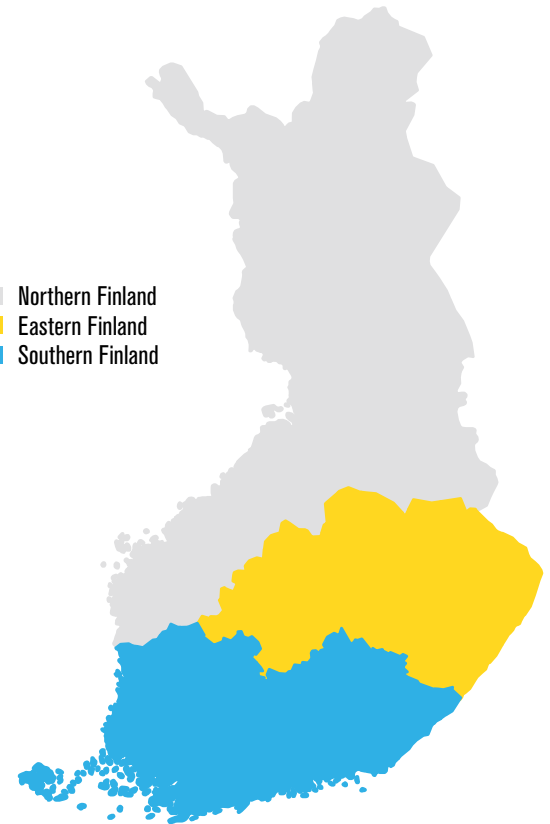


Wood Supply Finland

Key Facts 2016

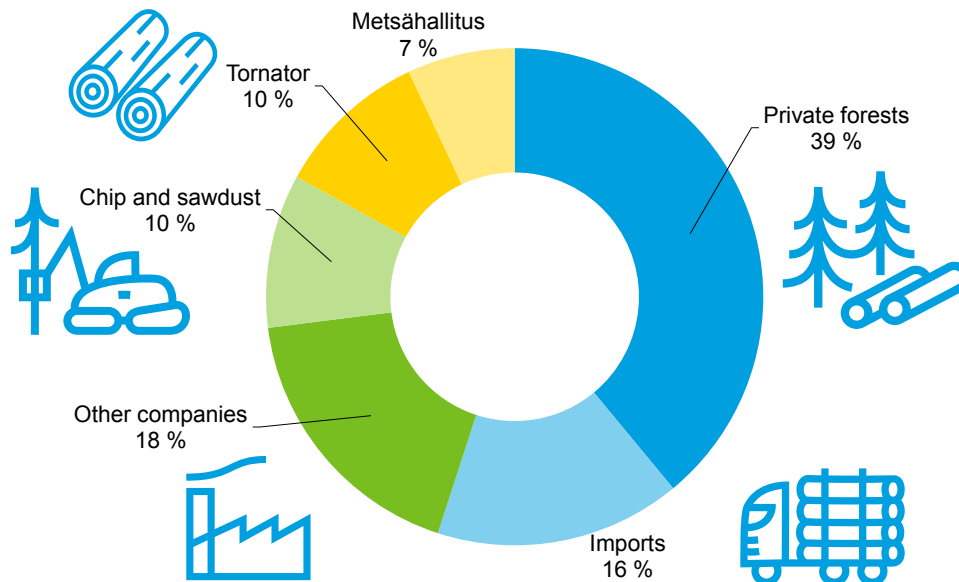
Personnel	560
Harvest, transport and forest service entrepreneurs as contractors	110
Supply chains	345
Timber trucks	230
Total Wood Procurement	23 million m ³ (with bark)
Net Sales	1074 million euros
Procurement Regions	3

■ Northern Finland
■ Eastern Finland
■ Southern Finland



Wood Procurement 2016

23 million m3 (with bark)



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www.storaenso.com

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Head of Sustainability, Wood Supply Finland

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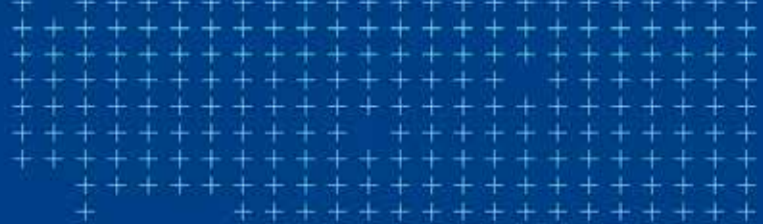
Lotta Forssell

Manager, Sustainability Communications

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Trimble Forestry



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**WoodForce - Developed Technology for
Harvest Planning and Execution**

Trimble Forestry

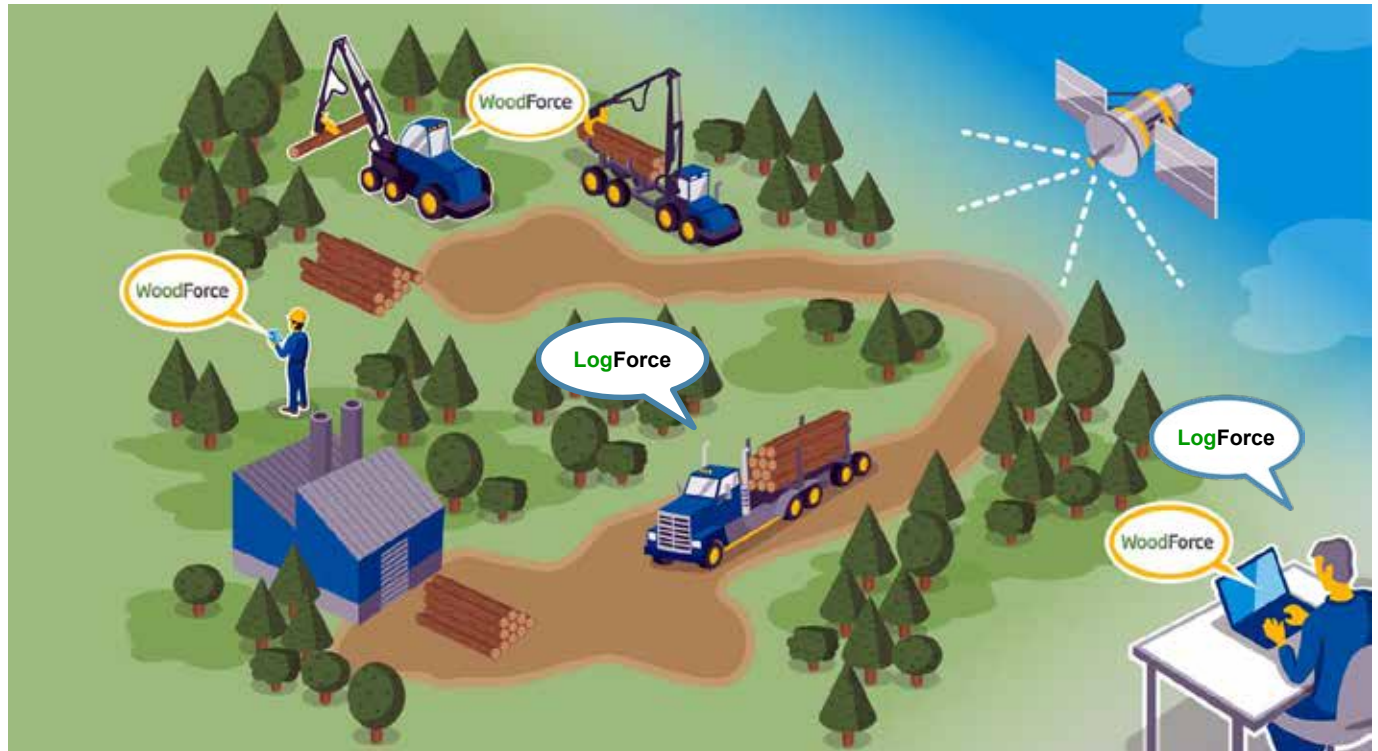
- Division of Trimble Inc.
 - A Nasdaq listed company headquartered in USA
 - More than 8000 employees globally
 - Turnover over 2 billion euro
- 260 employees
- Offices in Canada, USA, Brazil, Germany, Finland, Australia, New Zealand

Trimble Forestry's Connected Forest



Our Connected Forest solutions enable **smarter decision-making** at every step of the process, from forestry planning to mill receiving.

WoodForce™ for harvesting and LogForce™ for transport



WoodForce™ Tools

PLANNING

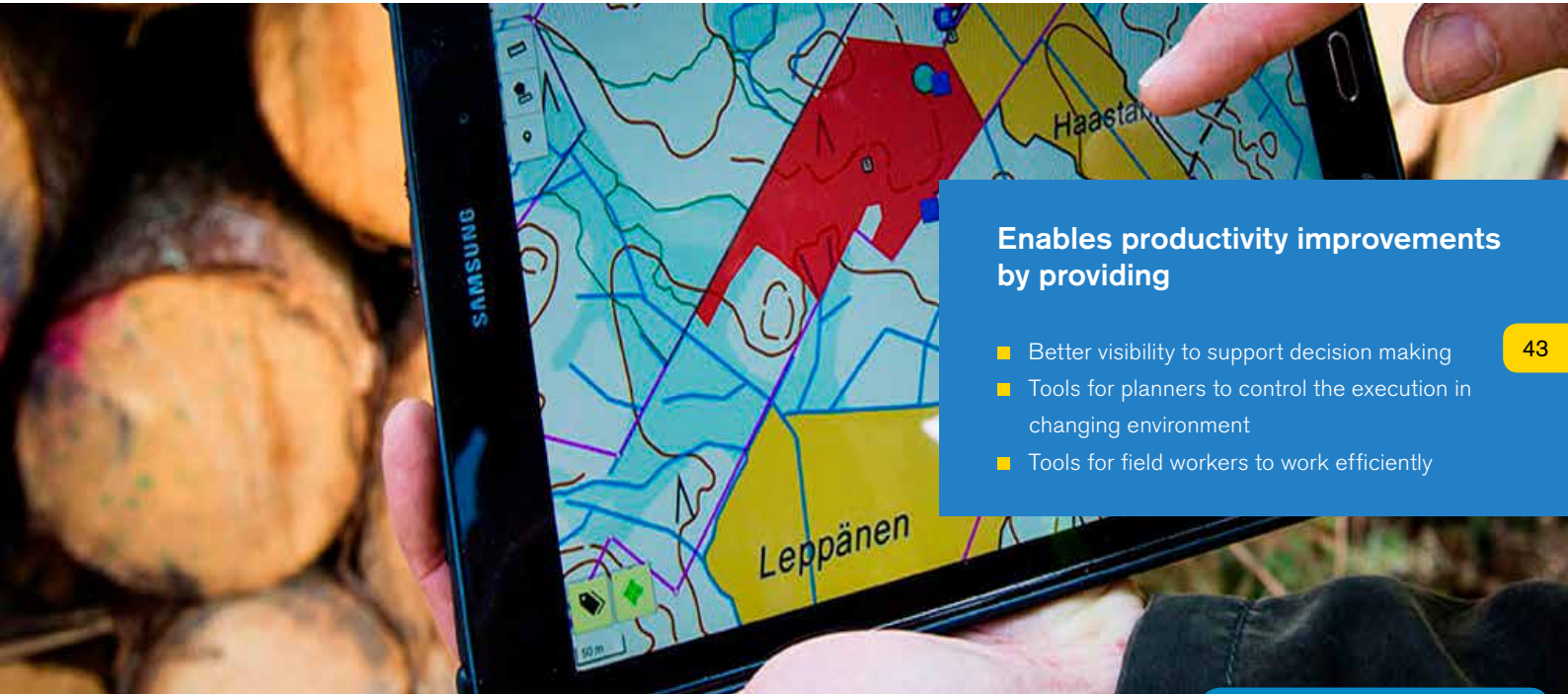
- Orders
- Production targets and follow-up
- Production control
- Work scheduling
- Remote inventory data
- Maps and location information

EXECUTION

- Production execution
- Worksite navigation
- Quality control



Benefits



Enables productivity improvements by providing

- Better visibility to support decision making
- Tools for planners to control the execution in changing environment
- Tools for field workers to work efficiently

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www.trimble.com

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www.trimble.com/forestry
www.woodforce.fi
www.facebook.com/trimble.forestry

Ponsse Group



Ponsse Plc

Ponsse is a forest machine company concentrating on sales, service, manufacturing and technology related to cut-to-length forest machines

- Main markets: Finland, Sweden, Russia, Germany, France, North and Latin America
- Established 1970
- 12 subsidiaries and 32 dealers
- Employing globally 1 453 people (31.12.2016)
- Research and Development 3 % from total turnover and 4 % from new machine sales
- Turnover 517,4 MEUR, operating result 55,2 MEUR (2016)

Our Strengths

- Clear ownership of the company, strong values and clear focus and direction
- Technology and knowhow in our own hands
- All forest machined manufactured in Vieremä and electronic manufactured in Epec Seinäjoki
- The capability to change our products and operational business concepts based on the feedback and needs from our customers



77 %
of the machines are exported

1 453
Ponsse employees globally

46 %
of the R&D engineers are
designing information systems

20 %
Share of the service business in
turnover

Wide product range for customers needs



- 7 Harvester models from small to big forest and from soft soils to steep slopes.
- 7 Forwarder models from 10 to 20 ton load capacity. 8-W and 10-Wheel models.
- 7 Harvester head models for softwood, hardwood and for eucalyptus.
- Advanced measurement and information systems for chain of custody and intelligent use of wood

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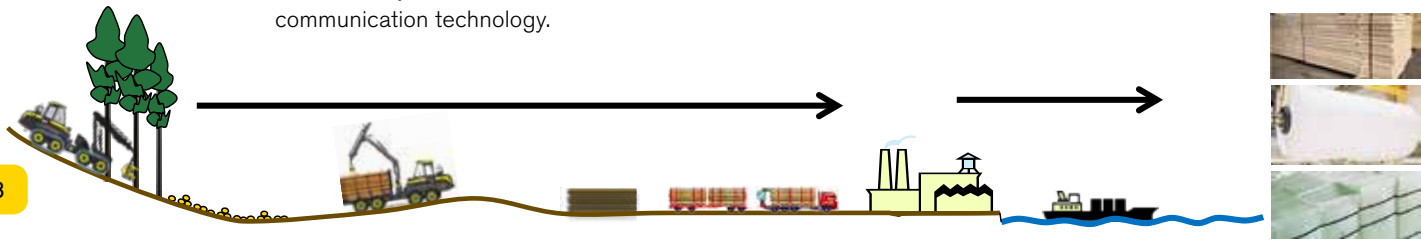


Chain of custody

Constant and efficient flow of right raw material to the mill. Chain of custody is ensured by modern GPS- and data communication technology.

Final product which fulfil the customer requirements and sustainable use of forest and wood.

Products for markets

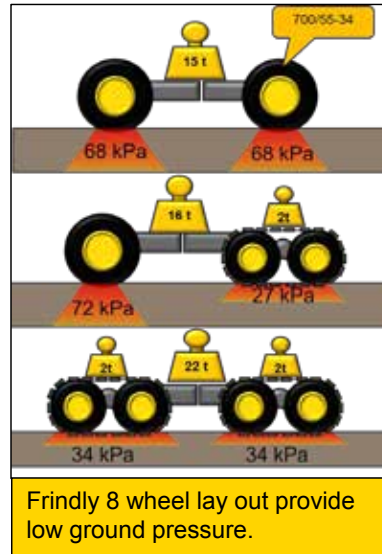


- Harvesting organization sends instructions to harvester and forwarder by mobile or satellite data communication:
 - Harvesting site maps include, borders, nature objects, protected areas, buffer zones for waters etc.
 - Harvesting method like Thinning, regeneration felling etc.
 - Product requirement, dimensions, qualities, product dimension distribution which is needed for full fill of customers needs.

- Harvester and forwarder sends precise product and production information from forest to harvesting organization.
 - Harvesting site identification information.
 - Location of harvesting site and origin of the wood
 - Volumes, dimensions and qualities, by tree species and assortments
 - Harvesting and forwarding time.
 - Contractor information

Environmental sustainability

- CTL method enable selective harvesting and protection of sensitive spot
- Low ground pressure therefore no compaction and minimum soil damage
- Nutrients leaves to the forest from leaves and branches
- Driving aid winch enables operation on steep slopes with out risk of soil damage and erosion.



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www.ponsse.com

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Tel. +358 20 768 800
Fax +358 20 768 8690

Isku Group 2017

Established by Eino Vikström 1928

Isku furniture factory in Lahti, Finland, is one of the most modern production facilities in the European furniture industry.

Employees 755 (2016)

Sales 160 MEUR (2017)

Marketing areas: Finland, Scandinavia, Baltic States, Russia, Poland, Middle-East

Certificates: ISO 9001, ISO14001, OHSAS 18001 & PEFC CoC

PEFC

BUREAU VERITAS
Certification



Kestävän
metsätalouden
edistämiseksi
www.pefc.fi



ISKU

ISKU Health

More comfort.
Less infections.

Antimicrobial furniture for public spaces
based on PEFC certified wood material.



PEFC certified wood in Isku office furniture

Mode acusto screens

97 % of wood from
PEFC-certified forests
Origin of wood:
Poland

Inkoo pro high sofa
90 % of wood from
PEFC-certified forests
Origin of wood:
Finland

Kivikko table
97 % of wood
from PEFC-
certified forests
Origin of wood:
Finland

Sigur chair
90 % of wood
from PEFC-
certified forests
Origin of wood:
Finland

Kivikko seat
90 % of wood
from PEFC-certified
forests
Origin of wood:
Finland



Storage tower
97 % of wood from
PEFC-certified forests
Origin of wood:
Finland and Estonia

Rudolf chair
41 % of wood from
PEFC-certified
forests
Origin of wood:
Estonia

Matrix T EL table
97 % of wood from
PEFC-certified forests
Origin of wood:
Finland

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www.isku.fi

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Isku Interior Oy
P. BOX 240 (Mukkulankatu 19) | FIN-15101 Lahti
Finland

Tornator in brief

- Tornator is a leading company specialised in sustainable forestry, owning forests in Finland,
- Estonia and Romania. In 2016, the Group's net sales were some €7 million and its balance
- sheet increased to nearly €4 billion. The Group has about 200 employees. In total, its forests
- provide direct employment with an estimated worth of 900 person-years. Tornator has a large
- tax footprint: in the last few years, it has been among the top 50 corporate taxpayers in Finland
- and is the highest taxpayer in South Karelia. The company's shareholders consist mainly of
- Finnish institutions. Tornator's mission is "generating sustainable well-being from the forest".



PARTNERS OF THE FIELD TRIP



forest management
association



kestävämetsä.fi

KEITELE

group



Metsä



storaenso



ISKU



TORNATOR
RESPONSIBLE EXPERTISE IN FORESTRY



Notes

[illegible]



FINNISH FOREST FOUNDATION

PEFC Finland
Sitratie 7
00420 Helsinki
Finland

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E-mail: office@pefc.fi



pefc.fi