

Tarto, Mooste, Köpu 25.–26.8.2016

Business manager Yrjö Ylkänen

The Finnish Forest Centre



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The Organization of the Finnish Forest Centre



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The Forest Centre Strategy

Mission

Growth to the field of forestry

Vision

Trendsetter and unifying force in the field of forestry

Values

Initiative

Joint activity

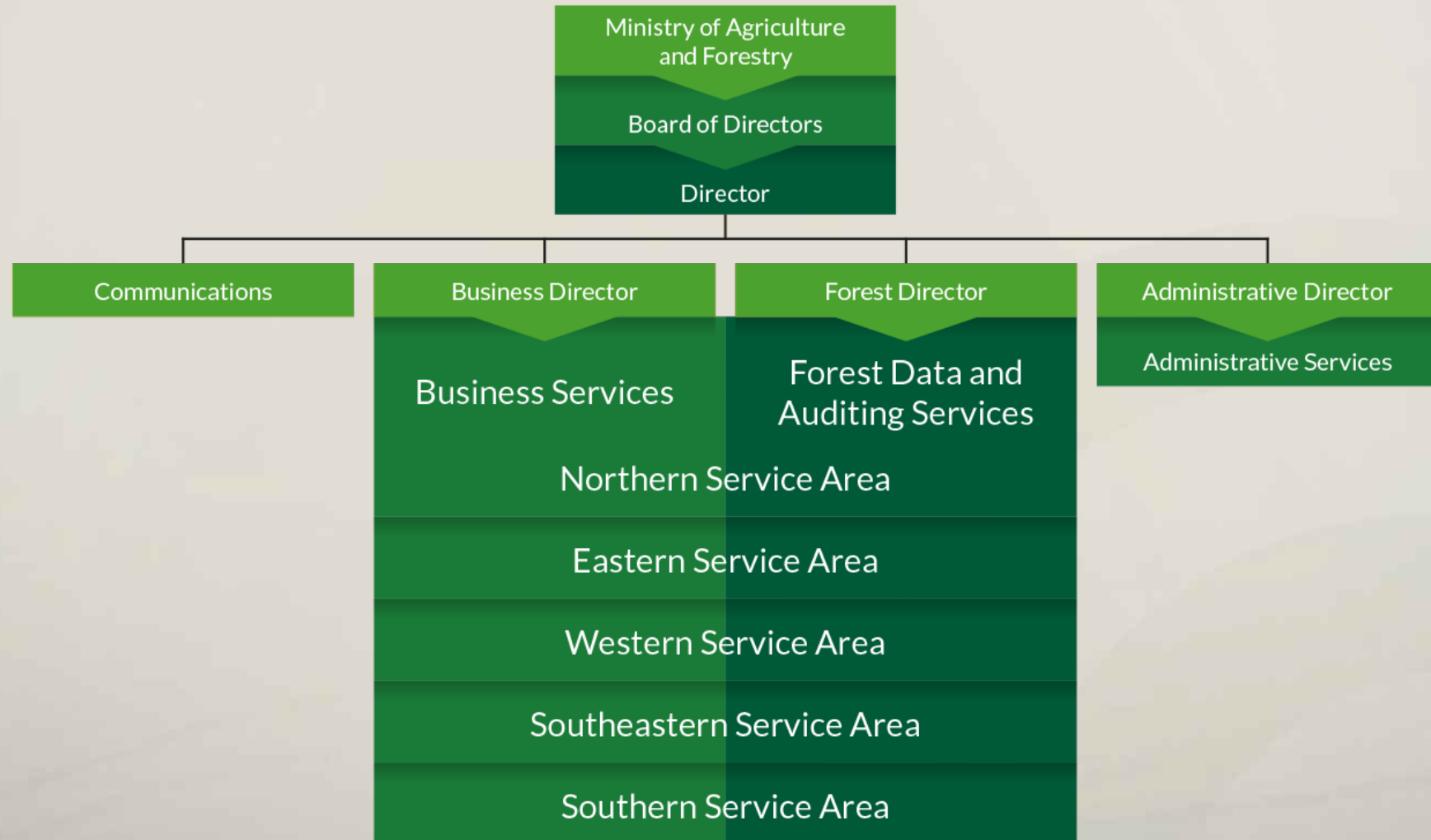
Relevance

Responsibility

Development

Customers – Personnel – Partners – Society

Organisation of the Forest Center



The Forest Centre on the Map

- 5 service areas
- 530 employees
- Head office in Lahti



Business Services

1. **Forest owner customer services**
 - Metsään.fi, direct client work and service products
 - The goal is to activate forest use and management
2. **Customer services for businesses and organizations**
 - Metsään.fi, direct client work and service products
 - The goal is to improve customer services and profitability
3. **Specialist programmes**
 - Programmes: Forest management and forest damage, nature management, bioenergy and bioeconomy, property structure development
 - Other focal areas: land use planning and programme work, geographical information
 - The goal is for the Forest Centre specialist know-how to be utilized by customers
4. **Training and communications**
 - The goal is for the Forest Centre specialist know-how to be utilized by customers and for forest industry issues to be communicated

Business Services

1. Regional and national advocacy on behalf of the forestry industry and sustainable forest economy
 - Strategy and programme tasks
 - Preparation of plans
 - Stakeholder cooperation
 - Participation in the preparation and implementation of the national forest programme, forest strategy and regional forest programs
 - The goal is to impact planning, programmes and decisions for the improvement of the operational preconditions in the field of forestry
2. Development projects
 - Through added resources, the goal is to produce customer benefit, to raise advocacy for the operational preconditions of the forest industry and to develop our own operations
3. Launching a new national operations model, resource efficiency and strategy implementation
 - The goal is to implement the Forest Centre strategy efficiently and effectively

Forest Data and Auditing Services

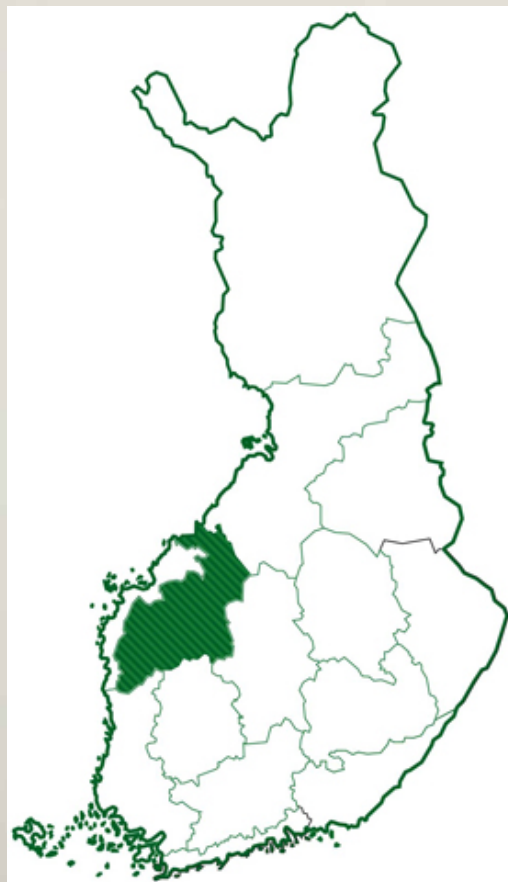
1. Law enforcement
2. Kemera support administration and subsidy payment orders
3. Forest data collection and timeliness
4. Data products based on forest asset data
5. The Forest Centre's internal development, statistics and information services

The Heat Entrepreneurship Cluster of South Ostrobothnia "HECSO"



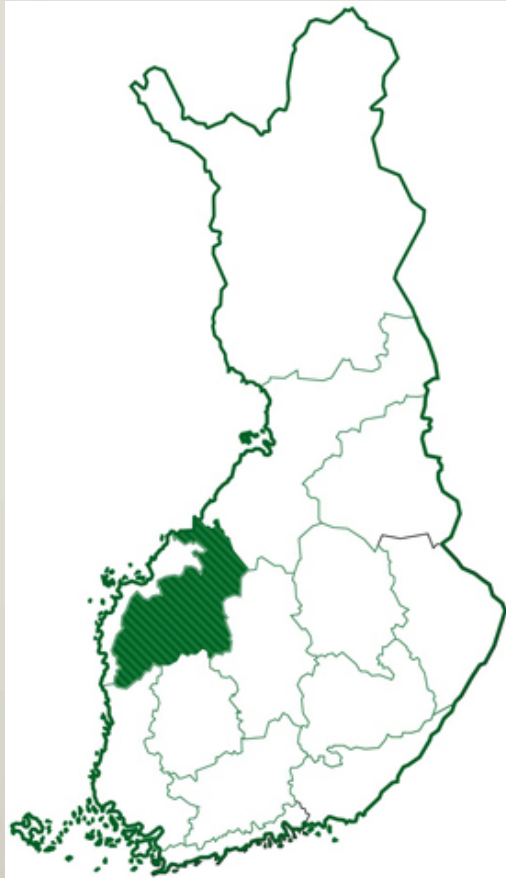
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Forestry in South and Central Ostrobothnia



- Forest land 1,4 million hectars
 - › 92% of the forest land is owned by 30 000 non-industrial private forest owners
 - › average size of private holding 27 hectares
 - › average age of private forest owner ~ 59 years
- Growing stock 142 mill. m³ (107 m³/ha)
- Net annual increment 6,5 mill. m³
- Planned cut 5,0 mill. m³
- Fellings 3,8 mill. m³
- Energy wood potential 1 mill. m³ , 80% in use

Forestry in South and Central Ostrobothnia



- No paper or pulp manufacturing
- 7 industrial sawmills
- 500-600 companies in wood products industry:
 - › mainly small companies
 - › plenty of manufacturers of wooden buildings, builder`s joinery and furniture
- 25 over 1 MWh heat powerplant units using wood chips

Heat entrepreneurship

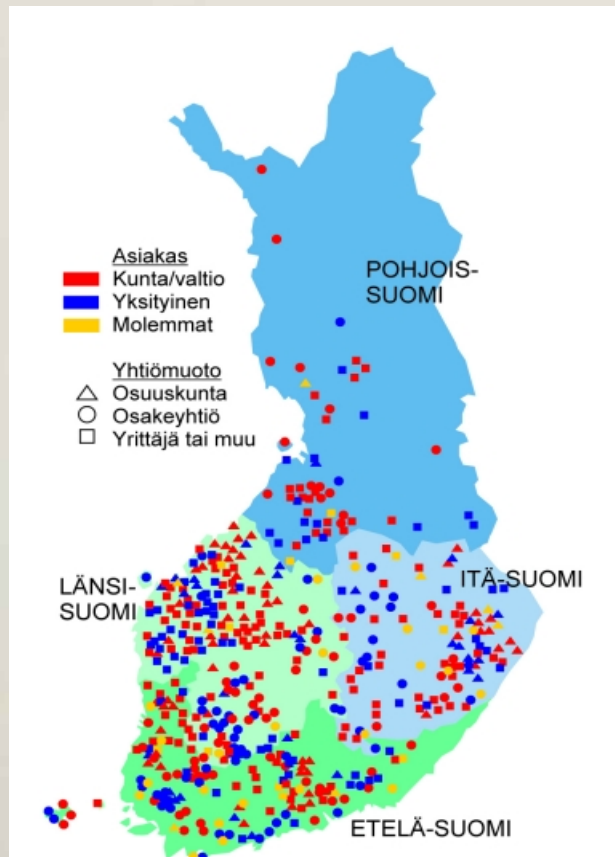
- Finnish speciality in the bioenergy sector
- Small scale business, in which the entrepreneur sells heat to customers, not energywood or chips
- Paid for megawatts



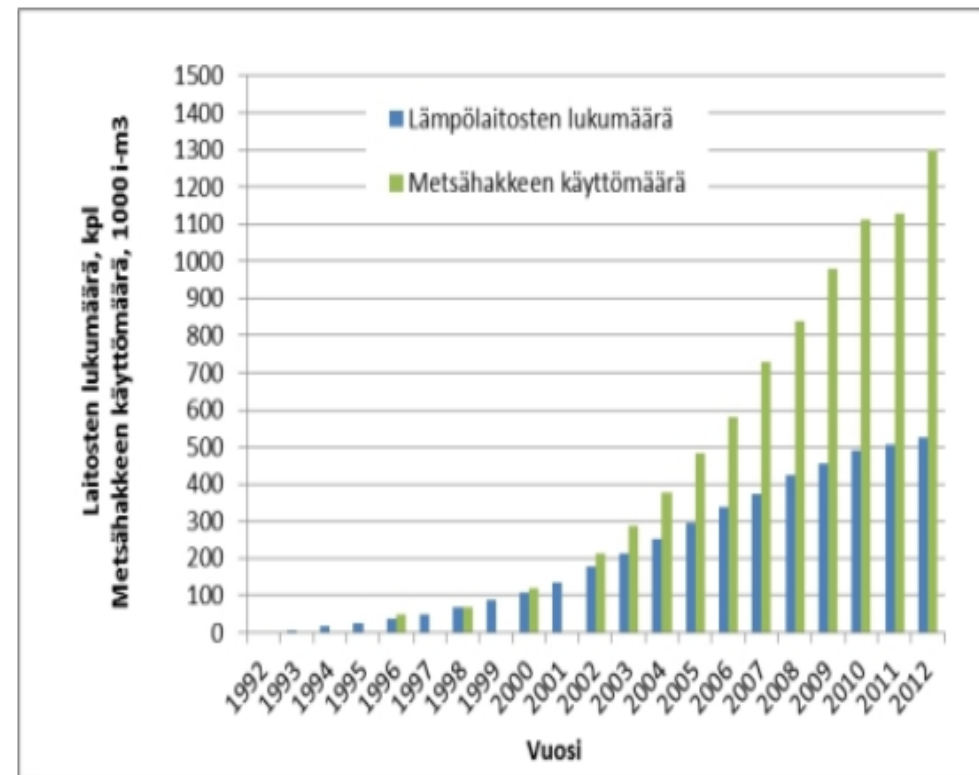
The History of heat entrepreneurship in Finland

- A new form of business was born in the Finnish countryside during the 1990s, when farmers started to produce heat from wood fuels, first supplying heat for schools and old people's homes and later expanding into municipal district heating and the provision of heat for industrial processes.
- There are about 520 such small-scale heating plants and 310 individual heat entrepreneurs in Finland (at the end of 2013), and almost 20% of them are located in South Ostrobothnia. South Ostrobothnia is the leading region for heat entrepreneurship in Finland at the moment.
- About a half of the plants are operated by individual entrepreneurs, while the rest function as limited companies and co-operatives. Usually the heat entrepreneur purchases the fuel, operates and maintains the heating plant, and earns income based on the amount of heat generated. In many cases the heat entrepreneur is also an investor and owner of the heating plant.
- This 'heat entrepreneurship' has boosted rural employment, while it has also replaced the use of imported oil and other fossil fuels in the region.

Heat entrepreneurship in Finland today



Heat entrepreneur operated heating plants 2012



Kuvan lähde: TTS - Työteho-seura

- The number of heating plants 1992 - 2012
- The use of wooden chips (1 000 m3)

Why heat entrepreneurship?

- Customer friendly way to use bioenergy
- Imported heating fuels have many disadvantages:
 - › They make you dependent on foreign actors and the economy
 - › Most of the money goes abroad, not into the local economy
 - › They give very little work and jobs to local people
 - › Fossil fuels are bad for the climate
- Biomass based heat entrepreneurship is the opposite:
 - › Decision making in own country / own region
 - › Local fuels - Money stays in the local economy
 - › Using local fuels creates jobs for local people
 - › Biomass based local fuels are good for the climate

Could heat entrepreneurship
business model be adapted or
modified to other countries and
regions?

Heat Entrepreneurship

Cluster of South Ostrobothnia (HECSO)

- **A new platform for international cooperation in the bioenergy sector, for example for common EU-projects and knowledge exchange between Estonia / its regions and Finland / South Ostrobothnia region**
- Focus on heat entrepreneurship
- Know-how and practical training in:
 - › Finnish heat entrepreneurship business models, agreements, and financial aspects
 - › Energy wood harvesting chains and energy wood storage (machines, methods)
 - › Energy wood processing (machines, methods)
 - › Energy wood heat power plants (equipment, installations, maintenance)

Some ideas what we could do together?

- Establish knowledge exchange project(s), one to Finland, one to Estonia ?
- Make heat entrepreneurship business model familiar to Estonian actors and bioenergy operators, farmers etc.
- Find a suitable place/area from Estonia and establish a pilot heat entrepreneurship unit to Estonia, run by local entrepreneurs
- Make economic calculations of the pilot unit, beforehand and afterwards
- Make an implementation plan of the pilot unit
- Make a plan or plans of fuel logistics
- Introduce and compare how bioenergy is promoted in Finland and in Estonia (methods, organizations, research etc.)
- Learn best practises from each other, for example:
 - › Logistical and technical solutions etc. in bioenergy sector
 - › Considering circular economy in heat entrepreneurship business
 - › Occupational safety and hygiene aspects concerning heat entrepreneurship business
- Cooperate in the field of research (the use of bioenergy, production of bioenergy, business models in bioenergy etc.)

Knowledge exchange project (3 years)

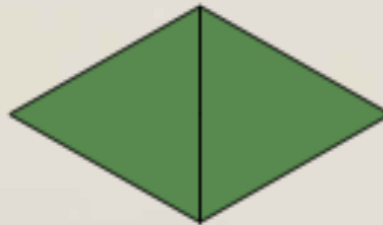
Project in Finland

Actors:

- **Thermopolis Oy**
- Finnish Forest Centre
- SeAMK Oy

Funding in Finland (max)

- ELY-Center
- 200 - 250 000€



Cooperation contract
between projects and
actors

Project in Estonia

Actors:

- **Tarto University?**
- Mooste City?
- Köpu City?
- ?

Funding in Estonia

- ?
- ?

Ideal timetable if we can act fast:

1. Preliminary agreement as soon as possible (important message to the funding organizations)
2. Final project plans and agreements ready during this year (in Finland before the end of October if possible)
3. Projects start at the same time in the beginning of 2017

**Thank you for
your attention**



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Seinäjoki University of Applied Sciences

- University level education with research, development and innovation activities. About 5 000 students (national and international)
- School of Food and Agriculture with 1 000 students and present project package of 1.87 million euros
- Earlier and present projects e.g. on bio energy and heating entrepreneurs. Botnia Atlantica projects Food Bait and BioHub.
- Contact persons vice president elina.varamaki@seamk.fi; faculty dean antti.pasila@seamk.fi and R&D team manager risto.lauhanen@seamk.fi

Thermopolis Ltd, Energy Agency of South Ostrobothnia

- A non-profit company
- Six employees, Matti Alakoskela is the MD
- A member of the European network of around 400 Energy Agencies
- Our goal is to promote the use of renewable energy sources, energy efficiency and sustainable development in our province
- We carry out and take part in national and international projects concerning energy, climate and other environmental issues.
 - › Currently, one international and six national projects going on.

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