Finnish Forest Industries

Estonian Forest Industries Federation Annual Meeting
9.6.2010
Anu Islander
Forest industry in Finland

- Pulp, paper and wood products industries in Finland in 2009
  - Production value € 15 billion
  - Exports value € 8.5 billion
- Annual domestic investments in the 2000’s an average of € 900 million.
In 2009, paper and paperboard 10.6 mill. mt (-19% ¹) and sawn softwood 7.6 mill. cum (-22% ¹)
Understanding the magnitude of the forest industry in Finland compared to some other countries

Value (€) of forest industry exports per capita and its share of total exports

<table>
<thead>
<tr>
<th>Country</th>
<th>Forest industry exports / total exports</th>
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<tr>
<td>Finland</td>
<td>20 %</td>
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<tr>
<td>Sweden</td>
<td>13 %</td>
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<td>Austria</td>
<td>8 %</td>
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<td>Canada</td>
<td>10 %</td>
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<td>Norway</td>
<td>2 %</td>
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<td>Germany</td>
<td>3 %</td>
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<td>France</td>
<td>2 %</td>
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<td>USA</td>
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The sector employs approx. 56,000 people domestically
- In addition, the personnel of approx. 60,000 abroad

Significant indirect effects for other sectors
- Important customer of products and services of other industries and transportation
- Industrial core for business services (maintenance etc.)

The entire cluster employs 200,000 people
Forest industry in Finland

- Forestry and forest industry is important to over 50 local communities
  - 50 pulp and paper mills
  - over 230 industrial sawmills, panel factories or other wood products companies
- The industry purchases 60 million m³ of round wood in Finland in normal market situation
  - 90% of wood-sales revenues go to private individuals
The Federation represents over 100 member companies in the forest industries.
The Federation acts as a common voice for the industry

- Promotes the building of competitive operating and investment environment
- Promotes industrial activities in accordance with the principles of sustainable development
- Represents the common interests of its members in labour market issues and concludes collective labour agreements for the industry
- Provides its members with expert advice on the legislation and regulations governing the practices of the forest industry
- Acts as an forum for information for its members
- Promotes a positive public image of the industry
Focus on present and future at the same time

**Current products and business operations**
- Cost competitiveness
- Structures and strategies
- Operating practices
- Development of existing products, processes and technologies

**New products and business operations**
- Broad-based competences
- Investments into new technologies, business functions and products
- Global production networks
- R&D and innovations
The Federation’s main objective

Finland is a competitive and innovative operating environment for the production, employment and investment of the forest industry.
Decision making and committee structure

- Annual Meetings
- Board of Directors
- Executive Board
- Energy Committee
- Forest Committee
- Environment Committee
- Research and Technology Committee
55 experts of the Federation represent

- Labour market issues
- Sustainable forestry
- Energy issues
- Transportation infrastructure
- Environment
- Education, research and development
- Competitiveness
- EU affairs
- Russian affairs
The Federation is a member of the Confederation of Finnish Industries EK

- The objective is the creation of an improved, more competitive operating environment for business life and industry in Finland.
- 44 branch associations
- 16,000 member companies with personnel of 920,000
The Federation’s participation in international organisations

- CEPI (Confederation of European Paper Industries)
  - The interests of the European pulp, paper and paperboard industries in the EU

- CEI-Bois (European Confederation of Woodworking Industries)
  - European wood products industry in EU

- ICFPA (International Council of Forest and Paper Associations)
  - The organization of world’s forest and paper industry associations
Raw material mainly from privately owned forests
Private forest owners share is 65% of forest land

- The industry is very dependent on privately owned forests
  - 80% of domestic raw material
  - 440,000 forest properties
  - More than 150,000 timber sale transactions annually
Origin of the wood used by forest industry in 2009

Total 52 million m³
(66 million m³ in 2008)
The use of domestic wood can be increased

- Annual growth of forests
- Annual allowable cut
- Industrial use of wood
- Domestic wood
- Imported wood

The graph shows the trends in different types of wood usage and growth over the years from 1990 to 2020.
There is enough wood – the challenge is to get in on the market

- Targeting at continuous and constant domestic timber trade at competitive cost level
- Political means to promote timber trade are essential:
  - Taxation
  - Forest data and management plans available for all parties in forestry
  - Extensive and strengthened service and information offering
  - Competitive transportation alternatives: Roads and railroads
Forest certification extensively used in Finland

- Forest owner is obliged to give a forest use declaration to the forest authorities prior to felling
  - This procedure ensures legality
- In addition, 95% of the forests in Finland are certified according to PEFC.
- Ongoing discussions regarding standards for FSC in Finland
Pulp, paper and wood products industries use the wood efficiently for different purposes –
Best preconditions to continue as renewable energy driver

- Experience and knowledge on
  - sustainable forestry
  - wood procurement and forest ownership
  - infrastructure and logistics to handle massive amounts of biomass
  - combined heat and power production with 85-90% efficiency ratio
- Second generation biorefinery technology to produce
  - wood and paper products,
  - electricity, heat, biofuels for transportation
  - green chemicals
- Increasing bio-energy needs efforts to increase wood mobilisation
  - In Europe, forest residues are not fully underutilised
  - The use of waste in energy production should be promoted
R&D and innovations – Sustainable solutions to the present and future consumer needs

Wood raw material

Wood fibres and constituents

Energy and biofuels

Packaging

Combinations of wood and other materials

Intelligent wooden structures

Next-generation wood and paper-based products

Pharmaceuticals and wellbeing products

Green chemicals

Biopolymers and “bioplastics”

New technologies
Forest industry is developing the Finnish innovation environment and common resources are aimed to common focus

Aalto University basic capital EUR 4 mill.:  
• To strengthen the innovative environment for the forest sector  
• Companies search top universities for their partners in cooperation  
• Ensure sufficient financial operational preconditions for a new unit

• Common research strategy for the Forest Cluster

• Research strategy for the wood product industry  
  – Finnish Wood Research

• Forest-Based Sector Technology Platform as an European tool
Biorefineries diversifies forest industry

- New products, like biofuels and biochemicals, biocomposites and plastics and other biomaterials
  - Raw material – wood and other biomass

- Forest industry future potential growth areas where new competitive advantage is created
  - Pulp mill is already a biorefinery!
Sustainable development changes consumption – future products of wood

- Intelligent, reactive wood construction
- Reactive papers and packages
- Medicine from wood
- Biofuels
- By Nanotechnology water resistant ultrathin paper
- Xylitol from birch
As a by-product of forest industry Finland reach the targets of renewable energy

**Competitive forest industry**
- Export and tax incomes increase
- More renewable energy from forest industry
- Need for subsidies moderate
- Biorefinery investments (enough chips)

- 38% target of renewable energy will be achieved

**Weak operational environment**
- Export and tax incomes decrease
- Production of market based renewable energy decrease
- Need for subsidies grows substantially
- Biorefinery investments to other countries

- 38% target of renewable energy will break away
Number of forest holdings (over 2 ha) in 1750-2005

- Number of forest holdings has doubled from 1930
- Forest land is inherited in family
  - Heritage/gift 45%
  - Purchase from family 40%
  - Purchase from markets 15%
- The age of forest owners has risen (2009 60 y, 1990 54 y)
Private forest ownership is fractured

- 80% owns forest below 50 ha
- Number of forest owners 443,478 (medium size 24 ha)
- 76% family owned, 14% association, 11% heirship group
- Decision making of heirship groups
Small size of forest holdings

- Causes loss in efficiency
  - Purchase (number of transactions)
  - Harvesting (borders)
  - Transportation of machines
  - Logistics
- No big meaning of incomes selling wood
- Financial meaning of forest holdings is low to owner – other values
- Small holdings on roundwood markets only in high boom
Development project

- Ministry of Agriculture and Forestry started a development project to improve the forest holding size and structure
- National Forest Program target is 50 ha by 2050
- Legislation
- Taxation
- Reorganization of forest holdings
- New ways to own land
- Investment funds/Real estate funds
Forest industry targets

- Forest ownership as professional source of livelihood
- Active ja planned forestry
- Reward active forestry and selling wood
- Passive forestry unprofitable
- Taxation
- Prevent forest holdings fracturing
- Speed up the change of ownership in lifetime
- Only one owner per forest holding – Decision making simple
- More supply of forest holdings to increase the size