Logistics needs and challenges of Finnish forest industry

Outi Nietola, Finnish Forest Industry
Forest industry in Finland today

- Forest industry in Finland has some 56,000 employees in over 50 locations
  - 49 pulp and paper mills
  - Over 240 sawmills and other wood product industry sites
- The whole forest cluster (incl. e.g. logistics chain involved) employs 200,000 persons
- Forest industry sector produces 70% of renewable energy in Finland
  - Without us, impossible to reach the targets set for use of renewable energy - 38% by 2020
- One of the main export branches in Finland – number 1 as for transport volumes and haulage as a whole
The main markets for Finnish forest industry products

Total value of forest industry exports from Finland in 2011 was EUR 11.2 billion

<table>
<thead>
<tr>
<th>Main markets</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>18 %</td>
</tr>
<tr>
<td>UK</td>
<td>10 %</td>
</tr>
<tr>
<td>Russia</td>
<td>5 %</td>
</tr>
<tr>
<td>USA</td>
<td>5 %</td>
</tr>
<tr>
<td>France</td>
<td>4 %</td>
</tr>
<tr>
<td>China</td>
<td>4 %</td>
</tr>
<tr>
<td>Sweden</td>
<td>4 %</td>
</tr>
</tbody>
</table>

Euro countries = 40 %
Non-euro EU country = 21 %
Other Europe = 10 %
Asia = 15 %
Africa = 4 %
North America = 5 %
Latin America = 3 %
Oceania = 2 %

16.10.2012
Key elements in Finnish forest industry’s logistics competitiveness

- Elimination of bottlenecks in export and import
- Competitive and cost-efficient sea transport
- Good level of service on lower road and rail network to support the daily raw wood transport
- Well-functioning and optimised national raw wood terminal network
- Sound and well-functioning transport market
- Increase of gross vehicle load in national raw wood transports

Means for strengthening competitiveness:

- Delivery reliability
- Cost-effectiveness
- Environmental aspects
Over 90% of forest industry’s products are exported, over 90% by maritime transport

- Yearly forest industry maritime transport volume is 20 million tonnes
  - export volumes 15 million tonnes
  - import 5 million tonnes
- About 20% of all transport via Finnish ports are forest industry products and raw materials
  - 35% of export volumes
  - 9% of import volumes
- Export and import via 23 ports – but over 90% via 9 ports
  - Share of ports of Rauma and Hamina-Kotka some 50%
  - Other ports with large volumes e.g. Kemi, Oulu, Pietarsaari, Hanko, Helsinki, Kaskinen, Loviisa
Road transport – key issues

- The whole road network is vital for transport of forest industry’s raw materials and products
  - Sufficient condition of lower road network is required to get the raw wood out of forests. Yearly transport volumes average:
    - 35 million tonnes to mills
    - 3.5 million tonnes to biomass production
  - Product transports on main roads (e.g. connection between mills and ports)
- Reliability of delivery is important
  - At mill sites, storage area for raw wood sized to assure production volume of 2-3 days to 2 weeks (average 5 days)
  - Tendency to avoid storage of finished products at the mill site
  - Frost heave on lower road network a challenge every spring

Forest industry’s road transport volumes
Source: Finnish Transport Agency
Rail transport

- Forest industry is the main user of national rail transport in Finland: 60 % of all rail freight tonnes are forest industry’s raw wood and products.
- Biggest flows in raw wood transport in South-East, Northern and Central Finland.
- Product transport by rail concentrated in South-East and Western Finland.
  - Transport from mills to ports of HaminaKotka and Rauma.
  - So far still VR monopoly.
- Russian’s WTO membership expected to increase import of raw wood by rail, maybe also export of products.
  - Today the export by rail to Russia 0.2 million tonnes.
- Need for double track between Luumäki and Imatra in South-East Finland.
  - National decision on funding 03/2012.
IMO sulphur decision and EU Commission’s sulphur directive distort the competition between northern and southern Europe

- Maximum sulphur level of marine fuel in SECA areas (the Baltic Sea, North Sea and English Channel) will decrease from 1 % to 0,1% 1.1.2015
  - Rest of Europe: 0,5 % 1.1.2020
  - globally: 0,5 % in 2020 or 2025, depending on fuel availability
- From heavy fuel oil to marine diesel => The directive will increase the forest industry’s maritime transport related costs by at least 200 million euro (=about 50 %) each year
- Alternatives:
  - scrubbers – market not ready
  - LNG – new vessels
- For companies in global competition, impossible to include the remarkable cost increase in paper and timber price!
- Costs should be compensated to the industry (national, EU level)
- For 14-15 million tonnes yearly export volumes sea transport is the only rational alternative
Challenges in export and import

- International environmental regulation in maritime transport will increase
  - CO2, NOx, energy efficiency index (EEDI)....
  - Effects on forest industry logistics costs near to 100 million euros

  *Global timetable should be the starting point in regulation - areal restrictions distort the competition!*

- Ports as functional bottleneck?
  - Labor market issues

- Seamless winter navigation
  - Ice breaker capacity and service level
Conclusions

• The key elements behind Finnish forest industry’s logistics competitiveness are reliability of delivery, cost-effectiveness and ability to respond to environmental challenges.

• Each transport mode has its own role in forest industry’s transport chain from raw material source to processing and further to the end customer.

• In environmental transport regulation, global timetable should be the overall starting point.

• Despite the new transport connections, the role of sea transport in forest industry’s export and import will remain very strong also in the future.

15.10.2012
Forerunner in the bioeconomy

Finnish Forest Industries

www.forestindustries.fi