



**Emerging Bioenergy Markets and Russia**  
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**Future Challenges and Opportunities for Forest Industry**

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## One base for Finnish well-being is the forest industry

- **Forest based sector is a big local employer**
  - directly 90 000 Finns
  - indirectly close to 200 000 Finns
- **About 80 % of national raw material wood comes from private forest owners**
  - Almost every 5th Finn gets revenues from the forests
- **The share of Finnish net export is a third**
  - A quarter of total export (more than 2000 e/capita)



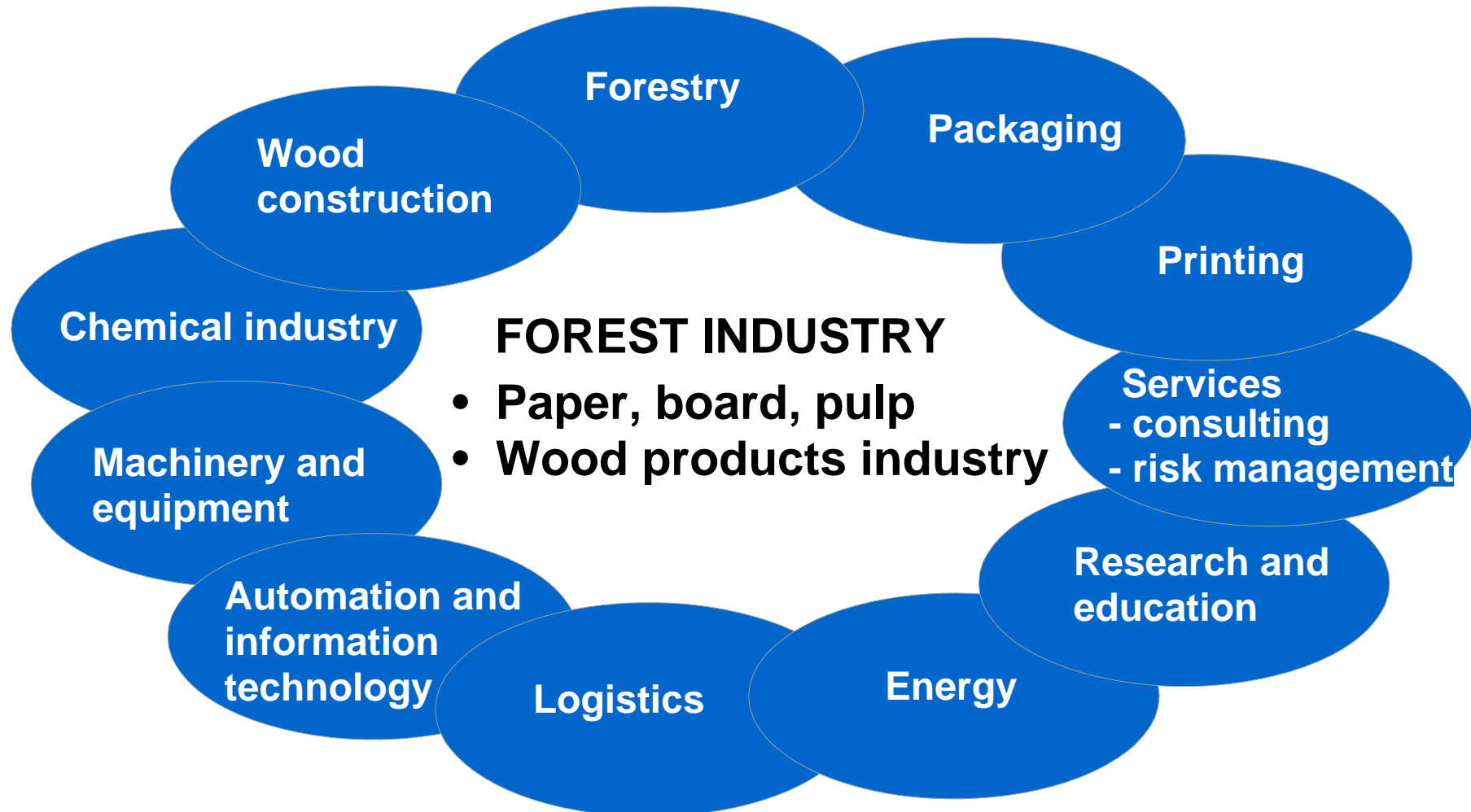
# Finland is a Major Forest Industry country

- **40 % of all Finnish production in Finland, even though more than 90 % of the products are exported to other market-areas**
- **Finland has a remarkable R&D and knowledge concentration about the branch**
- **The forest cluster is growing faster than the GDP ie. 3-4% /a**





## Actors in the Forest Industry Cluster Support Each Other





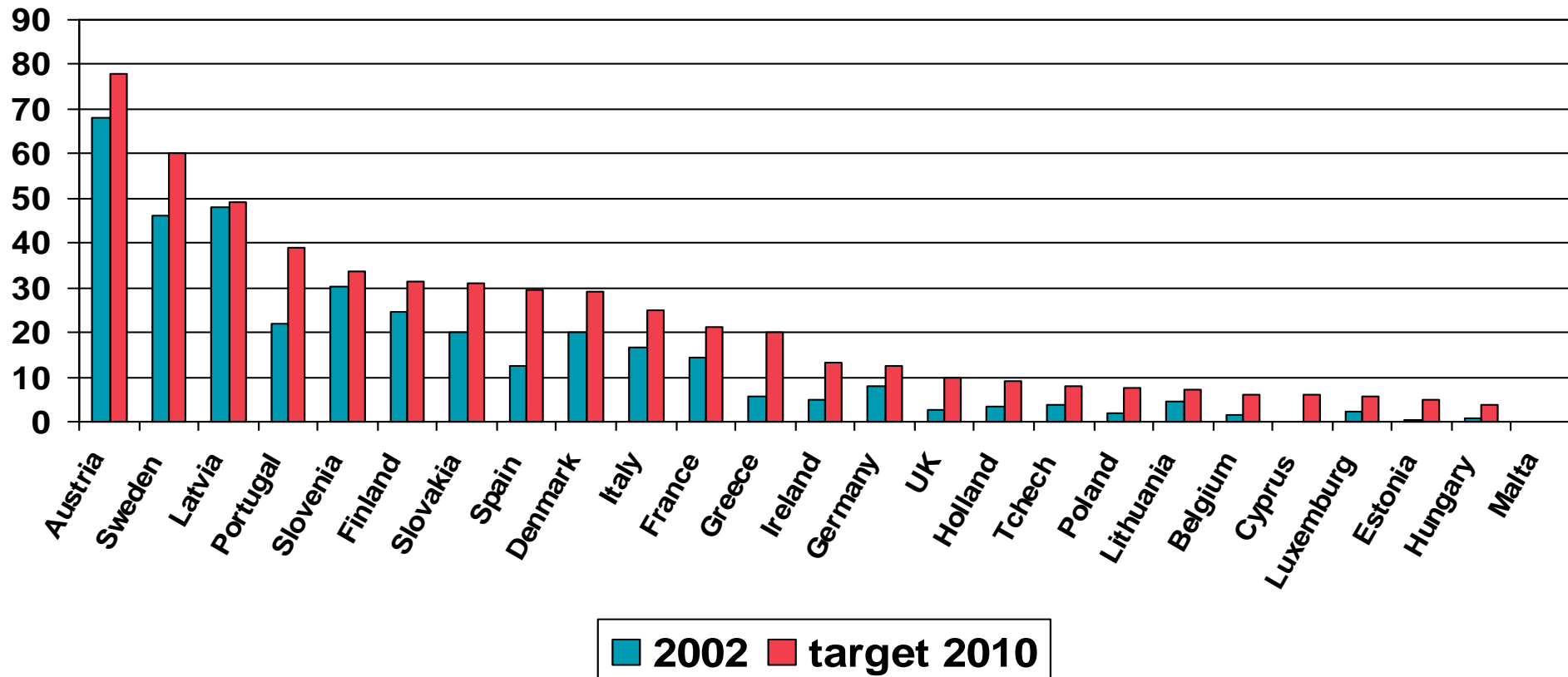
# **Bioenergy and Biofuel in the Finnish Energy Economy**

**Finnish Forest Industries Federation**



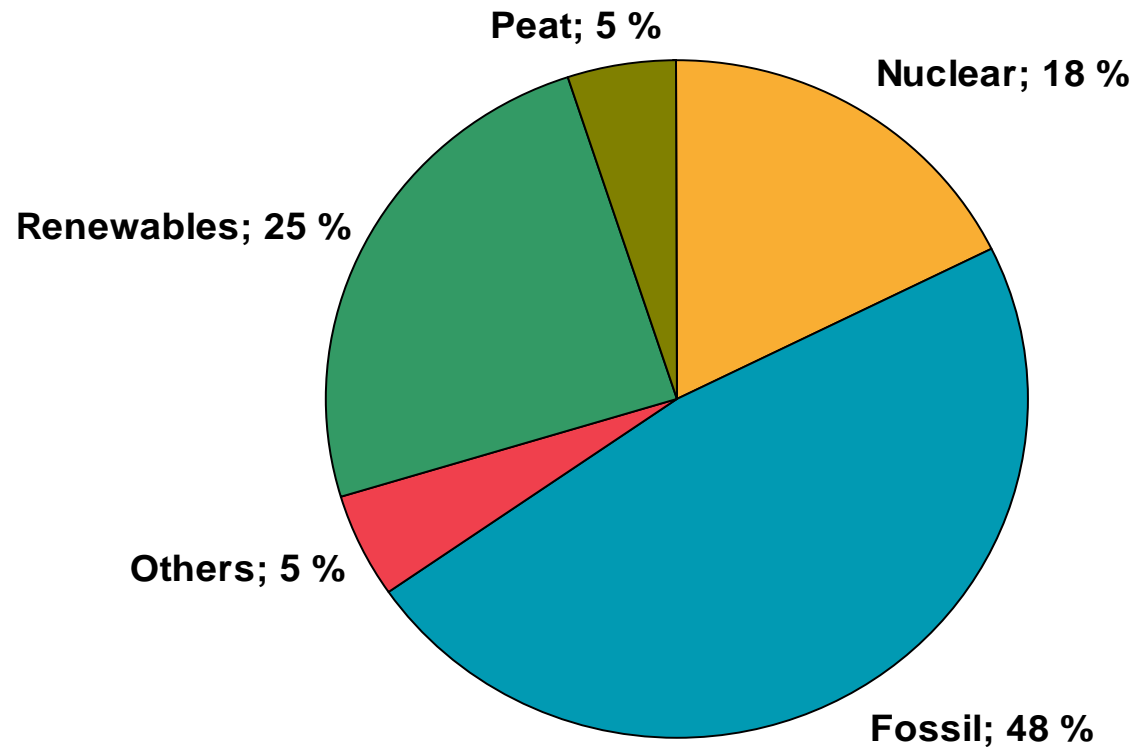
# Finland is at the forefront in the utilization of renewable energy sources

## Share of renewable power generation and EU –targets (%)



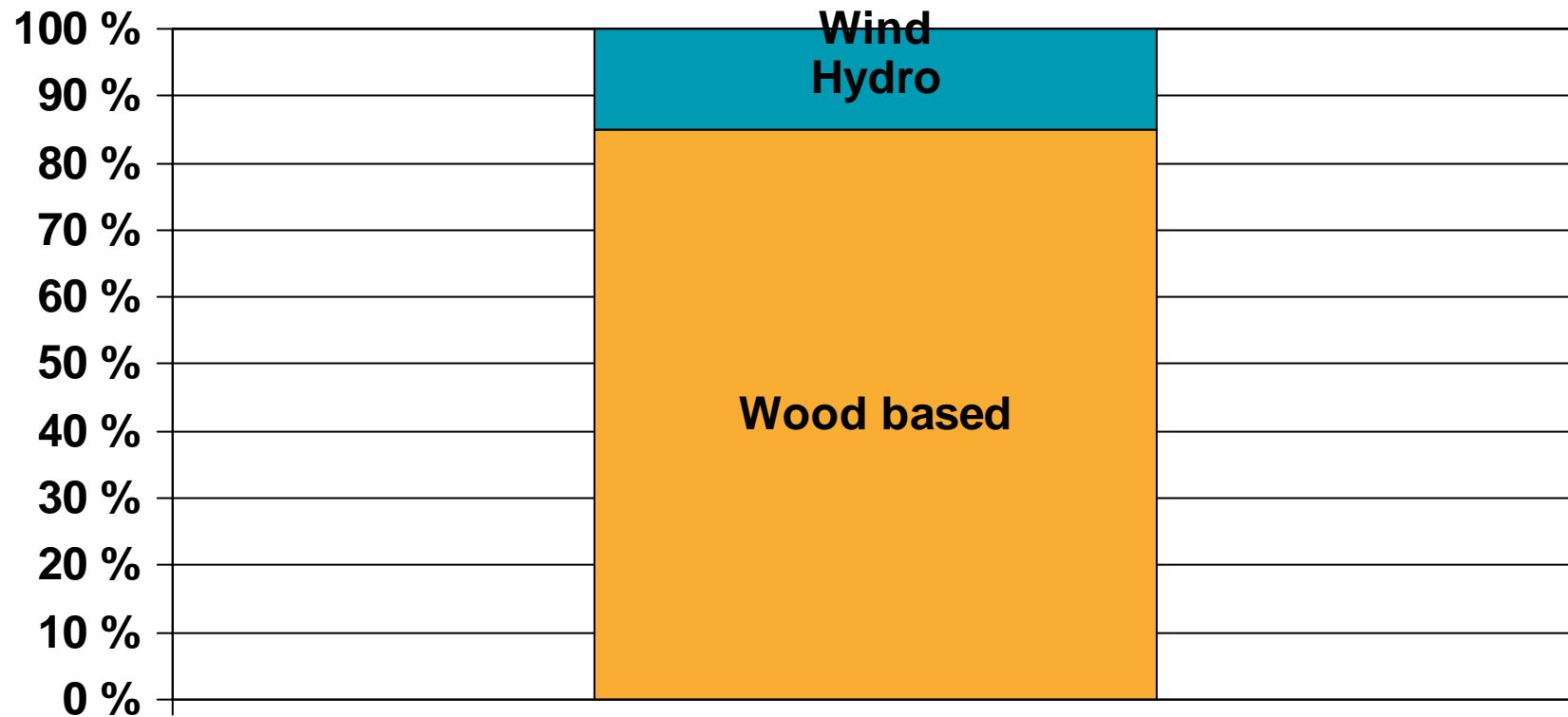


# Finnish Energy Mix is Diversified



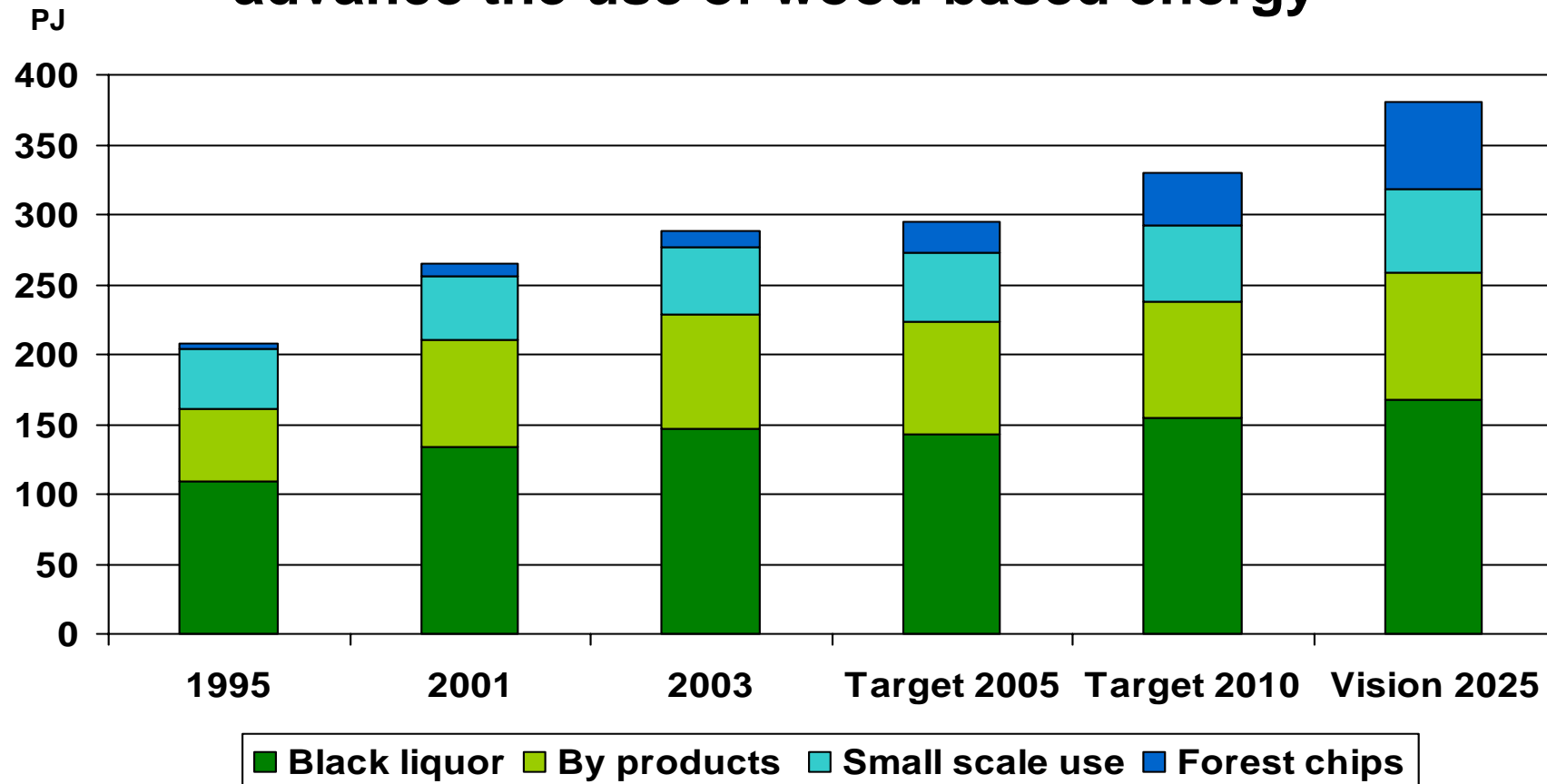


# Renewable Energy in Finland





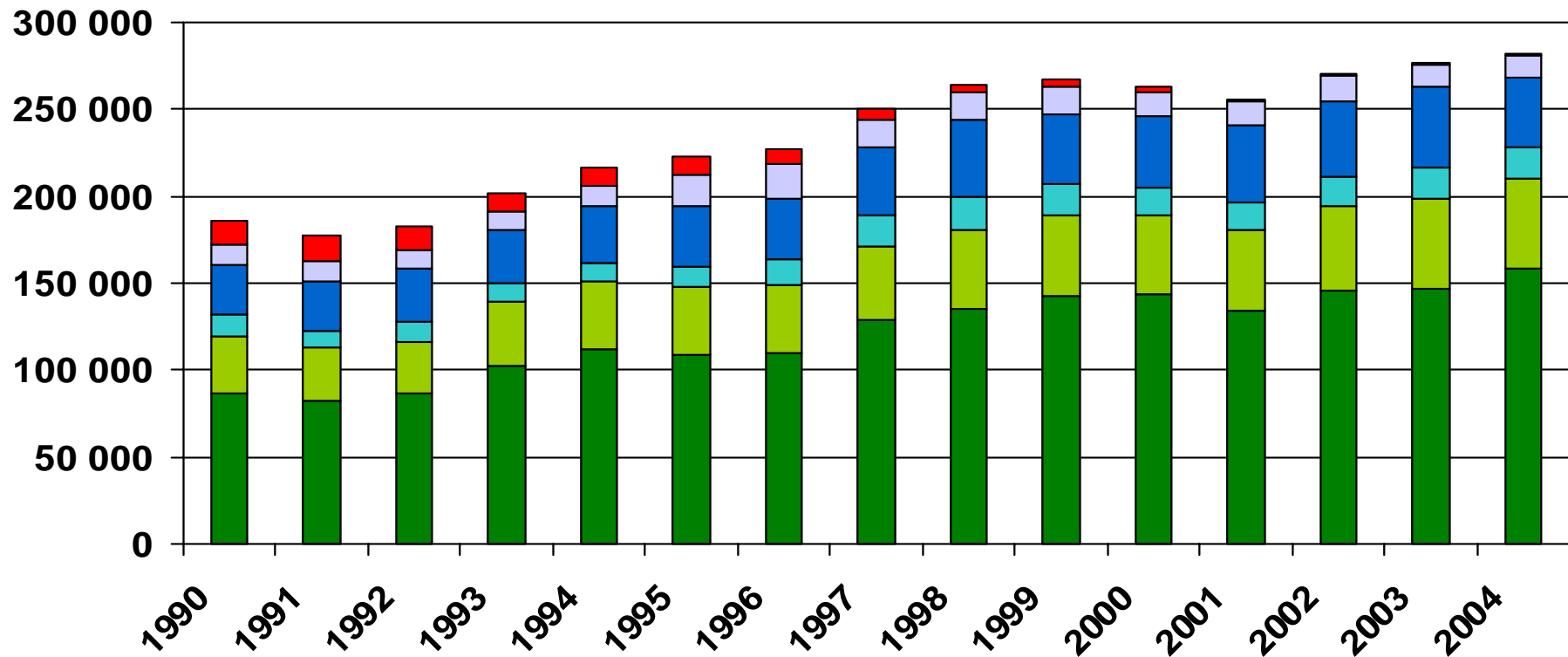
## Developments in the forest sector advance the use of wood-based energy





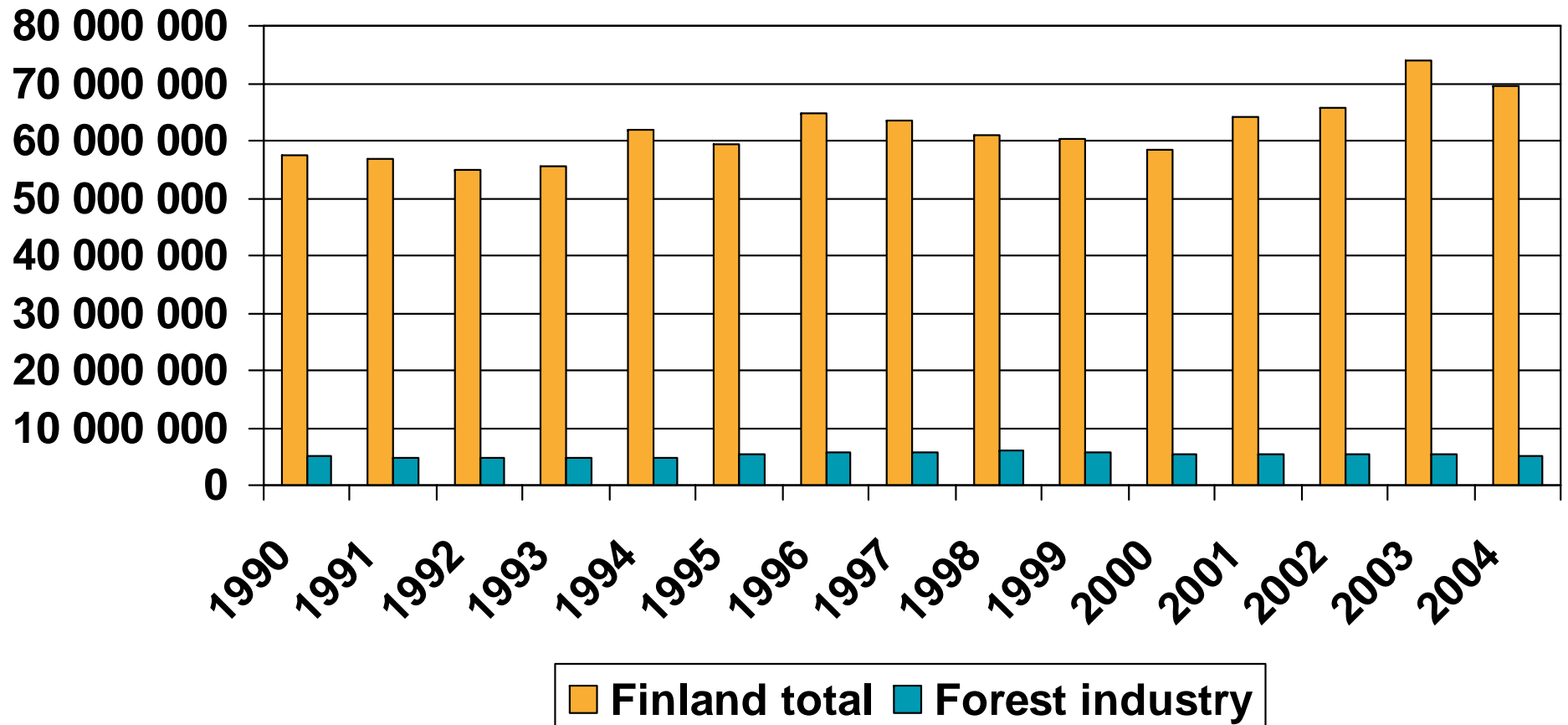
The forest industry in Finland has been increasing the use of renewable resources in its energy generation for a long time

### Mill fuels at Finnish mills, 1990-2004 (TJ)





## Finnish CO<sub>2</sub> emissions ( t CO<sub>2</sub>/a)





## **Use of wood as a raw material must be secured**

- **Climate policy decides whether timber is processed or burnt**
- **A rise in the price of emission allowances and fluctuations in the relative prices of fuels could lead to a situation, where:**
  - **It is not profitable to use peat**
  - **Zero-emitting wood, which would be suitable for raw material use in the forest products sector, is burnt instead of processed because use of energy-efficient peat is prevented**

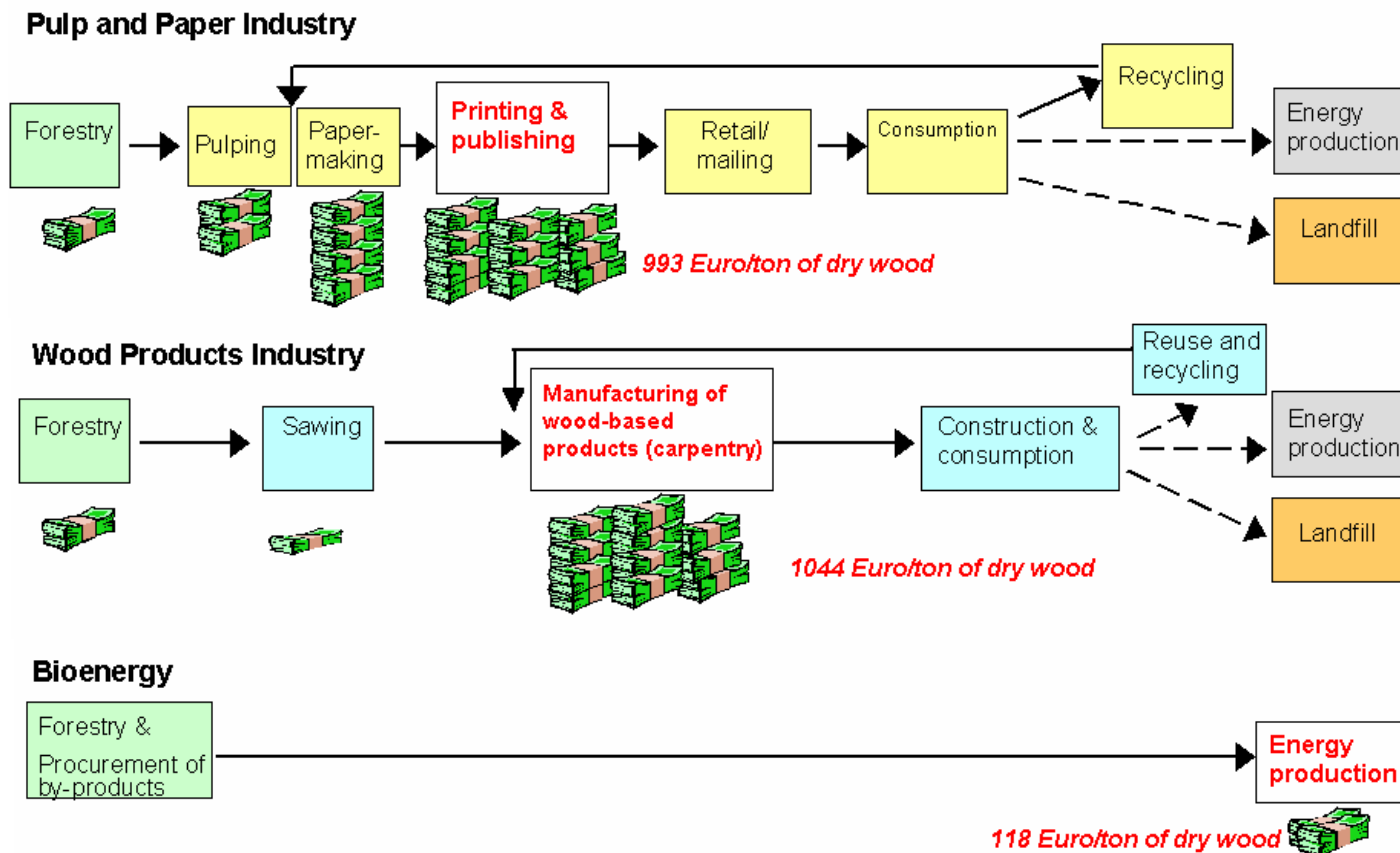




# Processing wood creates employment and increases the national product significantly more than burning

## VALUE ADDED

 = 100 Euro/ton of dry wood





## The forest industry can use more wood-based energy

- The fastest increase in the energy use of wood would come from forest chips
- Combined burning of wood and peat is the best way to increase the use of forest chips
- Half of the forest-based energy generated in Finland comes from biopower plants at forest industry production facilities
- The use of wood energy should be further increased by investing in:
  - Technology used by harvesting and logistics chain, improves the cost-efficiency of operations
- An effort is being made to increase combined generation of heat and power; this would increase the generation of bioelectricity
- Growth in the forest industry's production volumes often correlates with increased bioelectricity generation





## **Subsidies should not be allowed to distort the market for wood**

- **Supporting the development of harvesting and transport technologies used for forest-based energy is commendable**
- **Achieving the targets set for renewable energy sources is largely dependant on developments in the use of biofuels**
- **Many European countries have adopted certification schemes**
  - **Obligations have created a market for green certificates and electricity generated from renewable energy sources**
- **Obligation-based systems can easily lead to an increase in the price of wood and problems in raw materials supply**





# **Finnish Forest Industry and Russia**

**Finnish Forest Industries Federation**



# The Role of Finnish Forest Industry in Russia

- **Russia is a growing export market area**
  - **Forest product export 350 mill. €, which is 3 % of the branch's export**
- **The Russian forestry product import to Finland is increasing**
  - **104 mill. €**
- **Raw material wood import from Russia 14,1 mill. m<sup>3</sup> (480 mill. €)**
  - **Around 20% of the industry use**





## Many Opportunities on the Russian Market

	<u>FIN</u>	<u>RUS</u>
• Share of global forests	0,5 %	22 %
• Paper and board production	14 mill. t	7 mill. t
• Energy wood	8 mill m <sup>3</sup>	50 mill m <sup>3</sup>





# Finnish Investments in Russia

- **Our investments in Russia proceed step by step**
- **Finnish forest industry companies have invested around 350 mill. € (saw mills, corrugated board and plywood mills)**
- **The pulp and paper investments of Finnish forest industry companies:**
  - **China 1 400 mill. USD**
  - **South-America 2200 mill. USD**





# Key questions for the Development of Russian Forestry

- **Modernisation of forestry and increasing the efficiency (harvesting, Scandinavian felling practices)**
- **Ensuring the availability of wood based raw material (forest roads)**
- **A new forest law which is transparent, undiscriminating and enables development of forestry (under preparation)**





# Investments are Crucial for the Further Development of the Russian Forest Industry and Forestry

**The investment possibilities should be improved:**

- **WTO –membership of Russia**
- **simplifying the permit system for investments**
- **simplifying the customs declaration of machinery to investments**
- **intensifying the process for receiving industrial sites**





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