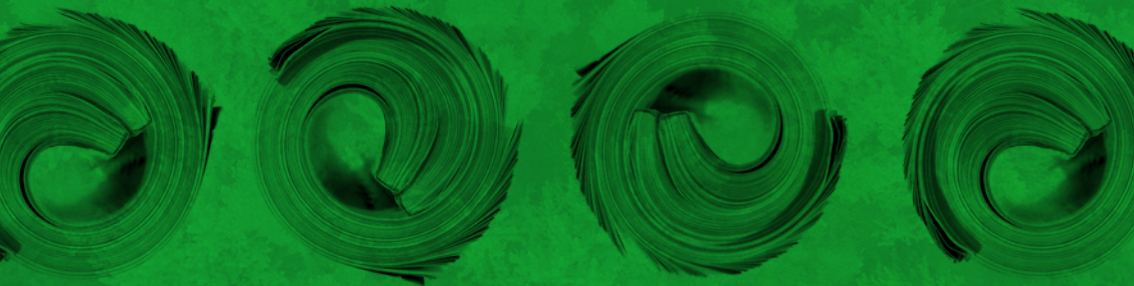




SUCCESS FROM THE FOREST INDUSTRY:

European growth spurred by the bioeconomy



Finnish Forest Industries

Forest bioeconomy responds to global megatrends



DIGITALISATION



**POPULATION
GROWTH**



URBANISATION

The bioeconomy generates new economic growth and wellbeing as well as responds to major global phenomena such as the challenges presented by climate change.

For companies, the bioeconomy brings new business and an opportunity to produce higher value added products. For consumers, the bioeconomy means an opportunity to choose a more sustainable lifestyle. The bioeconomy now has very broad significance.

Bioeconomy products that are based on wood include, in addition to paper and paperboard, for example, sawn wood, wood panels, biofuels, and textiles or pharmaceuticals made from wood fibre.



**COMPETITION OVER
NATURAL RESOURCES**



**ENVIRONMENTAL CHALLENGES
AND ENVIRONMENTAL REPUTATION**

Wood offers many possibilities

Wood is a versatile and recyclable material and the foundation of the bioeconomy. This offers a strong basis for developing circular economy.



The forest industry plays a crucial role in, for example, promoting sustainable economic growth, industry, and innovations, as well as in producing renewable energy, tackling climate change, and in realising the circular economy and sustainable forest management. The Finnish forest industry is a major implementer of the UN's Agenda 2030 Sustainable Development Goals.

European decision makers must take decisions that guarantee a competitive and stable operating environment for industry; decisions that encourage companies to invest, grow and develop in Europe. Decision making must be based on comprehensive impact assessments and it must be regionally equitable, for example, in terms of maritime environmental regulation.





TEXTILES



TIMBER

Construction
Decoration



COMPOSITES

= COMPOSITES THAT COMBINE WOOD AND OTHER MATERIALS
Products for, e.g. Construction, decoration, the automotive industry



PAPER AND PAPERBOARD

Packaging
Smart packaging
Tissue papers
Printing paper



ENERGY

Heat
Electricity
Pellets
Biogas fuels
Transport fuels



CHEMICAL PRODUCTS

Plastics, carbon fibre
Glue, lacquer, coating, insulation
Pharmaceutical products, health care products
Food products

Partnerships lead to new European innovations

In the forest industry, co-operation and partnerships between various players have allowed the sector to reinvent itself. Collaboration projects in research and development have led to new growth opportunities, which allow precious forest resources to be used ever more efficiently and for a wider range of purposes. Wood can already be used to manufacture many of the same products that thus far have been made from fossil crude oil or metals.





RESEARCH and innovation require both public and private players across various sectors. Companies provide development projects with a business point of view. Public research and innovation funding plays a crucial role in the development and adoption of new technology as well as in the acceleration and completion of risky ventures.



PRODUCTIVE innovation activities are based on the Public Private Partnership (PPP) model. Innovation partnerships aim to get players from various sectors to search for solutions to significant problems together. This provides research projects with the breadth and depth that guarantees more competitive solutions in the long term. Funding from the EU's Horizon 2020 programme has allowed researchers to create new wood-based solutions as well as to develop forest research. The "Bio-based industries public-private partnership" is an excellent example of how joint research funding has been used at the EU level to promote the bioeconomy.

The EU's 9th research and innovation programme is being prepared. It is important that companies are given the opportunity to participate in research pitches and that the PPP model be available also during the next framework programme period.

Wood use is the best example of the circular economy

The forest industry has been operating according to the principles of the circular economy for a long time already. Wood is a renewable resource and products made from it are recyclable. Production side streams are further processed via industrial symbioses into high-grade products such as fertiliser products. It is important that EU regulation take into account member states' special features and their best practices.



ECONOMIC sustainability is an important factor in decision making. Companies can meet environmental requirements best if economic realities are also taken into consideration.



THE circular economy should be viewed from the broader perspective of resource efficiency and as an enabler of further processing of side streams, and not only as a means to increase the rate of waste recycling.



FINNISH forest industry companies have taken the initiative to improve their operations and have made several environmental and responsibility commitments they intend to meet by 2020. The results speak for themselves: emissions have been reduced to a fraction of previous levels thanks to best available techniques, sustainable forest management has been promoted thanks to, for example, certification, and the production of renewable energy has increased. Well managed environmental and responsibility affairs offer the Finnish forest industry a competitive advantage.



International trade runs smoothly thanks to shared rules

Approximately 75 per cent of Finnish forest industry production goes to export and companies in the sector have production around the world. For the forest industry, it is important that the EU's trade policy decisions take into account global value chains that require smooth trade in both goods and services.

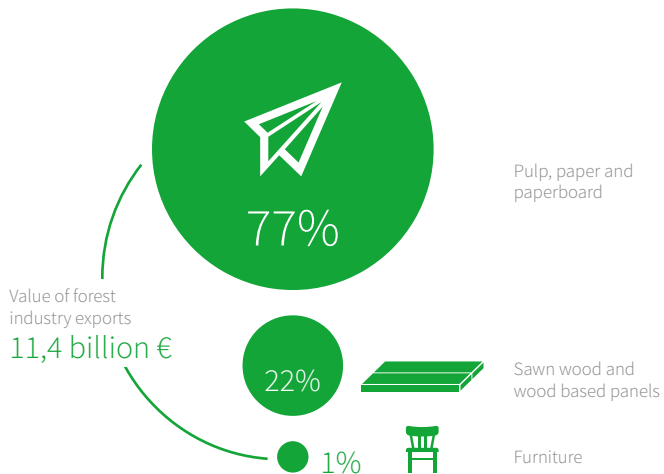
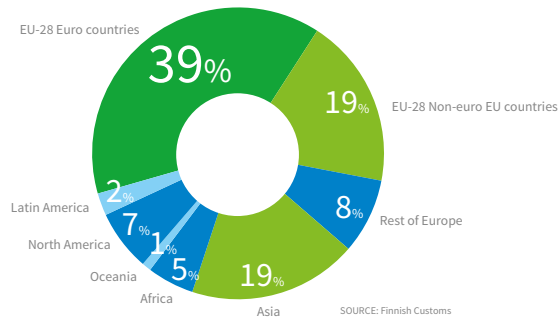


It is important to improve companies' opportunities for international trade by opening up new markets with trade agreements that guarantee equal treatment of companies and by making sure that the internal market operates efficiently. Such measures best serve consumers in Europe and around the world – by providing them with products that are as competitive and high quality as possible.

90% of the industry's exports and

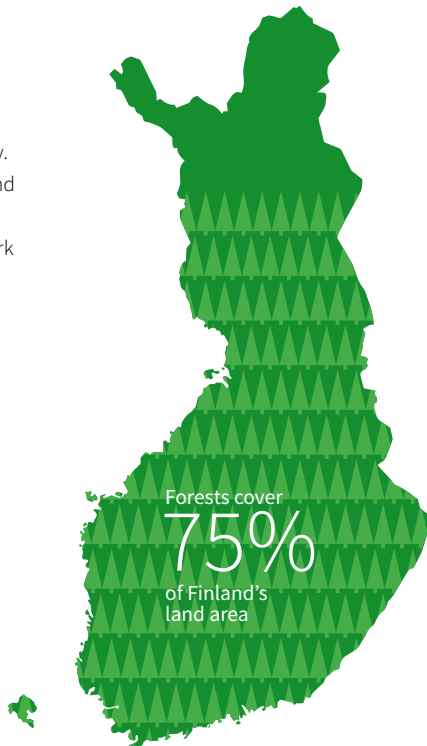
80% of its imports are shipped via the Baltic Sea.
The industry's main market area is Europe.

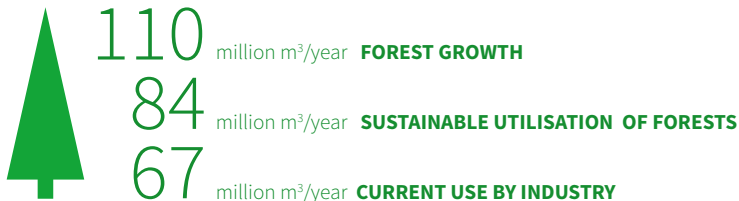
EXPORTS OF FINNISH FOREST INDUSTRY 2016







Renewable bioeconomy based on sustainable forest management

Finland is Europe's most forested country. Forests are showing increasing growth and annual forest growth greatly surpasses forest use. The Forest Act sets a framework for forest management in Finland. The leading principle of forest legislation has been the obligation to regenerate the forest after logging. Since 1997, multi-functionality has been a key driver in forest management, emphasising the safeguarding of ecological sustainability as well as promoting the diverse use of forests, landscape management, and water protection. About 85 per cent of Finnish forests in commercial use are certified according to PEFC or FSC certification schemes.





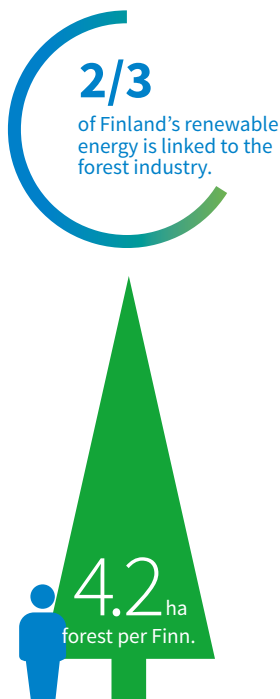
The further development of the wood-based bioeconomy requires an evolving forest industry and sustainable and active forest management. Sustainable forestry allows for the continued production of wood and other ecosystem services. A competitive forest sector creates the conditions for developing rural areas by offering jobs and growth as well by creating solutions that combat climate change.

-  WOOD procurement from legal sources is the cornerstone of sustainable forestry and a successful forest industry.
-  ACTIVE forest management supports the objectives of sustainability and carbon sink policies as well as help increase forest resources. This will further allow for a sustainable increase in the use of forest resources.
-  AN overall assessment of sustainability requires that ecological, social, and economic sustainability are all taken into consideration – it is important to find the right balance.
-  TAKING member states' special characteristics into consideration promotes sustainable use of forests.

Renewable raw materials help fight climate change

Products made from wood offer climate and environmental solutions, as they replace products made from fossil fuels and other non-renewable resources. It is important that in climate policy, the EU and competing countries outside the EU, have the same objectives. The forest industry is a major producer and consumer of renewable energy.

- ENSURING the international competitiveness of industry helps industry revamp itself as well as prevents carbon leakage into countries that have weaker climate targets.
- ENERGY efficiency is an important way for industry to reduce emissions and it can be further improved without limits being set on energy consumption.
- FOR energy-intensive industry, affordable access to electricity is an important competitive factor.



We believe in growth

The success of the forest industry is important for Finland. Forest industry products account for about one fifth of Finland's goods exports. The industry is a significant employer, especially in regional areas, employing about 41 000 people directly and about 150 000 people total.

In Finland, there are 49 pulp and paper mills and over 200 industrial sawmills, panel factories, and other wood products companies. Almost 80% of wood sales revenues go to private individuals. Forest owners' income totals approximately EUR 2 billion annually.

Existing products will continue to be the basis of business operations for years to come, as new generations of paper, packaging and wood products are continuously developed. New bioeconomy products and new business are created alongside existing products. The bioeconomy creates new companies, jobs, and prosperity.



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