

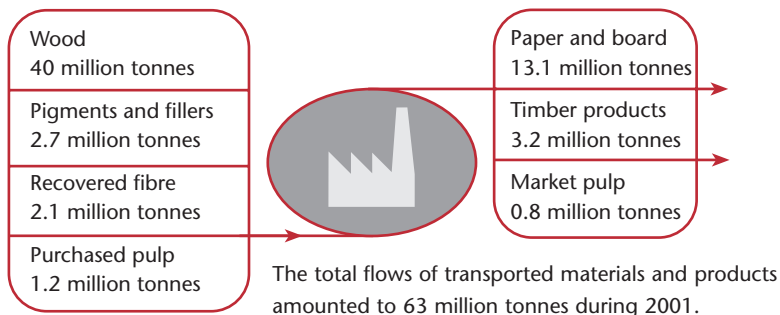
Transport

Developing optimal solutions

New environmentally sound transport solutions should be both cost-efficient and resource-efficient. They are also an important part of Stora Enso's Climate Change Strategy.

Stora Enso transported 63 million tonnes of raw materials and products in 2001, which makes the Group a significant transport purchaser on the global scale.

The integration of the Transport Environmental Principles into Stora Enso's everyday work started during 2001. Meanwhile, the Group's Climate Change Strategy stresses the importance of the systematic evaluation of transport links, considering both environmental impacts and the ways people are affected. Since the locations of mills and clients are almost invariably fixed, the issue is usually not changing routes, but rather using them as efficiently as possible in terms of resources and costs.



Efficiency and performance

Resource efficiency and environmental performance often go hand in hand, as can be seen from the following examples of recent transport improvements.

The Base Port transport system, launched in 2000, links mills in Sweden to markets in Continental Europe by integrating rail traffic with inter-

national shipping. Emissions have been reduced significantly due to high loading efficiency, and the catalytic cleaning equipment and low-sulphur fuel used by the ships. The Kvarnsveden-Lille transportation chain well illustrates the impact of the Base Port System on CO₂ and NO_x emissions, which were cut by 50% and 75%, respectively. During 2001 a million tonnes of goods were channelled through the Base Port System, and in 2002 the total is expected to be 1.3 million tonnes. Further increases in volume will continue to reduce emissions.

In Southern Finland, Stora Enso has channelled all container transportation through Mussalo Harbour instead of Helsinki, reducing the CO₂ emissions due to land haulage by 30%. The latest cargo handling equipment was also taken into use in the terminal resulting in emission reductions of 35% for nitrogen oxides, 45% for carbon monoxide, and 85% for particulates.

In London, the transportation of Stora Enso products in vehicles fuelled with liquefied natural gas has begun. These lorries deliver newsprint from the Stora Enso rail terminal to major publishers around Greater London. The emissions of nitrogen oxides and carbon monoxide are some 90% and 40% lower, respectively, than those of diesel lorries. Particulate emissions are also reduced by nearly 90%, and the gas engines are quieter.

By the end of 2001, 450 transport suppliers had gone through the Compass system, which evaluates suppliers' environmental management. More than 90% of the suppliers successfully passed this assessment, and the remainder have been given a year to improve their operations.