METLA

Metla

The Finnish Forest Research Institute (Metla) was established in 1917. Metla is a governmental, sectoral research institute, subordinated to the Finnish Ministry of Agriculture and Forestry. Metla has more than 700 permanent employees, of whom 250 are researchers.

Metla's mission is to build the future of the forest sector by producing and disseminating information and know-how for the well-being of society.

Metla' s key strengths are its highly professional staff, high standard scientific research and active national and international cooperation.

Research activities are organized into problem-oriented research projects and multi-disciplinary research programmes. Metla has a network of research units all over Finland.

Research Units

Multidisciplinary Units

Joensuu
Vantaa

Specialised Research Units

Kannus
Kolari
Muhos
Parkano
Punkaharju
Rovaniemi
Suonenjoki

Metla in Joensuu

The Metla Joensuu Research Unit started its activities in Joensuu in 1981 on the campus area of the University. By 2008 a total of 150 people were working at Metla/Joensuu, including 85 permanent and 60 contract employees. The number of scientists had grown to 85 people. Six of Metla's 18 research professorships are located at Metla/Joensuu. Researchers are participating in over 60 projects.

Metla/Joensuu is a multidisciplinary expert research organisation responsible for promoting forestry and forest-products based business activities in rural areas. The research at Metla/Joensuu is concentrated into the following six fields:

Forest management planning covers methods for combining information about forest resources and the operational environment of forestry, with multiple objectives of decision making.

Silviculture, including the impacts of forestry on the environment concentrates on forest management alternatives and on the effects of silvicultural operations.

Forest technology focuses on timber procurement and transportation, as well as on logistics and procurement of wooden biomass for energy and heating.

Wood science and technology concentrates on the physical and mechanical properties of wood and logs, timber scaling, customer and market orientated analysis of the use of wood.

Forest economics focuses on business economics and the local, regional and national economic operating environment, and on the markets for forest industry products.

International forestry concentrates on research of forestry in Russia and countries in Europe that are undergoing economic transition.

The National Forest Inventory of Finland (NFI), which produces large-area forest resource information, is coordinated from Metla/Joensuu. Other special research topics at Metla Joensuu are: forest entomology, elk and forest interactions, forest certification, criteria and indicators for sustainable forest management, forest berries and mushrooms, protected forest areas and calculation of carbon sequestration in peatlands and wooden biomass.

Metla/Joensuu is actively cooperating with universities, research institutes and forest organisations in and outside Finland.

Contact information:
Finnish Forest Research Institute (Metla)
Metla/Joensuu
Director Dr. Jari Parviainen
Yliopistokatu 6, FIN-80110 Joensuu
tel. +358 10 2111
firstname.surname@metla.fi
http://www.metla.fi/jo/index-en.htm

Photos: Metla/E. Oksanen, Scanfoto, J.Tiainen, V. Heiskanen; Graph: SARC Oy; Text: Metla/J. Parviainen; Layout: Metla/M. Lier

The Metla House -
The first large wooden office building in Finland

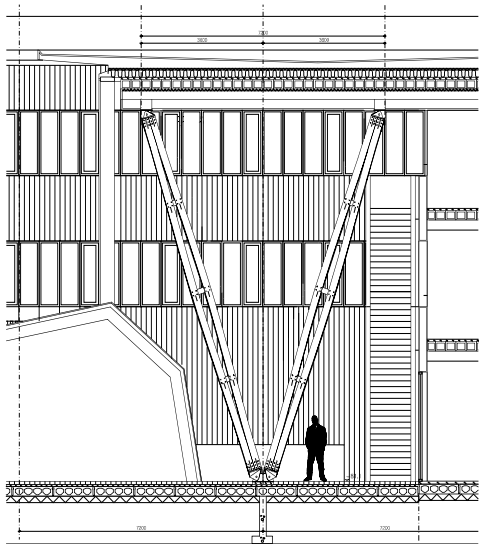
A three-storey wooden building built in 2003–2004 has aroused an unexpected amount of interest both in Finland and abroad. Known as the Metla House, it has its origins in an architectural competition that was arranged in 2002. The aim was to design a timber-framed building that would provide an efficient and inspiring working environment for winning entry was designed by SARC Architects Ltd with Antti-Matti Siikala as principal architect.

The plan of the building is the archetype of an ancient educational institution, where a inner courtyard is encircled by communal areas. The entrance to the building and the inner courtyard is through a forecourt bordered by walls made of 100-year-old reclaimed logs. The ceiling of the entrance hall is supported by magnificent clustered wooden columns, which have been inspired by the log booms from floating logs down rivers. The new building houses an assembly hall designed in the shape of an overturned boat as well as laboratory facilities.

The use of wooden hollow-core slabs and wood and concrete composite beams is a solution that had not been used in Finland before. This system was implemented in the form of 7.2 m modules. The columns, beams and box slabs of the frame are made from spruce glulam. The height of the box slab intermediate floors is that of a concrete intermediate floor. The facade elements have been clad with vertical spruce planks on the outside and plywood on the inside.

Innovative construction solutions, such as galleries and stairwells which act as meeting places, light-filled workrooms and many conference areas and common spaces create an atmosphere which is conducive to interactive research.

The most commonly used wood is spruce. Chairs made of 12 different types of deciduous tree species are a special feature of the conference and meeting rooms.



The building has won the "Finnish Wood Award" in 2005. Furthermore is has been part of the project, European high quality Low Energy Buildings (EULEB) in which information on existing public, non-residential, high quality and low energy buildings from 27 European countries was produced.

Metla/Joensuu is conducting research connected to wood building in its two research areas *Wood Science* and *Technology and Forest Economics*.

Technical data
Gross area: 7 653 m^2, volume: 33 151 m^3
Construction costs: EUR 16 million.
Construction, maintenance: Senate Properties

The Metla House in Joensuu