



Metla House — an Innovative Work Environment for Forest Researchers

forest • knowledge • know-how • well-being

METLA

METLA HOUSE – BUILT IN METLA’S IMAGE

Completed in 2004, Metla House is Finland’s first large three-floor office building to be built from wood and to have a wooden frame. The building was created for forest researchers and its construction involved the innovative testing of both new and traditional wood construction solutions. Metla House’s name is derived from the customary abbreviation for the Finnish Forest Research Institute, ”Metla”.

A key wood construction project

Metla House was built as a result of the Government decision of 2000 to reinforce forest research in Joensuu. Arranged in 2002, the related architectural competition was won by architect’s office SARC Oy’s entry ”Puumerkki” (”Signature”), with Antti-Matti Siikala acting as chief architect.

Metla House was a pilot project for wood construction, one of whose challenges lay in establishing wood as a viable alternative among larger-scale office building materials. The goal was to develop a wooden framing system whose implementation is reminiscent of the prefabricated construction commonly used in Finland.

Metla House is modelled after the ancient archetype of an educational institution, with its facilities wrapped around a shared courtyard. Enclosed by walls clad with hundred-year-old recycled logs, the forecourt acts as the gateway to the building and its courtyard. Gorgeous, clustered columns bear the weight of the entrance hall’s roof. The entrance hall is dominated by the lecture hall, which has been designed in the form of an upturned boat. Working facilities, offices and laboratories, wrap around the courtyard and entrance hall.

Almost all of Finland’s 24 native wood species were used in the structure and interior decoration of Metla House. Spruce is dominant, accounting for around 80 percent of the wooden materials used in the building’s structures. Wood constitutes 40 percent of the total mass of all materials used in the building.

Stone was also used. Cube stones were laid in the outer courtyard of Metla House, while the entrance hall floor is made of soapstone.

Wood dominant

Metla House has become an important national and international reference site for wood construction. Over 30,000 guests, representing various stakeholders interested in wood construction and forest research, have already visited the building.

Metla House has also received several awards, such as Building Project of the Year, Senate Properties 2004; Wood Award 2005, Puuinformaatio Oy; and Lighting Project of the Year 2005 awarded by the Illumination Engineering Society of Finland. Metla House was also included in a building-themed stamp booklet in 2011.

The building’s creation has provided invaluable experience of the construction of buildings with wooden structures and the related construction and operating costs.

Wooden buildings save the environment, provide a comfortable living and working environment, and have excellent carbon sequestration properties. They therefore play an important role in meeting current climate and energy objectives.

Replacing other construction materials with one cubic metre of wood reduces atmospheric carbon emissions by an average of 1.1 tons. A detached house with 50 cubic metres of wood contains 45 tons of carbon dioxide, corresponding to 12.5 tons of carbon. The wooden, three-floor Metla House contains around 2,000 cubic metres of wood.

According to calculations, building Metla House from wood represents a saving of 620 tons of carbon dioxide compared to an equivalent building with a concrete frame.

Forest research in Joensuu from 1981

The Joensuu facility is a multidisciplinary expert organisation that operates on a national and international scale. Its task is to promote regional development related to forest and wood know-how, particularly in Eastern Finland.

Around 110 Metla personnel currently work at Metla House; in addition, personnel from the European Forest Institute (EFI), the Finnish Food Safety Authority Evira, the University of Eastern Finland and the Finnish Game and Fisheries Research Institute (RKTL) are based there.

- Developer: Senate Properties
- Building costs: EUR 16 million
- Gross floor area: 7,600 square metres
- Volume: 33,151 cubic metres
- Working space for 200 employees

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Metla House is located in the university campus area, facilitating daily co-operation between Metla and the University of Eastern Finland.

