PART 02 OF 03

Future of public spaces
Wood City

Stora Enso was formed by the merger of Swedish mining and forestry company Stora and Finnish company Enso-Gutzeit in 1998; its roots date back to 13th-century Sweden. Today, Stora Enso has become increasingly innovative with value-creating renewable materials. One interesting new segment is cross-laminated timber (CLT); made from solid wood, it offers significant advantages in construction speed and sustainability. It is the ideal choice for Wood City, a breakthrough urban development in the heart of Helsinki's Jätkäsaari harbour district.

LOCATION:
HELSINKI, FINLAND

WOOD CITY APARTMENTS:

8 STOREYS
98 RENTAL APARTMENTS

CLT USED:

2,500 CUBIC METRES
230 WOODEN MODULES

CLT APARTMENTS ASSEMBLY:
MARCH TO SEPTEMBER

J F M A M J J A S O N D

BUILDING A COMMUNITY

Wood City comprises an office block, a hotel and two residential buildings. Designed by Anttinen Oiva Arkkitehdit and implemented by Stora Enso and construction company SRV, the project will be a masterpiece in urban wood construction that showcases the potential of Stora Enso's CLT. Set for completion in 2016 it will capture the best of downtown living in Helsinki with shops, theatres and other attractions close by.

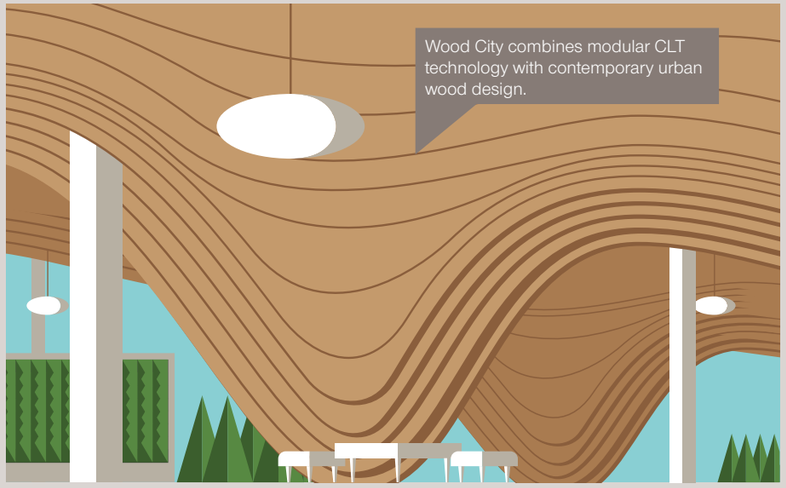
Residents and business executives will mingle in the lobby which, with its undulating CLT-constructed ceiling, reflects Wood City's waterfront setting. The office spaces' flexible layout allows for customisation to suit every business.

CLT IN ACTION

Wood City benefits from ground-breaking CLT-based modular technology, allowing the eight-storey complex of 98 rental apartments to be built securely and efficiently. The quarter is assembled from CLT; apartments are built from prefabricated modules that act as load-bearing structures, saving up to 70 per cent of construction time. No additional support structures are needed so the CLT method is safe and affordable; it is sustainably sourced and there is no waste generated at the construction site. About 10,000 cubic metres of CLT is being used for Wood City. Each cubic metre holds one tonne of carbon dioxide, making it environmentally sound.

The eight-storey, four-building Wood City is one of the world's largest wooden quarters, comprising office, residential and hotel spaces. It is the pinnacle of timeless modern architecture, rethinking how public spaces in the city can be fully optimised. The bustling courtyard is flanked by street-level shops and restaurants and the foyer is open to all to capture the pulse of the city while promoting opportunities for networking and co-operation.

Modular construction technology speeds up the construction time. Having moved in, residents can enjoy the pleasant indoor climate and good acoustics provided by wooden constructions.



Wood City combines modular CLT technology with contemporary urban wood design.

Q&A with Vesa Oiva

Vesa Oiva, co-founder of architecture practice Anttinen Oiva, is spearheading the Wood City project. His design was selected in 2012 for its innovation, sustainable construction and celebration of Finnish wood.

How will Wood City contribute to the Helsinki cityscape?
As the main connection to Jätkäsaari runs right beside Wood City, it is the first block you see when entering the district. It is vital that we create a recognisable identity for the building. The perimeter block has been opened and cut to allow the nearby sea to be present in the whole block – the hotel, offices, apartments and the courtyard. The silhouette of the quarter is kept calm and the openings concise in order to clearly define the street and to create an urban spatial hierarchy typical of the inner city. Our aim is to create a unique and place-based entity. Wood in its various forms has a strong presence in the cityscape. The façades of the building act as storefront windows for wood construction and their character is defined by the juxtaposition of the various appearances of wood.

Why is CLT so appropriate?
CLT is a multifunctional and versatile building material that brings great flexibility and freedom to the design process. It's also very environmentally sound and has a reasonably low carbon footprint.

Can you explain the modular construction technique and why it works for this project?
Modular construction in Wood City involves pre-manufacturing spatial elements. This enables rapid on-site construction, which is a priority for this project. The fact that the structure is based on this system doesn't restrain the architectural expression in any way.

Still to come in this series: the future of the city