SHL's Rocket&Tigerli complex will integrate daylight and spaciousness, emphasised by a more natural-feeling wooden tower | Photo source Schmidt Hammer Lassen Architects

A RECORD-SETTING ALL-TIMBER BUILDING

ARCHITECTURE & DESIGN

A new residential building planned near Zurich will demonstrate the utility of building high rises in wood

Spotted: Timber-framed buildings are having something of a renaissance lately, with the advent of cross-laminated timber (CLT), an engineered wood product made from gluing together layers of solid-awn lumber. By gluing layers of wood at right angles, CLT can achieve both strength and flexibility. The material is becoming an increasingly popular choice for architects, who argue that the product is not only more sustainable than steel, concrete, and glass structures, but also offers significant benefits to health and wellbeing.

While there are a number of high-rise timber frame buildings currently in planning or under construction, a Swiss project near Zurich will be the world's tallest timber residential building once it is completed in 2026. The project, named Rocket&Tigerli, will consist of four buildings, including a 100-metre-tall (328-foot) tower.

The four buildings in the project, named after locomotives produced at the site, will mix regular housing, student housing, a restaurant, retail spaces, a sky-bar, and a spa and hotel around an open plaza. At 100 metres high, the tower sets a record for residential buildings constructed with load-bearing timber. It highlights how timber represents a viable alternative to concrete and steel construction.

'Plyscrapers' built from CLT are popping up seemingly everywhere. We have previously seen wood used to construct a 278-foot building in Switzerland and a Danish hotel extension. But the use of CRT has also expanded to a wide variety of tall buildings around the world. In 2020, a team of

environmental scientists and architects writing in the journal *Nature Sustainability* quantified how, by 2050, new timber buildings could be used to store up to 680 million tonnes of carbon each year.

Written By: Lisa Magloff

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Website: shl.dk/rockettigerli
Contact: shl.dk/contact

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Takeaway:

Although concrete (and steel) construction is incredible energy intensive, wood has not generally been seen as a sustainable replacement, largely due to concerns around deforestation. However, timber grown sustainably can be a much better alternative for building. Not only does it use less energy during the construction process, it also has a much smaller carbon footprint than concrete and steel. Wooden buildings can be easily prefabricated and built at a much faster rate—and more cheaply—than alternatives. Wood is also incredibly durable and is actually more resistant than some metals – even to the extent of being safer in the event of a fire. On top of this, wood offers something that concrete and steel cannot - a connection to the natural world. Wood has a tactile beauty, warmth, and scent that has been known to improve the mental and physical health of residents.