

Latest Developments of Wood and Wood-Hybrid Systems in Midrise and Highrise Building Applications

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In North America, light-frame wood construction that originated in the 19th Century was and still is the dominant system for single family and low-rise (up to four storey) buildings. Recently, this system is increasingly used for midrise construction. For example, about half of the 5 to 7 storey midrise buildings in the US are being constructed with light wood frame exclusively or in combination with other systems (i.e. hybrid techniques).

In high-rise applications (more than 7 storeys), on the other hand, heavy timber systems, once reaching as high as 9-storeys at the beginning of the 20th Century, but lost favour with developers when steel and concrete systems were introduced.

After missing almost an entire century, the increased interest in a more sustainable built environment and the aesthetic qualities of wood have led to the creation of new knowledge on “mass timber “ and “hybrid”, which will enable wood to again make in-roads into highrise applications.

The presentation will include examples of midrise and highrise wood building applications, both from the past and present, and hope this will inspire the next generation of wood composites.