

Timber buildings growing in a city near you

December 11 2013, by Elizabeth Kuo



A building in Austria under construction using engineered timber technology.

UTS expertise in timber engineering has contributed to world-leading timber technology now used in a number of designer buildings in New Zealand and Europe.

Professor Keith Crews has worked with the research consortium Structural Timber Innovation Company (STIC) as UTS Project Leader to create cutting-edge technology with the potential to revolutionise the global construction industry.

For the past four and a half years STIC has developed new types of building systems using engineered [timber](#) as the primary construction material, Professor Crews said.

This includes incorporating earthquake resistant technology that has the ability to flex and pull buildings back into place, such as NZ company EXPAN Buildings, as well as other technologies that exploit timber as a sustainable building material.

"There are already a number of buildings in New Zealand and Europe using this type of technology, and several soon to come in Australia," Professor Crews said.

While the use of engineered timber is growing in popularity in Australia and other parts of the world, using timber in such large quantities is not conventional building practice. As a result, STIC have developed a comprehensive series of guides to engineered timber for the design and building industries.



Residential apartments in Sweden incorporating similar floor system technology developed at UTS.

"Despite all the interest in timber building construction, the take-up of these new technologies has been a bit slow with designers, builders and architects alike. Much of this resistance is simply based around lack of familiarity – people aren't used to using engineered wood in this way.

"The guides are user-friendly and based on really good science, making it much easier for the industry to adopt these types of timber technologies," Professor Crews said.

As more architects and engineers begin to see the creative and environmentally-responsible possibilities of timber in construction, Professor Crews reflects on a major cultural shift taking place.

"The naysayers will always think timber is a bad option because it will burn. Yes, they are right, it does burn; but what it does is burn at a very predictable rate. If we put enough timber to make it thick enough, and we put sprinkler systems in place, then your problem is solved. It's actually very easy to fire-rate, and have a high performing timber [building](#).

"However, it's much more than that. The reality is, when you are the initiator of these technologies, there's a lot of education required. But it's doable, and we're seeing proof in buildings all around the world," Professor Crews said.

Provided by University of Technology, Sydney

Citation: Timber buildings growing in a city near you (2013, December 11) retrieved 28 June 2024 from <https://phys.org/news/2013-12-timber-city.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--