Multi-storey wooden buildings

MAF’s Perspective

MAF is the most unlikely participant in the NMIT building, but was also the most crucial.

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ithout their $1 million “timber design” prize, it just wouldn’t have happened. And the reason for this, they firmly believe, is that building owners, quantity surveyors, engineers and architects have been caught in a Catch 22 situation: they don’t dare risk a timber design with a modern commercial building because there is no track record of such structures. A prototype example would give them the confidence to estimate the cost and other characteristics of a wooden option. MAF wanted a building that would showcase timber and would be available for engineering students to study. The NMIT building was ideal for the purpose: it is multi-storey, commercial rather than residential, innovative, and should display timber at its best.

So why is a government agency involved at all? MAF believes there are clear national and long-term advantages in using a renewable and low-energy resource with a plentiful and sustainably grown supply in New Zealand. Increased use of wood can also translate into national benefits of reducing fossil fuel energy and CO2 emissions. There is an additional carbon benefit in that wooden buildings would increase the carbon stored in wood and wood products, and would displace fossil fuels when wood waste is burnt. MAF believe it would be beneficial for the government to promote a greater use of wood and forestry because this would also meet other objectives: sustainability, mitigation of water pollution and reduction of soil erosion. The government would like the forestry sector to be “vibrant, commercially sustainable and internationally competitive”

In work commissioned by MAF, BRANZ estimated that timber could substitute for alternative, energy-intensive materials in half of the new medium to large buildings in both government and private sectors. There appear to be no technical or financial barriers to using wood in such buildings - the sticking point seems to be conservatism in the construction sector, a situation probably compounded by the few examples of wooden commercial or public buildings in existence.