We would have felt cheated if we had not had a few earthquakes, not to mention arctic temperatures and biting winds. When the field trip circumnavigated Christchurch’s Red Zone, the psychological impact of the devastation, even for those who have closely monitoring the news for nearly two years, was profound. The post-quake rebuild (with wood?) was on everybody’s minds, and many of the presentations touched on that subject.

Institute conferences have come a long way in the last few decades. The turnout was impressive, both in numbers (224) and in quality; everybody who is anybody in New Zealand forestry was there. Given that forestry has become fragmented into tight specialties, it was logical to divide the agenda into three parallel themes: forest growing, forest harvesting and engineered wood products. Although not possible to attend all sessions, it was intriguing to discover that the engineered wood products had by far the largest audience. Perhaps members particularly wanted to learn about this comparatively new subject, with such exciting potential?

The Hon David Carter (Minister for MPI) opened the conference, and clearly understood the importance of forestry to the New Zealand economy, together with the opportunities for its further development. Several keynote speakers addressed the whole conference, with Dr Euan Mason skilfully merging Dr John Moore’s presentation into his own (John had the ‘flu). John’s paper discussed the ways in which managers can influence the structural quality of their product from the end-user’s perspective. Continuing from this, Euan wants to establish a “Structural Log Index” (see p. 13) similar to the popular Pruned Log Index, to allow the purposeful design of silvicultural regimes. David Balfour, the Director of Timberlands Ltd which manages Kaingaroa Forest, spoke next. His provocative talk included the need to reduce log grades from the 20 or so current grades to only three! Jim Taggart, a lecturer in architecture from the British Columbia Institute of Technology, was the final keynote speaker. He said it has taken a concerted joint effort from industry and government to manifest the changes they have seen in Canada over the last decade or so, and he illustrated his points with some spectacular wooden structures. The key to success has been in finding the champions at each stage of the design and delivery process.
Theme

Forest Growing

Professor John Walker kicked off the Forest Growing theme in his usual machine-gun fashion, with bullets splattering everywhere, using quotes from Keats to Machiavelli, and occasionally hitting their target (ouch!). He reinforced the need to emphasise wood quality. He was followed by Peter Wilks who discussed the switch to structural regimes in the Nelson district, already favoured by a natural tendency in some parts of the region for small branches and high wood density.

Jose Pablo Jordan gave the Chilean perspective on growing structural lumber. Unlike New Zealand, they allow the ultimate customer to determine how they manage their forests, but the Chileans face many similar issues such as the competition from all-steel framing, and the need to phase out CCA treatment. Mike Riordan, as leader of the FFR radiata management team, then described how FFR is attempting to map all wood properties within a tree, and identify both the ways managers can influence these and their consequences for the end products. Mark Self from Kaingaroa Timberlands underlined the message about the ideal structural regime: high stockings (>500 sph) and long rotation ages with tight control over genetics, and retaining clearwood regimes only for the domestic market.

Mark Dean from Ernslaw One (page 28) gave his depressing but realistic view of the (low) structural value of radiata pine on colder sites, and advocated Douglas-fir for this purpose. The caution, as Dr Stuart Kennedy said, is that, although Douglas-fir is far better for structural uses, it is also influenced by location (colder sites have lower stiffness) therefore it may be wise not to prejudice market perceptions of NZ-grown wood by planting such sites. Paul Millen ended the theme on a high note, by discussing the prospect of a new $3 billion industry based on durable eucalypts (eg *E. bosistoana*) on the drier east sides of both islands. Very exciting, and quite believable.

Forest Harvesting, Roading and Infrastructure

Roading issues were discussed by Dean Neilson, the national engineering manager for PF Olsen. Despite the recently updated Forest Road Engineering Manual, a lot of the concepts are still not widely understood. Dean elaborated on these in detail including the use of revolutionary new technology such as LiDAR. Simon Fairbrother from Canterbury University also talked about roading, and concentrated on pavement design. Martin Gribble, of GHD Ltd, compared the impact on council roads of logging trucks to other rural sectors. He concluded that, per year, forestry generates approximately the same number of truck movements per hectare as beef farming and less than half that of dairy, although forestry traffic can be concentrated over a short time period. Grant Blackie, from Waikato Regional Council, expanded the rural comparison to the general environmental benefits and liabilities of forestry, particularly in relation to forest roading and harvesting. With some spectacular photographs, he illustrated good and poor practices.
Prof Dale Green, from the University of Georgia, described how harvesters cope in the Southern States during tough times. Among the multitude of useful data was the fact that they have very few log grades. Keith Raymond, the FFR harvesting theme leader, was next (p. 19). He detailed ways that New Zealand harvesters could cut costs, especially on steeper and more difficult terrain. Rob van Rossen, the General Manager of Rayonier/Matariki, talked of increasing harvesting costs and environmental expectations, but also discussed opportunities for improvement.

On another issue – getting wood through our ports – Matt Wakelin from C3, listed bottlenecks and storage issues. Optimising the transport chain is paramount, with handling and measurement of secondary importance. Steve McClennan from Brand Logging was focussed on safety issues in general. He was supported by Canterbury University’s Ass. Prof. Rien Visser, who said that safety – and also log-making and transportation efficiency – were being sacrificed for gains elsewhere along the supply chain.

Rien compared New Zealand unfavourably in this regard to the Southern USA, Scandinavia and Austria. Finally, Chris Fowler (p.24) of Adderley Head looked at the increasing regulatory burden that the forestry sector has faced and how this might change under a regime of National Policy Statements and National Environmental Standards.

Engineered Wood Products

In recent years, Jason Guiver has won some well deserved accolades for his amazing new structures (including the Waitomo Caves Gridshell and the NMITArts & Media Building), so he was an excellent choice of speaker. He showed in highly informative detail the materials and techniques than enable modern prefabricated structure to be built with all their advantages. Ian Page (manager from BRANZ) (p. 8) discussed trends in, and the potential for, sawn timber in New Zealand.
With Douglas-fir being the exemplar of a perfect structural species (stable, small knots, stiff, dry, fairly durable), it was appropriate to hear from Andy Karalus – the Manager of the Douglas-fir Association. He showed how good science combined with intense lobbying allowed the use of untreated wood in low risk house designs (H1.2 for typical external walls), reaching a cross-sector agreement on standards. Jim Taggart continued on from his keynote speech with more stunning examples of modern wood architecture.

Scott Gibbons extended the arguments of Guiver and Taggart with an analysis of the change of wood from traditional structures to innovative materials. There are many good reasons for using wood (for example, LVL is a good replacement for steel beams and portals) but we should not try to make wood do something it is not. With all the amazing photographs seen during various presentations, you would think it was not possible to top these, but Johann Betz did just that with his computer-designed but seemingly free-form structures from all over the world (as in the front cover). If you think that wood is a fibre of the past, ponder these pictures. Johann also emphasised the efficiency and efficacy of prefabricated structures, for which wood is highly suitable. Unfortunately four speakers in this theme failed to provide papers, so no summary of their (no doubt excellent) papers can be given.

**Conclusion**

Despite the weather, the conference was a great success. The speakers were top-rate, the facilities ideal, the after-dinner speaker hilarious, and even the student posters were, in the opinion of this author, the best ever. It will be hard for subsequent organisers to improve on this event!