We have had a positive response to the May 2006 ‘Across the Board’, so have decided to issue it monthly. I invite readers to send me information and news that could be included in the July or subsequent editions.

Tom Spurling
Chief Executive Officer

Careers for our students

Four of our doctoral students are continuing their research careers on projects connected with the CRC.

Dr Georgiana Daian has a Post-doctoral Fellowship at The University of Melbourne and is now working with Dr Barbara Ozarska on the wood bending project. Georgiana graduated from Swinburne University of Technology in 2005.

Her thesis was entitled ‘Establishing the dielectric properties of a number of wood species for a range of frequencies, temperatures and pressures.’

Mihai Daian has a Post-doctoral Fellowship at Swinburne University of Technology working with Dr Alex Taube on the wood bending and the accelerated wood drying projects.

Mihai submitted his PhD thesis in February 2006. It is entitled ‘Evaluating new microwave equipment and its suitability for wood modification’.

Christine Thong has been appointed a Lecturer in the Faculty of Design, Swinburne University of Technology.

She aims to submit her PhD thesis in 2006. It is entitled ‘Utilising industrial design for new material development; an exploration of microwave modified timber’. She will continue her work on furniture design.
Luke Juniper has been appointed as the Engineering Operations Manager for Wood Shapes Pty Ltd. He aims to submit his PhD thesis in 2006. It is entitled ‘Investigation into the mechanical behaviour of wood during bending.’

He will be working with the teams at Marand Precision Engineering, the CRC and Black Forest Timbers to design and install the automated wood forming machine.

Corporate matters

We are in the final stages of completing our revised Commonwealth Agreement. We need to do this due to: the withdrawal of Auspine Ltd, Kempsey Timbers Pty Ltd, Microwood Australia Pty Ltd and Treecorp; the inclusion of TimTech Chemicals Pty Ltd; the transfer of the interests of AV Syntec to Bostik Australia Pty Ltd; and the transfer of interests of Furnishing Industry Association of Australia Ltd to Furnishing Industry Association of Australia (Vic/Tas) Ltd.

In our submission to the CRC secretariat we have argued that while the withdrawal of some of our initial partners has reduced the total resources available to the CRC, we will be able to meet our research and commercialisation milestones through increased contributions of our remaining participants and more efficient use of the resources.

Accelerated Drying of Hardwoods

The ‘proof of concept’ experiment reported in ‘Across the Board’ May 2006 is underway.

Industry partners who are involved in this project include Black Forest Timbers, Neville Smith Timbers, Gunns and Boral Timbers. A Steering Group has been formed to manage this project, chaired by Dr Glen Kile, Chief Executive Officer of the Forest and Wood Products Research and Development Corporation.

The experiment will comprise of two stages. Stage 1 (Calibration Trial) will consist of a trial to determine the most appropriate microwave treatment regime for each of the selected three species. Stage 2 (Treatment) will consist of the treatment of samples according to the best microwave regime determined from the first stage.

At the end of each stage, the microwaved timber will be returned to the industry partners where they will be kiln dried with control samples sourced from the same population. Kiln drying is expected to take up to ninety days.

These trials will utilise the 30 kilowatt microwave system using the 2.45GHz frequency, and the 300 kilowatt microwave system using the 0.922GHz frequency, situated at the CRC’s Australian Centre for Advanced Wood Processing in Creswick, Victoria.
The outcomes of this project will be a comparison between microwave treated sawn timber and control samples on wood quality variables such as internal checking, unrecoverable collapse and surface checking. The project is expected to be completed by August 2007 and general findings will be made available to the industry at this time.

**What’s next in commercialisation?**

The CRC has two years to complete its research and commercialisation objectives. Two of our technologies have clear commercialisation pathways.

The wood bending technology is being commercialised through the spin-off company Wood Shapes Pty Ltd. This company has sufficient funds to design, build and install a production prototype machine and to test the market for bent components. Sometime in 2008 the Boards of both Wood Shapes and the CRC will need to decide on the future of this technology.

The enhanced adhesion technology is currently being evaluated by Bostik Australia Pty Ltd. Our plan is to license this technology.

We have licensed our hot wood treatment process for wood preservation to Tim-Tech Pty Ltd for Australia and New Zealand.

We are now developing a commercialisation plan for our major opportunity which is the use of microwaves for the modification of wood. There is considerable interest in this technology. This includes the use of microwaves to increase the permeability of wood prior to preservation treatment as well as the use of micro-
waves in accelerating drying. Commercial interest in the latter will intensify if the 'proof of concept' experiment’ (see above) is successful.

Finally

The work of the CRC has reached its most exciting stage. We have spent the first five years building great capacity and knowledge. We are now at the stage of turning that knowledge into value for our participants and the taxpayers who funded us.