New Zealand Programme - Australasian Series

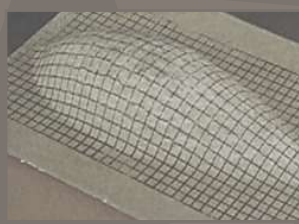
WOOD INNOVATIONS 2008

NEW TECHNOLOGIES IN WOOD PROCESSING, MANUFACTURING, MATERIALS AND DESIGN

Auckland, New Zealand
15 - 16 September 2008

An innovative **NEW** two-yearly
technology update for forest products companies



WOODINNOVATIONS2008

Day 1: 15th September 2008
Wood Processing & Manufacturing

9.15am Registration and networking

10.00am Introduction

10.10am Keynote Address: From Lab to Mill - Key factors in successfully linking research, technology development, commercialisation & adoption
- Research – long & expensive
- Technology Development – long & expensive
- Adoption – long & expensive
- BUT without innovation there will be no sustainable business

Nigel Metge, Commercialisation Manager, IT/Engineering & Science, UniServices Ltd, New Zealand

Session 1: Innovations in Solid Wood Processing

10.45am Log & Lumber Scanning Technologies
- Multi-scanning applications
- X-ray imaging
- 3D true shape and colour scanning
- Internal defect recognition

Federico Giudiceandrea, CEO, MiCROTEC, Italy

11.15am Sawing Technologies
- New mill & plant design
- Log breakdown technologies
- Innovative mill optimisation tools

Lars Lindvall, Vice President, Soderhamn Eriksson, Sweden

11.15am Dry and Planer Mill Technologies
- New planer/moulder designs
- Feed speed rates of up to 1200 metres/minute
- Pull-through versus push-through milling technologies
- Improved energy efficiencies – electric versus hydraulics

Gilles Gauvin, Regional Manager, Gilbert Products Inc, Canada

12.15pm Lunch and networking

1.00pm Kiln Drying Technologies
- Heat treated wood using high temperatures
- Impacts of scanning/segregation technologies on drying
- Developments in in-kiln moisture sensing
- A new paradigm shift for wood drying

Steve Riley, Drying Group Leader, Scion, New Zealand

1.30pm Timber Preservation Technologies
- Innovative new borate treatment
- New generation copper treatments
- New processes for engineered wood products
- Faster timber treatment cycles

Jeanette Drysdale, Registration & Product Approval Consultant, AR & JA Drysdale, New Zealand

2.00pm Managed Exhibitions

3.00pm Afternoon tea and networking

Session 2: Innovations in Panel Products

3.30pm Veneer, Plywood and LVL
Simon Dorries, General Manager, Engineered Wood Products Association of Australasia, Australia

4.00pm Fibre-board Products
- Fire detection and fogging systems for improved asset protection
- Screening and fibre sifting technologies
- Robotic systems for pack stacking, wrapping & labelling

Philip Wilson, Research & Environmental Manager, Nelson Pine Industries, New Zealand

Session 3: Innovations in Pulp & Paper

4.30pm Advances in Pulp & Paper Manufacturing Technologies
Pulp, newsprint, printing & industrial paper, tissue and packaging production
Ralph Coghill, Executive Director, Appita, Australia

5.00pm Refreshments

6.30pm Conference Dinner

Day 2: 16th September 2008
Wood Materials & Design

Session 4: Innovations in Bio-Fuels

8.30am Utilising & Integrating Wood Wastes for On-site Energy Production
- Conventional heat and power production
- Developments in gasification technologies
- Heat and/or power from organic rankine cycle turbines
- Other emerging technologies for power generation

Rob Mallinson, Managing Director, Living Energy, New Zealand

Session 5: Innovations in Bio-Materials & Wood Modification

9.15am Wood Plastic Composites: North American and European drivers in product design, manufacturing and distribution
- Wood filled plastics - established technology
- Natural fibre-reinforced plastics
- Bio-plastic developments and product growth
- WPC applications

Jeremy Warnes, Science Leader/Business Development Manager, Biomaterials Engineering, Scion, New Zealand

9.45am Advanced Wood Composite Materials
Innovative manufacturing, new R&D and commercialisation of new technologies
- Bulk wood forming and roll forming of wood veneers
- Rotational moulding of foamed products using wood fibres
- Manufacturing thin (1.5mm) natural fibre reinforced composite sheets

Debes Bhattacharyya, Director, Centre for Advanced Composite Materials, Auckland, New Zealand

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10.15 am **Morning tea and networking**

10.45 am **Commercialised Wood Modification Technologies**
- Thermal modification
- Wood hardening
- Wood furfurylation
- Acetylated wood

Mark Smith, Global Business Manager, Alowood, EverTech LLC, New Zealand

Session 6: Innovations in Building Materials and Systems

11.15 am **New Timber Construction Technologies to Revolutionise Large Scale Timber Buildings**
- New forms of industrial and multi-storey timber buildings
- Large structural timber structures prefabricated offsite
- Post tensioned connections for ease of construction and safety
- Timber-concrete composite floors

Pierre Queenville, Professor of Timber Design, University of Auckland, New Zealand

11.45 am **Optimised Engineered Lumber: A New High Value Engineered Structrual Lumber**
Tony Johnston, Director, Wood Engineered Technology, New Zealand

12.15 pm **Lunch and networking**

1.15 pm **Non-destructive Testing & Evaluation of Wood Properties**
- NIR & Acoustic tools
- Microwave & X-ray
- MRI & RGB technologies

Jonathan Harrington, Group Leader, Wood Quality, Scion Research, New Zealand

Session 7: Planned Projects with Key Industry Associations & Research Consortiums

2.00 pm Structural Timber Innovation Company, The Solid Wood Initiative, NZ Wood Processors Association

3.00 pm **Success Story: Research, Commercialisation & Adoption of a Process Innovation by Wood Products Companies**
Russell Burton, Group Manager Investments, Scion, New Zealand

3.30 pm **Close of conference and afternoon tea**

Event Sponsors

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WPA Wood Processors Association of New Zealand

New Zealand Forest Owners Association

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Who should attend?

Company Directors, all senior managers, engineering, technical and R&D staff from both forestry and wood products companies, equipment, product and service suppliers to the industry, forestry consultants, researchers, policy advisers to Government and industry associations.

What is Wood Innovations 2008?

Wood Innovations 2008 is an exciting NEW concept. It's come about through ongoing requests to FIEA from New Zealand and Australian forest products companies. The message is clear, "time is precious". Wood Innovations 2008 has been designed to provide senior managers with a new two yearly update on leading product and process technologies that will impact on their operations.

It will cover lumber through to composite, engineered and remanufactured wood - from raw materials through to finished products. In addition to short focussed presentations from leading technology providers, managed exhibitions, displays and posters from major research providers will be provided. An overview of new research cooperatives and relevant wood industry initiatives will also be supplied.

Why Wood Innovation?

New Zealand forest products companies face **increasing competition from low cost producers, and from lower cost, better performing non-wood products.** Low costs and high fibre recovery, achieved through process innovation, are prerequisites to competing in today's global forest product markets.

Traditionally local companies have been very good at process innovation. Even though distant from many of the major technology providers, process technologies have either been designed, produced and adopted locally or modified from technologies developed outside Australasia. The focus has been on improving product recovery from fibre inputs in order to lower operational costs, reduce delivery time or increase flexibility.

To achieve competitive advantage against competing non-wood products, the industry needs to look closely at both its business systems and product innovations.

Science, research and technology is central to this. However, there needs to be better collaboration and flow of ideas between businesses and research organisations. Because of our location and size, international partnerships are essential to augment our science capabilities.

Wood Innovations 2008 will provide, in a very short space of time, updates on new technologies and upcoming R&D across a range of industries within the forest products sector.

Venue: Rendezvous Hotel Auckland, Corner of Vincent Street and Mayoral Drive, Auckland, New Zealand, www.rendezvoushotels.com/auckland

The Rendezvous Hotel Auckland is New Zealand's largest hotel, ideally located in the heart of cosmopolitan Auckland. It's located within walking distance of some of New Zealand's finest dining, shopping culture and entertainment. It is linked via an underground tunnel to Auckland Convention Centre at THE EDGE, comprising four of Auckland's most significant landmark venues - Aotea Centre, The Civic, Auckland Town Hall and Aotea Square.

Accommodation: A special room rate of $135 plus GST has been negotiated for conference delegates. For room reservations please book directly at the hotel's website or phone: +64 9 366 3000. These rates are only available if you state you are attending the Wood Innovations 2008 conference.

Please note: The Forest Industry Engineering Association, a division of Innovatek Ltd, reserves the right to change the programme, if necessary, without prior notice to conference delegates.

FOREST INDUSTRY ENGINEERING ASSOCIATION

The Innovation Advantage:

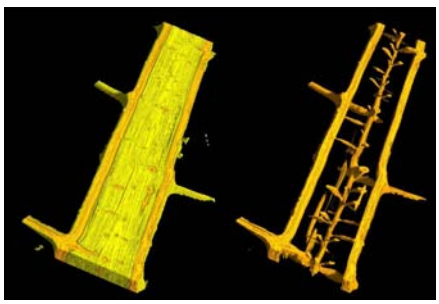
Undertaking research is one thing. Commercialisation and successfully adopting research by business is quite another. The keynote address will be given by UniServices, Australasia's largest university owned research and technology company. In any one year the company is working on 2500 projects, in both the private and public sectors. Over the last two decades UniServices has grown at a compound annual rate of 15%. Over 550 staff are directly employed and companies based on their technology now have a market capitalisation of $850 million. UniServices is recognised as a leading R&D centre for global innovation.

Advanced Composite Materials:

More than 400 New Zealand companies are already firmly involved in the composites sector. These companies collectively consume around seven million tonnes of resin and six million tonnes of reinforcing materials annually. The Centre for Advanced Composite Materials in Auckland has recently been involved in a series of exciting initiatives relating to wood and wood fibre composite manufacturing. They are attracting worldwide interest. These include; bulk wood forming and roll forming of wood veneer; rotational moulding of foamed products using wood fibres and, using a Milacron extruder, successfully manufacturing thin (1.5mm) natural fibre reinforced composite sheets.

Wood Modification Technologies:

A substantial number of wood modification technologies have recently moved from the laboratory to commercial reality. Examples include the Finnish Thermowood™ process, PlatoWood™ in the Netherlands, Thermoholz™ in Austria, La Bois Perdure™ in Quebec, Retitech™ in France, the resin modification process Indurite™ from Osmose UK, and the furfurylation of wood (Kebony™ and Visorwood™) from Wood Polymer Technologies in Norway. In the last two years we've also seen the launch of Accoya™, acetylated wood being produced on a commercial scale in Europe by Titanwood, and Alowood, using a vacuum and pressure injection technology in North America.



Log & Lumber Scanning:

Scanning to improve lumber recoveries and mill productivity is one of the fastest developing technologies in the forest products sector. Today the industry is benefitting from advancements in camera technology. The rapid development of faster cameras, driven by the consumer market, is enabling wood processors to leverage off this technology. Combining technologies such as X-ray imaging, laser 3D scanning, laser grain angle detection and colour scanning is providing outstanding results in lumber grading. Vibration stress waves sent through lumber is also providing detailed information on wood quality at the scanner.

Veneer, Plywood and LVL:

With the recent rapid expansion of panel board plants in SE Asia, China and Russia, many of the major equipment manufacturers have been consolidating. With increasing competition comes aggressive development and application of new processing technologies. With an oversupply of commodity products, investment in value added panel processing has been prevalent. Advanced boards have included, for example, features such as fire retardance and pest resistance. Ultra-thin as well as very thick panels for structural applications are being produced, particularly with more integration being seen with solid wood for construction.

Revolutionising Wood Construction:

A step change in New Zealand and Australia's wood construction industries is now underway. Innovative technologies for timber buildings are being developed that will revolutionise the design and building of large scale timber structures. New forms of timber construction that can be used for single storey industrial buildings or 2-6 storey timber buildings include; heavy timber beams, columns or walls, large structural members prefabricated off-site, main timber structure of glulam or LVL members, post tensioned connections for easy construction and high seismic resistance, removable partitions and timber-concrete composite floors.

WOODINNOVATIONS2008

Conference Registration Form

Rendezvous Hotel Auckland, New Zealand

SPECIAL Early Bird Discount: Register **BEFORE Friday 15 August 2008**

Delegate Details

Name	Position	E-mail	(Tick Option) Conf	Dinner

Company:

Postal Address:

Tel: Fax:

Programme Rates

Activities	Rate Per Delegate	# Delegates	Total
Early Bird Rate (Before 15 August)	NZ$ 760		$
Standard Rate (After 15 August)	NZ$ 860		$
One-Day Rate (Please specify day)	NZ$ 500		$
Conference Dinner	NZ$ 60		$

SUBTOTAL	$
+ GST (12.5%)	$
GRAND TOTAL	$

- All prices are GST Exclusive.
- **FIEA Members discounts** of **10-20%** apply off the standard rate. Membership status can be checked by calling our FIEA offices.
- To be eligible for the early bird rate, registrations must be received by FIEA by 15 August 2008.
- The **registration** cost covers morning and afternoon teas, lunches and refreshments and copies of the detailed programme proceedings.

Note: Because of the expected interest in the programme, 50% of the fee will be refunded for late cancellations if notice is received before **Friday 5 September 2008**. Cancellations after this date will not qualify for a refund. However, other persons within the same company can attend in place of the cancelled registered delegate.

Payment

☐ Cheque payable to Forest Industry Engineering Association enclosed, or

☐ Direct credit our Westpac Trust Account: 03-1552-0257749-00, or

☐ Please debit my MasterCard/Visa/Amex (circle one)

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PO Box 6150, Rotorua 3043, New Zealand
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FOR MORE INFORMATION:
Contact us on (+64) 7 921 1380
OR register electronically on
www.woodinnovations2008.com

If you are interested in sponsorship or display opportunities at this event contact: Ken Wilson,
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