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**In this latest edition of Leading Edge, we bring you a roundup of FWPA's latest research projects, innovative new activities for industry, including a careers marketing program and an exciting alliance with Planet Ark.**

As the industry-owned services company, FWPA is focussed on delivering value to all its stakeholders via its R&D investments, generic marketing, tech transfer and education and its new role as coordinator of building codes and standards.

Welcome to another edition of Leading Edge, filled as ever with the latest news from Forest and Wood Products Australia and our partners. As we head towards winter, there is much to report, from the growing reach of our *Wood. Naturally Better.*™ campaign to a wide range of future plans.

Our lead feature this edition is also one looking firmly into the future. It brings you the lowdown on the "Make A Difference" campaign that is promoting careers in the forestry and wood industry to 18 to 35-year-olds looking for jobs that allow them to make a positive difference to the world around them.

The third National Carpenters Day – the biggest yet – proved a great success once more, just one of many ways in which *Wood. Naturally Better.*™ is helping promote all aspects of the industry.

The program has received a boost with confirmation of a two-year partnership deal with Planet Ark, one of Australia's leading environmental organisations, which is helping run and coordinate a co-branded campaign starting with multi-million dollar TV advertising this year.

Elsewhere in the newsletter, you'll find a roundup of some of our key research projects as well as the areas we have identified for future R&D investment. There is also the latest on exciting plans for WoodSolutions, including the launch of an authoritative online database for building specifiers to help them use more wood and use it better.

It's fantastic to see so much going on and to be able to reflect on the ongoing success of our activities, which would not be possible without the support of all of our partners throughout the industry.

## Education Program – Careers Awareness Campaign Update

**With its focus on forest sustainability and wood's ability to play a key role in tackling climate change, the forestry and wood industry offers a range of opportunities for anyone seeking a career in which they can make a positive difference. However, FWPA research shows that too few young people are aware of this.**

That's why FWPA has initiated the "Make A Difference" campaign targeting 18 to 35-year-olds. Running across a number of platforms, from online to print media and airport billboards, it features individuals from a wide range of roles within the industry as "heroes" and, in combination with the GrowingCareers website, aims to encourage more job applications and ensure there is no skills shortage in the future.

Increasingly, people are seeking out careers they believe will bring rewards other than financial gain and status. They are looking for satisfaction from the knowledge that the job they are doing is making a difference.

The forest and wood products industry offers a wide range of careers in which people can do just that, whether working in forest management roles or helping encourage the use of sustainably sourced wood products.

Yet do young people looking for a role that offers satisfaction even know that the forest and wood sector exists? According to FWPA market research, the answer is, at present, no.

To combat this lack of awareness, FWPA has launched a campaign designed to ensure the industry does not face a serious skills shortage in the future. A multi-faceted campaign that targets 18 to 35-year-olds, it aims to achieve the following:

- increase awareness of the sector as a career opportunity
- improve its perception in terms of its sustainability and environmental impact
- drive quality traffic to the FWPA's GrowingCareers website – [www.growingcareers.com.au](http://www.growingcareers.com.au)
- increase the pool of potential candidates for FWPA careers.



### Make A Difference

In November 2010, FWPA developed a number of campaign concepts and ideas. Research indicated that the message that resonated most with the target audience was "Make a Difference". According to feedback, people found the message particularly relevant and motivating. It also tapped into the need touched upon above: to feel rewarded and obtain greater job satisfaction from working in an industry where you can make a difference.

The research also indicated the audience wanted to see real people in real roles. To achieve this reality, a film crew was commissioned to film and photograph a broad range of industry workers across Australia: saw doctors, mill managers, forklift drivers, foresters, policy makers, product line managers, procurement coordinators, sales managers, those working in customer service, harvesting and many more roles.

With a huge amount of footage now gathered, FWPA plans to use these industry workers as the "hero" roles within the campaign. In conjunction with catchy headlines like "Measure up in a career that makes a difference" and "Start a career that makes a difference," these workers are now the public face of the advertising campaign.

"Our industry offers such broad scope for anyone searching for a career in which they can take pride in the knowledge they're making a difference," said Ric Sinclair, FWPA's Managing Director.

"We're delighted that so many of our partners have come on board to help us promote the multi-faceted industry in which we work – and that so many individuals have put themselves forward as role models."

### "GrowingCareers" Website

The FWPA's careers website – [www.growingcareers.com.au](http://www.growingcareers.com.au) – is being redeveloped to offer potential candidates a wider choice than before; rather than focus purely on forestry careers, it will feature a diverse range of opportunities from across the industry. This will make it a comprehensive resource for people looking to change their career as well as those at the start of their working life.

The updated website features:

- a searchable database of 80 different roles within the industry
- “hot jobs” based on our Real People in Real Roles agenda
- information on education, training and scholarships
- information on the industry and the environment
- summer jobs and internships opportunities
- video case studies of real people in real roles
- employer profiles.

Within the last of these – employer profiles – industry will have the opportunity to take out a dedicated company page to promote organisations within the sector as a potential employer. This will consist of a short company description, a logo and a link to the employer’s website.

### Nationwide Advertising Campaign

An extensive 3-month nationwide advertising campaign was initiated on 1st March to increase public awareness of the sector and its career opportunities. This campaign includes outdoor

advertising, magazine ads, digital advertising incorporating employment sites, social media and search engines, plus postcards, press and creation of media stories.

Large poster ads have been placed in all the major airport terminals and are supported by print ads within the in-flight magazines of Qantas, Virgin Blue and REX. The online advertising will feature on employment websites, such as Seek and MyCareer, and on social media sites such as Facebook and Student Edge.

In addition, ads will run in the special feature sections of all major metropolitan newspapers for the Careers and Employment Exhibition. Public relations will be used to generate favourable news stories and case studies for use by media outlets.

Ric Sinclair added: “We firmly believe that such a targeted campaign across multiple mediums will go a long way towards achieving our goal of enticing a new generation of Australians in embarking upon careers in the forest and wood products sector.”

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## New alliance with Planet Ark

**The Wood. Naturally Better.™ campaign is set to reach a bigger audience than ever before as a result of a new two year partnership with leading Australian environmental organisation Planet Ark.**

New activities will begin with a multi-million dollar TV campaign, supported by a new website and other communications designed to reach consumer, industry and education audiences.

Forest and Wood Products Australia is delighted to announce a new partnership with leading environmental organisation Planet Ark to encourage the use of sustainably sourced wood. The highly-respected organisation is co-branding with *Wood. Naturally Better.™* for a multi-million dollar TV campaign starting this year.

The partnership is a significant step forward for the industry and will be used to promote an easy, low cost solution to capturing and storing carbon: using sustainably sourced wood as a building material. A two year agreement has been signed with Planet Ark following 18 months of negotiations between the parties.

“Sustainable timber use is an important step in the transition to a low carbon economy”, says Paul

Klymenko, CEO of Planet Ark. “Substituting wood products for more greenhouse gas intensive building products could reduce the emissions of typical house by up to 18 tonnes over its life<sup>1</sup>. That’s more than a medium sized car emits over seven years<sup>2</sup> but research shows that few people understand that carbon is stored in the wood for life.”

Planet Ark is interested in helping homebuilders, developers, architects, the general public and school children recognise the environmental benefits of using sustainable timber over other, more polluting alternatives. This new campaign complements other Planet Ark activities such as National Tree Day and the Carbon Reduction Label.

Over the coming months, Planet Ark will develop educational materials, an interactive website and deliver an extensive media campaign to raise awareness alongside the TV campaign.

The road to this announcement began in late 2008 when the *Wood. Naturally Better.™* program was launched with national print advertisements. Tracking research showed that awareness of the program increased steadily – to a point that matched or exceeded benchmark figures – and also looked at consumers’ awareness of various organisations and how they rated as reliable and trusted sources of information.

Planet Ark was recognised and respected by more than 80% of respondents and viewed as a positive

organisation that promoted environmentally positive actions rather than simply raising issues.

The initiative comes during the International Year of Forests, a global platform to celebrate people's action to sustainably manage the world's forests. It also coincides with Grocon's announcement that it plans to build Delta, a ten storey, 50 apartment timber building as part of the redevelopment of the Carlton United Breweries site in Melbourne.

"We are thrilled to be working with Planet Ark to help educate the public about the important role wood

can play in helping address climate change," said Ric Sinclair, Managing Director of FWPA. "Wood is unique among building materials because it is a natural carbon store – up to 50% of its dry weight is carbon, which means that by using more wood in our built environment we can not only reduce carbon emissions, but also store carbon."

1. Based on RMIT University study published 31 January 2011 'A Comparative Life Cycle Assessment of Alternative Constructions of a Typical Australian House Design'
2. Total CO2 emissions = 18.16 tonnes based on a Toyota Corolla 1.8 lt auto (173gm CO2 per km) travelling 15,000km pa over 7 years.

## Using new airborne technologies to improve efficiency and cut costs

**A study carried out at a 5,000 hectare Pinus radiata plantation in NSW has demonstrated that the use of new airborne camera technologies and digital imaging can dramatically reduce the cost of updating forest inventories. This new method produced accurate results when compared to traditional ground-based methods and has the potential to be adapted for use in Australia-wide conditions after.**

Adopting new airborne technologies could cut the cost of updating forest inventories of Pinus radiata plantations to 10 per cent of current levels. Traditional methods can cost from \$25 to \$40 per hectare, but research supported by Forest and Wood Products Australia indicates that the use of LiDAR (Airborne Laser Scanner) data and high-resolution, multi-wavelength digital imagery may reduce costs to around \$2 to \$4 per hectare.

The study carried out in Green Hills State Forest, in New South Wales, showed the potential of such methods for improving efficiencies and accuracy of estimating standing volume and yield modeling. It also highlighted areas for further development.

### The background

While software already exists to process LiDAR and digital camera data for many general requirements, this project addresses the real need to develop, write and modify software for radiata plantation-specific applications. And, although the project is initially being carried out in NSW, it offers the potential to be adapted for Australia-wide conditions.

The project also aims to produce a robust correlation algorithm to determine the diameter of P. radiata



based on a measurement of tree height. This will allow aerial imaging to predict more accurately the volume of timber in plantations. To ensure accuracy, the results from LiDAR and multi-wavelength digital imagery surveys were compared with those from current ground-based sampling methods.

### The research site

A 5,000 hectare plantation of mixed age P. radiata in Green Hills State Forest was selected for the research as it offered a broad range of site conditions for evaluation. It contains trees planted between 1970 and 2003, has sloping terrain varying from 0 to 40 degrees and also has a range (from 0 to 100%) of understorey vegetation cover, comprising grass, bracken and blackberries.

### How the cameras operated

A Riegel Q5600 LiDAR system was mounted on an aeroplane, which flew at a height of approximately 1000 metres. The laser fired 88,000 pulses per second, and had a mean footprint size of 60cm. On average, each laser sweep covered 500 meters, with around two pulses hitting each square meter of surface material. The first and last return for each laser pulse was recorded as well as the return signal intensity.

Overlapping stereographic digital images were captured using a Leica ADS40 linear scanner Aerial Digital Sensor camera that records blue, green, red and infrared wavelengths to 16bit colour depth, and 30 to 50cm pixel size.

## Research findings

The LiDAR data was used to produce a Digital Terrain Model (DTM), which represented the bare terrain elevation above sea level, and a Vegetation Elevation Model (VEM), which represents the elevation above sea level of the forest upper surface. From this, the Canopy Height Model (CHM) was derived, which is required for separating images of the overstorey, understorey and the ground.

When compared to ground-based measurements, LiDAR underestimated tree height on flat terrain, giving a mean difference in tree heights of 0.55m. On the other hand, LiDAR overestimated tree height on steep slopes due to the horizontal positional error between the treetop and stem. Here, there was a mean difference of 0.47m. This is because conifer stems are often not upright and tops tend to be tilted to the valley side. There is also an age variation that needs to be taken into account, as younger trees do not lean down slope to the same extent as older, taller trees. The ADS40 digital images were evaluated to determine the optimum pixel window sizes for the following:

- detection of tree numbers;
- tree height statistics, including maximum, minimum, mean, median, standard deviation, and so on;
- crown diameter; and
- numbers and positions of sick or dead trees.

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## Innovative use of timber in multi-storey buildings

**Using timber concrete composite (TCC) floors in multi-storey buildings is a viable, lightweight alternative to other flooring systems that offers potential cost savings and environmental benefits.**

That is the conclusion of an innovative trans-Tasman study funded by FWPA. Researchers at universities in Sydney and Canterbury designed a virtual multi-storey timber building and found there was potential for timber-based systems to be used more widely in commercial construction.

A multi-storey virtual timber building has been created to examine the feasibility of using engineered wood products for frames and floors in buildings up to eight storeys high. Researchers from universities in Sydney and Canterbury, New Zealand, collaborated on the innovative FWPA-funded project, demonstrating that the use of timber concrete composite (TCC) floors was a viable and effective alternative to other flooring systems – and offered the potential for cost savings.

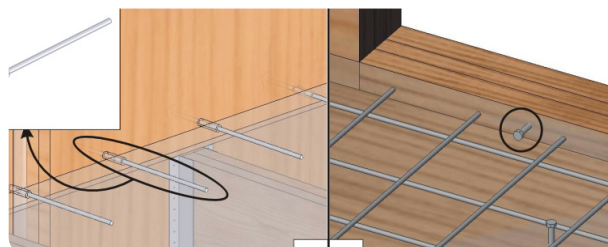
It was determined that different tree sizes and numbers per hectare will require different pixel window sampling sizes.

As manual interpretation of aerial photos is time consuming, Definiens® software was used to develop a semi-automated, object-based approach for stand and tree scale classification of the *P. radiata* compartments. High levels of classification accuracy were obtained with both the LiDAR and digital camera imagery. Accurate estimates of compartment areas effectively stocked (Net Stocked Area) were also obtained with both data sets.

## Outcomes

The final report provides forest industry specific guidelines and recommendations on how data should be analysed and interpreted by plantation managers through the modification of existing forest management systems. It also indicates which LiDAR, camera and software technologies are most suitable for local conditions.

Furthermore, the report found that the Definiens Developer 7 appears to be the most appropriate of the Object-Based Image Analysis (OBIA) software packages evaluated. In addition, a stereo-photogrammetric solution for extracting Canopy Height Models from digital camera imagery was achieved using a new add-on module to the ERDAS software package LPS.



The two-year study also highlighted the environmental benefits of timber-based building systems for commercial applications.

## How the virtual building worked

The virtual building was based on an actual six-storey building being constructed in concrete at the University of Canterbury. Three other virtual buildings were designed for comparison in concrete, steel, and TimberPlus.

The virtual timber building was designed using the new hybrid laminated veneer lumber (LVL) system. Timber framing columns were 600mm x 378mm solid laminate, while the hollow, laminated timber beams were tensioned using steel tendons, which reduced

the weight and cost of the beams. The design also featured a semi-prefabricated TCC floor system of 65mm of reinforced concrete poured onto 17mm ply sheets supported by LVL joists.

Lead researcher Professor Keith Crews said: "In comparison to traditional floor systems, it was found that TCC floors provide an excellent balance between increased stiffness, reduced weight, better acoustic separation and good thermal mass. Testing was very successful and has shown the LVL system to be a viable option for multi-storey timber buildings."

### Cost analysis

A cost analysis of the virtual buildings found that the timber building would cost approximately 6% more than the concrete and steel structures due to the expense of the timber framing elements. However, the post-tensioned timber structure needed far fewer columns than the concrete building. Removing these from the design would have led to a significant 33% cost reduction.

### Life Cycle Analysis (LCA)

A LCA was undertaken which considered the embodied energy of the materials and maintenance, materials transport, operational energy and two end-of-life scenarios, where deconstructed materials were either land filled or reused. The timber design was found to have a lower environmental impact than concrete or steel.

### Commercial flooring systems review

The various flooring systems currently used for commercial buildings in Australia were reviewed to identify the issues that need to be addressed by timber alternative systems. Traditional, cast in-situ flooring systems and precast systems were studied. Researchers concluded that the selection of a flooring system is influenced by numerous factors, including:

- functional requirements
- structural design requirements
- type of structural frame
- the shape in plan; and
- span between columns.

They also found that designers often resist adopting new flooring systems and when asked which method is "easiest" would identify their own area of expertise or the product they knew best.

Professor Crews said: "The lack of a clear industry standard, coupled with the multiple and varied advantages and disadvantages of each flooring system, makes it impossible to identify a single 'best' commercial flooring system."

### Conclusion

The project confirmed TCC floors are a viable and effective alternative to other flooring systems for commercial applications in terms of short-term structural performance. They are about half the weight of reinforced concrete construction, which creates potential for cost reduction in terms of foundations and other load bearing structural elements. Further research will determine both long term and dynamic performance.

The LCA also highlighted the environmental benefits of timber-based building systems. Furthermore, a total cost comparison of commercial flooring systems with TCC flooring options has confirmed the viability and potential of the "timber based" structural systems for this market.

However, the review also revealed a need for more detailed cost investigations into LVL and TCC construction, particularly fabrication and erection costs.

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## FWPA's Consumer Advertising Program Going Well

**FWPA's advertising campaign targeting consumers is achieving results well above industry standards. Awareness of the campaign grew to 14.5% in 2010, compared to a benchmark of just 8%.**

Looking ahead, work has begun to develop future campaign concepts to ensure it remains fresh and continues to raise awareness of the wood and timber industry.

A key element of FWPA's efforts to raise awareness of the benefits of timber and wood products is our ongoing consumer program. Through advertising campaigns, we have engaged with the public with the aim of improving knowledge of wood's qualities in terms of sustainability and its potential for tackling climate change.

To measure the success of these campaigns, we have been using tracking research, which also enables us to identify potential future directions for our advertising. And the latest round of tracking indicates we are doing well.

Figures from Mobium Group show that we far exceeded industry standards for campaign awareness. Prompted awareness of the FWPA campaign using visual stimulus grew to 14.5% in September 2010, up from 12%, against an industry benchmark of 8%. This shows that the advertising campaign has been successful, but also suggests that the current campaign has reached maximum impact and requires changing. As such, in October a series of focus groups were run to gauge the relevance of climate change messages post-election and also to test new advertising concepts.

### Measuring Campaign Awareness

September's measurement was the fifth time the impact of the campaign had been measured and returned our best results yet. The 14.5% overall recall shows that rerunning the print advertisements continued to have impact for the most recent ad-buy.

However, with any advertising campaign it is important to consider how long the same artwork can be run before it becomes "tired" or loses impact with the reader.

As such, FWPA sought advice from experienced members of the advertising community to determine a benchmark for how much awareness can be generated through this style of print advertising campaign. Consultation included representatives from Mitchells Advertising, Millard Brown and our sister organisation, Meat Livestock Australia.

The outcome was that a successful print advertising campaign can generate about 8-10% awareness (see below).

For the past two rounds of tracking the FWPA campaign has performed well against industry standards – great news for the campaign to date, but raising the issue that we have likely received the maximum impact from print advertising and that a new campaign must be developed.

### Concept Exploratory Research

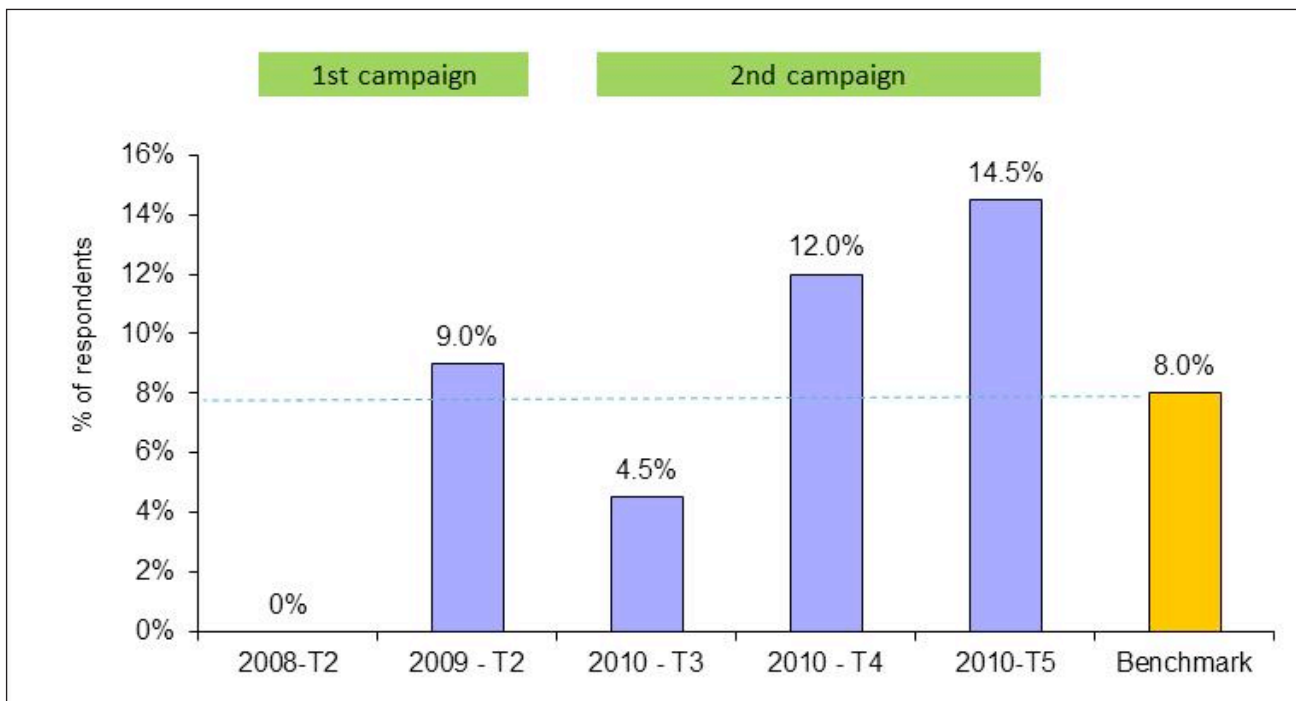
A series of focus groups were run to assess consumer response to new advertising options that build on FWPA's current campaign. They also explored alternative executions, new formats and the role of advocates.

In addition, FWPA explored current community perceptions about forestry and wood, as well as exploring sustainable sourcing and eco-labels.

The views of the focus groups to wood show that it is a preferred material choice and most give little thought to where it comes from but when prompted have issues with trees being harvested.

The carbon storage message still remains a challenge with very low awareness, although in the main group members responded positively to the information provided.

A wide range of celebrities were also tested to determine the level of awareness and credibility that they could add to any communication.



## New FWPA Advisory Group Members Named

**Industry advisory groups play a key role in helping to identify, review and disseminate the findings from Forest and Wood Products Australia's R&D project investments.**

Following the merger of the two processing advisory groups into one, FWPA called for expressions of interest from its members and levy payers to participate in the three advisory groups that cover the full supply chain: market access, processing and forest growing. A mix of new and previous participants were selected to ensure the advisory groups have a strong balance of skills and geographical coverage.

Forest and Wood Products Australia and its predecessor have used the expertise within the industry to help in its R&D investment process.

The industry advisory groups are asked to review and critique investment plans and project proposals to ensure that the subsequent investments have a

strong align to industry needs and address genuine information gaps.

The advisory groups are structured to cover the full supply chain from market access, wood processing, and forest growing. Each advisory group is chaired by an FWPA director and the deliberations of the groups are a critical input in the subsequent decision making process by FWPA directors and management.

A survey of advisory group participants overwhelming supported the role of the advisory groups. Many participants reported that they found the groups were well managed and that their involvement had added to their own professional development.

In August 2010, FWPA called for expressions of interest from member companies and levy payers to participate in the renewal of the advisory groups following the expiry of the initial three-year term.

Following this process, our Market Access and Development Advisory Group, Sustainability and Resources Advisory Group and Solid Wood Processing Advisory Group now consist of the following members:

### MADAG

#### Company

Stora Enso Timber Australia Pty Ltd  
Meyer Timber Pty Ltd  
Wespine Industries Pty Ltd  
Wespine Industries Pty Ltd  
Hyne Timber  
Auspine Pty Ltd  
Boral Timber Division  
Asian Pacific Timber Marketing Pty Ltd  
Carter Holt Harvey Woodproducts Australia  
Simmonds Lumber Group  
University of Melbourne Department of Forest & Ecosystem Science

#### Contact

Mr. Matthew Wood  
Mr. David Meyer  
Mr. Ron Adams  
Mr. Gary Kiddle  
Mr. David Marlay  
Ms. Christine Briggs  
Mr. Clinton Skeoch  
Mr. Gerry Gardiner  
Mr. Tim Sherry  
Mr. John Simon  
Prof. Ian Ferguson

### SRAG

#### Company

Australian Bluegum Plantations Pty Ltd  
Gunns Ltd  
Forestry Commission of NSW T/As Forests NSW  
Department of Environment & Resource Management (DERM)  
Timberlands Pacific Pty Ltd  
Forestry SA  
SFM Environmental Solutions  
VicForests  
Elders Forestry Limited  
Hancock Victorian Plantations Pty Ltd (HVP)  
  
Forestry Tasmania  
Bunbury Treefarm Project  
Department of Agriculture & Food (WA Government)

#### Contact

Dr. Ben Bradshaw  
Mr. Ian Ravenwood  
Dr. Ross Dickson  
Mr. Stephen Walker  
Mr. Don Aurik  
Dr. Jim O'Hehir  
Mr. Andrew Morgan  
Mr. Barry Vaughan  
Dr. Marie Connett  
Mr. Stephen Elms  
Mr. Evan Rolley  
Mr. John Hickey  
Mr. Edwin Schramm  
Mr. Ian Dumbrell

### Company

Wespine Industries Pty Ltd  
Hyne Timber  
Tilling Timber Pty Ltd  
Australian Solar Timbers  
Hurford Sawmilling Pty Ltd  
Boral Timber Division  
Carter Holt Harvey Woodproducts Australia  
Gunns Ltd  
Elders Forestry Limited  
The Australian Sawmilling Company Pty Ltd (TASCO)  
Carter Holt Harvey Woodproducts Australia  
Wesbeam Pty Ltd  
Radial Timber Australia

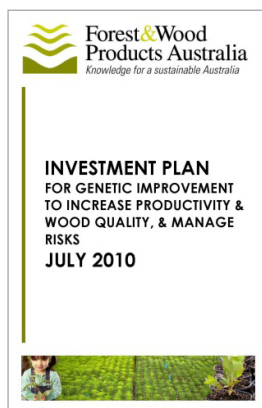
### Contact

Mr. Greg Duff  
Mr. Stephen Holtorf  
Mr. Craig Kay  
Mr. Allan Hutley  
Mr. Andrew Hurford  
Mr. Peter Robinson  
Mr. Kim Harris  
Dr. Trevor Innes  
Mr. Vince Erasmus  
Mr. Damien Simpson  
Mr. Michael Murphy  
Mr. Peter Law  
Mr. Chris McEvoy

## FWPA Investment Plans

**Forest and Wood Products Australia has released the latest revisions to its list of R&D investment priorities to assist research providers in developing funding proposals. Each investment priority is to be supported by a standalone investment plan that describes specific research areas of significance to industry as well as the outcomes and benefits expected from successful projects.**

Completed investment plans developed for these



priorities, have recently been used to approve a number of research projects such as the \$1.3m FWPA investment in a CSIRO project, *Genetic Selection Tools for Enhanced Wood Properties and Plantation Productivity in Australia's Temperate Eucalypts*.

In 2009, the FWPA Board endorsed a list

of thirteen investment priorities that were identified and developed to reflect the interests of members throughout the value chain.

Since then, as a part of the consultations with industry stakeholders in the development of a number of investment plans, a number of the R&D priorities have been revised to better reflect industry and market feedback.

The current investment priorities are:

- Information, analysis and interpretation of domestic and export markets.

- Timber construction in residential buildings.
- Timber construction in commercial and industrial buildings.
- Wood products in sustainable buildings.
- Development of secondary products and markets for them.
- Solid wood, engineered wood and pulp and paper: performance and yield.
- Maximising product yields and values from current resources.
- Forest management tools for improved wood quality and yield.
- Genetic improvement and delivery for increased wood yield, quality and for managing risks.
- Water use efficiency, access to resources and balanced policy outcomes.
- Forest biosecurity and preparedness.
- Mitigation of, and adaption to, climate change and the management of the carbon cycle in plantations and native forests.

Each R&D priority will be developed into an investment plan based on industry and research community input. This process ensures that the investment plans focus on specific industry outcomes and benefits that can be delivered through effective technology transfer and industry adoption of R&D project outputs.

Four investment plans are now complete and available for download from the FWPA website:

- Investment Plan for Genetic Improvement to Increase Productivity & Wood Quality & Manage Risks
- Investment Plan for Wood as a Sustainable Building Material
- Investment Plan for Climate Change and Commercial Forestry – Improved Decision Making and Risk Reduction
- Investment Plan in Industry Statistics.

Investment plans for timber construction in residential buildings; development of secondary products and markets for them; Improving wood quality and yield, and tools for forest management; and water use efficiency, access to resources and balanced policy outcomes are currently under development with the remainder expected to be completed within the next 12 months.

By their nature these investment plans are proscriptive in design and work to inform both

industry and the research community of the key areas of future forest and wood products Industry research prioritised against the impact and benefits available to industry through the timely adoption of research outputs.

Recently, the Board approved investment of \$1.3m in support of a new project, *Genetic Selection Tools for Enhanced Wood Properties and Plantation Productivity in Australia's Temperate Eucalypts, using the framework of the Genetics and Tree Improvement plan.*

## National Carpenters Day Returns

**Thousands of people across Australia turned out for the third National Carpenters Day. The annual event gives Australians the opportunity to show their gratitude for the key roles carpenters play in our communities.**

This year's was the biggest yet, with free BBQs held across the country on April 8. As well as celebrating carpenters, it was a great platform from which to highlight the benefits of wood as a sustainable product that can help tackle climate change.

It started with a bang in 2009 and on April 8, in its third year, National Carpenters Day returned bigger and better than before. In 2011, the event was able to reach a wider audience than ever with a host of new activities, national events, sponsors, partners and participants.

National Carpenters Day was created to celebrate the role of those men and women who add such value to our economy and communities, yet whose efforts often go unsung. It is an opportunity to show our gratitude and recognise their skills and the part they play in building a more sustainable environment through the use of wood, a natural product that helps tackle climate change.

This year's event was run once again by FWPA's *Wood. Naturally Better.*™ campaign. It took place on April 8 when free BBQs were held across Australia at participating suppliers' premises and TAFEs. All featured sizzling BBQs serving free snacks and drinks while there were competitions to win instant prizes, all with the aim of raising awareness of the role of carpenters and helping foster relationships and camaraderie.

"We're proud that *Wood. Naturally Better.*™ is the major sponsor of National Carpenters Day," says Ric Sinclair, Managing Director of FWPA. "Our research



shows that an increasing number of Australians are keen to do something about climate change and they can do it by supporting carpenters and the use of sustainably sourced wood."

In the build up to the day, nominations were gathered for the Carpenter of the Year and Apprentice Carpenter of the Year. Workmates, friends, family members and carpenters themselves were able to enter at the event's website. Weekly prizes were offered for anyone that nominated a carpenter or apprentice, which proved a great way for people to get involved. The 2011 winners are:

**National Carpenter of the Year:  
Cheryl Unwin (Victoria)**

**Apprentice Carpenter of the Year:  
Matthew Gubbin (South Australia)**

For the victorious tradies, this year's prize pool was bigger than ever, thanks to great support from major tool and equipment suppliers. The total pool was \$60,000, which included a \$20,000 jetski package from Lockwood/Assa Abloy.

As in previous years, an impressive list of participants came out in force to support the day, including timber merchants, builders, TAFEs, industry bodies and trade publications. To find out more or to register interest in becoming involved in future year's events, call 1300 414 044 or email [admin@carpentersday.com.au](mailto:admin@carpentersday.com.au). Alternatively, visit [www.carpentersday.com.au](http://www.carpentersday.com.au)

## Addressing climate change with practical solutions

**The recent speaking tour by Professor Bjørn Lomborg and Canadian architect Michael Green was focussed on practical solutions to climate change and wood played a central role.**

The FWPA-sponsored trips, which took in speeches at significant events across Australia, garnered widespread media coverage and raised the importance of climate change and how sustainably managed wood can help address the looming global accommodation crisis.

The visits to Australia by one of the world's most high profile commentators on climate change and a leading architect demonstrated how thinking outside of the box can help spread our messages to wider audiences.

FWPA sponsored the visits by Denmark's Professor Bjørn Lomborg and Canadian architect Michael Green earlier this year. Both men spoke at events including the Green Cities conference in Melbourne, an Economic and Regional Development Forum in Canberra, and at Sydney's Lowy Institute, delivering their messages to an audience of more than 1,500 people.

Professor Lomborg raised the importance of addressing climate change in a cost effective and direct manner. One of his preferred solutions is more targeted investment in research and development.

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## Exciting new program aimed at building specifiers

**An integrated program of activities is being rolled out under the banner of WoodSolutions with the aim of inspiring, informing and educating building specifiers across Australia. Research commissioned by FWPA shows that there is poor knowledge on how and when to best use wood products. The program will feature conferences, seminars, design guides, educational resources and alliances with professional associations. It will be supported by a new online knowledge database and website that features authoritative information and inspirational case studies.**



Mr. Green, a prominent architect, is concerned about the looming accommodation crisis where homes will need to be constructed for three billion people over the next 20 years. He is concerned that the increased use of highly CO2 emitting materials, such as concrete and steel, and believes that sustainably managed wood can be a real option, even in high rise construction.

Their visit also helped generate widespread media coverage, from ABC TV, daily press and national radio to architectural and environmental magazines. This indicates the value of our industry looking beyond traditional channels to reach broader audiences.

The announcement, during the tour, that Grocon planned to build a multi-storey cross laminated timber (CLT) residential building in Melbourne reinforced Michael Green's message that engineered timber high-rise buildings ("plyscrapers") could soon be commonplace.

Research commissioned by Forest and Wood Products Australia (FWPA) has clearly demonstrated that many building specifiers are reluctant to use wood products because of confusion about the wide range of competing species, products and applications.

Within the built environment, there are various building professionals that can influence the specification of materials (i.e. specifiers). These include architects, building designers, structural engineers, quantity surveyors, landscape architects and sustainability assessors – to name just a few. Each of these professions has a different perspective (and influence) on the use of wood products, but they share a common need – they all want solutions.

To address this market failure, FWPA has developed an integrated program aimed at educating, informing and inspiring building professionals to use more wood and to better use wood in their construction

projects. The program will be implemented under the new brand of WoodSolutions.

The first major WoodSolutions activity was a conference series held in Sydney, Melbourne and Brisbane in September 2010. The conference featured several leading proponents on the use of wood such as Canadian architect Michael Green, UK structural engineer Andrew Lawrence and renowned NZ timber authority Professor Andy Buchanan.

A series of WoodSolutions technical design guides has been published covering major topics of interest to building professionals. The five current titles cover timber framed construction for townhouse buildings, multi-residential and commercial buildings, building with timber in bushfire prone areas and durability. Other design guides are under development. The design guides are a convenient format for technical transfer of R&D findings and the strong demand for the guides has been very encouraging.

To make information even more accessible, a pilot program has been underway in providing

dedicated seminars to small groups of building professionals under the banner of Lunch-and-Learn. The pilot program has been carried out by Timber Development Association and was restricted to Sydney metro, but a national roll-out is under consideration.

Many building professionals require continuous professional development (CPD) as a requirement of their professional association membership or Government licensing. Where possible, WoodSolutions activities are structured to secure CPD points. To this end, FWPA is building alliances with various professional associations and regulatory bodies to facilitate information dissemination through CPD accredited materials.

At the core of WoodSolutions activities, will be the new online knowledge database and information portal: [www.woodsolutions.com.au](http://www.woodsolutions.com.au). This new website is intended to be the single authoritative source of information about wood products in the Australian market. The site is currently undergoing rigorous testing and is due to be launched shortly.

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## FWPA Developing New Truss Standard Following Roof Collapse

**In its role as national coordinator of building codes and standards for the industry, FWPA is working closely with Standards Australia, the Frame and Truss Manufacturers Association and the key nail plate manufacturers to develop a new truss standard. The development of a standard was one of the recommendations from the South Australian coroner's report into the collapse of a golf club house roof in 2002.**

The slow progress in the development of a new truss standard has prompted FWPA to become involved in its role as coordinator of building codes and standards for the industry.

The collapse of a roof at the Riverside golf course in South Australia in 2002 resulted in two tragic deaths and the subsequent coroner's report recommended the development of a truss standard. This task was taken up by the three nail plate manufacturers under the guidance of Standards Australia's TM1 Committee.

Initial attempts to draft a standard stalled because a consensus of key stakeholders could not be achieved. In addition, any new truss standard must now reflect the changes in the revised timber

design standard (AS1720-2010), which is due to be referenced in the Building Code of Australia (BCA) in May 2011.

Recently, FWPA and Standards Australia convened a meeting of all major stakeholders to discuss the need for a truss standard and the required steps to get a draft document for review by the TM1 Committee.

FWPA and Standards Australia are preparing a detailed list of milestones and timeframes the consultant and the working group will have to follow. This will ensure the truss standard will be released for industry to adopt as soon as possible. The entire process is expected to be completed in 12 months once the project gets underway.

### Flow-on Effects

AS1720 is the principal engineering standard that sits above all others, so there are flow-on effects to subordinate standards that now need to be taken into account.

These include a review of AS1684.1 (timber framing) and the revamp of FWPA's Timber Solutions software that is used by engineers in calculating structural members in building design. The rewrite of AS1684.1 will require a considerable amount of work and will be project managed by an experienced structural engineer utilising subcontractors. The aim is to reduce lead time and ensure AS1684.1 is ready for use by industry as soon as possible.

## Project Reports Posted on Website September 2010 – February 2011

Project No.	Project Title
PRC174-0910	Management of Victoria's Publicly-owned Native Forests for Wood Production (Research Report) <a href="http://www.fwpa.com.au/Resources/RD/Reports/PRC179-0910_Research_Report_Screening.pdf">http://www.fwpa.com.au/Resources/RD/Reports/PRC179-0910_Research_Report_Screening.pdf</a>
PNA161-0910	Development of an Embodied CO2 Emissions Module for AccuRate (Research Report) <a href="http://www.fwpa.com.au/Resources/RD/Reports/PNA161-0910_Research_Report_Accurate_Module.pdf">http://www.fwpa.com.au/Resources/RD/Reports/PNA161-0910_Research_Report_Accurate_Module.pdf</a>
PNC075-0708	Tree growth relationships and silvicultural tools to assist stand management in private native spotted gum dominant forests in Queensland and northern New South Wales. (Research Report) <a href="http://www.fwpa.com.au/Resources/RD/Reports/PNC075-0708_Research_Report_Silvicultural.pdf">http://www.fwpa.com.au/Resources/RD/Reports/PNC075-0708_Research_Report_Silvicultural.pdf</a>
PRC179-0910	Rapid screening of commercial forestry species to <i>Uredo rangelii</i> (myrtle rust) and distinguishing <i>U. rangelii</i> from <i>Puccinia psidii</i> (guava rust) (Research Report) <a href="http://www.fwpa.com.au/Resources/RD/Reports/PRC179-0910_Research_Report_Screening.pdf">http://www.fwpa.com.au/Resources/RD/Reports/PRC179-0910_Research_Report_Screening.pdf</a>
PNA147-0809	A Comparative Life Cycle Assessment of Alternative Constructions of a Typical Australian House Design <a href="http://www.fwpa.com.au/Resources/RD/Reports/PNA147-0809_Research_Report_Comparative-LCA.pdf">http://www.fwpa.com.au/Resources/RD/Reports/PNA147-0809_Research_Report_Comparative-LCA.pdf</a>
PRA189-1011	Review of Policies and Investment Models to support continued Plantation Investment in Australia <a href="http://www.fwpa.com.au/Resources/RD/Reports/PRA189-1011_Research_Report_Policy_and_Investment_Model_Review.pdf">http://www.fwpa.com.au/Resources/RD/Reports/PRA189-1011_Research_Report_Policy_and_Investment_Model_Review.pdf</a>
PNC058-0809	Adoption of new airborne technologies for improving efficiencies and accuracy of estimating standing volume and yield modeling in <i>Pinus radiata</i> plantations <a href="http://www.fwpa.com.au/Resources/RD/Reports/PNC058-0809_Research_Report_Airborne_Technologies.pdf">http://www.fwpa.com.au/Resources/RD/Reports/PNC058-0809_Research_Report_Airborne_Technologies.pdf</a>

## Approved Projects July – March 2011

Project	Research Provider	FWPA investment	Total Budget
PNB204-1011: NIR Assessment of pyrethroid retention for H2F treatment	CSIRO	77890	139801
PNC196-1011: Predicting wood quality to improve sawlog value in radiata pine	CSIRO	332000	868458
PNC198-1011: Comparison of graded recovery and value of major sub-tropical exotic pine taxa	Forestry Plantations Queensland Pty Ltd	50000	140000
PNC209-1011: Genetic Selection Tools for Enhanced Wood Properties and Plantation Productivity in Australia's Temperate Eucalypts (The Hottest 1000)	CSIRO	1352575	3604451
PNC211-1011: Optimal use of genetics in deployment and tree breeding	Southern Tree Breeding Association	725000	1838235
PRA199-1011: Investment Plan for increased use of timber products in the residential housing market	Worms Downunder	43000	43000
PRB212-1011: Development of FWPA Research and Development Investment Plan for Development of secondary products and markets for them	Strategic Industry Research Foundation	30000	30000
PRC202-1011: Calibration of effects of removal of nutrients in harvesting a radiata pine plantation	Forsci Pty Ltd	5220	11220
PRC208-1011: Investment Plan - Improving Wood Quality and Yield, and Tools for Forest Management	P F Olsen & Co Ltd	36000	36000
PRA213-1011: Australian size and makeup of outdoor timber and infrastructure applications market	Timber Development Association (NSW)	10000	10000
Approved not yet contracted: Effective use of Thermal Mass in Residential Timber-framed Construction- Scoping study for developing rules of thumb for direct gain systems	University of Sydney	90000	184000

**Totals  
(excluding GST)**

## Upcoming events

Date	Association/Event	URL
February to July	Master Builders Australia - Home Shows (Perth, Melbourne Brisbane and Adelaide)	<a href="http://www.masterbuilders.com.au">www.masterbuilders.com.au</a>
13-15 April	DesignEX (Melbourne)	<a href="http://www.designex.info">www.designex.info</a>
2-5 May	ANZIF 2011 Conference (Auckland, NZ)	<a href="http://www.anzifconference.co.nz">www.anzifconference.co.nz</a>
15-17 June	SawTECH 2011 Conference (Brisbane)	<a href="http://www.sawtechevents.com">www.sawtechevents.com</a>

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