TimberTrader

news



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TimberTrader₁

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COVER CREDIT: Courtesy Allied Forest Products. Inset: John Halkett.

Timber Trader acknowledges the Cammeraygal people, Traditional Custodians of the land on which this publication is produced, and pay our respects to their Elders past and present. We extend that respect to all Aboriginal and Torres Strait Islander peoples today.

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Above: John breaking the chocolate 'wood' at the recent 2023 Australian Timber Supply Summit, with MGA TMA's Marie-Claire McKiernan and Malaysian Timber Council CEO Noraihan Abdul Rahman.

Vale John Halkett

When John Halkett was considering buying this magazine, he mused that it would be nice to have it properly back in the hands of timber people, as founding publisher Greg King had envisioned it. For John, the timber world was the whole world in microcosm—global trade, environmental issues and the potential to lift living standards through fair dealing were all here. It was, family aside, the most important part of his life. He began his career as a graduate of the School of Forestry at the University of Canterbury in New Zealand and finished it the general manager of ATIF, managing director of Forestlands Consulting and co-owner of Timber Media Australasia. Along the way, he wrote seven books, multiple scientific papers and uncountable articles on timber and forestry. When he died, he was at his desk, still writing. Below, co-owners Chris and Campbell farewell our friend. John Halkett, began his life in Palmerston North, New Zealand 19/10/1946, ended it in Sydney, Australia, 10/10/2023.

TRIBUTE TO JOHN HALKETT

By Chris Parker and Campbell McInnes

Valking through any cemetery or memorial garden, you will find on the array of headstones, plaques and commemorative stones that a person's life is invariably recorded with the person's name, the date they entered the world and the date they departed from it. In between these two dates is a dash, a dash that represents a person's life. John Halkett had a significant dash that we would like to reflect on here.

- In speaking with people across our industry who worked with, for, or knew John personally over many years, the common theme in accounts of John was that 'he was larger than life, had an infectious warmth about him and enjoyed his work'.
- The saying "if you don't have anything nice to say, say nothing at all' is a quote from Charles Caleb Colton.

John had a 'finger in many pies'. His unique knowledge, understanding and extensive experience was second to none. John touched so many people and willingly shared his wealth of knowledge and gave support and assistance to them.

This was practiced by John, as he spoke of everyone in a positive light, despite a small handful probably not deserving it.

- John loved his partner, daughter, grandchildren, siblings and the rest of his family. He was a true family man, who talked about them often and their importance in his life was obvious.
- John was passionate about trees, renewables and his beloved magazines which provided a platform for industry members to speak the truth, cut through noise and promote their businesses and sustainable practices.
- John was a man of his word, and you could count on him and his unwavering support. He just didn't give up or stop and was working, doing the very things he loved, the day he passed away.
- John was generous and always put other people first. This was obvious in both his personal life and in business.

From our years with John, working on several projects together and partnering with him in business, we were completely astounded by his knowledge of industry people, their backgrounds, associations, where they had worked. Just as astonishing was his knowledge of properties, particularly in NSW, and the type of trees, tree locations and where they could be found!

After being invited to attend a plantation property up on the North Coast of NSW, we drove up the long dirt trail to the main premises. Before we had even parked the car, John had already identified the various tree species, with a good idea of when they were planted and what needed to be done to safeguard the forestry lots from bushfire and ensure best practice outcomes. That was all determined before we formally started work. After meeting with the landowner and reviewing site plans, lots and historical data, it was clear that John was spot on.

John touched so many people and willingly shared his wealth of knowledge and gave support and assistance with completing



Above: John getting his own picture, "just in case the camera SD card failed."



John was a man of his word. You could count on him and his unwavering support.

Government applications, compliance, understanding complex regulations and representing large groups of businesses making representations to Federal and State Ministers. He was willing to help small and medium enterprises, without hesitation. While most people would be motivated primarily by financial consideration, John was genuine and always ready to help for the right reasons. His generous spirit was evident to all who knew him.

John had a 'finger in many pies'. His unique knowledge, understanding and extensive experience was second to none, and he was in high demand. For many businesses, John will be extremely difficult to replace. We are all going to miss you John. You brought a sense of calm, polite gratitude and respect to this world, and to all who knew you, worked with you and relied on you, we are all richer for the experience.

Rest in Peace

Publisher's note

John had finished his last publisher's note a week before he passed away. In typical style, it arrived with a note that said "Make sure you update this with any news that comes in late!" Reviving TTN was a major work for John this year, and he was able to see it bearing fruit in recent months.

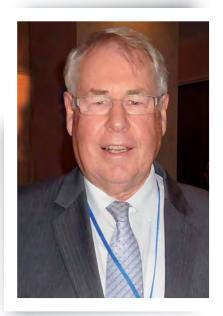
Pleasantly, we have been receiving feedback expressing enthusiasm for a quality hard copy magazine supporting the timber supply chain. However, some naysayers suggest that hard copy publications are so last century and 'things have gone digital'. We strongly disagree. Sure, the costs of paper, postage and production have all climbed dramatically, but the evidence suggests that quality hard copy magazines are still relevant in the publishing landscape and, in our case, in the timber supply chain.

Sure, there is plenty of timber-related material in the digital space. There are at least six platforms that I am aware of, including our sister magazine *Timber & Forestry enews* now approaching its 800th edition after serving forestry and timber industries for 16 years.

While some international and Australasian digital timber industry platforms have been around for some time and make an informative contribution to the industry, others popping up more recently seem to be just 'cut and paste merchants' with material of modest utility making a dubious contribution to the industry.

We have a team of experienced journalists and well-credentialled columnists and we intend to keep it that way: real living journalists travelling around the country, interacting with industry participants and preparing articles for publication that are carefully researched and checked for accuracy and relevance.

We are buoyed by your enthusiastic support that encourages us to maintain the quality benchmarks expected of an enduring hard copy magazine. We hope you continue to support our efforts to provide you with an editorially authoritative, considered and useful publication as we look forward to continuing to support the timber industry in this country and beyond.



Due to their longevity and prominence in the timber industry, Allied Forest Products may have been flying somewhat under the radar, so we are delighted to showcase this outstanding company in this edition. The Chebab family is the driving force behind Allied Forest Products and has had an involvement in the timber industry for many decades.

Strong intergenerational ties have seen the Chebab family's interests in the timber industry grow and diversify. This major wholesaling and distributing southern Sydney company has moved from sawmilling to sourcing and importing a diverse range of timber products and now supplying their new allSYSTEM floor system brand, all while actively engaged with wider issues within the sector.

Today, strong performers in the critical timber supply chain are vitally important as the country seeks to ramp up home-building activity, placing an increasing reliance on companies like Allied Forest Products to supply the essential timber products that make our national house construction goals possible.

John Halkett Publisher





News in brief

CLT Toolbox launches to market

Fresh from a round of successful beta testing and funding, the mass timber design tool is now ready for users.

Back in the May/June issue of TTN, we talked about CLT Toolbox: a web-based engineering tool that simplifies access to designing and building with mass timber.

Since then, co-founders Adam Jones, Ringo Thomas and their team have been going from strength to strength, winning awards, opening new offices in Ethiopia and Indonesia and securing \$1.5 million in seed funding. After a successful beta testing period, CLT Toolbox launched to market late last month with signed partnerships from ASH, Cusp, NeXTimber by Timberlink and XLam, alongside Monash University and the ARC Advance Timber hub administered by the University of Queensland.

We asked Daniel Wright, national business development manager at ASH and Nathan Benbow, engineering design manager, both of whom are experts on ASH's MASSLAM GLT range what drove this partnership.

"There are several barriers limiting a mass timber client from having their project reach tender," says the MASSLAM team.
"Australian universities don't teach mass timber engineering – for an engineering firm to be confident in mass timber, it requires dedication and commitment from the company to encourage a staff member to upskill themselves. This takes hundreds, if not thousands, of hours on company time.

"Even if you have a motivated client, they can often find themselves pushed away from mass timber by a design chain who aren't proficient in mass timber. A common example might be suppliers optimising for a concrete structure but delivering a price-check on mass timber to the same design. This creates an unfair comparison that's biased toward concrete efficiencies and omits the many efficiencies of products like MASSLAM.

"Adding to this complexity is that structural characteristics of timber will vary from one species to another. Meaning a cost-efficient connection for one might be inefficient for another. To solve this, at least here at ASH, we learnt early on that we needed our own MASSLAM Engineering and Design Team to offer this service to clients. We have a dedicated team who specialise in DfMA – and they know how to design for efficient CNC production reduced bracketry costs and increase install speed. But this is dependent on a client making it through to the point where they contact us.

"For every project we get to have an impact on, there are probably more than 10 that don't even make it to our desk. This is one of the ways CLT Toolbox really adds value for us.

"We absolutely buy in to their purpose. They make mass timber design software accessible to all. It allows firms to design in mass timber without hundreds or thousands of hours learning a new skill. Now, who knows? Maybe 5 out of 10 will make it to our desk.

"Another benefit of CLT Toolbox is that there has been a lack of appreciation for the specific grades and section sizes available in our MASSLAM product range. Engineers like to specify generic grades from AS1720.1 and sizes that simplify their calculations and drawings. With CLT Toolbox providing simple drop-down lists of ASH's MASSLAM grades and sizes, we expect to see specifications that require far less refinement."

The MASSLAM team also emphasised that the interactive and informative nature of CLT Toolbox will help speed the development of mass timber design capabilities. "The convenience and ease of CLT Tooolbox will inevitably lead to MASSLAM being used more across the board – not just in the target markets of multi-storey offices and multi-res – but also in social housing and even smaller projects such as townhouses and private architectural residences," they said.

"The user-friendliness and educational content presented will allow engineers to design and specify mass timber on buildings of all scales. Low consultant fees for small projects currently don't warrant intensive investigative engineering to be undertaken. In a similar manner to the technical support the MASSLAM Design Team offer, CLT Toolbox will overcome such barriers."

For Ringo Thomas, who was in Ethiopia when we spoke, the endorsement affirms that he and Jones are on the right path. "We had a shortlist of goals when we set out on this project," he says. "One of them was to make life easier for mass timber suppliers like ASH and the other was to democratise access to mass timber design globally.

"Working with the team here, I can see the work we're doing is really having that impact. I can honestly say this has been one of the most rewarding weeks of my life."



Above: Ringo Thomas (left) and Adam Jones, co-founders of CLT Toolbox.



Tilling is now custom treating timber onsite with SmartGuard, at our new treatment facility in Crestmead, Queensland.

SmartGuard offers the best in treatment at our new state of the art treatment facility. We have installed 2, 12 metre tanks delivering precision pressure treatment to compliment our existing capability in H2F.

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Water borne treatment protecting timber against insects, including termites, south of the Tropic of Capricorn only.



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Above: Forestry Corporation of NSW researchers on the hunt.

Potoroos in NSW

Marsupial sighted in NSW for the first time.

bout the size of ring-tailed possum, the long-footed potoroo has long been suspected to range into NSW from its known territories in Victoria's East Gippsland, but until recently, old scat samples were the only evidence.

Now, ecologists from NSW Forestry Corporation are celebrating after capturing infrared images of the rare marsupial on motion sensor cameras installed across Bondi State Forest south of Bombala. Forestry Corp had set up 88 cameras at nine sites, luring the fungiloving potoroos in with truffle oil on pads pegged to the ground.

"We were a bit blown away by this unexpected record of potoroo," Forestry Corporation of NSW senior field ecologist Dr Rohan Bilney told the ABC. "It's a bit of a holy grail moment.

A spokesperson from the Forestry Corporation of NSW said it would suspend planning for future harvesting at three proposed areas within Bondi State Forest due to the detection of potoroos.

The area where the potoroos were seen was decimated by the Black Summer bushfires nearly four years ago.

"Survey work undertaken in Victoria showed that they actually survived the fire quite well," Dr Bilney said.

"It's shown that the species have been quite resilient to what was a severe wildfire event."



Above: One of the long-footed potoroos captured on infrared camera.

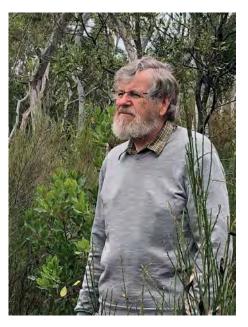
Vale Kevin Tolhurst

The internationally renowned bushfire expert died suddenly after a public meeting.

ne of the abiding memories of Victoria's Black Saturday bushfire disaster was Dr Kevin Tolhurst patiently giving evidence at the subsequent Royal Commission.

Hi team's accurate predictions of fire spread on that day had been ignored in the unfolding disaster, but he didn't seek any type of retribution in his testimony, instead he talked the commissioners through the fact that much of what Australians thought they knew about fire behaviour would have to be unlearned. The rest of his career was dedicated to replacing assumptions with the data-based models and plans that have helped to keep Australians alive, despite climate change worsening fire seasons in the years since.

Dr Tolhurst was Associate Professor in Fire Ecology and Management in the Department of Forest and Ecosystem Science at the University of Melbourne, where he had met his wife, Rosemary, as a fellow student. His interest in fire behaviour in the bush began early and from 1984 he became a recognised expert in fire ecology. As well as publishing widely on the topic, he took an active role in public education and policy reform. In recent years, he led the development of a new national bushfire framework to assist governments and private



Above: Kevin Tolhurst was a patient communicator with students, communities and politicians

From 1984, Kevin became a recognised expert in fire ecology.

organisations to tackle Australia's growing bushfire problem. On the day he died, he had just finished giving a talk to a public meeting in Mallacoota, where he engaged generously with locals in planning for fire prevention and management to keep their communities safe.

Associate Professor Kevin Gerard Tolhurst, 11/12/1955 to 5/10/2023.

First NeXTimber CLT

The South Australia-based plant is now taking orders.

imberlink's NeXTimber facility has pressed its very first Cross Laminated Timber (CLT) panel, marking another significant milestone in the construction of Australia's only combined CLT and GLT radiata pine mass timber facility after the production of the facility's first GLT beam in August this year.

David Oliver, Timberlink chief marketing, sales & corporate affairs officer, said: "The entire team has been working towards this moment since we announced construction of the facility in 2020. To see the hard work of so many come to fruition is very rewarding."

Patrick Dark, CLT/GLT operations manager, said: "There was such an air of positivity when the panel came off the line. Everybody who has been involved in the installation, testing and commissioning of our NeXTimber equipment should be proud of

what we've accomplished."

The new line can produce panels up to 16m long and 3.5m wide and will unlock significant capability to manufacture mass timber building products in Australia.

Orders are now open. For more, visit www.nextimber.com.au



Above: NeXTimber by Timberlink's first CLT panel, pressed at the Tarpeeena, SA, facility,



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In brief

atalie Reynolds has been appointed interim general manager of the Australian Timber Importers Federation. As the managing director and chief legal counsel at Hikari Solutions, Reynolds was working closely with the late John Halkett, former GM, prior to his passing, to help the industry comply with the Illegal Logging Prohibition Act and associated international legislation. You can reach Natalie via contact@atif.asn.au

orest & Wood Products Australia (FWPA) has welcomed Erick Hansnata as its new Statistics and Economics Program Manager. Hansnata is an accomplished economist with experience in academia, government and the private sector. Kevin Peachey, previously the Statistics and Economics Program Manager, has moved into the role of Head of Built Environment Programs and WoodSolutions Program Lead at FWPA.

espite VicForests being dragged through the media as an inept opertator, its 2022 official audit has found an average 96% compliance with the state's forestry environmental standards.

Read the full story at https://arr. news/2023/10/04/vicforests-audit-2022-96-per-cent-compliance/.

an Tyson is retiring as Timberlink
Australia & New Zeland CEO at the end
of this calendar year after decade-long
tenure. Tyson took on the role of CEO
when Timberlink was first formed in 2013
and has led the business through
challenging times, ensuring positive
returns along the way. His most notable
achievements were the evolution of
NeXTimber, Timberlink's mass timber
manufacturing business, and Timberlink's
wood-composite manufacturing products.



Above: Ian Tyson is stepping down after a successful decade at the helm of Timberlink.



Above: International Hoo-Hoo members touring a timber plant after the 2023 Cowichan Valley, US, convention.

Steve Stevenson memorial trust update

The Concatenated order of Hoo-Hoo is a charitable timber group.

The Steve Stevenson Memorial Trust was formed following a 1991 Hoo-Hoo International Convention held in Leura NSW by the members of the Convention organising committee to continue the Hoo-Hoo spirit generated by their involvement in that Convention.

The aims of the trust were to promote the benefits of the Timber Industry to the community to school and university age students and to offer a balanced view of our industry to that group during a time of biased reporting about our industry in the media.

The Trust was strongly supported by both Industry and Hoo-Hoo members across the width of Australia, and is still indebted to those many identities.

Some early programs of the Trust were a collaboration with Forestry NSW through a refurbishment of their Cumberland State Forest visitors centre in West Pennant Hills

The aims of the trust were to promote the benefits of the Timber Industry to the community to students.

that hosted many school age groups to educate them about the benefits of our industry in a practical display that also displayed a plaque of Steve, noting his many contributions to our Industry and Hoo-Hoo, as well as acknowledging the Trust's contribution to the refurbishment.

Another program supported the production of a Timber Workboot Series booklet by the Kondinin Group for primary school age children, again educating them of the methods and results of our industry.

More recently, the Trust has partnered with The Gottstein Memorial Trust, who have similar objectives to The Steve Stevenson Memorial Trust, to provide scholarships to various universities Australia wide for students currently involved in our industry or showing an interest in the forestry industry in the future.

The current Trust Board consists of the following members:

Keith Johnston

Neil Olliver

Mike Heighway

Chris White

Don Martin

Soon to be joined by Brenton Christopher. Keith Johnston has asked if there are any people interested in assisting in restarting The Sydney Timber Industry Golf Day to

please get in touch at kjwoodproducts@ ozemail.com.au



www.meyertimber.com.au

Tasmania

Victoria



Above: Minister for Social Protection Heather Humphreys in the Combi-CB70E, with Martin Mc Vicar beside her.

Combilift anniversary celebrations

The Irish lifting specialist has just turned 25, launched five new vehicles in a year and won another international award. Easy!

ou have to be a brave company to welcome 130 journalists from around the world into your factory, but that's what Irish lifting machinery powerhouse Combilift recently did to celebrate its 25th birthday, along with suppliers, buyers and Ireland's Minister for Rural and Community Development, Heather Humphreys TD.

The celebrations took place over a week, including tours of the mammoth Monaghan plant, a celebration dinner at nearby Castle Leslie where long-term employees were feted and a busy open day for the locals.

The recently launched Combi-C70E was one of the stars of the show. As the shortest 7-tonne capacity counterbalance truck on the market with multidirectional ability, it's adept at versatile space-saving handling for both long and bulky loads. Another member of Combilift's electric fleet, it also comes with a range of ergonomic and safety features that will protect drivers and fellow employees alike. Also introduced to the world for the first time was Combi-Connect, which offers Combilift customers access to all of their fleet's data at the touch of a button.

On Monday 25 September, hundreds of employees and guests gathered in the plant's main fover to hear from CEO Martin Mc Vicar and Minister Humphreys.

"Over the past 25 years, Combilift has made a very important impact to the Irish economy," Humphreys told the assembled crowd. "Combilift is a visionary company in "Combilift is a visionary Irish company in every sense."

every sense and I'm delighted that the Irish government, through Enterprise Ireland, has supported Combilift through its incredible 25-year journey."



Mc Vicar said, "When Robert Moffett and I set up the business 25 years ago, I don't think anyone would have envisaged the scale we have gotten to today as an organisation and a lot of that is down to the commitment from our staff. By the end of this week, we will have officially unveiled five new products this year and while that takes a lot of dedication, it also requires a lot of collaboration with our customers.

"Our new Combi-AGT and Combi-LC Blade are both perfect examples of the customer expressing a desire for a product that can meet their needs, and Combilift hearing that. For us, it's not just about designing and building a vehicle, however. We pride ourselves on delivering a quality product, from Ireland, to anywhere around the world while still remaining cost-effective.

"We want to continue to grow and scale our business into the future and would like to thank everyone, in particular our employees, but also the people who have travelled from 42 different countries to be here today and celebrate with us. Today really is a milestone for Combilift."

Less than a fortnight later, the CB70E won the coveted Italian Terminal and Logistics Award for Product Innovation at the GIS Expo in Italy - a very happy birthday indeed!



Above: Minister Humphreys addresses the crowd in the foyer. Top: Irish dancing at the birthday dinner.



UPCOMING EVENTS

NOVEMBER

GOTTSTEIN UNDERSTANDING WOOD SCIENCE COURSE

An introduction to wood science and technology for timber processors including expert classes and site visits, 12-17 November 2023, Canberra, \$3995 including two nights accommodation for Albury site visits. Member discounts available. Book quickly as courses sell out. Visit https:// gottsteintrust.org/grants-courses/ understanding-wood-science-course or email team@gottsteintrust.org

TIMBER QUEENSLAND

Timber Queensland's 'Make the Connection: Fixings and tie-down for timber framing' webinar is designed to update building professionals on correct and new fixings and tie-downs. 14 November, via Zoom. For details and to register, visit www.timbergueensland.com.au/Events/ Default.aspx?id=4131

WOODSOLUTIONS WEBINAR

Standards Australia and WoodSolutions Webinar are working together to present 'Important Information on the Revised Timber Framed Construction Standards'. This free webinar on AS 1684 changes will run online on 14 November at 5.30pm and be led by FWPA's Boris Iskra. For details and to register, visit www.woodsolutions. com.au/events/standards-australia-xwoodsolutions-webinar-importantinformation-revised-timber-framed

NTHA COURSES

Two highly relevant NTHA courses for TTN readers are coming up in November: Timber Knowledge Beginner will be held on 16 November at ITI Australia, St Mary's, NSW, and Introduction to Plan Reading and Estimating will run on 22 November via Zoom. For details, costs and to register, visit www.ntha.com.au/ events/training/

Want the full story? Subscribe to the TimberTrader News fortnightly e-newsletter via our website www.timbertradernews.com





Ensuring safety in timber and hardware stores

Now is the time to revamp your safety practices and master traffic management.

By Dean Wilson, WH&S Officer at NTHA



Above: Dean Wilson conducting a traffic management forum, where issues are identified before planning.

he nature of our industry presents unique challenges, but with a well-structured safety management system - the backbone of workplace safety - and a commitment to training and competency, we can create a safer environment for everyone.

SAFETY MANAGEMENT SYSTEMS

One of the fundamental steps in managing safety in any business is to establish a comprehensive safety management system. This system should serve as a guiding framework, helping your business understand hazards and assess risks, and then take proactive measures to eliminate or minimise them.

Here are the key components to focus on:

- Safety Policies and Objectives Start by developing clear and concise safety policies that outline your commitment to safety. Ensure that these policies are communicated to all employees.
- Safety Risk Management Identifying hazards and assessing risks is the core of effective safety management. Regularly conduct risk assessments to identify potential dangers in your workplace. This includes assessing risks related to timber processing, the use of tools and equipment.
- Safety Assurance Once risks are

identified, develop strategies to control and mitigate them. Provide employees with the necessary training and resources to work safely. Implement regular safety inspections and audits to ensure compliance with safety standards. Regularly review incident reports and near misses.

Safety Promotion Encourage a culture of safety within your organisation. Promote open communication channels for employees to report safety concerns or suggestions. Regularly conduct safety training sessions and drills to keep everyone informed.

TRAINING AND COMPETENCY

In our industry, where employees handle various tools and equipment and engage in tasks like timber processing, ensuring the competency of your workforce is paramount. Here's how you can achieve this:

- **Verification of Competency** Implement a verification of competency (VOC) program to ensure all employees possess the necessary skills and knowledge to perform their tasks safely.
- Use of Tools and Equipment Training on the proper use of tools and equipment is essential to prevent accidents and injuries. Ensure employees are trained in

- equipment operation, maintenance, and safety procedures.
- **Licensing and Qualifications Some** tasks may require specific licenses or qualifications. Check employees who perform these tasks possess the necessary credentials.
- Third-Party Training Collaborate with qualified third-party trainers to provide specialised training. This ensures your employees receive the most up-to-date and industry-relevant instruction.

Safety in timber and hardware stores is achievable through a well-structured safety management system, a commitment to training and competency, and a culture of safety. By implementing these strategies, we can collectively work towards building a safer industry for all.

TRAFFIC MANAGEMENT SAFETY

It is vital to ensure employers and employees are aware of their workplace health and safety responsibilities for traffic management, focusing on machinery, vehicles, such as forklifts, and the safe management of traffic on site. The steps below are a comprehensive guide through this process.

1. Set up your WHS Traffic **Management Plan**

A traffic management plan involves the meticulous planning and control of people and goods movement within a designated area. It encompasses everything from stationary and moving traffic to pedestrians, cyclists, and vehicles. The primary goal of traffic management is to maintain orderly and efficient movement to minimise workplace risks.

2. Plan Exclusion Zones

Exclusion zones are designated areas where pedestrians and other workers are not allowed to enter while machinery or vehicles are operating. Exclusion zones are vital to ensure that people are kept at a safe distance from potential hazards. When setting up exclusion zones, always consider the likelihood of risks occurring, the degree of harm they could cause, and the feasibility and cost of implementing safety measures.

3. Regulate Vehicles and Plant

On any worksite, vehicles and plant machinery play a pivotal role in operations. It's imperative to have strict regulations in place to manage their movement and reduce the risk of accidents. Speed is a critical factor that often leads to accidents. Speeding vehicles and mobile plant significantly increase the collision risk and the chances of incidents such as forklifts tipping over or losing their loads. It's crucial to establish and enforce speed limits for all vehicles and mobile plant without exception.

4. Manage Pedestrian Routes

Blind spots are areas where drivers may not have clear visibility, posing a risk to pedestrians. Adequate signage and safety protocols should be implemented to

minimise these hazards. Additionally, consider pedestrian crossings, parking areas, and designated walkways to ensure pedestrians are separated from vehicular traffic.

5. Minimise Forklift Risks

Forklifts are a common sight on many worksites, and they require special attention. Even at a reasonably slow walking pace, a forklift needs at least 3m to come to a stop. This means speeding or reckless forklift operation can lead to tragic consequences. To manage forklift traffic safely, establish clear exclusion zones, provide comprehensive training for operators, and ensure all forklifts adhere to speed limits.

6. Manage the Flow of Traffic

To effectively manage the flow of traffic on site, everyone involved should comply with the traffic management plan. This includes vehicle operators, mobile plant

operators, pedestrians, and all personnel

7. Understand the Legal Framework

Understanding the legal framework is essential to comply with WHS regulations. Employers have a duty of care to provide a safe workplace. Failure to do so can result in significant penalties.

Traffic management is a critical aspect of workplace safety. By meticulously planning exclusion zones, regulating vehicles and plant machinery, prioritising pedestrian safety, and effectively managing the flow of traffic, we can reduce the likelihood of accidents, injuries, and fatalities on our worksites. Remember, safety is everyone's responsibility, and compliance with WHS regulations is not just a legal obligation but a moral imperative. T



Dean Wilson, a seasoned industry professional with over 20 years of experience, has been the dedicated WHS Officer at TABMA/NTHA for four years. With certifications including a Cert IV in WHS, Cert IV in training and assessment, and qualifications as a lead auditor in WHS and ISO 45001 OH&S standard, he is instrumental in ensuring top-notch workplace safety.



TimberTrader

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AUSTRALIA'S MOST RELEVANT AND INSIGHTFUL TIMBER INDUSTRY MAGAZINE

DTO: COURTESY JACINTA COLLEY

Association news



ATIF

True to form, John Halkett made sure he had his column in for ATIF early. It was the last TTN missive we received before his untimely death in October and, as always, deeply focused on the practicalities of maintaining a sustainable international timber industry.

JACINTA COLLEY TO HEAD IMPORTERS

Long-serving ATIF Chairman Nils Koren has now retired from the Board after a lengthy service as Chair. He has also represented the timber importing and wholesaling sector on Federal government committees, including the Forest Industry Advisory Council, and been central to the growth and advocacy successes of ATIF over many years. The Board and the wider wholesale and importing sector has a debt to the valuable contribution Nils Koren had provided to it over many years.



Above: Jacinta Colley, senior executive at Vida-Canfor has been elected to the position of Chair of ATIF.

With unanimous support Jacinta Colley, a senior executive with Vida-Canfor, was elected to the position of Chair. She brings a wealth of experience in the timber industry and is widely respected across the timber industry supply chain. Jacinta has also been closely associated with the growth of the Vida-Canfor business across Australia as the importance of well-credentialled, compliant imported structural softwood products are increasingly recognised as critical to Australia's building and construction aspirations.

BOARD TO BE STRENGTHENED

Given the increasing prominence of the timber importing sector, the ATIF Board agreed to increase the number of board members to eight and will be inviting nominations from identified companies in the timber importing and wholesaling sector soon.

Because the work of ATIF has escalated in line with the increasing supply dominance of softwood and hardwood imports and associated disruptions to domestic and international supply channels, the Board approved additional resources to assist with administrative and accounting functions.

ILLEGAL LOGGING DUE DILIGENCE COMPLIANCE MATTERS

As previously reported, since the change of Federal government the Department of Agriculture, Fisheries and Forestry (DAFF) has been more aggressive on illegal logging compliance, and the issuing of infringement notices for alleged non-compliance with the illegal logging legislation.

ATIF is not having a satisfactory dialogue on this matter with officials. The ATIF Board has considered options to seek legal redress and review and resolved to progress this matter with the Board's legal representative. This work will commence immediately. Further advice to ATIF member companies will be provided at an appropriate time.

RUSSIAN TIMBER PRODUCTS

Logs and processed timber are being transferred into China by Russian companies,

and then subsequently exported. Clearly, this is occurring in an attempt to avoid sanctions imposed on Russian imports or, in Australia's case, the additional 35% tariff on Russian imports.

In the case of manufactured timber products, it is apparent that they are being branded as 'Country of Origin China' in apparent breach of the in-country manufacturing component requirements for claiming Country of Origin labelling status. Recently increased volumes of timber products have been exported from China, including both products manufactured from Russia-sourced logs and timber products manufactured in Russia and subsequently transferred into China.

This action is considered a calculated attempt to avoid sanctions and additional tariffs imposed on Russian exports intended to restrict Russia's capacity to continue committing unlawful atrocities in Ukraine.

ATIF acknowledges that individual companies are legally entitled to continue to make their own decisions on importing Chinese and other countries' timber products knowing they are, or likely to be, manufactured from Russian-sourced logs. However, ATIF does not endorse practices that attempt to circumvent current trade sanctions widely imposed on Russia because of its illegal invasion of Ukraine.

ATIF has written to Hon Clare O'Neil MP, Minister for Home Affairs noting that it has recommended that member companies do not import timber products that knowingly contain Russian fibre, but seek to source timber products from alternative sources.

ATIF has urged the Federal Government to explicitly prohibit the import of timber products from China (or elsewhere) where the wood fibre in the product is sourced from Russia in an attempt to circumvent international sanctions and other trade restrictions imposed on Russia to restrict its ability to fund its aggression in Ukraine.

The late John Halkett General Manager

For further ATIF-related information call 1300 596 401 or email contact@atif.asn.au





RESILIENT TIMBER HOMES PROGRAM

EWPAA congratulates the two winners of the recent WoodSolutions' Resilient Timber Homes Design Competition 2023, looking at the impacts on design of floods and cyclones on housing designs. See the full details at https://resilienttimberdesign.com.au/. It is clear from the commendations also awarded that the competition of ideas was strong, and some exciting innovative designs were proposed.

Tackling adverse, and often extreme, natural hazards and conditions is not a new concept in housing. Our timber homes have endured devastating cyclones, flooding, and bushfires across the country and over time. We are seeing an increase in the intensity and occurrence of natural hazards, which will continue to test our existing building methods. Developing improved and innovative designs that better utilise our naturally resilient timber products will only become more important over time.

The variety of robust and innovative designs is a showcase for new ideas of what timber housing can be but will also educate

and draw attention to potential solutions before extreme weather events occur.

LVL COMPLIANCE

Laminated Veneer Lumber (LVL) use is growing in Australia, particularly in residential construction. Supply comes from both domestic and imported manufacturing sources. Instances of non-conforming and poorly branded LVL have been observed in the market.

Unlike most other engineered wood products, LVL does not employ the use of standard grades. This creates more complexity when comparing products from different manufacturers. Understanding the requirements of branding and communication of the product's performance and limitations are integral to choosing the correct LVL required for the specific application.

AS/NZS 4357.0 branding requirements allow for clear identification of the product in the marketplace and in service, which can be linked to design guides, published design properties, and limitations of use. Branding must include reference to: AS/NZS 4357.0, manufacturer's name or trademark; product brand or marking that can be linked to structural performance; clearly stated limitations of use (if relevant); bond type (e.g., A-Bond); formaldehyde emission class (e.g., E0); and additional branding that may be required, for example, where LVL is preservative treated.

Compliance with the National Construction Code (NCC) can be achieved by following deemed-to-satisfy solutions, a performance solution, or a combination of both. The most direct method requires LVL to conform to all requirements of the LVL product standard, AS/NZS 4357.0 (Structural laminated veneer

Unlike most other engineered wood products, LVL does not employ the use of standard grades. This creates more complexity when comparing products from different manufacturers.

PHOTOS: COURTESY MGA TMA AND NTHA (TOP)

lumber), including testing and evaluation of characteristic structural properties to AS/ NZS 4063. LVL that conforms with standards

AS/NZS 4357.0 can still be used but will require evidence of suitability to meet the NCC requirements. The best protection for your business is to use due diligence to ensure your products are compliant with Australian standards and codes.

A reputable product certification mark is a good way to have confidence that the manufacturing facility, the LVL product, and associated claims have been inspected, audited, tested, and reviewed against the product standards by independent experts. See www.ewp.asn.au and EWPAA's technical notes.

Gavin Matthew CEO



REGIONAL INDUSTRY EVENT

MGA TMA members and industry friends from Geelong, Ballarat, Warrnambool and surrounding areas, came together for our inaugural regional event held in Geelong on Thursday 21 September.

The committee had been discussing for some time their desire to host meetings with members in various locations around the country and Geelong was nominated as our first event outside of Melbourne.

It provided the perfect opportunity for members in those neighbouring regions to network with each other and hear from Peter Alexander, President of the MGA TMA Management Committee, David Inall, CEO of MGA TMA and Martin Stirling, MGA TMA Head of Legal.

With a number of the attendees meeting each other for the first time that morning, or not having seen each other for some time, the morning began with everyone mingling before sitting down to breakfast.

It was fantastic to have such an engaged audience with barely a moment without chatter throughout the event. Of course, there were a number of discussion points and questions raised when Martin addressed the group. The proposed industrial relation reforms may have a dramatic impact on our members' businesses but, as MGA TMA always do, we advocate on behalf of members where we don't believe reforms are iustified. As Martin concluded, our Employment Law team are always available to assist our members with any queries they may have.

We appreciated everyone taking the time out of their businesses to come along. We'll see you at the next one!

2024 EVENTS

Planning is underway for MGA TMA's 2024 event calendar.

Please watch this space in the new year for announcements as to dates and locations of our events.

FESTIVE WISHES

As the festive season quickly approaches, we would like to take this opportunity to wish everyone a very merry Christmas and a bright and prosperous new year.

Stay safe and enjoy time with your family and friends

> Marie-Claire McKiernan National membership manager



Above: MGA TMA's members came to Geelong for the association's inaugural regional event.



Above: Peter Andersen is playing a key role in developing skills for the next generation of trades through NTHA.



SKILLING THE FUTURE LEADERS OF OUR INDUSTRY

Timber and hardware businesses thrive on the infusion of fresh talent and innovative perspectives, with young people holding the key to shaping the future of our industry. At the National Timber & Hardware Association (NTHA), we recognise the importance of recruiting and hosting young individuals as apprentices and trainees. NTHA is a registered Group Training Organisation (GTO) committed to supporting businesses in building a workforce that will drive our industry forward from the ground up.

Formal training and qualifications are often underestimated in their impact on young individuals entering the workforce. The framework of education and skill development should commence early, and this is where apprenticeships and traineeships play a pivotal role.

One of the misconceptions is that businesses may undervalue vocational education. However, providing a young entrant with the opportunity to obtain a Certificate III in Retail, for instance, equips them with a broad range of knowledge encompassing sales, customer service, merchandising, and more. This not only benefits the individual by enhancing their employability but also brings fresh insights and approaches to the business itself.

Let's delve into why recruiting and hosting young talent in the timber and hardware retail industry is essential:

1. Knowledge Transfer The seasoned professionals in our industry have accumulated a wealth of knowledge over the years. By welcoming apprentices and trainees, we facilitate the transfer of this invaluable knowledge to the next generation.

- 2. Innovation Young minds bring a fresh perspective to the table. They challenge traditional norms and encourage businesses to adapt and innovate. These new ideas can lead to improved processes, better customer experiences, and a competitive edge in the market.
- 3. Skill Development Apprenticeships and traineeships provide structured learning experiences. They equip young individuals with practical skills, as well as theoretical knowledge proving them with well-rounded understanding. This handson training is crucial for ensuring that our workforce is well-prepared to meet industry demands.
- 4. Career Progression Completing a Certificate III level course often inspires individuals to continue their educational journey. Many industry leaders have started their post-school education at this level and have gone on to achieve postgraduate qualifications, such as an MBA.

At NTHA, we are dedicated to facilitating the entire process from recruitment and training of young talent, to providing WH&S support, employment benefits and retention strategies.

By investing in young people's education and development, we secure a skilled workforce and infuse our industry with the vitality and innovation needed to thrive in a rapidly changing world. Together, we can build a stronger, more resilient, and prosperous timber and hardware retail sector for generations to come.

Visit www.ntha.com.au and chat to our team about becoming a host employer today. Peter Andersen

NTHA general manager - workforce

A Timber Development Association TIMBER OFFSITE CONSTRUCTION **CONFERENCE AND EXHIBITION**

Wow, what a Conference and Exhibition.

We had around 220 delegates registered for the conference and exhibition, one of the largest attendances ever. More than 50% of the attendees had never been to the conference before, a record - furthermore. over 60% of the entire audience were building professionals involved in the built environment.

Engineers comprised two-thirds of the building professionals' attendance, followed



Above: Andrew Ball, American mass timber specialist and president of oWOW, at the TOC Conference and Exhibition held recently in Melbourne.

by contractors, developers, fabricators (domestic and commercial), fire engineers, quantity surveyors, universities and government representatives.

We brought together the most significant number of timber construction experts ever seen in Australia. It was an incredible line-up of keynote speakers and thought-provoking sessions; our best speaker line-up ever. Speakers came from Australia, Canada, New Zealand, Sweden, Estonia, and the USA. There was something of interest or new to all attending.

Memorable presentations included Andrew Ball from OWoW, detailing that mass timber buildings are saving him significant costs as well as meeting sustainable objectives, James Dibble and his 50-storey timber hybrid building in Perth and Anders Carlsson from Derom, who builds six-storey timber framed buildings in three days.

Please see below some of the feedback we have received.

"The conference was a success with so many quality presentations." - Ali Habibi, Principal, Northrop

"It was a very informative and inspiring conference. I echo the feedback about presenters being open and honest, which can be rare in construction." – Jessica Baller Multiplex

"I thoroughly enjoyed the timber offsite conference this week - congratulations on pulling so many great presentations together. I learned a significant amount over the two days!" - Dr Philip Christopher, The University of Melbourne

The measure of success for me was in two forms. The first is the developers, new to timber, who attended and are now considering a timber building for their next >>>

Andrew Ball from OWoW said sustainable mass timber buildings are saving him significant costs.



Above: Rob Svars, general manager at Vistek Structural Engineers, presenting on some of the company's CLT projects at TOC.



Above: H&E Architects was the overall winner at the Australian Timber Design Awards 2022. This year's winners were announced as this issue was being printed.

project. The second was the design professionals wanting to create an informal network of timber designers - Timber DiaLog - a great initiative.

AUSTRALIAN TIMBER DESIGN AWARDS

As we go to print, 2 November is fast approaching, where we will see the annual celebration for the Australian Timber Design Awards. Winners will be announced at a gala dinner at the Cargo Hall Melbourne. You can find the full list of 2023's winners at

www.timberawards.com.au.

RESEARCH

TDA is also heavily involved in the timber industry's research and market development work. Future activities at TDA include

The proposed changes to the Fair Work Act are being called too broad and heavy handed.

- · Feasibility study into Post and Plate mass timber construction
- Revitalising timber frame construction
- Technical readiness of resilient house design solutions

We wish you a Merry Christmas and a prosperous New Year.

> Andrew Dunn CEO



FURTHER MAJOR IR CHANGES PROPOSED

On 4 September 2023, the Albanese Labor Government introduced the Fair Work Legislation Amendment (Closing Loopholes) Bill 2023 ('the Bill') into Parliament. The Bill is the third tranche of amendments to the Fair Work Act 2009 (Cth) (FWA), following on from the passing of the Fair Work Legislation Amendment (Secure Jobs, Better Pay) Act 2022 late last year and the Fair Work Legislation Amendment (Protecting Worker Entitlements) Act 2023 in June 2023.

The Bill deals with a wide range of matters which, depending on an employer's

particular circumstances, could have farreaching consequences for their business operations. The Bill has been referred to a Senate Inquiry that is due to report by 1 February 2024.

A copy of the Bill can be accessed via this link https://parlinfo.aph.gov.au/parlInfo/ download/legislation/bills/r7072_firstreps/toc_pdf/23105b01. pdf;fileType=application%2Fpdf.

TTIA provided our Members on 5 September with a brief summary of the changes sought by the Albanese federal government when it introduced its "Closing Loopholes" Bill to parliament on Monday 4 September 2023.

As an update, almost immediately after the Bill was introduced into parliament, it was met with criticism and immediate pushback by business groups and many in the community as extreme and unnecessary.

The proposed legislation contained significant changes to the Fair Work Act that many say was too broad, heavy handed and created yet more layers of red tape at a time the economy least needs it.

Consequently, a Senate Inquiry into the bill was launched, and on Thursday 7 September 2023, opposition employment spokeswoman, Michaelia Cash, was successful in her motion to delay the Inquiry's reporting date from late October to early February 2024. This will ensure a proper degree of scrutiny through the inquiry process.

TTIA and other major industry groups have welcomed the delay, arguing more time was needed to work through the hundreds of pages of legislation that would engulf businesses in more complex regulation.

The changes to the definition of casual and independent contractors will, contrary to government statements, impact small business with yet more complex and inflexible legal rules.

Members of TTIA will be informed in a Member alert of any changes that are passed by parliament after the February review date and TTIA will deal with the changes in depth at our popular yearly face to face Member briefings in July/August next year.

If you're not a Member of TTIA, we are the first-choice national Association for workplace IR/HR/WHS advice for the entire timber products industry/supply chain. We employ long term in-house legal staff well known and trusted by the industry. Give us a call on (02) 9264 0011 and we will offer a special discounted membership rate for Timber Trader News readers.

A BRIEF UPDATE: NATIVE **FORESTRY & THE TIMBER INDUSTRY IN NSW**

Given the ongoing co-ordinated environmental protests and misinformed media reports about native forestry in NSW, we have reached a point where the future of our industry in NSW is in doubt and people's livelihoods are in jeopardy. We're seeing the exploitation of a lack of forestry knowledge to fuel miscommunications and falsehoods via slogans and campaigns. The Industry goes to great lengths to protect the fauna and flora within the production forests. It's in our interest to do so.

There is a real risk NSW may follow Victoria and Western Australia in closing public native forestry, which would cripple timber supply and wipe out most of the \$2.9B the industry contributes to the NSW economy each year.

Therefore, TTIA, along with the other key timber associations in NSW, namely Timber NSW, the Australian Forest Contractors Association (AFCA), Timber Development Association (TDA), South East Timber Association (SETA) and Forest & Wood Communities Australia (FWCA) have made a joint public submission to the NSW Premier and key Ministers in support of native forestry in New South Wales

The submission makes three key points:

- **Native Forestry is Essential Any** proposed closure of public regrowth native forestry and a 'transition' to hardwood plantations is completely unnecessary and unfeasible. The alleged benefits of such a closure on biodiversity, tourism and climate change do not exist.
- **Recognise the 21st Century Potential** of Timber Australia is the sixth most forested nation on earth and has bestpractice ESFM (ecologically sustainable forest management) regulation. There is huge potential in the NSW timber industry to meet the growing demand in Australia for a sustainable, renewable, recyclable

- resource like timber. We need to realise this nation-building potential.
- **Educate and Inform Citizens About** Forestry When falsehoods and misinformation are being spread about legitimate Government activities - like native forestry operations undertaken by the government-owned Forestry Corporation – we expect that Government will seek to counter and correct these misguided assertions in a timely and accurate manner. This is not currently happening in NSW.

Successive governments have ensured that public forests have been protected in National Parks and conservation reserves. The production forests managed by Forestry Corporation for multiple values have gradually reduced in size over the past thirty years, but dramatically increased in regulatory controls. The native forest industry in NSW is already one of the most highly regulated in the world.

We're calling on the NSW Government to work constructively and consult fully with the industry and communities in support of an economically, environmentally and socially sustainable timber industry in NSW. You can read all the details in our joint submission at https://timberfacts.com.au/important/ uploads/2023/09/NSW-GOVT-SUBMISSION-TO-RETAIN-NATIVE-FORESTRY-FINAL-21.9.2023.pdf

CHRISTMAS GREETINGS

On behalf of myself and the staff at the TTIA, best wishes for a safe and happy Christmas and New Year from us all to Members and readers of the Timber Trader News publication. We look forward to being of service to you in 2024.

> Brian Beecroft CEO T



Allied with builders

A new floor system product is just one of the ways Allied Forest Products is helping the Australian building market.

By Donyale Harrison

/hen you come from a multigenerational timber supply family, listening to builders runs in your blood. So when the Chehab family watched builders struggling to complete jobs over the peak Covid era, they decided to make a change.

"My family has been in the timber, forestry and building supplies industry for 187 years," says Stephen Chehab, managing director at Allied Forest Products. "Allied is a fairly new business for us, we began in only 2009 and

"We realised we could develop a floor system product that would be convenient for builders and at the same time take risk out re compliance."



Above: (L-R) Milan Timotic, of Aria Carpentry with Adam Krkac providing customer support on site. The new allSYSTEM floor systems are providing assurance and convenience for multi-storey builds.

during the early stages, we focused on resellers. That's the background we came from and it's what we knew: high-quality, sustainable products and good service.

"Then the pandemic hit and we saw all sorts of rubbish infiltrating the market. The most common problem we saw was in the first floor systems that were being installed in two-storey homes. Some were just completely failing. That was a huge light bulb moment for us. We realised that we could lift our service to a whole new level and develop a floor system product that would be convenient for builders and at the same time take risk out re compliance and certification. And that's how allSYSTEM was born."

It was another in a series of big changes for the company. The war in Ukraine had put a stop to its import of Russian spruce and larch LVL, which had the happy outcome of pushing Allied into a rewarding relationship with Finnish timber giant Metsä.

"What we thought was a problem turned into a huge opportunity," Chehab says, "because the feedback on the Kerto LVL from Metsä has been superb. We heard back from Milan Timotic from Aria Carpentry, who said his previous supply of larch LVL was too heavy and burned his tools and saw blades too quickly, as well as put more physical strain on his team. Kerto LVL is half the weight and much easier to work with, so both the team and the tools appreciate it."

From a history as light timber specialists, the team had moved more heavily into EWP, which led to the hiring of Adam Krkac as head of engineered wood products.

"It was like watching dominoes fall to create a fantastic picture," says Chehab. "We had the best brands already in place, we had the contacts with great frame and truss teams, then Adam became available, so we brought him onto our already very capable team to head the project.

"Suddenly we had a new brand, a new engineering take off team and everything we needed to make all SYSTEM a mainstream brand in the market."



Above: Kieran Chehab (left) with Frank Werling, head of technical, engineering & design at Metsä Wood, and Stephen Chehab watching Finnjoist I-beam being tested.

TRUSTED PRODUCT

The philosophies that guided the development of allSYSTEM are simple. All the partners involved are trusted manufacturers and fabricators, so each floor comes with a high degree of assurance. All products used are fully compliant and the timbers used come from sustainably managed forests and are responsibly produced. The system is guaranteed to be free of conflict timber and carries an environmental product declaration, as well as being lightweight, quick to install and having great strength and dimensional stability with minimal deflection.

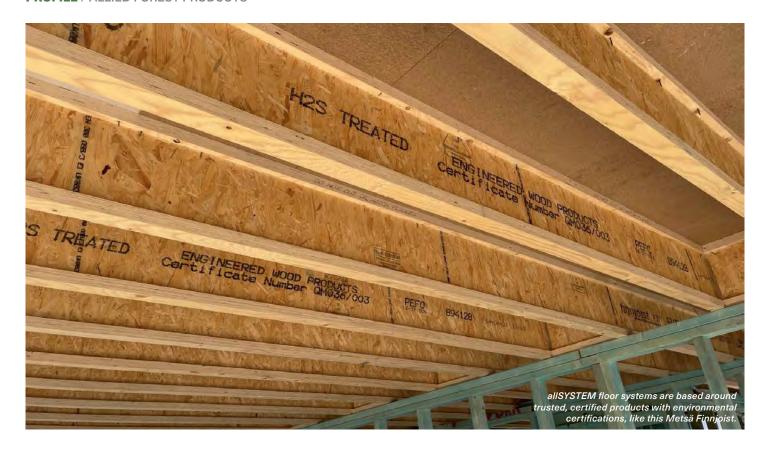
"And, of course, it's a one-stop solution," says Adam Krkac. "Builders call or email us and they get their full design, supply and service for all of their floor system and cladding materials for their project via their preferred frame and truss plant or merchant, and they know it will be on time. It's simple and it saves them money and time."

The Allied team researched the allSYSTEM components thoroughly, Chehab says: "We looked at multiple brands for the FC flooring component, we even looked at importing our own fibre cement or magnesium oxide board. James Hardie Secura won out because of its high performance and also because, unlike

most other brands, it's made in Australia. Even during the worst of the supply constraints during Covid, we always had as much Secura FC flooring as we needed.

"That certainty of supply goes for all our suppliers including Metsä for our Kerto LVL and Finnjoist I-beam. We'll have up to 460,000m³ of the highest quality 100% Finnish Spruce LVL available to us by 2026. That's a key reason why builders are lining up to partner with us."

Krkac agrees that the supplier research was perhaps the most important part of developing the product. "We've chosen suppliers that can produce quality branded >>>



products and have a past history of success," he says. "We want to grow this brand and so the size of a partner company's manufacturing output was also important to be able to deal with market demand and for forecasts sales projections and forward planning."

COMPLIANCE CRUSADE

Business social media platform LinkedIn is normally a fairly dry place, but Krkac has been enlivening the timber and construction corners of it in recent months with his series of building horror story photos and comments.

"I carry out a lot of inspections onsite," says Krkac, "and sometimes we find things that just don't look right. The good news is that by tackling them at that early stage, we can work to a solution to fix the issue. It happens because people aren't looking at the complete job; they're buying pieces of it to a price. That's why we emphasis the importance of having a partner like Allied assisting their jobs to be right from the design stage onwards."

A recent post hit 100,000 impressions and led to an influx of emails to Krkac from civil engineers, architects, builders, carpenters and certifiers - which wasn't unexpected, but also uni students, plumbers and procurement officers all wanting to know more about truly compliant engineered wood.

"We're using the platform to help a lot of people within the industry keep an eye on the products being used in their construction projects," Krkac says.

His simple approach of taking a detailed photo and then highlighting problems - or

"I carry out a lot of inspections onsite and sometimes we find things that just don't look right. The good news is that by tackling them at that early stage, we can work to a solution to fix the issue."

praising when the job has been done well has clearly spoken to the audience.

NSW Fair Trading has announced that it is taking steps to assist in reporting on noncomplaint issues for class 1 buildings, with David Chandler, NSW Building Commissioner, recently replying to one of Krkac's posts: "Adam, you will be pleased to know that the NSW Government extended the powers of the Building Commissioner into Class 1 buildings this week. You can be assured that there will be an early campaign to look at non-compliant building materials. This will occur in wholesale and retail outlets and then on-site. We will have timber in our early sights. We will set up a 'call it out' page on the new Building Commission web site in the new year."

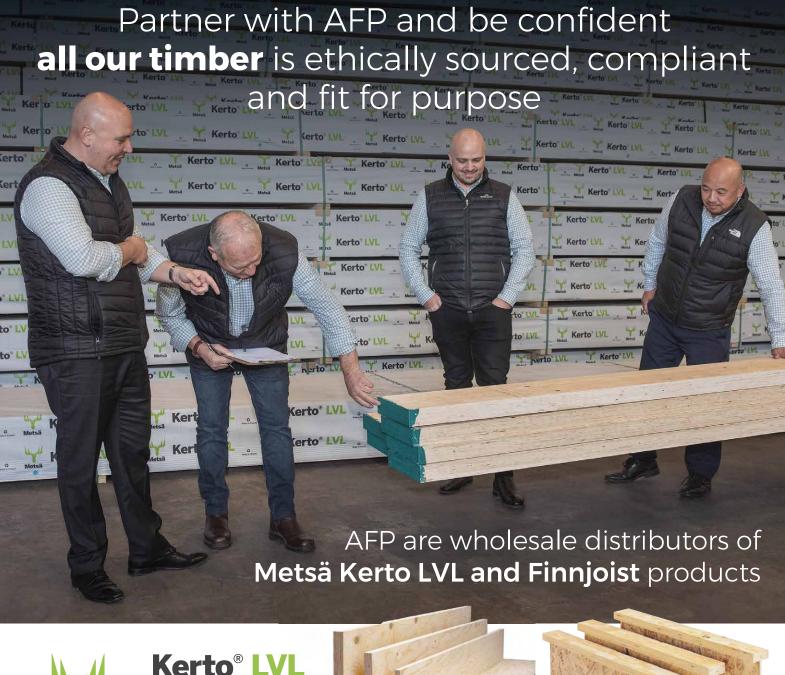
While the posts are new, the Chehab family has a history of social responsibility in the timber sector. "Since Allied Forest Products was formed, sustainability has always been our concern," Chehab says. "As a sector, we've come some way with laws against illegal logging activities forcing importers to do the right thing. Now, our key challenges revolve around ensuring product compliance and verifying the origin of logs. We are aware

that a significant portion of Siberian larch LVL entering the country originates from Russia, indicating potential conflict timber. It's crucial to note that conflict timber isn't covered by PEFC and FSC certifications, yet a considerable amount of Siberian larch LVL is being sold under these labels. We imported Russian LVL and plywood for years. I developed wonderful relationships with those suppliers and still regularly WhatsApp them. The ongoing war is a tragic situation, but as an industry, we cannot be helping to fund it by importing conflict timbers that have been 'washed' through a neighbouring country."

Chehab accepts that this has sometimes meant price increases, and even some lost orders. "But the vast majority of our customer base is on our side. For both our customers and our suppliers, we want them to have the same values we do. Price isn't everything.

"Allied is a family business. I work alongside my brother. Kieran, I have two daughters Charlotte, who's 11 and Sofia who's 8. I want to leave a legacy for them so we can have another happy 187 years or more." T

For more, visit www.afp.com.au





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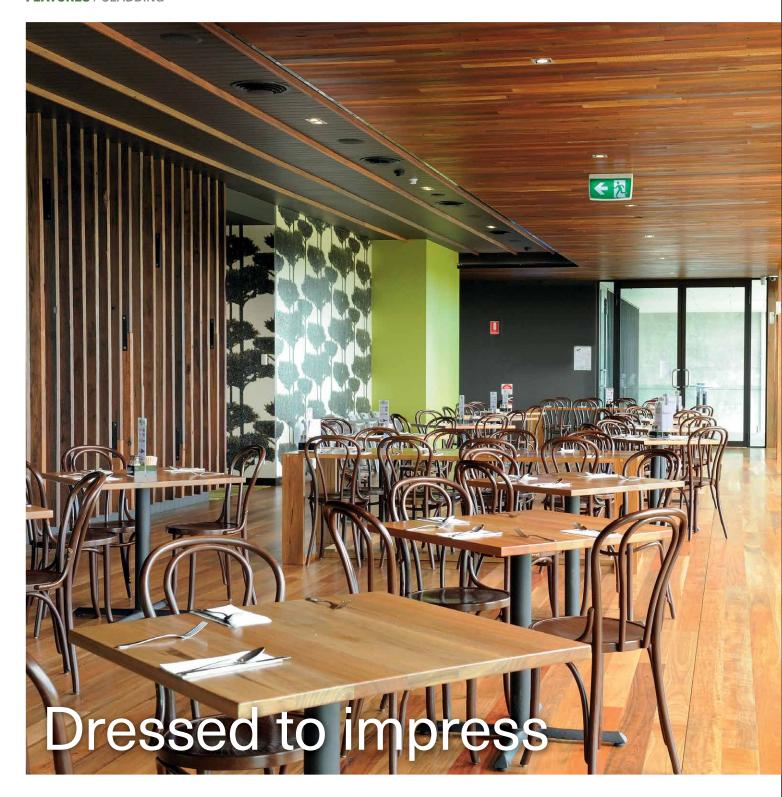












Beautiful, environmentally friendly, easy to maintain and usually coming with free insulation as well: timber cladding is the dream date for most houses. By Donyale Harrison

aving met my partner in the 1990s, my experience of dating apps is mercifully second-hand. But more than once I've looked over a friend's shoulder at a profile and asked: "Can they really be as good as all that?"

In a world full of over-inflated claims, timber cladding is the opposite. Any one of its major qualities would be a big enough selling point - it stores carbon for its whole

service life; it's beautiful; it's easy to install: lasts for decades and, in most cases, it helps to insulate and soundproof the building. And that's not even the whole list.

Still, there are cases where timber isn't the right solution, so clever new composite products have incorporated many of these characteristics, plus their own advances. Read on to find your 'swipe right' choice.

BALTIC BEAUTY

"Our business was founded on a supply of Baltic timber for weatherboards," says Ashley Wright, owner of Wright Forest Products. "In those days, we were selling across all the southern states, particularly Tasmania. Since then we've seen enormous advances in the technologies behind cladding, but our Lunawood is still coming from the Baltic."





Above: Nordic glulam and cladding from Wright Forest Products elevate the exterior of this Victorian home.

in timber cladding: "We've developed significant expertise in this area over the years, particularly with the exterior cladding," Wright says. "It's a lovely, dimensionally stable product with a lot of benefits in terms of its environmental credentials - and it's competitively priced."

"It's a dimensionally stable product with a lot of benefits in terms of its environmental credentials."

He's quick to point out there are also technical benefits: "Thermally modified product like Lunawood is as long lasting as many of the Class 1 Durability hardwoods. And while you can choose to coat it or paint it, you can also leave it to weather and it will silver off beautifully without damage," says Wright.

"That's particularly useful for rentals, because it removes the need for annual coatings. But you're not committed to keeping that look: if you change your mind in five years you can just prime and paint or sand it back and coat the boards.

"Unlike hardwoods, it's lightweight, so your installers have an easier time. And in terms of exterior cladding products, solid timber is pretty much as cheap as you can get. Plus it has an additional set of benefits for the

Lunawood is a thermally treated Finnish timber from PEFC-certified pine and spruce. The timber's chemical-free heat modification process protects it from rot and decay and also makes it unpalatable to insect attack.

"It's a solid wood product available in popular profiles and it's totally up to the user whether they want it to be oiled, stained or primed for painting," says Wright.

"Or we can supply an additional H3 treatment. We've seen Lunawood gain huge interest among our customers."

This focus on thermally modified product has seen Wright Forest Products specialising



Above: Lady Gowrie Childcare Centre in South Hobart, clad in weathered Lunawood.



Above: Recycled blackbutt from Kennedy's lines the Telstra One Building in Brisbane.

"They want high-durability, low-maintenance products that are sustainable, have a low carbon footprint and look good. Timber fits all the boxes."

house or building, including increased passive thermal and sound insulation."

The past few years have thrown up some unexpected challenges for cladding in the wake of two notable fires. "After the Spencer Street fire in Melbourne, and particularly the Grenfell tragedy, people got nervous, despite the fact those were artificial materials, not timber," Wright says.

"It's been very good to see people in the timber sector, particularly Boris Iskra, getting the word out that timber can be a much safer cladding choice, particularly for larger structures like those."

The work of Iskra and others to develop timber-based systems suitable for high fire risk areas has led to some unexpected uses: "In high BAL-rated areas you can put steel cladding over timber," says Wright. "So they keep all the low-cost thermal benefits of timber cladding, just lose the visual appeal."

At the residential and one- and two-storev commercial level, Lunawood has delivered growth for Wright. "It's gained huge interest in a very busy market," he says. "Often it's architects and home builders who've taken the time to research what's out there who



Above: HQ in Brisbane features 5.3km of Kennedy's recycled blackbutt cladding

are coming to us, and some home owners as well. There's a lot of information readily available about Lunawood, from architectural websites where it's been used in some award-winning builds, to the manufacturers in Finland and us."

Wright has also seen the trade and retail stockists he works with take up the challenge of encouraging more timber cladding into the market. "We sell through major outlets including Mitre 10 Home Hardware and the rest of the IHG Group as well as Bowens Dahlsens and other large independent timber retailers," Wright says.

"Bowens has recently put up a promotion in selected stores that talks about the different types of cladding available and how they perform, so the customer can immediately compare timber cladding with composites, cement sheets and so on. Each has got their benefits and disadvantages, but when you look at the whole picture in that way, you can quickly see why you'd choose to use timber."

Visit www.wrightforestproducts.com.au

FEELING GOOD WITH WOOD

Michael Kennedy is listing recent cladding projects the team at Kennedy's Timbers has supplied for: "We've done fire stations in New Zealand, there's been a series of commercial projects, especially up in Queensland, a lot of high-end residential, did I tell you about that big hotel job we did with 18km of cladding?"

When I ask why so many people are coming to him looking for timber options, his answer is surprising. "They usually don't start with timber. They start with a list. They want high-durability, low-maintenance products that are sustainable, have a low carbon footprint and look good," he says.

"Timber fits all the boxes on that front. So we're increasingly seeing people going through that matrix of questions and coming to timber as the answer."

Renowned for its reclaimed and sustainably sourced hardwoods, Kennedy's Timbers cladding comes in a range of species, profiles, finishes and choices of coatings. "There's a strong demand from people who want to have that greyed face, natural look to their timber and so they can leave it with no maintenance and not affect the durability," says Kennedy. "For those who are going to oil it, they like the oil to be something that is penetrative and they don't need to put anything over it."

In the past, specifiers were focused on the Kennedy's recycled range, but in recent years that's been changing. "There's an increased acceptance of the strong environmental properties of wood and sustainably sourced wood and that's



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TALK TO ONE OF OUR TIMBER **SPECIALISTS**















Above: Testing the VistaClad system against Australian Standards took three weeks, including building walls and then testing to destruction - in the end the screws holding the Clip Strips to the studs were what failed.

changing the market," Kennedy says. "People used to be resistant to the idea of newly harvested hardwoods. Now, thanks to the Planet Ark Make it Wood and the FWPA's Ultimate Renewable campaigns, people have a better understanding. So now they're saying 'let's just look for what aesthetically gives us the best option in our project' and aren't concerned whether that's a recycled product rich in history and character or a sustainably sourced product that's come from a managed forest."

Sustainability is a strong motivating force behind many of the jobs that have specified Kennedy's Timbers. "They want a material that is lower in carbon and timber stores carbon as well as having low carbon costs in its production," says Kennedy. "When it comes to cladding we're seeing a range of uses, like low-cost government housing, schools and residential commercial projects, as well as the bigger commercial jobs.

"Those are all places where the biophilic effect of being surrounded by wood matters. When you're surrounded by wood, you feel better. That's why we're seeing it used now in places like universities. Look at the University of the Sunshine Coast, they're building wooden, multi level buildings and cladding them in timber, internally and externally."

The same effect is being brought into play in retail outlets. "We know research tells us that timber buildings are healthier buildings", Kennedy says. "People feel better about

themselves in them. We're even seeing fast food outlets using timber cladding. Fast food and healthy don't traditionally go together, but we're seeing timber fitouts in places like McDonald's, KFC, Guzman y Gomez: those places are using recycled and sustainably sourced hardwood in their fitouts. As are Woolworths. And that's because they want to be environmentally friendly, they want to have a lower carbon footprint and it helps customers feel at ease. You don't see people walk into a concrete-clad building and rub the concrete going 'Isn't that beautiful?' You see it with timber, though. It's a more inviting space."

Kennedy agrees with Wright that there are still misconceptions in the marketplace when it comes to combustibility and durability, and that the industry has worked to address those. "Also, people can look at some of our product that has gone 25 years with no maintenance and see how good it looks. You wouldn't have thought that with timber But it is possible, with the right type of timber and the right profile, installed the correct way."

The increased use of timber cladding on high-end buildings has increased the number of people coming with questions. "They'll say 'I want to use timber, but I'm in a bushfire zone', or 'I've got lots of rain, I've got lots of sun...'" Kennedy says. "Some people want no maintenance, others are happy to maintain it to keep a particular colour. For all of them, we come up with a product and profile that will suit them best.

"If they're local to us or one of our distributors, they can come in and see it, otherwise we send out a lot of physical samples of timber and say, 'Here you go: touch it, feel it, put a stain on it or leave it, put it up, colour it if you want and see what it's like to live with. That's the best way to decide."

Visit www.kennedystimbers.com.au

SOLVING PROBLEMS WITH STYLE

The one thing natural timber cladding can't do is go without coating maintenance and keep its fresh look. You have to choose one or the other. Or you can have both by choosing VistaClad, which comes with its own sustainability benefits as well as a patented installation system and polymer capping.

Originally developed in South Africa by Eva-Last and sold here through ITI Australia, VistaClad is a lightweight FSC-certified bamboo composite product that incorporates recycled plastics and is manufactured using solar power.

"We've just been testing the product at lan Bennie and Associates, in Dandenong," says Dane Kearns, national product manager at ITI Australia. "It involved building two weather testing walls and three pressure testing walls, and then the tests themselves."



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APPLICATIONS



Outdoor

Indoor

Vertical & Horizontal

The test walls come in two types: complex replicas of a building's facade with windows, gutters and more for weather testing that simulates wind and rain ranging from light to torrential then looks for leaks in the walls; and flat walls where "they test with high pressure to try and blow or suck the cladding off the wall", as Kearns puts it.

The cladding system passed with flying colours. "VistaClad doesn't attach directly to a wall, but uses patented Clip Strips to join the cladding to the wall," Kearns says. "In the pressure test, we got up to six kilopascals, which is well above the four required to pass the standard in Australia. Once you pass, they test to destruction, and the VistaClad boards and Clip Strips were still going strong when the screws pulled out of the studs."

Nathan Chapman, co-founder of Eva-Last, was on hand for the tests: "We'd been expecting to do well because of the way we've designed the system. But it was awesome to actually see it physically do that with a third party testing body. It verifies everything we have designed for and proves it's an extremely strong system."

Eva-Last began as an importing business based in Johannesburg, nearly 20 years ago, but Chapman and his partners weren't happy with the quality of materials they were bringing in from the US and Europe. "They didn't perform well in the heat and high UV of Johannesburg," he says. "We're at 2000m elevation and about the same latitude as Sydney or Perth, so our cities share problems they don't have in the Northern Hemisphere.

"We started down this path in 2006 and in those days composites were new, but it made a lot of sense to us to take the byproducts of different industries and reconstitute them into a product that looks pretty good and has all these performance benefits."

At the core of VistaClad is a strong but flexible bamboo composite that is able to survive N6/C4 conditions and resistant to moisture and insect attack, as well as errant cricket balls from the garden.

The patented acrylic capping - the outer layer that contains the colour and texture of each board - is highly durable and UV-resistant, so it will keep its looks for many years. "We guarantee the product for 25 years, but I would expect it to perform well on a wall over a 50-plus year lifecycle, it just hasn't existed long enough for us to test it yet," says Chapman.

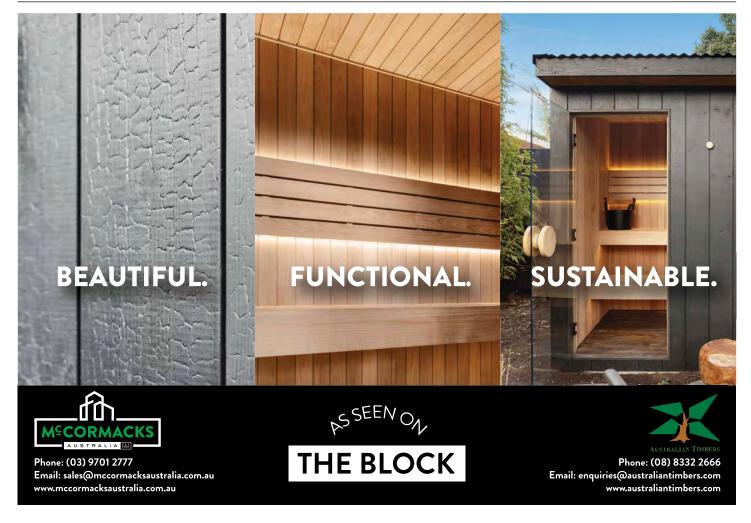
The capping comes in a wide range of colours and textures, though ITI's initial

Australian launch offer focuses on the Apex natural wood and Infinity brushed softwood ranges. "As we go on, we'll be adding to that," Kearns says.

And those ranges are easy to extend. "We started this product with the beautiful natural timber looks that customers love in Africa and Australia," says Chapman, "but when we went to Europe, they wanted flat pastels, because that's the tradition there. So we made new capping for that market. That was an easy one to do: it was simpler than any other product we'd developed."

But the most significant benefit is VistaClad's globally patentented Clip Strips, which are at the heart of the design. "We don't surface fasten any of the boards." Chapman says. "Instead, there is a locking system where the Clip Strips fasten to the studwork and then the installer locks boards directly onto the clips.

"It means you can get huge amounts of speed out of the install and it removes a lot of the risk of working at heights. It also removes lot of the downsides traditionally found with wood-plastic composite materials. They can have thermal expansion or movement, so you don't want to be face-fastening these products. There is a spring lock system in the



clips that gives them a really tight hold, but also allows for movement. Between the clips and the way we lock the boards together with tongue and groove, you get a much stronger fix and the boards act as a unit. That's how we were able to achieve six kilopascals in the pressure testing."

The choice to test in Australia was intentional: not only because this market is a natural fit for South African product, but because the Australian and New Zealand standards are some of the most rigorous in the world and a pass here is an automatic entry into multiple other markets. "lan Bennie told me the US testing standards for their Miami-Dade wind code are based on the Australian standard," says Chapman.

Kearns wasn't surprised VistaClad did so well. Like ITI, Eva-Last has a strong R&D focus. "When they were developing the product in South Africa, they didn't have a testing facility, so they built a rig to do their own testing and did extensive R&D on it until they could show it was an amazing product that was definitely fit for the Australian climate and conditions," he says.

"The other thing they've done is keep things simple for the users: there are other clip systems on the market, but this one uses



Above: The VistaClad Clip Strip system makes it easy and quick to install cladding horizontally or vertically.

a universal clip for all the different profiles rather than requiring different clip systems."

In South Africa, VistaClad has already found two very strong markets, the first in commercial buildings such as daycares and the second in architectural applications. "It's perfect for daycares," says Kearns, "because you just hose it off. Nothing sticks to it."

When it comes to architectural designs,

the clip system can be installed horizontally or vertically with just a bit of careful spirit level work. "Our goal was to make it not just fast and cost effective, but also remove the need for highly skilled labour to achieve a complex finish," says Chapman. "And once you've finished, you're not back next week to oil it, the job is done."

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PHOTOS: COURTESY DRIP SAUNAS

Case study

The Block sauna

Drip Saunas plus Thermory timbers equal a winning result.

elevision doesn't work on normal time frames, so when The Block's Steph and Gian decided they wanted a sauna, McCormacks Australia and Drip Saunas found themselves snapping to attention. But the result was a winner, with the Thermoryclad sauna raking in points from the judges.

"We've been using Thermory from McCormacks since the start of the year," says Mark Vella, owner of Drip Saunas. "We'd been looking for alternative products to the more traditional western red cedar we've previously used, which has been getting more expensive. Thermory is natural timber modified with heat and steam to make it durable, so it can withstand the harsh environments of a sauna. It's opened up a lot more options for us in terms of different claddings finishes and colours, and it's been really popular."

Drip Saunas custom build their saunas in their workshop, usually delivering them fully assembled with either a crane or forklift. The relationship with McCormacks has been great for helping his streamlined and swift workflow. "They stock the boards already

machined up, so when I put in an order I know that I will reliably get it within the week," he says. "But when there's a rush job, as this one was, I can get it the next day. And because Thermory is suitable for internal and external cladding, we're just dealing with one supplier, which makes things a lot easier for us."

"We were very happy to work with Mark on this project," says Julia Hall, CEO at McCormacks. "Thermory is a beautiful range and fits with our company pillars of Beautiful, Functional and Sustainable. It's part of our extensive cladding and interior linings range including specialty sauna products - which is suitable for bathrooms as well as saunas."

Steph and Gian chose traditional light aspen for the interior of the sauna and then contrasting dark Thermory Ignite 5 for the exterior, which has an embossed and tinted 'charred' finish that has the look of luxe Japanese burned timbers without the risk of charcoal stains.

"They loved the look of it, and because it comes from Estonia, where it's been used in saunas for years, we know it's going to do the job really well," Vella says.



Above: With prefabrication and reliable Thermory timbers supplied by McCormacks, the build was quick.





Above: Mark Vella says the Ignite 5 'charred' finish from Thermory is extremely popular.

Using less western red cedar has been surprisingly painless for Vella. "I do miss the cedar smell," he says, "but the huge range of colours and finishes makes up for that. In terms of installation it's a little bit different, but there's a comprehensive installation guide on Thermory's website with in-depth details. And it was simple as soon as I actually looked at that."

Since The Block episode aired the weekend before this magazine went to print, Vella has been fielding calls and emails. "This sort of thing is great for us, because a lot of people like to see a sauna in position. It helps them visualise it at their own home," he says.

"They're particularly liking the Ignite 5; it blends in really well to any environment in the backyard. The black charred finish is great with a light timber contrast inside the sauna or a brass fitting, which we commonly use. It's already been very popular and it looks like an absolute winner." T

Visit www.dripsaunas.com.au and www.mccormacksaustralia.com.au



Above: Radiata pine is now one of the major plantation trees across temperate regions of the Southern Hemisphere and the basis of substantial forest industries.

Woodwise: Radiata pine

A hardware store staple, this backbone of the construction industry was originally a lucky trial subject.

ine plantations began to be established in Australia in the 1870s as insurance against diminishing supplies of timber from native forests. While several species showed promise, the most successful was Monterey or radiata pine, sometimes also known as Insignis pine. This species grows naturally in only three small localities on the central Californian coast, stretching along the Pacific Coast in the Monterey region, south of San Francisco.

Radiata pine, as it is now commonly known, is one of the major plantation trees across temperate regions of the Southern Hemisphere and the basis of substantial forest industries in several countries, including Australia, New Zealand, Chile and South Africa.

Botanical name: Pinus radiata

CHARACTERISTICS

South Australia hosted early field testing of several pine species, including radiata. Much of the credit for this initiative appears to have been due to the colony's Surveyor General, Mr GW Goyder. He later attributed the lucky choice of adding radiata pine - an unknown

and untried newcomer - to the list of species for trials to advice he received from a Scottish nurseryman, Edwin Smith.

Growing naturally to 40-50m with trunks to 1m in diameter, the trees were physically suited to perform well in plantations. Substantial research on soil nutrient requirements, plantation management, and the sawing and utilisation of timber have made radiata pine the mainstay of Australia's softwood timber and paper-making industries. It has adapted readily to the temperate climate of Australia's southern states and has growth rates commonly 10 to 20 times those of native eucalypt forests, and up to 50 times that of slower-growing forests, such as cypress pine.

APPEARANCE

With its medium to low density and rapid growth rate, radiata pine has a fine but uneven texture and knots are common. The timber is fairly soft, often with very wide annual growth rings. The sapwood is white to pale yellow, but often indistinguishable from the heartwood, which is light brown to yellow. The grain is usually straight, apart

from a central core which can twist if the moisture content changes.

APPLICATIONS

Radiata pine is one of the most attractive and versatile industrial timber species in the world, boasting among its many uses panelling and flooring, house and industrial construction, exterior cladding, decking, posts, poles, fencing and packaging. It is popular in all types of construction and decorative uses, including framing, lining, glue laminated beams, veneer and plywood. If properly preservative treated, it can be used for many exposed structural and nonstructural applications.

WORKABILITY

Because of the large areas planted, radiata pine is considered to be the major generalpurpose timber in Australia. It is easy to work, apart from the knots, and it nails satisfactorily. Apart from the core, it is easy to dry. Timber that is high in resin content can be hard to glue and with radiata pine the knots, resin streaks and latewood can all emit resin that may affect exterior coatings. Radiata pine is not resistant to termites and should be preservative treated to increase its durability if required.

Radiata pine can be prone to surface checking when exposed uncoated or when coated only with stain-type finishes, which are less protective against moisture penetration. T



Above: Radiata pine can be prone to surface checking when exposed uncoated to the weather or when coated only with stain-type finishes.

Further information:

Content based in part on Wood Solutions website. For further information see: www.woodsolutions. com.au/wood-species/softwood/ pine-radiata

source.













Saws and so much more

Machinery specialists have long moved past just cutting technology. From managing cost estimates to replacing labour, here's what the current crop can do for your business. By Donyale Harrison



Above: Vekta's frame autonailer in action. It's part of their new range of framing solutions.

t the heart of every timber manufacture and fabrication business is machinery. Whether you make frames and trusses, specialise in panels and cassettes or simply supply timber members or mouldings, the equipment you use will determine your productivity levels.

Over the past two decades there has been a revolution in first the technology behind that machinery – with manual models largely replaced by automated options that are faster, more precise and safer - then in what those machines can deliver, with systems increasingly offering additional technologies that help plan inputs and outputs to get the most economical results from production.

Now, machinery specialists are meeting changes in production and labour needs with needs-based products, including automated infeed and outfeed systems, and positioning

themselves less as just technology suppliers and more as partners, working with their customers to find ways to increase their productivity or find new markets. I spoke with four of our leading machinery specialists about how they are evolving their offer and helping their customers succeed.

STIRLING MACHINERY

Stirling Machinery's range is enormous, with saws, moulders, planers, finger jointers, CNC machines and more, in addition to the Stirling Group's two tooling businesses.

But for Craig Honeyman, managing director at Stirling Group, what he doesn't sell to a customer has become as important as what he does. "One of my biggest transformations is when I went from being a sales rep working for a company to a company owner who started to sell," says Honeyman.



"Now I see everything in terms of cash flow, return on investment and upping efficiency. If I was paying \$1 and making \$1.10, I wouldn't do it. For \$1, I need to make \$2. That's now the point I get my customers to start from."

Stirling's other transformative moment has been Covid. "We used to be a woodworking machinery company," Honeyman says. "Five years ago, 100% of my turnover was in simple standalone machines. Now we're a process and automation company that can supply a piece of woodworking equipment. Covid has changed our workforces forever and now it's a case of upskilling your good workers.

"We're seeing businesses using their additional capacity to supply to other people."

"Standalone equipment is only 40% of my revenue these days. Now, 60% comes in material handling, whether it be robotics, vacuum suction, material handling... My customers aren't coming to me to buy a

PieceGiver

Above: Multinail's new PieceGiver is controlled through a sturdy central processor.

docking saw, I'm selling them a feeder unit, a stacker and more for dealing with their outfeed. So a standard investment has gone from \$200,000 to \$800,000. That's a big jump."

These two changes have come together in Honeyman's discussions with his customers. For those who are able to make the business case for putting in a line, there are clear benefits: a greatly expanded capacity that requires only one or two people to run it. But there is also the need to pay that investment back. "And if you're only using that machinery at 40-50% of its capacity to meet your needs, you may not pay yourself back \$800,000 in the near term," says Honeyman. "So what we're increasingly seeing is businesses coming together to use their additional capacity on supply to other people making complementary products. Those synergies are changing the landscape of manufacturing."

He describes one sawmill customer who used to specialise in raw product but recently invested in a finger jointer because of the increased price of timber. "We've got a moulding customer who was able to go to him for his finger-jointed material and then he invested in more moulding machinery rather than his own finger jointer. The second chap has a wholesaler who used to do some of his own processing, but now that guy can get what he wants from the other two, so he spends his time on sales. All three of them are benefiting: they're only investing in what specifically benefits their bottom line and each is free to focus on what they're good at."

With a small market like Australia, Honeyman says collaboration is the only way for most businesses to see a good return on investment. "It involves a mind shift to that sort of approach, but if you see an area with a need that you can meet, then you're guaranteeing supply to a known market, rather than having everyone competing against each other."

"The industry wants to hold onto every good employee we have. By automating, we move that role upwards."

Honeyman's team at Stirling has adopted a similar approach with their own sales. "We supply great machines, but our customers also need glue companies, fasteners, coating companies..." he says. "If I've got someone coming in who makes decking. I know that customer will want to have a coating machine as part of his line. We don't do them, so I talk with the coating companies and we sit in the boardroom together with this customer to piece together the puzzle of what they need."

Stirling takes the same approach with its tooling businesses, where the business makes cutter heads and more for its own machinery and others. "It's all applicationbased," Honeyman says. "Even where there is customised tooling that's required, we match the machine's design so the part will reach the performance the machine can achieve. At the end of the day, you've got to make these machines run as fast as they can - producing without compromising quality."

The one remaining gap has been training, so, after running machine use courses for some time, in 2024 Honeyman is launching the Stirling Academy to train or retrain skilled workers in machinery usage. Look out for details in a future issue of TTN.

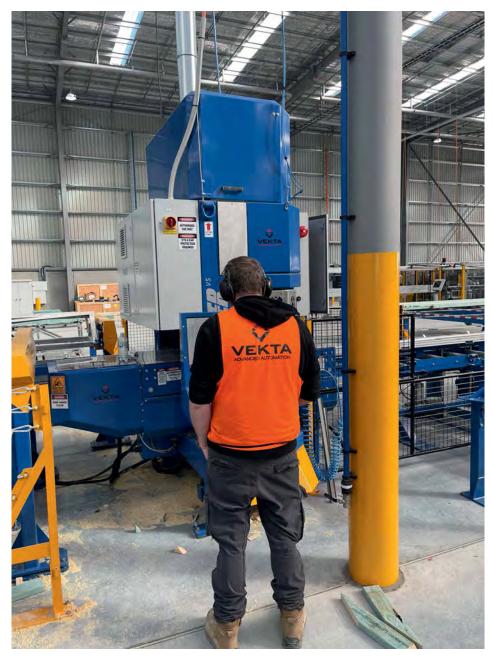
VEKTA ADVANCED AUTOMATION

Best-known for its innovative Razer saw, Vekta is also renowned for its close relationships with its customers and it's their needs that have driven recent changes.

"The biggest thing we've spearheaded over the past five or six years is integration," says Ryan Burtenshaw, principal solutions engineer at Vekta. "That's come directly from our customers and we've used their input and advice to essentially streamline our R&D."

Recent developments in the company's range reflect this: when Vekta received reports that feeders weren't able to keep up with the speed of the Razer, they designed their own Packfeeder. "It's the smallest on the market and one of the guickest," Burtenshaw says. "That solution led to the next one. The Packfeeder took the human error and that requirement of labour from the infeed side, now we've done the same with our direct delivery system on the outfeed side."

Vekta's outfeed systems are bespoke to



Above: The versatile Razer saw by Vekta is able to be instantly adapted for framing lines, particularly in conjunction with Vekta's new framing range from its acquisition of Framequip Australia.

each factory and deliver pieces in the correct order and orientation directly to the build stations. "You have all your printing and all those nice things already done," says Burtenshaw. "It's a real boon for people dealing with labour shortages, which have persisted. When it comes to what we can give our customers, it's more than just the cutting and optimising. With automated infeed and outfeed, you can take people out of that cutting process and put them where you need them, whether that's in higher-level positions, on jigs or overseeing."

One concern when automation is introduced is that jobs will be lost, but Burtenshaw says this is rarely the case. "The industry wants to hold onto every good employee we have, so by automating, we move that person's role upwards," he says. "It's not gruntwork anymore, it's thinking work. It means we get to keep all those experienced staff with their in-depth knowledge of the processes and market, because they're not getting physically worn out, and it means that young people coming into the industry find it more appealing because they're attracted to that technological side and they're able to take ownership of that. We're seeing some of them embrace this and come up with great ideas for their employers.

"Most of all, because you've improved the productivity at the same time as reducing risk, it gives the owners more time and breathing room to think about how they can improve their business."

One Vekta tool that has directly helped owners to plan is the Razer's ability to accurately forecast the cost of a particular job. "This is functionality we've had for a while," says Burtenshaw. "You can put a



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Above: Multinail's new PieceGiver system automates the infeed to the company's popular PieceMaker saw, dramatically speeding cutting time.

"The saw is an overhead, the press is a moneymaker. So if you get them off the saw and put them on the presses, you make more money."

job into the Razer, enter your timber costs and then it will look at the requirements and your labour and tell you 'this is how much it's going to cost to do this', whatever the job is.

"With drop saws, it could take months to work out how much money you'd made out of each job. So when you couple the Razer's ability to predict with the fact you can costeffectively run more shifts with the same staff, it sets businesses up for growth. With the recent fluctuations in timber prices, we've seen a lot of our customers take that deep dive into their stats, more than ever before."

The drive to integrate goes beyond Vekta's own products. They operate seamlessly with all the major nailplate suppliers and are designed to work well with competitors' equipment, too. "We want to deliver an automated solution that will see our customers flourish," Burtenshaw says.

"Recent changes have included more on the printing and marking side – people are using that to speed their processes and decrease error. We're also seeing new kinds of cuts - rebates and rips have been really popular lately. Those are all things we can manage with our agile approach. Importantly, that's not just for new machines. Every time we do an update on our saw, or we create a new thing it can do, we go back and update our other saws. I'm constantly surprised at how quick and responsive our developers are."

A major shift has been Vekta's move into framing after its recent acquisition of

Framequip Australia. "A lot of customers that were traditionally only interested in trusses have come to us with their framing requirements," says Burtenshaw. "Which is great for us because the Razer is that onestop shop and now we can supply, install and support our new frame fabrication lines and frame stackers. We've seen a lot of recent requests for trenching head additions and drilling. We have had a real push on printing for floor posistruts. There is real growth happening out there."

Burtenshaw has also seen customers moving into niche fields - especially in Vekta's US and Canadian wings -including cabins, frames for tiny houses and other specialty builds. "They're innovating, which means we have to, too," he says. "We want to give people the power to really build their own brand and produce what they want."

The company has a new raking frame in the last stages of field testing, due to hit the market mid-2024 and is continuing to offer in-house financing, particularly lease to buy. The next thing on the drawing board may well be sheathing bridges. "I was at the **Building Component Manufacturers** Conference in Milwaulkee last week and that was one of the main things the US guvs talked about," says Burtenshaw.

"They want an automated process to put the panels on the backs and the fronts of their frames and make builds faster. To me, it feels like that's the way we're heading."

MULTINAIL

Backed by its well-known nailplate arm, Multinail's machinery division has a strong focus on R&D, which is on display in its new infeed system, the PieceGiver.

"When we first started getting complaints that the linear saws weren't fast enough, we thought it was just ours," says Warwick Porter, Multinail's national machinery sales manager. "But when we started analysing the data, we found that all linear saw brands were, in most cases, being utilised about 40% of the day, maybe 50. The good plants were getting 60%. And then top guys were getting 80-90% utilisation.

"Now those top plants have great processes and highly skilled labour, but there are a lot of very good workers at the other plants, too, so we looked at why there was such a difference in figures. We found the difference was in how much timber the operator was putting onto the saw.

"With a manual operator, they might be called away on another job, they might be worried they were overwhelming the outfeed team, or they might just be tired. Lots of good reasons, all with the same result. So we put a machine on the front and instantly those figures were up there with the top plants."

The result was the PieceGiver, a prototype of which has been trialled with Fortruss in Brisbane over the past 18 months. "We went to them when we had finished our in-house testing and asked them to run the first model to find what could be done better," says Porter. "They were very clear in their feedback and, working with them, we found ways to make it faster, to design different loading methods that take up less floor space and to make the drive system quieter.

"Some bits we got really right: our vacuum system that picks the timber up is nearly

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PieceGiver

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100% reliable. Our competitors have a bit of trouble picking timber up and holding it. So we spent a lot of time making that process."

The first two non-prototype PieceGivers were leaving the factory the week we spoke. "It's something those customers are excited about because it will change the way they do business," Porter says. "They can decide what to do with that free time. Maybe it means they now lift that saw utilisation rate to something closer to 100% and they shift that labour to carefully stacking the trolleys so they're ready for the jigs. Or maybe they cut the same amount, but faster, so they've freed up those workers by lunchtime and they can spend all afternoon making trusses, because that's where the money is. The saw is an overhead, the press is a moneymaker. So if you get them off the saw and put them on the presses, you make more money."

The machinery, software and nailplate parts of Multinail are all tied strongly into their customers' needs. One consistent theme in those needs has been, again, labour shortages. "People aren't that concerned about price anymore," says Porter. "It's more, 'I need that output.' They can't get the people they once could, so they're saying, 'Please sell me a solution, bolt it down and then away we go."

The PieceGiver is far from Multinail's only project under development. "We've got a real appetite and motivation for R&D," Porter says. "The Taylor family is willing to spend substantial sums on it. Our R&D timetable is booked out about three years in advance on various machines."

A new PieceMaker saw is on the way -"we've made something like 80 and the new model incorporates everything we've learned through them" - and an automated outfeed system is also under development. The GlideAway automatic truss machine is also nearly finished - "there is a push towards reduction of labour in pressing, so automated pressing machines are getting real traction" - and then a suite of robotic wall framing improvements are on their way.

"We have a big team of CAD guys, designers and programmers all of whom are linked into feedback that is coming in daily through Australia's largest truss machinery facility and a service team located up and down the East Coast," says Porter. "And then we have our international markets as well. So we know that we're responding to directions the market is keen to take. The outfeed system is a great example, it's actually on the drawing board at the moment and we are seeing significant demand from the American market, too, which energises us from a sales demand point of view."

The R&D process is rigorous. I saw the Glideaway automatic truss machine test model on my last visit to Multinail's Stapylton facility, in 2019. A prototype was installed at a customer's site for testing, and then Covid hit.

"We've actually been working on it flat-out but there's been 12- to 18-month gaps in the middle while we've been waiting for parts to arrive from Germany," Porter says.

"It's all very expensive," he adds, "both in terms of capital and time. We build prototypes in the factory and once they're working, we find a friendly customer and do a deal with them to put the machine on their site and run it for usually 12 months.

"After that, we take their feedback and redraw it, redesign it and version two comes out, and it's ready to go."

One long-term design principle for Multinail machinery was reinforced by Covid. "We build with stuff that's simple," says Porter. "We use components and electronics that are internationally available, so it's maintainable wherever you are. When it comes to sophisticated components like those in the Glideaway, we chose a supplier with a worldwide footprint and we made sure we were satisfied with their stock holdings and their plans to move stock around the world.

"It's all about keeping our machines going, because the more they're working, the more our customers are earning."

MICHAEL WEINIG AUSTRALIA

Famous for the exceptionally long service life of its moulders. Weinig supplies across the timber sector in Australia, with machines and automated systems for solid wood and panel processing. Known for a comprehensive range of products, from finger-jointers for timber suppliers to CNC machines for window and door specialists, the firm has recently expanded its range, joining forces with Italian timber framing specialist Essetre.

"Customers are looking more and more at automation making the production line or their whole factory more efficient," says Markus Ostermaier, managing director of Weinig Australia. "The labour issues we've all seen will be with us for quite a long time and this is the most effective way of managing them. At Weinig, we are the world leader in woodworking machineries so we have that ability to find our customer the right machine for their needs, whether that's a small model or complex lines with different kinds of scanners, saws, and so on."

A significant market change Ostermaier notes is that more customers are focused on expansion. "Over the last few years we've seen a number of small firms close and some of our medium size customers getting bigger. So we are selling to fewer people, but selling more product," he says.

"Essentially, industries are shrinking in terms of numbers but growing in terms of value and that has meant the companies that remain need the right package for them to >>>



Above: Weinig's powerful Opticut 450 Quantum is said to be the fastest optimising cross-cut saw in the world and is a big seller in the Australian market.

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WEINIG

"It's cheaper to put a modern infeed/outfeed system into the line than look for new people regularly."

make their whole factory and production line more streamlined to deal with the larger volumes they are now processing."

He, too, has seen increased demand for infeed and outfeed systems - "it's cheaper to put a modern infeed/outfeed system into the line than look for new people every couple of months" - and also scanning systems that deliver information about each piece of timber to the machines, including knots and defects, allowing saws to cut around problems and dramatically increase the volume of usable timber resource.

"We have probably the best scanner system on market, with advanced AI technology and timber has become quite expensive," says Ostermaier. "So that precision means at the end of day you save timber and money.

"We're seeing a real change in how people value their timber fibre. Some of that is in less waste through scanning and some is in making use of offcuts with finger jointers for larger customers who are supplying timber. So they can take those short ends and produce new timber. Those machines aren't cheap, but it can be worth the investment in a machine and glueing line because it shores up timber supply and increases their profits."

With such a broad customer base, Ostermaier says the Weinig team has seen how its machines change businesses. "We sit down with people and talk at length

before we prepare an offer," he says. "When a customer comes to us and says 'this is what we want to do', we ask what products they currently have, what they want to produce, how much in terms of lengths and what is the value of that before we look at specifics like factory size and so on.

"Our bread and butter in Australia are medium-sized companies that are producing products for builders and hardware stores. They are able to invest and we can help them build much more efficient lines. It's quite significant for them to have a machine that runs 150m per minute instead of 20. There's a huge difference with the outcome and profit."

Weinig's design team in Germany manage the technical drawings for the proposed systems, which may undergo several iterations in the search for the best result and the best outcomes.

"A thing we have seen in our customers that have achieved the most growth is that they have a very good plan around what they want to do in the next few years and where they want to grow," says Ostermaier. "It means that when they are arranging their financing, they can show the bank, 'this is what I want to do, this is the investment that will help me achieve that, and then this is what I will be able to make using those machines."

And it's a long-term investment. "We have the best moulder technology on the market, you know. They last 30-40 years," Ostermaier says. "But that's just a part of the package that revolves around increasing both speed and efficiencies. Often we work in stages.

"We might start with a new saw, which is often one of the successful Opticut series. For a larger plant or mill that would be Opticut 450 Quantum, which is probably the fastest machine on the market. Or for someone just starting out, it could be the smaller Opticut S50+, which, while it's an

entrance model, has very good technology and advanced software. And then as that customer wants to expand in the future, we can add more systems, scanners or another saw to the line. It lets you step up to a larger scale. Increasingly, this staged growth is something we've prepared beforehand in response to a customer's long-term plan."

Internationally, Weinig has signed a partnership agreement with Essetre, an Italian firm with extensive framing and mass timber particularly CLT - expertise. "CLT is still a small market in Australia," says Ostermaier. "But it is growing with new local suppliers and a lot of interesting projects underway. Overseas, we've shifted heavily into that space over the past 12 to 15 months."

He says Essetre is "the last piece in the puzzle when it comes to providing customers with the complete line. Now we have saws, materials handling, presses... everything."

Ostermaier laughs as he reflects on the fact that Weinig's journey as a business over the past few years directly reflects his customers'. "We've come from standalone basic machines, like moulders, to this whole of system mindset and now looking at whole new building methods like mass timber. And it's happened very quickly," he says.

"In the same way, our customers after Covid are talking with us about machines we never discussed before, because they see the demand and they know they need to change something in the factory to be more efficient. Weinig is quite a large company, so to shift this whole organisation to a different direction in just one or two years has been quite difficult. But we have had a lot of success already and we can see that being reflected here." T

For more, visit www.multinail.com.au, https://stirlingmachinery.com.au, https:// vekta.com.au and www.weinig.com.au



Above: Weinig machines are renowned for exceptionally long service lives.



Above: Stirling Academy is launching in 2024 as a standalone training facility.



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Don't neglect bearing issues

Focusing on the flow of forces through a timber structure can prevent problems and provide solutions. By Craig Kay, national product engineer, Tilling.

imber is one of mankind's most tried and tested building materials. Since the first settlers harvested trees and used them to build shelters, Australian builders have used sawn timber as their preferred building material in private dwelling construction.

A comparison with steel and concrete shows that radiata pine structural timber, for example, has a strength for weight ratio 20% higher than structural steel and four to five times better than unreinforced concrete in compression.

The lightweight structures possible in wood confer flow-on advantages in terms of reduced foundation costs, reduced earthquake loading and easier transport. Building components and complete constructions are simple and safe to erect, and cheaper to deconstruct or reuse at the end of a building's useful life.

At this point I am going to introduce a couple of scientific terms, as well as some recognisable attributes that describe wood:

1. Hygroscopic Wood is a living, porous and hygroscopic material, which means that by its nature it can acquire or lose moisture depending upon the environmental conditions in which it is located. Wood puts itself in hygroscopic equilibrium with its environment, it releases or absorbs moisture until it finds a balance point. Based on the climatic conditions of the environment (temperature and relative air humidity), it is possible to determine the corresponding moisture content within the wood.

As a rule, wood must be supplied with the moisture content as close as possible to that appropriate to the environmental conditions that it experiences in the finished work so that it is not subject to corresponding moisture variations, and consequently to shrinkage or swelling phenomena.

2. Natural product Decomposition of wood is an important part of the carbon cycle of nature.

- Decomposition is caused by fungi, insects, and marine borers that use the wood as food or shelter, or both.
- 3. Anisotropic The mechanical performance and deformations in a timber element are dependent on direction of the applied forces (longitudinal and radial/tangential). The physical structure of wood influences its mechanical performance and results in the significant difference in strength and stiffness depending upon the direction of applied force relative to the grain. The two cases are considered in design: parallel or perpendicular to the grain.
- 4. Not uniform There are many different wood species in the world with quite specific characteristics and densities.

As a general rule, attributes 1 and 2 are controlled in the design process by careful detailing, principally by keeping the product in a dry, humidity-controlled environment.

It is the huge variety of species of wood that makes the engineering of structural timber a little different from the design of a man-made homogeneous material like steel. As designers, we need to play to wood's strengths and work around its weaknesses.

One of the engineers from whom I have learned much about timber engineering, Prof Geoff Boughton, would, when teaching in institutions, cleverly describe in lay terms that wood was essentially a bundle of drinking straws glued together. The straws are the cellulose and the glue is lignan. These straws transport food and waste products through the tree.

If you were to take a handful of actual straws, you could squeeze your hand and crush them with relative ease but, provided that they work together as a single unit, it takes much more force to crush the same straws by pushing down onto them. Similarly, wood as a material is much stronger when it is loaded parallel to the grain compared to perpendicular, whether in tension or compression.

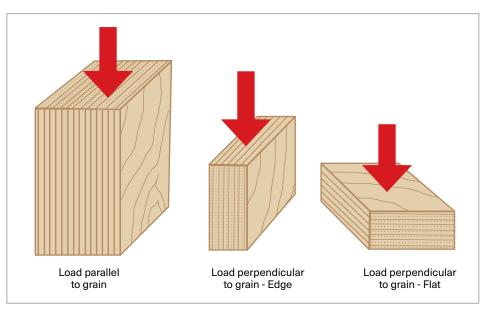


Figure 1: When loads are applied in the same direction as the grain of timber, significantly stronger forces can be resisted than when they are applied side-on, whether from the edge or a face of a board.

Using pine-based LVL as a typical example (characteristic strengths vary dependent upon veneer species) and assigning the letter 'F' as the stress that can be resisted when loaded parallel to the grain, then the lower strength in the alternative directions is approximately 0.3 x F. The ratios will slightly differ for solid wood elements, and even between softwoods and hardwoods, with GLT presenting a slightly modified scenario again.

There is an even larger ratio difference if we consider tension capacity parallel and perpendicular to the grain.

Therefore, designers need to avoid where possible large compressive stresses that act perpendicular to the grain. This is particularly relevant in larger class 2-9 multistorey timber structures but is typically easier to manage in class 1 domestic residential structures where the applied loads are usually much less.

Notwithstanding this, designers need to be aware that when beams are supported by timber wall plates, there are two (2) bearing capacities that need to be considered, one of the supported beam, and the other of the supported plate (see Figure 2, above right). Sadly, experience shows that this latter check is sometimes ignored creating some expensive remedial cost consequences.

Another scenario where bearing can often be problematic, other than under large girder trusses, is the interior support of continuous span 65mm wide GLT supporting wall and roof loads bearing onto a 75mm wide top

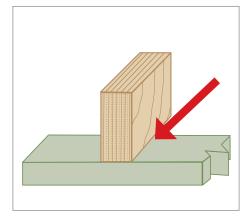


Figure 2: Load bearing capacities of supported plates must be checked, not just the beams.

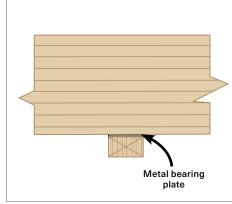


Figure 3: Where a metal bearing plate won't suport GLT, a timber post with vertical grain can.

With a little bit of thought, we can use the same material and, by placing it in a different orientation, solve the design problem.

plate. While the southern states typically use a 90mm wall, 75mm is common in Queensland and northern NSW. This problem can sometimes be solved with a metal bearing plate as shown in Figure 3 (above right), but where that is not suitable, the top plate can be removed, and a timber post placed directly under the GLT.

While still timber, after the removal of the horizontal wall plate with its lower bearing capacity, the post - now with the grain in the vertical direction - utilises the excellent compressive strength parallel to the grain aspect of timber. With a little bit of thought, we can use the same material and, by placing it in a different orientation, solve the design problem.

This is one very small example of playing to wood's strengths and working around its

Craig Kay is the national product engineer for Tilling. For more information on this topic, contact Craig Kay and the Tilling engineers via email at techsupport@tilling.com.au



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F&T industry tour

FTMA walked 20 industry specialists through five frame and truss plants and very quickly increased understanding within the sector. By Kersten Gentle

n Tuesday 19 September, FTMA conducted a tour, visiting frame and truss fabricators in the outer eastern suburbs of Melbourne. A group of 20 people spanning different areas of the forest and wood products sector came to learn about and experience a variety of plants. The group was made up of representatives from MiTek, Pryda, Multinail, FWPA, WoodSolutions, ForestWorks, Native Forest Work Support

Program, Wood Products Victoria, University of the Sunshine Coast, NTHA, VAFPA and, of course, FTMA.

The purpose of the tour for FTMA was to showcase that this sector of the industry is vital and hardworking, and provide primary insight into the technologies, operations and how advanced these fabricators really are.

The tour visited five FTMA members, including Bunnings Hallam, AAA Advanced Truss, Peuker & Alexander Dandenong, Complete Frames and Drouin West Timber and Truss. FTMA wants to express how grateful we are that these businesses opened their doors and were so welcoming to everyone. The care, information, and hospitality provided as we walked through the factories, and met employees, was wonderful and FTMA wants to thank everyone involved in making this happen.

Each business represented one of the three nailplate companies in Australia -MiTek, Multinail, and Pryda - setting the industrial standard in engineering, design software, and equipment, when it comes to frame and truss. While each business had a different way of working - what their core focus was; how much technology was utilised; how they were expanding - it was an important visual and conscious way for those on the tour to see how the industry functions, how it has been impacted by Covid, by timber shortages, by labour shortages, what issues the industry is facing, what it needs, and also what it is capable of.



Above: A tour briefing - with some thoughtfully provided snacks - at Peuker & Alexander.



Above: The tour team group photo. Below: Joe Hackett from Complete Frames delivered an overview of the operation at his plant, reinforcing the benefits of offsite construction.



People working in frame and truss are incredibly dedicated. innovative, and passionate.

As with all the plants we saw, seeing it physically happen with our own eyes strengthened the message that offsite manufacturing can be done in a fraction of the time of stick-built, with less waste, and safer conditions. And - the obvious point - locking carbon away. The tour made it tangible.

The key messages of the trip were obvious by the end of the day. The people working in frame and truss are incredibly dedicated, innovative, and passionate. While they're all battling common problems - skilled worker shortages, social re-marketing regarding timber and logging, lack of education on mainstream curriculum, ups and downs of demand and supply - these businesses are proving that they are part of the solution for the future, and the best way we have of pulling carbon back out of the atmosphere again.

For some on the tour, it was their first trip to a frame and truss plant. But what everyone came away with was evidenced understandings of how incredible this sector is. The issues that all these businesses have faced just in the last few years are vast, yet they have all found ways to keep going, and keep developing.

One final thought that came out of the day:

collaboration and connection, FTMA is steadfast about unifying members and the industry - we are not in this alone. Bringing businesses and people together, rather than being competitors, is crucial. The tour helped bring people together, make connections, and foster friendships. No matter which organisation you represent in the forest and wood sector, together, is always better. Together, we can share and learn, plan and extend, support and grow.

Thanks once again to everyone that made this day happen - particularly to all the fabricators, for allowing us to see around, the information you gave and the warmth you showed.

There is no doubt the past three years have taken their toll on people and businesses, and we truly hope everyone finds time to relax and take a break over Christmas. FTMA wishes all our members, our networks and our partners, a very Merry Christmas and a safe New Year. 2024 will be another big year for FTMA Australia with our National Conference

being held in Geelong in March. T

Kersten Gentle

For more information contact FTMA on 0418 226 242 or via email at kersten@ftma.com.au







Achilles heel (joints)

One part of your truss design is likely to fail faster than any of the others. By Paul Davis

ur dog is a mutant beast in his prime -50kg of muscle, bone and sinew. In a fight to the death between him and me, I figure it would be each-way bet as to who would win. I have mass; he has teeth! Fortunately, he is a people dog and not in any way vicious. In fact, despite his bulk, he fancies himself as a lap dog even though his head alone weighs as much as most lap dogs. In reality, it takes three of our laps next to each other on the lounge for him to fit!

He would make a mean predator but, luckily, he spends most of his time pursuing tennis balls rather than prey. However, despite his impressive physique he has a weakness - a dodgy right shoulder. Every so often he pulls up lame and, much to his disgust, doesn't get balls thrown for him for a few days.

In a majority of trusses, the weakest link - what will fail first - will be the heel plate.

Ever wondered what the weak point, 'the dodgy shoulder' of your trusses is? That is, what would fail first if it was loaded to the max?

There is no universal answer as to what exactly the weakest link is, but in the majority of trusses, it will be the heel plate. The simple proof of this assertion is that physical tests to destruction on full size bog-standard truss designs, straight out of the computer,

> generally result in a failure of the heel plate.

"Why?" you may ask. Read on!

For a start, the heel plate usually carries by far the highest load in the truss. As an example, a 20° pitch truss has a force through the plate equal to roughly three times the vertical load onto the top plate. That's much more than a web connection.

Another reason for the heel joints being susceptible is that they do not lock together naturally like some joints. For instance, the top chords in an apex joint press against one another under the roof weight. Not all the load goes through the plate. If, say, an apex plate is damaged during transport, it may still hold together as the top chords bear on one another.

However, in heel joints, it is more a sliding action. Imagine the top chords being like the legs of a ballerina doing the splits. The top chord wants to slide over the bottom chord cut, just like a ballerina's shoes sliding over the stage floor! This action puts quite different stresses on the nailplate teeth and it turns out that plates are quite poor at resisting this type of action.

Additionally, if there is a gap between chords due to some fabrication problem, this sliding action also tends to cause a premature shearing of the plate, perhaps more so than in some other types of joint.

Finally, it is hard to get the plate located perfectly on a joint. The people at your truss press are dealing with an angled joint with no convenient point of reference as occurs in most other joints. My experience is that we tend to get the location wrong more commonly on heel joints than in any other kind of joint. And small errors in location can result in proportionally larger changes in

There is of course a theoretical line that cannot be crossed, where the plate must be strong enough to resist the applied forces. However, if a plate is sized purely on theoretical considerations, it may not take into account real world issues like plate misplacement, gaps between the timbers, incomplete pressing, timber variability, stresses set up during handling and imperfect truss plumbness in the roof. All of these factors can dramatically affect the strength, and so safety of a nailplate.

In a highly competitive environment, there is pressure all round to cut production costs. Hopefully, the above has convinced that if you have to cut costs, don't do it by cutting the heel plate size. It's far better to buy some peace of mind by using conservative heel plate sizes.

You don't want that the heel plate to be the doggone 'dodgy shoulder' of your truss that lets you down. T



Paul Davis is an independent structural engineer managing his own consulting firm Project X Solutions Pty Ltd. The views in this column are Paul's and do not reflect the opinions of TimberTrader News. Phone: 02 4576 1555 | Email: paul@projectxsolutions.com.au





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