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COVER STORY P10



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Continuation of native forestry harvesting is now confirmed

Assistant Minister for Agriculture and Water Resources with responsibility for forestry Senator Richard Colbeck has asserted that the Coalition Federal government has categorically ruled out ending native forestry harvesting in any State or Territory, including Victoria. "Unlike the Victorian Labor Government who clearly have an agenda to do just that."

Senator Colbeck said the Coalition's policy for forestry is to ensure both a strong

plantation and native forests sectors, including in Victoria into the future.

"As stated in our ten year National Forest Industries Plan, the native forest sector will remain an important part of the industry going forward, especially in regional Australia, with special timbers to be continued to be harvested from appropriate regions," said Senator Colbeck.

"We remain committed to the 20 year rolling extension



Richard Colbeck... categorically ruled out ending native forestry harvesting.

of all the Regional Forestry Agreements (RFAs), including the current negotiations with the Western Australia and Victorian Governments, as the best mechanism for delivering environmental, economic and social demands on our native forests."

"These include an ongoing five-yearly review of the RFA's performance, including consultation with stakeholders and utilising the latest science," concluded Senator Colbeck.

Full agenda for Australian Timber Importers Federation

The Australian Timber Importers Federation (ATIF) worked through a full and busy agenda at a Board meeting in Melbourne last week.

ATIF general manager John Halkett said the Board noted current contracting building demand, plus the reality that wholesalers and others in the supply chain has full stock inventories resulting from the buoyant state of the market



1/ Michael Moorhead (centre) chats to Board members Robert Cairns (far left), Frostpine, David Meyer, Meyer Timber and Glyn Davies, Simmonds Lumber.



2/ Enjoying a post board meeting lunch ... Brenton Christopher, CEO, John Cook & Sons with Chairman Nils Koren and Chris Woodhouse, Managing Director, Woodhouse Timber.

Cont P 3



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AFPA welcomes funding for forest industry R&D projects

Over \$5 million in combined funding and industry support for the second round of forest industry related research and development welcomed.

The Australian Forest Products Association (AFPA) welcomes the recent announcement by the Federal and South Australian Governments, of over \$5 million in combined funding and industry support for the second round of forest industry related research and development projects, through the Mount Gambier National Institute for Forest Products Innovation (NIFPI) centre, Chief Executive Officer of AFPA, Mr Ross Hampton said today.

The Mount Gambier NIFPI centre will attract \$5.08 million in its oversubscribed second round of research and development projects, with new projects focusing on forest biosecurity, tree breeding, sawn softwood characteristics, forest contractor safety, and forest water use. It comes ahead of the soon to be announced second round of successful R&D projects at the Launceston NIFPI centre.

"The second round of project funding for the Mount Gambier NIFPI centre is great news for forest industry



Ross Hampton... campaigning strongly in the lead up to the Federal Election, calling for all sides of federal politics to commit to \$40 million to forestry R&D.

related R&D and innovation. This substantial investment and vote of confidence in our renewable industries follows the successful first NIFPI round awarded in November 2018. It's a proud moment for AFPA, which helped spearhead the concept of NIFPI centres," said Mr Hampton.

"R&D is vitally needed to support ongoing growth in our industries," said Mr Hampton. "Australia has experienced a huge decline in the number of scientists

R&D VITAL TO SUPPORT ONGOING INDUSTRY GROWTH

In addition to routine matters and an update on illegal logging compliance and policy, the Board debated actions to be taken as part of the ongoing review of Brown Marmorated Stink Bug treatment requirements, and difficulties and escalating cost associated with port

working on forestry related research. According to the State of the Forests Report 2018, released last month there were 733 forest scientists in 2008, but in 2016 there were just 276. Today that number is even lower.

"Our analysis is that getting that right is key to growing our sector by 20,000 jobs. The Federal Government made a promising start by allocating \$4 million two years ago to the Launceston and Mount Gambier NIFPI centres. This however is only scraping the surface of the opportunity.

"AFPA will also be campaigning strongly in the lead up to the Federal Election, calling for all sides of federal politics to commit to \$40 million to underpin the existing two centres and support other key NIFPI centres around Australia. We note Assistant Minister Colbeck is seeking state government support for further centres in south west WA, NSW and QLD.

"We look forward to the growth of the NIFPI model and continued longer term funding for these centres to contribute to innovation and in turn the resilience of forest industries across Australia," Mr Hampton concluded.

congestion and charges.

Also considered were a actions to strengthen a collaborative relationship with the Timber and Buildings Material Association, and the value and scope of an ATIF 'roadshow' in Victoria and a South Australia later in the year.



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From P 2

in the second half of 2018.

"The Board also noted the ongoing role of ATIF as often the first port of call for international enquiries about Australian market conditions, timber product supply prospects and import requirements."

Unused Crown estate an enormous area for fibre resource of tomorrow

Just one of the many pieces required to solve a complex puzzle

LEON HOLT

AUSTRALIA is stuck with a seemingly impossible problem when it comes to expanding the nation's plantation estate.

It has long ceased to be acceptable to convert natural landscapes into production forests, but in recent years cleared agricultural land has also become increasingly inaccessible due to the perceived failure of forestry investment schemes in the past, and the current strength in markets for conventional agricultural products. This means that there are no large contiguous areas of productive land available for plantation



Leon Holt... winner of the Timber&Forestry e-news \$1000 essay contest held in collaboration with HQ Plantations, FWPA, and Responsible Wood. Gabrielle. Leon is district and planning forester for community forestry at VicForests, based at Ballarat.

estate on private agricultural land. However, trust in such schemes has been severely eroded due to the perceived failure of initiatives such as the Managed Investment Scheme (MIS) plantation programs of the early 2000s. Furthermore, there are some fundamental issues with this approach. Due to the long time frame required to achieve a return on the capital invested in private plantings for timber, when starting from scratch these agricultural forests are simply not a conventionally attractive investment product. Therefore, we must turn to government to provide the impetus for expansion of our plantation estate.

While this has been widely acknowledged and there does seem to be a renewed appetite for government to finance such expansion at present, progress always seems to be stymied by the age-old question: where to plant the trees?

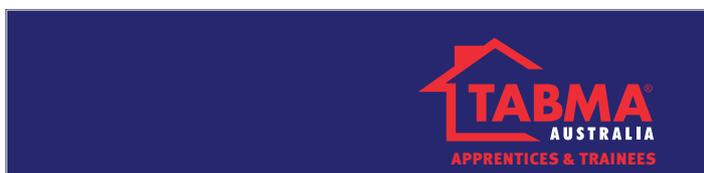
There is no shortage of marginal and non-arable land in Australia, but forests grown in these areas are unlikely to produce the products we need. Conversion of existing native forests would not be appropriate, and the area of native forest available for production of timber and wood

development, as there has been in the past when the timber and fibre industry has faced domestic resource shortages.

Such an impasse is hard to fathom, as Australia has one of the highest areas of forested and productive land per capita in the world. Nonetheless, without a dramatic change in the political climate, government policy settings, agricultural markets or public interest in forestry, these are the constraints within which our industry must find a solution.

In recent times, agroforestry has been the focus of many programs to encourage expansion of the plantation

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From P 4

products is only ever getting smaller.

Large-scale land acquisition schemes are likely to alienate communities and would require a prohibitively large commitment of public funding. Agroforestry programs are likely to play an important role in the long term, however there are serious structural barriers in the agriculture sector which must be overcome before large volumes of timber and fibre can be produced from this source.

So, if we cannot create large new plantations as we have in the past, through conversion of existing forests, large-scale land acquisition, or through incentivising private investment schemes, what is the pathway forward?

It seems to be an intractable problem, but there are steps we can take to begin moving in the right direction. One possibility may be found in the substantial areas of under-utilised public land located in jurisdictions across Australia. Unused Crown land includes all areas of public land which have not been set aside in a reserve or a state forest, or allocated to local councils and committees of management for other uses. It includes



Aiming for more wood fibre from expanded plantations.

large areas of cleared land, generally in small parcels scattered around the country.

Some are licensed for agricultural use or other applications, but many are not. Unused roads, Crown water frontages, water supply reserves, quarry reserves – many of these land tenures are under-utilised for a variety of historical reasons. In Victoria alone, about 10% of the total Crown land area of around 8 million ha is classified as ‘other’, much of which is under-utilised. With some encouragement and cooperation between governments, the unused Crown land estate represents an enormous area of the country, a proportion of which might be made available for planting the fibre resources of tomorrow.

Many players would be important to the success of such a scheme. The Commonwealth would have a key role in funding and coordinating a nation-wide

program, in establishing governance structures and ensuring resources are allocated appropriately. State governments will need to support the identification of suitable areas of Crown land, to approve the release of these areas for growing timber, and to provide a regulatory framework for how

“ECONOMICS OF MANAGING SMALLER PLANTATIONS WILL IMPROVE

the land and resource are to be managed responsibly. Local governments will be important partners with the capacity to influence community sentiment, to help understand existing infrastructure and informal uses of Crown land, and to act as a conduit for other stakeholders such as residents and user groups. The forestry industry would have an essential role in ensuring that small Crown plantings are

established only where they are likely to be economical. These plantations would also have to be managed differently, with a flexible approach to accommodate fluctuating markets and changing community expectations around the use of public land.

There are of course many risks and limitations associated with such a scheme. In the current market, small plantations are often not economical due to higher overheads per unit produced. Furthermore, as unused Crown land is typically scattered across the country, such plantations will not always be located favourably in relation to existing timber production hubs. However, given that long-term forecasts of demand for timber and wood product seem to be invariably positive, it is not unreasonable to expect that the economics of managing smaller plantations across multiple rotations will improve over time.

At the end of the day, there is no silver bullet to solve the long-term challenge of expanding our production forest estate, and improving utilisation of Crown land is likely to be just one of the many pieces required to solve what is a complex puzzle.

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Giant swamp Kauri log to help unravel magnetic mysteries

A massive swamp kauri log unearthed near Kaikohe, Northland, New Zealand is around 40,500 years old and could shed new light on a mysterious global event which may have dramatically influenced the Earth's climate.

The log, which is 16m long and weighs 60 tonnes, was found during excavation for a new geothermal power station at Ngāwhā Springs, Northland.

The tree was found preserved in clay 9m underground during site works for the new power station. Sections about 1.5m long had to be cut off either end so it could be moved. The stump alone weighed 28 tonnes.

The find has also sparked excitement among scientists



The log... 16m long and weighs 60 tonnes was found during excavation for a new geothermal power station at Ngāwhā Springs, Northland.

hoping to gain a better understanding of the ancient climate.

Alan Hogg, director of the Waikato Radiocarbon Dating Laboratory at Waikato University, dated the tree to 40,500 years plus or minus 400 years. He said that made it of great interest to scientists studying the Laschamp Event, a "magnetic reversal" in which the Earth's north and south

magnetic poles switched places.

It was not known exactly when the reversal occurred, but it was thought to have been about 41,000 years ago.

Studying the level of radioactive carbon-14 in the Ngāwhā kauri log's rings would allow scientists to pinpoint more accurately when the reversal occurred and for how long.

Until now no tree had ever been found anywhere covering this later period of the reversal, said Dr Hogg.

One of the reasons scientists were interested in magnetic reversals – and the accompanying drop in the Earth's magnetic field strength, which allowed more solar radiation to reach the Earth's surface – was that they could have a major effect on climate.

"So this tree is critical, we've never found one of this age before. We're very excited."

Going by its size the tree was likely to have been 1500-2000 years old when it died suggested Dr Hogg.

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APRIL

10: Mass Timber Update seminar – code changes, cases studies, new solutions – NSW Teachers Federation Conference Centre, 37 Reservoir Street, Surry Hills, Sydney, Australia. 8.30am-5pm. The seminar will address the recently published 2019 National Construction Code; deemed-to-satisfy changes to fire protected timber, where the range of buildings, up to 25 m in height now include all buildings types. Case studies on current Australian mass timber projects include Bunjil Place; winner of 2018 Australian Timber Design Awards; Daramu House; Lendlease’s office building at Barangaroo; and BVN’s collection of timber projects. Discussions will also centre on the next generation of mass timber building construction methods, such as CLT band beams, where LVL excels, and free-form/parametric timber design process and examples. The seminar will address how successful fire certification process can be achieved, and the latest and updated cost information on timber buildings. Phone: 0420 232 253 or email tdaevents@woodsolutions.com.au

JUNE

16-21: 2019 DANA Ecuador Forestry and Agri-/Aqua-business Investment Tour – Ecuador. This event will introduce potential investors to the forestry and agri- and aqua- business; as well as the commercial, financial, political, and economical aspects of investments in Ecuador. Included will be field visits to operating forests, manufacturing, and processing of wood products, and selected agri- and aqua-export oriented operations. For further information and to register see: www.danaevents.co.nz/2019ecuador

17-18: Frame Australia – Crown Promenade Melbourne, Australia. A dedicated conference and exhibition will allow delegates to fully understand the exciting developments in the Timber Offsite Construction space. The conference will feature prominent local and global experts, with topics exclusively devoted to timber and mass wood building construction. It will be the only event that will enable delegates to appreciate the world-wide transformation that is taking place and how building costs are being

lowered. At the Frame Australia exhibition, booth sizes will be larger at no extra cost, with booths two to three times the previous floor area without any change in pricing from 2018. Visit www.frameaustralia.com

19: AFPA board meeting and members’ dinner – Canberra. 6pm.

20: AFPA members’ forum and chamber meetings – Canberra, Australia.

JULY

10-12: 5th Pacific Timber Engineering Conference (PTEC 2019) – Brisbane Convention and Exhibition Centre, Merivale and Glenelg streets, South Brisbane, Australia. A forum for both young and experienced academics, practitioners, researchers, and research students in the Asia-Pacific region and elsewhere in the world to share the latest developments in research and application of timber in construction. What the industry is achieving using timber in construction will also be showcased. The conference will bring a more practitioner focus that will complement the World Conference on Timber

Engineering (WCTE) in 2020. Call for abstracts. Inquiries to conference secretariat, School of Civil Engineering, The University of Queensland. Tel: +61 7 344 31360. Email: ptec2019@civil.uq.edu.au Visit www.civil.uq.edu.au/ptec-2019

22-23: 2019 DANA Australian Forest Industry Conference and Field Trip – Pullman King Georges Square, Brisbane, Australia. To include one and a half day conference on Monday July 22 and the morning of Tuesday July 23 with 20 international and Australasian speakers confirmed, to be followed by half day field trip on the afternoon of July 23. For further information and to register see: www.danaevents.co.nz/2019brisbane

MID OCTOBER

The 20th Australian Timber Design Awards presentation dinner – Melbourne, Australia. Entries open February 11 and close June 28. Peoples’ Choice voting August to September. Sponsorship options available. Contact 0420 232 253 or email inbox@timberdesignawards.com.au



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APRIL

10-12: Focus on Forestry 2019 – Mpumalanga, South Africa. For further information see: www.cmo.co.za

MAY

5-7: American Wood Protection Association (AWPA) 115th annual meeting – Loews Royal Pacific Resort Orlando, Florida, USA. Tel: 205-733-4077. AWPA is responsible for promulgating global voluntary wood preservation standards.

7-9: Sixth Annual Forest Investment Conference – London, UK. Program includes three exclusive opportunities to discover the timberland asset class, with a practical seminar and building visit: and (post-conference) mill visits to show why wood is an increasingly valuable product. Presented by Fastmarkets RISI and DANA, the event includes one-day mass timber construction seminar with a planned inspection of the MTC buildings in London (May 7); a two-day international forest investment conference (May 8-9) with agribusiness investment presentations; a two-day field trip to Scotland (May 10-11). Highlights of field trip include visits to plantation forests, a large sawmill, wind turbines and a biomass power plant; a field trip (delegates only) seminar on UK and Scottish and comparative UK, US, South and Latin American forest

investment economics and returns a visit to a 1900-year-old Roman fort at Hadrians Wall. DANA director Dennis Neilson will be speaking in London about the highlights of a new RISI Review just published 'Russian Timber: A Growing Force in World Trade'. Email conferences@risi.com Tel: Europe: +32.2.536.0748 or US and international: +1.866.271.8525. Visit www.risi.com/invest

8-11: World Conference on forests for Public Health – Athens, Greece. For further information see: www.fph2019.org

12-16: IRG50 (International Research Group on Wood Protection) – Fairmont Chateau Frontenac Hotel, Quebec City, Canada. The IRG-WP is the leading global organisation for the dissemination of scientific information on wood protection technologies. Email Rod.Stirling@fpinnovations.ca Visit www.irg50.com for registration details.

20-23: A Century of National Forest Inventories: Informing Past, Present and Future Decisions – Oslo, Norway. For further information see: www.nibio.pameldingssystem.no/nfi100years

JUNE

16-21: 2019 DANA Ecuador Forestry and Agri-/Aqua-business Investment Tour – Ecuador. This event will introduce potential investors to the forestry and agri- and

aqua- business; as well as the commercial, financial, political, and economical aspects of investments in Ecuador. Included will be field visits to operating forests, manufacturing, and processing of wood products, and selected agri- and aqua- export oriented operations. For further information and to register see: www.danaevents.co.nz/2019ecuador/

JULY

8-18: IUFRO Small-scale Forestry Conference – Lake Superior in Duluth, Minnesota, USA. Presentations and field sessions will explore a mix of family-owned, tribal, industrial, and public ownerships with a focus on small-scale forest management. For further information see: www.iufrossf.umn.edu/

SEPTEMBER

16-17: ICATEA 2019: 21st International Conference on Advanced Timber Engineering and Applications – Zurich, Switzerland. The conference aims to bring together leading academic scientists, researchers and research scholars to exchange and share their experiences and research results on all aspects of advanced timber engineering and applications. For further information see: www.waset.org/conference/2019/09/zurich/ ICATEA

SEPT/OCT

30 SEPT-4 OCT: Second World Congress on Mid- and High-rise Wood Buildings Woodrise 2019 – Québec City Convention Centre, Québec City, Canada. Theme: Building our cities for future generations jointly organized by FPInnovations (Canada) and Institut technologique FCBA (France) will bring together wood construction stakeholders, decision-makers, and professionals to share their knowledge and strengths in order to position wood as a leading construction material for tomorrow's sustainable cities. For further information: Ann Cantin, Director, Communications and Marketing, Québec City Convention Centre, acantin@convention.qc.ca, 418 564-1312; Marjolaine Dugas, Director of Communications, FPInnovations, marjolaine.dugas@fpinnovations.ca, 514 782-4595

29 SEPT-25 OCT: XXV IUFRO World Congress – Curitiba, Brazil. For further information see: www.iufro2019.com

NOVEMBER

19-21: Malaysian Wood Expo 2019 – Putra World Trade Centre, Kuala Lumpur. Email: info@malaysianwoodexpo.com.my or visit www.malaysianwoodexpo.com.my

• Please send any events listings to John Halkett via email: johnh@timberandforestrynews.com

Kiwi logs contribute to new Chinese record

Log imports to China reached another record high in 2018, with New Zealand supplying 44% of the volume, reports the Wood Resource Quarterly.

"China is continuously exploring new sources of softwood logs around the world. Minor log exporters, such as Japan, Poland, Chile, South Africa and Australia all expanded their shipments to China in 2018," stated the Wood Resource



Logs in the Marlborough Sounds, New Zealand destined for Chinese export markets.

Quarterly report.

Of the major log supplying countries, only Russia and Canada reduced their exports to China, while New Zealand, the US and Uruguay all increased their shipments year-over-year.

Pressure is being exerted in Australia to redirect log destined for export for local processing given the shortage of domestically-produced sawn timber.

South Coast Forestry Corporation bushfire deployment valuable experience

Forestry Corporation of NSW staff from Batemans Bay, Bombala and Eden have returned home after battling large bushfires for two weeks in the Yarra Valley, Victoria. The group were part of a larger NSW deployment, joining National Parks and Wildlife Service to support the Camberville bushfire response.

Forestry Corporation's Fire Manager, Tim McGuffog, said the joint NSW Taskforce had a diverse mix of skills and was a valuable part of the larger bushfire response. "The taskforce carried out back burning, trail construction, control lines, hazardous tree assessment and tree falling," he said.



Forestry Corporation of NSW firefighters back home after battling bushfires for two weeks in the Yarra Valley, Victoria.

"Forestry Corporation staff experienced in hazardous tree assessment also played a critical role in ensuring crews remained safe when

undertaking work. "All operation areas had to be assessed and treated for hazardous trees before any crews could undertake

works," said Mr McGuffog.

"The joint taskforce of National Parks and Forestry Corporation blended well, with skill sets complementing each other. Working with National Parks and Wildlife Service and other fire agencies from Victoria was a great experience for our firefighters."

Forestry Corporation is responsible for preventing and managing fires in two million hectares of State forests across New South Wales. It also works with other land management agencies and the Rural Fire Service to assist with fire threats affecting communities in NSW.

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Timber building renaissance

More engineers are approaching timber projects with less apprehension and a lot more confidence

MICHAEL SMITH

CANADIAN Dr Pierre Quenneville, Professor of Timber Design at the University of Auckland and an expert in bolted connector systems, arrived in New Zealand in 2007 to take up one of the first two local professorships in timber design.

He came with a determination to improve and widen the university's teaching of timber solutions, and to expand its timber research capabilities.

Prof. Quenneville says civil engineering graduates at Auckland now have a sound knowledge base of timber engineering. As students they receive the same basic instruction and later have the opportunity to specialise in timber solutions and to



ENCOURAGED BY GENETIC WOOD PROMOTION

engage in timber-related projects.

- 1/ University of Auckland... expanding timber research capabilities.
- 2/ Professor Pierre Quenneville... engineers who have been working mostly on residential buildings are now being tasked with commercial projects.

"We offer four undergraduate 'structure' courses and one postgraduate course," he said. "Students are

exposed to the latest design information and research in progress worldwide."

He believes that more engineers are now approaching timber projects with less apprehension and increasing confidence.

"The engineers who have been working mostly

Cont P 11



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From P 10

on residential buildings are now being tasked with commercial projects. Some inherently complex design projects [in combination with architects] are becoming icons of the building landscape. They are creating a timber building renaissance."

In his time at Auckland, the university has invested heavily in its engineering laboratories.

"They are world class and allow us to conduct experiments that attract worldwide attention," Prof. Quenneville said. "Other universities may be getting more support ... but with the facilities we have, we can punch above our weight."

Some collaboration has occurred with the University of Canterbury. "They have always been very strong in structural systems research, whereas our expertise is more focused at the connections level. We complement each other but we could be better at this."

Prof. Quenneville is

“THE RETURNS OUTWEIGH THE COSTS



Whatever market share gain the timber industry achieves is a loss for steel or concrete – and they will inevitably fight back.

encouraged by generic wood promotional efforts in New Zealand and the uptake of engineered timber solutions. He has previously urged policymakers to heed the strategies and achievements of the Canadian Wood Council's Wood Works campaign launched in the 1990s – from 'solutions fairs' and timber design competitions to the promotion of a wood culture.

"There is a lot of good work being done in this area," he said.

"The WPMA [Wood Processors and Manufacturers Association] is waving the flag with vigour and its initiatives are targeting the issues. For example, providing more

information to designers; making the selection of timber as a building material easier for developers, architects and engineers; celebrating successes and timber champions; and promoting case studies to make it known that timber buildings should be part of the country's building stock."

He says other countries have been more forceful at a governmental level than New Zealand in requiring timber to be used in projects.

"It makes sense to use a material which provides jobs in one locality," he said. "The returns outweigh the costs. We could be doing more to encourage timber construction but this has to be a policy decision."

Prof. Quenneville is confident that, as a nation, New Zealand will recognise the advantage of using timber in more of our infrastructure and that demand will continue to increase.

"But it is a never-ending marketing battle; whatever market share gain the timber industry achieves is a loss for steel or concrete – and they will inevitably fight back."

•The second part of Professor Pierre Quenneville's comments on wood-related issues will appear in the next edition of Timber&Forestry enews.

On the cover: Professor Pierre Quenneville: timber construction advocate and expert in bolted connector systems... encouraging prospects for timber design.

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Robotics set to be a \$23m industry by 2025 as CSIRO opens new centre

CSIRO's Data61 has announced the opening of its new Robotics Innovation Centre in Queensland, a purpose-built research facility for robotics and autonomous systems, an industry set to be worth \$23 billion by 2025.

Data61 is one of the global leaders in the field, with capabilities ranging from legged robots and 3D mapping through to unmanned aerial vehicles (UAVs or drones) and unmanned ground vehicles (UGVs).

Fred Pauling, robotics and autonomous systems group leader at CSIRO's Data61 said the 600 sq m facility would enhance the group's world-class research capabilities.

"The new centre expands



1/ Demand for robots is growing... autonomous system technologies have the potential to solve issues of safety and productivity across industries.

2/ Fred Pauling... CSIRO enhancing world-class research capabilities.



our research infrastructure to develop highly autonomous robotics systems that can interact safely and seamlessly with humans

and other dynamic agents, in challenging indoor and outdoor environments," Mr Pauling said.

"Our robots are already being used to safely inspect and create 3D maps of underground mines, monitor biodiversity in the Amazon Rainforest and navigate difficult terrain in emergency situations."

One project being spearheaded by the centre is the testing of technology to rapidly map, navigate, and search underground environments as part of a three-year Subterranean Challenge funded by the US Defense Advanced Research Projects Agency (DARPA).

Adrian Turner, CEO at CSIRO's Data61, said the centre is a national asset that combines internationally recognised robotics and machine learning research with deep domain expertise

from CSIRO providing unique collaboration opportunities for industry, government and academia.

"Robotics and autonomous systems technologies, underpinned by machine learning and artificial intelligence, will unlock new value in all manner of sectors including manufacturing, agriculture, healthcare and mining," Mr Turner said.

"By creating a cohesive approach to robotics R&D through closer collaboration, supported by world-class facilities like the Robotics Innovation Centre, we can ensure Australia is well placed to benefit from Industry 4.0 and help to protect and accelerate our nation's ongoing economic success."

Data61 led the formation of the Sixth Wave Alliance last year, a network which seeks to integrate key robotics research organisations and industry partners in Australia to enable a higher level of R&D collaboration. Dr Sue Key was recently appointed to lead Data61's cyber-physical systems research program, drawing on her experience in developing Australia's first Robotics Roadmap while at QUT's Australian Centre for Robotic Vision.

Data61's robotics infrastructure is open for industry use and collaborative projects. This includes dedicated mechanical and electronics engineering laboratories, several high-end rapid prototyping machines, large sheds for indoors systems testing, an open-air UAV flying area and outdoor testing areas including a forest and creek.



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“ SYSTEMS INTERACT SAFELY WITH HUMANS ”

Sustainability leader new GBCA CEO

SUSTAINABILITY industry leader Davina Rooney will join the Green Building Council of Australia as the CEO, starting on June 11.

The former general manager of sustainability and corporate procurement at one of Australia's largest diversified property groups, Stockland, Ms Rooney brings her experience as an engineer and change agent to Australia's authority on sustainable buildings and communities.

Chair Rod Fehring said Ms Rooney's inspirational leadership capacity together with her deep technical

knowledge would enhance the organisation's industry perspective as it furthered its goals to make communities more productive, liveable and healthy.

"Davina has led Stockland to be a global leader on sustainability in property, achieving a raft of international accolades from leading organisations," he said.

"Her responsibilities took her from the construction site to the policy table, giving Davina an outstanding insight across the lifecycle of major development projects.

Ms Rooney is a civil engineer and supports the Women in STEM initiative. She has a variety of sustainability experience, from environmental projects, not-for-profit boards and overseas community development



Davina Rooney... insight across lifecycle projects

work, spending eight months working in the Indian Himalayas on the construction of a school which won multiple international awards.

Ms Rooney has been recognised in her field with awards including the NAWIC NSW 2016 Sustainability Award, PCA 2014 Future Leaders Award and Sydney

University Engineering Young Alumni Award.

She has contributed to the GBCA as a member of the Green Star steering committee for the last three years, and the Green Star advisory committee over the last 12 months and has recently completed her two-year term as the chair of the Property Council's National Sustainability Roundtable.

Mr Fehring thanked outgoing CEO Romilly Madew AO for her more than 13 years leading the GBCA. She is departing to take on the role of Infrastructure Australia CEO.

"Romilly has been a force for change in Australia's built environment, where the number of Green Star-rated projects has risen to more than 2250," he said.

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New FWPA WoodChat episode talks waste-3D print technology

3D printing technology can combine timber waste products and recycled plastics to transform them into a high-performance construction element, as results from research at the University of Sydney show.

The FWPA-supported research – focus of the latest episode of WoodChat – is being conducted by a team led by Prof. Sandra Löschke, director of the architecture design research group at the university.

In the Season 2 episode of FWPA's podcast series, Prof. Löschke said the research team set out to explore what 3D printing could offer both the construction and forestry industries that conventional technologies did not.

The process of 3D printing involves a composite material being placed through a nozzle, and being applied layer by layer to a surface, before it hardens. Its use in the construction industry is growing rapidly, especially for the creation of concrete elements. However, these elements still largely rely on traditional construction processes, for example the use of steel reinforcement bars. This project looks at what 3D printing can offer the construction industry that traditional methods cannot.

"The aim has been to produce an element that is strong and aesthetically pleasing by varying the material composition during the printing process. We want it to be as close as possible to natural timber, both in terms of the percentage of timber used, and also in its look and feel," Prof. Löschke said.



- 1/ **Ultimate dream... building entire buildings using 3D technology.**
- 2/ **Prof. Sandra Löschke... team leader.**
- 3/ **Prof. Gwenaelle Proust... on research team.**



"We have developed a printing process that can gradually modify the material to allow for a wood-like pattern and texture that give the feel of timber. This is crucial for boosting the product's marketability.

"The ultimate dream is to be able to build entire buildings and even cities using this technology. And when you consider that two-storey houses are already being 3D-printed in concrete, it is easy to imagine that we may be able to do the same thing, better and more sustainably, with a recycled timber composite," Prof. Löschke said.

The interdisciplinary

associated with using timber in construction, and a genetic DNA testing system that can predict key commercial attributes of trees during the earliest stages of their lives.

research team includes Prof. Gwenaelle Proust and higher degree research students John Mai, Yerong Huang and Jordan Girdis.

This episode of WoodChat is the first in the new series, and follows topics from last year including the increasing use of Unmanned Aerial Vehicles (UAVs) in forestry, environmental benefits

This episode will be followed throughout the year with topics such as how RFID tracking systems are being used in prefabricated timber construction, and some of the initiatives that are currently engaging and securing future industry leaders.

The WoodChat series represents FWPA's commitment to communicating industry news and innovations. Each episode in the series includes in-depth conversations with experts on recent discoveries, innovations and initiatives.

You can listen to WoodChat on SoundCloud and iTunes.

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Mega-document on standards was key agenda issue at TPAA meeting

Treated wood management regulations also under discussion

TREATED wood management and on-going work on the make-over of AS/NZS 1604 and 1605 filled the agenda at a recent Melbourne meeting of the TPAA technical committee, attended by TPAA council members.

The standards work has been an agenda item for TPAA since Standards Australia embarked on a major revision involving merging all five parts of AS/NZS 1604 and the four parts of AS/NZS 1605 into a mega-document of 3 parts - Preservative-treated wood-based products, Part 1: Products and Treatment; Part 2: Verification Requirements; Part 3: Test Methods.

The proposed drafts have been reviewed via the public comment pathway, and while many suggestions/changes have been satisfactorily processed, there still remains a contentious issue around measuring preservative distribution in the required penetration zone, namely spot test or analyse.

The former is the well-known colorimetric method used by industry the

“MERGER OF ALL FIVE PARTS OF AS/NZS 1604



Wood waste... new regulations on-going issue for TPAA.

world over, the latter is an innovative approach adopted by some practitioners to determine where the chemical has gone. Each has its own merits and there was robust discussion of the issues at the TPAA meetings, without a firm and decided outcome. No doubt Standards Australia TM012 members will apply their collective wisdom to untangling this one at their next scheduled meeting on April 2.

The other much-discussed and on-going topic for TPAA was treated wood waste and how it is proposed to be regulated.

TECHNICAL REPORT



By DR HARRY GREAVES

Closely linked to this one is the recent work safe exposure standards in New Zealand. WorkSafe New Zealand's 10th edition of the Workplace Exposure Standards and Biological Exposure Indices Special Guide was published in November last year. Potential

impact of the new edition that may affect our industry are the new levels of arsenic and hexavalent chromium exposures. The Crvi change for worker exposure was discussed by TPAA.

*** **

MAY will be a busy month for the wood preservation industry, with the American Wood Protection Association's 115th annual meeting in Orlando, Florida, from May 5 to 7, closely followed by the IRG 50th annual conference in Quebec City, Canada, from May 12 to 16.

I am attending both meetings and doubtless the usual contingent of Aussies and Kivis will be present.

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Size and performance give Acadia a big edge in the large SUV market

IT was with a touch of sadness that we poked our headlights up Langton Road in Gympie on a warm autumn evening a few weeks ago.

Not because we were lost, but we were outside the gates of the Gympie particleboard factory, destined for closure after 45 years' service to the region. More than 80 jobs will be lost, which includes those in allied industries such as forestry, transport and maintenance.

The streets of the former gold rush town, 160 km north of Brisbane, seem to cross in all directions, up and down – a result of the rapid and irregular development that followed the arrival of hundreds of prospectors.

Englishman James Nash discovered gold in the region in 1867 and Gympie's timber history began in earnest soon after. Farmers were the original European settlers but timber sales soared – vital for the safe construction of mine shafts.

The range-topping LTZ-V

“CONFIDENCE BEHIND THE WHEEL



Holden Acadia... full size seven-seater.

version that took us to Gympie was packed with the lot... the only option the paint colour, with five of the eight choices commanding a \$550 premium.

The LTZ-V costs \$67,990 with all-wheel drive, but is available at \$63,990 with the same level of specification in front-drive configuration.

Premium powertrain gives great drivability and confidence behind the wheel, with a gutsy 3.6L V6 engine, smooth nine-speed automatic transmission, stop-start technology and active fuel management.

Holden's driver mode control allows you to switch between various driving modes, including 2WD and AWD on AWD models.

A 2000 kg braked towing capacity and trailer sway

with a petrol V6 engine and nine-speed automatic gearbox but across the three model grades – LT, LTZ and LTZ-V – an eachd with the choice of front-wheel drive or all-wheel drive configurations.

Coming standard is an 8 in. touchscreen with sat nav, Apple CarPlay and Android Auto, a reversing camera, three-zone climate control, leather upholstery, power adjustable and heated front seats and wireless phone charging. Add a power tailgate, front and rear parking sensors, auto-parking, a proximity key and rear privacy glass and the Acadia in a big way takes over where the Commodore left off.

Cabin storage is expansive with a wide and deep centre console storage bin up front along with two cup holders and a hidey hole housing the wireless charging pad. Second-row travellers have a large storage tray and two cup holders and those in the third row have two cup holders and a container for loose items.

With all the road renovations on the north coast, the traffic sign recognition was a handy addition, accurately reading even temporary roadwork signs.

MOTORING

With ORSON WHEELS

control are standard across the range. Selecting tow/haul mode on the driver mode control makes towing heavy loads a cinch, while hitch guidance with hitch view uses the rear view camera to help you line up your trailer and check on it while on the road.

The Acadia is a full-size seven-seater, available only

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EXPRESSIONS OF INTEREST

WFTN Executive Committee

This year the Queensland chapter of the Women in Forest & Timber Network is looking to reinvigorate the way the Network is organised. An inspiring core group of women have thus far done an exemplary job of managing the network, but the time has come to introduce some new faces to the team and put a more formal Executive Committee structure in place.

We are seeking four women to fill four roles for this Committee. While these roles will have defined responsibilities there will be some overlap, and so we are looking for four women to work together as a team to continue the WFTN's legacy of bringing us together through professional industry events and communications that uphold the Network's values. These are casual, voluntary roles, and will require approximately only 5-10 hours of your time per quarter, as well as the ability to commit to a quarterly 1-2 hour Executive planning meeting that may take place during working hours (usually from 8 am). These are only co-ordinating roles – no one person will need to undertake all activities listed and it is expected that the Committee will work collaboratively and delegate tasks to bring these events and activities to fruition.

Communications – Social Media

- Promote the Network through social media (a dedicated QLD Facebook page will be created)
- Liaise with industry stakeholders on potential promotional opportunities (e.g. Timber&Forestry eNews etc, company newsletters etc.)

Events

- Work with Executive Committee to set dates for WFTN events (typically a quarterly breakfast and one charity fundraising/cocktail event yearly)
- Book venues and vendors
- Organise topics and speakers
- Coordinate prizes and raffles for charity event

Sponsors/Fundraising

- Putting sponsorship packages together, based on sponsor templates that the Network already has in place
- Organising sponsorship for events and activities
- Liaising with sponsors pre and post event

Communications/Administrator

(position filled)

- Manage online presence and back end – database, registrations and web page
- Establish a quarterly newsletter
- Ability to assist with event organisation and promotion

This is a perfect opportunity for women who are seeking connections outside of their organisation, to get more involved with industry, build relationships and networks, and develop new leadership skills. There are no pre-requisites or CV submissions required for putting your name forward, all you need is to be an effective communicator who is passionate and efficient.

Should you wish to take part in this Committee, please send through an email to Sarah Porter (sarah@timberqueensland.com.au) outlining which role you are interested in, and a brief background story about you and your skills or strengths relevant to the candidacy (dot points are fine).

Any expression to assist with the Network going forward in any capacity is appreciated and welcome.

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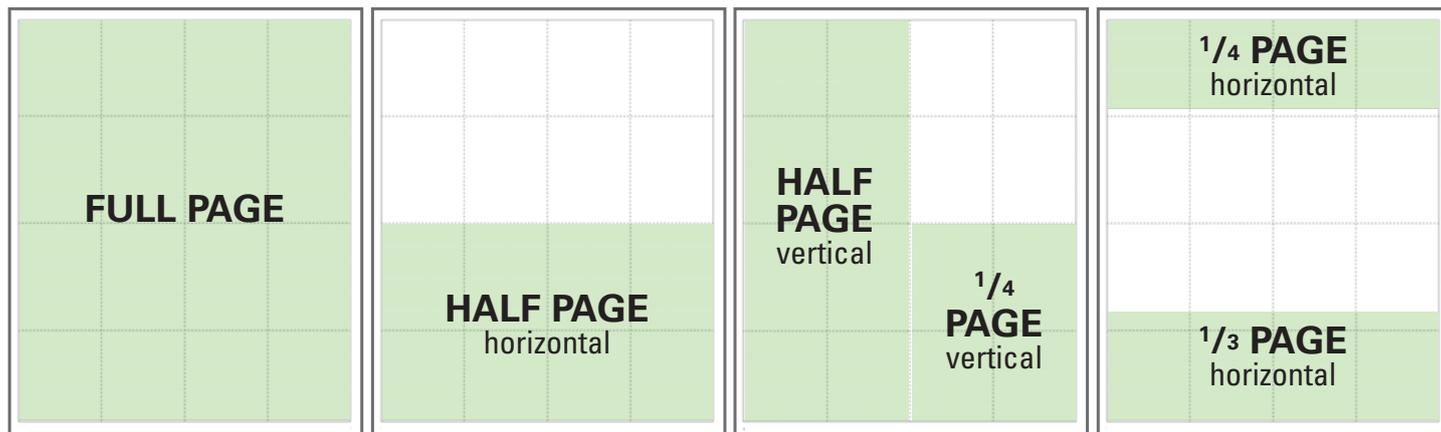
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