

AFWI Highlights 2024-2026

Message from the AFWI Chair and AFWI CEO

This Highlights Report tells the story of **Australian Forest and Wood Innovations' (AFWI)** journey from its official launch in **March 2024** to the end of **June 2026**.

Established through a **\$101.5 million Commonwealth investment**, AFWI was created to rebuild, coordinate and strengthen Australia's forest and wood products research capability and support the sector's transformation. That investment is now underpinning a **national research and innovation program expected to exceed \$200 million**, including partner co-investment.

In just over two years, AFWI has progressed from establishment to national delivery. It has put in place robust governance arrangements, launched three national Research Centres in February 2025, delivered competitive National Open Calls and built a growing portfolio of applied research and innovation across the **forest-to-fabrication value chain**.

We acknowledge the leadership and support of the **Minister for Agriculture, Fisheries and Forestry, the Hon Julie Collins MP**, and the Australian Government through the **Department of Agriculture, Fisheries and Forestry (DAFF)**. This investment has created a once-in-a-generation opportunity to strengthen national capability, support innovation and accelerate transformation across Australia's forest and wood products sector.

AFWI is hosted by the **University of Tasmania (UTAS)**, with its headquarters in **Launceston** and a mandate to deliver nationally.

By June 2026, AFWI had **39 active projects with a total value of more than \$67 million**, supported by approximately **\$29 million in AFWI investment** and **\$38 million in partner cash and in-kind contributions**. This represents a co-investment ratio of approximately **1:1.3** and demonstrates strong sector commitment to practical, nationally significant research.

Another major achievement has been the establishment of three AFWI Research Centres: the **AFWI Centre for Climate-Smart Forestry (CCSF)** at the **University of Melbourne (UoM)**, the **AFWI Centre for Sustainable Futures (CSF)** at the **University of the Sunshine Coast (UniSC)**, and the **AFWI Centre for Sustainable Resource and Product Solutions (CSRPS)** at the **University of Tasmania (UTAS)**.

Together, the **AFWI Research Centres** represent a significant investment, including more than **\$34 million** in seed funding, and bring together a national partner network of **more than 20 research organisations**. Their endorsed business plans and strengthened industry advisory arrangements provide a strong platform for coordinated national delivery.

The AFWI Implementation Plan 2025–2030 now provides the framework for the next phase of AFWI's work. It aligns investment, partnerships and delivery with **Australia's Timber Fibre Strategy** and supports national priorities in **timber supply, fibre security, manufacturing capability, housing, climate resilience and industry productivity**.

AFWI's work also aligns strongly with the Commonwealth's industry agenda to turn Australian resources and industrial capability into **sovereign, value-adding industries** that can maximise the opportunities arising from the **global transition to net zero**.

The **AFWI Precinct Project** exemplifies this role by bringing together research, industry, government and investment partners to progress **engineered wood products, low-carbon construction, advanced manufacturing and regional economic development**.

Across its portfolio, AFWI now involves **more than 100 industry partners and over 300 people** from universities, government agencies, consultancies, Indigenous enterprises, growers, processors, manufacturers, building and design firms, industry-based research organisations and peak bodies. This network is strengthening industry alignment, value-chain coordination, adoption pathways and national consistency.

The achievements highlighted in this report demonstrate the breadth of AFWI's early impact. They include **Indigenous-led forestry and timber processing in the Tiwi Islands; biosecurity responses to major forest pests; pathways for converting residues into low-carbon fuels; new models for plantation forestry and regional processing; and manufactured timber housing solutions that can support housing delivery at scale**.

AFWI has also expanded strategic collaborations across the research, development and innovation continuum, including with **Forest and Wood Products Australia (FWPA)**, the

Australian Forest Products Association (AFPA), state-based industry associations, **Forestry Australia**, the **Timber Development Association (TDA)**, the **Frame and Truss Manufacturers Association of Australia (FTMA)**, the **Engineered Wood Products Association of Australasia (EWPA)**, **Responsible Wood**, the **Gottstein Trust**, New Zealand's **Bioeconomy Science Institute** and many others.

These partnerships are central to AFWI's role as **Australia's national forest fibre research, development and innovation institute**.

The next phase of AFWI's work will focus on delivery, translation and adoption—ensuring research outcomes become practical tools, standards, investment cases, commercial pathways, trusted advice, improved industry practices and visible benefits for the sector.

We thank the Minister for Agriculture, Fisheries and Forestry; the Australian Government's DAFF; UTAS as AFWI's host institution; and the many industry, research, government, Indigenous and regional partners that have supported AFWI's establishment and early delivery.

We also acknowledge **AFWI's Board, Research Advisory Committee (RAC), Research Centre Industry Advisory Boards** and **AFWI staff** for their leadership, commitment and stewardship.

AFWI is still young, but **its purpose is clear and its momentum is building**. With the foundations now in place, we look forward to the next phase of national delivery over the coming year and into 2027.



Mr Bob Gordon
Chair, AFWI Board

30 June 2026



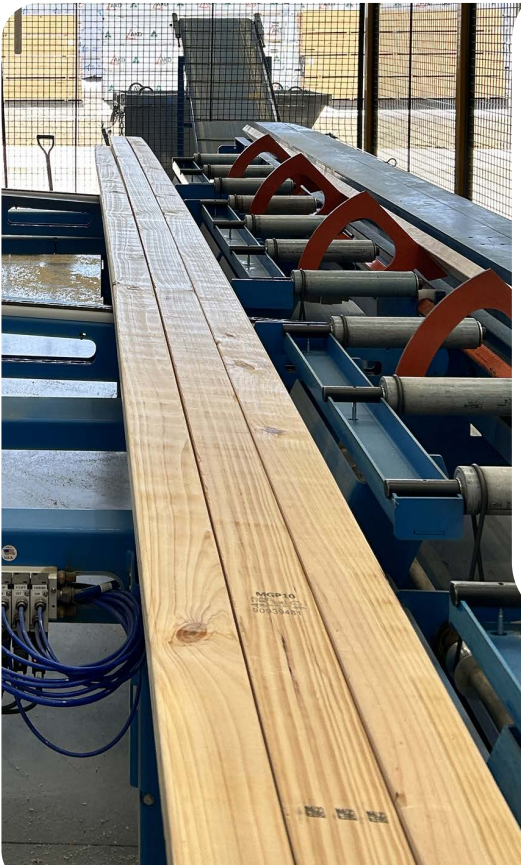
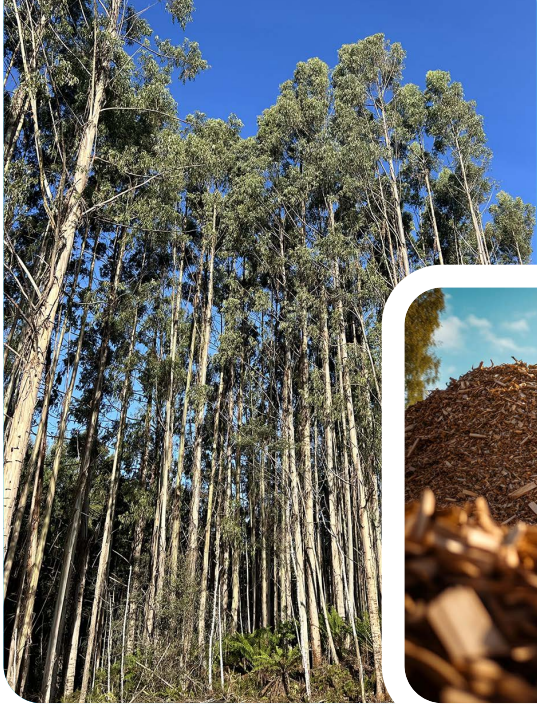
Dr Joseph Lawrence
CEO and Executive Director,
AFWI



Acknowledgement of Country

Australian Forest and Wood Innovations (AFWI) operates nationally and acknowledges the Traditional Custodians of Country throughout Australia. We acknowledge their connection to the land and their ongoing custodianship of Country and forests. We pay our respect to Elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples.

Disclaimer: The material contained in this report is intended for general informational purposes only. While AFWI has taken reasonable care in compiling the information, we make no representations or warranties, express or implied, pertaining to the accuracy, completeness, or reliability of the content.



Australian Forest and Wood Innovations

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Commonwealth Funding

AFWI acknowledges the support of a \$101,540,000 grant from the Australian Government Department of Agriculture, Fisheries and Forestry.



Australian Government
Department of Agriculture,
Fisheries and Forestry

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AFWI's Journey

Australian Forest and Wood Innovations (AFWI) is Australia's national research and innovation institute for forest science, wood products innovation, sustainable materials and bio-based industry development. AFWI provides national coordination, research capability and pathways to translate research into practical outcomes across the **forest-to-fabrication value chain**.

AFWI builds on the success of the Australian Government's **National Institute for Forest Products Innovation (NIFPI)** programs, which began addressing the decline in research capability across the sector. A **\$100M Commonwealth investment** was subsequently activated in 2022 through a joint proposition developed by industry and UTAS.

AFWI was officially launched in March 2024, with three AFWI Research Centres commencing operations in February 2025. Since then, AFWI has rapidly expanded its research and innovation portfolio and national partnership network, securing significant cash and in-kind co-investment from across the sector. AFWI is now seeding national research and innovation expected to exceed **\$200 million**, underpinned by the **AFWI Implementation Plan 2025–2030**.

Now firmly established, AFWI is rebuilding much-needed national research and innovation capability and represents a major opportunity to address Australia's key challenges and unlock growth across the **forest and wood products sector**.

Total co-invested at 30 June 2026

> \$100M

including

39 projects valued at \$67.6M
and seed funding for AFWI
Research Centres [^]



National R&D portfolio

National Open Call + 3 AFWI Research Centres



\$1 : \$1.34

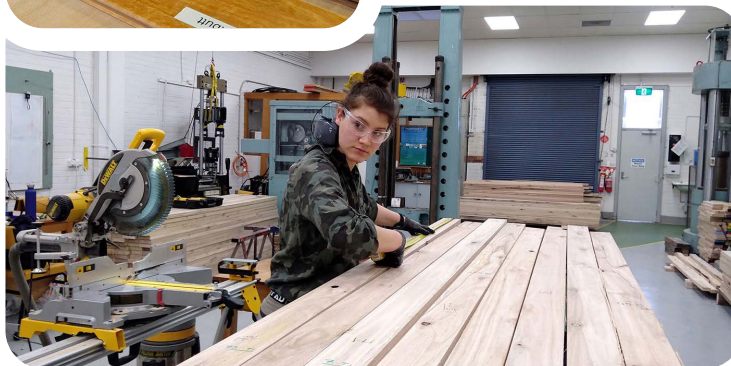
AFWI : Partner co-investment in 39 projects



100+ industry partners and 300+ personnel

Across value chains, nationwide

[^] subject to AFWI Research Centre delivery and performance



AFWI's founding partnership

AFWI is underpinned by an initial investment from the Australian Government through the Department of Agriculture, Fisheries and Forestry, to be complemented by partner co-investments across the national R&D portfolio. AFWI's headquarters is hosted by the University of Tasmania (UTAS) at the Newnham campus in Launceston.



Australian Government

Department of Agriculture,
Fisheries and Forestry

UNIVERSITY of
TASMANIA



The University of Tasmania is proud to host AFWI, a nationally significant institute that brings industry, government and academia together to accelerate innovation and deliver impact across Australia.

– Professor Rufus Black, Vice-Chancellor of the University of Tasmania

AFWI Strategy

Mission

To accelerate nationally coordinated R&D and innovation that strengthens forestry systems, increases fibre value and productivity, enables low-carbon materials and construction, advances carbon and natural capital solutions, and builds the scientific and industrial capability required for Australia's transition to a circular bioeconomy. AFWI's strategy provides a clear national framework for research, innovation and industry adoption at scale.

Strategic Objectives

- Strong governance and capability
- High-quality research and co-investment
- Forest resilience and productivity
- Fibre value and manufacturing uplift
- Climate and natural capital systems
- Timber housing at scale

AFWI R&D Innovation Pillars



Healthier
Forests



Maximising
Fibre



Climate
Solutions



Housing
Innovation

How We Work

- Market-led opportunities are addressed through co-design and delivery
- Strategic and operational activities are overseen by **AFWI Headquarters** (AFWI HQ) hosted by UTAS
- Strategic direction and investment decisions are endorsed by the **AFWI Board**
- Investment recommendations are provided by the **AFWI Research Advisory Committee** (RAC)
- **AFWI Research Centres** are required to deliver against **AFWI Research Centre Business Plans** with AFWI HQ oversight
- Each **AFWI Research Centre** is supported by an **Industry Advisory Board**
- Co-invested projects are guided by **Project Steering Committees** with support from AFWI Research Centres and AFWI HQ

AFWI Board and UTAS Governance Responsibilities

AFWI is an unincorporated institute hosted within the University of Tasmania. The AFWI Board operates within UTAS's legal and institutional framework, with substantive oversight of AFWI's activities and expenditure, strategic direction, funding endorsements and Commonwealth reporting, while legal and financial accountability rests with UTAS as the Grantee.

How We Deliver

- AFWI delivers outcomes and impact through an integrated national model, underpinned by the **AFWI Implementation Plan 2025 – 2030**:
- **AFWI Research Centres** (*three Centres; national network with over 20 partners*) – multi-institution programs to build core capability aligned to our R&D Innovation Pillars
- **AFWI National Open Calls** (NOC) – competitive funding to expand partnerships and innovation through co-investment
- **Matched Funding** – targeted co-investment in projects through Research Centres with industry, government, and research partners
- **Strategic Initiatives** – national programs in carbon, digital forestry, Indigenous partnerships, housing, and bioeconomy
- **Translation and Adoption** – demonstration projects, tools, and industry partnerships

Implementation timeline

- 2025–26: Mobilise systems and programs
- 2027–28: Scale national initiatives
- 2029–30: Deliver impact and transition to long-term capability

AFWI's impact by 2030 will include contributions to:

- Productive and climate-resilient forests and expanded farm forestry
- Increased fibre productivity and value
- Scaled timber housing systems
- Credible carbon and natural capital frameworks
- A globally competitive bioeconomy

AFWI Personnel

AFWI Board

- Bob Gordon (AFWI Board Chair)
- Stephen Dadd – AFPA
- Travis Wacey – Timber, Furnishings and Textiles Union (TFTU)
- Andrew Leighton – FWPA [Feb 2024 – Jun 2026]
- Brian Farmer
- Christine Briggs
- Diana Gibbs
- Dr Heidi Dungey
- Prof Julianne O'Reilly-Wapstra – UTAS
- Andrew Wilson – DAFF
- Michael O'Connor – CFMEU (now TFTU) [Feb – Nov 2024]
- Rachel Cavanagh [Feb 2024 – Aug 2025]
- Board Observer (non-member) – Dr Angela Castles – UTAS



AFWI Board members, RAC Chair and AFWI staff at the AFWI Board meeting in Hobart, Tasmania, 26 May 2026.

AFWI Staff

- Dr Joseph Lawrence – Chief Executive Officer and Executive Director
- Dr Patrick Mitchell – Deputy Director
- Dr Carly Rosewarne – R&D Partnerships Manager
- Andrew Roberts – Business Manager
- Kathryn Fox – Research Funding Manager (previously Contracts Officer)
- Sharon Nolan – Senior Executive Officer
- Maeve McKenna – Communications and Engagement Manager [Nov 2023 – Aug 2025]
- Prof Patrick Baker – Research Centre Director, AFWI CCSF (UoM)
- Prof Mark Brown – Research Centre Director, AFWI CSF (UniSC)
- A/Prof Dean Williams – Research Centre Director AFWI CSRPS (UTAS) (previously AFWI Interim Director [2024])
- Ellie McSheedy – Research Centre Manager, AFWI CCSF (UoM)
- Kelly Stewart – Research Centre Manager, AFWI CSF (UniSC)
- Dr Sarah Hulme – Research Centre Manager, AFWI CSRPS (UTAS)

AFWI also acknowledges the contributions of current and former AFWI staff not individually listed, together with staff at UTAS, UoM and UniSC who support AFWI's national delivery, as well as participants across the sector.

AFWI Research Advisory Committee (RAC)

- Prof Rod Keenan (RAC Chair)
- Richard Hyett – AFPA
- Gavin Matthew – EWPA
- Dr Steve Read
- Dr Henri Baillères – Bioeconomy Science Institute (NZ)
- Simon Dorries – Responsible Wood
- Dr Shaun Sutor – Sustainable Timber Tasmania
- Dr Danielle Wiseman – Plantation Industry Pest Management Group
- Dr Craig Cowled – Queensland University of Technology
- Jodie Mason
- Peter Harding – DAFF
- Dr Melanie Zeppel – GreenCollar
- Ian Blanden – FWPA
- Dr Kevin Harding
- Dr Chris Lafferty – FWPA [Jun 2024 – Feb 2026]
- Belinda Field – Timberlink [Aug 2024 – Sep 2025]

Industry Advisory Board - AFWI Centre for Sustainable Futures (CSF) at the University of the Sunshine Coast

- Steve Walker (Chair) – Terrafolia Advisory
- Katie Fowden – Hyne Group
- Jan Rombouts – OneFortyOne
- Ben Bradshaw – Australian Bluegum Plantations
- Dallas Anson – Northern Territory Government DAF
- Dr Tim Smith – Queensland Government DPI
- A/Prof Tek Maraseni – University of Southern Queensland
- Prof Keith Crews – University of Queensland

Industry Advisory Board – AFWI Centre for Sustainable Resource and Product Solutions (CSRPS) at the University of Tasmania

- Ian Telfer (Chair) – WA Plantation Resources
- Dr Trevor Innes – TimberLink
- Michael Lee – Lee Timber Tech
- Kathy Morris – Wesbeam
- Ben Bradshaw – Australian Bluegum Plantations
- Kelly Williamson – Timberlands Pacific
- Anne Chuter – Tasmanian Forest Practices Authority
- Dr Anthony O'Grady – CSIRO
- Dr Jim O'Hehir – Adelaide University
- Dr Georgia Lindsay – UTAS
- Prof Gil Garnier – Monash University
- Prof Richard Harper – Murdoch University

Industry Advisory Board – AFWI Centre for Climate-Smart Forestry (CCSF) at the University of Melbourne

- Tim Woods (Chair) – IndustryEdge
- Dr David Brand – International Sustainable Forestry Coalition
- Dr Michelle Freeman – Forestry Australia
- Karina Coombes – Tiwi Islands Training and Employment Board
- Andrew Hurford – Hurford Group / Timber NSW
- Andrew Lyon – Forest Products Commission WA

AFWI R&D Innovation Pillars

AFWI was established to address the most significant opportunities and challenges facing Australia's forest and wood products sector. AFWI's national R&D portfolio is industry focused with strong pathways to adoption and impact through alignment with four R&D Innovation Pillars.



Healthier Forests

Building resilient and productive forest systems across Australia's landscapes.

This includes:

- climate-adapted forestry and silviculture
- genetics and tree improvement
- forest health and biosecurity systems
- digital forest monitoring and analytics
- expanding opportunities for farm forestry and integrated land use systems

This pillar supports a stronger food and fibre system, regional resilience and long-term fibre supply.



Maximising Fibre

Unlocking greater value from Australia's forest resources.

This includes:

- precision forestry and yield optimisation
- advanced manufacturing and automation
- circular fibre systems and residue utilisation
- bioproducts and advanced materials

This work improves efficiency, reduces waste, and enables higher-value products and new markets.



Climate Solutions

Providing the scientific and technical foundations for Australia's climate transition.

This includes:

- forest carbon accounting and lifecycle modelling
- natural capital and biodiversity frameworks
- climate-risk analytics
- low-carbon materials and circular systems

This pillar supports policy, investment, and credible carbon and environmental markets.



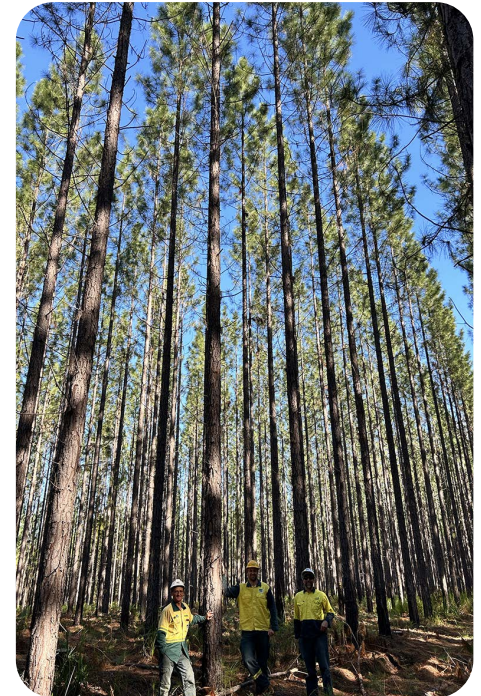
Housing Innovation

Accelerating the adoption of timber and modern construction systems.

This includes:

- engineered timber and hybrid structures
- modern methods of construction (MMC)
- digital design and manufacturing systems
- demonstration projects and regulatory pathways

This pillar supports faster, lower-carbon housing delivery and sovereign manufacturing capability.



Partnering for Sector Transformation

AFWI is built on strong partnerships between industry, government and research organisations. Industry co-design and delivery are at the core of AFWI's activities, ensuring our research and innovation is industry-led and drives transformation across the sector. **The AFWI Implementation Plan 2025 – 2030** was developed to align with **Australia's Timber Fibre Strategy** and input provided through national stakeholder engagement.

AFWI's research is supported by industry partners from all segments along the value chain. **There are more than 100 industry partners across our 39 active R&D projects**, including all major forest grower companies, timber processors and manufacturers, building and architectural firms, bioproduct processors, allied industries such as mining and energy, in addition to peak bodies and industry associations. Industry partners are the key beneficiaries of our research and play an active role in project delivery, governance, and adoption.

AFWI continues to build and leverage partnerships with all state and territory governments. Their contributions include co-investments in multiple research projects, leadership of project delivery, and active participation in R&D activities.

The **Regional Forestry Hubs** represent crucial partners across the design and delivery of our research portfolio. The Forestry Hubs provide a strong connection to key stakeholders in their respective regions and support knowledge transfer associated with several projects.

Indigenous partnerships are critical to AFWI across an array of research areas and geographies and include Tiwi Plantations Corporation, Jagun Alliance, and Gulkula Mining Company.

AFWI projects involve **more than 100 industry partners and more than 50 research organisations**, including universities and CSIRO. More than **300 people** are now involved in AFWI projects, including over **90 early career researchers**, helping to build the next generation of forest and wood products innovators.



How AFWI and FWPA work together

AFWI's scale, national remit and Commonwealth reporting obligations position it alongside **Forest and Wood Products Australia (FWPA)**, the sector's **Research and Development Corporation (RDC)**. Both organisations work with the Australian Government, industry and research partners to deliver outcomes across the forest and wood products value chain.

FWPA invests industry levy and government-matched funds in research, development and extension, as well as marketing and promotion, to improve the productivity, competitiveness and sustainability of the forest and wood products sector.

Together, AFWI and FWPA contribute to an innovation continuum supporting sector transformation. FWPA plays an important role in the design and delivery of research across the AFWI portfolio and collaborates on several AFWI projects with and on behalf of its members. This includes leading two projects focused on **tree breeding** and **plantation fire resilience**. FWPA is also represented on the **AFWI Board and Research Advisory Committee (RAC)**, supporting coordination between the two organisations.



AFWI Research Centres: A National Network to Drive Impact

AFWI Research Centres provide scientific depth, disciplinary diversity, and national reach. They deliver programs aligned with AFWI's Strategy and R&D Innovation Pillars, manage multi-institution collaborations, maintain Centre-wide delivery and monitoring, and report to AFWI HQ through agreed processes. Collectively, **AFWI's Research Centres have more than 20 partner research organisations** to deliver outcomes across all major forestry regions, providing national coverage, expertise across the value chain and access to research infrastructure. These strategic Research Centre relationships are complemented by project-level collaborations with additional partners.

AFWI Centre for Climate-Smart Forestry

The AFWI Centre for Climate-Smart Forestry (CCSF) focuses on adaptation to climate change through work on integrated landscapes, silviculture, national forest monitoring innovation and carbon accounting. The Centre's research agenda is informed by First Nations perspectives and leadership. A cross-cutting theme on economics, policy and society provides further dimensions to the Centre's research.

Hosted by the University of Melbourne (UoM)

Centre partners: Australian National University, Federation University, Murdoch University, University of Queensland, Western Sydney University, CSIRO, WA Government Department of Biodiversity, Conservation and Attractions, The Superpower Institute.

Capacity and capability for the sector

AFWI's investment into the Research Centres has underpinned the appointment of several leading experts into key positions. This leadership capacity will enable the Research Centres to deliver impactful outcomes aligned with AFWI's sector transformation goals.

The Research Centres also play a central role in AFWI's capability development objectives, providing training and mentoring for early career researchers. This includes opportunities to work directly with industry partners through project activities and placement programs.

AFWI Centre for Sustainable Futures

The AFWI Centre for Sustainable Futures (CSF) undertakes research to increase both the productivity and extent of the wood basket and to develop innovative timber products for a carbon-friendly building sector.

Hosted by the University of the Sunshine Coast (UniSC)

Centre partners: Central Queensland University, James Cook University, Griffith University, Southern Cross University, Queensland University of Technology, University of Queensland, NSW Government Department of Primary Industries and Regional Development, NT Government Department of Agriculture and Fisheries, QLD Government Department of Primary Industries.

AFWI Centre for Sustainable Resource and Product Solutions

The AFWI Centre for Sustainable Resource and Product Solutions (CSRPS) places a focus on the future of temperate forest resources, the recovery of solid wood for housing products and transforming wood residues into bioproducts. These research areas are underpinned by research covering policy, supply chain and safety issues.

Hosted by the University of Tasmania (UTAS)

Centre partners: Adelaide University – Forestry Centre of Excellence, Monash University, Murdoch University, CSIRO.



Launch of webinar series to facilitate knowledge exchange

The AFWI Research Centres launched a joint bi-monthly webinar series in June 2026. The aim of the series is to provide insights into pressing issues facing Australia's forestry and wood products sector through presentations from leading researchers and industry experts. Registration details for upcoming webinars and recordings from past webinars are available on the AFWI website.



Active AFWI R&D Projects: March 2024 - June 2026

AFWI research projects are supported through two major funding pathways: the **National Open Call (NOC) Program** and the **AFWI Research Centres**. Both pathways require projects to be co-designed and delivered with industry input and co-investment.

As at **30 June 2026**, AFWI had approved **39 active projects**, representing **\$28.9 million in AFWI investment** and a total portfolio value of more than **\$67.6 million**.

The portfolio spans AFWI's four R&D Innovation Pillars, with investment distributed across 39 projects:

43% — Healthier Forests
24% — Maximising Fibre
8% — Climate Solutions
25% — Housing Innovation

National Open Call Program

The AFWI National Open Call Program, now in its third round, has evolved into a two-stage facilitated process comprising an **Expression of Interest (EOI)** stage followed by invited full proposals.

As at 30 June 2026, the competitive NOC Program has funded **14 active projects** worth more than **\$26.2 million**, including over **\$9.9 million from AFWI** and **\$16.3 million in partner co-investment**.

- **NOC Round 1:** Eight projects funded from 24 full proposals received. Round 1 did not include an EOI stage.
- **NOC Round 2:** Six projects funded from 34 EOIs received.
- **NOC Round 3:** 27 EOIs received, with invited full proposals due on **10 August 2026**.

PROJECT INVESTMENT



\$28.9M

AFWI investment



39

Projects activated



\$38.7M

Partner co-investment



\$67.6M

Total project value

AFWI INVESTMENT IN R&D INNOVATION PILLARS

Healthier Forests
\$12.3M (43%)



Maximising Fibre
\$7.0M (24%)



Climate Solutions
\$2.4M (8%)



Housing Innovation
\$7.2M (25%)



PROJECTS BY R&D PORTFOLIO



AFWI investment



Partner co-investment

National Open Call



14 projects

AFWI Centre for Sustainable Resource and Product Solutions (UTAS)



6 projects

AFWI Centre for Sustainable Futures (UniSC)



12 projects

AFWI Centre for Climate-Smart Forestry (UoM)



7 projects

AFWI Research Centres

As at 30 June 2026, the AFWI Research Centres had a combined portfolio of **25 projects** worth **\$41.4 million**. This comprised almost **\$19.0 million in AFWI investment** and **\$22.4 million in partner contributions**.

Across the 39 active projects delivered through the NOC Program and AFWI Research Centres:

- **Two** are delivered by Indigenous-led organisations: Tiwi Plantations Corporation and Jagun Alliance.
- **Nine** are led by industry, including two delivered by Forest and Wood Products Australia (FWPA).
- **Three** are led by research teams from state government departments: Victoria's Department of Energy, Environment and Climate Action through Agriculture Victoria; Queensland's Department of Primary Industries; and NSW's Department of Primary Industries and Regional Development.
- The remaining projects are being led by research organisations located around Australia.

AFWI R&D Project Snapshots

The following projects provide examples of how AFWI is leveraging strategic partnerships to deliver impact spanning the forest and wood products sector. **Each project is aligned with one or more of the four AFWI R&D Innovation Pillars. Refer to the appendices for project details;** note that each project has a designated project ID (AFWI-XXXX).



AFWI-0010

Turning plantation residues into low-carbon liquid biofuels

Led by HAMR Energy in partnership with the AFWI Centre for Sustainable Futures, this \$2.14M project (including \$1.09M from AFWI) is validating the technical, commercial and emissions-reduction potential of generating methanol from forestry residue streams.

The initiative demonstrates how residues from plantations in Tasmania, Western Australia, and the Green Triangle can be converted into low-carbon fuels using proven technology.

Tools and knowledge are being created for forestry operations to assess and monetise their own residual biomass resources. This will drive the development and growth of a low-carbon liquid fuels industry in Australia.

The findings will help forestry businesses unlock new value from their plantations, support Australia's renewable fuels industry, and help reduce emissions from aviation and shipping.

– Alex Smith, Director of HAMR Energy

Maximising value through innovations in forest residue use

The opportunities to value-add to forest residue resources are significant in terms of their economic and environmental potential. AFWI research is evaluating pathways for converting biomass to various bioproducts such as biochar, activated carbon, biofuels and other bio-based products (AFWI-0021). Research is also underway involving the assessment of biomass resources across private forest estates (AFWI-4005) and low-rainfall tree plantings (AFWI-0007). Scaling the pathways for converting residues in the HAMR Energy-led project (AFWI-0010) will demonstrate how various technologies and resources can be integrated into a sustainable, value-added solution.



AFWI R&D Project Snapshots



The Precinct – advancing timber manufacturing from plantations to products to pre-fabrication

Australia is in the middle of an acute housing shortage, and the forest products sector — a \$28 billion industry — has been identified as one of the few sectors capable of delivering supply at speed and scale through modern methods of construction (MMC). At the same time, Australia continues to export significant volumes of low-value wood fibre while importing higher-value engineered wood products.

AFWI-0025

Led by Tim Woods from IndustryEdge, The Precinct initiative (total project value \$6.21M including \$1.7M from AFWI) aims to address both challenges simultaneously: capturing more value from Australian-grown fibre onshore while accelerating the prefabricated housing supply needed to meet national demand.

Portland, Victoria was chosen as the launch location based on its proximity to the Green Triangle plantation

estate, existing manufacturing facilities and to the Port of Portland — providing the necessary infrastructure and supply chain settings for scaling pilot operations to full implementation.

The Precinct is being rolled out through several integrated feasibility studies, exploring new engineered wood products, prefabricated dwellings and bio-based co-products at scale. It brings together partners across the full forest-to-fabrication value chain to deliver collaborative, commercially focused outcomes. The Precinct is supported by the Victorian Government, Delta Energy Capital, Australian Bluegum Plantations, OneFortyOne, WTIBeam, TFTU, Green Triangle Forest Products, Timberlink, Programmed Timber, Port of Portland, Green Triangle Forest Industries Hub, Raute, Master Builders Victoria, Deakin University, and additional research and industry collaborators.



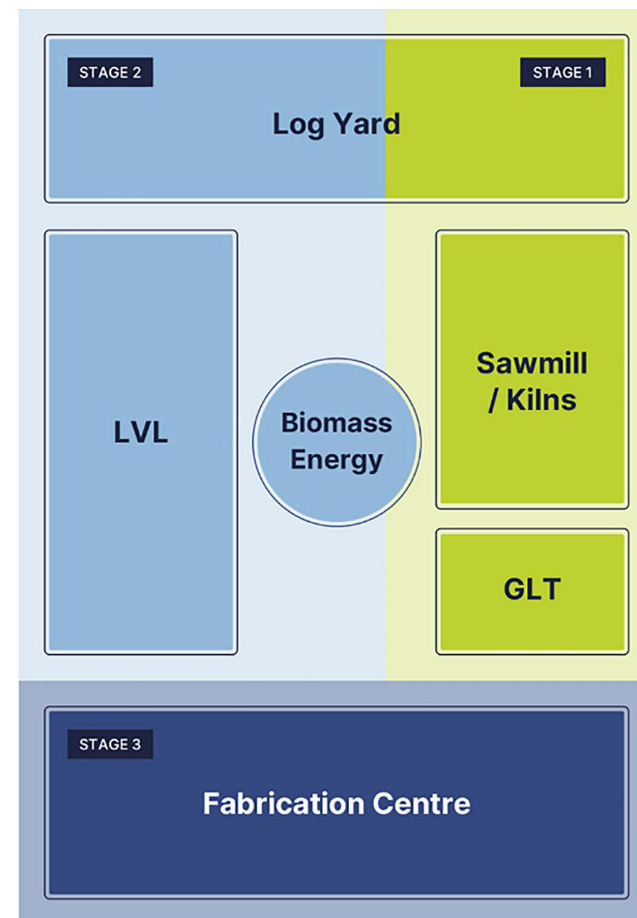
Edwina and Jason Vulcz of WTIBeam, the first business to manufacture glulam beams from plantation blue gum.

For more information, refer to The Precinct website (www.theprecinctportland.com.au)

We are excited to continue working with our research and development partners and to engage even more deeply with the Green Triangle region, on a project that has potential to be nationally transformative.

– Tim Woods, Managing Director of IndustryEdge and Project Leader of The Precinct initiative

IndustryEdge is grateful for the opportunity to lead development of The Precinct project and we thank AFWI and the Federal Government for the commitment and major contributions. Most of all, we want to thank the industry, research and community partners we have worked with over several years to bring this project into being.



Overview of components and stages of The Precinct (credit: IndustryEdge)

By investing in advanced timber processing facilities, we're not just building infrastructure – we're reshaping the industry. It's a win for jobs, innovation, and sustainability.

– Hon. Julie Collins MP, Federal Minister for Agriculture, Fisheries and Forestry

AFWI R&D Project Snapshots



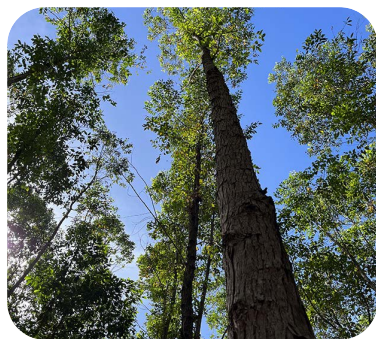
AFWI-0004

Growing First Nations-led forestry and timber processing in the Tiwi Islands

Led by the Tiwi Plantations Corporation in collaboration with the AFWI Centre for Sustainable Futures, QLD DPI, and NT DAF, this \$1.83M project (including \$0.50M from AFWI) is developing the interests, knowledge and skills of Tiwi Traditional Owners (from all eight Clans) to advance their Indigenous-led commercial native forestry industry.

This pilot project is supporting a transformation of Tiwi forestry, from a current focus on export woodchips from plantations of a single exotic species into a mixed native hardwood industry comprised of plantations and native forests. Local timber processing capacity and capability is being developed to manufacture value-added timber products for community housing, local infrastructure, and potential external timber markets.

This project will support the realisation of the Tiwi Plantations Corporation vision for a diversified and vertically integrated Indigenous-led native hardwood forestry industry on the Tiwi Islands.



The Tiwi people own 100% of the Tiwi Plantations Corporation and manage over 30,000ha of plantation estate on Melville Island.



Supporting Indigenous-led research and innovation

AFWI recognises First Nations peoples as the Traditional Custodians of Australia's forests and acknowledges the importance of Traditional knowledge and customs for managing healthy forests and securing a sustainable future. Indigenous-led research and innovation across AFWI is providing new opportunities for wood fibre-based enterprises and First Nations-informed forest management.

The Bundjalung Cultural Timber Project led by the Jagun Alliance Aboriginal Corporation is reclaiming high-value native timber from flood-damaged homes on Bundjalung Country (Lismore, NSW) as a cultural and economic asset. The project is embedding Indigenous knowledge into technical protocols and market pathways for developing a timber circular economy for the region (AFWI-0016).

To further support the diversification of their business, the Tiwi Plantations Corporation is working with the AFWI Centre for Climate-Smart Forestry and partners in Australia, Vietnam, China, Laos, and Ghana to develop a climate-resilient breeding program for *Eucalyptus pellita* in northern Australia (AFWI-0009). This will enable the Tiwi Plantations Corporation to leverage genetic material from existing plantation resources and transition their estate to an alternate hardwood species.

AFWI prioritises leadership contributions from First Nations peoples through strategic appointments across the organisation. Dr Craig Cowled is a Worimi man with expertise in timber structural engineering research and education. Craig provides strategic advice to AFWI as a member of the Research Advisory Committee. Tolita Davis-Angeles is a Cobble Cobble woman and was recently appointed as the AFWI Industry Fellow in Healthy and Productive Forests Through Effective Indigenous-Led Partnerships at the AFWI Centre for Sustainable Futures.

As at 30 June 2026, a new appointment to the AFWI Board is being ratified for a First Nations representative.

Over the coming years, AFWI is positioned to build on these activities and appointments through further engagement and support that centres Indigenous knowledge, leadership, self-determination, and Custodianship in caring for Country.



AFWI R&D Project Snapshots



AFWI-0022

Tackling a major softwood estate pest through international collaboration to deliver national biosecurity outcomes

Giant pine scale (*Marchalina hellenica*) is an exotic insect pest which represents a significant threat to Australia's softwood plantations. Tree removal is the only available control measure to manage infestations, which are currently confined to urban areas in Melbourne and Adelaide.

A four-year project with a total value of more than \$2.45M (including \$1.1M from AFWI) is underpinned by a partnership with Australian Forest Products Association and its members and Agriculture Victoria. This research builds on previous work funded by FWPA which

identified three predatory insects (silver flies from the genus *Neoleucopis*) as potential biological control agents for giant pine scale.

The project will deliver a national management program that can target core infestations while rapidly detecting and controlling new and outlier infestations. This will be achieved by working with leading researchers from the Hellenic Agricultural Organisation in Greece, the Centre for Agriculture and Bioscience International in Switzerland, and Australian forest health specialists ArborCarbon.



Inspection of a tree infested with giant pine scale

Bolstering pest and disease management across the forest estate

The productive capacity and health of our forests face increasing challenges due to climate change, evolving host-pest dynamics, and shifting patterns in the movement of people and trade. The challenges includes the emergence of new biosecurity risks such as giant pine scale. AFWI is tackling these issues through research into the development of new risk models and sustainable management approaches for major pests and diseases in hardwood (AFWI-0015) and softwood plantations (AFWI-0008). The effectiveness of the existing biocontrol approach for Sirex woodwasp is being assessed (AFWI-0005) and alternative treatments are being trialled for Ips bark beetles (AFWI-0026), both major pest species for softwood plantations. Taken together, AFWI's research efforts to underpin forest resilience and biosecurity represent a total value of more than \$4.5M, including more than \$2.2M in investment from AFWI.



Biocontrol plus smarter surveillance could turn a runaway softwood pest into a manageable pressure – before it reaches plantations.

– Paco Tovar, National Forest Biosecurity Manager at AFPA



Members of the giant pine scale research team in the Agriculture Victoria quarantine facility at AgriBio in Melbourne

AFWI R&D Project Snapshots



A model for integrating medium-scale native hardwood forestry, processing and circular economics to drive regional investment

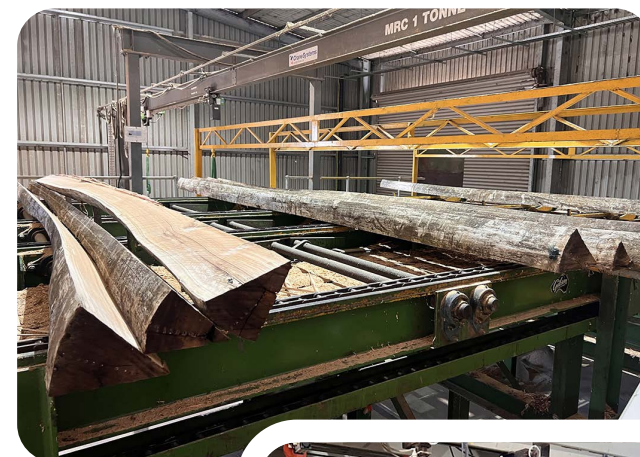
The economics, ecology, and social licence for medium-sized native hardwood plantations operating at a scale between small farm forests and large industrial estates is not well understood. Two projects (valued at \$1.43M in total) led by the AFWI Centre for Climate-Smart Forestry are filling this knowledge gap by developing case studies based on existing plantations in the Gippsland region of Victoria. These activities are supported by AFWI investments of \$0.72M and co-investments from Radial Timbers, Heartwood Unlimited and research partners.

AFWI-0001

AFWI-0002

The research is evaluating the financial performance of current plantation management and local wood product manufacturing approaches. It is also determining the natural capital benefits and applying life-cycle analyses to quantify the carbon footprint of production and processing.

The findings will inform evidence-based decision-making about the investment potential for medium-scale native hardwood forestry and processing infrastructure in comparable forestry regions nationally.



Timber processing and manufacturing equipment at Radial Timbers



We are delighted to be partnering in a project that is investigating a new avenue for medium-scale private forestry in Australia. This project has the potential to open many new doors via a platform of solid new data, being collected and analysed by a great team of researchers.

– Jon Lambert, Managing Director of Heartwood Unlimited

Radial Timbers Australia is very excited to be partnering with this AFWI project as it will provide valuable documented information on key pillars of our circular economy model which we have put into commercial practice.”

– Chris McEvoy, Managing Director of Radial Timbers



Silvopastoral systems in Queensland

Expanding the wood basket through farm forestry and integrated land-use

The role of forest resources from outside traditional plantations and native forest estates is becoming increasingly important for Australia's timber supply.

AFWI research is investigating various aspects of farm forestry and integrating trees into the landscape to provide pathways that attract regional investment, increase timber supply and achieve co-benefits on-farm. This includes research assessing the viability of integrating forestry into beef grazing systems (AFWI-0013) and the potential for agroforestry in low to medium rainfall regions (AFWI-0007).

AFWI R&D Project Snapshots



AFWI-0055

Developing lightweight timber framing to accelerate mid-rise housing construction

Lightweight timber framing is the preferred material for low-rise residential construction in Australia, currently used in around 80% of home builds. However, existing design and certification processes have not kept pace with modern building practices or the introduction of engineered wood products. The current Australian Standard for Residential Timber Framed Construction (AS1684) has not had a major update in more than 25 years and does not specify requirements for mid-rise buildings.

To address these challenges, the University of Tasmania has partnered with seven universities and Forest and Wood Products Australia's Future Framing Initiative, which unites several peak industry bodies and businesses across the supply chain.

The initial phase of research is supported by a \$0.93M investment from AFWI and \$1.11M in co-investment from partners (total project value of \$2.04M). It includes work across nine sub-projects aimed at determining new bounds for existing framing systems via the Deemed To Satisfy pathway under the existing Australian Standard.

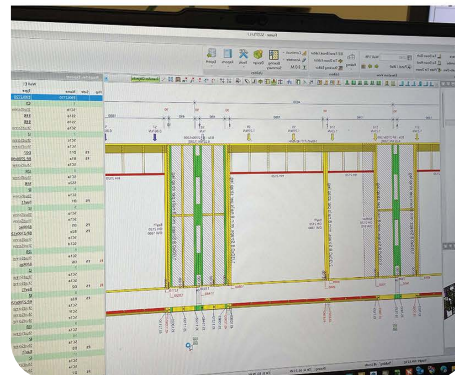
Project outputs will support the FWPA Future Framing Initiative objectives of updating the existing Australian Standards and developing a new FWPA Industry Standard for mid-rise lightweight framing. These standards will enable increased market access for timber products in the construction sector and help achieve housing targets under the National Housing Accord.

This is a generational opportunity to fix roadblocks and modernise timber framing.

– Andrew Dunn, CEO of the Timber Development Association of NSW and Project Industry Champion

Systemic change is required, but all of Australia will benefit from more efficient use of timber in the built environment. Timber framing is not just about building houses – it's about building them sooner, smarter, and more sustainably.

– Kevin Peachey, Head of Built Environment Programs at Forest and Wood Products Australia



Unlocking transformation in timber manufacturing and housing

Australia's housing system requires faster, more sustainable, and higher-productivity construction methods. A key focus of AFWI's research is connecting various research elements in engineered wood products, MMC and other manufacturing systems, timber structural engineering and standards and regulatory pathways for practical adoption by industry.

Across AFWI's project portfolio, we are delivering new standards and design solutions for timber windows (AFWI-0019), glulam beams (AFWI-0031), floor cassettes (AFWI-0018) and sports flooring systems (AFWI-0014). The development of new framing and panel systems is being pursued through low-cost, bio-based building solutions (AFWI-0012) and elemental panels for rapid onsite assembly and high thermal performance (AFWI-6005). Together with tackling existing industry roadblocks through two lightweight timber framing projects (AFWI-0055 & AFWI-6007), and reshaping timber processing and manufacturing through The Precinct (AFWI-0025), AFWI is addressing fundamental challenges across Australia's housing sector.

Cultivating Capability Across Academia and Industry

Capability development is an important strategic objective for AFWI. Across the R&D portfolio, more than 90 early career researchers are building their skills, generating new knowledge, and delivering impact for the forest and wood products sector.



Embedding postgraduate training in industry partnerships

Bini Neupane

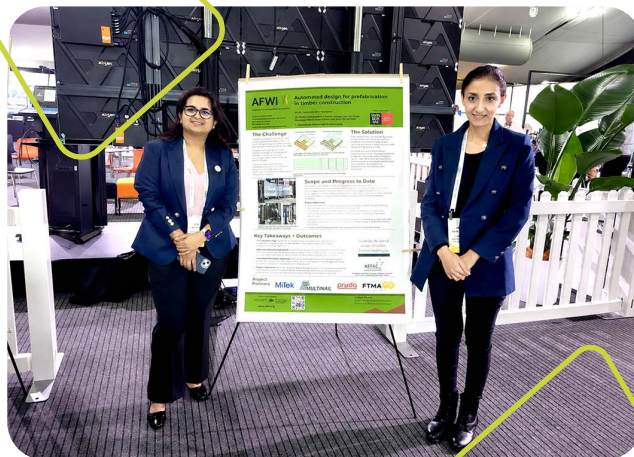
AFWI-0018

Bini's PhD research at Swinburne University of Technology is developing practical design guidance for timber-framed floor diaphragms in mid-rise buildings, aligned with modern methods of construction.

Under the guidance of her academic supervisors and industry partners from MiTek, Multinail, Pryda, and the Frame & Truss Manufacturers Association of Australia, Bini's applied research has a clear pathway for uptake in the construction sector. Project outcomes will support Australian designers and manufacturers to deliver innovative, code compliant timber framing solutions.

Through the AFWI-supported project, I have the opportunity to work closely with industry partners, shaping my PhD research on timber-framed diaphragms. This collaboration enables me to engage directly with real-world challenges and develop applied research that can contribute to the Australian timber industry.

– Bini Neupane, AFWI PhD Candidate at Swinburne University of Technology



Bini Neupane (left) and project lead Dr Anita Amirsardari (right) at the 2026 FTMA Conference



Kylan Low (left) and Jesse Ross (right) with one of the modernised timber window designs undergoing testing



Developing industry-based research capability in timber engineering

Jesse Ross and Kylan Low

AFWI-0019

Jesse Ross joined the Australian Glass and Window Association (AGWA) as a graduate engineer and began working on the AFWI Modernising Australian Timber Windows project with Kylan Low, a mid-career engineer with the Timber Development Association NSW (TDA). TDA is the lead organisation for this project.

Together with their colleagues, Jesse and Kylan are designing, testing, and producing guidance materials for a suite of new timber window designs. By addressing outdated Australian timber window standards and utilising new fibre resources and timber products, the project is providing new industry-based research opportunities while supporting the competitiveness of the timber window industry through innovation.

This project means more than just engineering. It is about bringing industries together, providing a framework for flexibility and innovation, new forests, resources, and designs, of which I have been lucky enough to work on everything from materials testing, industry engagement and profile design to documentation all in my first year.

– Jesse Ross, Graduate Engineer at AGWA

Leveraging World-Class Expertise

Tolita Davis-Angeles - AFWI Industry Fellow at the AFWI Centre for Sustainable Futures



Tolita is a proud Cobble-Cobble Woman with extensive expertise in the forestry sector. Her work spans the development of First Nations Engagement Frameworks, comparative studies, cultural workshops, educational resources on Forest Learning, and guidance documents for Free, Prior, and Informed Consent.

Within the AFWI Centre for Sustainable Futures, Tolita has recently been appointed as the AFWI Industry Fellow in Healthy and Productive Forests Through Effective Indigenous-Led Partnerships.

I am passionate about empowering First Nations peoples to get back on Country and care for Country. I am excited about the opportunities that this AFWI role will provide for meaningful partnerships that are not only respectful, culturally grounded, and First Nations-led, but also have truly meaningful and purposeful outcomes.

– Tolita Davis-Angeles, AFWI Industry Fellow in Healthy and Productive Forests Through Effective Indigenous-Led Partnerships

Dr Rob Waterworth - Deputy Director of the AFWI Centre for Climate-Smart Forestry



Rob is the Deputy Director of the AFWI Centre for Climate-Smart Forestry and Theme Lead for the Carbon for a Green Economy theme. His work is creating scalable models for carbon sequestration and biomass production, underpinned by policies that encourage landholder participation in carbon markets and green industries.

Rob is an internationally recognised expert in greenhouse gas estimation and the research-policy interface. He is the co-founder of FLINTpro, a SaaS-based system that deploys models, spatial data, and satellite products for carbon accounting, land sector monitoring and management.

What makes me excited about joining the Centre is the capacity to embrace co-design and see if research from the Centre, located here at the University of Melbourne, can be applied in a truly national context

– Dr Rob Waterworth, Deputy Director at AFWI Centre for Climate-Smart Forestry

Leveraging World-Class Expertise

Associate Professor Louise Wallis



Louise is an Associate Professor in the School of Architecture and Design and the Director of the Centre for Sustainable Architecture with Wood (CSAW) at the University of Tasmania. Her research and teaching are entwined across design-build, timber processing and products, education, collaboration, and architectural science.

Louise is a member of the leadership team for the AFWI Centre for Sustainable Resource and Product Solutions, where she contributes her expertise to the theme on Recovering Solid Wood Products and Timber Rich Housing. She is also the Project Leader for AFWI's investments to develop lightweight timber framing (AFWI-0055 and AFWI-6007) and wood-based elemental housing systems (AFWI-6005).



Currently, the construction practices in a deemed-to-satisfy framework aren't tailored for prefabricated elements, which limits speed and efficiency. By removing unnecessary timber elements, such as noggings and ensuring safe work practices that don't add extra material, we can make the process faster.

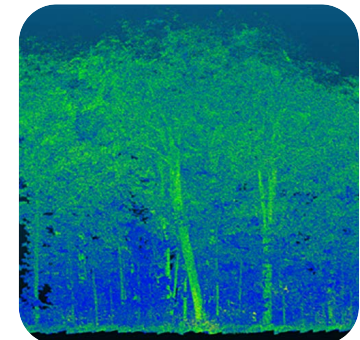
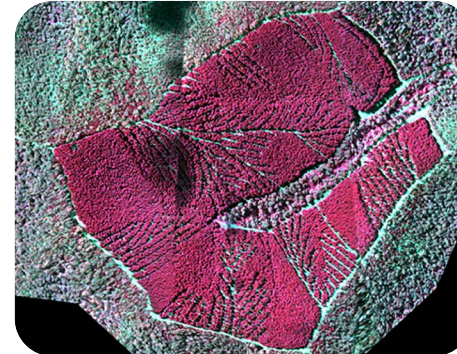
– Louise Wallis speaking on the vision for Future Lightweight Timber Framing

Professor Mark Ducey



Mark is a Professor from the University of New Hampshire with expertise in forest bioinformatics and quantitative silviculture. His research uses quantitative techniques to describe the structure, function, and dynamics of forests from the stand to regional scales. He has previously collaborated with the University of Melbourne to evaluate how global warming reduces the carrying capacity of mountain ash forests in southeastern Australia.

Mark is currently undertaking a sabbatical at the AFWI Centre for Climate-Smart Forestry, where he is contributing to several initiatives including the 'SkyForest' project to monitor Australia's forests from space (AFWI-0003).



Collaborating on R&D Opportunities

AFWI Innovation Workshop: Bioproducts and Value-Added Opportunities from Forest Fibre and Residues

The **inaugural AFWI Innovation Workshop** was held in Melbourne in October 2025. Over 70 participants from industry and research organisations explored the next wave of bioproducts and value-added opportunities from forest fibre and residues. It was delivered in partnership with Monash University, FWPA, AFPA, Forestry Australia, VFPA, Scion, and DAFF.

The workshop was led by Professor John Warner – co-founder of the global Green Chemistry movement. His keynote was followed by breakout group discussions on how to unlock Australia's forest fibre future through innovation.



Trees are the textbook of the future, with massive potential to not only create the next generation of building products but also in bio-packaging, biochar, and pyrolysis, and of course green chemistry.

– Professor John Warner, Warner-Babcock Institute (USA) and Monash University Distinguished Professor of Green Chemistry; US Presidential Award recipient (**AFWI Visiting Fellow, 2025**)



FullCAM: background, design and future opportunities in carbon modelling and measurement

The AFWI Centre for Climate-Smart Forestry hosted a webinar in May 2026 to provide a practical overview of the Full Carbon Accounting Model (FullCAM), delivered by CCSF Deputy Director Rob Waterworth and Geoff Roberts from FLINTpro. Attended by over 140 people, the session covered the history, core design concepts, and use of FullCAM for national greenhouse gas reporting and carbon market methods. A recording is available on the AFWI website.

The webinar was followed by a small group workshop focused on carbon accounting, practical decision-making and future research needs. This moved from knowledge-sharing to co-design, bringing together key stakeholders to explore current challenges, emerging opportunities, and where research can be most useful to industry and government.



Working with FWPA to match industry needs with cutting edge research: Remote Sensing Technical Working Group

Using equipment such as satellites, aircraft, and drones coupled with data analytics and AI, remote sensing is a rapidly advancing field that is transforming the way forests are measured and managed.

Responding to the need for stronger industry coordination among forest growers and researchers, AFWI and FWPA are working closely with FWPA's Remote Sensing Technical Working Group, which is led by Duncan Watt from Forestry Corporation of NSW and Jan Rombouts from OneFortyOne. The group includes representatives from all major forest growers and provides a practical mechanism for industry to guide and contribute to AFWI and FWPA's remote sensing research objectives. This joint effort will help to coordinate activities, avoid duplication, and position projects for translation and adoption of research outputs.

In early 2026, AFWI and FWPA collaborated to deliver a joint workshop focused on remote sensing. More than 35 experts from industry and academia came together to share their expertise, foster collaborations, and explore topics for future research. Outputs from the workshop have been used to develop FWPA's new Resource Information Research Investment Plan which will guide future investments for FWPA and AFWI.

Remote sensing research conducted by the AFWI Centre for Climate-Smart Forestry



Sarah Nolet from Tenacious Ventures facilitating the AFWI/FWPA remote sensing workshop

Engaging with Industry

AFWI Showcase at the 2026 FTMA National Conference & Trade Expo

The **Frame and Truss Manufacturers Association of Australia (FTMA) Conference** held on the Sunshine Coast, Queensland in **May 2026** provided an important opportunity for AFWI to engage directly with industry.

A highlight was the panel discussion featuring AFWI Deputy Director Pat Mitchell, FWPA Head of Built Environment Kevin Peachey, Timber Development Australia CEO Andrew Dunn, and Louise Wallis (UTAS) who leads AFWI's Future Lightweight Timber Framing investments. Hosted by FTMA's Rhianna Robinson, the panel discussion focused on development of the new Lightweight Timber Framing Standard and the goals of the Future Framing Initiative.

FTMA Australia was incredibly encouraged by AFWI's commitment to engaging directly with industry at our National Conference, taking the time to listen to the challenges facing manufacturers and hear firsthand where investment is needed most.

- Kersten Gentle, CEO of FTMA Australia



Over 200 FTMA Conference attendees had the chance to engage with researchers at the AFWI stand, which showcased how eight AFWI projects are delivering impact for FTMA members and the wider industry

Working with AFPA to support the sector

AFWI has maintained a strong relationship with the **Australian Forest Products Association (AFPA)** since its establishment. In 2024, AFWI delivered research strategy workshops in collaboration with AFPA, enabling AFPA members and staff to contribute to the development of AFWI's strategic direction.

Since then, AFWI has participated in a range of AFPA events, including chamber meetings which provide valuable opportunities to share updates on AFWI's activities and engage with stakeholders across industry and government.

AFPA also plays an important role in AFWI's R&D portfolio, including through its investment in **giant pine scale research and representation on the AFWI Research Advisory Committee (RAC)**.

AFWI looks forward to continuing its collaboration with AFPA to support innovation, capability and growth across Australia's forest and wood products sector.



L-R: Jake Lazarus, GM of Southern Cross Forests, Sarah-Jane McCormack, DAFF First Assistant Secretary, and Dr Joseph Lawrence, AFWI CEO at the June 2025 AFPA Members event in Canberra



Vince Hurley, MD of Australian Sustainable Hardwoods (ASH), Dr Joseph Lawrence (AFWI CEO), and Hon. Colin Brooks MP, Victorian Government Minister for Industry and Advanced Manufacturing at a VFPA event in Melbourne (July 2025)

Forestry Australia Conference 2025: Path to 2035 – How might we enable transformation in the Australian forest sector?

AFWI CEO Dr Joseph Lawrence chaired an **AFWI plenary session at the 2025 Forestry Australia Conference** in Adelaide, October 2025 with over 400 attendees. The session featured Professor John Warner (Warner-Babcock Institute, USA) on green chemistry and forest bioproduct innovation, Tim Woods (IndustryEdge) on global markets and resources for Australia's future housing demand, Andrew Morgan (SFM) on the future of carbon and investment in forest management, and Nicola Pero (Iberdrola Australia) on how social licence can enable innovation.



The Precinct and WTIBeam featured on EPIC Builds

EPIC Builds is a documentary series showcasing Australian innovation in prefabrication and modular construction. Hosted by **Adam Spencer**, the series explores how advanced design, engineering and off-site manufacturing are transforming the way buildings are delivered.

AFWI introduced the EPIC Builds opportunity to the timber fibre sector, including FWPA, and helped activate the industry's involvement in the series. **Episode 6** features the innovative approach developed by **WTIBeam** to transform plantation blue gum into a high-performance engineered glulam product. WTIBeam's products are expected to play an important role in **The Precinct's end-to-end plantation-to-prefabrication model**, demonstrating the potential to connect Australian-grown timber, advanced manufacturing and MMC.

EPIC Builds (epicbuilds.tv) can be viewed on YouTube, 9HD and 9NOW.



AFWI

Australian Forest and Wood Innovations



Appendices

Appendix 1: Active Projects - National Open Call Round 1

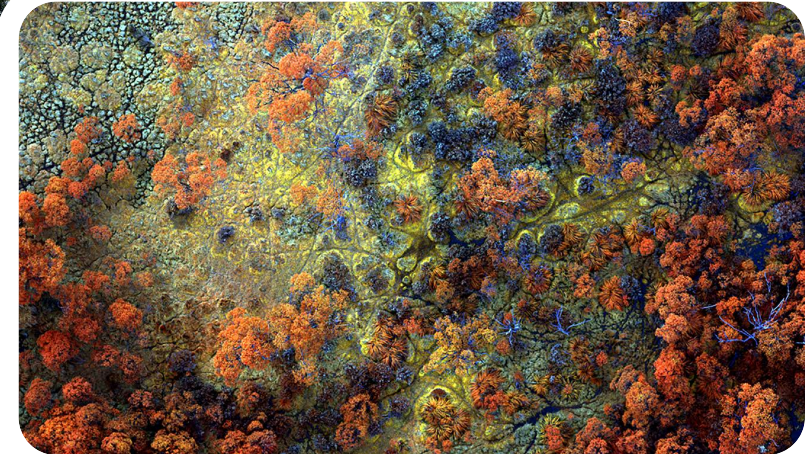
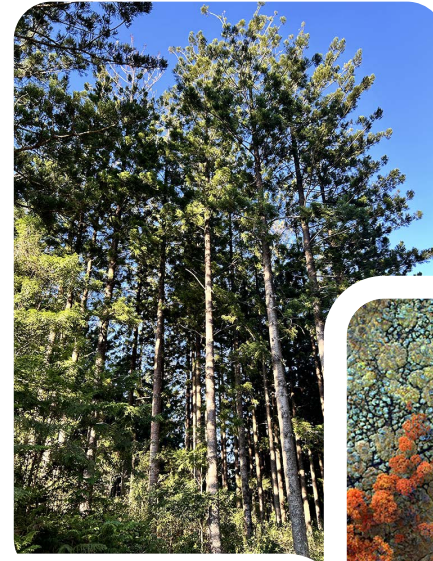
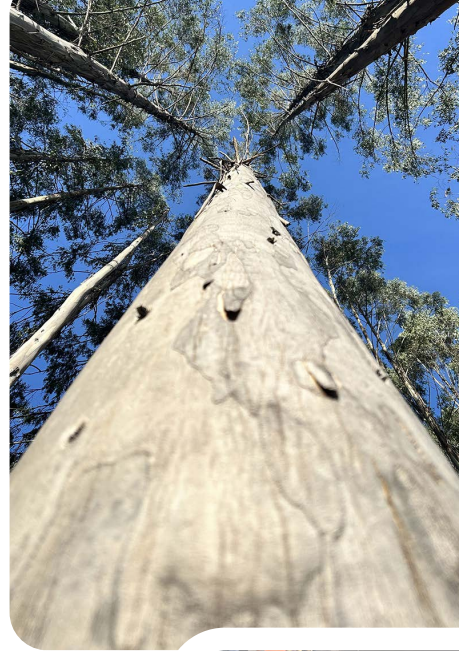
Appendix 2: Active Projects - National Open Call Round 2

Appendix 3: Active Projects - AFWI Centre for Climate-Smart Forestry (University of Melbourne)

Appendix 4: Active Projects - AFWI Centre for Sustainable Futures (part 1) (University of the Sunshine Coast)

Appendix 5: Active Projects - AFWI Centre for Sustainable Futures (part 2)

Appendix 6: Active Projects - AFWI Centre for Sustainable Resource and Product Solutions (University of Tasmania)



Appendix 1: Active Projects - National Open Call Round 1

Project ID	Project Title	Lead Organisation	Innovation Pillar	AFWI Funding	Total Project Value	Project Timing	Short Project Summary
AFWI-0014	Evaluation of suitable timber species for Australian sports flooring systems	Australian Timber Flooring Association	Housing Innovation	\$424,291	\$988,326	[Dec 2024 – Jul 2027]	This project evaluates Australian timber species for use in high-impact, high-traffic sports flooring, where no national classification currently exists. It will test material properties and full-scale floor performance using methods aligned with international standards such as FIBA. The results will generate comparable performance data and inform new industry guidelines. Outcomes will create new market opportunities for Australian timber producers.
AFWI-0019	Modernising Australian timber windows: addressing regulatory challenges, resource and material shifts	Timber Development Association	Housing Innovation	\$296,665	\$628,284	[Dec 2024 – Sep 2026]	This project addresses outdated Australian timber window standards that limit compliance with modern wind, water, and energy-efficiency requirements. It will develop new generic window system designs and validation procedures adaptable to different timber species and engineered wood products. The work responds to changing resource availability and regulatory pressures. Outcomes will help the industry remain compliant, competitive, and innovative.
AFWI-0020	Odour misinformation: a new way to reduce vertebrate pest damage to plantation seedlings	University of Sydney	Healthier Forests	\$737,546	\$1,909,485	[Feb 2025 – Mar 2027]	This project develops and field-tests a novel, non-lethal approach to reduce herbivore damage to plantation seedlings using engineered odour cues. Artificial odours will either deter animals or mask the scent of seedlings before browsing occurs. This reduces seedling losses and replanting costs. The outcome is a scalable and economically viable pest management option for plantation forestry.
AFWI-0031	Long-term creep behaviour of Australian structural glulam	TPC Solutions (Aust) Pty Ltd	Housing Innovation	\$310,200	\$647,345	[Mar 2025 – May 2028]	This project will determine long-term creep deformation factors for Australian-manufactured glulam beams. Current design standards rely on solid timber data and may overestimate glulam creep behaviour. Testing both softwood and hardwood glulam could justify lower creep factors and improved design efficiency. Outcomes will strengthen glulam competitiveness and expand its structural applications.
AFWI-0047	Developing more productive plantation trees better adapted to changing environments	Forest and Wood Products Australia	Healthier Forests	\$718,670	\$2,070,889	[Apr 2025 – Nov 2027]	This project expands genetic testing of plantation tree species to better match trees to future climate conditions. New trials across challenging environments will improve understanding of genotype–environment interactions. Genetic, phenotypic, and DNA data will be integrated to identify climate-resilient planting material. Outcomes will help growers reduce climate risk and improve long-term plantation resilience.
AFWI-0048	Enhancing fire resilience in Australian plantations	Forest and Wood Products Australia	Healthier Forests	\$830,790	\$1,701,698	[Jan 2026 – Sep 2028]	This project addresses rising bushfire risk to Australian plantations under climate change. It will improve understanding of plantation fire behaviour, refine fire danger models, and assess the effectiveness of fuel management and suppression strategies. The research will deliver actionable data, modelling tools, and cost–benefit analyses to guide grower decisions. Outcomes will strengthen plantation resilience, wood supply security, and protection of surrounding communities.
AFWI-0053	Delivering fauna trends in forestry landscapes using sensors and AI	Charles Sturt University	Climate Solutions	\$752,000	\$2,351,305	[Jun 2025 – Dec 2028]	This project replaces infrequent manual wildlife surveys with automated fauna monitoring using acoustic sensors and AI. Continuous recordings will track species presence, trends, and responses to forest management across landscapes. The work will deliver validated datasets, trend analyses, and market-ready automated survey tools. Outputs will support biodiversity monitoring, ESG reporting, and best-practice forest management.
AFWI-0055	Future lightweight timber framing: productivity (Part 1)	University of Tasmania	Housing Innovation	\$925,000	\$2,035,113	[Jan 2025 – Apr 2027]	This multi-institutional research program targets productivity improvements in Australia's lightweight timber framing sector. It will modernise outdated design rules, construction practices, and deemed-to-satisfy standards to reflect contemporary housing, materials, and off-site manufacturing methods. Research focuses on framing efficiency, composite walls and floors, and safer construction practices. Outcomes are critical to improving competitiveness, sustainability, and sector capacity.

Appendix 2: Active Projects - National Open Call Round 2

Project ID	Project Title	Lead Organisation	Innovation Pillar	AFWI Funding	Total Project Value	Project Timing	Short Project Summary
AFWI-0016	Bundjalung cultural timber project	Jagun Alliance Aboriginal Corporation	Climate Solutions	\$340,000	\$1,034,301	[Jan 2026 – Dec 2026]	This Indigenous-led project reclaims high-value native timber from flood-damaged homes as a cultural and economic asset. Salvageable timbers will be assessed, stored in a community-governed Timber Bank, scientifically verified, and reused in construction and restoration. The project embeds Indigenous knowledge into technical protocols and market pathways. Outcomes include Indigenous employment, new ethical timber markets, and a replicable circular-economy model.
AFWI-0018	Automated design for prefabrication in timber construction	Swinburne University of Technology	Housing Innovation	\$449,993	\$1,100,759	[Dec 2025 – Jan 2029]	This project supports wider adoption of prefabricated timber systems for mid-rise buildings through automated design approaches. It focuses on optimising timber-frame floor cassette connections using experimental and numerical analysis. Harmonised design guidelines and tools will support standardisation and automation. Outcomes include improved productivity, safer construction, and increased use of low-carbon timber materials.
AFWI-0024	Developing genomic infrastructure for Australian forest tree breeding and research applications	Tree Breeding Australia Limited	Healthier Forests	\$500,000	\$1,024,228	[Jan 2026 – Jun 2027]	This project advances genomics from proof-of-concept to operational use in Australian forest tree breeding. It will resolve key uncertainties and guide development of a multi-species SNP genotyping platform. Research focuses on improving prediction accuracy, pedigree reconstruction, and identity assurance. Outcomes will accelerate genetic gain and improve long-term plantation productivity.
AFWI-0025	Advanced manufacturing innovation strategy and feasibility to catalyse large-scale prefabricated dwelling adoption	IndustryEdge Pty Ltd	Housing Innovation	\$1,700,000	\$6,209,000	[Dec 2025 – Sep 2027]	This project assesses the feasibility of integrated domestic manufacturing of engineered wood products to enable prefabricated housing. It focuses on building investment-ready cases for LVL and GLT manufacturing linked to regional processing hubs. The work supports reduced reliance on imports, better use of local fibre, and circular-economy outcomes. Outputs will inform industry investment and advanced manufacturing strategies.
AFWI-0021	Activated carbon, biochar and beyond: valorisation pathways for hardwood forest waste	Monash University	Maximising Fibre	\$850,000	\$2,030,957	[Dec 2025 – Nov 2028]	This project develops new value streams from hardwood processing waste through waste-to-value technologies. It focuses on producing activated carbon, biochar, and lignin-based products using scalable low-temperature processes. Applications include water treatment, agriculture, packaging, and pollution control. The approach reduces waste, transport costs, and supply-chain risk.
AFWI-0022	Developing a sustainable, long-term management program for giant pine scale in Australia	Victorian Government Department of Energy Environment and Climate Action (DEECA; Agriculture Victoria)	Healthier Forests	\$1,100,000	\$2,458,812	[Jan 2026 – Nov 2029]	This project advances biological control strategies to manage giant pine scale in Australian plantations. It evaluates multiple predator species, maps current infestations, and identifies priority release sites using remote sensing. The research will underpin an industry-ready national management program. Outcomes will help protect plantation productivity under increasing climate stress.

Appendix 3: Active Projects - AFWI Centre for Climate-Smart Forestry

Project ID	Project Title	Lead Organisation	Innovation Pillar	AFWI Funding	Total Project Value	Project Timing	Short Project Summary
AFWI-0001	Assessing the integrated forestry at medium scales model as a template for increasing Australia's wood supply and natural capital in agricultural landscapes	University of Melbourne	Maximising Fibre	\$333,251	\$669,635	[Jun 2025 – Feb 2027]	This project investigates integrated intermediate-scale forestry as a viable alternative to large-scale plantations and small-scale farm forestry. Using case studies from Gippsland, Victoria, it will assess financial viability, carbon performance, and biodiversity outcomes of locally integrated plantation and processing systems. The research aims to determine whether this model can deliver sustainable wood supply, community benefits, and increased natural capital in agricultural landscapes.
AFWI-0002	A feasibility assessment framework for regional investment in integrated medium-scale production and processing of native hardwood timber	University of Melbourne	Maximising Fibre	\$380,880	\$762,578	[Jun 2025 – Feb 2027]	This project develops a feasibility framework to guide regional investment in integrated medium-scale forestry and processing, addressing declining support for native forest harvesting, large plantations, and unreliable farm forestry supply. Using Gippsland, Victoria as a case study, the framework will be co-developed with industry and government and tested against factors such as resource availability, community support, and value-adding potential. The resulting tool will support more effective public and private investment in local forest growing and processing across regional Australia.
AFWI-0003	An open data platform to monitor Australia's forests from space	University of Melbourne	Healthier Forests	\$497,693	\$862,461	[Jul 2025 – Mar 2027]	This project will prototype a transparent, auditable forest data platform capable of meeting the economic, environmental, and social demands of sustainable forest management. Using high-resolution Earth observation data, forest inventory information, and machine-learning algorithms, it will generate a wall-to-wall assessment of forest structure, condition, and carbon stocks. New South Wales will be used as a case study to train and verify the approach, leveraging detailed government EO and inventory datasets. The project will provide insights into climate-related impacts such as fire and drought and establish a scalable template for a future national forest observation system.
AFWI-0008	Risk models for pine pests under future climates using empirical data	NSW Government Department of Primary Industries and Regional Development	Healthier Forests	\$152,000	\$254,500	[Jan 2026 – Jun 2027]	This project develops climate-driven risk models for major pine pests and diseases using long-term surveillance data. Regional and temporal models will support annual decision-making for pest management and plantation planning. Outputs will help growers prioritise interventions and reduce future losses. The work supports climate adaptation across the sector.
AFWI-0009	Productive and climate resilient Eucalypt germplasm for Indigenous forestry in northern Australia	Tiwi Plantations Corporation	Healthier Forests	\$731,335	\$1,652,242	[Nov 2025 – May 2029]	This project establishes climate-resilient breeding programs for <i>Eucalyptus pellita</i> in Northern Australia. It integrates genomics, international datasets, and performance testing to develop high-value plantation resources. Outcomes include improved productivity, strengthened Indigenous-led forestry enterprises, and new timber markets. The project positions Australia as a leader in climate-adaptive tropical forestry.
AFWI-2000	Testing novel forestry practices to achieve multiple values in Otways lowland forests	University of Melbourne	Healthier Forests	\$643,632	\$1,343,140	[Jan 2026 – Jun 2030]	This applied research evaluates ecological thinning and planned burning as tools for managing public forests following the native logging transition. Using a replicated field experiment, it assesses impacts on biodiversity, fire risk, ecosystem resilience, and cultural values. Indigenous-led knowledge informs project design and interpretation. Outcomes will guide evidence-based forest policy and management.
AFWI-2002	Strength from Country: developing bio-based adhesives through Indigenous knowledge and forest resources	University of Melbourne	Maximising Fibre	\$192,586	\$325,002	[May 2026 – May 2027]	This project develops tannin-based bio-adhesives from <i>Acacia mangium</i> using Indigenous knowledge and partnerships. It aims to replace petroleum-based adhesives used in engineered wood products with renewable alternatives. The work supports Indigenous economic development and sustainable materials innovation. It also provides a replicable model for ethical research-industry collaboration.

Appendix 4: Active Projects - AFWI Centre for Sustainable Futures (part 1)

Project ID	Project Title	Lead Organisation	Innovation Pillar	AFWI Funding	Total Project Value	Project Timing	Short Project Summary
AFWI-0004	Tiwi Islands community forestry pilot: demonstrating sustainable native forestry business opportunities for remote Indigenous communities	University of the Sunshine Coast	Maximising Fibre	\$500,000	\$1,831,979	[Jun 2025 – May 2027]	This project supports Indigenous-led, sustainable forestry on the Tiwi Islands by combining commercial timber production, ecosystem restoration, and community economic development. It builds on Tiwi Plantations Corporation's transition to higher-value forestry while piloting community-based use of <i>Acacia magnium</i> wildlings and other native hardwood species for local milling, manufacturing, and construction of community infrastructure. Integrating Traditional Owner knowledge with trial harvesting, processing, and culturally responsive training, the project aims to demonstrate a scalable model for Indigenous community forestry applicable across other parts of Australia.
AFWI-0005	Sustaining Sirex woodwasp management in the post-Lineage D era	University of the Sunshine Coast	Healthier Forests	\$60,000	\$139,500	[Jun 2025 – Sep 2026]	This project examines the effectiveness of biocontrol strategies used to manage Sirex woodwasp, a major pest of Australian pine plantations. Following the discovery of a previously unrecognised, dominant parasitic nematode strain that may be undermining costly inoculation programs, the research will analyse how nematode strains and biocontrol wasps interact with Sirex populations across different environments and management conditions. The project will provide clear, evidence-based recommendations for more effective, sustainable, and cost-efficient Sirex management.
AFWI-0010	Fibre to fuels: linking Australia's sustainable forestry and renewable energy sectors	HAMR Energy	Maximising Fibre	\$1,086,635	\$2,138,270	[Jan 2026 – Aug 2027]	This proof-of-concept project explores converting forestry residues into low-carbon biofuels using entrained-flow gasification. It will validate residue collection methods, characterise feedstocks, and model carbon intensity across the supply chain. The work supports investment-ready outcomes for large-scale renewable fuel manufacturing, including the proposed Portland Renewable Fuels Project. Findings will be applicable nationally across future biofuel initiatives.
AFWI-0012	Bio-based construction systems for small-footprint dwellings and multifunctional outbuildings	University of Queensland	Housing Innovation	\$1,300,000	\$3,387,508	[Jan 2026 – Jan 2030]	This project develops two low-cost prefabricated building systems using under-utilised forestry materials. These include roundwood framing and bio-based sandwich panels for small dwellings and multifunctional outbuildings. The research maps regulatory pathways for different building classes and assembly approaches. Adoption could drive new fibre demand while supporting housing affordability and regional industries.
AFWI-0013	Mapping silvopastoral supply chains in Australia: Identifying opportunities, barriers and future research	Central Queensland University	Maximising Fibre	\$200,050	\$420,050	[Jan 2026 – Dec 2026]	This project maps supply chains for integrating trees into livestock grazing systems to improve productivity, resilience, and carbon outcomes. Through regional case studies, it will identify commercially viable pathways, infrastructure needs, and governance barriers. Stakeholder engagement will inform a practical supply-chain mapping tool. Outcomes will support domestic wood supply expansion and climate-resilient farming systems.
AFWI-0023	SilvaNaut: incorporating autonomous operation into Australian forest machinery - robotic weed control conditions	Native Conifer Carbon Sink Pty Ltd	Healthier Forests	\$1,500,000	\$2,369,500	[Jan 2026 – Nov 2027]	This project retrofits forestry machinery with autonomous navigation to enable precise, hands-free operation in plantations. Using GNSS, LiDAR, and AI-based obstacle detection, the system supports automated silvicultural tasks such as weed control. Field trials will assess performance, safety, and labour savings. Outcomes will enable scalable automation and improved productivity under labour-constrained conditions.

Appendix 5: Active Projects - AFWI Centre for Sustainable Futures (part 2)

Project ID	Project Title	Lead Organisation	Innovation Pillar	AFWI Funding	Total Project Value	Project Timing	Short Project Summary
AFWI-0026	Protecting salvage logs, standing trees and log stacks from Ips bark beetles	University of the Sunshine Coast	Healthier Forests	\$292,903	\$585,277	[Nov 2025 – Nov 2027]	This project develops targeted strategies to reduce damage from Ips bark beetles during stress events and salvage operations. It evaluates pheromone-based push-pull systems and insecticide-treated netting as alternatives to broadscale spraying. The research will define how long timber requires protection following disturbance. Outcomes will improve timber recovery, market access, and plantation resilience.
AFWI-4011	Innovative bio-processing for treated timber waste: advancing the timber industry circular bioeconomy	Queensland Government Department of Primary Industries	Climate Solutions	\$562,472	\$1,286,922	[Apr 2026 – Nov 2029]	This project develops decentralised solutions to convert treated timber waste into engineered soil improvers. It explores microbial processing of treated timber and engineered wood products to avoid landfill disposal. The approach reduces transport costs and waste management burdens. Outcomes support circular bioeconomy and agricultural productivity benefits.
AFWI-4005	Biofuel, the conduit to rehabilitate degraded private native forests of southern Queensland	Private Forestry Service Queensland	Healthier Forests	\$1,451,970	\$2,958,517	[Jul 2026 – Jun 2029]	This project links emerging biofuel markets with rehabilitation of degraded private native forests in southern Queensland. It develops accredited supply chains, innovative harvesting systems, and evaluates impacts at commercial scale. The research quantifies economic, ecological, and social outcomes of reset silviculture. Results will inform industry development and policy reform.
AFWI-4009	Darwin stringybark plantation forestry on bauxite mine rehabilitation in northern Australia	University of the Sunshine Coast	Healthier Forests	\$1,473,064	\$4,019,018	[Jul 2026 – May 2030]	This project evaluates Darwin stringybark as a plantation species on rehabilitated bauxite mines in Northern Australia. It tests soil regeneration strategies, species mixes, and economic performance in partnership with Indigenous mine owners. The research will produce best-practice establishment guidelines. Outcomes support plantation expansion, mine-closure reform, and Indigenous livelihoods.
AFWI-4010	Timber-led decarbonisation of Australian housing: evidence and industry translation	University of the Sunshine Coast	Climate Solutions	\$757,267	\$1,928,994	[Mar 2026 – Mar 2029]	This project builds a national evidence base to quantify timber's role in reducing embodied carbon in housing. It integrates product-level timber data into a large-scale housing emissions dataset and delivers an online decision-support tool. The platform aligns with ESG, Green Star, and regulatory reporting frameworks. Outcomes strengthen timber's position in Australia's net-zero housing transition.
AFWI-0011	Predicting structural wood content in softwood plantations, to inform grower-processor wood flow	University of the Sunshine Coast	Maximising Fibre	\$2,132,000	\$4,189,147	[Jan 2026 – Jan 2030]	This project will investigate how forest management, genetics, and environment influence wood quality, using advanced tools such as resistance drilling and AI to assess whole-tree properties beyond traditional lower-stem measurements. It will also trial log-tracking systems through mills to improve decision-making and value across the supply chain. The project involves over 65% of the Australian softwood industry, including most major growers and processors.

Appendix 6: Active Projects - AFWI Centre for Sustainable Resource and Product Solutions

Project ID	Project Title	Lead Organisation	Innovation Pillar	AFWI Funding	Total Project Value	Project Timing	Short Project Summary
AFWI-0006	Supporting industry resilience in the transition to increased reliance on a plantation hardwood resource	University of Tasmania	Maximising Fibre	\$665,000	\$1,216,500	[Jun 2025 – Jan 2027]	This project supports the transition of Australia's hardwood industry—initially in Tasmania—toward plantation and regenerated hardwood by building confidence in new solid-wood products and markets. It develops and characterises construction-grade products from plantation hardwoods and silviculturally regenerated native forests, identifying market opportunities and validating product performance in collaboration with most of Tasmania's hardwood sector. Outcomes will strengthen producer and investor confidence by clarifying resource availability, product characteristics, and processor requirements.
AFWI-0007	Laying the foundations for a new forest-based biomass industry in Western Australia	Murdoch University	Maximising Fibre	\$625,211	\$1,299,049	[Dec 2025 – Jan 2027]	This project investigates the potential to develop new forest-based industries in low- to medium-rainfall agricultural regions using existing agroforestry plantings. It will assess the scale, economic viability, and supply-chain requirements for producing timber, biomass, renewable fuels, carbon, and biodiversity outcomes, while addressing logistical and adoption barriers. The project will inform scalable, regionally driven bioeconomy models and provide evidence to support significant future investment and rural economic development across southern Australia.
AFWI-0015	Sustainable management of plantation forest pests under changing climates - Part 1	Adelaide University	Healthier Forests	\$599,241	\$1,078,700	[Dec 2025 – May 2028]	This project delivers decision-support tools to manage pests and diseases in hardwood plantations under climate change. It integrates growth modelling, surveillance data, and bioeconomic analysis into a dynamic dashboard. Initial focus is on high-impact agents such as autumn gum moth and Teratosphaeria leaf disease. Outputs will support both strategic investment and timely operational decisions.
AFWI-6004	Future-proofing Australia's forests: seed source choice for resilience under climate change	University of Tasmania	Healthier Forests	\$999,712	\$2,389,192	[May 2026 – May 2030]	This project delivers an evidence-based framework for climate-ready seed sourcing to improve long-term forest resilience. It combines genomics, digital tools, and field validation to assess maladaptation risks. Practical deployment and risk-assessment tools will be co-developed with industry. Outcomes support productivity, biodiversity, and climate adaptation goals.
AFWI-6005	Wood-based elemental housing system	University of Tasmania	Housing Innovation	\$1,080,000	\$2,641,553	[Jul 2026 – Jun 2030]	This project develops a prefabricated housing system using predominantly Australian wood-based materials. It targets rapid onsite assembly, high thermal performance, and low embodied carbon for Class 1 buildings. Research aligns product design, manufacturing capacity, and regulatory requirements. Outcomes support affordable housing delivery and large-scale prefabrication.
AFWI-6007	Future lightweight timber framing - Part 2	University of Tasmania	Housing Innovation	\$762,000	\$1,633,115	[Aug 2026 – Nov 2028]	This project advances design standards and compliance pathways for lightweight timber framing up to 15 metres in height. It addresses technical gaps in fasteners, connectors, energy efficiency, and resource optimisation. Findings will inform standards amendments and NCC-compliant design details. Outcomes strengthen productivity, carbon performance, and industry uptake.



Australian Forest and Wood Innovations

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