





# Our focus . . .

To benefit the advancement of education, research and development in the forestry and wood industry sectors through the provision of grants and scholarships to New Zealand students, businesses and learning institutions.



### What we do . . . .

- support students undertaking career-related studies in the wood and forest industry sectors in New Zealand
- and businesses and learning institutions involved in research, development and the advancement of forestry and wood science

WIDE Trust invests about \$0.75m per annum (in perpetuity)

WIDE Trust has invested \$6.6m to date





www.widetrust.org.nz

# Examples of investments to date

Forestry \$3.7m		Wood Processing \$2.9m	
Senior Lecturer Forest and Wood Engineering	\$0.35m	Senior Lecturer Wood Processing	\$0.84m
Under Graduate Scholarships	\$1.5m	Timber Engineering Research Projects, Equipment and Awards	\$0.94m
Post Graduate Scholarships and Post Doctoral Appointments in Geospatial Technologies and Biosecurity	\$0.9m	PhD Scholarship	\$0.125m
School Engagement Programmes	\$0.9m		







#### **ENGINEERING**

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING



Grant: \$350,000

- To support the appointment of a senior lecturer in Forest and Wood Engineering
- Forest engineering education in the Central North Island area is currently not wellserved
- UoW will create a new undergraduate Forest Engineering theme as a pathway through its existing Mechanical and Civil BE programmes
- Comprising three forestry industry and research informed papers, forestry related 4th year capstone project and work placements in the forestry industry
- Students choosing the Forest Engineering theme will be offered an endorsement to their degree, i.e. a BE(Hons) in Mechanical Engineering or Civil Engineering with an Endorsement in Forest Engineering

# More examples of funded initiatives

Forestry	Wood Processing	
NZ Certificate in Forestry Operations (Ladd Forestry)	Timber Design Awards	
NZ Diploma in Forestry Management (Toi Ohomoi)	Innovatek Events for young innovators	
Apprentice Training	Apprentice Training	
Innovatek Events support for young innovators	CNC Machine (UofA)	
Best Practice Study Tour	Timber Technology Thesis Projects and Awards	
Industry Conferences	Teachings to promote wood and wood structures (UofA)	
	Industry Conferences	



## Priorities for the year ahead

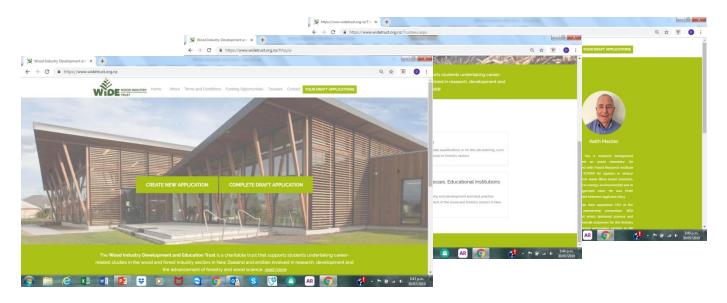
- Initiatives at the VOCATIONAL level!
- Work with industry to identify their training and education priorities
- More work to raise awareness of the WIDE Trust







# How to Apply . . .





# University of Canterbury School of Forestry

- Wood Processing Education
  - Woodworking workshop
  - Teaching laboratory
  - ▶ New course development: FORE 437 Advanced Wood Products
  - ► Innovative Wood Product Competition
  - ▶ New programme development: Master of Wood Processing
- ► Timber Engineering Research
  - ► Postgraduate (PhD) research projects
  - Industry research projects



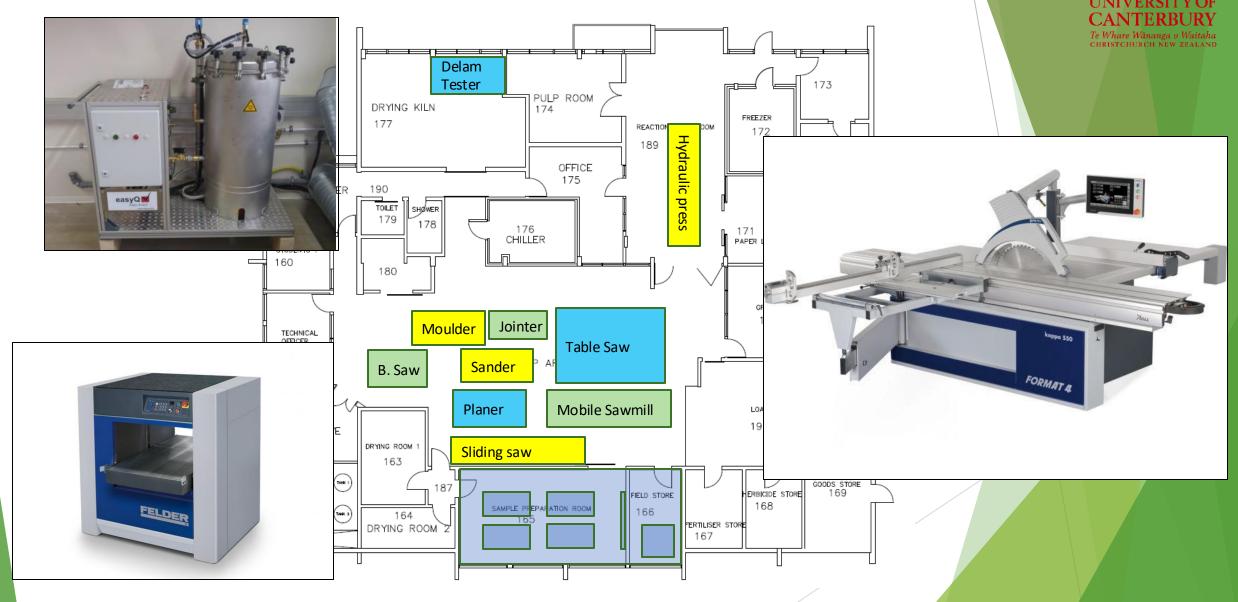
# Woodworking workshop





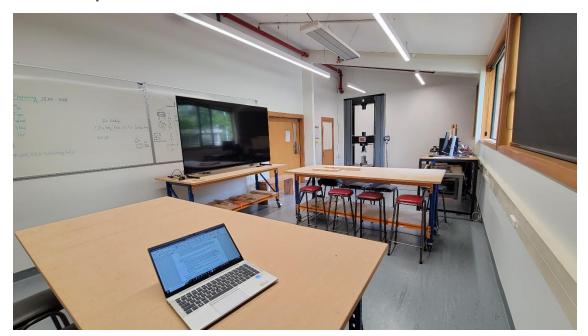


# Woodworking workshop



## Teaching laboratory

- ► WIDE Trust co-funded the Ministry of Primary Industries Industry Transformation Plan Investment (MPI ITP)
- universal testing machine (300kN), workbenches, whiteboards, and a TV
- designed to train undergraduate and graduate students in evaluating the material properties of structural timber products







### FORE 437 Advanced Wood Products

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha CHRISTCHURGH NEW ZEALAND

- ► This course connects the fundamental wood science concepts to primary and secondary wood processing. Specifically, the course provides students with advanced knowledge in the processing of solid wood, wood-based composite, and modified wood products from the theoretical and practical aspects, highlighting product evaluation, manufacturing technology, and environmental impacts.
- Enrolment number

2022	2023	2024	2025
10	22	14	28

- ► Laboratory sessions
  - Visual and stress grading
  - Wood composite manufacturing
  - Bonding performance
- ► Term project: structural wood product development
  - Innovative Wood Product Competition

'Reimagine the boundaries of structural timber products...'





### INNOVATIVE WOOD PRODUCT COMPETITION



The University of Canterbury School of Forestry (SoF) is hosting the Innovative Wood Product

Competition, sponsored by the Wood Industry Development and Education (WIDE) Trust, for the 2024

academic year. The event encourages eligible undergraduate students to reimagine the boundaries of

structural timber products through innovation using traditional wood materials.

#### Invitees:

SoF students (undergraduate and graduate), SoF staff, forest industry representative, and invited judges

#### Date: May 31st, 2024

Display: 1-2 PM School of Forestry Common Room (with nibble) Presentation: 2-5 PM School of Forestry F1 Lecture Theatre

#### Sponsors:

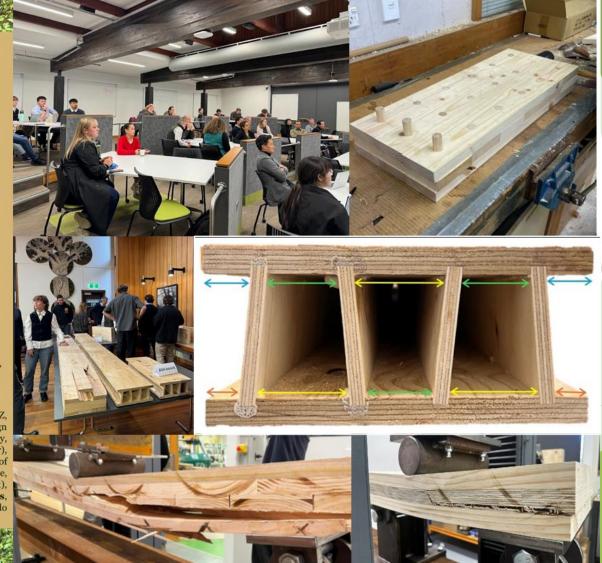






John Fairweather Specialty Timber Solutions

Judge panel: Andrew Foster (Henkel New Zealand Ltd, Sales Engineer), Angela Liu (BRANZ, Senior Structural Research Engineer), Emma O'Neil (PTL | Structural & Fire / Timber Design Society, Structural Engineer), Gert Hendriks (University of Canterbury School of Forestry, Technical Staff), John Fairweather (John Fairweather Specialty Timber Solutions Ltd, Owner), John McVicar (McVicar Timber Group Ltd., Managing Director), Julie Cool (University of British Columbia Department of Wood Science, Associate Professor), Kai Kruse (Nelson Pine, Chief Operating Officer), Milad Lezgi (University of Canterbury School of Forestry, PhD Student), Monika Sharma (University of Canterbury School of Forestry, Technical Staff), Paul Adams, (Forest Growers Research Limited, Research and Development Director) Shiling Pei (Colorado School of Mines Civil and Environmental Engineering, Associate Professor)



'Reimagine the boundaries of structural timber products...'





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academic year. The event encourages eligible undergraduate students to reimagine the boundaries of

structural timber products through innovation using traditional wood materials.





#### Invitees:

SoF students (undergraduate and graduate), SoF staff, industry representatives, and invited judges

#### Date: May 30th, 2025

Display: 12-1 PM School of Forestry Common Room (Lunch) Presentation: 1-5 PM School of Forestry F1 Lecture Theatre

#### Sponsors:





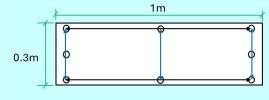


Judge panel: Andrew Foster (Henkel New Zealand Ltd, Sales Engineer), Angela Liu (BRANZ, Senior Structural Research Engineer), Catalina Miranda (Massey University, Lecturer), Chris Baylis (MPI Te Uru Rakau, Sector Strategy Manager), Emma O'Neil (PTL | Structural & Fire / Timber Design Society, Structural Engineer), Mark Ross (Wood Processors & Manufacturers Association, Chief Executive), Meike Holzenkaempfer (University of Canterbury School of Forestry, Senior Technician), Industry representatives: Andy Buchanan (PTL | Structural & Fire, Principal) Chris Park (Park Builders Ltd, Director), John Fairweather (John Fairweather Specialty Timber Solutions Ltd, Owner)









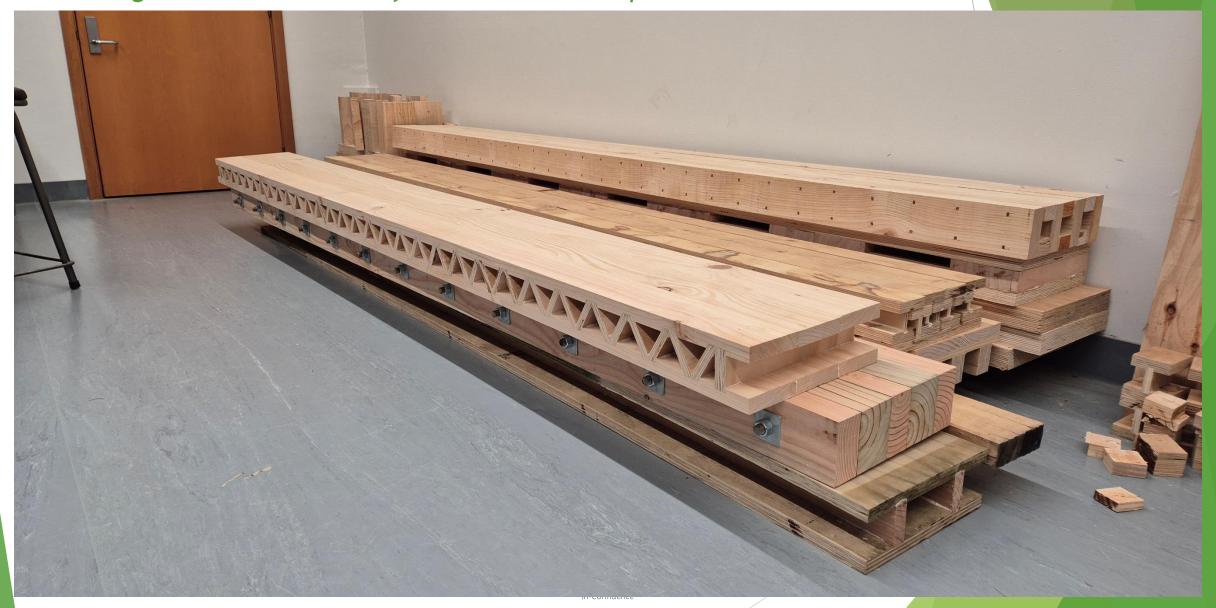
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'Reimagine the boundaries of structural timber products...'



'Reimagine the boundaries of structural timber products...'



Team Truss Re-Beam Eureka I-Lam







H-beam Triple T Nailed It

'Reimagine the boundaries of structural timber products...'



Team Truss Re-Beam Eureka I-Lam







H-beam Triple T Nailed It

### Master of Wood Processing

- MPI Te Uru Rākau agreed to support UC School of Forestry to establish New Zealand's first post-graduate qualification in wood processing through ITP investment
  - WIDE Trust co-funded this initiative
- Progress
  - New qualification and course proposals completed in consultation with the University of British Columbia (Canada)
  - ► Market survey (UC Marketing team & Research First)
    - ► "Students studying Civil Engineering felt there was an opportunity, within the wood processing industry, for technical experts in using wood in structures -as the industry looks to increase the use of wood."
  - New qualification proposal submission for a Committee on University Academic Programmes (CUAP) round is on hold due to the following reasons:
    - ▶ Without MPI's funding being secured, the proposed new staff recruitments or teaching outsourcing cannot be justified
    - The programme's sustainability after the funding period is questionable based on the market survey





# Postgraduate (PhD) research projects

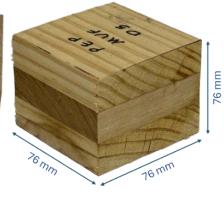
- Development of mixed-species cross-laminated timber
  - ▶ Utilisation of alternative species (*E. bosistoana*) with superior mechanical properties to improve Radiata pine CLT and develop a market for the alternative species

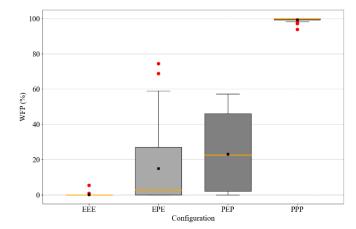


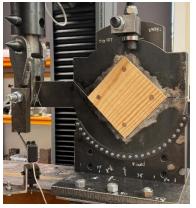












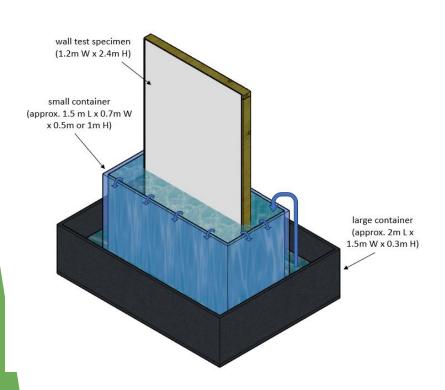






# Postgraduate (PhD) research projects

- ► Flood Resilience of Light Timber Frame Wall Envelope System
  - ► Evaluation of the structural performance of light timber-frame (LTF) bracing walls affected by floods
  - ► WIDE Trust is co-funding this project with BRANZ







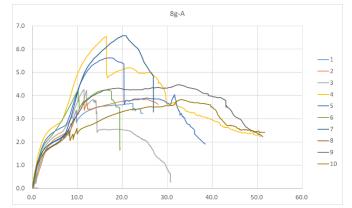


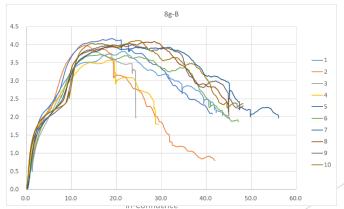
### Industry research projects

- Off-the-shelf wood screw connection performance
  - ► Collaborator: Daniel Moroder (Technical Director, PTL Structural & Fire), Andy Buchanan (Principal, PTL Structural & Fire)
  - Assess whether the performance of commonly available off-the-shelf screws aligns with the assumptions in the standard

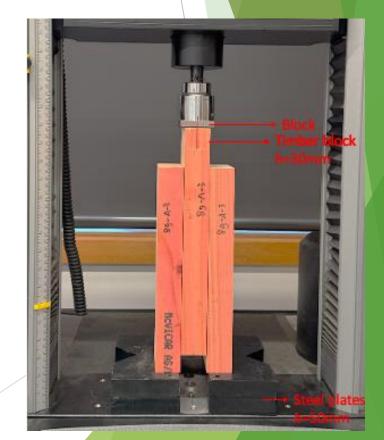






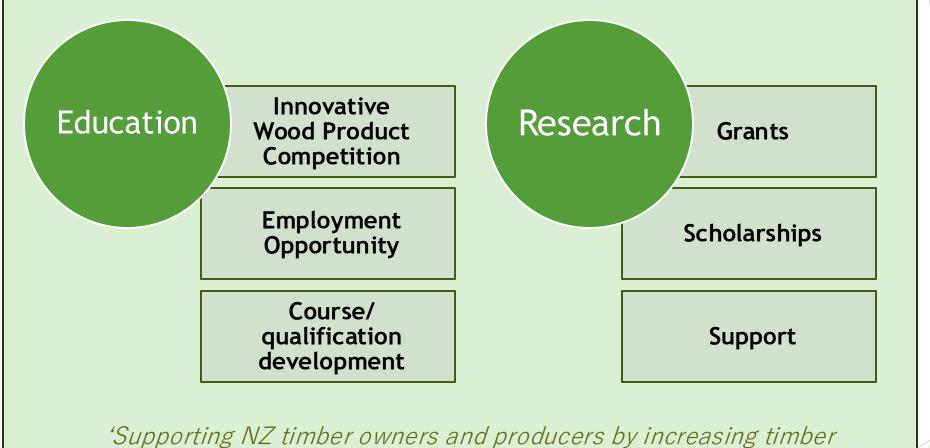






### Work with UC SoF and WIDE Trust





'Supporting NZ timber owners and producers by increasing timber utilisation and developing a high-calibre future workforce'

### Thank you

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