

MODULAR FOR AFFORDABLE HOUSING

Unlocking the Greater
Potential of Modular Homes

19 – 20 June 2024

Sydney Masonic Centre, Australia



MODULAR FOR AFFORDABLE HOUSING

Unlocking the Greater Potential of Modular Homes

19 - 20 June 2024 | Sydney Masonic Centre, Australia

tru
event
US®

"The supply of available properties has dwindled to historically low levels and we're in the biggest housing crisis Australia has seen in decades. We need long-term sustainable solutions with fast-tracked processes to ensure people have a roof over their head"

– Tahī Merrilees, co-founder and Executive Director of Wild Modular

EVENT OVERVIEW

According to the parliamentary library research, it was estimated that Australia had a shortfall of 524,000 social housing dwellings in 2022, adding to the already dire situation of the housing crisis. The average price of housing tops out at \$1,333,985 as stated by the Australian Bureau of Statistics, which makes it exceedingly difficult to own a home. Even rental prices have gone through the roof. In November 2022, SQM Research reported that rents in Sydney have increased by 28% from the last year to an average of \$709 per week. Similar rises have been observed in other cities, with rent increasing by 24% to an average of \$574 in Brisbane. If left unchecked, the effects on the economy can be catastrophic if no immediate action is taken to combat this.

The National cabinet & federal government announced in August 2023 that they've promised \$3 billion and \$500 million respectively in incentives to support the building of 1.2 million dwellings over the next 5 years. Given the abnormally long period it takes for councils to approve the smallest of construction projects, this move aims to encourage states and territories to quicken the pace of building approvals and housing construction. However, with rising material prices and the introduction of a tariff on imported steel, contractors & builders will face challenges in delivering houses using the conventional way.

With the ability to deliver housing at a faster and cheaper rate, modular construction & prefab methods have been pipped to be an effective solution to the crisis. A modular or prefab house can be completed anywhere from 30% – 50% sooner compared to conventional housing, with 60% – 90% of construction being done offsite in a factory. Additionally, prefab houses are built in an environment where quality and safety is guaranteed. And it gives future home owners limitless options to customize their home according to their need.

With the urgency of building affordable housing, **Modular for Affordable Housing** by **Trueventus** is aims to create a premier destination for construction industry professionals to gain insights and experience first-hand on the latest innovations and opportunities in modular & prefab construction. Learn & understand emerging construction technologies that are becoming increasingly leveraged to aid the design and development of modular construction. Many have realized the glaring opportunity stand before them and have begun the transition of modularizing their projects. Don't get left behind or it may be too late.

WHY YOU CANNOT MISS THIS EVENT

- Why modular construction is the way forward for affordable housing?
- Learn how to enhance the prefab buildings design with an architectural approach
- Develop the right digital manufacturing line for precast modules
- Increase the efficiencies of modular construction with DfMA & BIM
- Gain insights from case specific studies on how current players have successfully leveraged modular & prefab construction
- Exploring the applications of steel – hybrid systems for sustainable construction

WHO SHOULD ATTEND?

This event is targeted but not limited to:

- CEOs, CIOs, & COOs
- Chief Construction Officers
- Chief Manufacturing Officers
- VPs/ Directors/ Heads/ General Managers/ Managers of:
 - Construction
 - Modular Construction
 - Offsite Construction
 - Offsite Manufacturing
 - Operations
 - Project Management
 - EPC
 - Offsite & Prefabrication
 - Civil Engineering
 - Structural Engineering
 - Project Engineering
 - Property Development
 - Quantity Surveying
 - Infrastructure
 - Drafting Design
 - Architecture
 - Drafting Design
 - On-site Delivery
 - Procurement
 - Strategic Sourcing

From the following industries:

- Government entities
- Construction companies
- Real Estate developers
- Contractors
- Building Materials Suppliers
- Building Service Providers
- Technology solution providers
- Design & Architecture firms
- Construction Project Management firms
- Real Estate consultants
- Transportation & Logistics Service Providers
- Other industries involve in new property development, which can benefit from off-site construction, such as Healthcare, Hospitality, Education and Retail.

MODULAR FOR AFFORDABLE HOUSING

Unlocking the Greater Potential of Modular Homes

19 - 20 June 2024 | Sydney Masonic Centre, Australia

tru
event
US®

SILVER SPONSOR



MSI is a global tech company based in Taiwan. The only brand with in-house control from ID design, R&D features, test run, manufacturing to tech support. Not just only that MSI offers a streamline service which includes, automated SMT production process, guaranteeing the product quality and accuracy. Provide premium laptops with the highest performance, most innovative technology, and best user experience. MSI stands out from other traditional laptop brands not only in the US but also globally, MSI is the giant among giants, the rising star in the industry.

<https://au.msi.com/Laptops>



MBM is a national independent professional services firm, respected by the property and construction industry as Australia's most trusted and reliable quantity surveying and asset consultancy. Our expertise ranges from the full suite of quantity surveying services, to building consultancy, tax depreciation, asset services, PPP advice, facilities management, and expert witness advice. Our diversity of experience sees our team embedded in the commercial, social infrastructure, education, residential, health, industrial, and defence sectors. We pride ourselves on being a reliable partner to our clients, having worked across a diverse range of projects of all scales, including multi-billion-dollar infrastructure projects that are shaping the future of tomorrow.

EXHIBITOR SPONSOR



佛山市美宗房屋科技有限公司

Foshan Meizong Buildings Technology Co., LTD

Foshan Meizong Buildings Technology Co., Ltd (hereinafter Meizong), founded in August 2009, the modular house production covers an area of more than 450,000 square meters. The factory of Meizong is equipped with 12,000W and 20,000W laser cutting machines, welding robots, and other advanced equipment, which is the most competitive modular house manufacturer in Southern China. Meizong has completed modular villas, flats, and customized houses that meet the requirements of many countries like New Zealand, Australia, and the United States.

MODULAR FOR AFFORDABLE HOUSING

Unlocking the Greater Potential of Modular Homes

19 - 20 June 2024 | Sydney Masonic Centre, Australia

tru
event
US®

EXHIBITOR SPONSOR

DECO



DECO Australia is a leading manufacturer of aluminium architectural building systems and decorative finishes. Since 2004, DECO has revolutionised the Australian building and design industries with their innovative aluminium sublimation finishing technology, including leading woodgrain finish, DecoWood®. DECO's leading range of low-maintenance and easy-install architectural product range includes wall cladding and panelling, fencing, posts, decking, flooring and splashbacks.

ASSOCIATE SPONSOR



Kingspan®

Kingspan, a global manufacturer of building products and solutions, prioritises innovation. Specializing in rigid and flexible insulation, along with advanced building wraps, the company has been locally producing Kooltherm rigid board insulation since 2017 at its Somerton facility in Victoria. This commitment is evident not only in the products but also in providing insulation tailored to local needs coupled with technical expertise.

MODULAR FOR AFFORDABLE HOUSING

Unlocking the Greater Potential of Modular Homes

19 - 20 June 2024 | Sydney Masonic Centre, Australia

tru
event
US®

FEATURING PRESENTATIONS AND CASE STUDIES BY DISTINGUISHED SPEAKERS



Andrew Fotia
Architect, Senior Associate
ARKIT,
Melbourne, Victoria



Martin Fenn
Director
MMCi,
Sydney, New South Wales



Waco Tao
CEO & Founder
PowerHouse Homes,
Melbourne, Victoria



Tharaka Gunawardena
Research Fellow &
Principle Coordinator
University of Melbourne,
Melbourne, Victoria



Paget Hargreaves
Chief Executive Officer
OutdoorFX,
Gold Coast, Queensland



Ian Briggs
Director
Plus Architecture,
Melbourne, Victoria



Andrew Hagen
Managing Director
Lumen Living,
Perth, Western Australia



Dennis McMahon
Chief Executive Officer
Global BuildTech Australia
Pty Ltd,
Labrador, Queensland



Ben May
Digital Director –
Building + Places
Aecom,
Melbourne, Victoria



Daniel Relyea
Owner
Horizon Modules,
Parkes, New South Wales



Richard Smith
Director of Quantity Surveying
MBM,
Sydney, New South Wales



Paul Floreani
Director
Livin Modular,
Melbourne, Victoria



Justin Noakes
Director of Advisory
MBM,
Sydney, New South Wales



Amy Degenhart, LFRAIA,
Director & Architect
degenhartSHEDD
Architecture +
Urban Design,
Brisbane, Queensland



Andrew O'Donnell
Director
Allford Hall Monaghan Morris,
Sydney, New South Wales



Oktay Tilkili
Commercial Sales Manager
at MSI ANZ
MSI Computers,
Australia



Dr Ivana Kuzmanovska
Manager
ARC Centre for Next-Gen
Architectural Manufacturing,
UNSW, Sydney, New South
Wales



Chris Jones
Managing Director
Modular Townhouses Pty
Limited,
Sydney, New South Wales



Karl-Heinz Weiss
Director
Weiss Insights Pty Ltd,
Sydney, New South Wales



Scott Kenna
State Sales Manager
Kingspan Insulation,
Australia

MODULAR FOR AFFORDABLE HOUSING

Unlocking the Greater Potential of Modular Homes

19 - 20 June 2024 | Sydney Masonic Centre, Australia



Day One: Wednesday, 19 June 2024

0800 Registration & Coffee

0850 **Chairperson's Welcome Address: Daniel Relyea**, Managing Director, **Horizon Modules, Parkes, New South Wales**

0900 Session One

New Tech Age: Prefabricated modular construction for timely delivery and reduced cost

- Simultaneous on-site and off-site work significantly reduces construction timelines compared to traditional methods
- Stringent quality control measures are implemented during the manufacturing process, minimizing errors and defects
- Reduced labor costs due to efficient assembly-line production in a factory setting

Paul Floreani, Director

Livin Modular, Melbourne, Victoria

0945 Session Two (Joint Presentation)

Building the Future: Embracing modular construction for a sustainable and efficient industry

- Modular buildings can be designed with energy-efficient features, promoting sustainability and reducing long-term operational costs
- Modular construction significantly reduces on-site construction time, enabling quicker project completion
- Stringent quality control measures lead to higher overall building quality and durability

Justin Noakes, Director of Advisory, **MBM, Sydney, New South Wales**

Richard Smith, Director of Quantity Surveying, **MBM, Sydney, New South Wales**

1030 The Speed Networking - The Mad Minutes!

Fun and fast, this networking activity is a great opportunity to grow your connections

1100 Morning refreshments/ One to one meeting

1125 Session Three: Panel Session

Debunking Myths: Discovering the solution in prefabricated and modular construction for housing problems

Panelist:

Martin Fenn, Director, **MMCi, Sydney, New South Wales**

Chris Jones, Managing Director, **Modular Townhouses Pty Limited, Sydney, New South Wales**

Ian Briggs, Director, **Plus Architecture, Melbourne, Victoria**

1210 MSI's tech – Talk

How to unlock the business and work more productively?

- Identifying the technical demands of continually evolving BIM technology
- Outline how technology has evolved to suit the new power demands of the workplace
- To better understand the technology solutions that balance power, productivity and professionalism

Oktay Tilgili, Commercial Sales Manager at **MSI ANZ**

MSI Computers, Australia

1225 Session Four

Sustainable materials and Innovative DfMA strategies for offsite manufacturing of homes- Latest advancements in research and practice"

- Engineered wood product offering strength, stability, and sustainability
- Integration of recycled steel, plastic and other materials into building components
- Enables the generation of renewable energy within the structure itself

Tharaka Gunawardena, Research Fellow & Principle Coordinator

University of Melbourne, Melbourne, Victoria

1310 Networking luncheon

1410 Session Five

Affordability through Automation: Achieving Modular Construction Excellence with BIM-Based Collaboration

- Efficiency in Design through Automation & Data Rich libraries
- How we can collaborate across the industry to gain economy of scale
- How we can integrate with the supply chain

Ben May, Digital Director – Building + Places

Aecom, Melbourne, Victoria

1455 Session Six

The changing rungs of the property ladder and where Modular Homes fit.

- Demographics – Who actually wants one?
- Market Supply – Who is willing to stump up the cash?
- Constraints & Opportunities – What is the hold-up & where could this go?

Daniel Relyea, Owner

Horizon Modules, Parkes, New South Wales

1540 Afternoon refreshments/ One to one meeting

1610 Session Seven

Addressing National Housing Shortage Issues Using Modular Design and Manufacturing

- Repaid
- Remote
- Repeatable

Paget Hargreaves, Chief Executive Officer

OutdoorFX, Gold Coast, Queensland

1655 Session Eight

New Tech Age: Prefabricated modular construction for timely delivery and reduced cost

- Simultaneous manufacturing and on-site preparation lead to quicker project completion
- Modular construction allows for a high degree of customization and flexibility in design
- Controlled factory processes reduce noise, dust, and other on-site inconveniences

Andrew Fotia, Architect, Senior Associate

ARKIT, Melbourne, Victoria

1740 Session Nine

Maximizing Design for Manufacturing and Assembly (DFMA) for Prefabricating Construction Components

- Plan assembly sequence: Design components with a clear assembly sequence in mind. This ensures that the assembly process is logical and efficient
- Use standardized materials and components: Standardized materials and components are readily available and can simplify both manufacturing and assembly processes
- Specify appropriate tolerances: Clearly define tolerances to ensure that components fit together precisely. This reduces the need for adjustments during assembly

Karl-Heinz Weiss, Director

Weiss Insights Pty Ltd, Sydney, New South Wales

1825 End of Day One

MODULAR FOR AFFORDABLE HOUSING

Unlocking the Greater Potential of Modular Homes

19 - 20 June 2024 | Sydney Masonic Centre, Australia



Day Two: Thursday, 20 June 2024

0800 Registration & Coffee

0850 **Chairperson's Welcome Address: Daniel Relyea**, Managing Director, **Horizon Modules, Parkes, New South Wales**

0900 Session One Unlocking the Greater Potential of Modular Medium-Density Housing

- Global warming and impacts on current building practices
- Our solution
- Opportunities for Project investors

Chris Jones, Managing Director

Modular Townhouses Pty Limited, Sydney, New South Wales

0945 Session Two Affordable Housing at Scale

- Case Study – Regional Construction Project – 9.1 Star NatHERS rating
- Including sustainability
- Growing demand for scale

Andrew Hagen, Managing Director

Lumen Living, Perth, Western Australia

1030 Morning refreshments/ One to one meeting

1100 Session Three Build Homes Like Cars: A Revolution of Paradigm Shift to Deliver True Affordable Housing

- Overview of prefabrication in construction
- Analysing the major root causes of unaffordability in housing
- Review of automotive supply chain management and its implications to affordable housing

Waco Tao, CEO & Founder

PowerHouse Homes, Melbourne, Victoria

1145 Session Four: Sponsor Incorporating Virtual Design Construction (VDC) and Integrated Digital Delivery (IDD) to Ensure Project Delivery Control

- VDC and IDD encourage early collaboration among project stakeholders, including architects, engineers, contractors, and clients.
- Visualization tools in IDD facilitate better understanding among team members and clients, promoting informed decision-making.
- VDC models can serve as accurate as-built documentation, aiding in facility management and future renovations.

Scott Kenna, State Sales Manager

Kingspan Insulation Australia

1230 Networking luncheon

1400 Session Five Putting the D (design) back into DfMA

- Production efficiencies are unlocked through design, and so the design is where the focus, time, and energy should be invested
- To maximize the benefits of industrialized construction, design agencies should be distributed throughout the supply chain
- Looking to the future we need to harness data and digital technologies to make the most of DfMA and MMC for affordable housing

Dr Ivana Kuzmanovska, Manager

ARC Centre for Next-Gen Architectural Manufacturing, UNSW, Sydney, New South Wales

1445 Session Six

"Simple2Build – a "Kit of Parts" approach to improving housing security and reducing housing costs for Australians."

- Improve housing security and reduce housing costs for Australians
- Homes constructed from pre-fabricated, standardized components
- Faster build times compared to traditional construction methods

Dennis McMahon, Chief Executive Officer

Global BuildTech Australia Pty Ltd, Labrador, Queensland

1530 Afternoon refreshments/ One to one meeting

1600 Session Seven

Maximizing Design for Manufacturing and Assembly (DfMA) for Prefabricating Construction Components

- Foster collaboration and open communication channels to share expertise and insights
- Use standardized components and materials whenever possible
- Standardize components to promote uniformity and ease of manufacturing

Andrew O'Donnell, Director

Allford Hall Monaghan Morris, Sydney, New South Wales

1645 Session Eight

How replacing one older suburban home with three well designed smaller homes makes room for three families where there was once just one

- The secret of infill house and land packages
- How architects could inspire an abundant diversity revolution in housing
- Well designed housing is a necessity for all not a privilege for some

Amy Degenhart, LFRAIA, Director & Architect

degenhartSHEDD Architecture + Urban Design, Brisbane, Queensland

1730 End of Conference