

MODERN GREEN HOMES

# Sanctuary

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PREFAB + MODULAR  
SPECIAL

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## PLUS

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# Prefab power:

Reinventing the  
Australian home



Once dismissed as cheap and nasty ‘kit homes’, prefabricated housing is experiencing a renaissance. Faster build times, higher quality, and increased sustainability are pushing prefab from the margins to the mainstream. Design Matters National CEO Danielle Johnston checks in with two key industry figures for their take on the latest developments.

#### THE NEW FACE OF PREFAB

Prefabricated construction has always carried baggage in Australia. For decades, the term conjured up images of portable classrooms, temporary mining accommodation, and flat-pack compromises. But according to Damien Crough, CEO of prefabAUS, that reputation is fading fast.

“There are three main benefits of prefab housing: speed, quality and performance,” Damien says. “Most of our members are delivering homes in around 16 weeks, on average. Doing things in a factory obviously allows for greater control and tighter tolerances, so you’re getting better quality. And you get a building that performs better, because gaps that create air leaks are minimised.”

Industry consultant Matt Gee of Leading Hand Project Management tracks the prefab industry globally, and he agrees. “Homeowners are already benefitting from prefabrication, often without realising it. Any time a building component is manufactured offsite and brought

in – like windows, kitchen joinery, steel elements or roof trusses for example – that’s prefabrication. The real question is about balance: how much of the house is built and assembled onsite versus offsite. The more we shift into controlled manufacturing environments, the more savings and efficiencies homeowners enjoy.”

That shift is well underway. Australia’s construction industry, long tied to onsite building, is now leaning on prefab to deliver homes faster and smarter.

#### WHY SUSTAINABILITY LOVES PREFAB

For sustainability-conscious homeowners, prefabricated construction has another powerful advantage: energy performance. Damien is quick to stress how prefab simplifies the path to a low-energy home. “The ability to design in high performance and low energy use is significantly improved when you’re working with standardised components,” he explains. “I recently

**Left** The Fast Slow project, a collaboration between the University of Newcastle and industry partners, is exploring how prefabrication can be combined with earth-based materials and DIY building to make sustainable homes more accessible to everyone. Read more in *On the drawing board* on p72.  
Image: Ashley Sorensen Photography



**Above** This 60-square-metre two-bedroom modular dwelling by JMB Modular Buildings is a display home “designed to break every stigma around prefab and modular building, proving they’re not restrictive, boring and ‘just a box,’” explains JMB’s Rachel Briggs. It meets the requirements for the Victorian government’s small secondary dwelling planning permit exemption. Built to a high architectural standard, the home features polished concrete floors, cathedral ceilings, recycled red bricks, and premium finishes. The polished concrete slab was poured and polished offsite and delivered along with the rest of the building – without a crack. Image: Laura Briggs **Below** In line with Damien Crough’s prediction that robotics and 3D printing will bring real breakthroughs to prefabricated construction, Modscape has recently transformed their capability with Modbotics, a fully automated robotic production line for building elements. Image: Modscape + Modbotics



worked on an extension to my own 1961 brick veneer home using structurally insulated panels. The difference in speed and performance was unbelievable. You don’t get the draughts; you don’t get the heat loss. The old house needed foam sprayed underneath just to make it liveable.”

The numbers speak for themselves. According to Damien, “The capital cost of purchasing a home is only around 20 per cent of its total life cycle cost. The real expense – about 80 per cent of the total – comes from running the home. Prefab allows us to lock in sustainability up front, minimising those ongoing costs.”

Matt highlights how the shift to a 7-Star minimum energy rating under the National Construction Code is accelerating change. “In a factory environment, it’s easier to meet and exceed these standards. You get better air sealing, continuous insulation, and reduced infiltration – all critical to comfort and energy savings. What used to be seen as an optional upgrade is now becoming the norm through the manufacturing process.”

#### DEMAND RISING

Prefab homes aren’t just ticking regulatory boxes; they’re winning hearts. Damien says demand is climbing rapidly. “Our member companies are currently growing at about 30 per cent per year, on average. Speed of construction is the most important factor



**Left** This award-winning home by Modscape + Modbotics in the New South Wales Southern Highlands demonstrates how modular construction can deliver architecturally refined outcomes that respond to site, context, and heritage. It was built offsite in 12 weeks and installed onsite in a single day. The distinctive roof structure was assembled on location from prefabricated roof trusses, balancing transport logistics with architectural integrity. Image: Katherine Lu **Below** Prefabrication has a lot to offer for medium-density projects, like these townhouses by Timber Building Systems (TBS) in partnership with Henley Ready Built. Led by former automotive engineers, TBS applies Design for Manufacture and Assembly (DfMA) principles, delivering factory-built panels with integrated windows, cladding, and finishes for rapid onsite assembly. Image: Timber Building Systems **Bottom** This volumetric modular home by Wild Modular was delivered under the New South Wales government's Modern Methods of Construction pilot as a model for scalable, high-quality social housing. It's a self-contained secondary dwelling constructed offsite, delivering rapid, dignified housing with minimal disruption. Image: Wild Modular

driving that growth, but people are also recognising that these homes are significantly better performing. In a world where labour shortages and affordability pressures are constant, prefab makes sense.”

Matt agrees, noting that “The market isn’t just driven by compliance. It’s about comfort, healthier living, and long-term savings. Prefab used to mean compromise. Now it’s about high-performing, sustainable housing that stands up against – or even outperforms – traditional builds.”

### TECH ON THE HORIZON

Ask what’s next, and both experts point to technology.

Damien sees robotics and 3D printing – also known as additive manufacturing – reshaping construction. “We’ve got companies in Australia developing new systems, from overhead gantries to mobile printers onsite. With the recently announced \$270 million Cooperative Research Council (CRC) funding for additive manufacturing, we’ll see real breakthroughs.”

But he stresses that design must lead the way. “At the end of the day, it all comes down to design. If you design for manufacturing and assembly, or digitisation, then the technology can follow. That’s where the real transformation will happen.”

Matt frames it through ‘Modern Methods of Construction’





**Above** Victorian sustainable prefabricated modular home specialist Ecoliv recently unveiled their latest display home, the EcoGeneration 2A. Independently certified as climate positive through a life cycle assessment by Cerclos, the home demonstrates how regenerative, energy-smart design can be achieved through Modern Methods of Construction (MMC). The neat integrated garden shed and bike storage are an added bonus! Image: Ecoliv

(MMC), an umbrella term borrowed from Europe and Asia that includes prefab and modular construction, but goes further. “It’s not just about products, but about smarter connections, logistics, and lean manufacturing – like in the automotive industry,” he says. “Artificial intelligence is the real disruptor. From design optimisation to production planning, AI will potentially reshape how we deliver homes.”

#### **BREAKING DOWN BARRIERS**

For Damien, however, the biggest breakthrough isn’t technological; it’s financial. “To be honest, the most exciting recent development is what the banks are doing,” he says. “For years, finance models were designed around onsite builds. That made it difficult for funds to flow to prefab projects. But when the Commonwealth Bank joined prefabAUS, they changed their lending policies to allow the funding of up to 80 per cent of the value of prefab contracts while they’re still in the factory. That’s blown the doors wide open. Non-bank lenders are following, too. Without funding, you can’t grow the industry. With it, prefab can flourish.”

Matt sees scale as the next frontier. “Prefab housing is still largely focused on single dwellings, but the real opportunity is in medium density: townhouses, apartments, and mid-rise projects. That’s how we address Australia’s housing crisis sustainably. If government and market interest align, it could be transformative.”

#### **A SMARTER FUTURE**

Prefab’s rise reflects bigger questions about how Australians want to live. Housing affordability, sustainability, and resilience to climate change are pushing homeowners to think beyond traditional bricks and mortar.

Damien believes the time has come. “The drivers are all there: affordability, speed, sustainability, performance. With finance and policy shifting too, prefab is no longer an experiment. It’s a serious, scalable solution.”

Matt sums it up: “Prefab is about building smarter, not just faster. Australians don’t need to settle for ‘cheap and cheerful’. They can have homes that are comfortable, sustainable, and future-ready. That’s the real promise of prefabrication.” **S**