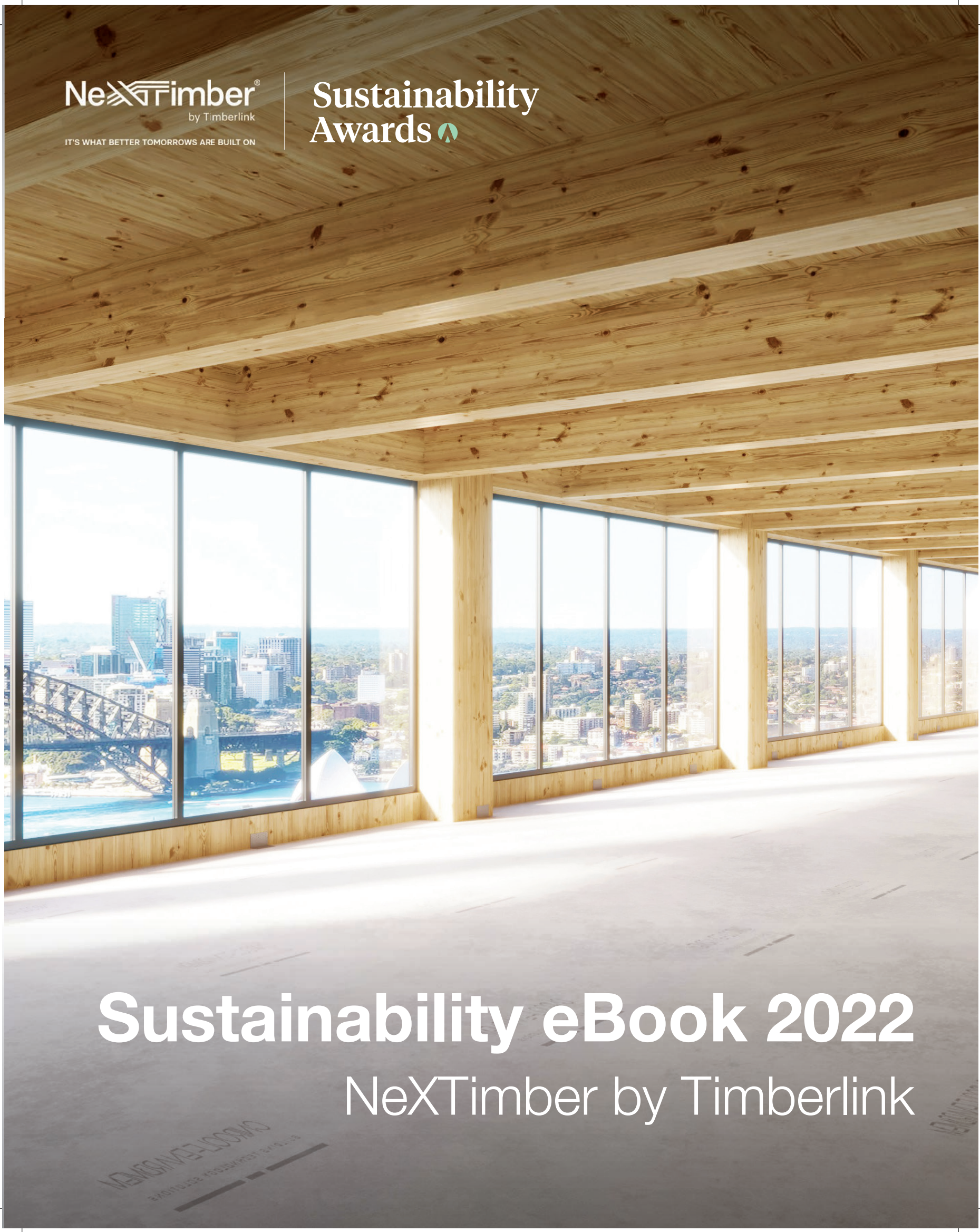
NeXTimber® by Timberlink

IT'S WHAT BETTER TOMORROWS ARE BUILT ON

Sustainability Awards



# Sustainability eBook 2022

## NeXTimber by Timberlink

# The 2022 Sustainability Awards Gala

It was in 2006, way back before smart phones or social media, when we launched what we now call the Sustainability Awards. Little did we realise that 16 years later, our 'little' awards would become the premier built environment sustainability awards program in Australia.

Not that it's a huge surprise really. With the growing awareness of carbon footprints, climate change and rising sea levels as well as the hard work we have put into promoting these awards, it's no great shock that the Sustainability Awards were always destined for greatness. And not only because of the moral imperative, but also due to the economic one.

Realistically speaking, sustainability is a business approach designed to create long-term value by taking into consideration how organisations operate in the ecological, social, and economic environments.

Therefore, sustainability is built on the idea that developing such strategies fosters business longevity. Without this notion, neither the planet nor the businesses that thrive on it will have much longevity.

With that in mind, I'd like to thank you for your involvement in our Sustainability Awards programme, one that always has been, and always will be dedicated to promoting sustainability awareness in all its forms across Australia's diverse and vibrant built industry.

**BRANKO MILETIC, EDITOR**

# The Awards Jury

**JEREMY SPENCER**
*Director, Positive Footprints*

**OLIVER STEELE**
*Director, Positive Footprints*

**ARIANNA BRAMBILLA**
*Senior Lecturer, School of Architecture, Design & Planning*

**KATE NASON**
*Sustainability Advisor, Frasers Property*

**SANDRA FURTADO**
*Director, Furtado Sullivan*

**DAVID COATES**
*Founder, Sustainable Building & Design*

**MAHALATH HALPERIN**
*Architect & Director, Mahalath Halperin Architects*

**SIMONE SCHENKEL**
*Founder, Gruen Eco Design*

**DICK CLARKE**
*Princial, Envirotecture*

**MICHAEL FAINE**
*Architect, Faine Group Architects*

**SUSAN TOUMBOUROU**
*CEO, Australia Council of Recycling*

# Q&A with Dr Trevor Innes, GM Technical & Sustainability for Timberlink Australia, manufacturers of NeXTimber®

**Timberlink's ambitious sustainability efforts go hand in hand with the brand's commitment to innovation, and are reflected through a drive to reduce waste and create new, more sustainable timber products.**

*Here, one of the co-creators and driving forces behind Timberlink's sustainability agenda, Dr Trevor Innes, talks to us about what attracted him to the timber industry in the first place, what's changed since he started over three decades ago – and why this is a really exciting time to be a part of this space.*

**A&D:** What is your background and what does your current role in the business entail?

**DR TREVOR INNES:** I'm a mechanical engineer with a PhD in timber processing. I've been working with or in the timber industry for 30 years. Currently, I am responsible for technical matters, such as product quality and compliance, process engineering and technology deployment, as well as sustainability across the wider business. The latter, alongside environmental management, is a key area of focus in my role with NeXTimber, an innovative brand that marks Timberlink's expansion into the world of engineered wood building solutions.

**A&D:** Three decades! How have you seen the notion of sustainability change in that time?

**TI:** Forest certification didn't really exist in Australia before the early 2000s. FSC® Australia was established in 2001 and the first Australian Standard for forest management was released as an interim Standard in 2003, before being published as a full Standard in 2007. So, you can see our forest management practices have evolved significantly over a relatively short period of time. This is demonstrated by the high uptake of certification to forest management Standards we now have.

The safety of our workers has come to the forefront, and in terms of environmental sustainability, the environmental regulations have tightened up in a whole lot of areas – and the focus on carbon emissions and climate change has increased dramatically over the last ten years. Science and awareness, of course, have been around for much longer but in the last decade we've seen industry members start to have a look at their climate impact, and see what can be done to decrease it.

And along with that, there's been a gradual evolution of the awareness of the various pollutants that come out of the manufacturing industries – and how those can be decreased. Similarly, the whole social engagement piece has also changed for a lot of industries – the concept of social licence to operate probably didn't have much airtime 30 years ago, but it's now critical.

But to me, it's always been a sustainable industry – trees grow and provide us with the only truly sustainable building material we've got.

**A&D:** Has a focus on sustainability always been a part of your career trajectory?

**TI:** I've always had a green streak, this is one of the reasons I joined the timber industry as it's one of the very few true renewable resources available to us. My role extended formally from technical to include environmental management and sustainability around 7 years ago. It's an exciting time to be a part of this space – I'm really happy to see how the industry is advancing and I hope we can continue that good work and keep manufacturing sustainable products to try and make the world a better place.

**A&D:** How important is sustainability to your organisation? And how does this commitment manifest through various stages of product development and company operations?

**TI:** Sustainability at Timberlink is more than just a policy; It's really part of our DNA through our ownership model. Timberlink is owned by investment funds managed by New Forests, whose differentiator in their investment

markets started out – and continues to be – their sustainability focus.

We see sustainability focus, commitment and performance as essential to the long term health of Timberlink and NeXTimber. This commitment is visible through our significant investments in both NeXTimber – providing products to lock carbon up in buildings – and wood-plastics composites, where our new facility in Tasmania will turn recycled plastic and wood fibre by-product into high performing products such as outdoor decking.

**A&D:** In August 2020 Timberlink became the first in this industry in Australia to set a science-based target to reduce their greenhouse gas emissions verified by Science Based Target initiative (SBTi). To solidify this commitment, the organisation has created a clear pathway to reduce emissions in scope 1 and 2 by 53% by 2030. Can you tell us about how this initiative came to be?

**TI:** It has been obvious to us for a fair few years that we've got a responsibility to do what we can to minimise the carbon impact of our manufacturing process – it's all well and good producing material that sequesters carbon for the life of the building, but there's still carbon emitted in the process of manufacturing. So it was really important to us to see what we could do about reducing that.

SBTi is an international organisation that governs this area, ensures it's in line with the Paris Agreement targets to limit global warming to 1.5c – and verifies all the calculations behind the targets. So it was really important to us that we go through that process. There are still very few industry members worldwide who have verified targets. It's probably fair to say we're leading the sector in this space.

When we did the SBTi project, we did it as part of a broader industry-funded endeavour so that we would try to make it easy for others to follow our path. We worked with consultants to not only set our own targets, but to develop tools by which other industry members can – reasonably easily – assess their own carbon footprint and set SBTi verifiable targets for themselves.

For us, to make the world a better place it's important that we not only do our piece, but also that we bring others along on that journey with us.

**A&D:** What are the company's current priorities from a sustainability point of view?

**TI:** In the last 3 years we have reduced our greenhouse gas emissions by 27% – with a lot more in progress to deliver on our promise. We have substantial programs of work mapped out in the areas of greenhouse gas reduction, climate risk, community engagement – and providing our employees with a rich experience across all aspects of their employment.

**A&D:** What are Timberlink's sustainability aspirations, goals and ambitions for the future?

**TI:** As mentioned, Timberlink has set formal, verified carbon reduction targets for 2030. These will incorporate NeXTimber and achieving them is a key part of our sustainability plan. We track our sustainability performance across a range of key metrics each month and have calibrated those to the UN Global Compact 5-stage model, with the plan to achieve stage 4 in a couple of years' time. Stage 4 is called Integrated Strategy, and signals a fundamental shift towards viewing sustainability as investments and opportunity rather than cost and risk, with sustainability underpinning innovation efforts, too. We also plan to build a robust community engagement model and are working hard to become an employer of choice.

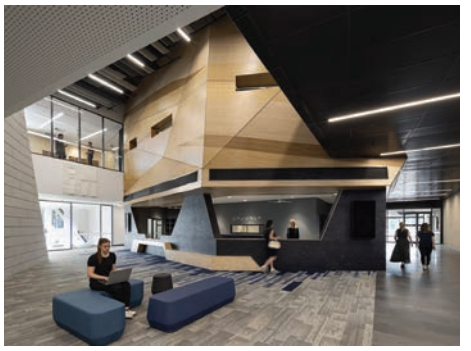
# Education & Research Award Shortlist

proudly partnered by NeXTimber by Timberlink

*A child care centre, preschool, primary, secondary or tertiary educational facility or a facility where an educational institution is a partner.*

**6 HASSALL STREET**
TZANNES & BLIGHT RAYNER

**CANNON HILL ANGLICAN COLLEGE D BLOCK**
REDDOG ARCHITECTS IN COLLABORATION WITH BLUELINE ARCHITECTURE



**PORT MELBOURNE SECONDARY COLLEGE**
BILLARD LEECE PARTNERSHIP (BLP)

**Q BUILDING**
EJE ARCHITECTURE

**S.E.E.D. – A NEW DEMOUNTABLE CLASSROOM**
BETTI & KNUT ARCHITECTURE

**SVSS – DOUBLE STREAMING BUILDING**
PENTARCHI SUSTAINABLE SYNERGETIC ARCHITECTURE

# Award Winner

WINNER

**S.E.E.D. – A NEW DEMOUNTABLE CLASSROOM**
BETTI & KNUT ARCHITECTURE

While working on the German International School Sydney (GISS) Masterplan, the client required an interim solution involving portable classrooms. The challenge was to rethink the very established Australian ‘demountable’ which features throughout most schools in Australia, and achieve a modern solution aligned to our strong advocacy for sustainability. The goal was to build sustainable portable classrooms at a cost and time frame equivalent to traditional portable classrooms and attain the International Passivehouse Standard using timber as the primary construction material.

The result is s.e.e.d.; a prototype for a new s-ustainable e-nvironmental ed-ucation space and the antidote to traditional demountables.

Each mass timber classroom was preassembled off site, craned into place in five modules and installed in less than 90 minutes per building. Designed and constructed to the International Passivehouse Standard, the classrooms allow for filtered, clean air and thermal comfort year-round, while reducing heating and cooling demands by 90 per cent.

The use of timber counteracts humidity levels to reabsorb humidity during wet weather and release in dry weather, naturally helping to create a balanced indoor comfort. It also connects the buildings to the surrounding bushland setting.

Clean and fresh filtered air is supplied within the Passivehouse envelope through Heat Recovery Ventilation units which maintain a constantly comfortable room temperature. Not only beneficial in hot and cold months or to students with asthma and allergies, HRV units are valuable additions throughout the bushfire season and help keep CO2 levels below a critical 800 ppm in all classrooms.

Considering the continued demand for portable classrooms across Australia in the foreseeable future, we hope to see these s.e.e.d.’s become an integral part of a sustainable growth strategy within the education sector.


# What's next in sustainable timber? NeXTimber® by Timberlink

**Versatile and durable, with an immense aesthetic appeal and biophilic properties, timber is undoubtedly one of the architecture and design industry's favourites.**

And the growing importance of adapting sustainable practices and products in the construction industry – a contributor of 38% of the global CO2 emissions, according to the UN – further accentuates the incredible potential of this renewable material.

Using timber that comes from a sustainably managed plantation ensures that carbon is captured from the atmosphere for the lifecycle of the building. And with 699 kg of CO2 removed and locked up by every cubic metre of structural pine used , that's just one of the benefits that have earned timber the status of one of the most sustainable building materials today.

Companies like Timberlink (an Australasian business that transforms sustainable plantation pine into timber products) are committed to helping industry professionals harness the capabilities of this ultimate renewable resource, and actively participate in moving the construction sector onto a low-carbon pathway.

NeXTimber is Timberlink's new brand for their forthcoming engineered wood building solutions which is manufactured from Australia pine timber sourced from sustainability managed plantations. The range comprises a selection of Australian-made Cross Laminated Timber (CLT) panels and Glue Laminated Timber (GLT), with both types of products created by gluing together solid pieces of radiata pine structural timber under pressure to produce an extremely strong, larger building element. CLT can be used for floors, walls, roofs and stairs. GLT is manufactured with pieces of structural timber layered and glued in the same direction, and is often used in structural beams and columns because of its strength. CLT, on the other hand, is created by laying these panels of laminated solid timber in alternating directions. The cross direction layup of the panels, combined with digital fabrication, offer a strong, rigid, dimensionally stable and highly accurate building product which reduces construction time.

The excellent strength and durability of the new mass timber offering are matched by incredible sustainability credentials. "When you compare a building that utilises CLT & GLT with one built with conventional building materials, there is a lower carbon impact because of the carbon sequestered in the timber. The manufacturing process creates less carbon to manufacture," explains Dr Trevor Innes, GM Technical & Sustainability for Timberlink Australia. The NeXTimber range is manufactured from local certified radiata pine from plantations where every used tree is replanted, providing carbon negative mass timber solutions for building components, and offering an opportunity to reduce the embodied carbon of a project.

The innovative range will be manufactured in a brand new, purpose-built facility in Tarpeena, South Australia and is scheduled to begin production in 2023. Adjacent to Timberlink's state-of-the-art timber manufacturing plant in Tarpeena, the new development will feature a combined world class softwoods CLT and GLT manufacturing line – a first of this kind in Australia.

The plant used to manufacture NeXTimber plans to have dual certified sustainability credentials. "Our intention is for the products to be dual certified to both FSC® and PEFC standards when they hit the market," Trevor explains. "All the feedstock we intend to use once the plant's running is manufactured by our existing timber manufacturing facility, which holds both of those certifications. As far as I'm aware, we're the only Australian manufacturer that will be able to offer that."

This aspiration to support Australian specifiers and builders in using locally grown and made mass timber underpins Timberlink's ambition to equip industry professionals with tools and products that advance the move towards a more sustainable future. That's why they are making a meaningful investment in engineered timber – the ultimate renewable and building material of the 21st century. Particularly, as it is also a timely response to the growing demand for engineered timber, expected to further accelerate in the next decade. Currently, it is estimated that around half of the CLT used in Australia is imported so NeXTimber's new manufacturing facility is an important step in increasing sovereign capability to manufacture Australian CLT & GLT.

1. Source: Wood Solutions, Environmental Product Declaration Softwood Timber V1.3, Revised 8 December 2017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# Peeling back the layers – and labels – of sustainable timber with Timberlink and NeXTimber®

**Wood evokes instant association with sustainability and environmental benefits – and rightly so. This natural material is renewable and recyclable, non-toxic and biodegradable – and it captures carbon from the atmosphere, undoubtedly surpassing any other building material in the market.**

However, timber's sustainability profile is much more comprehensive than that, and industry professionals who look to specify sustainable timber products have to consider broader aspects of sustainability – like the negative effects of deforestation or illegal and unethical timber sourcing practices.

That's where certifications come in. Issued by independent third parties, they are the primary – and the most reliable – way for specifiers to find sustainable products. "Certifications are the best way to demonstrate to the market that the timber is sustainably sourced, and the forests are being managed in a sustainable way," says Dr Trevor Innes, GM Technical & Sustainability for Timberlink – one of Australia's leading plantation pine timber producers.

In Australia, there are two types of environmental certification specifiers should look out for. Forest Management Certification ensures that the forests are being managed in a sustainable and legal manner, while the Chain of Custody (CoC) Certification pertains to the movement of the forest products all the way from certified forests and production chain to the end consumer. This particular certification traces the life cycle of timber to the very origin of the product, ensuring sustainable practices have been adhered to along the way.

These certifications are offered by the Forest Stewardship Council® (FSC®) and the Programme for the Endorsement of Forest Certification (PEFC). In Australia, Responsible Wood is the National Governing Body for PEFC. "As a manufacturer, if you put an FSC® or a PEFC label on a piece of timber, that means that you've gone back through your supply chain and verified that all the timber that's come in there has been sustainably sourced," Trevor adds.

For Timberlink, ensuring that their timber is sustainably sourced is paramount. With the notion of sustainability ingrained in the organisation's DNA, Timberlink has a comprehensive and multi-layered sustainability agenda, aligned with the United Nations Global Compact's Sustainable Developments Goals – and the performance is tracked, measured and assessed on a monthly basis.

In addition, Timberlink has committed to Science Based Target initiative (SBTi) verified Greenhouse Gas emission reduction targets. SBTi is an important collaborative effort of not-for-profit CDP, the United Nations Global Compact (UNGC), World Resources Institute (WRI) and the World Wide Fund for Nature (WWF), that defines and promotes best practice in science-based target setting and independently assesses and approves companies' targets. These are aligned with the Paris Agreement, and Timberlink has laid out a clear pathway to reduce emissions in scope 1 and 2 by 53% by 2030 from a 2018 base – with 27% of emissions already reduced in the last three years.

Very much in line with these meaningful and comprehensive commitments, Timberlink sources all their logs only from pine plantations in Tasmania and South Australia, managed to ensure an ongoing supply of sustainable, renewable and – very importantly – legally sourced pine resources. The majority of logs supplied to their Australian manufacturing facilities are dual certified FSC® and PEFC/ Responsible Wood from forests owned by New Forests-administered investment trusts.

Timberlink holds Responsible Wood Chain of Custody certification – Responsible Wood, in turn, holds mutual recognition status with the international PEFC system - for solid wood products and by-products, covering both their Australian manufacturing facilities. Similarly, they hold an FSC® Chain of Custody and Controlled Wood Certificate for production and distribution of solid wood, wood chips and all by-products, covering both their Australian manufacturing facilities and the distribution centres.

In addition to that, Timberlink is set to start producing its new NeXTimber CLT and GLT products next year, at a state-of-the-art facility being built in South Australia, adjacent to their Tarpeena manufacturing facility. The NeXTimber range will be made with Timberlink's dual-certified structural timber. The Forest and Wood Products Australia Environmental Product Declaration estimates that each cubic metre of structural pine used, removes and locks up 699 kg of $CO_2$ from our atmosphere .

A reflection of Timberlink's broader sustainability commitment and indication of the brand's unique market position where environmental, ethical and social aspects of product manufacturing are involved, these certifications make it easy for industry professionals to specify timber products that actively contribute to creating a better, and more sustainable future for all.

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