

Sustainability Awards 🔿

Sustainability eBook 2023 BlueScope

The evolving landscape of sustainability

It is a fact that society's understanding of sustainability has broadened, leading to innovative design approaches and systemic shifts in behaviour.

Building design plays a pivotal role in shaping the sustainability of our urban environments. It is a powerful tool that can either exacerbate or mitigate environmental impacts. Firstly, orientation and layout significantly impact a building's energy consumption. Properly aligning structures with the sun's path allows for natural lighting and heating, reducing the need for artificial lighting and climate control systems.

Furthermore, material selection is crucial. Opting for locally sourced, recycled, or renewable materials not only reduces transportation emissions but also lessens the environmental footprint associated with extraction and production. Moreover, incorporating insulation and high-quality windows enhances a building's energy efficiency, leading to decreased energy demands and lower emissions. Architects and engineers are increasingly integrating renewable energy systems into their designs. Solar panels, wind turbines, and geothermal systems can transform buildings into net energy producers, contributing surplus energy back to the grid. This not only reduces reliance on fossil fuels but also promotes a more decentralized and resilient energy infrastructure.

Water conservation is another critical aspect of sustainable building design. Implementing rainwater harvesting and greywater reuse systems minimizes strain on municipal water supplies and lowers the energy required for water treatment. Additionally, green roofs and permeable pavements can mitigate stormwater runoff, reducing the burden on drainage systems.

In conclusion, building design is a linchpin in the pursuit of sustainability. Through thoughtful consideration of orientation, materials, energy systems, and water management, architects and engineers hold the power to create structures that harmonize with the environment rather than deplete it.

By prioritizing sustainability in design, we pave the way for a more ecologically balanced and resilient future.

BRANKO MILETIC, EDITOR

The Awards Jury



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



JEREMY SPENCER Director, Positive Footprints



MARNI RETI Architect, Kaunitz Yeung Architecture



BEN PEAKE Design Director, Carter Williamson Architects



KATE NASON Sustainability Advisor, Frasers Property



SIMON LINCOLN Asia Pacific Director, Make Architects



ALEX SYMES Founder, Alexander Symes Architect



DAVID COATES Founder, Sustainable Building & Design



MAHALATH HALPERIN Architect & Director, Mahalath Halperin Architects



SIMONE SCHENKEL Founder, Gruen Eco Design

Q&A with Kate Cotter from the Resilient Building Council

Kate Cotter is the CEO and Founder of the Resilient Building Council. And she is incredibly driven to solve some of the biggest challenges architecture, design and construction are confronted with: namely, how to build better, more resilient buildings that can face the increasing natural hazards of this country. From humble beginnings, the not-for-profit organisation is now going from strength to strength, having a tangible impact on people across Australia. We sat down with Kate to learn about all things past, present, and future for the Resilient Building Council.

A&D: What is the Resilient Building Council – and how did you become interested in building resilience in the first place?

KATE COTTER: The Resilient Building Council's main objective is adapting the built environment in order to build sustainable communities. We measure the performance of buildings, so we can help people understand what to do to adapt.

My drive to start this project came from personal experience. I live in an area that was affected by the Black Friday bushfires in 2009, and, at the same time, my parents were trying to build in another region down the coast and wanted to make their home really resilient. I found that both the people recovering from the disaster, and people trying to build new dwellings, all had the same problem: they wanted to know what to do and what would work.

It seems like such a simple question, but all the information and assistance is fragmented, contradictory and confusing. So I thought, could we measure the performance of buildings? Could we do that through rating programmes, so people could understand it easily? And then could we link that to insurance, mortgage finance, and all the other things? Because everybody benefits if we've got more resilient communities.

In essence, we wanted to think about what kind of mechanism would really help everybody. And so I just grabbed every expert I could find – I think they just all want to leave a legacy of applying their research in a way that really makes a difference. So, really, it's just a collection of the best brains that we could find to try and help people. **A&D:** And did you have any experience in the industry before that?

KC: I have a Master's in business administration and I've been running a vineyard, and so my work was impacted by bushfires. Really, everywhere I went, both personally and professionally, disasters were affecting my life. I come from a family of engineers and my parents have built a few houses, so I had that, plus I always had a genuine love and appreciation of architecture. But this was just a pretty important problem that I thought needed solving – so I decided to put my hand up and have a go.

A&D: Seems like a natural progression! Tell us about the Bushfire Resilience Star Rating and app.

KC: So we started back in 2014, building this ratings model for bushfire, and we took that to both government and some industry sponsors who all gave us a grant and some sponsorship money to turn that into something we could scale and get out into people's hands. We were just trying to find ways to translate science, put it into the hands of everyday people, so that they could do something with it. So we built a self-assessment app – it's free, anyone can use it – and we co-designed that with lots of communities who were recovering from the 2019/20 Black Summer bushfires.

It was great to be able to work with those communities and see what they need and how to make that really practical. And the ratings have now extended to flood, storm, cyclone, heatwave, and are integrated with energy efficiency ratings. That work has been funded by the New South Wales and federal governments, and is coming out in April as software for assessors to use.

A&D: And getting down to the nitty-gritty of resilient construction, what role does material selection play in building resilience?

KC: Materials obviously play a really important role. So what we're basically measuring is the robustness of the building in the context of its environment, including its local hazard risk. And the goal is to get buildings to last a very long time, that protect people, protect their homes, protect their livelihoods and their businesses.

That means, we're trying to find building systems and methods and materials that can really withstand both today's risk and future risk. And we're trying to think about cost in a different way; to look at it over the building lifecycle – not just that upfront spending, but also the financial implications if a building has to be completely rebuilt down the line or repaired all the time.

Materials are important in looking at various hazards and different types of impacts. Traditionally, we've looked at things in silos. So the way we do things in terms of building codes, and even our trades and experience, might be just for bushfire, or just for flood, or just for energy efficiency. So we're really trying to bring all those disciplines together and explore great solutions for multiple hazards and energy efficiency and sustainability at the same time.

Doing that is not always straightforward. Sometimes there are trade-offs, and conflicts, and that's where all the technical work happens right

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at that intersection. That's a fascinating area to be in as we try to bring all that thinking together.

A&D: And what are the material considerations you need to factor in when looking at a resilience rating?

KC: For example, for bushfires we want a non-combustible external building envelope. That's critical. So that would include things like steel and fibre cement sheeting, and some of the more resistant timbers. We're also looking for contingencies. The way we measure the performance of a building is how much contingency is there, so we look beyond the building envelope and into the structure - which might be the roof structure and the wall structure. That's where we also want non-combustible materials. So we look to non-combustible insulation and steel framing, and back to some traditional methods like rammed earth, and straw bale, and mud brick, and all the things that have those sort of several layers of redundancy in them.

And then the detailing is also really important. So you can imagine for all the hazards, we're trying to keep out, keep out embers, we're trying to keep out wind, and we're trying to keep out water out of homes. So detail is really important too.

A&D: What about when it comes to embodied carbon? Does resilience have an impact there as well?

KC: We've been doing some research to measure the embodied carbon abatement from improving resilience. So back to the point about considering a building's whole

lifecycle - at the moment, resilience isn't really factored into how we measure carbon. So we got University of Wollongong's Sustainable Buildings Research Centre (SBRC) to model and measure the embodied emissions abatement from our bushfire resilience rating pilots, which meant actually retrofitting homes and then saying: 'Right. What's the embodied carbon? Do we need to add some more resilience to that building? And how much carbon does it avoid if we don't have that loss and damage in the future?' So, part of the work of the ratings is to be able to measure that and to be able to provide an input into how we actually consider, measure and account for embodied carbon.

It's really interesting stuff. The disciplines have traditionally been quite separate before we started to think differently about carbon, emissions and sustainability. Resilience was just sitting somewhere on its own. Now that thinking is coalescing, and it makes a lot of sense to consider these things holistically.

A&D: So many things to consider and so many moving parts – have you put all of this into practice anywhere?

KC: Yes! The Fortis House project is the embodiment of the rating. It's a way to demonstrate how you actually build something that would get a high resilience rating for the hazards. It was a project out of the South Coast of New South Wales, following those Black Summer bushfires – and then they had floods, and landslip – so it wasn't just one hazard. So we brought all those multi-hazard experts together to figure out some designs that people could use, that we made available for free, and worked with some fabrication suppliers. The objective was to enable people to get the highest resilience rated home quickly and a bit more affordably.

And, obviously, there was a great need there with people rebuilding – it often takes five, six, seven years to get back on your own land – and we wanted to reduce that time while still making the buildings way more resilient than the minimum standards.

A&D: Amazing, so what's next on the agenda for the Resilient Building Council?

KC: Our focus in the short to medium term is really on expanding these core pieces of work, and the ratings are sort of central to that. We're focused on industry training and accreditation, getting assessors, builders, trades and designers skilled up in how to get this multi-hazard resilience and sustainability. Architects and designers, in particular, have got such an important role to play because they really set the tone for what our future looks like. And we really just want to provide that technical expertise, so that wherever we dream those buildings are going to go, they have got that sort of fundamental strength behind them.

We're also looking at expanding into other countries, and particularly being able to help some of the more vulnerable nations in our region. There's just so much need for this kind of work. So, for us, it's really about building upon the foundations we have created with ratings and those practical housing solutions – and giving us all a better chance of getting through the next few decades.

Lifetime Achievement Award



proudly partnered by BlueScope

A person who has over their career, shown exemplary efforts in advancing the progression of the sustainable built environment in Australia.



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Award Winner



DAVID BAGGS

David Baggs has provided leadership within the profession and industry for more than 45 years by engaging during most of this time in sustainability educational, advocacy and facilitation of professional outcomes and design excellence at a whole-of-profession level and with world leading project outcomes.

David has used his deep architectural, scientific and sustainability knowledge garnered in over 45 years of experience within the profession, to create useful industry-wide tools and educational content for green-design -focussed architects, designers, and other professionals, where the deep scientific 'dive' and assessment work on the full spectrum of sustainability issues are fully considered.

He has promoted the appreciation and advancement of sustainability in Australia by his teaching of UNSW Architecture students in annual addresses over 10 years, as well as lectures at Griffith University, Murdoch University, University of Technology Sydney, University of Western Sydney and hundreds of architects and designers in his CPD courses several hundred public talks, seminars, peer reviewed papers, and panel presentations at universities, conferences, expos and online presentations.





WINNER

DICK CLARKE

Dick Clarke has influenced sustainable design and construction across the nation for decades. Mostly widely known as an accredited building designer he has played many roles over the years.

Dick has been a regular judge on various industry design awards, such as the Sustainability Awards, BPN Sustainability Awards, AWA (Australian Window Association) Design Awards and the Clean Energy Council awards.

He was Director of Sustainability, and Past President of the NSW Chapter, of Building Designers Australia (BDA). He is a Past President and Board Member of the Association of Building Sustainability Assessors (ABSA). He has represented BDAA on the NatHERS to AccuRate upgrade (Technical Advisory) committee, and BASIX Reference Group in NSW.

Dick is a founding author and editor of the acclaimed Your Home series, recently released in its sixth 20-year anniversary edition. He also edited the sort after book for designers, builders, and homeowners, How to Rethink Building Materials.

Certifications: Transparency and credibility at the core of BlueScope's sustainability value proposition

In recent years, the understanding of sustainability - and the importance of incorporating sustainable practices and products in architecture and design - has grown exponentially. Specifiers and other stakeholders increasingly expect clear and transparent information about the sustainability performance of building products to inform their decision-making.

Ecolabels and Standards such as Environmental Product Declarations (EPDs), Global GreenTag GreenRate[™] certification and ResponsibleSteel[™] are a powerful source of truth when it comes to an organisation's or product's sustainability credentials. BlueScope, a leading manufacturer of innovative steel products, systems and technologies, considers them key to their offering.

"Responsible products and supply chains are a critical part of BlueScope's broader sustainability strategy," says Philippa Stone, BlueScope's Sustainability Manager. "The third party verification that accompanies our sustainability certifications ensures that the information is robust and credible," she continues.

ENVIRONMENTAL PRODUCT DECLARATIONS

For BlueScope, transparency underpins their sustainability efforts. "Specifiers and customers want to know the impacts of the products they're using," Philippa explains. That's why BlueScope was an early adopter of EPDs, being the first manufacturer in Australia to publish one under the EPD Australasia Programme in 2015, and why these documents sit at the very centre of the company's sustainability value proposition.

An EPD communicates transparent data about the environmental impact of a product over its full lifecycle. It's an environmental declaration born from the need for credible, consistent and transparent product disclosures.

"An EPD doesn't suggest whether a product is environmentally 'good' or 'bad' - what it does, is provide the user with a set of facts that enable them to make an informed choice, much like a nutritional label," Philippa explains.

"The information included in an EPD includes environmental indicators such as global warming potential (greenhouse gas emissions), water use and resource depletion. This data can be entered into a life cycle assessment (LCA) model for a building which then helps design teams make informed decisions about which products will help to achieve their sustainability objectives. And the data can assist when undertaking embodied carbon assessments."

Importantly, BlueScope's EPDs can contribute to the achievement of credits under green building rating schemes such as Green Star and IS Rating. "The interest and demand for green building projects is growing. Momentum is really building in this area as evidenced by EPDs now being recognised by programs such as Green Building Council Australia's (GBCA) new Responsible Products Framework," Philippa says. Not surprisingly, EPDs are becoming more common in the building industry and BlueScope's EPDs can help to gain specification preference for both BlueScope and their customers.

EPDs have to be reviewed every five years - or more often if there's been a significant change to relevant processes - to ensure they continue to be a fair representation of a product. In Australia, BlueScope has updated a number of their EPDs in the last few years, along with releasing new EPDs for selected products in the COLORBOND® steel range, ZINCALUME® steel, TRUECORE® steel, DECKFORM® steel, GALVASPAN® steel and GALVABOND® steel.

"We have an ambitious goal to publish EPDs for all our branded products and more EPDs are due to be released in the coming months", Philippa says. "It's a significant undertaking, the LCA model underpinning our EPDs mimics our steelworks which is incredibly complex. That means as significant changes in the steel works occur, or as our inputs like raw materials and energy consumption change, we revise our model to reflect them. Updating existing EPDs was also an opportunity for us to build on the information we first published in 2015, providing our stakeholders with more specific and accurate information about our products," Philippa continues.

GLOBAL GREENTAG GREENRATE™

An ecolabel is a mark that can help customers and consumers quickly identify products that meet specific environmental performance criteria. As with EPDs, products with ecolabels can contribute points under green building rating tools such as Green Star and the IS Rating Scheme.

With EPDs as a solid foundation, BlueScope has continued to build upon their product





credentials, with a number of key products certified by the Global GreenTag GreenRate[™] certification program achieving the highest rating 'Level A'.

While an EPD doesn't evaluate the product, the GreenRate[™] ecolabel establishes what good looks like, and sets a standard for products to achieve. This provides independent recognition of the product's sustainability credentials.

GreenRate[™] takes a broad view of sustainability considering both environmental and social factors. Philippa mentions some of the elements taken into consideration: "Factors that are assessed include the availability of a carbon footprint, a water footprint and health and eco toxicity of the product, but also the company's approach to social sustainability including human and labour rights. It's a holistic assessment," she concludes.

Ecolabels such as EPDs and GreenRate[™] are incredibly valuable, not just for BlueScope as a manufacturer. They have a crucial role to play in building rating tools, like Green Star. Selecting products that have these ecolabels attached to them can be an easy and cost-effective way to contribute to Green Star ratings.

RESPONSIBLESTEEL™

ResponsibleSteel[™] is the steel industry's first global independent multi-stakeholder standard and certification program. Their mission is to be a "driving force in the socially and environmentally responsible production of net-zero steel globally". As Philippa explains, BlueScope has long held the view that certification can give customers and communities confidence in the environmental, social and governance performance of steelmaking and steel processing facilities.

Launched in 2019, BlueScope has proudly played a leading role in the development of the ResponsibleSteel[™] Standard. The stewardship scheme provides a simple and robust framework for organisations and project teams to meet their sustainability objectives and manage risk in their supply chains when using steel in their design. There are 13 guiding principles that include climate change and greenhouse gas emissions, water stewardship, biodiversity and human and labour rights.

"The rigour of the Standard is what sets ResponsibleSteel[™] apart," Philippa explains. "The strength of the scheme is its multi-stakeholder approach. Along with BlueScope, steel giants such as ArcelorMittal and Tata Steel, amongst others, are also ResponsibleSteel[™] members. Broader steel value chain members in Australia include BHP, South32 and Lendlease. Civil Society Members such as CDP, The Climate Group and Mighty Earth ensure that the Standard is robust and Associate Members such as the Green Building Council of Australia, Infrastructure Sustainability Council, Australian Steel Institute and the Australian Supply Chain Sustainability School facilitate its adoption in

industry," Philippa explains.

In 2022 Port Kembla Steelworks became the first site in the Asia Pacific region, and the fourth steelmaker in the world, to obtain ResponsibleSteel[™] certification. BlueScope's Western Port site achieved certification in September 2023.

In Australia, ResponsibleSteel[™] certification has been formally recognised in the Green Star 'Responsible Products Framework', operated by the Green Building Council of Australia. All products manufactured at a ResponsibleSteel[™] certified site are recognised as 'Good Practice' products under the Framework. This means that all BlueScope's Australian products, produced from steel manufactured at Port Kembla Steelworks, can support customers to achieve Green Star ratings.

"When considering their sustainability objectives, steel certification, ecolabelling and product declaration frameworks are vital tools for supporting our customer's decision-making," Philippa concludes. "Our enduring product solutions can support sustainable development and form part of a critical circular economy."

BlueScope's commitment to transparency, stewardship and continuous improvement sets them apart as an Australian-based steel manufacturer and as a sustainability leader in the Australian steel industry.

For more information, please visit steel.com.au/sustainability

Building a sustainable future with steel

The strength, durability, and adaptability of steel make it vital to modern economies. It's used in the construction of our homes and workplaces, in bridges and infrastructure projects, renewable energy generation, and in everyday electronics and equipment on which we all depend. It can be reused or recycled repeatedly without loss of quality, and steel is fundamental to a successful circular economy. Globally, steel supports the direct employment of over 6 million people and more than 49 million people indirectly. It's therefore not surprising that BlueScope sees a strong future for steel, providing a critical foundation for sustainable economic development and the transition to a low-carbon world.

Philippa Stone, Sustainability Manager with BlueScope explains how Australia's largest steel manufacturer is working towards embedding sustainability in everything it does. "In our FY2023 Sustainability Report, BlueScope has described how we're focusing our actions to deliver on our five sustainability outcomes," says Philippa.

BlueScope's Sustainability Outcomes represent the sustainability challenges and opportunities their stakeholders consider most important. We look at some of these priorities within the Australian context and explore how they are translated into action at BlueScope.

CLIMATE ACTION

Climate change action requires transformative efforts across all sectors of the economy and BlueScope is actively contributing to this collective effort.

"BlueScope is committed to actively addressing climate change and investing in greenhouse gas (GHG) emissions reduction to transform our business for long-term success," Philippa says.

BlueScope has a 2050 net zero goal¹ and is targeting a 12% GHG emission intensity reduction by 2030 for its global steelmaking activities and a 30% reduction by 2030 for global non-steel making activities. BlueScope's progress is evident, achieving an 8.0% reduction in steelmaking GHG emissions intensity between FY2018 and FY2023².

Increasing the availability of scrap and maximising its use within BlueScope's steelmaking operations is a key focus for the company. According to data from the Association of Iron and Steel Technology, the proportion of scrap BlueScope incorporates in its Basic Oxygen Steelmaking process is industry leading3. Port Kembla Steelworks has increased its use of scrap steel from 21.5% to 25% over the past three years to maximise recycled content and reduce GHG emissions. BlueScope is exploring opportunities to use up to 30% scrap in its process in future. Philippa notes that in Australia there is insufficient scrap steel supply to meet BlueScope's current production needs of around 3 million tonnes of flat steel products per annum, and therefore several initiatives in lower emissions ironmaking pathways are being accelerated.

"We have continued to progress exploration of lower-emissions iron and steelmaking technologies. This includes the completion of a concept study with Rio Tinto to explore DRI and its application to Australia's Pilbara hematite ores in conjunction with Electric Smelting Furnaces (ESF), known as 'Melters'. We have also announced an options study to explore the longer-term, large-scale decarbonisation of ironmaking in Australia. This includes exploring natural gas as a transitional step to green hydrogen," says Philippa. "BlueScope has also expanded technology collaborations with global steelmakers, such as ThyssenKrupp, Tata Steel and POSCO."

As the business broadens its review of the most likely decarbonisation options for ironmaking in Australia, Philippa adds that the reline and upgrade of the No.6 Blast Furnace at the Port Kembla Steelworks, NSW will provide the bridge to a low-carbon future. In line with this, BlueScope is also developing and exploring strategies to reduce emissions from iron making in the mid-term which can be achieved using blast furnace technology.

"Trials at the Port Kembla Steelworks on the potential use of biocarbon to replace pulverised coal injection (PCI) into the blast furnace have generated positive initial results," says Philippa. "The results have been encouraging - biocarbon replaced up to 30 per cent of PCI during the trial with no adverse process or quality impacts identified."

Iron and steelmaking transformation will be dependent on the key enablers that underpin



BlueScope's 2050 net zero goal. "These include, technology evolution, access to raw materials and firmed, renewable energy, hydrogen availability and supportive policies," says Philippa.

RESPONSIBLE PRODUCTS AND SUPPLY CHAINS

With a long history of product innovation, BlueScope is dedicated to optimising material efficiency, enhancing beneficial use, and prolonging product life. "Our emphasis on product stewardship is geared towards enhancing the positive impact our products make to health and safety throughout their life cycle, with a crucial focus on reducing our environmental impact, including embodied carbon," Philippa says.

This is evidenced in various ways – for instance, BlueScope is creating strength for Australia's renewable energy future by providing locally-made steel for major wind farm projects. Philippa highlighted how a typical individual wind tower can include up to 300 tonnes of steel plate, averaging approximately 60 tonnes of steel for every megawatt (MW) of wind electricity generation.⁴

Another example is roofing products like COLORBOND[®] Coolmax[®] steel which is designed to maintain high solar reflectance. This not only has the potential to reduce roofing temperatures and keep buildings cooler⁵ but also helps mitigate the impact of urban heat islands.

In addition, BlueScope's range of high-strength steel grades can enhance the strength-to-weight performance in structural steel applications. This approach can minimise the volume of steel required, leading to potential embodied carbon savings compared to a reference building design that uses standard steel grades.

Steel also lends itself to structures that are designed for long life and future reuse. "For instance, TRUECORE® steel incorporates BlueScope's Activate® technology for improved corrosion resistance and can also support the adaptive reuse of existing structures," says Philippa. Light gauge steel framing made from TRUECORE® steel uses pre-fabricated components for efficient, enduring solutions that, having been custom-made offsite, can also help minimise on-site waste.

BlueScope's approach to sustainability and responsible products also extends to providing information about the environmental credentials of a range of their products to support customers' decision-making and sustainability objectives – this includes steel product certification, ecolabelling and product declaration frameworks.

Following the certification of the Port Kembla Steelworks to the ResponsibleSteel[™] Standard in 2022, BlueScope's Western Port site in Australia achieved ResponsibleSteel[™] site certification in September 2023. ResponsibleSteel[™] is the steel industry's first global independent multistakeholder standard and certification program.

"ResponsibleSteel[™] certification provides our customers with the confidence that BlueScope's Port Kembla Steelworks and Western Port facility meet the highest environmental, social and governance (ESG) performance standards. Certification reinforces our longstanding commitment to sustainability and will continue to support our purpose of strengthening our communities," said Philippa.

In another Australian example, BlueScope has published Environmental Product Declarations with the EPD Australasia Programme and select products are also certified to GreenTagCert[™] GreenRate[™], achieving the highest rating – Level A.

Collaborative partnerships are another integral part of BlueScope's approach to delivering sustainable product solutions. "BlueScope continues to work with its customers to understand and meet the growing demand for products and solutions that support their sustainability objectives and to collaborate with industry through key organisations such as the Green Building Council of Australia, Infrastructure Sustainability Council and Materials and Embodied Carbon Leaders' Alliance (MECLA)," says Philippa.

STRONG COMMUNITIES

BlueScope continues to progress a range of initiatives as part of its First Nations Framework.

"We continue to seek opportunities to support under-represented groups in the communities where we operate. Our Australian Steel Products business has appointed a First Nations Engagement Lead to manage the implementation of First Nations initiatives and commitments nationally, with work underway to collaborate and engage with First Nations businesses in the Illawarra, NSW," says Philippa.

In another example of how BlueScope is strengthening the communities in which it operates, BlueScope has recently released a Master Plan to develop 200 Hectares (Ha) of landholdings adjacent to the Port Kembla Steelworks. The unveiling follows intensive research and community involvement and will see the company transforming surplus land into a next-generation multi-industrial precinct.

The initiative has the potential to create 30,000 jobs in emerging industries such as clean energy and defence. With potential to enable significant long-term economic and social value for the Illawarra region, Mark Vassella, BlueScope Managing Direction and CEO says it will be "one of the most significant land transformation and jobs creation opportunities in Australia".

Mark Vassella also announced that BlueScope has signed a Memorandum of Understanding (MoU) with TAFE NSW to explore the opportunity for a 'Super TAFE' on the site. "We are delighted to be working with TAFE NSW to explore this opportunity. They share our vision for ensuring continued growth in opportunities that support people looking to build their careers in the Illawarra region."

"The BlueScope FY2023 Sustainability Report documents our progress and shares the many ways that we are living by Our Purpose - to create and inspire smart solutions in steel, to strengthen our communities for the future.

"BlueScope is continuing to explore and embrace opportunities to embed sustainability in all that we do," concludes Philippa.

For further information, please see the BlueScope FY2023 Sustainability Report.

- ¹ BlueScope's net zero goal covers BlueScope's scope 1 and 2 GHG emissions.
- ² FY2018 is the baseline year for BlueScope's steelmaking target of a 12% reduction in GHG emissions intensity by 2030.
- ³ Based on 2022 data reported by AIST member organisations.
- ⁴ BlueScope analysis conducted in 2020/21 based on underlying energy needs to meet 2030 state renewables targets. See BlueScope's Climate Action Report at bluescope.com.
- ⁵ Compared to conventional roofing materials of lower reflectance index, such as ZINCALUME® steel and all other roofing materials in the COLORBOND® steel range. Actual cool roofing performance will depend on factors including roof colour, roof shape, level and location of insulation, type, location, shape, and function of the building.



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