



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

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The Awards Jury



ALEX SYMES
Founder, Alexander Symes Architect



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



BEN PEAKE
Design Director,
Carter Williamson Architects



DAVID COATES
Founder, Sustainable
Building & Design



JEREMY SPENCER
Director, Positive Footprints



KATE NASON Sustainability Advisor, Frasers Property



MAHALATH HALPERIN Architect & Director, Mahalath Halperin Architects



MARNI RETI Architect, Kaunitz Yeung Architecture



SIMON LINCOLN Asia Pacific Director, Make Architects



SIMONE SCHENKEL Founder, Gruen Eco Design







Etex 'flicks the switch' in Australia

Earlier this year Etex Australia, the local manufacturer of Siniat products, celebrated a major milestone in their sustainability journey by "flicking the switch" to solar energy at their Altona plant in Victoria.

The completion of the Altona project is a significant milestone in the company's strategy to reduce emissions during the production process of their products.

"We are always actively looking at ways to reduce our emissions during the manufacturing process" explains Kathryn Walker, Etex Regional EHS & Sustainability Manager (APAC). "It is a key strategy in reducing the environmental impact of our operations and lowering the embodied carbon of our products.

"Reducing emissions is also requirement of the Climate Active certification we have on a range of locally made opted-in plasterboard and metal products. Under the Siniat Opt2Act carbon neutral program, customers can choose to opt-in for carbon neutral product. The specific products opted-in are certified by Climate Active as Carbon Neutral.

"The solar plant supports our decarbonization strategy, which is also one of the five pillars of the Etex Road to Sustainability 2030."

The Altona solar system was designed to reduce the use of fossil-fueled electricity grid power at the plant by approximately 20%. The 1.45 MW system consists of more than 3,000 solar panels that cover approximately 80% of the Altona factory roof space. Siniat plasterboard and compound products are manufactured at the Altona plant.

The investment is expected to reduce the Altona site's carbon footprint by over 1,700t

CO2-e per annum or roughly 6% of Altona's gate-to-gate emissions.

In May the company celebrated the completion of the Altona project by hosting an event that was attended by The Hon. Lily D'Ambrosio, Minister for Energy & Resources in the Victorian Parliament; Melissa Horne, MP for Williamstown and senior members of the Etex Group leadership team, including Etex CEO Bernard Delvaux.

Several members of the Etex Australia leadership team and local teammates also shared in the moment the solar system was officially turned on.

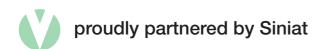
In her speech, Minister D'Ambrosio commended the Etex Group for their investment into the project, saying that the Government supports and encourages businesses that are passionate about sustainability.

Etex CEO Bernard Delvaux said the Etex Road to Sustainability 2030 is a key priority for the Etex Group. The Road to Sustainability 2030 is a global roadmap for the company that sets clear ambitions across these five priority areas: health, safety and well-being, customer engagement, diversity, equity and inclusion, decarbonisation and circularity.

Gavin Burton, Regional Manager (APAC) of the Etex Building Performance division, announced at the ceremony that the Etex Australia has been given the green light to investigate the installation of a solar system of similar scope and size at the Matraville plant in NSW.

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Public Building Award Shortlist



A building or facility or artwork which primarily services, or is used by the public except educational facilities.



BRIMBANK AQUATIC AND WELLNESS CENTRE WILLIAMS ROSS ARCHITECTS



GUNDITJ MIRRING KEEPING PLACE PHILLIPS/PILKINGTON ARCHITECTS



NATIONAL THROWS CENTRE OF EXCELLENCE PHILLIPS SMITH CONWELL WITH FABRITECTURE AND XLAM



PIMPAMA SPORTS HUB LIQUID BLU



QFES NORTH COAST REGIONAL HEADQUARTERS AND MARYBOROUGH FIRE AND RESCUE STATION BABER STUDIO ARCHITECTS

Award Winner





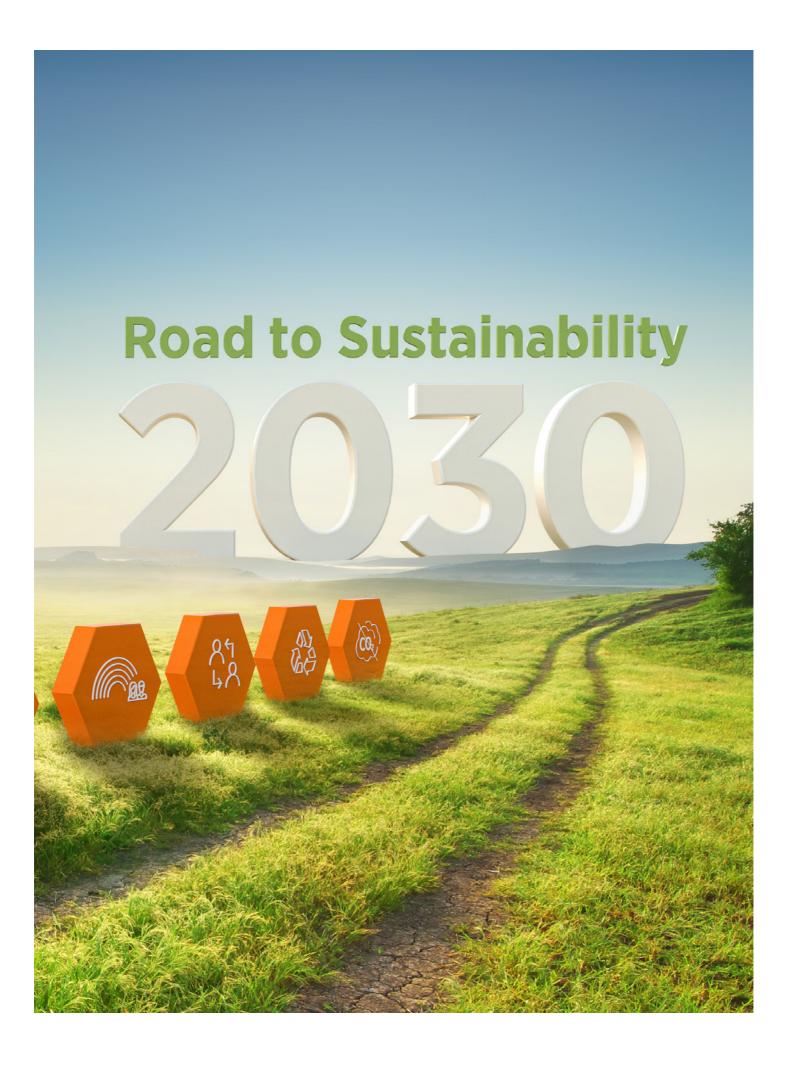
PIMPAMA SPORTS HUB

LIQUID BLU

Pimpama Sports Hub is Australia's first sports and community precinct to be designed to be 100% energy self-sufficient, setting a new benchmark for sustainability in sports and leisure facilities.

The project included the development of a 14-hectare integrated sports and community facility on the Northern Gold Coast in Queensland, Australia. The project is designed to support healthy lifestyles and community connection in a largely a suburban area within the fastest growing region of Queensland.







Siniat's decarbonisation journey

Sustainability is one of the four strategic pillars of the Belgium-based Etex Group – a global industrial group and major supplier of lightweight construction solutions. The Sustainability Roadmap 2030 was announced in 2021, and outlines a clear strategy for the business to achieve firm targets over the coming years.

Within the Roadmap, decarbonisation is one of the five listed priority areas. The 2030 ambition is to reduce emissions intensity in the Group by 35% from a 2018 baseline. The Group is committed to reaching net zero carbon impacts by 2050 at the latest through a reduction of energy consumption and a shift in energy sources and technologies on a global scale.

The other priority areas are circularity; customer engagement; diversity, equity and inclusion, and health, safety and wellbeing.

As part of its decarbonisation strategy, Etex also has a program for transitioning to renewable electricity for operations, and the percentage of its worldwide purchased electricity from renewable sources is 74% (as of the 2022 Annual Report).

Etex Australia, the manufacturer of Siniat plasterboard and metal products, has been working on a decarbonisation plan of action for well over a decade, and is continuing to invest in new strategies. Focus areas include the reduction of energy consumption, recycling, optimising equipment and packaging reduction.

In terms of the manufacture of Siniat Australia's plasterboard products, there are two major emissions sources in the gate-togate production: natural gas (Scope 1) and electricity (Scope 2).

"These two sources cover over 98% of production gate-to-gate emissions generated in the manufacturing process of plasterboard," explained Regional EHS & Sustainability Manager Kathryn Walker.

Siniat Australia is planning to transition to 100% renewable electricity sourcing for manufacturing and distribution sites by 2030, which includes the installation of an on-site solar plant completed this year in their Altona Plant. The installation of a similar solar array at the Matraville site is currently being investigated.

"Water consumption is another key driver of emissions. The consumption of water is inherent to the production of plasterboard and reducing water consumption is directly related to a reduction in energy consumption," Kathryn said.

"Waste generation is also addressed in the decarbonisation process. Our target is zero

waste to landfill. In the 2021-22 reporting period landfill waste accounted for less than 7% of wastes on site. All plasterboard production waste is recycled.

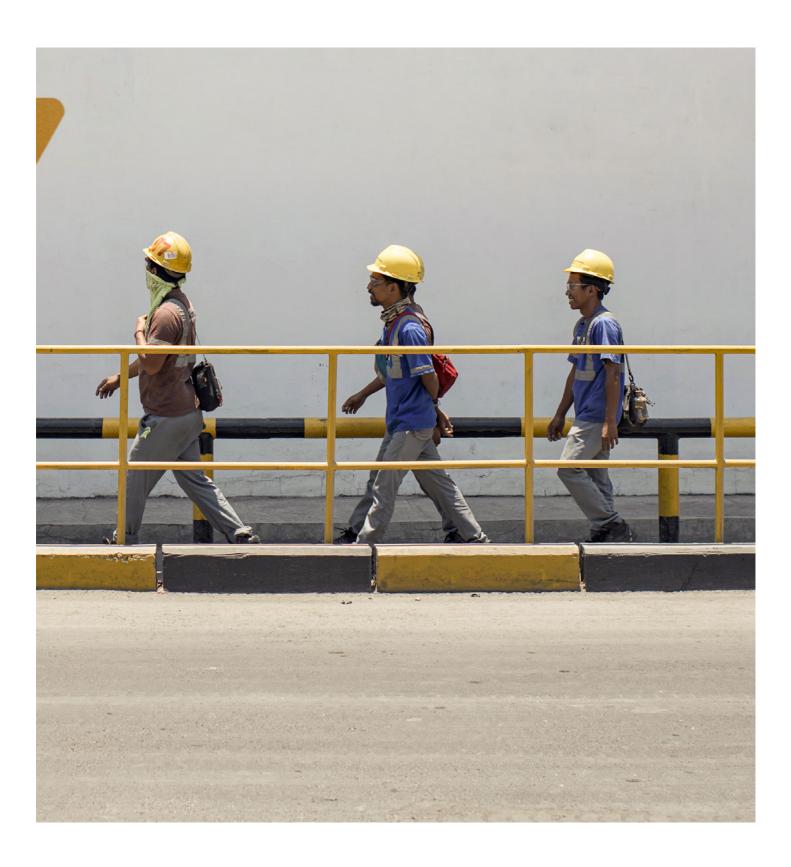
"We also regularly conduct inspections of our equipment and optimise machinery by identifying any air leakages and improving energy efficiency," Kathryn said.

Siniat Australia has been working to map and understand their Scope 3 or upstream and downstream emissions for their products and include this as part of their cradle-to-grave approach to their Climate Active reporting.

"Decarbonisation is not only about the big strategies; it's a concept that should be understood and embraced by every teammate in the company. Sometimes teammates who are not working in the sustainability team can come up with great ideas," Kathryn said.

"Every bit counts and through training and ongoing awareness campaigns we strive to encourage behavioural change so that decarbonisation is something that every teammate takes to heart and actively participates in."

Taking strides on the Road to Sustainability 2030





The Etex Group, global Belgium-based company behind the Siniat brand, recently celebrated one year since the launch of their Road to Sustainability 2030.

The Road to Sustainability 2030 is a global roadmap for the future over five priority areas: health, safety and wellbeing; diversity, equity and inclusion; customer engagement; circularity and decarbonisation.

The Etex Group operates over 160 facilities in 45 countries. Each of these sites and locations have their own unique conditions and challenges, but the priority areas of the roadmap remain the same everywhere. We take a look at how they translate into action at Etex Australia, the manufacturer of Siniat products.

HEALTH, SAFETY AND WELLBEING

"It is notable that three out of the five priority areas of the Road to Sustainability 2030 are focused on people, indicating that social sustainability is a serious consideration for the business," says Kathryn Walker, Regional EHS and Sustainability Manager (APAC).

"In Australia safety has always been our number one priority, but certainly our strategies have been boosted since we joined the Etex Group who regards safety as the very foundation of the business. We place a strong emphasis on safety training and have been following the SafeStart program that addresses human behaviour that can lead to injuries and fatalities.

"We can see how the participation rate in safety engagement actions is increasing. The result of the latest Gallup engagement survey had the highest results on safety ever," Kathryn said.

Etex Australia teammates are also currently participating in the Virgin Pulse GO program; a holistic platform that promotes all aspects of health and wellbeing to highlight the importance of wellness and a balanced lifestyle.

DIVERSITY, EQUITY AND INCLUSION (DE&I)

The Etex Group has identified clear goals for 2025 to give equal opportunities to all

Etex teammates. Strategies include the strengthening of governance and framework to cover 100% of teammates by DE&I policies, procedures and practices; the training of all teammates on DE&I issues, and eliminating the gender pay gap.

In the past year the focus in Australia has been on building more DE&I awareness in the workplace. Ambassadors have been appointed and a local roadmap with long-term objectives that align with the Etex goals has been developed.

A recent successful initiative undertaken by the Australian business was the celebration of International Women's Day with an online event in which several senior women in the business shared their career journeys and challenges. All teammates were invited to attend and it provided an opportunity to connect and share.

CUSTOMER ENGAGEMENT

"We regard customer engagement as a critical part of our business strategy," says Stephanie Olsen, Siniat Marketing Manager. "We have been asking customers for their feedback on our products and service by means of an NPS survey for the past 3 years and have made several changes based on the feedback. One example is the introduction of a special resolutions team to our customer service department to assist with customer enquiries and improve service."

"Siniat is known and respected for our ability to work with customers for the best solution. We often accommodate their project needs by manufacturing bespoke plasterboard and metal solutions, and our engineers are known and trusted in the field for their hands-on advice and ability to quickly and efficiently assist on site and in person," Stephanie said.

Stephanie emphasises that Siniat's Opt2Act® carbon neutral program was also created in response to a request from a customer, Lendlease, who expressed the need to reduce embodied

carbon for the Barangaroo project in Sydney. Under the Opt2Act carbon neutral program, customers can opt in for products that are carbon neutral certified by Climate Active.

CIRCULARITY

The Sustainability team at Etex Australia is currently working on various circularity strategies, but Kathryn emphasises that circularity is not only about the big company initiatives. It is about engaging the workforce and changing the behaviour of every teammate.

"We have already recently seen encouraging initiatives started by teammates in various areas of the business, including the establishment of a worm farm at our Beenleigh plant for compostable material. Another example is a project that was initiated in one of our factories where disposable plastic cups used for testing were replaced by metal cups to reduce plastic waste on site," Kathryn said.

"It is important that teammates realise that every bit helps, and that everyone can help to make a difference."

DECARBONISATION

In 2023 Etex Australia celebrated the completion of a major milestone in their decarbonisation journey with the inauguration of the solar power plant at their Altona plant. (See the article elsewhere in this e-book).

Etex Australia is currently investigating the installation of a similar plant at their Matraville plant in Sydney.

"I think it is important to highlight that projects of this scope and size are not the only ones that can make a difference. We recently rectified a number of air leakages, improved insulations and made adjustments to equipment in our factories, resulting in improved energy efficiency and reduction of emissions," Kathryn said.

