

BORAL NEWS



MAY 2019



58 PATRICIA RODRIGUEZ

**WE LAUNCH OUR REFLECT
RECONCILIATION ACTION PLAN**

USG BORAL LAUNCHES EASIBOARD™

**A DAY IN THE LIFE OF OUR
STONE PLANT IN MEXICO**

**FORWARD MOVING AGGREGATE SPREADER
REVOLUTIONISES SPRAY SEALING**

ORANGE GROVE QUARRY UPGRADE COMPLETES

SECURING A KEY RESOURCE IN WA



Improving our business

Our safety results so far this financial year are very encouraging. While we can have setbacks in any given month, we are making impressive progress in reducing the frequency of accidents.

Boral North America and USG Boral both have a year-to-date lost time injury frequency rate (LTIFR) below 1.0, which are world-class results, and the progress in Asia is truly remarkable. Boral Australia is also delivering commendable improvements with a year-to-date LTIFR of 1.7.

The trajectory we are blazing may seem difficult to sustain, but remember this is a marathon not a sprint. We need to stick to the programs we have instituted and know that over time we will achieve sustainable Zero Harm outcomes.

There is a lot happening across the organisation – no matter where you are in Boral.

We have had leadership changes at senior levels. At the same time, we are rolling out the Organisational Effectiveness program in Boral Australia, a cost reduction program in USG Boral, and further cost and revenue synergies in Boral North America.

These initiatives are about streamlining our activities, realigning the business to cyclical slowdowns, taking costs out where they have crept in, and creating efficiencies that allow us to focus on the things that are really important to Boral's success.

Changes like these can destabilise a business or transform it – and Boral is in great shape for transformation. These changes are about delivering on our financial commitments and building our business for the future.

In our global businesses cost, price, margin and share are critical factors that can never be ignored – only at our peril. Safety, quality, customer satisfaction and community engagement will ensure our success.

All of the above are reflected in the quality of our people, which is evident in the values that we practice every day.

Transformation is easy to say, harder to deliver. But you know that.



Mike Kane
CEO & Managing Director

FRONT COVER IMAGE:
Patricia Rodriguez from Boral's
manufactured stone plant in Mexico

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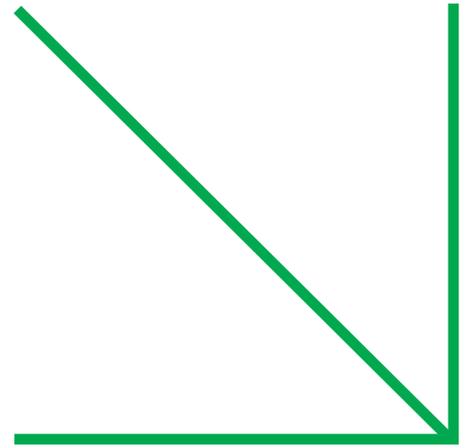
Isabel Menton
Communications
and Partnerships Manager

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Inside



Features

08

Advancing reconciliation efforts
We launch our Reflect Reconciliation Action Plan

10

Meeting the needs of our customers
USG Boral's new mid-tier product

12

Forward Moving Aggregate Spreader
Innovative new vehicle improves safety

16

Orange Grove Quarry upgrade completes
Teamwork ensures project success

22

A day in the life
Behind the scenes at our manufactured stone plant in Mexico

Regulars

02 NEWS

03 PRODUCTS

04 PEOPLE

06 PROFILE

Ros Ng

20 SAFETY

24 IN THE COMMUNITY

TAKE FIVE

Five interesting projects across Boral



USG Boral ceiling plasterboard and associated products were used in the construction of The Club Stand for Victoria Racing Club Members at Flemington Racecourse.



Boral's Saxony Slate concrete roof tiles are featured on Timbers Kaua'i Ocean Club & Residences in Hawaii.



The Rockhampton spray seal team provided more than 100,000 litres of bitumen per day for *Australia's Longest Shortcut*, a road 120 kilometres east of the Simpson Desert.



Boral concrete was used to construct state-of-the-art segmental tunnel linings for the Forrestfield-Airport Link in Perth.



Boral's low carbon ENVISIA® concrete was used in Punchbowl Mosque because of its light appearance, good off-form finish and low shrinkage.

Construction of one of Boral's largest capital projects begins!

We have begun building our new cement grinding and storage facility at the Port of Geelong. The \$130 million capital works project is one of the largest that we have undertaken. Its completion will be a team effort with business units from across Australia working together to *build something great*.

Southern Region concrete will be responsible for batching and supply of concrete and two mobile batch plants from Queensland have been mobilised to the site. Boral's cement and logistics teams will supply and transport raw materials.

The new facility will be connected to Lascelles Wharf by a conveyor system, which will enable more efficient unloading and processing of materials, and significantly increase Boral's production capacity to meet growing infrastructure demand in Victoria.

"Our new facility will have the capacity and operational flexibility to provide our customers with secure supply of a broad range of products that support their growth," said Ross Harper, Group President, Operations. ■



Construction begins at Geelong



Testing augmented reality at Moy Pocket Quarry

Augmented reality trials

Augmented reality and site-planning tools are being trialled at Boral's quarries. Teams can use the technology to look into the future of a quarry pit and view mine plans from any angle or position on site.

Our Moy Pocket Quarry in Queensland was the first quarry nationally to experience the next generation of augmented reality and site-planning tools.

"This is an excellent tool for quarry and mining applications. It's like having an updated instruction sheet on hand.

Overall, it will improve the way we plan our drill and blast program. It's also a great device for discussions with pit crews as it provides a visual representation of future plans and insight into how to proceed," said Justin McNeich, Quarry Supervisor, Moy Pocket.

The tool could also simplify discussions of proposed designs and design changes with clients, by enabling them to view an overlay of the proposed design and look at the details from different angles. ■

New asphalt plant provides more sustainable solutions

Boral has opened a new, state-of-the-art asphalt plant in Charlton, Qld. The new plant is equipped with the latest available technologies for optimal efficiency and emissions controls to meet Boral's sustainability goals and support future growth.

"We are providing a safe and rewarding workplace for our people and are seeking to minimise environmental impacts," said Rob McGuire, General Manager, Boral Asphalt, Qld.

The plant can process reclaimed asphalt pavement, which means that old road surfaces are removed, processed and used as raw material to manufacture

asphalt, reducing the need for virgin rock and bitumen.

"Delivering world-class safety performance and developing less resource and energy-intensive products for our customers are central to our vision of delivering performance excellence and sustainable growth," said Rob.

"Boral is proud to be part of the Toowoomba community and looks forward to supplying quality asphalt products and services well into the future," he added. ■



The Charlton asphalt plant

DID YOU KNOW?



780

EMPLOYEES AT OUR STONE PLANT IN MEXICO – THE LARGEST EMPLOYER OF ANY BORAL SITE GLOBALLY



11%

OF OUR EMPLOYEES HAVE BEEN WITH BORAL FOR 21+ YEARS



Victoria One, Melbourne, Vic

Boral concrete innovation: ASPIRE™

Boral's ASPIRE™ concrete has been used in the construction of the 74-storey Victoria One project in Melbourne. It was specifically designed to reduce the dimensions of walls to maximise floor plans in commercial and high-rise buildings and increase productivity.

With cement replacement exceeding 40%, ASPIRE™ has very high strength, high modulus of elasticity and low shrinkage. This allows for more efficient design of vertical elements in tall buildings. ■

Virtual Remodeler app transforms customer experience

Boral North America's Light Building Products business has launched Virtual Remodeler, an online visualisation tool. It showcases how a customer's home exterior will look by applying different products such as stone siding, shingle siding, shutters, gable vents, and trim board profiles, textures, and colours to a photo. Once they have chosen a finished look, a product list is generated for easy ordering. ■



BORAL BUILDING PRODUCTS | **VIRTUAL REMODELER** CUSTOMIZE A HOME, EVEN YOUR OWN

Senior leadership changes



Ross Harper, Ros Ng and Wayne Manners

As part of several changes to Boral's senior executive team, Joe Goss has moved into a senior advisory role reporting to Mike Kane. Under Joe's leadership, Boral Australia has delivered strong financial and safety improvements.

Wayne Manners has now taken up the role of President & CEO of Boral Australia following his time looking after WA and major projects.

Ross Harper, who was running Boral Australia's cement operations, has taken on the role of Group President Operations, with responsibility for Boral Australia, Boral North America and Group HS&E. He will work closely with Wayne and David Mariner, President & CEO of Boral North America, in this new role.

Ros Ng has taken on an expanded role as Group President Ventures and Chief Financial Officer (CFO). In addition to her CFO duties, Ros will work closely with Frederic de Rougemont, CEO of USG Boral, and Chris Fenwick, CEO of Meridian Brick, to deliver the strategy and results of the joint ventures. Group Strategy and M&A will continue to report to Ros.

These changes are about ensuring that Boral is well positioned around executive capability today and in the future, and that we are prepared for an orderly succession of the CEO and other senior roles in the coming years. ■

Boral wins Veterans' Employer of the Year

The Prime Minister's Veterans' Employment Program presented Boral with the Veterans' Employer of the Year award in the large business category. This award recognises Boral's commitment to employing veterans and excellence in managing and retaining veterans through training, mentoring and engagement programs.

Boral has been at the forefront of employing veterans since our earliest years of operation, welcoming former Navy personnel returning from World War II with jobs at our first bitumen plant in the Sydney suburb of Matraville.

Our ongoing support has been enriched through several initiatives including establishing the Boral Defence Force Alumni, which provides a support and mentoring network for veterans transitioning to civilian life.

"I wish to express my gratitude and appreciation to the former and current defence personnel who make such an important contribution to our company," said Wayne Manners, President & CEO, Boral Australia. ■



Prime Minister's Veterans' Employment Awards night



Lauren Charlton speaking at the Queensland Women in Quarrying conference

Praise for Boral at Women in Quarrying conference

On 24 March, Lauren Charlton, Implementation Coordinator for the Ormeau Quarry Upgrade Project, presented at the Institute of Quarrying Australia's Queensland Women in Quarrying conference.

The conference boasted a full line-up of presenters who shared their insights into women in the workplace and how women can make the most of their position within the industry.

Lauren spoke about Boral's diversity initiatives and what it was like to be a woman working with Boral Quarries. She also shared stories relating to the opportunities she has been given at Boral.

"I have had such a positive experience at Boral. A highlight was working with the Boral Diversity & Inclusion Council on developing and implementing the flexible working policy and playbook. I am proud to be part of an organisation that is committed to supporting a diverse and inclusive workforce," Lauren said. ■



NATIONAL ENGINEERING DEVELOPMENT PROGRAM

Pathway to success created for Boral's engineers.

With so many dynamic major projects and so much infrastructure work underway and in the pipeline, engineers play a crucial role in our business.

In August 2018, Boral Australia launched the inaugural National Engineering Development Program to help our engineers define their career path within the company and develop essential skills to progress into leadership and operational roles.

Designed in conjunction with Engineers Australia, with input from major firms across key engineering and construction sectors, the program focuses on skills specific to Boral's operations, including Zero Harm and continuous improvement principles, project management, stakeholder engagement, and developing professional leadership skills.

Domenic Saffioti, National General Manager, Engineering Services, said the seven-month program provides an opportunity for professional growth and learning for Boral's engineers while working on real-time projects in the cement, asphalt and quarry businesses in addition to their normal duties.

“We value engineering at Boral. The purpose of this program is to equip our engineers with tools and concepts to enhance their strategic and lateral thinking, problem-solving, commercial and communication skills, and capability,” Domenic Saffioti, National General Manager, Engineering Services.

“This program aims to support our engineers to successfully integrate into a professional environment, and encourages collaboration when setting a trajectory for leadership and operational roles,” he added.

Emily Canda, who recently graduated from the program, said the training has broadened her practical understanding of Boral's operations and Zero Harm principles, and provided her with important leadership and project management skills.

“Engineering is much more than just calculations and design. We have a duty to ensure every design is safe for all people. We are the future leaders, and programs such as this give us great insight and help us develop good leadership habits early,” Emily said.

Julian Rodriguez-Benitez, Technical Manager at Marulan Limestone Mine, and a fellow participant, said the interactive training provided learnings that he can apply directly to his work. “This made it more meaningful for me. I learned that I still have a lot to learn, but also that I am willing to acquire new knowledge,” said Julian.

Julian, who was part of the cement business energy use audit team, said working on real projects provided valuable insight into potential opportunities for Boral, including how socially responsible engineering can support our focus on reducing our environmental footprint.

Expressions of interest are being sought for the next round of training. For details contact Domenic Saffioti at domenic.saffioti@boral.com.au or Emily Canda at emily.canda@boral.com.au by 31 May. ■

Pictured above: Richard FitzGibbon, Senior Project Engineer, Concrete NSW; Fadi Makhoul, Project Manager, Asphalt Southern Region; Imran Hossain, Graduate Engineer, Southern Region Logistics; Juan Saavedra, Cement Project Engineer, Waurin Ponds; Mitra Karmini, Graduate Engineer, Asphalt SA; Hana Musa, Project Manager, Asphalt NSW; Cassandra Palmieri, Account Manager, Asphalt SA; Michael Cacciavello, De Martin & Gasparini cadet; Emily Canda, Engineering Network Coordinator; Julian Rodriguez-Benitez, Technical Manager, Marulan Limestone Mine; and Jayah Clair, Graduate Engineer, Midland Brick.



ROS NG



Recently promoted to the role of Group President Ventures and Chief Financial Officer (CFO), Ros Ng has clocked up 23 years of service with Boral. She has worked in Building Products in Australia, Boral North America and since 2013, as CFO for Boral Limited.

As well as her CFO responsibilities, Ros is Chair of USG Boral and on the Board of Meridian Brick. She is responsible for Group Strategy and M&A, and in her recently expanded role, she has broader responsibility for USG Boral and Meridian Brick joint ventures, working closely with Frederic de Rougemont, CEO, USG Boral, and Chris Fenwick, CEO, Meridian Brick, to deliver the strategy and results of the joint ventures.

Boral News caught up with Ros during her busy travel schedule to talk about her career and current focus.

BORAL NEWS: Tell us about your career and your roles with Boral.

ROS NG: I fell into finance accidentally. I was 17 and wondering how I could support myself if I moved out of home, which is when I came across a cadetship with Deloitte. It meant I could work through the day and go to uni at night.

From there, I did what many of us did back then: backpacked my way through the UK, where I stayed for four years until the cold got to me. I spent two years in Victoria working for Rip Curl before moving to Boral in 1995.

So, except for a year out, when I worked briefly in the tech sector, I have been with Boral for 23 years, starting as a management accountant in the finance department.

Since then, I have had eight roles within Boral, including CFO. I have worked for seven bosses, in six locations, reporting to five CEOs – and four chairmen.

It's been a terrific journey.

It's always encouraging and satisfying to see other people being given opportunities to grow and to do well – the same opportunities I have had in my career.

BN: What have been some of the highlights of your time at Boral?

RN: At a personal level, it's been great to see so many of my colleagues progress through the company. It's always encouraging and satisfying to see other people being given opportunities to grow and to do well – the same opportunities I have had in my career.

Professionally, the highlight has been working with Mike Kane and a talented and committed executive team over the past six years.

During that time, we have helped to grow Boral, reshape our portfolio and strengthen our financial performance. Being involved in two of our major transformational acquisitions was certainly a highlight: the acquisition of Headwaters, which has made Boral North America into a leader in niche building products, and a leader in fly ash; and the joint venture in Asia with USG Boral, which has enormous long-term potential for the company.

BN: What do you most value about working at Boral?

RN: The culture of the organisation and the people we have across all our divisions, across all our regions. Throughout my years at Boral, I have always been inspired by the fact that the Board and upper management support Boral's people in standing behind the values that define who we are and what we do: integrity, honesty, respect and a drive to perform.

BN: What are some of the key challenges in your new role?

RN: The main challenges I see in my new, expanded role are twofold. Firstly, how to ensure Boral allocates the right human and capital resources across our businesses in a way that leads to improved performance and improved returns to our shareholders.

Secondly, the need in my role to manage a larger and very diverse group of stakeholders, from our joint venture partners and our investors to our customers and employees.

I am excited by the diversity, the passion and the dedication of our people.

BN: What challenges do Boral's people face in Australia, North America and across Asia?

RN: All the divisions face external challenges that we can't control – whether that's economic drivers that underpin demand or the short-term impacts of weather that can seriously affect performance in any given month.

In Australia, for example, the challenge we currently face is a changing cycle in the market, from residential to infrastructure. It means we need to redesign and refocus our assets and our people to take full advantage of those changes.

In the US, we have a market that is growing but not as fast as we would want, so, the challenge there is to incrementally add resources now so we are ready when growth accelerates, as we believe it will. It's a tight labour market too, so finding the right balance is key.

In Asia, it's a question of increased competition. In some countries in the region, we have existing competitors adding capacity and in others, we have new entrants, also adding capacity. Our challenge is in differentiation – what makes Boral different in what is becoming a very crowded industry.

BN: What excites you about the future for Boral?

RN: I am excited by the generational changes we are making across our assets, especially in Australia, where we are upgrading many of our facilities.

And the talent we have here at Boral – I am excited by the diversity, the passion and the dedication of our people.

BN: What's the best advice you've been given, and your advice to younger colleagues?

RN: The best piece of advice I have ever been given is this: you have got to step out of your comfort zone; you have got to work hard and have a go.

As for my advice to younger colleagues, it's simple: you learn more from your failures than you do from your successes. I know it's tough when you are young to think of failures as a learning experience, but they are.

BN: Who has inspired you to work hard and persist?

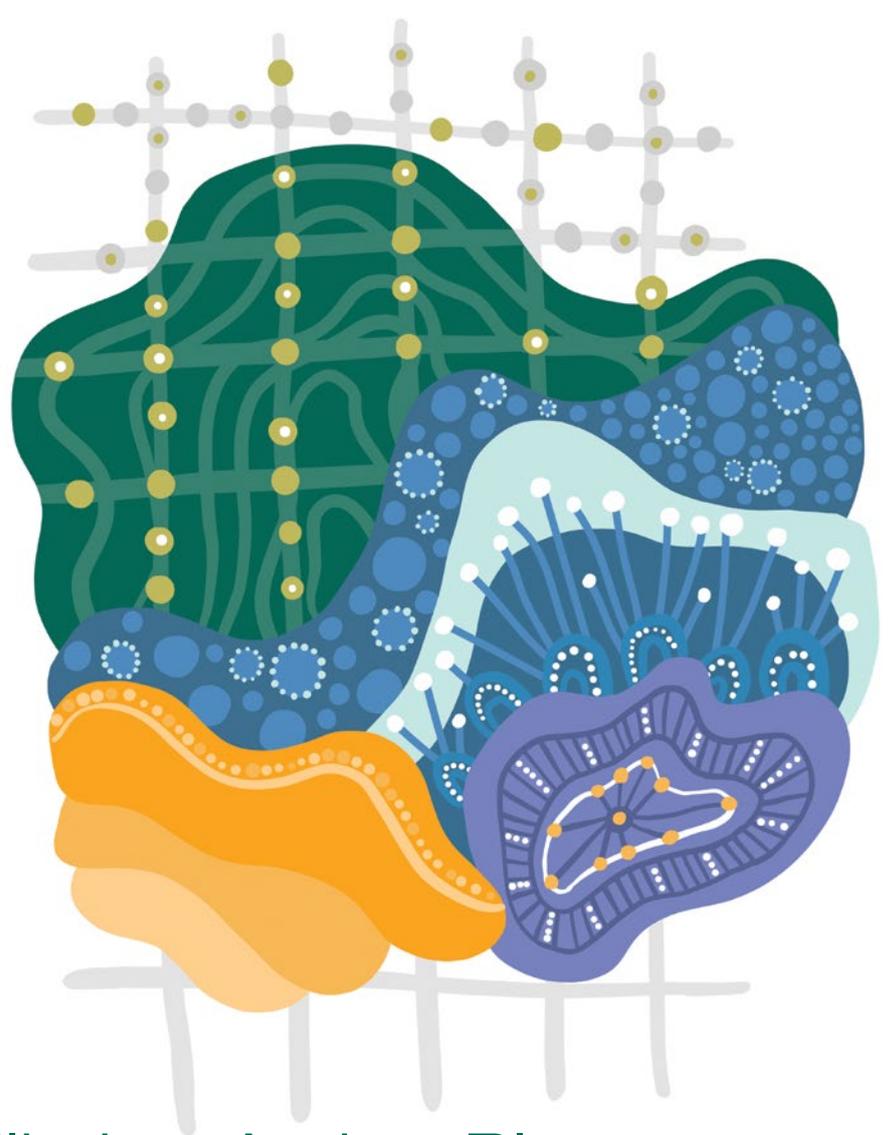
RN: My late mother, who through her entire life, taught me to have big dreams, big goals and determination, and to work hard.

My mother was born in the 1920s in China and passed away at age 90, so she lived through some momentous times. She was not academically educated, had to survive the arrival and the dislocation of Communism in China, flee to Hong Kong, survive World War II and then eventually, make the decision with my father to migrate to Australia.

She arrived here with no English, had to work at everything from piecemeal sewing to working as a housekeeper. There were tough times, but her goal was always consistent: to make a better life for her children. She still inspires me.

BN: What do you like to do in your spare time?

RN: I love being a sports mum. I love taking my boys, who are aged 15 and 13, to weekend sports. I enjoy watching them play sport and enjoy the camaraderie on the sidelines with the other parents. ■



Boral launches Reflect Reconciliation Action Plan

Boral's inaugural Reflect Reconciliation Action Plan (RAP) is hot off the press, having just been launched across our Australia-based operations.



A copy of
Boral's Reflect RAP
can be found at
boral.com/RAP

Our RAP, which has been endorsed by Reconciliation Australia, provides a framework for how we can advance our reconciliation efforts. As a Reflect RAP, it is the first of four stages under Reconciliation Australia's RAP Framework that we intend to progress through in coming years.

“Boral's Reflect Reconciliation Action Plan aims to broaden and strengthen the ways in which we can improve the prosperity, and social and cultural wellbeing of Aboriginal and Torres Strait Islander peoples and communities,” said Mike Kane, CEO & Managing Director.

While Boral has worked to progress the causes of Aboriginal and Torres Strait Islander peoples for many years, having developed our first Aboriginal Strategy back in 2005, the RAP will provide a consistent framework.

Commenting on the RAP, Wayne Manners, President & CEO Boral Australia said, “In some parts of the business, we have areas of excellence, but in other parts of the business, we could do better in relation to reconciliation. This RAP provides a consistent approach to achieving high

standards for all Boral's Australian operations relating to Aboriginal and Torres Strait Islander activities.”

Boral's RAP outlines clear, actionable commitments across the key pillars of reconciliation – relationships, respect and opportunities.

Our ambition is to further strengthen our relationships with Traditional Owners and grow our partnership approach with Aboriginal and Torres Strait Islander peoples, communities, programs and organisations. Our RAP is designed to strengthen cultural awareness, encourage staff participation and develop opportunities for Aboriginal and Torres Strait Islander peoples.

Boral's RAP champions include Lloyd Wallace, Executive General Manager for Southern Region, Boral Australia and Diversity & Inclusion Council Chairman, and Vince Scarcella, National Indigenous Affairs Manager. They will be responsible for driving and coordinating our RAP commitments. In addition, we will establish a RAP Working Group, which is one of our RAP commitments, to support the implementation of our RAP deliverables.

Changing lives through employment and training

Tony, a Mawinia man from Hobart in Tasmania, is a spray sealer with Boral Asphalt in Geelong.

At the age of 28, Tony is excited about his career possibilities, having recently been promoted to acting team leader of an asphalt crew. He is also training to become an asphalt spray truck operator, and has undergone training through Boral's registered training organisation.



Tony Marinoff, Plant Operator, Boral Asphalt

It's a long way from where Tony was seven years ago. He left school at the age of 16, and was unemployed after moving in and out of jobs. He also began getting into legal and financial trouble.

Today, Tony is proud of his achievements and grateful for opportunities to build his skills. He is also keen to encourage other Aboriginal and Torres Strait Islander youth to join Boral and be an example of how they can turn their lives around through employment and training opportunities. "If I can do it, I'm certain others can do it too."

"I encourage all our people across our Australian operations to embed our RAP commitments in how we do business."

Wayne Manners, President & CEO, Boral Australia

Boral engaged Gilimbaa, a Supply Nation-certified Indigenous-owned business, to design our RAP and reconciliation motif pictured at the top of page 8. Commenting on the motif, Gilimbaa artist Rachael Sarra explains, "The artwork illustrates the important place that culture, respect and relationships have as the foundations within the corporate environment and in Aboriginal and Torres Strait Islander communities."

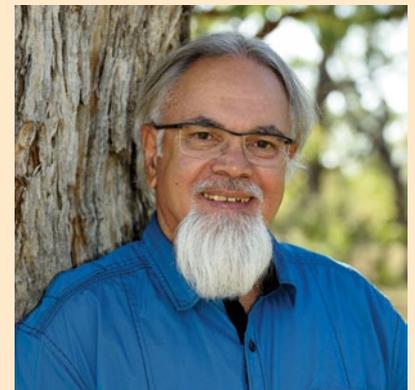
We intend to continue improving our approach to reconciliation by building on our successes, reporting on the delivery of our commitments and setting new more ambitious goals in the future.

"I encourage all our people across our Australian operations to embed our RAP commitments in how we do business and proactively support opportunities for Aboriginal and Torres Strait Islander peoples and communities," added Wayne. ■

Protecting our shared cultural heritage

Wally Bell is an Elder of the Ngunawal people and his clan group is the Yharr from Yass in NSW. He is involved in the Buru Ngunawal Aboriginal Corporation, which for more than a decade has been providing guidance for protecting cultural heritage at Boral's Peppertree Quarry in Marulan in NSW.

"The land [at and around the quarry] is very special to Aboriginal people and a place of spiritual significance, having been an important meeting place to source hard rock for tool-making," said Wally.



Wally Bell, Elder of the Ngunawal people

Since 2006, Wally and other representatives of the Traditional Owners of the land, have been undertaking sub-surface salvage and topsoil monitoring across a large area of the site.

They have salvaged and identified nearly 100,000 Aboriginal artefacts from various locations at Peppertree Quarry.

"Boral's team has been very supportive of our work at and around the quarry, not restricting the timeframe for us to do a thorough job. Their team has also learned what an artefact looks like, at times helping our digging efforts. I take the opportunity whenever possible to talk about our culture to the team.

It's important to understand how diversified our culture is and that there are many Aboriginal and Torres Strait Islander cultures across Australia."



USG BORAL LAUNCHES NEW MID-TIER PRODUCT

The USG Boral team has launched a new mid-tier product, EasiBoard™, in Thailand. EasiBoard™ is perfect for customers looking for affordable gypsum board with guaranteed standards of quality. We released EasiBoard™ in response to growing demand for residential and commercial products across the Asian market.

“We are excited to be launching EasiBoard™ in Thailand. As a leading innovator of plasterboards, and manufacturing and building solutions, USG Boral is always looking to provide new products for our customers, ensuring that their needs are heard and met,” said Tomoo Enomoto, Senior Vice President, Marketing and Sales Excellence, USG Boral.



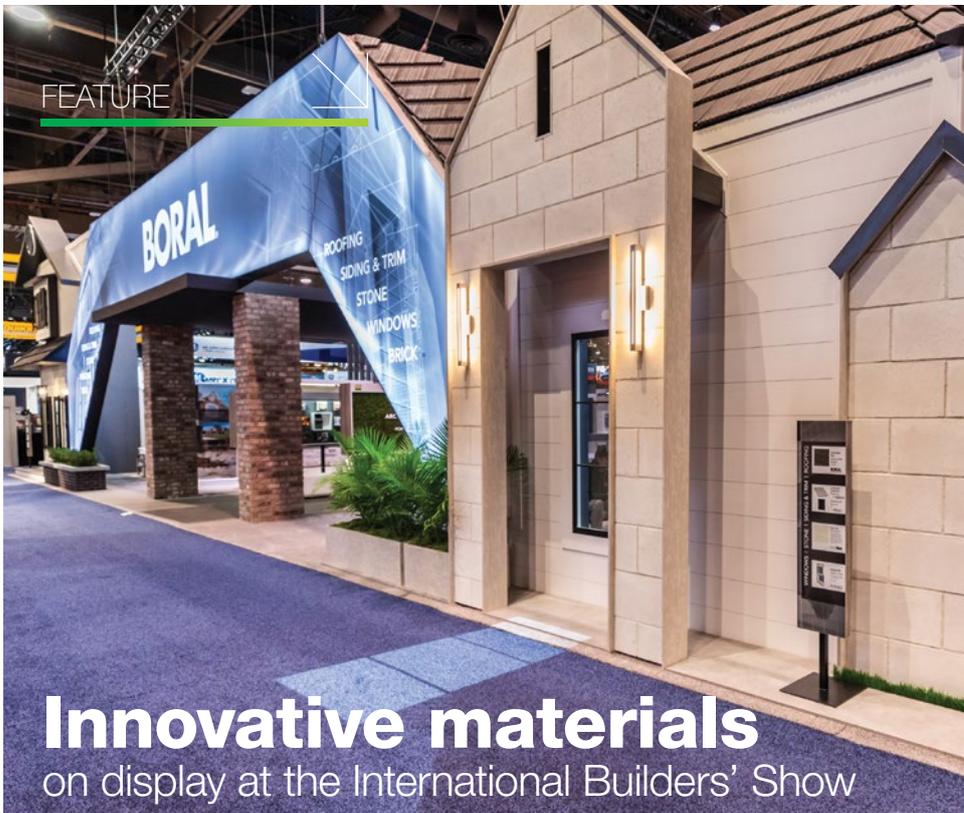
The launch of EasiBoard™ reflects USG Boral’s efforts to become more customer-centric and better serve the building industry in emerging markets. EasiBoard™ provides tradespeople with a quality solution that meets industry standards and is easy to install. The lower cost product also provides builders and installers with an opportunity to create value for their business and their customers.

“As a company that puts the customer at the heart of all we do, our customers’ needs were a key priority in the development of the Easi™ brand. USG Boral is committed to always providing the highest quality of building solutions for our customers,” said Frederic de Rougemont, CEO, USG Boral.

Initially, USG Boral will focus on distributors in the North Eastern region of Thailand, with the aim of growing our business in the highly competitive retail segment. ■

“We are excited to be launching EasiBoard™ in Thailand. As a leading innovator of plasterboards, and manufacturing and building solutions, USG Boral is always looking to provide new products for our customers, ensuring that their needs are heard and met.”

**Tomoo Enomoto, Senior Vice President,
Marketing and Sales Excellence, USG Boral**



Innovative materials on display at the International Builders' Show

Boral North America's portfolio of innovative building materials and solutions was on display to more than 100,000 people from around the globe at the National Association of Home Builders' International Builders' Show in Las Vegas, Nevada in February.

As a leading building products business in North America, Boral's purpose is to help our customers *build something great* by supplying them with high-quality, sustainable building products and construction materials.

At the show we displayed Boral North America's entire portfolio of innovative building materials and solutions, including siding and trim (light building products), roofing, stone, windows, Meridian Brick products and the latest technology from our Innovation Factory.

Crysta Hailes, divisional Communications Director, Boral North America, said "This year, the show provided an invaluable opportunity for our business to demonstrate the increased depth of our building products portfolio."

The show attracts builders, general contractors, remodelers, designers and product specifiers, so it's a great opportunity for the team to open many

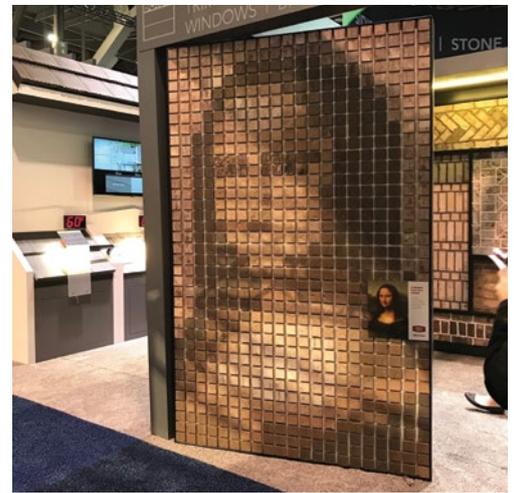
doors and develop new business. Both current and potential customers were surprised and excited about our extensive product offering.

Each entrance to the booth had a six-metre exterior home facade. Their design was inspired by today's modern and transitional architectural trends and featured products from multiple business units. Upon entering the booth, visitors experienced the 22 Boral brands on display through sight, sound and touch. Product demonstrations, videos and inspirational photography, and dozens of displays featuring new and bestselling products were also on offer.

"With a strong technology offering, those interested in putting their personal touch on a home's design enjoyed the touchscreen displays featuring the new Roofing Design-A-Blend app and light building products Virtual Remodeler," Crysta said.

A favourite of the discerning designer community, the stone area drew a crowd of customers, and editors of high-end design publications, eager to see the latest offerings from Boral's Eldorado Stone and Cultured Stone lines.

"The star of the show, and most photographed display, was Meridian Brick's modern take on Leonardo da Vinci's Mona Lisa. The 'brixilated' artwork was hand assembled using more than 800 pieces of the brand's thin brick line, Authentic Brick," Crysta said. ■



Mona Lisa 'brixilated' artwork



"The star of the show was Meridian Brick's modern take on Leonardo da Vinci's Mona Lisa.

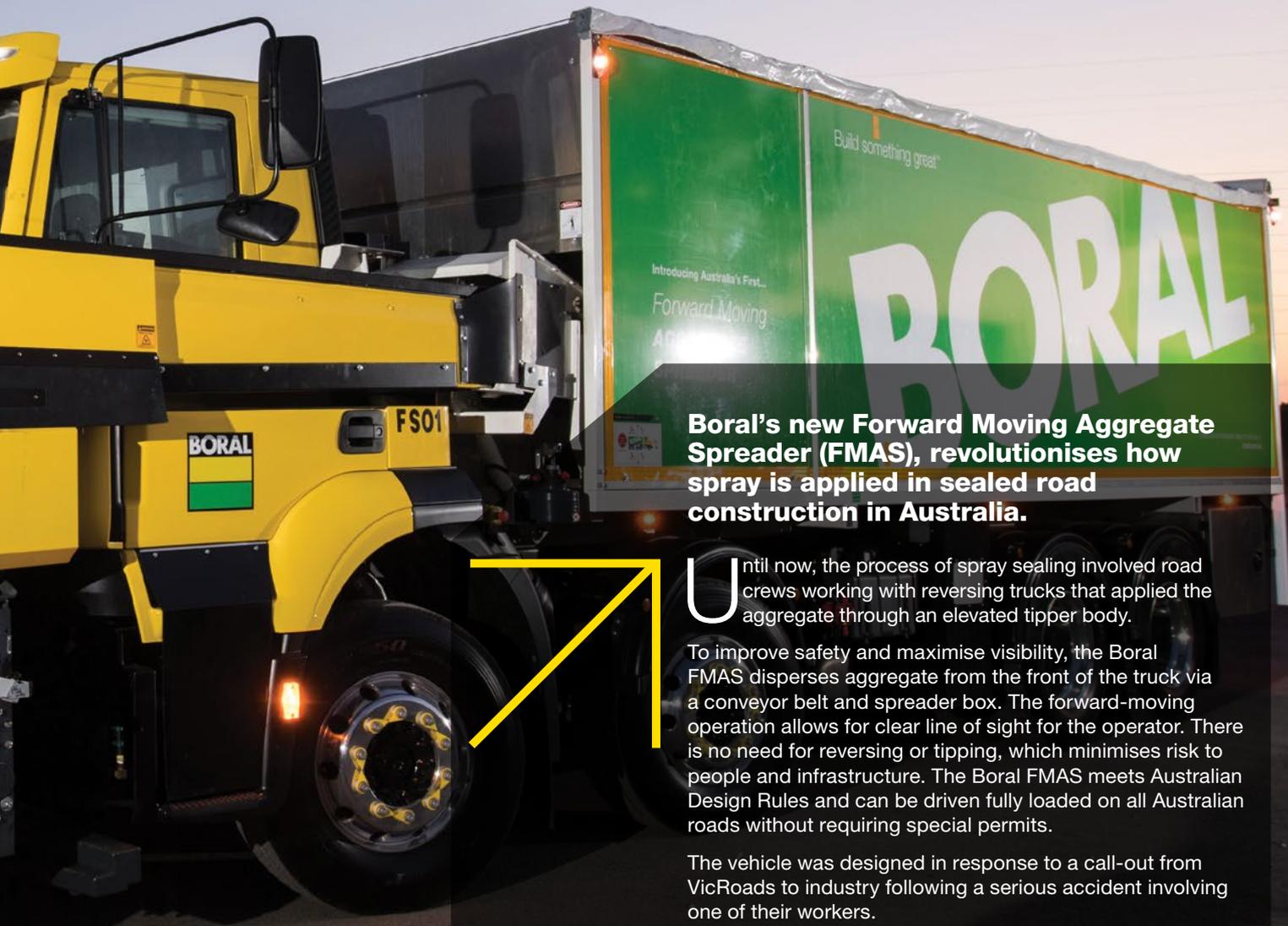
The 'brixilated' artwork was hand assembled using more than 800 pieces of the brand's thin brick line, Authentic Brick."

Crysta Hailes, divisional Communications Director, Boral North America



Nic Mutton, Plant Operator, Asphalt, with Boral's new Forward Moving Aggregate Spreader

START LOOKING FORWARD STOP LOOKING BACK



Boral's new Forward Moving Aggregate Spreader (FMAS), revolutionises how spray is applied in sealed road construction in Australia.

Until now, the process of spray sealing involved road crews working with reversing trucks that applied the aggregate through an elevated tipper body.

To improve safety and maximise visibility, the Boral FMAS disperses aggregate from the front of the truck via a conveyor belt and spreader box. The forward-moving operation allows for clear line of sight for the operator. There is no need for reversing or tipping, which minimises risk to people and infrastructure. The Boral FMAS meets Australian Design Rules and can be driven fully loaded on all Australian roads without requiring special permits.

The vehicle was designed in response to a call-out from VicRoads to industry following a serious accident involving one of their workers.

Wayne Manners, President & CEO, Boral Australia, said the new Boral FMAS demonstrates the company's commitment to Zero Harm.

"The Boral Forward Moving Aggregate Spreader reflects the importance we place on safety as well as our commitment to innovation and continuous improvement across all areas of our business," he said.



Start looking forward Stop looking back



“The task here was to come up with a solution to improve safety for road crews, including drivers, while at the same time making the process quicker, more efficient and higher quality.”

Stuart Partridge, National Asset Manager, Boral Asphalt



The new vehicle was designed by Stuart Partridge, National Asset Manager, Boral Asphalt. He said the decision to support such a bold undertaking reflects Boral's uncompromising commitment to safety and innovation.

“Surfacing roads has remained one of the most potentially challenging tasks faced by construction crews because of the nature of the material being used and the way that material is applied,” Stuart said.

Designing FMAS

After developing a list of minimum design requirements, Stuart looked locally and abroad for inspiration. While there were vehicles in Europe that met some requirements, their configurations did not meet Australian standards, nor did they eliminate all operational hazards. There were no vehicles in Australia that met the design requirements and the decision was made to design our own.

A project team was established in late 2016 that brought together specialists from Boral, Iveco and Secmair. The team focused on integrating the truck and

aggregate delivery system, while ensuring that any proposed design would meet Australian standards.

Stuart and the team reviewed various options for manufacturing and installing the aggregate hopper, spreader unit, aggregate feed system, cabin layout and control system. Different vehicle structures to accommodate aggregate flow from the hopper to the spreader unit were considered.

“The successful design was inspired by old steel trucks with a modified half cab, which allowed them to carry long lengths of steel,” said Stuart.

The Boral FMAS is a single-operator vehicle with full driver control over the aggregate spreading operation. The final design is based on a standard Iveco Stralis 8x4 wheeled cab chassis with a modified cab. For the initial prototype vehicle, Boral shipped the modified cab chassis from Australia to Europe and then re-imported the completed unit.

“This invention allows locally manufactured and approved trucks to be substantially modified while still meeting regulatory standards,” said Stuart.

Continuous improvement

The Boral FMAS design significantly reduces any potential infrastructure and overhead damage such as contacting power lines, trees or bridges.

“The task here was to come up with a solution to improve safety for road crews, including drivers, while at the same time making the process quicker, more efficient and higher quality,” said Stuart.

Due to the forward motion of the vehicle, the Boral FMAS can travel at double the speed of reversing tipper trucks, which will speed up completing and opening roads. As the aggregate spread rate is computer controlled and linked to road speed, aggregate delivery is more accurate. As a result, roads can be constructed within a tighter tolerance and with reduced aggregate wastage.

The vehicle can further improve efficiency as it does not require a spotter, allowing the person in this role to be redeployed within the crew.



Stuart Partridge, National Asset Manager, Boral Asphalt

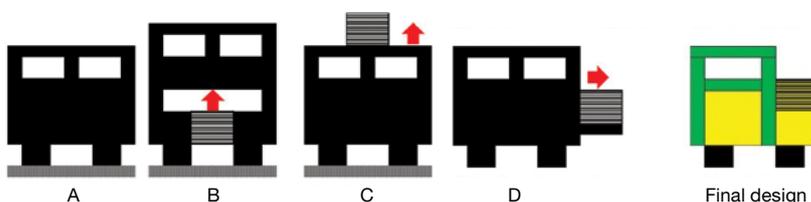
The future of FMAS

The Boral FMAS is currently operating in Victoria. VicRoads has announced that the use of forward-moving aggregate spreaders will be mandated from July 2022. The project team is now working on scale production with a goal to build the vehicles in Australia.

“I am so proud of the Boral FMAS. It took two years to design and build a revolutionary product. I am grateful that Boral gave me the opportunity to lead this project. I look forward to seeing more Boral FMAS operating in the future,” said Stuart. ■



Wet commissioning of the FMAS in Europe



Aggregate flow design concepts



Orange Grove Quarry upgrade

Teamwork ensures project success



Sarah Palmer, Project Manager, Capital Projects

A major upgrade of our Orange Grove Quarry in Perth has now been completed. We have invested approximately \$50 million and upgraded the entire crushing plant, including the primary, secondary, tertiary and quaternary crushing circuits. This has increased capacity of the quarry by 30% to 2 million tonnes per year.

The investment has streamlined processes and reduced the cost of production. It ensures Boral can maintain a competitive position to meet long-term demand in the WA market.

The plant was designed by incorporating examples of best practice from other quarries, with the aim of minimising the impact on the environment and the community.

“With new innovative technology that reduces noise and dust, the upgrade will also benefit the local community. This was an important priority for the project,” said Phillip Harris, General Manager, Quarries & Logistics, Western Region and Midland Brick.

Working as a team to overcome obstacles

The task of replacing the crushing plant presented a considerable challenge. The initial phase required the removal of 646,000 tonnes of rock to provide a level, hard surface for the new plant. The



The new crushing plant at Orange Grove Quarry

“The Orange Grove upgrade project was delivered by a team of people from different backgrounds with different experiences, but all committed to achieving a successful outcome for the business.”

**Sarah Palmer, Project Manager,
Capital Projects**

narrow site provided limited space for construction and stockpiling, making it necessary to build the new plant parallel to the old one, which continued operating to meet demand.

Part way through construction, the Orange Grove upgrade faced a significant setback when the head contractor responsible for designing and building the crushing circuits became insolvent. The Boral project team demonstrated resilience and persistence to deliver the project despite this setback.

Boral assumed the role of head contractor, directly managing all subcontractors to complete the project scope with Sarah Palmer, Project Manager, Capital Projects, taking the lead to restart the project.

The change in the project delivery model brought together members of a delivery team with diverse skills and backgrounds who had never previously worked together. Focused on achieving objectives through collaborative problem-solving and transparent communication, the team’s high performance culture was underpinned by a focus on safety, performance, support and care.

Sarah and the team worked hard to regain the trust of the contractors and suppliers who had been involved in the first stage of the project, many of whom had been impacted by the departure of the principal contractor.

“The team worked with integrity and transparency. They were able to rebuild and strengthen relationships with our contractors and successfully execute the project,” Sarah said.

“The Orange Grove upgrade project was delivered by a team of people from different backgrounds with different experiences, but all committed to achieving a successful outcome for the business. For us, success meant doing the best we could with what we had. We had a shared vision of achieving something together that was greater than our individual parts,” she added.



Orange Grove Quarry upgrade



Andrew Hales, Quarry Manager



During the construction phase of the project



Rehabilitation of local banksia woodland at Orange Grove Primary School

Supporting the local community

Boral is proud to be a valued member of the Orange Grove community. With the quarry estimated to have a remaining life of 100 years, we are committed to being a socially responsible and valued member of the community.

Our team regularly engages with the local community and shares information through regular meetings, newsletters and an Open Day, which gives community members the opportunity to visit the quarry and participate in on-site activities. Boral is also working with Conservation Volunteers Australia (CVA) on environmental conservation projects in the area.

In March, a team from Boral and CVA joined local students to revegetate and rehabilitate banksia woodland on the grounds of Orange Grove Primary School, following removal of Victorian tea-tree, which had spread in the area, increasing the fire risk.

Students prepared small packages of native seeds mixed with clay and soil containing the everlasting wildflower seed, which were then distributed in the school garden.



Mobile asphalt plant transported across Australia

While the Orange Grove Quarry was undergoing a major upgrade, the Boral Logistics team in Qld was engaged by Boral Asphalt WA to relocate a T400 mobile asphalt plant from the quarry to a new project site in Bringelly in NSW – the biggest move ever attempted by the team.

The task was enormous – transporting 11 trailers across the country using four company prime movers. The trailers were operating as both over dimensional and with excess mass. The move took four months to plan, with more than 400 permits required per truck due to the different regulations in each state relating to over-dimensional vehicles.

Boral drivers – Luke Carey, Russell Gourley, Antony White and Darryl Bell – undertook the mammoth task during which they each covered 30,000 kilometres over the six-week period they were away from home. More than 30 pilot vehicles were used together with police support to ensure compliance with all rules, regulations and dimensional guidelines across four states.

“I felt very privileged to be asked to be involved. We were all focused on getting the job done safely. It was a big achievement,” Luke said.

It took three return trips to relocate the 11 trailers, each taking 12 days to complete and covering more than 8,000 kilometres. The last three trailers were delivered to the site on 18 July 2018.

Thanks to the professionalism, dedication and support of the entire team, the move was completed without injury or incident and on time and on budget.

“This move really demonstrated One Boral – that great collaboration of all the business units coming together as one. It was challenging, being based in Queensland, to get all the trailers registered and permitted. We couldn’t have done it on our own,” said Wade Clarke, Operations Manager, Logistics, Qld.

In its new location, the plant is being used for major project work secured by Boral. ■



Transporting the mobile asphalt plant

The school principal, Mrs Lesley Ghent, said, “We are thrilled to be part of this community initiative. It’s great to see students engaged in a way that is fun while also being educational. They can get their hands dirty while learning about the native environment and helping to restore it.”

The rehabilitation project is one of more than 200 environmental projects across Australia that Boral has supported over the past seven years. **“We are delighted to have celebrated more than 30 years of partnership with CVA, our longest-standing community partner, which reflects our long-term commitment to supporting the communities in which we operate,”** said Michael Wilson, Group HSE Director.

The future of Orange Grove Quarry

Orange Grove Quarry has access to a long-term reserve of high-quality granite/dolerite suitable for a broad range of quarry products and construction projects. It is Boral’s only hard rock quarry in Perth and the key supply source for the integrated downstream concrete and asphalt network in WA.

With a production capacity of approximately 2 million tonnes per year and location close to the inner-city market and transport corridors will ensure Boral is well positioned to meet demand in growing residential markets to the north and south of the city, in addition to major infrastructure projects. ■



A community open day at Orange Grove Quarry



MY LEARNING SPACE WINS GLOBAL INNOVATION AWARD

Boral has won a prestigious international award for using specialist learning technology that is improving compliance and making our workplaces safer.

In a first for an Australian building and construction materials company, Boral has been awarded a Gold medal for achieving outstanding measurable results in learning and development by the Brandon Hall Group, a US-based leading independent research and analysis firm.

The *My Learning Space* centralised training and compliance system ensures that we can effectively monitor the ongoing training needs of more than 6,000 staff members across Australia and provide standardised access to online training.

Giovanna Romeo, National Capability and Development Manager, Boral Australia, led the development and implementation of the new system. She said that building a strong team with the right skills and working closely with stakeholders from across the business on design and delivery were key to the success of the project.

When Giovanna was asked to take on the *My Learning Space* project in 2015, she had more than 20 years of experience working in a wide range of Human Resources roles at Boral, having started as a work experience student in 1997. This experience, combined with Giovanna's deep understanding of the business, meant she was able to identify factors that were critical to the success of the project.



From left: Learning Systems Business Specialists Hanumanth Indirala, Gouri Pradhan and Michelle Smith; Giovanna Romeo, National Capability and Development Manager; and Sumanth Panta, Human Resources Business Analyst

"I recruited a great team with the specific skills required for the job. We worked closely with many stakeholders across the business to ensure we fully understood their needs and the challenges they were facing," Giovanna said.

Bill Fisher, Executive General Manager, Human Resources, said the award recognises Boral's commitment to Zero Harm and the continuing focus on improving safety performance.

The new system ensures that Boral employees receive standardised training that aligns with our Health, Safety, Environment and Quality (HSEQ) standards. We can now see what training each employee needs. Employees also receive notifications about required training and licence expiry dates. Importantly, all online training is in one place. Since implementing My Learning Space, Boral's safety figures have significantly improved.

"It's made a huge difference to our operations Australia-wide in terms of efficiencies, cost savings, and most importantly, safety," Giovanna said.

The Chief Operating Officer of Brandon Hall Group and head of the awards program, Rachel Cooke, said that Boral was highly deserving of the award.

"As human capital management continues to evolve, the creativity of the award winners is breathtaking. Organisations of all sizes showed that creativity and technology can create new and better work experiences for businesses and their employees," she said. ■

"As a leader in the building and construction industry, our highest priority is to ensure our workers are safe, but this can only happen if you have the right training and compliance systems in place."

**Bill Fisher, Executive General Manager,
Human Resources**



ZERO HARM TODAY

IMPROVING SAFETY ACROSS BORAL



New pallets that meet Australian standards

Safer pallets that reduce costs

USG Boral teams across three countries have collaborated to improve safety and efficiency of pallets. Compound pails imported from Malaysia and transported on pallets made from pine would frequently split in transit and could become unstable when stacked. Once received, the compound pails had to be transferred to new pallets to meet Australian standards and fit into warehouse racks.

A team from Malaysia, Australia and New Zealand worked together to design safer pallets that can be used for both shipping and storage in Australia, and are sized to optimise loading in the shipping container.

“Safety has been improved and so has our profitability. We were looking to solve a safety issue and ended up reducing staff effort and the cost of new pallets. Less product is wasted and we’ve streamlined receipt of compound pails across two countries,” said Tim Harrington, ANZ Category Manager, Compounds. ■

New vehicle and pedestrian management plans

Every day within Boral’s businesses people have to operate on foot in areas where vehicles and mobile plant may be operating.

The Quarry Products Council, with the support of HSEQ and the National Resources Group, has implemented the National Quarries Vehicle and Pedestrian Management protocol that sets mandatory minimum requirements for traffic management.

Workshops have been held at quarries across Australia to identify potential hot spots and develop new, safer traffic management plans that minimise interactions between pedestrians and vehicles. ■



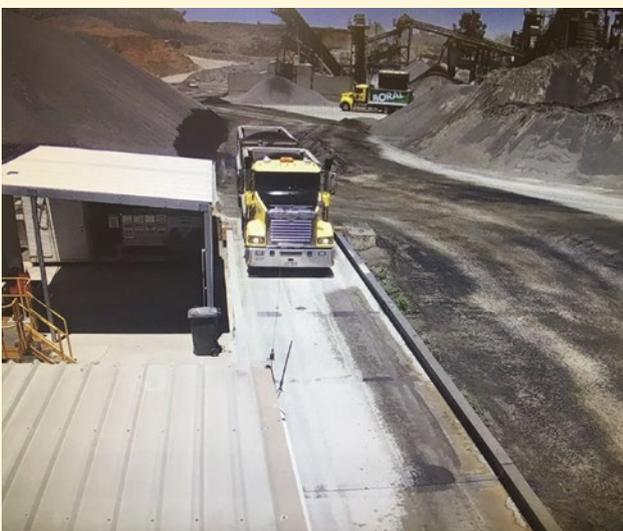
Workshop at Moy Pocket Quarry, Qld

Weighbridge cameras improve safety and efficiency

The team at Wellcamp Quarry installed new cameras above the weighbridge to enable drivers to review the distribution of their loads before leaving the quarry.

The cameras were installed after there were instances of drivers arriving at their destination to discover they had an off-centre load. The safety risks linked to unloading meant drivers were forced to return to the quarry to reload in a controlled environment.

In addition to improving efficiency, the cameras also allow drivers to identify any loose material that may have spilled on top of their tarps or combing rails. This has eliminated the risk of loose rocks falling off tippers and onto public roads. ■



A truck approaches a weighbridge camera



A DAY IN THE LIFE OF...

Boral North America's manufactured stone plant in Tijuana, Mexico

Boral News spent a day at Boral's manufactured stone plant in Tijuana, Mexico. With more than 780 employees, it is the largest employer of any Boral site globally.

The facility – previously part of Headwaters – produces Eldorado Stone®, one of our two premium manufactured stone brands, and our fastest growing extension brands: Eldorado Outdoor™ and Eldorado Fireplace Surrounds, for the US and Canadian markets. The site has significantly transformed over the past year: manufacturing capacity has increased more than 20%, staff turnover has halved and safety performance has dramatically improved.

“We are committed to keeping our employees motivated, engaged and safe. We are proud of the transformation we are successfully undergoing.”

Felipe Lavanchy, Plant Manager



Employees arrive at the facility. Boral provides transport to ensure the safety of all employees travelling to and from work.



Production Leader Domingo leads the firebowl production team through its morning routine of stretching, followed by safety, quality and production discussions.



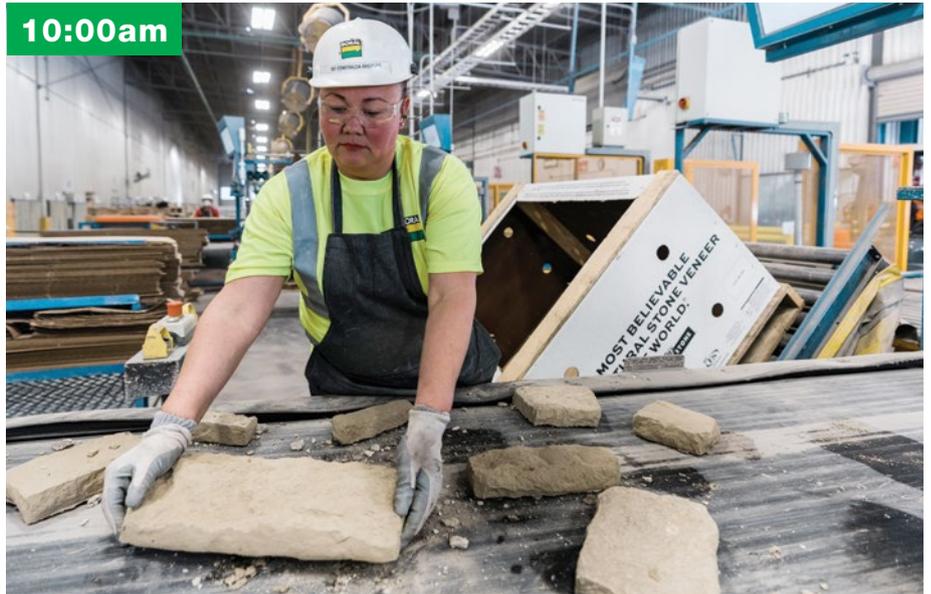
The plant stops for a weekly shift meeting led by Felipe Lavanchy, Plant Manager, and several production leaders. These meetings always address safety, quality and production.

9:30am



Maria hand paints the mold cavities to create the look of natural stone. Once complete, a proprietary concrete and aggregate mixture is poured into the molds.

10:00am



After the stone has cured for 24 hours, it is strong enough to remove from the molds. Esmeralda removes the previous day's finished stone products.

12:30pm



Firebowls, fireplace surrounds and outdoor living products are being manufactured in a standalone building. Carlos sands and polishes the products after they are removed from their molds.

2:00pm



The quality team completes the daily inspection of finished goods. Jose and Patricia check a corner stone for corner and dimensional accuracy.

3:00pm



After passing inspection, completed products are packed into boxes for sale.

4:00pm



The finished product is loaded in preparation for transport to the distribution centre in Perris, California.



Eldorado Stone® products produced at Tijuana are sold across the US and Canada.



In the community

Protecting endangered frogs



NOV: Boral staff joined the team from Conservation Volunteers Australia to revegetate the only known habitat of the endangered Myola Tree Frog in the wetlands area in Cairns, Qld.

Skills training in Indigenous communities



DEC: USG Boral is donating plasterboard to First Steps, an Indigenous organisation, for a program that will provide training and employment pathways in building and construction for disadvantaged youths.

Supporting Indigenous performing arts



FEB: Boral is proud to be Bangarra's Regional Touring Partner. This year the dance company took its landmark production *Bennelong*, which explores the life of one of history's most iconic Aboriginal figures, to regional Australia.

Giving hope to vulnerable women



MAR: More than 60 employees from across Australia participated in Habitat for Humanity's Homes of Hope initiative to restore and rebuild homes for vulnerable women, including victims of domestic violence.

Bringing Christmas cheer with HomeAid



DEC: Boral is helping to provide homes for families experiencing homelessness through our partnership with HomeAid. In December, employees conducted a toy drive to help bring Christmas cheer to children.

Improving road safety across Australia



JAN: Developed in partnership with Boral, Road Safety Education rolled out new content for its heavy vehicle safety course, which is attended by 40,000 high school students each year.

Free swim event brings community together



FEB: Boral proudly supported the 20th annual Moorpanyal Park 1000 Swim, Australia's largest free open-water swimming event. This year more than 120 people tackled the one-kilometre course.

New regional ambulance facility



MAR: St John Ambulance Australia celebrated the opening of its new Morangup sub-centre, located 60 kilometres east of Perth. The bricks and landfill used to build this new ambulance facility were donated by Midland Brick, WA.

Celebrating inspirational women



MAR: Boral celebrated International Women's Day at sites across Australia. North Ryde hosted a special event where senior executives shared stories about their career, challenges they have faced and lessons they have learned.

Cleaning up beaches and the bush



MAR: Boral Youth at the Zoo members put their passion for environmental conservation into action for Clean Up Australia Day. They focused on cleaning up the local beach and bush areas.

IT'S IMPORTANT TO KEEP SOME THINGS DRY

WATER RESISTANT PLASTERBOARD

USG Boral water resistant plasterboard* for use in bathrooms, showers, laundries and toilets. Lightweight – quick to install – easy to handle, score and snap – less waste – superior finish in painted areas.

*Includes USG Boral 13mm WETSTOP™, Fire WetStop™ and MultiStop™ 4 and 5.

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