Boral Limited
ABN 13 008 421 761
Level 18, 15 Blue Street
North Sydney, NSW 2060

PO Box 1228
North Sydney, NSW 2059

T: +61 (02) 9220 6300
F: +61 (02) 9233 6605

boral.com.au

23 September 2021

The Manager, Listings
Australian Securities Exchange
ASX Market Announcements
Exchange Centre
20 Bridge Street
Sydney NSW 2000

Dear Sir

2021 Sustainability Report

We attach the Company's 2021 Sustainability Report.

We note that the Annual Report and the Sustainability Report are available on Boral's website at www.boral.com.

Authorised for release by:

Dominic Millgate
Company Secretary


BORAL
For a greener gold
Sustainability Report 2021

For a greener gold

Contents

Forward looking statements

This report contains forward looking statements, including statements of current intention, opinion and expectation regarding Boral's present and future operations, possible future events and future prospects. This includes statements regarding the impacts of climate change and other environmental and energy transition scenarios. These forward looking statements are based on the information available as at the date of this report and they are, by their nature, subject to significant uncertainties, many of which are outside of the control of Boral. There are also limitations with respect to scenario analysis, and it is difficult to predict which, if any, of the scenarios might eventuate. Scenario analysis is not an indication of probable outcomes and relies on assumptions that may or may not prove to be correct or eventuate.

Actual results, circumstances and developments may differ materially from those expressed or implied, and Boral cautions against reliance on any forward looking statements in this report.

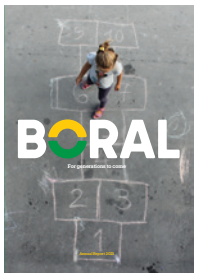
Performance measures used in this report

Earnings before interest and tax before significant items is an alternative measure to that prescribed under International Financial Reporting Standards (IFRS) that Boral uses to provide a greater understanding of the underlying performance of the Group. This information has been extracted or derived from the financial statements. Significant items are detailed in Note 2.1 of the financial statements and relate to discontinued operations, takeover costs and expenses associated with significant transformation and restructure costs, and SAP implementation costs.

Commentary throughout this report, unless otherwise stated, is based on earnings from continuing operations.

Find Boral's reporting suite at www.boral.com

ANNUAL REPORT



SUSTAINABILITY REPORT

Further sustainability information

Acknowledgement of Country

We acknowledge the Traditional Owners of the lands across Australia. We recognise and respect Aboriginal and Torres Strait Islander peoples and their unique position in Australian culture and history, and pay our respects to their Elders past, present and emerging.

About this report

This report outlines our sustainability performance and approach to our material sustainability topics for the year ended 30 June 2021 (FY2021). Further information on Boral's 2021 financial results and the Corporate Governance Statement can be found in the *Boral Annual Report 2021*.

Where possible, we have sought to align our disclosures and metrics with the Sustainability Accounting Standards Board (SASB) Construction Materials standard, and for climate-related disclosures with the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD).

As a result of the significant changes in Boral's portfolio in FY2021 and subsequent to year end, the sustainability data and commentary in this report concentrates on Boral Australia including Australian Building Products, unless otherwise stated.

Boral's businesses that are reported as discontinued operations in FY2021 include: a 50% interest in USG Boral divested on 31 March 2021; a 50% interest in Meridian Brick; North America Building Products and Fly Ash; and Australian Building Products.

To align with our new science-based climate targets, our greenhouse gas (CO_2)[1] emissions data and climate-related disclosures relate to our continuing Australian construction materials operations, namely Quarries, Cement, Asphalt, Concrete and Placing, and Recycling.

We have also provided sustainability data for the Group, which includes our North America Building Products and Fly Ash businesses in the data summary on pages 65–69.

In FY2021, we changed our sustainability reporting boundary to only include entities over which we have operational control. Joint ventures that are equity accounted are no longer included, except as included in our Scope 3 emissions. We also report the number of employees and contractors including those in our joint ventures, and fatalities in our joint ventures. Where relevant, FY2019 and FY2020 sustainability data has been restated to be comparable.

The sustainability metrics that have been subject to independent assurance are listed in Ernst & Young's assurance statement on page 70.

1. CO_2 refers to carbon dioxide equivalent emissions.

Our Purpose and Values

This year we defined our new Purpose and Values, with input from employees across the organisation.

Collectively, we have defined our Purpose as **creating a world future generations will be proud of**. We are excited by the challenges that lie ahead and our Purpose talks to our role in meeting the challenges of a changing world and the expectations of future generations.

Our new Values are saying what we stand for, and they guide our decision making and how we behave.

Our Purpose

Creating a world future generations will be proud of.

Our Values

Looking out for each other.

We care about the impact we have on customers, partners, communities and each other today and in the future.

We speak thoughtfully, we encourage and respect diversity and listen carefully with an open mind.

We make decisions so we all go home safely every day.

Leading the way.

We're showing what's possible and inspiring customers, partners, communities and each other.

We're always looking for new ideas, sharing and learning as we go.

We're demonstrating the value of working in partnership to solve tough problems.

Doing what we say.

We do what we say we're going to do.

We're trusted and our customers, suppliers, communities and colleagues rely on us to deliver.

Our shareholders have confidence in us to create value in a responsible way.

Achieving together.

We collaborate, celebrate and have fun doing what we love.

We move forward as one team, knowing we are better together when we work alongside our customers, partners, colleagues and communities.

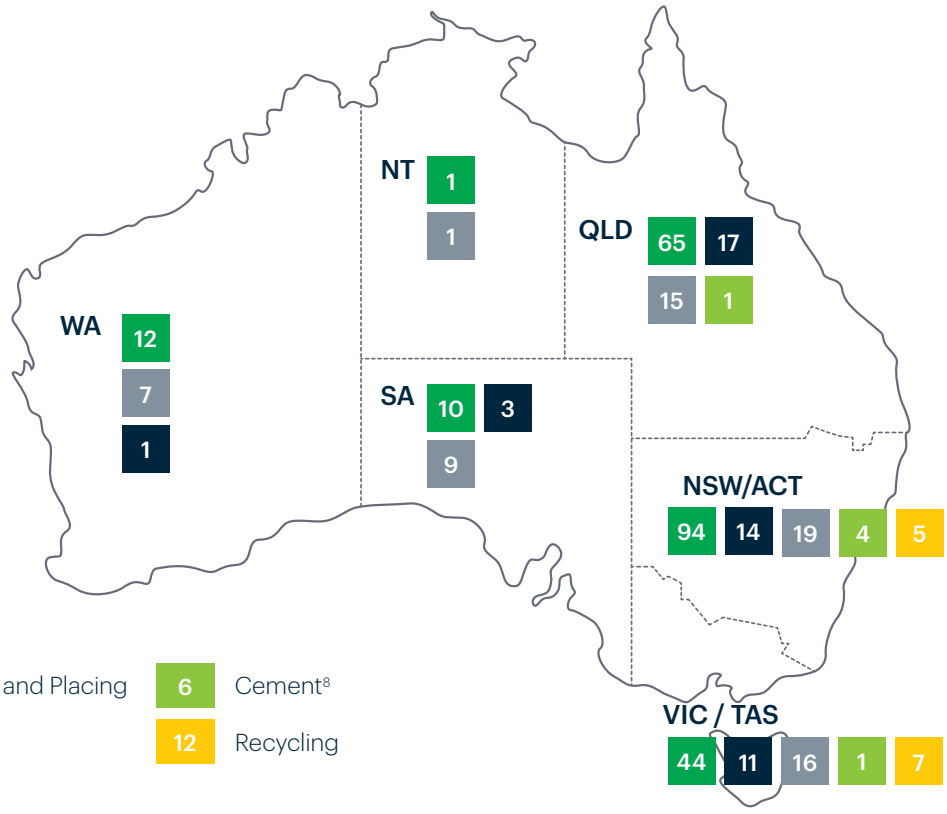
We work openly, building relationships and building each other up.

Our footprint

Over the past year, we have substantially refocused Boral's portfolio back to our core construction materials business in Australia, where we have a proud 75-year history and we are leading the way for our customers and our people.

Continuing operations

Revenue $2.9 billion	EBIT[1] $181 million	ROFE[2] 8.3%
Sites[3] 367	People[4] 5,081	Contractors[5] ~4,600
1.6 million tonnes CO_2 Scope 1 and 2 emissions	Actual serious harm incident frequency rate[6] ↓67%	Heavy vehicle fleet[7] ~3,500



1. Earnings before interest and tax, excluding significant items.
2. Return on funds employed (ROFE) is EBIT before significant items on funds employed (average of opening and closing funds employed for the year).
3. At 30 June 2021. Includes transport, fly ash and R&D sites. Concrete and asphalt sites include mobile plants. Excludes mothballed plants, distribution and administration sites.
4. Full-time equivalent (FTE) employees, including corporate employees and employees based in joint ventures.
5. FTE contractors, including contractors based in joint ventures.
6. Per million hours worked for employees and contractors in Boral Australia (including Building Products).
7. Managed by Boral.
8. Includes cement manufacturing, grinding, bagging and lime plants in NSW, a clinker grinding plant in Victoria and a clinker grinding joint venture in Queensland.

Message from CEO & Managing Director

For a greener gold

In my first year as Boral's CEO & Managing Director, we have reshaped Boral to be a stronger and more sustainable business, focused on our core Australian construction materials business.

A year of refocusing Boral's portfolio

To strengthen our core Australian business, we have established a renewed four-pillar strategy to **focus, position, redefine** and **extend** the business.

Under our first pillar, to **focus** our portfolio, we have sold our 50% interest in USG Boral and have announced the divestment of several other non-core businesses, including Boral North America Building Products and our Australian Building Products businesses. We have also announced plans to divest our North American Fly Ash business.

To **position** and **redefine** the Australian business for improved performance, we have:

- articulated a Financial Framework to ensure disciplined capital management
- implemented our new operating model along product rather than regional lines to help us become more nimble and responsive, and
- established a new Sustainability Framework supported by goals and targets to drive our aspiration to become a leader in sustainability.

We have also continued to navigate the challenges of COVID-19 pandemic-related lockdowns and restrictions, particularly at the start of this new financial year, and focused on keeping our people, customers and communities safe. Our people have done a great job adapting and responding quickly to changing government mandates and restrictions, to keep safely operating and serving our customers where government restrictions allow.

Sustainability Framework

Our new Sustainability Framework recognises that as a leading Australian construction materials company, we have a unique opportunity and responsibility to do things right and deliver on our Purpose: *creating a world that future generations will be proud of.*

The framework identifies 17 priorities across four key areas: Our People, Our Operations, Our Products and Our Performance. The priorities are aligned with the sustainability issues identified through our latest sustainability materiality assessment completed during the year, and our Financial Framework.

We have set goals and targets for our sustainability priorities, including ambitious sector-leading science-based emissions reduction targets.[1] For some priorities, we have more work to do, and our goal is to review our approach or baseline, and establish targets in FY2022.

Our People

The safety of our people continues to be our number one priority. Led by our new Group HSE Zero Harm Council, we established a refreshed health, safety and environment (HSE) strategy to enable us to deliver industry-leading HSE excellence.

A key objective of our HSE strategy is to prevent serious harm incidents that cause fatalities or life-threatening or life-changing injuries. Pleasingly, we reported a 67% reduction in our actual serious harm incident frequency rate, and a 53% reduction in our potential serious harm incident frequency rate. We started reporting these two new safety indicators in line with our priority of reducing serious harm. While these indicators showed strong improvement, Boral Australia's recordable injury frequency rate was 11.9, compared to 10.0 in FY2020. We are determined to reduce the incidence of all injuries at Boral.

During the year, we worked to define and create Boral's target culture to support our future ambitions. We considered the responses to our culture survey from more than 5,000 employees across the Group. Using this, together with insights and feedback from about 150 Boral leaders, we defined Boral's new Purpose and Values of *Looking out for each other, Leading the way, Doing what we say,* and *Achieving together.*

In the coming year, we will renew and upgrade our approach to diversity and inclusion to align with our new target culture, strategy and way of operating.

Our Operations

To support our broader decarbonisation strategy, we set sector-leading, science-based emissions reduction targets, aligned with reaching net-zero emissions by 2050.[2] We are targeting to reduce our absolute Scope 1 and 2 emissions by 46%, and to reduce our relevant Scope 3 emissions[3] by 22% per tonne of cementitious materials produced by FY2030, from a FY2019 baseline. We also set a short-term target to reduce our Scope 1 and 2 emissions by 18% by FY2025.

We recently joined the Science-Based Targets initiative (SBTi) *Business Ambition for 1.5°C* and the United Nations Framework Convention on Climate Change (UNFCCC) *Race to Zero,* and have submitted our FY2030 emissions reduction targets for validation by SBTi.

We have identified and planned our decarbonisation pathways that underpin our targets, including shifting to renewable and alternative energy sources and growing the revenue share of our proprietary lower carbon concrete offering. We have a clear line of sight to deliver on our FY2030 targets and beyond FY2030, we are working on new and emerging technologies. Just how we achieve our 2050 ambitions will depend on further development and commercial viability of new and emerging technologies.

During the year, we also completed our TCFD scenario analysis work to better understand the potential financial impacts from physical and transition climate risks.

Our Products

We are targeting to grow the share of revenue from our lower carbon concrete range and Recycling business. Our Recycling business is increasing our contribution to a more circular economy, and in FY2021, recycled more than 2 million tonnes of construction and demolition waste.

To encourage the adoption and use of lower carbon concrete, we broadened our lower carbon concrete range with the launch of Envirocrete® Plus. In collaboration with Lendlease, we also delivered our first Climate Active-certified net carbon neutral concrete.

Our innovation efforts are focused on creating high-quality, high-performing products that deliver a lower environmental footprint and provide new market opportunities, and to position Boral as the partner of choice with our customers.

Looking forward

I would like to acknowledge our people who have worked tirelessly throughout what has been an exciting but challenging year, as well as our team members who have left or are leaving the organisation as a result of our divestments and restructuring.

We have built a strong foundation for Boral to become a more profitable and sustainable company that creates value for our stakeholders. I look forward to the journey ahead as we continue to drive the many great initiatives underway.

Zlatko Todorcevski

CEO & Managing Director

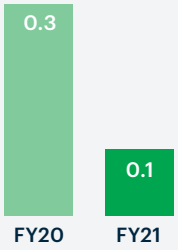
1. Based on construction materials, including cement, companies taking action through the Science Based Targets initiative (SBTi).
2. While SBTi's methodology permits the use of carbon offsets to achieve net-zero emissions post-2030, our decarbonisation pathway post-2030 is focused on achieving absolute emissions reductions for Scopes 1, 2 and 3. This pathway remains dependent on further development and commercial viability of new and emerging technologies.
3. Refers to 68% of our Scope 3 emissions included in our Scope 3 target, consistent with SBTi's methodology.

Sustainability highlights

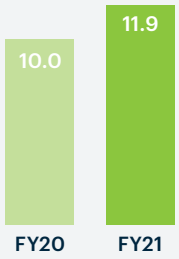
Our approach to sustainability is underpinned by an effective governance structure and risk management framework, including oversight by the Board of Directors and management steering groups and committees that support work across our sustainability priorities.

Our People

0.1
actual serious harm incident frequency rate[1]



11.9
recordable injury frequency rate[1]



Women represent

33% of Executive Committee members

35% of professional positions

14% of employees

Our Operations

Joined Science Based Targets initiative **Business Ambition for 1.5°C** and set FY2030 emissions reduction targets

3%
Scope 1 and 2 emissions to 1.6m tonnes CO_2

Steady
Scope 3 emissions of 2.1m tonnes CO_2

Completed **TCFD-aligned** physical climate risk and carbon price risk **scenario analysis**

Our Products

Launched Envirocrete® Plus, broadening our lower carbon concrete suite of products

37%
increase in revenue from lower carbon concrete and Boral Recycling

> 2m tonnes
construction and demolition waste recycled

1. Per million hours worked for employees and contractors.

External recognition

Member of
Dow Jones Sustainability Indices
Powered by the S&P Global CSA

FTSE4Good

Constituent of
FTSE4Good Index Series

MSCI ESG RATINGS AA
CCC B BB BBB A AA AAA

0.99:1.00
female-to-male average base salary equity ratio

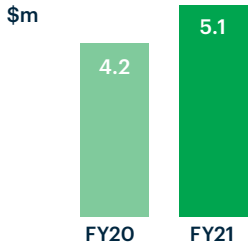
~50%
of the Group's employees responded to culture survey

~1,200
employees have attended our award-winning zero|one|ten Leader program since 2018

+15 points
improvement in Concrete Net Promoter Score (NPS)

Established baseline NPS in Quarries, demonstrating strong customer endorsement

$5.1m
spend with Indigenous-owned and social enterprises



RECONCILIATION ACTION PLAN
INNOVATE

Launched Innovate Reconciliation Action Plan

Published **concrete Environmental Product Declarations** (EPDs) for NSW/ACT, Tasmania and Perth region and national **Asphalt EPD**

Climate Active

In collaboration with Lendlease, delivered first Climate Active-certified **net carbon neutral concrete**

$2.4m
grant awarded by Australian Government Carbon Capture Use and Storage Development Fund for pilot project at Berrima Cement plant

For generations to come

As a leading construction materials company, what we help create today will be around for generations to come. That means we need to get things right.

We are committed to leading the way in sustainability and *creating a world that future generations will be proud of.*

Our Sustainability Framework sets out our commitments to achieving this across four focus areas:

Our People
Engaged and proud of our progress

Our Operations
Responsibly meeting today's and tomorrow's needs

Our Products
Making a lasting positive impact

Our Performance
Delivering sustainable financial outcomes

Our Sustainability Framework is underpinned by our commitment to a high standard of corporate governance, responsible business conduct, effective risk management and Boral's Values, which inform everything we do.

Our People

Engaged and proud of our progress

- Health, safety and wellbeing
- Culture, engagement, diversity and inclusion
- Employee attraction and development
- Workplace relations

Our Performance

Delivering sustainable financial outcomes

- Short- and long-term business plans, continuous improvement and financial results
- Capital allocation and capital management

Our Operations

Responsibly meeting today's and tomorrow's needs

- Decarbonisation pathway
- Climate resilience
- Sustainable operations footprint
- Customer experience and satisfaction
- Sustainable procurement
- Community relations and partnerships

Four focus areas

Our Products

Making a lasting positive impact

- Lower carbon products
- Recycled products
- Sustainable infrastructure and services
- Product stewardship
- Innovation, technology and digital disruption

Our goals and targets

We have set sustainability goals and targets linked to each of the priorities in our Sustainability Framework.

With these goals and targets, we aim to improve our performance in the areas embedded in our strategy that matter most to our stakeholders and to our ongoing future success. We also aim to provide transparency and accountability as we focus on continuing to deliver positive action.

Our People

Health, safety and wellbeing

Zero fatalities for employees and contractors

Achieve annual reduction in actual serious harm incident frequency rate

Culture, engagement, diversity and inclusion

FY22: Improve employee engagement score by 7%

FY22: Review and upgrade our diversity and inclusion strategy and set measurable goals

Employee attraction and development

FY22: Implement new Graduate Program nationally

Workplace relations

FY22: Complete root cause analysis of workplace complaints and develop improvement plan

Our Performance[1]

Short- and long-term business plans, continuous improvement and financial results

Capital allocation and capital management

FY26: $200–$250 million EBIT Transformation

Achieve TSR[2] in top quartile of S&P/ASX100

Deliver ROFE > weighted average cost of capital

Our Products

Lower carbon and recycled products

Sustainable infrastructure and services

FY22: Deliver annual growth in share of revenue from our lower carbon concrete range and recycled products

Product stewardship

FY22: Publish EPDs for our lower carbon concrete range for key regions

Innovation, technology and digital disruption

Grow our pipeline of innovation initiatives including core, adjacent and transformational innovation[3]

Our Operations

Decarbonisation pathway*

FY25: Reduce Scope 1 and 2 emissions by 18%

FY30: Reduce Scope 1 and 2 emissions by 46%

FY30: Reduce physical intensity of relevant Scope 3 emissions by 22%[4]

*Targets are from an FY2019 baseline

Climate resilience

FY22: Consider adequacy of current climate mitigation measures in light of physical climate risk scenario analysis outcomes, to identify and prioritise site-specific mitigation action plans

Sustainable operations footprint

FY22: Establish baselines and set improvement targets for:

- waste generated and waste to landfill
- water use and recycling at quarries and cement sites at high risk of water stress, and
- biodiversity management

Customer experience and satisfaction

FY22: Establish Net Promoter Score (NPS) baseline for Cement and Asphalt and improve Concrete and Quarries NPS

Sustainable procurement

FY22: Increase our spend with Indigenous-owned businesses and social enterprises

FY22: Contribute to achieving our climate targets, including by prioritising suppliers with lower carbon emissions intensity

FY23: Deliver our modern slavery risk supply chain continuous improvement plan

Community relations and partnerships

FY22: Realign our Community Partnerships Framework with our more focused portfolio, our new strategy, and Purpose and Values

FY23: Deliver our 2020–2022 Innovate Reconciliation Action Plan

1. Boral's financial performance and targets are discussed in the *Boral Annual Report 2021*.
2. Total Shareholder Return.
3. Includes a range of measures such as number of projects from incubation to commercialisation, and R&D investment made directly and via partnerships and government-funded grants.
4. Refers to 68% of our Scope 3 emissions included in our target – see page 34.

Materiality assessment

The topics that we consider significant to Boral and to our stakeholders define the scope of our sustainability reporting.

Since FY2017, we have undertaken a materiality assessment every two years to define our material sustainability topics.

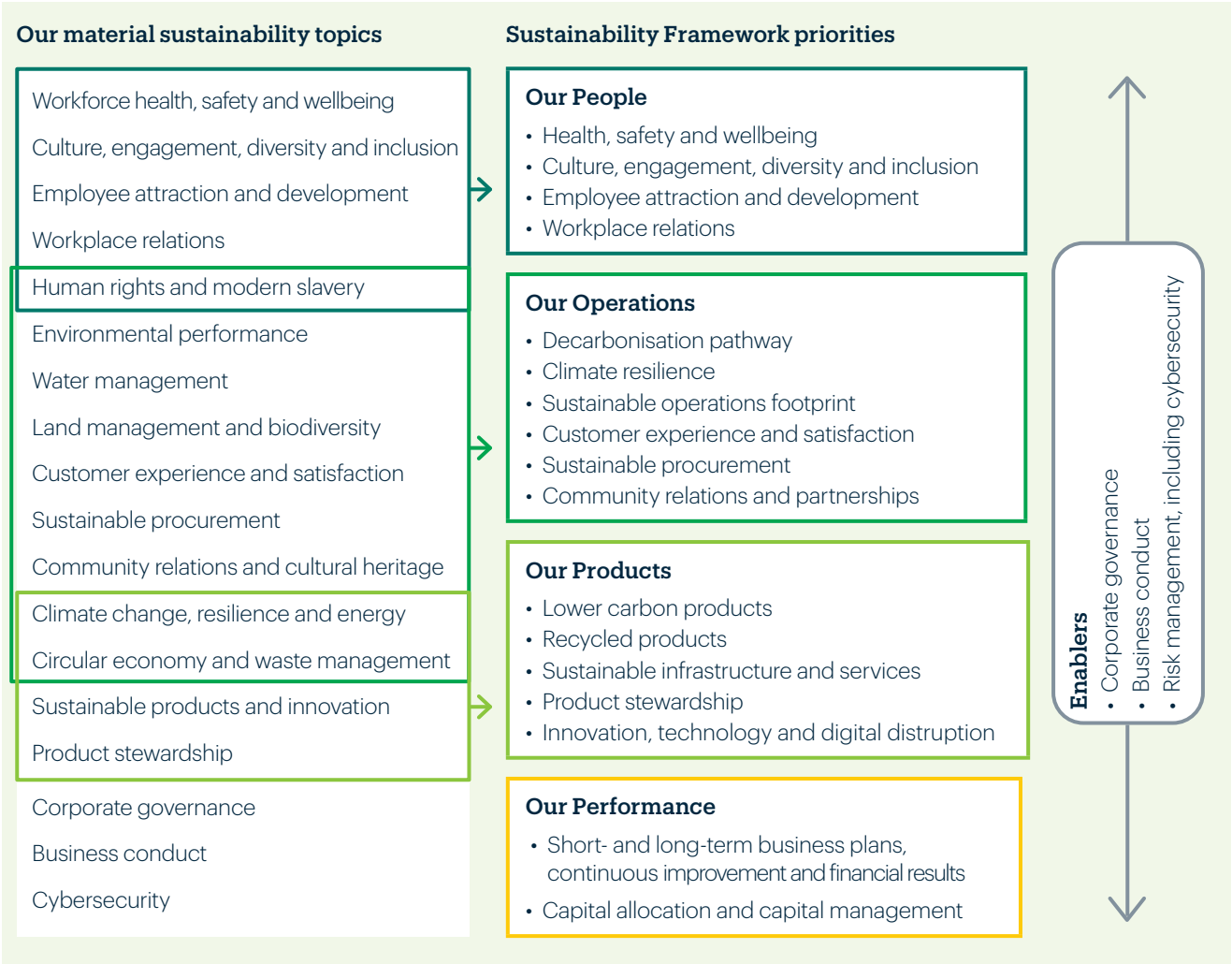
We assess sustainability issues with reference to the Global Reporting Initiative's definition of a material topic: "a topic that reflects a reporting organisation's significant economic, environmental and social impacts; or that substantively influences the assessments and decisions of stakeholders".

We completed our most recent sustainability materiality assessment in FY2021. For this assessment, we refined our process to better capture the perspective of our customers, employees and leaders, including the Executive Committee. We also engaged with members of the Board HSE Committee to obtain their views on the prioritisation of topics.

Our materiality assessment was a three-step process.

Desktop assessment	Analysis of industry peers; media; environmental, social and governance ratings; sustainability reporting frameworks and benchmarks; and data captured from investor, customer and employee feedback to identify and prioritise topics
Leadership interviews and focus groups	One-on-one interviews including with members of the Board HSE Committee, and focus groups involving about 35 senior functional and operational leaders to obtain further insight
Validation	Outcomes reviewed by Group Risk, the Executive Committee and Board HSE Committee

We redefined a number of our sustainability topics and separated environmental impacts into four subtopics. We also included product stewardship and corporate governance as separate topics.



Sustainability governance

Board oversight

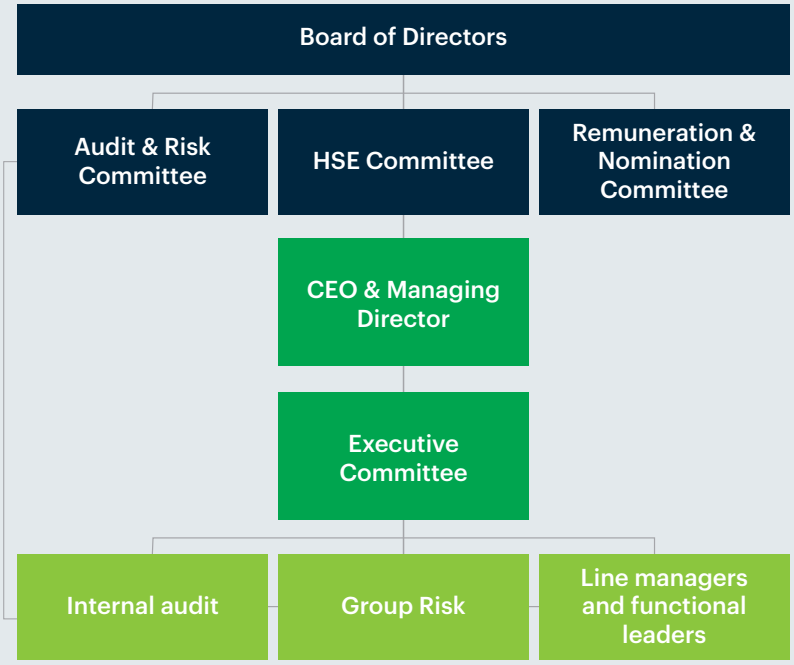
The **Board of Directors** maintains oversight of sustainability matters, including our sustainability strategy, risk identification and management, and external reporting.

The Board **Health, Safety & Environment (HSE) Committee** is responsible for reviewing and monitoring matters including:

- the Group's performance in relation to HSE matters, assessed by reference to agreed targets and measures
- the effectiveness of Boral's policies, systems and governance structure in identifying and managing HSE risks that are material to the Group
- the policies and systems for ensuring compliance with applicable legal and regulatory requirements associated with HSE matters
- the Group's operational risks as they relate to HSE matters, and
- the Group's material reporting regarding sustainability.

Divisional management teams and the corporate HSE function report quarterly to the Board HSE Committee on HSE performance, risks and management actions, including in relation to sustainability and climate-related matters. The committee considers these matters at each of its meetings, with an increasing focus on sustainability matters more holistically.

The Board **Audit & Risk Committee** is responsible for satisfying itself that a sound system of risk oversight and management exists, and that internal controls are effective. It meets at least four times a year and receives an annual report on our organisation-wide risks, including climate-related risks.



Management steering groups and committees include:

Diversity and Inclusion Council	Provides oversight of implementation of Diversity and Inclusion Plan
Group HSE Zero Harm Council	Provides oversight and leadership on all aspects of HSE, including strategy, governance, risks, compliance and effectiveness
Decarbonisation Steering Committee	Provides oversight and leadership of decarbonisation strategy and climate targets
ESG Steering Group	Coordinates and reviews climate work, including risks, strategy and reporting
Modern Slavery Working Group	Reviews and supports improvements to our approach to assessing and managing modern slavery risk

Management responsibility

Sustainability is embedded in business unit strategies, action plans and reporting, and is monitored by relevant senior executives.

Various steering groups and committees provide support, guidance and oversight and leadership over specific areas of sustainability.

Business unit leaders are responsible for compliance with HSE regulations and are supported by functional specialists.

Line managers are also supported by functional specialist managers across people and culture, marketing, procurement and community engagement.

HSE governance

In FY2021, we formed the Group HSE Zero Harm Council to support our efforts to deliver industry leading HSE excellence. The council, chaired by Boral's HSE Director, includes Boral's CEO & Managing Director.

Current key priorities of the Group HSE Zero Harm Council are:

- prioritising efforts to reduce serious harm incidents
- heavy vehicle safety
- mental health and wellbeing
- climate and energy
- product stewardship
- contractor management
- environmental performance, and
- water usage.

Management remuneration

Managing sustainability, including safety, is considered an integral component of leadership and is considered in reviewing performance and setting fixed remuneration increases.

The Board has discretion to adjust executive remuneration outcomes if there is evidence of a breakdown in management oversight and processes leading to poor outcomes, including safety performance.

As Boral's sustainability targets are further developed and embedded in the organisation, there will be opportunities to align targets with team and individual objectives, including potential alignment with incentive outcomes.

Climate governance

The Environmental Sustainability Governance (ESG) Steering Group is responsible for coordinating and reviewing climate-related risks, strategy and reporting. The group comprises senior functional leaders, including from Group HSE, Strategy, Risk, Finance and Investor Relations.

In FY2021, the group oversaw the development of climate targets and climate-related scenario analysis work. It also reviews and endorses recommendations to Boral's Executive Committee and the Board.

A new Decarbonisation Steering Committee was established during the year. Led by Boral's CEO & Managing Director and involving in excess of 20 executives, functional leaders and technical specialists, the steering committee has oversight and leadership of Boral's decarbonisation strategy and climate targets. It meets every four to six weeks.

Climate-related information in this Sustainability Report has been reviewed by the ESG Steering Group, the Executive Committee, the Board HSE Committee and the full Board.

Climate risk management

Climate change risks are incorporated into Boral's enterprise risk management (ERM) framework and processes. These processes include business-specific, organisation-wide and detailed single-risk reviews. The Group Risk team works with business leaders and functional managers to ensure risks are adequately considered.

Group Risk reports quarterly to the Board Audit & Risk Committee on a range of risks, including specific risk reviews and business unit risk profiles. It also reports on Boral's organisation-wide risks at least once a year.

Climate change risks are incorporated as a standalone category of risk in our ERM framework. The severity of the risk is assessed using Boral's ERM risk scoring methodology, which assesses risks based on consequence and likelihood of occurrence. The consequence is rated according to a number of factors including potential financial impact.

Our People

Engaged and proud of our progress

- Health, safety and wellbeing
- Culture, engagement, diversity and inclusion
- Employee attraction and development
- Workplace relations

Our People

Our goals and targets

FY2022

Improve employee engagement score by 7%

Review and upgrade our diversity and inclusion strategy and set measurable goals

Implement new Graduate Program nationally

Complete root cause analysis of workplace complaints and develop improvement plan

FY2021

~50% of the Group's employees responded to culture survey

~1,200 employees attended our award-winning zero|one|ten Leader program since 2018

14% women employees, up from 13%

0.99:1.00 female-to-male base salary pay equity ratio

We recognise that our people are critical to our future success. We are committed to fostering an engaged, diverse and inclusive workplace and creating a culture that supports our people to deliver their best.

As at 30 June 2021, we had 12,489 full-time equivalent (FTE) employees working in our continuing and discontinuing operations, including our joint ventures (JVs). In Boral Australia, we had 5,701 FTE employees and approximately 4,900 FTE contractors, including our JVs.

Our employees (FTE)	FY2020	FY2021
Boral Australia – continuing operations	5,398	4,856
Boral Australia – continuing operations, including JVs	5,625	5,081
Boral Australia	5,836	5,273
Boral Australia, including JVs	6,281	5,701

Our contractors work in a range of roles, including as product installers and drivers in our transport operations, and supporting plant maintenance and information technology functions.

Voluntary employee turnover in Boral Australia was 12% in FY2021, up from 10% in FY2020. Involuntary turnover of 6% was in line with the prior year, reflecting continued restructuring in the core Australian business as we moved to a new operating model and as we introduced other efficiency improvements.

Working through the COVID-19 pandemic

Our people and workplaces have continued to adapt and respond to the impacts of the pandemic. We have taken comprehensive measures to help reduce the spread of the virus and ensure the safety and welfare of our employees, contractors, customers and the public. These include hygiene practices, social distancing protocols and increasingly sophisticated processes to track movements of our vehicles and drivers to support contact tracing efforts.

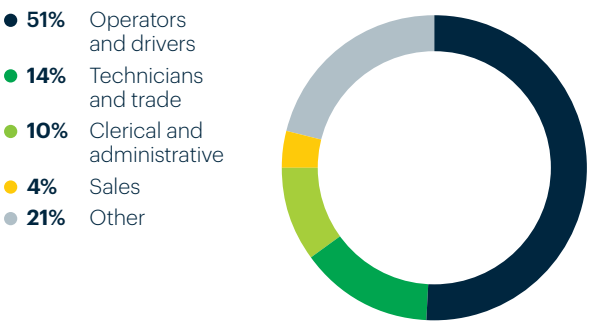
While our people were impacted in FY2021 – as a result of lower demand related to COVID-19, working from home, particularly during lockdown periods, and changes to work patterns and processes – the construction sector was deemed an essential industry and we continued to operate.

The start of FY2022, however, saw lockdown restrictions in some Australian states requiring construction activity, except for emergency construction, to cease. In response, our operations supplying customers in Greater Sydney and South Australia were shut down for the duration of the restrictions, except for a skeleton crew to supply any emergency construction activities.

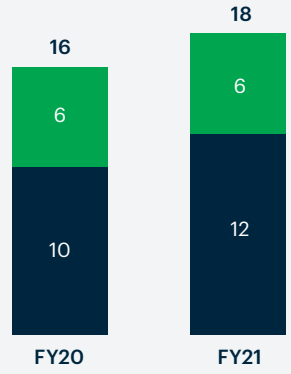
This has had a pronounced and direct impact on our employees and contractors in affected areas. For all our employees who were unable to work due to mandated lockdowns and restrictions, we offered five days of pandemic leave, and we encouraged employees to take annual leave during the affected period, allowing up to 10 days leave to be taken in advance. We have also supported flexible and remote working arrangements where possible, and assisted our people to access relevant government support.

In our discontinued businesses in North America, we have also been managing under challenging conditions, working hard to keep our people safe and able to work. Sadly, since the start of the pandemic, eight employees have passed away due to COVID-19 complications. This has had a devastating impact on our people, and our thoughts remain with the families of our lost colleagues and their teammates.

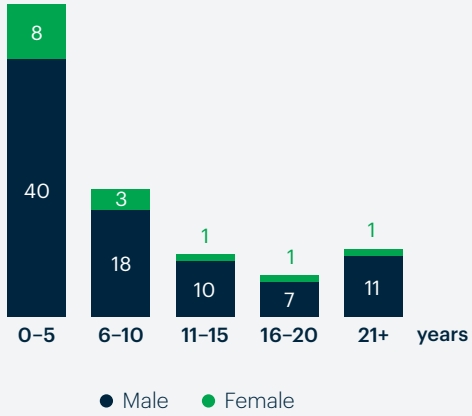
Employees by occupation



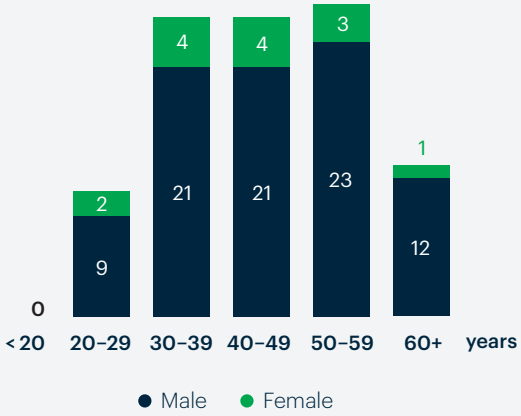
Employee turnover (%)



Length of service of employees (%)



Age profile of employees (%)



Wellness and connection

We set up a virtual wellness and connection hub to provide support and connection to our employees and leaders during the pandemic. The hub provides information on support services, nutrition, exercise and education. We also developed education and support videos to support and educate our people during the pandemic.

Through our Boral Employee Assistance Program (BEAP), we provide our employees and their immediate family members with access to qualified psychologists, social workers and management coaches to help them manage work-related and personal challenges.

Culture and engagement

In October 2020, we used the Spencer Stuart Organisational Effectiveness and Culture Survey to survey about 10,700 Boral employees across Australia and North America. We received about a 50% response rate including 2,345 survey responses from employees in Boral Australia.

The results showed opportunities to improve Boral's organisational effectiveness and reflected several challenges employees were experiencing at the time. These challenges included leadership changes, COVID-related impacts, and uncertainty as a result of a portfolio review and a new operating model being finalised.

Against this constructive backdrop, a substantial change program has been underway. We adopted a new operating model in Australia, which came into effect from 1 July 2021. This new structure, supported by system upgrades and better behaviours, directly addresses the opportunities for improvement that the culture survey identified.

Our People

(continued)

Our new Purpose and Values

Collectively, employees' responses to the survey contributed to defining the target culture that we are now working to create. Defining the target culture was carefully considered through numerous facilitated discussion sessions with the outcomes endorsed by Boral's Executive Committee. These outcomes together with workshop discussions with around 150 Boral leaders were used to define Boral's new Purpose and Values, which were finalised in July 2021.

Our new Values are saying what we stand for and will guide how we behave. They are intentionally written in plain English, so they are easy to explain, easy to understand and resonate for all of us.

We have plans in place to reflect our new Purpose and Values in everything we do, including recruitment processes, performance management systems, succession planning and talent management, risk management, community investment frameworks, and our employee and customer value propositions.

Diversity and inclusion

Our new Value of *Looking out for each other* captures our strong belief in showing consideration to all people, being open to listening to the input and ideas of others, and respecting and encouraging diversity and inclusion in every aspect of the way we work.

Our Diversity and Inclusion Plan, sponsored by Boral's Diversity and Inclusion Council, has been the framework supporting our commitment to a diverse and inclusive workplace and culture. It focuses on five key areas: leadership; communication and education; system and process design; gender equality and pay equity; and Indigenous relations. In our *Boral Annual Report 2021* we report on the outcomes we have delivered against our measurable diversity objectives.

In FY2022, we will review and upgrade our diversity and inclusion strategy to bring a renewed approach that incorporates our new Values and aligns with our new way of thinking and our new operating model.

The review will consider our progress to date and the perspectives of our employees, explored through one-on-one interviews with key stakeholders and leaders and facilitated workshops. The work and perspectives of our employee alliance groups will also be an important input into the new strategy. These groups include:

- Boral's Aboriginal Community Network
- WISE – Women Inspiring Success in Each Other
- Boral's Women Leading Women
- Boral Defence Force Alumni, and
- Boral's Pride Community Network.

These alliance groups are a combination of formal, informal, developing and more mature employee groups, and they provide support, professional and social networking, mentoring, advice to leaders and advocacy.

Our Aboriginal Community Network was launched in May 2021 to support our Aboriginal and Torres Strait Islander staff members to connect, support each other, access training and progress their career development. It is one of our Innovate Reconciliation Action Plan initiatives aimed at supporting Aboriginal and Torres Strait Islander employment.

Gender diversity and equality

In FY2021, 14% of our employees were women, which compares with 13% in the prior year. Increasing the representation of women at Boral, particularly in leadership roles, remains a priority and will be a key focus of our upgraded diversity and inclusion strategy to be developed in FY2022. This includes addressing and enhancing enablers of gender diversity.

Women represent

38% of Directors

13% of management positions

35% of professional positions

14% of employees

During the year, significant changes were made to Boral's Executive Committee and the Boral Australia leadership team (Operations Committee). As of August 2021, Boral's eight-member Executive Committee includes three women and five men, while our 12-person Operations Committee includes two women.

To improve attraction and retention of women in Boral, we periodically undertake unconscious bias education and learning, and we connect and support women through networking and mentoring. We also progressed our flexible work arrangements, including to support employees' work and family responsibilities. We have flexible work guidelines and an online education model to support our flexible work policy in Australia.

We continue to have favourable pay equity outcomes, with a female-to-male average base salary ratio[1] of 0.99:1.00.

Training and development

During FY2021, our employees participated in a wide range of job-related skills training and development opportunities, including on-the-job placements to help them succeed in their roles and support their career goals.

In Boral Australia, more than 4,600 employees completed learning programs through Learning@ Boral in FY2021. In addition, 748 employees completed vocational units of competency, certificates and training modules in a range of areas through Boral's registered training organisation (RTO) or external RTOs.

More than twice as many courses were completed by employees in Boral's learning and development programs in FY2021 as in FY2020, reflecting increased online learning through the efficient use of virtual classrooms and the introduction of LinkedIn Learning. LinkedIn Learning is Boral's on-demand learning solution consisting of more than 8,000 courses, videos and curated learning pathways.

Boral's foundation leadership training, known as the zero|one|ten Leader program was developed in 2018, and to date about 1,200 employees have been through the program.

In FY2022, we will introduce a new Graduate Program. The Graduate Program aims to develop Boral's future leaders through a two-year pathway that provides graduates with accelerated and self-directed learning opportunities to support their leadership journey. We are piloting the program for our graduates working in our Innovation team.

The Australian Institute of Training and Development recognised the zero|one|ten Leader program as the Best Leadership Development Program at its 2020 Excellence Awards

We also have Mentoring Circles across Boral, and they are available for our people to learn and develop through the sharing of experiences and skill sets, and offering advice, support and guidance. More than 60 employees have been involved in Mentoring Circles.

Our centralised training and compliance system, My Learning Space, provides standardised access to online training and monitors the ongoing training needs of our employees across Boral Australia. In FY2021, we continued to improve standardisation of training, including inductions across product line businesses, which support our new operating model.

Workplace relations

We respect and support the rights of our employees to freedom of association. We are committed to working honestly with unions, and we engage in constructive negotiations to reach agreements on employment conditions.

In Boral Australia's continuing operations, we have 58 enterprise or industrial agreements covering 2,662 employees. These agreements cover a term of two to four years on average. Our approach is to work collaboratively and cooperatively with our people and their representatives, and to provide fair and equitable employment conditions that deliver sustainable performance.

1. Calculated as the average base cash salary for females as a proportion of the average base cash salary for males, as included in our confidential report to the Workplace Gender Equality Agency.

Health, safety and wellbeing

Our goals and targets

Zero fatalities
for employees and contractors

Achieve annual reduction
in actual serious harm incident frequency rate (ASHIFR)

FY2021

67% reduction
in ASHIFR[1] to 0.1

53% reduction
in PSHIFR[1] to 5.1

19% increase
in RIFR[1,2] to 11.9

Our first and foremost priority is the health and safety of our people, and all those whom we interact with through our operations. We want everyone to go home healthy and safe every day.

Following a best practice review of our health and safety reporting in FY2020, we broadened our metrics to better capture leading and lagging indicators related to serious harm and injury.

We have started reporting our ASHIFR and our potential serious harm incident frequency rate (PSHIFR). Serious harm incidents are those that cause life-threatening or life-changing injuries or fatalities. We encourage our people to report potential serious harm incidents as these provide key learnings for the organisation to prevent actual serious harm incidents in the future.

Pleasingly, we reported a 67% reduction in ASHIFR and a 53% reduction in PSHFIR. This reflects the success of our programs that focus on identifying and preventing incidents that cause serious harm.

Our refreshed HSE strategy and supporting priorities and initiatives aim to improve our performance and deliver industry-leading outcomes.

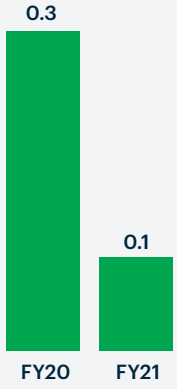
Boral Australia reported a 19% increase in recordable injury frequency rate (RIFR) to 11.9.

While we had zero reportable employee or contractor fatalities in our controlled operations, we were deeply saddened that in FY2021 there were three community fatalities. Two members of the public lost control of their vehicles and collided with a Boral heavy vehicle in two tragic road fatalities, which both occurred in regional NSW. In addition, as disclosed in our *2020 Boral Review & Sustainability Report*, in July 2020, an employee cement tanker driver was involved in a devastating crash in NSW, resulting in the death of a young girl and serious harm to several others.

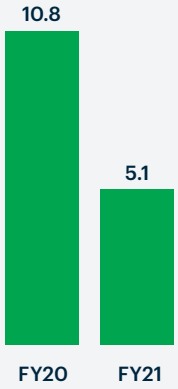
There were also two fatalities in joint venture operations. In our Meridian Brick joint venture, an employee was seriously injured after being struck by a moving component of a machine and later died in hospital as a result of his injuries; and prior to the divestment of our 50% interest in USG Boral, there was a fatality involving a contractor working at a customer site in Korea. The impacts of these tragic events were felt across Boral and our heartfelt sympathy goes out to those affected.

RIFR[2]

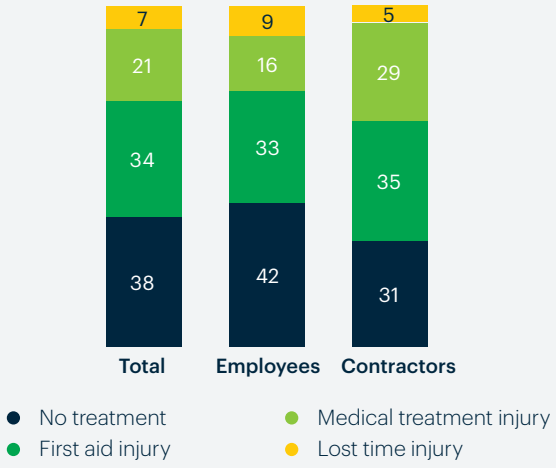
ASHIFR



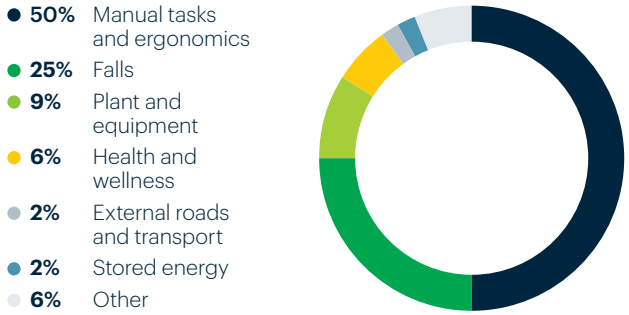
PSHIFR



Injury treatment (%)



Mechanism of injury



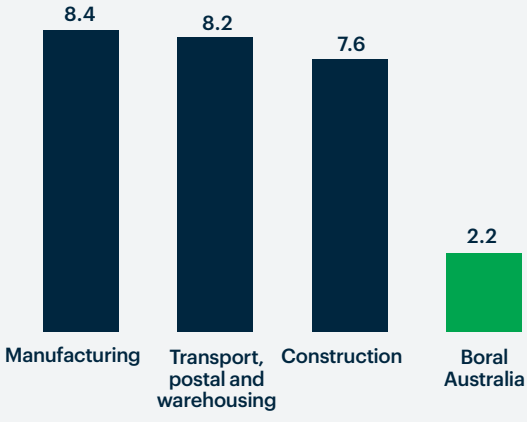
Outperforming industry safety benchmarks

According to Safe Work Australia's latest injury statistics reports, the broader industries in which Boral Australia operates have an extended duration lost time injury frequency rate (eLTIFR) four to five times that of Boral.[3]

In FY2021, Boral Australia's eLTIFR[4] (five or more days lost) for employees was 2.2, compared with industry averages of 7.6 to 8.4 for the construction; transport, postal and warehousing; and manufacturing industries.

Boral Australia's operations pour concrete and lay asphalt across major projects and construction sites; produce quarry products and cement; and manage a fleet of heavy vehicles.

Boral Australia's eLTIFR compared to industry averages[3]



1. Per million hours worked for employees and contractors.
2. Recordable injury frequency rate is the combined lost time injury frequency rate (LTIFR) and medical treatment injury frequency rate (MTIFR).
3. Safe Work Australia, Australian Workers' Compensation Statistics 2018–19, Table 21 – number, frequency rate and incidence rate of serious claims by industry (2018–19). Based on Safe Work Australia's definition of LTIFR, which is based on workers' compensation claims for work-related injuries that resulted in five or more days of lost time from work.
4. Includes our Australian Building Products business which is discontinued.

Health, safety and wellbeing

(continued)

HSE strategy

Our approach to health and safety is underpinned by our HSE strategy and management systems. This year, we embarked on the next evolution of HSE at Boral to think differently about everyday safety and enable us to deliver industry-leading HSE excellence.

Our refreshed approach aims to build a culture where our people are engaged in the solution to eliminate or control critical risks, and they are empowered to seek and support continuous improvement.

Our key focus is to strengthen the prevention of serious harm through more standardised and tailored controls that identify and mitigate our critical risks.

This refreshed approach is based on the view that people are the solution, and we encourage our leaders and people to think differently, and look for better ways to do things and innovate.

We also focus on supporting our people to lead effectively. Regular leadership interactions with our people are a key way we develop learnings and improve how we control risks.

Our revised HSE strategy sets out five strategic objectives and five priorities, and work is underway to deliver on our objectives.

Vision	To deliver leading HSE management practices that are valued, understood and implemented by our leaders, employees and stakeholders. We aim to create a culture where our people are engaged in the solution to eliminate or control critical risks so that everyone goes home healthy and safe every day and we deliver a positive legacy to sustainable development.				
Strategic objectives	Leaders, employees and contractors are trained, competent and demonstrate responsible decisions in everything they do	Critical risks are identified and where appropriate, eliminated or managed to an acceptable level	Stakeholders recognise and support us to be a leader achieving HSE excellence	We are a learning organisation that applies the lessons from proactive interactions with our people and stakeholders, incidents and HSE assurance	Our management systems, processes and procedures are streamlined, provide clear direction and allow leaders to maintain a focus on the field
Priorities	**Serious harm prevention**	**Health and wellbeing**	**Environment**	**Leadership, collaboration and technical capability**	**Systems, assurance and innovation**

Our approach to Environment is covered on page 42.

Serious harm prevention

A key objective of our HSE strategy is to prevent serious harm incidents that cause fatalities or life-threatening or life-changing injuries.

This year, we implemented our revised Safe Systems of Work Program across Boral Australia, which encompasses all aspects of managing risks and keeping people safe at work. The program incorporates best-practice behavioural science principles and learnings from extensive consultation across our operations.

Leading Safe Work Program

We continued to roll out our Leading Safe Work Program which supports our Safe Systems of Work, and we expect to complete the rollout in FY2022.

The Leading Safe Work Program focuses on coaching and educating frontline leaders and workers in how to make better decisions on the job. It teaches strategies for building new habits that focus on how the brain works, including how people make decisions. The program combines online and face-to-face learning, which we continued to deliver during COVID-19 restrictions via a virtual classroom.

We also continued to increase our use of critical control safety walks. These are leadership engagements that seek assurance that our people understand critical risks associated with their work, and controls are in place for high-risk activities.

Safety training

All new staff receive standardised training that aligns with our HSEQ standards. We seek to integrate our overarching focus on safety through our tailored training programs for frontline leaders and workers, including behaviour-based programs such as our Leading Safe Work Program. All new employees also receive safety induction training.

New leading digital portal supporting heavy vehicle compliance

In FY2021, we rolled out an industry-leading interactive fleet management digital dashboard, the My Compliance Portal. This is one of Boral's front-line tools used to manage compliance with our regulatory requirements, including under the Heavy Vehicle National Law.

The My Compliance Portal is a purpose-built interactive fleet management dashboard that provides a single reporting interface, bringing together data from telematic systems, safety performance and fleet administration information.

The portal's principal function is to provide compliance information to driver supervisors and fleet managers to allow them to undertake corrective actions and manage driver behaviour.

Engaging our frontline people to streamline our critical risk controls

One of the initial steps in the evolution of our refreshed HSE strategy was to undertake a review of our safety absolutes – a set of non-negotiable rules to prevent fatalities or serious harm.

This review process included proactively seeking feedback on our safety absolutes from our frontline people – whether they are useful and how they can be improved.

We received 240 responses covering more than 1,100 safety aspects. Overwhelmingly the feedback confirmed the need to commit to the safety absolutes.

We considered this feedback in updating and streamlining the safety absolutes to be more effective at controlling key HSE risks. These will be relaunched as our Life Saving Commitments in FY2022.

Public road safety

In Australia, we manage a fleet of about 3,500 heavy vehicles on the public road daily to transport and deliver our products and services.

We invest significant resources to reduce heavy vehicle road safety risks and ensure we meet our heavy vehicle safety compliance requirements, at a minimum. In Australia, these requirements set by the National Heavy Vehicle Regulator include mass management and load restraint verifications, tracking and managing driver hours and undertaking vehicle condition inspections.

We strive to perform better than legal requirements and industry norms in several areas, including by investing in higher-specification concrete agitator vehicles, telematics and driver behaviour management systems.

Health, safety and wellbeing

(continued)

Health and wellbeing

To help our people be more effective at work and in their personal lives, we provide a range of programs focused on physical and mental wellbeing.

These include health and fitness checks, drug and alcohol support, quit smoking programs, a confidential counselling service and health seminars.

Boral Australia has developed a Mental Health and Wellbeing strategy focused on preventative interventions, encompassing various initiatives.

Our Wellness and Connection Hub continues to help support our employees during the challenges of the COVID-19 pandemic, including by connecting employees working remotely.

Dust management

Boral has a comprehensive approach to dust management that is focused on minimising dust generated by our operations, ensuring the safety of our people, and meeting the standards and guidelines set by the regulators and, where possible, exceeding them.

Long-term excessive inhalation of dust generated by crushing or abrasion can lead to illness or lung disease such as silicosis if respirable crystalline silica is present in the dust.

We work with technical specialists and regulators to understand and apply relevant research and industry best practice to help ensure that we provide a safe and healthy workplace. For example, in FY2021 we worked with the Concrete Cement & Aggregates Australia industry association to develop new quarry dust management training resources.

Following the introduction of stricter regulations for respirable crystalline silica by Safe Work Australia starting in FY2020, we continue to undertake significant work across Boral Australia to further improve our approach to dust management. Our aim is to contain fugitive dusts as we recognise that mitigation of the source is the most effective, sustainable solution.

To help measure the effectiveness of our dust controls and continue to improve our management of dust, we undertake personal and static (area) dust monitoring within our plants and environmental dust monitoring at our site boundaries (and beyond).

We also conduct health surveillance testing of our employees who we have identified as being potentially at risk of inhalation of dusts, including respirable crystalline silica. Tests include checking lung function using spirometry and medical examination, as well as the collection of chest X-rays, conducted and read by specialist radiologists accredited in occupational lung health. All health surveillance testing is overseen nationally by a team of certified medical practitioners.

Based on our workers compensation data, we had two new detected cases of silicosis[1] in FY2021. This equates to an incidence rate of 2.2 cases per 1,000 workers, based on the number of employees who work at sites that generate silica dust.[2]

Systems, assurance and innovation

In FY2021, we started a refresh of our Group-wide Health, Safety, Environment and Quality Management System (HSEQ MS).

We are streamlining our system to focus on controls for identified HSE hazards and risks, with controls tailored specifically to each site and to our frontline people. This will make it simpler for our frontline people to use and implement these controls, empowering them to make better and safer decisions.

To help guide improvements, we engaged with all our leaders and frontline workforce across the Group to obtain their feedback on how we can improve our controls.

Our HSEQ MS, which covers all our operations, enables us to certify operations against external standards. We undertake certification at sites where doing so is important to our customers and where it drives additional value beyond the equally high standards of our HSEQ MS.

We implement a consistent HSE approach across all our operations. And for all potential acquisitions, and new or expansion projects, we review and assess HSE issues and risks as part of our due diligence processes.

Certification	Sites certified
AS/NZS 4801 Occupational health and safety management systems	334 Boral Australia sites
ISO 14001 Environmental management systems	36 Asphalt sites
ISO 9001 Quality management	26 Asphalt sites

Contractor management

We strive to ensure the health and safety of all people on our sites, including our contractors. We focus on ensuring our contractors are aware of and meet our HSE expectations and are appropriately trained and qualified.

This year, we commenced work to review and strengthen our approach to establishing risk controls and documentation requirements for our contractors. This includes establishing an online platform to support a consistent and streamlined approach to contractor inductions across each of our business units. To date, the online induction platform has been rolled out to more than 50 of our operating sites.

HSE assurance

Our HSE assurance program, which supports the management of our HSE risks, is modelled on a three lines of defence model.

Our three lines of defence
1. Operational assurance
2. HSE function assurance and verification
3. Group Audit or third-party audit

Our assurance processes work to support an integrated and effective approach to HSE management and present an opportunity to learn, share and continually improve our systems, processes and risk management practices.

Leveraging innovation to do things better

In FY2021, we employed real-time artificial intelligence (AI) proprietary technology to make behaviours safer and reduce the risk of harm involving vehicles and workers on foot at 18 Boral sites.

The technology, Bright Path AI, aims to ensure workers do not enter an identified safety exclusion zone. It works by detecting and instantly notifying team leaders – with sirens, light strobe warnings and email notifications – if a person enters a specified hazard area.

This has resulted in a significant change in behaviour at these sites, as shown by a marked reduction in workers entering the safety exclusion zones.

The technology, initially prototyped inhouse by our Health & Safety and Digital Solutions teams, has been further developed into an advanced safety technology solution in collaboration with two external innovation partners.

Following the success of Bright Path AI in changing behaviour at the initial sites, we are assessing rolling out the technology across further Boral sites.

1. Represents all identified cases of silicosis via Boral's health surveillance testing carried out during the reporting period. In FY2021, two new cases were detected in employees who presented mild to moderate cases of silicosis through health surveillance testing.
2. We had 903 employees involved in occupational activities at sites that have extractive operations involving materials containing crystalline silica.

Our Operations

Responsibly meeting today's and tomorrow's needs

- Decarbonisation pathway
- Climate resilience
- Sustainable operations footprint
- Customer experience and satisfaction
- Sustainable procurement
- Community relations and partnerships

Committed to net zero

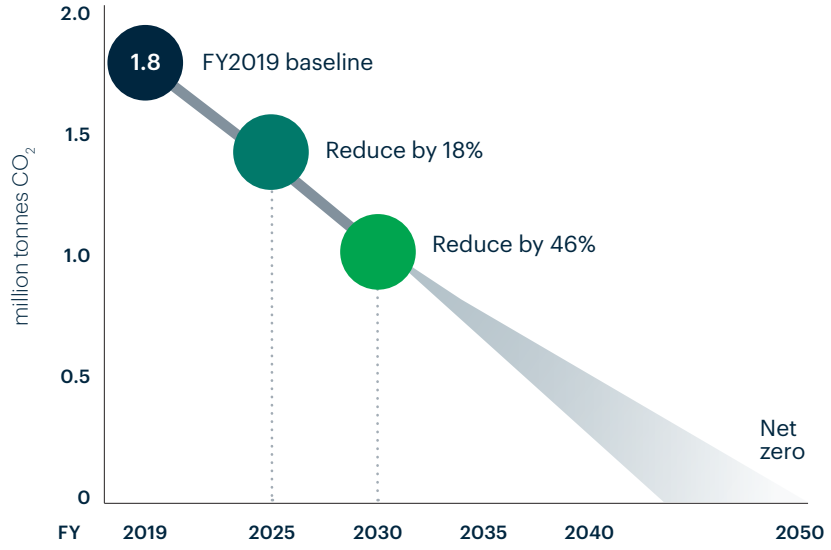
We have set science-based climate targets and committed to reach net-zero emissions from our operations by no later than 2050[1], in line with the most ambitious aim of the Paris Agreement to limit global warming to 1.5°C.

We have joined the SBTi *Business Ambition for 1.5°C* and UNFCCC *Race to Zero* and have submitted our FY2030 Scope 1 and 2, and Scope 3 targets for validation to SBTi.[2] We have a clear line of sight to deliver on our FY2030 targets and beyond FY2030, we are working on new and emerging technologies. Just how we achieve our 2050 ambitions will depend on further development and commercial viability of new and emerging technologies.

Scope 1 and 2 TARGETS

FY2025
Reduce absolute CO_2 emissions by
18%

FY2030
Reduce absolute CO_2 emissions by
46%

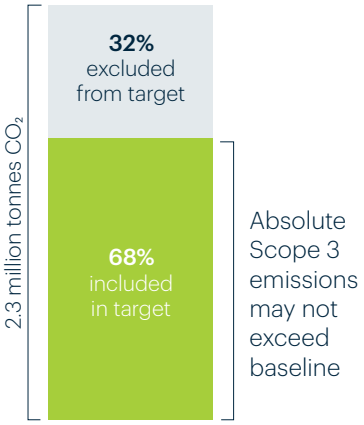


Scope 3 TARGET

FY2030
Reduce CO_2 emissions per tonne cementitious materials produced[3] by
22%

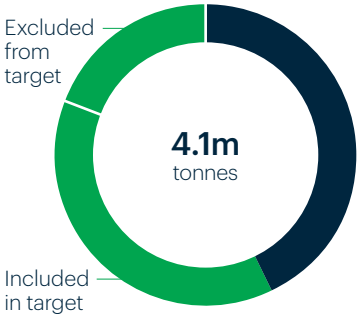
Physical intensity target[4]

Applies to a minimum of two-thirds of Scope 3 baseline emissions



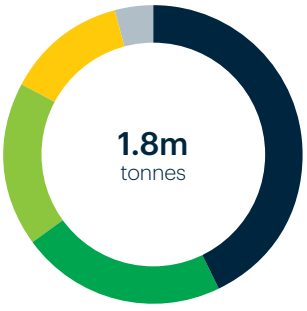
FY2019 baseline CO_2 emissions

Total



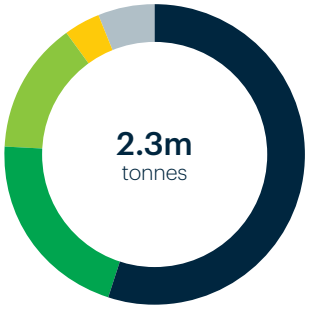
- **43%** Scope 1 and 2
- **57%** Scope 3

Scope 1 and 2



- **43%** Calcination
- **22%** Coal
- **18%** Electricity
- **13%** Diesel and liquid fuels
- **4%** Natural gas

Scope 3



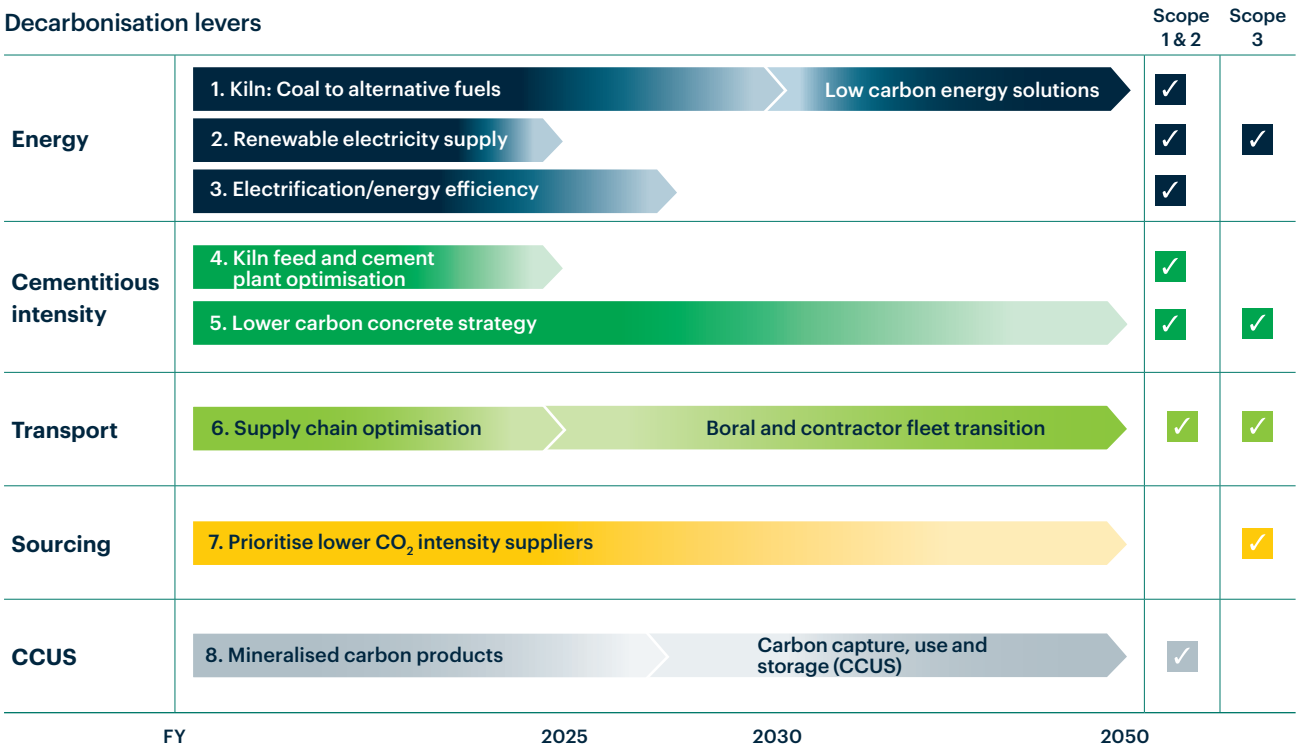
- **55%** Purchased goods and services
- **21%** Investments in joint ventures
- **14%** Upstream transportation and distribution
- **4%** Fuel- and energy-related activities
- **6%** Other

1. While SBTi's methodology permits the use of carbon offsets to achieve net-zero emissions post-2030, our decarbonisation pathway post-2030 is focused on achieving absolute emissions reductions for Scopes 1, 2 and 3. This pathway remains dependent on further development and commercial viability of new and emerging technologies.
2. Our targets and baseline are for Boral's continuing operations.
3. Cementitious materials produced is defined following the Global Cement and Concrete Association definition – see page 34, footnote 1.
4. Consistent with SBTi's Scope 3 physical intensity target methodology.

Our decarbonisation pathway

We have established a robust decarbonisation pathway based on five key levers, which will enable us to progress towards our targets. Work is underway on initiatives across each of these levers – with a significant number of these initiatives currently economic without a carbon price being required. We are investing in R&D, positioning the business for transition, and working with the right business partners and suppliers. We will regularly review our progress against our targets, including reassessing and reprioritising initiatives.

Decarbonisation levers



FY2022–FY2025 priorities

1.	Transition kiln fuel away from coal, increasing alternative fuels from ~15% to 60%, and explore hydrogen. See page 31
2.	Transition to 100% net power supply from renewable sources
3.	Improve energy efficiency by 5% to 10%
4.	Implement processes to increase cement plant efficiency
5.	Increase use of SCMs in concrete. See pages 32–33, 56–57
6.	Optimise supply chain logistics and routes, and explore alternative fuel fleet options
7.	Prioritise lower CO_2 intensity suppliers, including for imported clinker
8.	Explore and test emerging CCUS technologies. See page 31

Decarbonisation estimated contribution – Scope 1, 2 and 3

- **~40%** Energy
- **~30%** Cementitious intensity
- **~18%** Transport
- **~12%** Sourcing

- **~19%** Energy
- **~13%** Cementitious intensity
- **~16%** Transport
- **~18%** Sourcing
- **~34%** CCUS

The above estimated contributions are contingent on cost-effective and available technologies

Decarbonising cement manufacturing

The manufacture of cement, a key ingredient in concrete, has a substantial carbon footprint. Many of the opportunities for emissions reductions are therefore in our Cement business.

We also import clinker and purchase cement domestically. Reducing the carbon intensity of our clinker and cement purchases over time will be one of the levers to reduce our Scope 3 emissions.

82% of Scope 1 and 2 emissions are from Boral Cement

>40% of Scope 3 emissions are from importing clinker and purchasing cement[1]

Cement decarbonisation levers

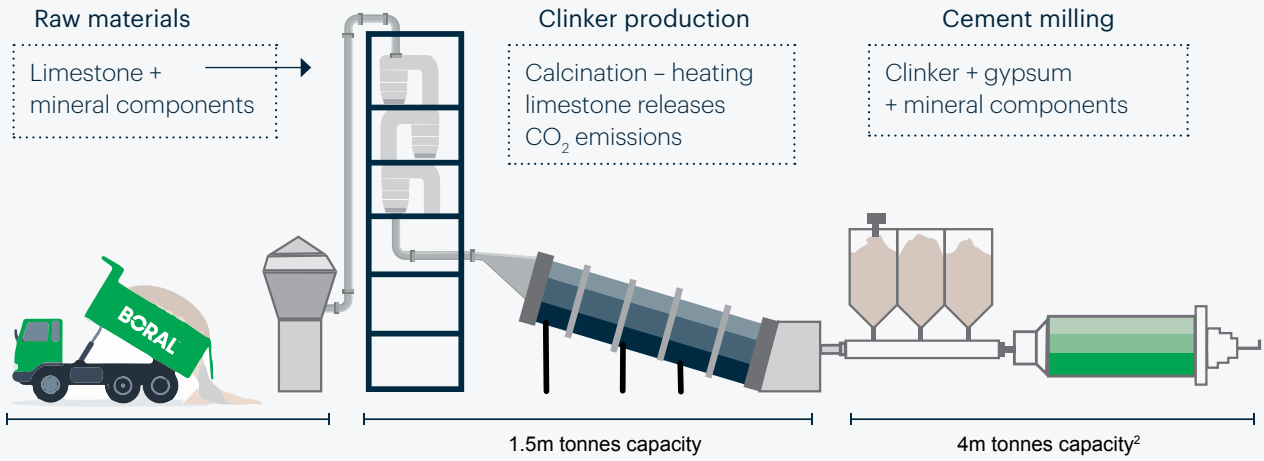
		FY2022–FY2025 priorities
Thermal emissions	Alternative fuels	1. Kiln fuel transition away from coal
	Cement plant efficiency	4. Kiln feed and cement plant optimisation
Electricity	Renewable electricity	2. Transition to renewable sources
Process emissions from calcination	CCUS	8. Exploring re-carbonation technology at Berrima
	Clinker substitution	Increase mineral addition – currently limited to 7.5% under Australian Standard

Source of cement manufacturing emissions
(based on historical average)

- **~60%** Calcination
- **~30%** Thermal emissions
- **~10%** Electricity

1. Excludes Scope 3 emissions relating to the Sunstate Cement joint venture.
2. Includes Boral's 50% share in 1.5 million tonne grinding capacity of the Sunstate Cement joint venture.
3. FY2020 data restated.

Boral Cement manufacturing process



Electricity for grinding	Coal and alternative fuels used to heat kiln	Electricity for cooling, grinding and mixing

1. Berrima lower carbon alternative fuels program

The transition from the use of coal towards a greater use of lower carbon alternative fuels in our Cement business is a core part of our energy decarbonisation lever.

At the Berrima Cement plant, our lower carbon solid waste-derived fuels (SWDFs) facility reduced our coal-related carbon emissions by 50,000 tonnes CO_2 in FY2021, up from 36,500 tonnes in the prior year.[3]

In FY2022, we expect to further reduce coal-related emissions at Berrima as a result of increased supply of SWDFs. SWDFs include wood waste, which is organic fibrous residues and natural wood wastes that results from processing waste – and refuse-derived fuel, produced by processing the residues of solid waste and removing recyclable and hazardous materials.

Following development approval during the year, detail design work is underway to enable procurement and construction of a chloride bypass at the facility. The bypass will enable an increase in the capacity to consume SWDFs to 100,000 tonnes per annum – equivalent to about 30% alternative fuel use.

Investment in the chloride bypass will benefit from a $4.6 million grant from the NSW Government.

8. Exploring re-carbonation technology at Berrima Cement

In June 2021, we were awarded a grant of up to $2.4 million from the Australian Government's CCUS Development Fund towards a pilot scale carbon capture and storage project for re-carbonation technology known as mineral carbonation.

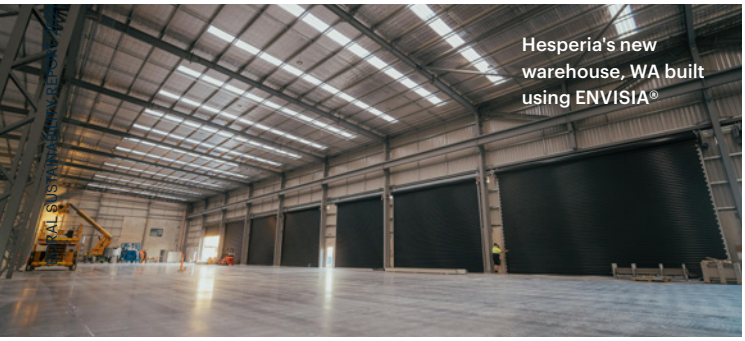
Re-carbonation is an emerging technology, recognised by the Intergovernmental Panel on Climate Change (IPCC).

Materials such as recycled concrete are processed with CO_2 to accelerate re-carbonation and permanently store the CO_2 in a mineralised form known as mineralised carbon products.

Our pilot project will develop a carbon storage technology where the carbon captured from our Berrima Cement plant, in NSW, will be stored permanently in recycled concrete, masonry and steel slag aggregates. This also improves the quality of these recycled materials.

The recycled aggregates will fully or partially replace the natural aggregates used in concrete products. The relatively low capital and operation costs, abundance of selected waste materials, and the financial return potential due to the increased value of processed aggregates are key drivers for adoption of this technology.

Decarbonising concrete



5. A key lever of our decarbonisation pathway is to reduce cementitious intensity through our lower carbon concrete (LCC) strategy.

By shifting our conventional concrete mixes to our ENVISIA®, Envirocrete® and Envirocrete® Plus range of LCC products, we will reduce our use of cement in the production of concrete.

Our LCC products replace cement with supplementary cementitious materials (such as ground-granulated blast-furnace slag and fly ash) and use proprietary binder technology to deliver lower embodied carbon concrete while maintaining and/or improving engineering outcomes for our customers.

Boral's **ENVISIA®** concrete achieves a cement replacement of 50% or more by combining supplementary cementitious materials with our proprietary cement technology, ZEP®.

For concrete products between 20 MPa and 40 MPa, ENVISIA® available in the Sydney region has 30% to 37% lower embodied carbon than our conventional concrete mixes, and 43% to 49% lower embodied carbon compared to Infrastructure Sustainability Council's (IS Council) reference case.

ENVISIA® concrete also achieves a superior engineering performance including early-age strength, lower shrinkage characteristics and improved durability relative to conventional concrete mixes.

Our lower carbon **Envirocrete® Plus** concrete achieves a cement replacement of 45% or more. It can be used for all mainstream uses such as house slabs and multi-residential construction.

Envirocrete® 40% has lower embodied carbon compared to conventional concrete and is ideal for general applications where high-performance concrete is not required.

Our leading lower carbon proprietary technology is supporting our own decarbonisation goals as well as our customers'

ENVISIA® has up to 37% lower embodied carbon than our conventional concrete mixes[1]

Lower carbon concrete range	Embodied carbon reduction (for 20 MPa concrete in Sydney region)		Portland cement replacement	Engineering performance versus conventional concrete[2]
	Compared to Boral conventional mix	Compared to IS Council reference case		
ENVISIA®	35%	43%	≥ 50%	High engineering performances for advanced applications
Envirocrete® Plus	31%	39%	≥ 45%	Matches standard concrete blends and applicable to all mainstream uses
Envirocrete® 40%	30%	38%	≥ 40%	Matches standard concrete blends and applicable to all mainstream uses

1. For concrete products between 20 MPa and 40 MPa in the Sydney region.
2. For products between 20 MPa and 40 MPa compared to Green Building Council of Australia and IS Council reference cases.
3. Based on recent historical average by weight per cubic metre concrete.
4. Our lower carbon concrete products incorporate our proprietary binder.

Boral supplied ENVISIA®
to Crown Sydney, NSW

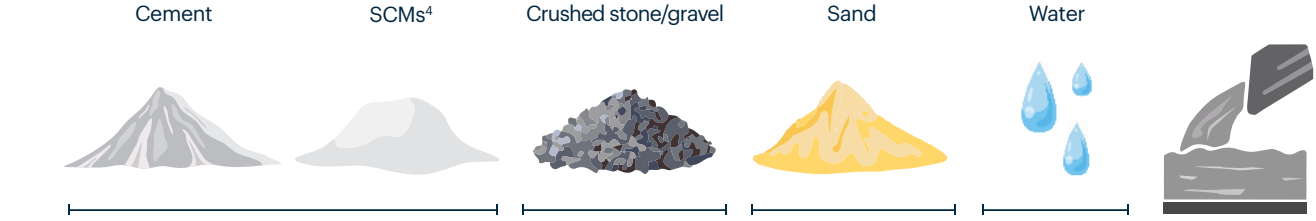
Partnering to drive innovation and sustainable solutions

Our current R&D efforts are focused on broadening the range of LCC products we can offer to our customers to help drive the adoption and use of LCC, and achieve increased cement replacement.

Through our partnership with the University of Technology Sydney (UTS), we are accelerating our research into new binders and developing the next generation of ENVISIA® concrete. We want to push lower carbon boundaries even further while maintaining the practical properties of regular concrete. See page 59.

We are also partnering with other universities and engaged with industry innovation hubs to leverage public funding opportunities and to generate new IP

Boral's concrete typically comprises – by weight[3]



Our carbon footprint

Our goals and targets

FY2025

Reduce Scope 1 and 2 emissions by **18%**

FY2030

Reduce Scope 1 and 2 emissions by **46%**

Reduce relevant Scope 3 emissions per tonne of cementitious materials produced[1] by **22%**

Targets are from an FY2019 baseline

FY2021

Scope 1 and 2 emissions (tonnes CO_2)

▼ 3% to 1.6m

From FY2019 baseline

▼ 9%

Scope 3 (tonnes CO_2)

Steady at 2.1m

From FY2019 baseline

▼ 5% to 0.82

CO_2 tonnes/tonne cementitious materials produced[1]

Scope 1 and 2

In FY2021, our Scope 1 and 2 emissions declined by 3% in our continuing construction materials business. This largely reflects lower levels of production and activity in our Quarries, Asphalt and Concrete and Placing businesses, particularly Asphalt which reported a 15% decline in revenue in FY2021.

Scope 1 and 2 emissions from the Cement business were steady and benefited from higher alternative fuels use at our Berrima Cement kiln, which reduced coal-related CO_2 emissions by 12,500 tonnes compared to the prior year.

Our Scope 1 and 2 emissions decreased by 9% compared to the FY2019 baseline for our climate targets.

Going forward, we are focused on implementing our decarbonisation initiatives to progress towards our emissions reduction targets.

Scope 3

Our approach to Scope 3 reporting follows the principles outlined in the Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

We continued to strengthen our Scope 3 reporting to improve its completeness and robustness. Previously, a materiality threshold of 50,000 tonnes of CO_2 was applied to screening of Scope 3 sources. This year, we removed this threshold and each of the Scope 3 categories were re-evaluated for the purpose of establishing the baseline for our science-based Scope 3 target.

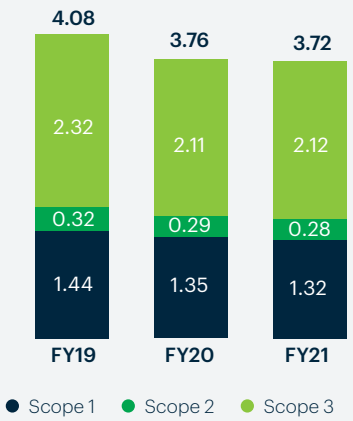
On this basis, Scope 3 emissions in FY2021 were 2.1 million tonnes CO_2, steady on the prior year.

Approximately 60% of Scope 3 emissions related to the purchase of goods and services, with a further 18% relating to our investments in joint ventures.

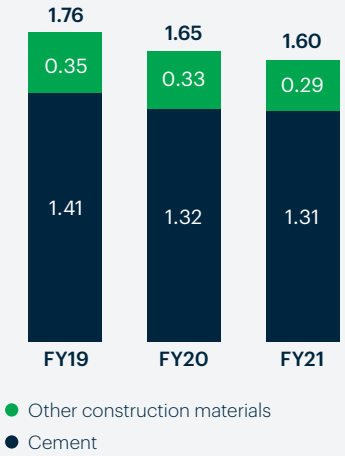
Our Scope 3 physical intensity target is aligned with the SBTi methodology and applies to 68% of our Scope 3 emissions. Compared to our FY2019 baseline, our Scope 3 physical intensity declined by 5%.

1. Cementitious materials produced is defined following the Global Cement and Concrete Association definition: Total clinker produced for cement production or direct clinker sale plus mineral components and all clinker substitutes consumed for blending, plus all cement substitutes.
2. Data may not add up due to rounding.
3. Renewable and alternative energy sources defined in accordance with SASB Construction Materials standard.

Total emissions[2]
(million tonnes CO_2)



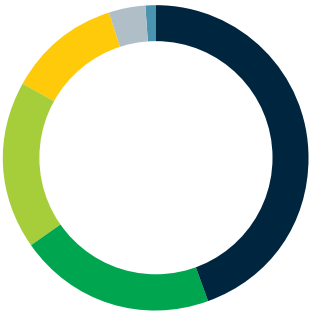
Scope 1 and 2 emissions
(million tonnes CO_2)



Scope 3 physical intensity
(CO_2 tonnes/tonne cementitious materials produced)

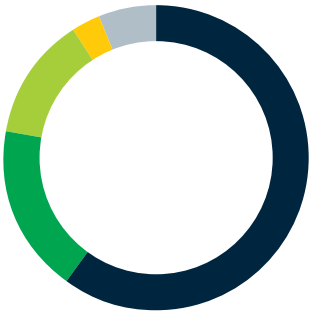
Scope 1 and 2 emissions by source[2]

- **45%** Calcination
- **21%** Coal
- **18%** Electricity
- **12%** Diesel and liquid fuels
- **4%** Natural gas
- **1%** Alternative fuels



Scope 3 emissions by category

- **60%** Purchased goods and services
- **18%** Investments in joint ventures
- **13%** Upstream transportation and distribution
- **3%** Fuel and energy-related activities
- **6%** Other

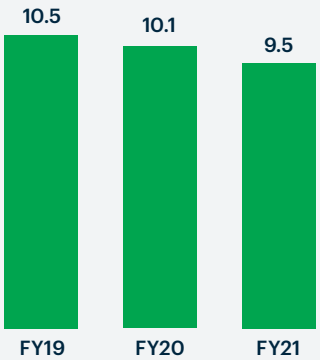


Energy

Energy consumption in our continuing businesses decreased by 6% on the prior year. This reflects lower levels of production and activity, particularly in our Asphalt business.

The combined energy contribution of renewable and alternative energy sources[3] increased to 7%, from 4% in the prior year, reflecting increased replacement of coal with lower carbon solid waste-derived fuels at the Berrima Cement kiln.

Energy consumption
(petajoules)



Energy by fuel source

- **40%** Coal
- **28%** Diesel and liquid fuels
- **13%** Electricity
- **12%** Natural gas
- **4%** Renewable
- **3%** Alternative

Climate resilience

TCFD-based scenario analysis

We recognise that undertaking TCFD-based scenario analysis is an important step to obtaining greater insight into the potential future risks and opportunities of climate change. It enables us to adapt Boral's strategy to strengthen our resilience to climate-related risks and the transition to a low-carbon economy.

In FY2019, we established a two-year roadmap to use TCFD-based scenario analysis to further assess our most significant climate-related risks. Given the significant change in our business portfolio in FY2021, we revised our roadmap to focus solely on our Boral Australia continuing operations, namely Quarries, Cement, Concrete and Placing, Asphalt and Recycling.

This year, we completed the second stage of the physical climate risk scenario analysis, following the completion of the first stage in the prior year.

We also considered the transition risk of potential changes in carbon policy to introduce a carbon price and its effect on our operations and the potential implications for the market price of our products.

We acknowledge that with the current policy environment in Australia, including safeguard baselines, the impact of carbon pricing is unlikely to be financially material for Boral over the next few years. The current traded price for Australian carbon credit units is about $25 per tonne. However, a revision of government policy could change this.

In addition, by committing to net zero by 2050[1] and adopting ambitious emissions reduction targets supported by well-defined decarbonisation levers, we have embarked on a path that significantly mitigates our future transition risk and seeks to build a competitive advantage.

Carbon price risk scenario analysis

To better understand the potential impact of a carbon price on our continuing operations and in particular the market price of our products, we considered potential carbon price trajectories out to 2030 under the Network for Greening the Financial System (NGFS) Net Zero 2050 and Nationally Determined Contributions (NDCs) climate scenarios.

We selected these two scenarios for their credibility and comparability, as they are widely accepted scenarios for use in climate scenario modelling and planning – and to provide a distinctive range, including a challenging net zero scenario that reflects a higher level of transition risk.

The scenarios share the same underlying assumptions on key socio-economic drivers, such as the harmonised development of population and economic developments. Specifically, they assume that society evolves broadly in line with past trends and global population peaks around 2070.

The three key elements that differentiate these scenarios are long-term policy settings, short-term policy settings and carbon dioxide removal (CDR) technology.

We used the weighted average global carbon prices under the Net Zero 2050 and NDCs scenarios from NGFS Scenario Explorer rather than the pricing data for Australia, as these were considered more robust.

NGFS scenarios[2]	Net Zero 2050	Nationally Determined Contributions (NDCs)
2030 carbon price[3]	A$130	A$107
CO_2 emissions	Reach net zero around 2050	Reduce by about 40% by 2050
Technology	Fast change	Slow change
CDR	Medium use	Low use
Policy reaction	Immediate and smooth	All pledged policies even if not yet implemented
Regional policy variation	Medium variation	Low variation

1. While SBTi's methodology permits the use of carbon offsets to achieve net-zero emissions post-2030, our decarbonisation pathway post-2030 is focused on achieving absolute emissions reductions for Scopes 1, 2 and 3. This pathway remains dependent on further development and commercial viability of new and emerging technologies.
2. Based on scenario narratives from NGFS Climate Scenarios for central banks and supervisors, June 2021. Carbon price in 2030 from IIASA NGFS Climate Scenarios Database and stated in real terms.
3. USD prices have been converted to AUD based on the average exchange rate in FY2021 of 0.7472. Prices are in real terms, representing the multi-year average price of 2015–2020.

ENVISIA® used to build
The Stokehouse, Melbourne

Given the lack of differentiation in carbon price in 2030 between the two scenarios, we focused on the more ambitious Net Zero 2050 scenario, which is projected to have a global average carbon price of $130 per tonne of CO_2.

We compared the embodied carbon in our conventional concrete with that in our lower carbon concrete ENVISIA® as provided in our Environmental Product Declaration (EPD) for NSW/ACT for two typical concrete blends in the Sydney region. We considered 20 MPa concrete, which is commonly used for residential home construction, and 40 MPa concrete, which is typically used for high-rise and infrastructure construction.

This embodied carbon metric considers all emissions from cradle to gate. However, it does not include Scope 3 emissions that might be associated with delivery and placement of the concrete.

This analysis shows that the additional cost of carbon for conventional concrete compared to our lowest carbon concrete ENVISIA® specification in 2030 would be $12–$14 or 43%–54% higher, assuming a carbon price of $130 per tonne.

NGFS Net Zero 2050 scenario	Conventional concrete mix		ENVISIA® concrete	
Types of concrete specifications	20 MPa	40 MPa	20 MPa	40 MPa
Embodied carbon (kg CO_2/m³) based on NSW/ACT EPD	271	357	176	249
2030 projected cost of carbon per m³ concrete	$35	$46	$23	$32

Any pass through of a carbon cost to our customers would, however, be influenced by numerous uncertain levers such as industry competitive dynamics, industry standards, consumer preferences and the carbon intensity of relevant product alternatives.

Should a change in policy result in a carbon price, our recently announced ambitious climate targets and decarbonisation pathway places us in a strong position that seeks to create a competitive advantage – including by offering our customers attractive lower carbon concrete options.

Our FY2030 emission reduction targets, which are aligned with SBTi's methodology, mitigate our potential future exposure to a carbon price.

In FY2022, we will consider how an internal carbon price might help support our capital allocation and capital expenditure decision-making processes.

Climate resilience

(continued)

Physical climate risk scenario analysis

The first stage of the physical climate-related scenario analysis work, completed in FY2020, identified the geographic regions where Boral operates that are most vulnerable to the impacts of physical climate-related risks under various warming scenarios in the mid-century and end-of-century periods.

The outcome of this work provided a summary of five climate hazards particularly relevant for our regions of operation under two warming scenarios, and this is summarised in our *2020 Boral Review & Sustainability Report*.

The second stage, completed this year, aimed to quantify the potential operational and financial impacts on Boral of an increase in the frequency and intensity of the climate hazards at a site and/or business level.

We engaged sustainability advisory business South Pole to assist us with both stages of the scenario analysis.

We considered two climate scenarios based on the Intergovernmental Panel on Climate Change Fifth Assessment Report (IPCC AR5), which considers greenhouse gas concentration trajectories, referred to as Representative Concentration Pathways (RCPs).

We considered the no or limited mitigation scenario, where global warming is likely to increase by nearly 4°C by 2100 (RCP8.5), and the scenario where strong emissions mitigation actions are expected post-2040 and the global temperature increase is more likely to stay below 2°C by 2100 (RCP4.5).

Below is a summary of the underlying assumptions of the RCP8.5 and RCP4.5 scenarios used.

	Global warming by 2100[1]	Assumes
RCP8.5	Likely to increase by 3.7°C	High global population, increased energy demand and relatively low economic growth, with limited technological developments. No policy action or measures to reduce emissions, leading to global emissions continuing to grow at historical rates to nearly double today's levels by 2080.
RCP4.5	Likely to stay below 1.8°C	Low population growth, a moderate level of global mitigation actions, with significant technological and cost improvements in renewable energy sources. Projected global emissions expected to peak in 2040 and reduce to half of 2020 levels by 2080.

The scenario analysis covered three time horizons.

Short-term (< 5 years)	Medium-term 2035	Long-term (2040, 2050)

Climate hazards and potential business impact

Based on the outcomes of the first stage of the scenario analysis, four climate hazards were selected for in-depth analysis:

- **bushfires**
- **drought (and water stress)**
- **heatwaves**
- **heavy precipitation and riverine flooding**

In relation to precipitation, we also considered whether the number of rain days is projected to change, as rain days with precipitation of more than 2 millimetres have the potential to cause business interruption, particularly for our concrete and asphalt businesses.

Tropical cyclones and extreme sea level rise were only assessed to understand how climate change could impact our main transportation and distribution routes. For tropical cyclones, there is significant uncertainty associated with how this hazard could change based on current climate research. Sea level rise is only expected towards the end of the century, and a coastal flood analysis found that the exposure of Boral's sites to this hazard was very low.

The analysis focused on 277 sites, which were grouped in six strategically important clusters and represent more than 75% of our continuing operations' sites. We also considered six strategic shipment and rail routes.

In addition to the identification of the clusters that, if affected by one or more hazards, could represent a material issue for Boral, the analysis also helped identify individual sites that are highly exposed to the changes in the characteristics of the hazards.

1. Above pre-industrial levels.
2. Water stress represents the ratio between total water withdrawals divided by available water supplies (both renewable surface and groundwater supplies).

Future climate risk was defined based on exposure, hazard and vulnerability.

These three components were evaluated in a four-step process that included a baseline assessment, a trend analysis and a climate scenario analysis, which was followed by a business impact assessment.

For the scenario analysis, state-of-the-art high-resolution climate data was applied to calculate the changes in the climate indicators defined to assess each hazard. Business impact metrics were then established to translate the climate projections for each indicator into potential financial impact ranges.

Climate hazard	Climate indicators	Business impact
Bushfires	Fire risk score based on ignition potential due to relative humidity, vegetation type and extent of impact from 2019/20 bushfires	Revenue loss due to potential business interruption at sites located in or near high and very high bushfire risk areas
Drought and water stress	Water-stress risk[2] Annual maximum number of consecutive dry days Annual and seasonal precipitation	Number of sites located in an area exposed to high and extremely high water-stress risk Cost to purchase water from alternative supply or revenue loss from forced site closures due to inability to source alternative supply
Heatwaves	Wet Bulb Globe Temperature index (WBGTI) – used to measure heat stress conditions	Additional cost from productivity loss due to a reduction or interruption of work undertaken by employees and contractors exposed to heat stress
Heavy precipitation and riverine flooding	Amount of rainfall on rainiest day Rainiest five consecutive days of a year Inundation height for a one in 100-year and one in 500-year flood event	Number of facilities located in an area exposed to flood Property damage and business interruption estimates from our insurance provider used to calculate future costs that might arise from an increase in height of an inundation due to a river flood
Number of rain days	Number of days with precipitation above 2 millimetres	Revenue loss due to change in annual number of rain days

Scenario analysis outcomes

The results of scenario analysis indicated that three out of the four hazards show a change that might result in increased risks for Boral: heat stress, drought and water-stress risk, and bushfires.

The analysis over the three time horizons points to a gradual increase from 2035 to 2050 in the climate indicators for these three hazards, particularly under the RCP8.5 scenario.

However, only two hazards, drought and water stress, and bushfires, were identified as having the potential to have a significant adverse financial impact on our operations.

A summary of the projections for 2050 under both scenarios, indicating the level of impact for each climate indicator – which is defined in relation to the exposure and the change in the hazard – is provided on page 40.

Our assessment of the potential financial impact from the projected increase in climate risks considered the actual impact of extreme weather events on our FY2020 financial results.

These included:

- an adverse $26 million EBIT impact due to the combined impact of bushfires and floods on our sales volumes, and
- an additional $1.7 million cost to purchase about 110 megalitres of water to meet our operational needs due to drought between December 2019 and February 2020.

Climate resilience

(continued)

Scenario analysis potential climate risk and EBIT impact

RCP8.5 – 4°C global warming scenario in 2050

Cluster					
Sydney	●	●	●	●	●
Southern Highlands, NSW	●	●	●	●	●
Melbourne	●	●	●	●	●
South East Queensland	●	●	●	●	●
Perth	●	●	●	●	●
South Australia	●	●	●	●	●
Potential adverse EBIT impact	**Significant**	**Modest to significant**	**Insignificant[1]**	**Neutral to positive impact**	**Neutral to positive impact**

RCP4.5 – less than 2°C global warming scenario in 2050

Cluster					
Sydney	●	●	●	●	●
Southern Highlands, NSW	●	●	●	●	●
Melbourne	●	●	●	●	●
South East Queensland	●	●	●	●	●
Perth	●	●	●	●	●
South Australia	●	●	●	●	●
Potential adverse EBIT impact	**Significant**	**Modest to significant**	**Insignificant[1]**	**Neutral to positive impact**	**Neutral to positive impact**

Climate hazards

 bushfires

 drought (and water stress)

 heatwaves

 heavy precipitation and riverine flooding

 number of rain days

Risk rating

- ● High
- ● Medium
- ● Low
- ● Neutral or benefit

1. Excludes potential second order impacts.

Bushfires

There is strong scientific evidence to suggest that bushfires will become more intense and frequent, especially in the RCP8.5 scenario. However, modelling these changes in specific areas is challenging due to the many variables impacting bushfire risk.

High and very high bushfire risk areas were defined based on vegetation type, future changes in relative humidity and exposure to the 2019/20 bushfires.

On this basis, out of the 277 sites analysed, the projections were that 112 sites would be located in high and very high bushfire risk areas by 2050 under RCP8.5, and 39 sites under RCP4.5. This compares to 32 sites currently at high risk and 93 sites that were affected by the extreme bushfires of 2019/20.

As our operational footprint continues to change from now to 2050, this will change our potential exposure to areas at high and very high bushfire risk.

Drought and water-stress risk

There were no changes found in annual maximum number of consecutive dry days for any of the time periods or scenarios, and a significant reduction in annual precipitation was only projected for Perth and South Australia from 2035.

However, population growth and increased water demand under both scenarios is expected to significantly increase the number of sites in areas with extremely high-water stress risk, and arid and low water use. Our baseline assessment identified 25 Boral sites located in areas with extremely high water-stress risk and three sites with arid and low water use.

This could result in a need to source water from alternative supply at an additional cost or in extreme circumstances, certain sites being unable to operate for periods of time.

Heatwaves

Using the WBGTI indicator to determine thresholds that trigger reduced allocations of work for employees and contractors to reduce their exposure to heat stress, under both climate scenarios there is projected to be an increased labour cost due to reduced productivity. While this increased cost was not assessed as significant, we did not quantify potential second-order impacts, such as delays in projects by customers due to the inherent difficulty in assessing these.

Heavy precipitation and flooding

For heavy precipitation and flooding and number of rain days, the projections at a site level indicate that the potential impacts associated with these hazards are expected to have no change or become less severe.

Three climate indicators were evaluated to determine whether the risk of heavy precipitation and flooding might increase due to climate change. The two indicators that were employed to assess the change in heavy precipitation events showed no statistically significant change. The indicator (inundation height) used to assess the risk of river flooding for a one in 100-year and one in 500-year flood event indicated a decreased risk under both scenarios out to 2050.

Impact on transportation routes

The analysis found Boral's rail transportation routes would be exposed to increased bushfire risk, which could result in more frequent business interruptions.

The potential impact of tropical cyclones and extreme sea level rise on the shipment routes was not found to be significant – even if such events were to become more intense and frequent in the future.

Next steps

In FY2022, we will consider the scenario analysis outcomes for each of the hazards at relevant site and business unit levels which will require broader engagement with our business leaders and site management.

We will use Boral's risk management framework to capture the risks identified though the scenario analysis, the existing climate mitigation activities and additional mitigation responses identified through the scenario analysis work. An assessment of the adequacy of current climate mitigation measures will help identify and prioritise site-specific mitigation action plans.

Potential physical climate-related opportunities

The physical climate risk scenario analysis undertaken to date has not explored or quantified the following potential opportunities which will be further considered in FY2022:

- There may be increased demand for construction rectification and remediation work due to more frequent and intense bushfires or heatwaves.
- There may be increased demand for more robust and disaster-resilient construction materials such as our advanced lower carbon concrete range which provides superior strength and long-term durability, outperforming conventional concretes. Concrete construction also offers strong thermal efficiencies, which could contribute to increased demand in more extreme climatic conditions .

Sustainable operations footprint

Our goals and targets

FY2022

Establish baselines and set improvement targets for:

- ○ waste generated and waste to landfill
- ○ water use and recycling at quarries and cement sites at high risk of water stress
- ○ biodiversity management

FY2021

0.3
serious environmental incident frequency rate (SEIFR)[1]

~1.1
gigalitres municipal water used

We strive to achieve an environmentally sustainable operations footprint that meets today's and tomorrow's needs.

We are committed to reducing the environmental impacts of our operations, and wherever possible, eliminating these altogether.

In addition to our ambitious decarbonisation targets and increased use of recycled materials in our products, we are investing resources to improve our water efficiency, reduce our waste generated and waste to landfill, and strengthen our biodiversity management.

Environmental compliance

We work to ensure we meet, and preferably exceed, compliance with environmental legislation and regulations relevant to our operations.

We manage compliance obligations through an environmental management system that covers internal and external environmental standards and requirements.

We conduct a range of compliance activities focused on regulatory compliance and air emissions controls, in line with our three lines of defence approach to HSE assurance outlined on page 25.

Operational teams are responsible for compliance with environmental regulations, with specialist functional support provided. In FY2021, the HSE team conducted 60 internal environmental compliance audits across Boral Australia's operations and initiated corrective actions based on audit findings.

The Group HSE function completed additional audits across all our businesses, focusing on environmental planning and objective setting, environmental compliance and risk management, and environmental assurance processes. Site verification audits were conducted across a selection of 20 Boral Australia sites.

Environmental incidents and infringements

In FY2021, Boral Australia's SEIFR was 0.3, which was an improvement on the prior year. Boral Australia received no penalty infringement notices during the year.

We received four infringement penalties in Boral North America, totalling $12,310. These related to non-compliance with administrative arrangements; they did not relate to direct environmental impacts.

Water

For all our operations, particularly our concrete, cement and quarry businesses, water is an essential resource. We use water to manufacture concrete and cement, for dust suppression particularly in our quarries business, and for cleaning and sanitation across our operating sites.

We used approximately 1.1 gigalitres of municipal water in Australia, in line with the prior year. Most of our municipal water use is in Boral's concrete and quarries operations.

We use recycled water in our production processes across many of our operations, including concrete, quarry and asphalt. While some sites use 100% recycled water for their production processes, this proportion varies across our operations. We continue to invest in increasing our use of recycled water, such as at our Enfield plant – see page 45.

At our larger sites, including our quarries, we capture rainwater. This is often the site's primary source of water and largely used for dust control.

1. Serious environmental incident frequency rate is defined as Level 3 (or greater) environmental, regulatory or community incident rate (per million hours). Incident thresholds are determined by using the Boral HSEQ risk matrix.

Marulan limestone quarry, NSW

Measuring water use at our high water-stress sites

In FY2021, to enable us to establish a baseline of water consumption of non-municipal water at a number of our quarry and cement sites that were assessed as at high risk of water stress, we commenced the installation of water meters at these sites. Once complete, this baseline data will allow us to set site-specific water use reduction targets and monitor improvement initiatives.

The physical climate risk work completed by our consultants, South Pole, identified 25 Boral sites located in areas with extremely high water-stress risk and three sites with arid and low water use – see page 41. This work supported the risk review of water stress across our Quarries business completed in FY2020 with the assistance of Griffith University in Queensland. This concluded that 22 of our 67 quarries are at high risk of water stress, based on water availability and consumption.

Boral's HSE team is continuing to investigate measures to mitigate the future risk of constrained water supply. This includes seeking alternative sources of water and adopting technology improvements and/or process changes, particularly focusing on higher risk sites.

We have identified a number of significant contingency measures for our key operations of Peppertree Quarry and Berrima Cement. For Berrima, this may involve piping treated groundwater from the non-operational Berrima Colliery to the cement plant for use in production.

Sustainable operations footprint

(continued)

Water quality

We work to comply with environmental regulations on the quality of water discharges and stormwater management to avoid adverse impacts on local water bodies. We have well-established internal compliance systems, and regulatory controls through licensing and permitting.

Across our operations, a relatively small amount of process water is discharged to sewers for treatment by water authorities, in line with our existing licensing conditions at relevant sites.

When building or acquiring new facilities, our due diligence process includes assessing the risks to water quality from site discharges. We also ensure sufficient water availability and supply, which may require assessing river catchments.

Following publication of the Global Industry Standard on Tailings Management, we are undertaking a review of the applicability of this standard to our operations. This work is expected to be completed in FY2022.

Waste

In FY2021, we partnered with a new waste services provider to improve our approach to the management of waste generated by our operations in Australia, including by centralising data on our waste streams. In FY2022, this will enable us to report on the waste we generate as well as set improvement targets to reduce waste and improve landfill diversion rates.

In our operations, we re-use by-products from our processes, such as concrete washout, recycled asphalt pavement, quarry by-products and process water from our production facilities. We are also focused on re-using production by-products and waste materials from other industries in our products, and growing our contribution to the recycling of construction and demolition waste materials. See page 58.

Our operations generate only small volumes of hazardous waste (such as waste oil), which is managed in accordance with government regulations.

Land management, rehabilitation and remediation

Given our substantial land footprint across a broad geographic region, responsible land management is an integral part of how we operate.

For each of our extraction and operating sites, we carefully plan to mitigate any adverse environmental impacts – from development applications and operational land use through to rehabilitation and end-use planning and development.

Boral's dedicated Property and Environment teams work closely with our operations to ensure we meet our environmental rehabilitation and remediation obligations.

These obligations relate to rehabilitation of sites, or clean-up of legacy contamination issues, at the appropriate point in the life cycle of these operations. They enable the ongoing use of the relevant land, which may include recreational, industrial or a higher-value end use.[1]

Following the initial assessment of a quarry rehabilitation obligation, the estimated liability is reassessed on an annual basis when the remaining quarry life is less than five years, and whenever there is a change in rehabilitation requirements.

1. See Note 3.6 of the financial statements in the *Boral Annual Report 2021* for details of the provision for anticipated future costs associated with remediating and rehabilitating sites, based on our estimate of associated costs.

Biodiversity

Avoiding adverse impacts to the diversity of plant and animal species at and around our operational sites is an integral component of our land management efforts. We have management plans in place for all sites identified as having biodiversity values.

Biodiversity obligations that are integrated into site permits are audited under Boral's environmental audit program to verify that we are meeting our commitments. These are in accordance with relevant site-specific, regional and national requirements.

All greenfield sites or expansions to existing operations undergo comprehensive internal and – where required – external assessments to identify biodiversity risks and impacts. When we identify risks, we address them through a range of mitigation activities such as offsets (either on- or off-site) and biodiversity area enhancements.

We identify biodiversity risks associated with new operations through our due diligence processes and address these via environmental assessment and management controls.

Our Quarries business has the highest potential to impact biodiversity – and we actively rehabilitate our quarries over time. In FY2021, we rehabilitated more than 300 hectares of land, accounting for about 8% of land disturbed through our operating activities, totalling about 3,700 hectares. Our rehabilitation efforts were higher than in recent years, reflecting significant rehabilitation work completed at some of our large quarries such as Deer Park and Waurn Ponds in Victoria.

Air quality

We have rigorous systems and processes to minimise air emissions across our operations. These are tailored to the type of operation and site-specific regulatory requirements.

Where we have identified that air emissions may occur, our operations have engineered and procedural controls. These controls range from scrubber and filtering systems at major manufacturing sites (such as cement), to simpler dust suppression measures (such as water sprinklers) that are typical of quarries and concrete batching plants.

Where relevant, our operations have either continuous or scheduled air quality monitoring programs. Data is available to local communities through regulatory reporting or stakeholder engagement programs such as quarry liaison group meetings and information posted online.

In FY2021, we installed a real-time dust monitor at our Berrima Cement facility to improve local air quality management. The dust monitor, located on our boundary nearest to the New Berrima community, is linked to the site's control room. This is enabling the site to respond to potential dust emission events more rapidly before they escalate.

When we exceed regulatory limits, we report these instances in accordance with regulatory authority requirements. We also address the underlying causes to ensure we maintain ongoing emissions within required levels.

We report data on various air emissions to the National Pollutant Inventory. Our approach to dust management is described on pages 24–25.

Embedding sustainability at our Enfield asphalt plant

Boral's asphalt plant at Enfield, NSW, is both delivering more sustainable lower carbon product solutions for our customers and reducing its own environmental footprint.

The Enfield plant produces asphalt that incorporates more than 20% reclaimed asphalt pavement, which is sourced from old local roads during roadworks. By incorporating recycled materials, we are reducing the embodied CO_2 emissions of asphalt produced and reducing the use of virgin materials.

We have also focused on improving the sustainability of the plant. We recently installed 300 solar panels on the roof area, which will provide the equivalent of one month's energy needs a year. And a new 50,000-litre water tank is allowing us to capture and re-use rainwater for washdown and dust suppression.

Customer experience and satisfaction

Our goals and targets

FY2022

Establish Net Promoter Score (NPS) baseline for Cement and Asphalt and improve Concrete and Quarries NPS

FY2021

+15 points

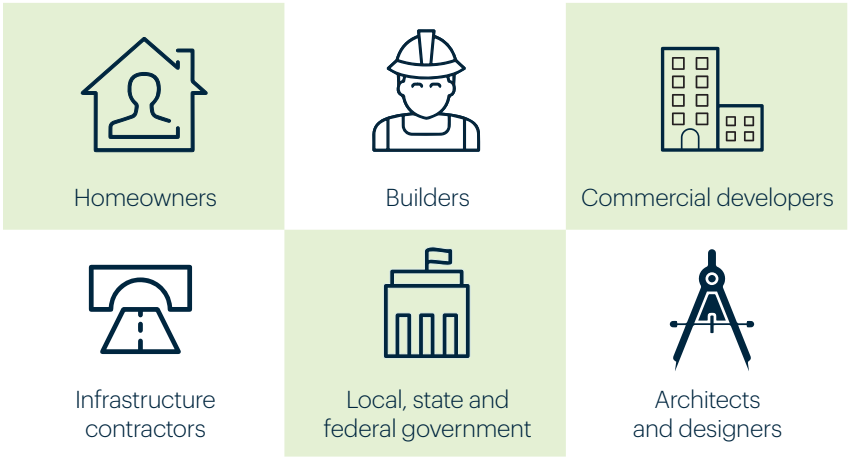
increase in Concrete NPS from FY2019

Established baseline NPS in Quarries demonstrating strong customer endorsement

We aim to deliver a superior customer experience by listening to our customers to better understand their needs and focusing our efforts on delivering continuous improvements.

We also strive to respond to changing customer trends and demands by innovating to enhance our product offering and adopting digital technologies to better serve our customers.

Our customers include:



Measuring customer satisfaction

We seek feedback from our customers to understand how we can serve them better through three types of NPS. These key performance indicators help us measure customer satisfaction and loyalty.

Types of NPS	Interaction	Episode	Strategic
Measures	Individual customer interactions	Customer journey	Brand

We monitor our Interaction NPS, known as the Vibe, daily across each of our product lines: quarries, concrete, asphalt and cement. We issue this feedback daily to our frontline team to enable them to rectify any concerns and improve the experience of our customers. Each month, the insights gained through our NPS are also shared with business leaders and used to inform systematic improvement initiatives.

After establishing a baseline Episode and Strategic NPS in our Concrete business in FY2019, this year we conducted a second Episode and Strategic NPS survey and expanded this to our Quarries business.

Across both these businesses, we obtained feedback from more than 5,000 customers and potential customers.

In Concrete, our Episode and Strategic scores increased by 15 points compared to FY2019, which reflects the business's positive efforts in responding to customer feedback. Our baseline Episode and Strategic scores for Quarries also reflect positive customer endorsement.

The feedback from both these surveys has provided valuable insights on opportunities for us to continue to improve our customers' experience.

Boral Connects

Our Boral Connects customer portal provides an efficient way for our customers to interact with us and manage their concrete deliveries. It's an easy and faster alternative to contacting our customer service centre.

In FY2021, we continued to listen to our customer feedback and work with customers to improve the functionality of Boral Connects. Customers can now view orders by job site and status to help them organise their day, track deliveries with our truck on a map view including estimated arrival time, download multiple electronic dockets, and obtain SMS notifications. Boral Connects allows a contactless digital environment, including paperless delivery.

Customers representing more than 70% of our total annual volume are now active users of Boral Connects, with adoption continuing to increase.

"Boral Connects gives me exactly what I need to see for my ordered jobs and allows me to manage! It's easy to use and I have all my information without having to ring you guys."

Travis – Owner Builder

"I believe the Concrete Deliveries app is a great new tool to assist us with managing work onsite. Rather than guessing what is happening and people getting frustrated on site with not knowing what is happening I can now quickly answer those questions."

OneProperty, Melbourne

Sustainable procurement

Our goals and targets

FY2022
Increase our spend with Indigenous-owned businesses and social enterprises

FY2022
Contribute to achieving our climate targets, including by prioritising suppliers with lower carbon emissions intensity

FY2023
Deliver our modern slavery risk supply chain continuous improvement plan

FY2021

$2.2 billion
spent on purchasing goods and services

~8,000 suppliers across 18 countries

23% increase in spend with Indigenous-owned businesses and social enterprises to $5.1 million

We recognise that sustainable procurement is vital to support our environmental and social priorities and ambitions, as well as our brand and value proposition to customers. Our sustainable procurement approach and strategy reflects Boral's Values – that we care about the impact we have on communities, the environment and each other.

Our sustainable procurement priorities

Deliver our three-year **Sustainable Procurement Strategy** established in FY2020.

Continue to enhance our approach to assess and **mitigate the risk of modern slavery** in our supply chain. Boral's *Modern Slavery Statement 2021*, to be published in October 2021 sets out our two-year action plan to further strengthen our approach.

Strengthen our systems and processes to evaluate, monitor and report on our suppliers' social and environmental performance.

Promote diversity and inclusion in our supply chain, including by increasing our spend with Aboriginal and Torres Strait Islander–owned businesses and social enterprises, and local and regional suppliers.

Engage and collaborate with our suppliers to reduce the carbon footprint of our supply chain to support our FY2030 Scope 3 emissions reduction target.

Continue to build and strengthen our practices to **align with** the International Standard for Sustainable Procurement, **ISO 20400**.

Our approach to sustainable procurement is underpinned by our Sustainable Procurement, Indigenous Procurement and Human Rights policies and Supplier Code of Conduct.

Sustainable Procurement Policy	Sets out our commitment to purchasing goods and services in a responsible way.
Indigenous Procurement Policy	Sets out our commitment to adopt a proactive approach for the inclusion of Indigenous businesses in our supply chain.
Human Rights Policy	Sets out our commitment to respect and promote human rights, and what we expect of our suppliers and contractors.
Supplier Code of Conduct	Sets out the minimum expectations we have of our suppliers in relation to health and safety, environment, human rights and labour standards and ethical standards.

Promoting diversity and inclusion in our supply chain

Boral's Supplier Success Program supports selected Aboriginal and Torres Strait Islander–owned businesses and social enterprises to grow further and win more business with Boral.

Delivering tangible benefits through our choice of suppliers was a key consideration in the production and distribution of our book *Boral Australia 2020: Through your eyes*.

Our Procurement team scoped the requirements for the design, print and distribution of the book, considering suppliers' capabilities and commercial value.

We appointed our Indigenous-owned supplier Muru Office Supplies to print the book, using 100% recycled paper, and the Flagstaff Group, a not-for-profit disability enterprise, to pack and distribute the book to more than 200 of our sites across Australia.

Assessing our suppliers

We screen and evaluate our suppliers through our onboarding processes, which includes ensuring they are aligned with Boral standards as outlined in our Supplier Code of Conduct. The process is differentiated for our domestic and international suppliers.

Our domestic suppliers and contractors are required to complete a pre-qualification process and onboarding questionnaire to ensure awareness of our policies and Supplier Code of Conduct.

Our international suppliers complete a pre-qualification questionnaire to assess supply chain risk based on factors such as corruption and bribery, human and labour rights, HSE compliance and quality standards. Based on the results of this risk evaluation, we may also require satisfactory findings from an on-site visit to a supplier's premises and/or a third-party evaluation.

We use a global independent screening platform to identify any potential areas of risk associated with elements such as financial crime, fraud and human rights abuses within our supply chain.

We also review our risk assessment of international suppliers for modern slavery risk. In FY2022, this annual review will be extended to selected categories of domestic suppliers such as security and cleaning services, which are considered at higher risk of modern slavery practices.

Modern slavery risk

We recognise that modern slavery is a severe violation of human rights with severe and devastating consequences for victims. We are committed to prevent and mitigate the risk of modern slavery in our supply chain and to continuously improve our approach.

We continue to take a risk-based approach and focus our efforts on the areas at highest risk of modern slavery practices in our supply chain. This year, we engaged EY to support us to establish improved processes for assessing and managing this risk in our supply chain.

Our Modern Slavery Working Group continues to support and coordinate our efforts to strengthen our approach. The group comprises members of Boral's Executive Committee and senior representatives from the People & Culture, Procurement, Risk, Legal and Investor Relations teams.

Our *Modern Slavery Statement 2021* will include further information on our approach to modern slavery and our planned actions to further strengthen how we assess and address these risks.

Supporting Australian small businesses

Boral has committed to supporting Australian small businesses by providing payment terms of 30 days or less, and simplified payment processes.

We encourage our small business suppliers to identify their eligibility. This is communicated to new suppliers at the onboarding stage as well as on our website.

Boral will lodge its first report to comply with its obligations under the *Payment Times Reporting Act 2020* in September 2021.

Community relations and partnerships

Our goals and targets

FY2022

Realign our Community Partnerships Framework with our more focused portfolio, and our new strategy, and Purpose and Values

FY2023

Deliver our 2020–2022 Innovate Reconciliation Action Plan

We work to build genuine and positive long-term relationships with the communities in which we operate. We do this by listening to our stakeholders, maintaining proactive and transparent communication, and responsibly managing our operations.

We openly engage with communities to provide information, address concerns and make improvements where possible. The most common areas of interest and concern are heavy vehicle traffic, noise, dust, odours, cultural heritage, water, waste, quarry end use and biodiversity.

Across our key sites, we hold regular community liaison group meetings, which are designed to address local issues relating to our operations with stakeholders. Typically, these meetings are attended by neighbours, community representatives, and council and government representatives.

We also keep local communities informed through more informal channels, including online information resources, newsletters, local advertising, community inspections and site tours, community open days, one-on-one meetings and surveys.

More broadly, we play an active role in creating economic value for our local communities through employment, supporting local businesses, and supporting communities through our community investment program. We also promote the use of Aboriginal and Torres Strait Islander–owned suppliers and social enterprises within our supply chain.

Aboriginal and Torres Strait Islander peoples and communities

We are committed to building strong and long-lasting relationships with Aboriginal and Torres Strait Islander peoples and communities, and empowering Aboriginal and Torres Strait Islander peoples and communities by driving improved social and economic outcomes.

We also work to build respect for, and an understanding of, Aboriginal and Torres Strait Islander cultures, histories and achievements.

Innovate Reconciliation Action Plan

We launched our second Reconciliation Action Plan (RAP), our two-year Innovate RAP in November 2020.

Our Innovate RAP outlines our actionable commitments for 2020–2022 to deliver meaningful progress towards reconciliation, across four key pillars: relationships, respect, opportunities and governance.

To date, we have made meaningful progress across each of these pillars:

RAP pillars	FY2021 progress
Building strong and long-lasting **relationships**	• Developed and implementing an engagement plan to work with Aboriginal and Torres Strait Islander stakeholders and organisations • Celebrated National Reconciliation Week, including through the launch of Boral's Aboriginal Community Network • Returned a parcel of culturally significant land at our Waurn Ponds site in Victoria to the Traditional Owners, the Wadawurrung People
Fostering deep mutual **respect** and trust	• Developed, for significant Boral events, cultural protocols that demonstrate respect for Aboriginal and Torres Strait Islander peoples • Invited the Traditional Owners to provide a Welcome to Country at the return of land to the Traditional Owners at our Waurn Ponds site
Broadening social and economic **opportunities**	• Spent more than $4 million with Aboriginal and Torres Strait Islander–owned businesses • Launched a self-directed Aboriginal Community Network to support our Aboriginal and Torres Strait Islander staff connect, support each other, access mentoring and training, and progress their career development • Reviewed human resources and recruitment procedures and policies to ensure there are no barriers to Aboriginal and Torres Strait Islander participation in our workplace, with an improvement plan underway
Supporting effective **governance** of our RAP commitments	• RAP Working Group met quarterly to drive and monitor implementation of our Innovate RAP

Boral returns land to Traditional Owners

In March 2021, Boral returned a parcel of culturally significant land at our Waurn Ponds site in Victoria to the Traditional Owners, the Wadawurrung People, at an inclusive ceremony of meaningful reconciliation. This was an important step for Boral to demonstrate publicly our deep commitment to reconciliation.

In 1861, an acre of land was reserved for what was described as Aboriginal purposes. Its location was deliberately chosen to make it difficult for the Wadawurrung People to visit the Geelong township.

Commenting on the return of the land, Wadawurrung Elder Barry Gilson said, "To our tribe, this is the first time Wadawurrung land has been returned to the rightful owners".

Community relations and partnerships

(continued)

Protecting cultural heritage

We are committed to protecting places and items of significant cultural heritage for local Aboriginal and Torres Strait Islander groups across our Australian operations. Working alongside First Nations people, we seek to protect places and items of cultural heritage.

Boral's Land and Property Group conducts ongoing reviews of Aboriginal Cultural Heritage Management measures for each of our key quarry sites. We review existing partnerships, create new partnerships, hold Aboriginal Cultural Heritage Inductions with quarry staff and participate in training and information sessions with our National Indigenous Relations Manager. We also meet with Aboriginal peoples for walkovers before stripping the quarry and to maintain respectful and positive relationships.

As part of Boral's Cultural Heritage Management Plans, we conduct training for quarry staff with the guidance of the Traditional Owners of the land. This includes a field survey with representatives of the Aboriginal peoples to see if any relevant places or cultural heritage items are present where stripping is to occur to advance the quarry pit.

During the year, we reviewed our systems and processes associated with protecting places and items of cultural significance, including our ground disturbance process to strengthen our approach.

Community investment

Through our community investment program, we aim to make a positive difference in the communities where we operate. We support a range of projects through our community partnerships that seek to provide long-term, sustainable benefits.

Currently, our investment framework is built on three pillars: Our People, Our Places and Our Projects.

For many of our community partners, the past year has been challenging with COVID-19 forcing many activities to be cancelled, postponed or modified.

We continued to support our community partners through this challenging period, working together to extend investment time horizons and modifying our plans and approach. As a result, our community investment spend was substantially lower in FY2021 relative to recent years, which included $1.14 million invested in FY2020. Our level of cash support and non-cash support were both lower, including volunteer hours, fundraising and events, which were substantially impacted by COVID-19 constraints.

~$550,000
community investment spend

Following the launch of Boral's new strategy and our new Purpose and Values, we are refreshing our community investment framework and realigning our partnerships, including to reflect our more focused portfolio of businesses.

Our approach to community investment is to identify the areas where we can have the greatest impact and help 'create a world that future generations can be proud of'. This means we value partners who also care about future generations and the future of our planet.

Our community partners

Road Safety Education

Habitat for Humanity Australia

Bangarra Dance Theatre

Conservation Volunteers Australia

Taronga Conservation Society

HomeAid America

Black Dog Institute

Bringing our partners together to make a bigger difference

In late April, we created the opportunity to work with two of our community partners, Taronga Conservation Society and Road Safety Education, to put on a special RYDA road safety workshop for Boral Youth at the Zoo in Sydney.

More than 60 young road users learned how to be responsible drivers and passengers, and how to share the roads safely with others – including heavy vehicles and wildlife!

Adapting during COVID-19

Many of our partners worked hard to adapt their programs and respond to COVID-19.

As Habitat for Humanity's Building Stronger Communities partner, Boral has been helping to provide safe shelter, water and sanitation facilities for vulnerable communities in Vietnam. We have also been supporting capacity building for these local communities in disaster preparedness and mitigation.

Due to social distancing restrictions and country-wide lockdowns, these projects had to be put on hold several times during the year. When activities were able to resume, information relating to COVID-19 was provided during water, sanitation and hygiene workshops to give participants information on how to prevent and reduce the spread of the virus.

Continuing our journey with Bangarra Dance Theatre

Boral has been a proud partner of Bangarra Dance Theatre (Bangarra) since 2003 to help bring people together and promote reconciliation through storytelling and dance.

As Bangarra's Regional Touring Partner, Boral has been proud to support the delivery of world-class Aboriginal and Torres Strait Islander dance experiences in regional and remote communities across Australia.

This year, Bangarra also joined Boral for a virtual event to launch our Innovate RAP to employees. Boral's Innovate RAP builds on our commitment to adopt Reconciliation Australia's RAP program to progress our reconciliation journey.

The next phase of Boral's partnership with Bangarra will focus on inspiring pride, kinship, positive life choices and a sense of custodianship in young Aboriginal and Torres Strait Islander Australians through youth and education programs.

Our Products

Making a lasting positive impact

- Lower carbon products
- Recycled products
- Sustainable infrastructure and services
- Product stewardship
- Innovation, technology and digital disruption

Innovo™ asphalt system trial –
City of Canning, Perth

Our Products

Our goals and targets

FY2022

Deliver annual growth in share of revenue from our lower carbon concrete range and recycled products

Publish EPDs for our lower carbon concrete range for key regions

Grow our pipeline of innovation initiatives, including core, adjacent and transformational innovation[1]

FY2021

Launched

Envirocrete® Plus,

broadening our lower carbon concrete suite of products

37%

increase in revenue from lower carbon concrete and Boral Recycling

> 2m tonnes construction and demolition waste recycled

We strive to lead the way by offering innovative and sustainable construction materials and building product solutions that meet our customers' changing needs.

Lower carbon and recycled products

Central to our aspiration to be a leading innovator in sustainability is creating high-performing quality products and solutions that have a lower environmental footprint. We are doing this by embedding a more circular economy mindset across our business.

A core focus of our adjacent growth plans being developed includes growing our contribution to recycling and resource recovery.

We are growing Boral's existing Recycling business, incorporating recycled materials in asphalt, and increasing our use of supplementary cementitious materials (SCMs) to produce lower carbon concrete.

This will reduce the embodied carbon in our concrete products, reduce our use of virgin materials and avoid sending waste to landfill.

Lower carbon concrete

As a leading manufacturer of concrete in Australia, we are working to be at the forefront of lower carbon concrete innovation and development.

By shifting our conventional concrete mixes to the lower carbon concrete mixes, we will significantly reduce the embodied carbon of Boral's concrete and reduce our carbon footprint from the manufacture of cement.

Our sustainable products

Lower carbon concrete range

Incorporates 40%–55% SCMs such as ground-granulated blast-furnace slag and fly ash, replacing cement

INNOVO™ asphalt system

Incorporates recycled materials, including glass, crumbed rubber (from tyres), recycled asphalt pavement and plastics

Boral Recycling

Processes construction and demolition waste into aggregates, roadbase, and manufactured sand and sandstone

Envir-O-Agg® Glass Sand

Made of clean, washed and crushed recycled glass and is blended with natural and/or recycled material for use

1. Includes a range of measures such as number of projects from incubation to commercialisation, and R&D investment made directly and via partnerships and government-funded grants.

Boral's lower carbon concretes use our distinctive proprietary technology and know-how in concrete mix design to replace cement used in concrete with SCMs, typically ground-granulated blast-furnace slag and fly ash – by-products of steel manufacturing and coal-fired power generation respectively that would otherwise go to landfill.

Our goal is to increase the proportion of concrete revenue from lower carbon concrete mixes that contain 40% to 55% SCMs, compared to our conventional concrete mixes, which contain an average of 20% SCMs.

This will create benefits for our customers and the environment:

- ✓ better concrete performance properties and lower embodied carbon
- ✓ lower carbon footprint from concrete production

ENVISIA® is our highest performing lowest carbon concrete and achieves a cement replacement of 50% or more. It provides superior engineering performance relative to conventional concrete, including high early strength and low shrinkage – important characteristics in high-rise construction and infrastructure.

For concrete products between 20 MPa and 40 MPa, ENVISIA® available in the Sydney region has 30% to 37% lower embodied carbon than our conventional concrete mixes, and 43% to 49% lower embodied carbon compared to Infrastructure Sustainability Council's reference case.

ENVISIA® meets the requirements of the Infrastructure Sustainability Council and helps the construction industry achieve higher Green Star ratings on projects assessed by the Green Building Council of Australia.

The Queensland Department of Transport and Main Roads has approved the ENVISIA® binder system, enabling us to supply ENVISIA® for Queensland infrastructure projects.

Initially developed in 2007, ENVISIA® has been used for numerous notable projects, including Crown, Sydney; 333 George street, Sydney; Perth's Forrestfield-Airport Link; and is being used in the construction of Suncorp's headquarters in Queensland.

This year, we launched our **Envirocrete® Plus** lower carbon concrete range which achieves a cement replacement of 45% or more. It can be used for all mainstream purposes such as house slabs and multi-residential construction. Envirocrete® Plus is being used for the construction of the Queen's Wharf in Brisbane.

Supplying ENVISIA® lower carbon concrete to Perth's Forrestfield-Airport Link

Boral supplied ENVISIA® lower carbon and high-performance concrete for the Forrestfield-Airport Link project in Perth, a joint venture between Salini Impregilo (now called Webuild) and NRW Holdings.

The use of ENVISIA® was approved by the Public Transport Authority of Western Australia and resulted in reducing the carbon emissions associated with construction of the Airport Link's twin eight-kilometre rail tunnels by more than 1,400 tonnes of CO_2.

In addition, by combining our lower carbon, low-shrink, early strength and highly durable concrete with advanced construction techniques, we achieved significant construction efficiencies and cost savings for the project. The concrete was designed to have a suitable workability and finish ability to enable it to be pumped down long sections of the rail tunnels, instead of being trucked.

Our Products

(continued)

Collaborating with Lendlease to deliver net carbon neutral concrete

We are proud to be working with Lendlease to deliver Climate Active–certified net carbon neutral concrete – a first for both Boral and Lendlease – for the construction of Campbell Primary School in the ACT. The project is scheduled for completion in 2022.

We are supplying the project with our proprietary ENVISIA® concrete, which is achieving a reduction in carbon emissions from the production of concrete of more than 40%.[1]

To offset the remaining embodied carbon from the concrete used on the project, we purchased carbon credits to create a net carbon neutral concrete and achieve Climate Active certification. Climate Active is the Australian Government's initiative to certify carbon neutrality, and it ensures that businesses achieve this in a credible and transparent way.

Climate Active

Boral Recycling

In Australia, Boral Recycling is one of the largest recyclers of construction and demolition materials, producing recycled products from construction and excavation waste materials that would otherwise go to landfill.

Our recycling business sorts, crushes, blends and sells recycled materials such as crushed concrete, demolition waste, glass, plastics and rubber both for road base-type materials as well as input to our concrete and asphalt mixes.

In FY2021, the Recycling business processed more than 2 million tonnes of materials for use in our Quarries, Asphalt and Concrete operations, and for sale to our customers. The use of recycled materials in road base construction is increasingly being mandated by government.

We are focused on continuing to grow our existing footprint, which includes five recycling sites in NSW and the ACT, including the recently repurposed Emu Plains site in Sydney, our joint venture with the Delta Group in Melbourne, and our new site at Waurn Ponds, Victoria, which opened in FY2020.

Product stewardship

We work to responsibly manage our products through their life cycle – so that they are safe for our customers, our people, communities and the environment.

Product stewardship is core to our ambition to create a more circular economy, including through lower carbon and recycled product strategies.

Our Product Stewardship Framework sets the policies and systems that govern our approach to product safety, stewardship assurance activities and compliance with our legal and regulatory requirements. It establishes a consistent approach to how we assess and manage the health, safety, environment and quality risks across the life cycle of our products. This includes undertaking a documented assessment of HSEQ risks for all new or modified products, as defined by our Product Stewardship Standard.

We communicate information on the safe handling and use of our products, including any potential hazards through safety data sheets, product labels and safe work method statements.

Supporting our customers to make more sustainable choices

We strive to provide sustainable products and solutions for the construction industry and support our customers with information to make more environmentally sustainable product choices.

In FY2021, we completed Environmental Product Declarations (EPDs) for pre-mix concrete, including our lower carbon concrete range. To date, we have published regional EPDs for NSW/ACT, Tasmania and the Perth region.

Our concrete EPDs provide cradle-to-gate environmental indicators for a range of normal class pre-mix concrete products, lower carbon concrete (ENVISIA®, Envirocrete® and Envirocrete® Plus) and concrete for special applications we manufacture.

We also published our first National Asphalt EPD featuring INNOVO™, which is a product system that allows the inclusion of multiple recycled materials such as plastic, rubber, toner and glass.

Our EPDs provide independent third-party verified transparent and comparable information about the environmental life-cycle impact of these products.

AUSTRALASIA EPD®
ENVIRONMENTAL PRODUCT DECLARATION

1. Compared to Infrastructure Sustainability Council reference case.

Innovation, technology and digital disruption

We recognise that investing in innovation and technology is vital to meet the evolving needs of the construction industry, to create new market opportunities, and to strengthen our position as the partner of choice for our customers.

Boral's Innovation team is leading the way in developing high-performing sustainable products and solutions for our industry, including by leveraging strategic partnerships and funding. And to accelerate our R&D efforts, we are also partnering with academia, government and industry innovation hubs.

Five-year partnership with UTS

Established in FY2020, our five-year partnership with the University of Technology Sydney (UTS) – the UTS Boral Centre for Sustainable Building partnership – is bringing together industry technology and engineering experts to accelerate lower carbon concrete product innovation.

Our ambition, through the collaboration with UTS, is to accelerate our research into new binders and develop the next generation of ENVISIA® concrete. We want to push lower carbon boundaries even further while maintaining the practical properties of regular concrete.

To date, the percentage of SCMs in lower carbon concrete products has been limited to about 50% to ensure blended concrete meets set workability, durability and strength requirements without demanding specialised high-temperature curing schemes or the use of highly alkaline activators.

This partnership provides us with an enhanced ability to incubate, develop and commercialise building material inventions that will help us accelerate our sustainable product strategies.

Other R&D collaborative efforts

Boral is highly engaged with collaborative industry innovation hubs, including Cooperative Research Centres (CRCs), to drive broader adoption of innovative and sustainable solutions in the construction industry and benefit from Australian Government funding allocated to the CRCs and other competitive funding schemes.

In August 2020, in collaboration with UTS and Highlands Concrete Constructions, we commenced a two-year research project that will accelerate our research into new binders and develop the next generation of ENVISIA® concrete. The $1.5 million research project is co-funded by the UTS Boral Centre for Sustainable Building and the Innovative Manufacturing CRC.

We are a core industrial partner of the Heavy Industry Low-carbon Transition (HILT) CRC, which is led by the University of Adelaide and aims to reduce carbon emissions of Australia's heavy industrial processes. In June 2021, the HILT CRC was awarded up to $39 million in Australian Government funding.

In June 2021, we were awarded a grant of up to $2.4 million from the Australian Government's CCUS Development Fund towards a pilot scale carbon capture and storage project. See page 31.

Boral also recently joined as a founding industry partner of the Materials & Embodied Carbon Leaders' Alliance (MECLA), a collaboration working to decarbonise Australia's building and construction industry.

These initiatives collectively provide a balanced portfolio of expertise and required resources to support the implementation of our innovation strategy.

Commercialising our innovations

Found Concrete is Boral's innovative start-up concrete reseller online platform business.

Found connects small- and medium- sized businesses with real-time supply availability in a more efficient way, delivering greater transparency and control to customers and greater asset utilisation and lower cost to serve for suppliers.

After successfully launching in Sydney, the business expanded to Melbourne in FY2021 and is well positioned for further growth.

Responsible business conduct

Business conduct

Working with integrity, respect and fairness is fundamental to how we do business. We expect all employees and people representing Boral to meet the highest ethical standards and to observe both the letter and spirit of the law.

Demonstrating strong ethical principles in all that we do is vital to our reputation and our ability to deliver long-term value to all our stakeholders, including shareholders, customers, employees and communities.

Our Code of Business Conduct (Code) and supporting policies set out the high ethical standards we expect everyone to adhere to. We are committed to working with third parties – including customers, subcontractors, distributors, suppliers and joint venture partners – whose business ethics and behaviour are consistent with our Code.

Our commitment to anti-corruption compliance is reflected in our Code, which prohibits bribery and corruption in all forms, whether direct or indirect. Our anti-corruption measures include clear policies, accountability, training, reporting and audit review. We also assess conduct risk and corruption risk as part of our enterprise risk management review process.

We complement our policy and risk management framework with clear communication and training on the Code and associated policies in our induction training and through ongoing refresher training programs.

The Board and senior management team take breaches of the Code and other misconduct very seriously. We have consistent and transparent policies and practices in place to address any non-compliance with our Code and supporting policies. Formal consequences include additional training, impacts on rewards and promotions, formal warnings and termination.

We provide easy and clear avenues for our people to report ethical concerns and improper behaviour. In addition to internal reporting channels – via the senior management, human resources, internal audit and legal teams – we provide an external independent whistleblower service known as FairCall.

Reports via FairCall can be made on an anonymous basis, and we are committed to maintaining the independence, impartiality and confidentiality of the reporting and investigation processes. These measures enable our people to raise concerns without fear of recrimination. The Company Secretary reports on these matters to the Board Audit & Risk Committee.

Political donations

Boral's Code prohibits political donations or contributions.

Tax transparency

Our approach to tax is consistent with our Code and underpinned by clearly defined Tax Strategy and Governance fundamental principles.

We are committed to the timely meeting of our taxation obligations in the jurisdictions in which we conduct business including the payment of our taxes.

We structure all aspects of our business transactions and dealings to comply with the law in all jurisdictions, and we do not use artificial arrangements or tax haven jurisdictions where no business purpose exists.

We are mindful of protecting our reputation in how we manage our tax affairs, and exercise prudence and apply proper process in managing tax risk.

We recognise the need to be transparent about our tax affairs, and in Australia, we have adopted the Voluntary Tax Transparency Code and publish an annual Tax Transparency Report on our website.

Cybersecurity

The risk of cybersecurity breaches and attacks on information systems continues to escalate as businesses face an escalating security threat from increasingly sophisticated threat actors.

Boral continues to invest in cybersecurity controls, and to monitor cybersecurity threats that could potentially impact our technical infrastructure, data security and customer privacy.

Our cybersecurity program aligns with the National Institute of Standards and Technology (NIST) Cybersecurity Framework, which represents a set of standards, best practices and recommendations for managing cybersecurity risk.

Boral's Chief Information Security Officer is responsible for developing and implementing the Boral cybersecurity program, including remediation and improvement plans. We also engage third-party cybersecurity specialists to conduct regular penetration testing, assess security controls and identify required remediation measures.

The Board Audit & Risk Committee oversees cybersecurity risk, the cybersecurity program and controls to manage the evolving cybersecurity risk.

Industry associations

As part of Boral's commitment to industry collaboration, we participate in a number of industry associations. Through our involvement in these associations, Boral benefits from a united voice on areas of common interest in the industry including, but not limited to, developing technical standards, sharing new ideas and advocating on public policy positions. A number of these associations have also played a key role in helping the industry navigate the challenges presented by COVID-19, particularly as it relates to safe work practices.

Participants in industry associations are provided competition law training to ensure that association with other industry participants is always compliant with the law.

Our major industry associations and how we are involved are outlined below:

Cement Industry Federation	Boral Cement is one of three members, together with Adelaide Brighton and Cement Australia. Two senior Boral executives are Directors.
Cement Concrete & Aggregates Australia (CCAA)	Boral Australia is one of five CCAA Foundation Members, which provide much of its funding, and there are approximately 60 additional smaller members. Boral has senior-level representatives on the CCAA Council and on a number of committees.
Australian Flexible Pavement Association	Boral Asphalt is one of more than 250 members and has a senior executive on the Board.
Green Building Council of Australia	Boral Australia is one of more than 550 members. Wayne Manners, Chief Operating Officer (interim), is a Director.

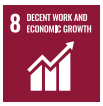
We are working closely with some of our industry associations to develop initiatives focused on industry decarbonisation.

Our annual membership fees for industry associations of our continuing operations totalled about $1.5 million in FY2021.

Contributing to global goals

The Sustainable Development Goals (SDGs) were adopted by the United Nations in 2015 as a call to action and framework for all nations to promote prosperity and create a more sustainable and equitable future.

We have mapped the SDGs against the priorities set out in our Sustainability Framework and outlined how we are contributing towards the SDG targets that align with our key priorities.

Goals and targets	How we are contributing	page(s)
 3.4, 3.6, 3.9	• Reducing heavy vehicle road safety risks	23
	• Promoting mental health and wellbeing	24
	• Taking a comprehensive approach to dust management	24–25
 5.1, 5.5	• In FY2022, we will review and upgrade our diversity and inclusion strategy and set measurable goals	16
	• Increased female representation to 14% in FY2021, up from 13% last year	19
	• Maintained gender base pay equity in FY2021	19
 6.4, 6.5	• Committed to establish a baseline and set improvement targets for water use and recycling at quarries and cement sites at high risk of water stress	42
	• Continuing to invest in increasing our use of recycled water	45
 7.2, 7.3	• Committed to transition to 100% renewable electricity and improve energy efficiency by 5%–10% by FY2025	29
 8.2, 8.5, 8.7, 8.8	• Reduced actual serious harm incident frequency rate (ASHIFR) by 67%	20
	• Committing to respect and support the rights of our employees	19
	• Aiming to broaden social and economic opportunities for Aboriginal and Torres Strait Islander peoples through employment	51
	• Investing in innovation and technology to improve productive capacity and support economic growth	59
	• Strengthening our approach to mitigating the risk of modern slavery in our supply chain	48–49
 9.4, 9.5	• Set ambitious climate targets aligned with SBTi's methodology	28
	• Focusing on providing lower carbon concrete and recycled products	56–58
	• Collaborating and partnering to accelerate innovation and technology	59
 10.2, 10.3	• Launched Aboriginal Community Network	51
	• Promoting diversity and inclusion in our supply chain	48–49
	• Also see SDG 5 above	
 11.6	• Committed to establish a baseline and set improvement targets for water use, waste generation and waste to landfill	42
	• Focusing on accelerating adoption of lower carbon and recycled products	56–58
 12.2, 12.4, 12.5	• Committed to further replace coal as fuel source at Berrima Cement kiln by increasing alternative fuels to 60% by FY2025 from 15% in FY2021	29
	• Recycled more than 2 million tonnes of construction and demolition waste	58
	• Focusing on accelerating adoption of lower carbon and recycled products, including by increased use of by-products of other industries	56–58
 13.1, 13.3	• Outcomes of physical climate risk scenario analysis completed in FY2021 will be used to assess the adequacy of current climate mitigation measures and will help identify and prioritise site-specific mitigation action plans	41
 15.5	• Committed to establish a baseline and set improvement target for biodiversity management	42
	• Rehabilitated 8% of land disturbed in our Quarries business in FY2021	45

Engaging with our stakeholders

We aim to build positive relationships with our stakeholders and understand and meet their expectations by delivering on our commitments on the issues that matter most to them.

	Key areas of interest	How we engaged
Employees	Health, safety and wellbeing Engagement, diversity and inclusion Career development and training, and access to flexible ways of working Business performance	• Held regular toolbox talks as part of daily prestart meetings • Conducted virtual town hall meetings and CEO updates • Communicated internally through email, intranet and noticeboard posters • Conducted employee culture survey • Held networking groups • Offered training and development opportunities
Customers	Quality, reliability and ease of interaction Superior customer experience Safe, sustainable and innovative products and solutions	• Conducted customer surveys and NPS tracking • Engaged directly and face to face through our sales team, account managers and executives • Communicated through our website and social media
Local communities	Ethical and safe behaviour Contributing to the community Environmentally responsible Community impacts Planning matters Local employment	• Interacted with local communities through Stakeholder Engagement Managers attending community liaison meetings at our key sites • Published online information and resources • Communicated and engaged with local communities, including Aboriginal and Torres Strait Islander peoples in relation to cultural heritage • Provided financial support to local community causes and projects through our community partnerships
Investors, media and special interest groups	Business strategy and performance Sustainability strategy and outcomes Capital management Monitoring and managing risks, including climate risks Transparent and reliable communications and reporting Strong corporate governance Appropriate remuneration strategy and framework Response to feedback	• Ran annual program of engagement with investors, including management presentations and result briefings, Annual General Meeting and one-on-one meetings • Held media results briefings • Published the Annual Report, Sustainability Report and website communications • Lodged price-sensitive information with the Australian Securities Exchange • Engaged with investors, investor representatives, and proxy advisors, including on sustainability matters • Conducted perception surveys to gather and understand market views and feedback • Responded to information requests • Issued Boral Target's Statement in response to the takeover offer by Seven Group Holdings
Governments and regulators	Compliance with licences and standards Legal and ethical conduct Grant funding opportunities Product standards Use and re-use of materials in our production processes	• Completed regulatory reporting • Held meetings with government officials and regulators • Engaged with government officials and regulators directly and via industry associations
Suppliers	Compliance with Boral policies Contract performance Ethical and fair conduct Well-defined and fair payment terms Clear and transparent communication	• Conducted supplier screening, assessment and due diligence • Partnered with social enterprises and Aboriginal and Torres Strait Islander–owned businesses to promote diversity and inclusion in our supply chain • Engaged directly with suppliers and their Boral representatives, including through face-to-face, phone and email communications

SASB and GRI content index

This table references where Sustainability Accounting Standard Board (SASB) Construction Materials standard and Global Reporting Initiative (GRI) metrics and disclosures can be found in our reporting suite.

Description	SASB (EM-CM)	GRI standards	FY2021 reporting
General disclosures	-	102	About this Report; Our footprint; Message from CEO & Managing Director; Materiality assessment; Sustainability governance; Our People; Responsible business conduct; Engaging with our stakeholders; **AR**
Economic performance	-	201; 203–205; 207	Sustainable procurement; Community investment; Responsible business conduct **AR**, **MSS**, **TR**
Workforce health and safety	320a.1 320a.2	403	Health, safety and wellbeing Data summary – Health and safety
People	-	401; 404–405; 407–409; 412	Our People Data summary – Our People **MSS**
Environmental compliance	-	307	Sustainable operations footprint Data summary – Environmental infringements
Greenhouse gas emissions	110a.1 110a.2	305	Our carbon footprint Committed to net zero Data summary – GHG emissions
Energy management	130a.1	302	Our carbon footprint Data summary – Energy consumption
Water management	140a.1	303	Sustainable operations footprint – Water
Waste management	150a.1	306	Sustainable operations footprint – Waste
Biodiversity impacts	160a.1 160a.2	304	Sustainable operations footprint – Land management, rehabilitation and remediation
Air emissions	120a.1	305	Sustainable operations footprint – Air quality Data summary – Air emissions
Communities	-	413	Community relations and partnerships
Products	410a.1 410a.2	416–417	Our Products
Business conduct		415	Responsible business conduct
Pricing integrity and transparency	520a.1	206	Boral had nil monetary losses as a result of legal proceedings associated with cartel activities, price fixing, and anti-trust activities
Activity metrics	110a.1		Production information by product line is not reported as this is considered proprietary information

AR Annual Report 2021

MSS Modern Slavery Statement 2021 (to be published October 2021)

TR Tax Transparency Report 2020

Data summary

Health and safety

Note: data may not add due to rounding

	FY2018	FY2019	FY2020	Restated FY2019[1]	Restated FY2020[1]	FY2021
				Comparable data		
Boral Group – reportable fatalities						
Employees	0	0	0	0	0	0
Contractors	2	0	0	0	0	0
Injury rates[2]						
Boral Australia – employees and contractors						
Lost time injury frequency rate (LTIFR)	2.1	1.8	2.5	1.8	2.6	3.2
Medical treatment injury frequency rate (MTIFR)	9.2	8.7	7.3	8.4	7.4	8.7
Recordable injury frequency rate (RIFR)[3]	11.3	10.5	9.8	10.3	10.0	11.9
Actual serious harm incident frequency rate (ASHIFR)					0.3	0.1
Potential serious harm incident frequency rate (PSHIFR)					10.8	5.1
Near miss frequency rate (NMFR)				212	154	93
Boral Australia – employees						
LTIFR				1.9	2.7	4.3
MTIFR				8.9	7.2	7.6
RIFR				10.8	9.9	11.9
NMFR						106
Boral Australia – contractors						
LTIFR				1.8	2.4	1.8
MTIFR				7.8	7.7	10.0
RIFR				9.6	10.0	11.8
NMFR						67
Boral North America – employees and contractors						
LTIFR				0.9	0.9	1.2
MTIFR				7.0	7.5	5.9
RIFR	8.9	7.6	7.9	7.9	8.4	7.1
Boral Group – employees and contractors						
LTIFR	1.6	1.3	1.6	1.5	1.9	2.4
MTIFR	7.1	6.2	6.0	7.8	7.4	7.5
RIFR	8.7	7.5	7.6	9.3	9.3	9.9
Boral Group – employees						
LTIFR		1.4	1.5	1.3	1.7	2.6
MTIFR		6.5	6.2	7.9	7.3	6.7
RIFR		7.9	7.7	9.2	9.0	9.3
Boral Group – contractors						
LTIFR		1.2	1.7	1.8	2.3	1.7
MTIFR		5.3	5.4	7.8	7.8	9.7
RIFR		6.5	7.3	9.6	10.1	11.5
Boral Australia – occupational health						
New detected cases of silicosis					1	2
Silicosis incidence rate (per 1,000 workers)[4]					1.4	2.2

1. Restated to exclude joint ventures not under Boral's operational control.
2. Per million hours worked. Data for 2018–2020 (not restated) includes all joint ventures, irrespective of ownership interest.
3. RIFR is the combined LTIFR and MTIFR.
4. We had 903 employees involved in occupational activities at sites that have extractive operations involving materials containing crystalline silica.

Data summary

(continued)

Our People

	FY2018	FY2019	FY2020	FY2021
Number of employees – FTE[1]				
Boral Australia – continuing			5,398	4,856
Boral Australia		6,161	5,836	5,273
Boral Group	11,898	11,916	11,073	10,909
Boral Australia – continuing, including joint ventures			5,625	5,081
Boral Australia, including joint ventures	6,510	6,628	6,281	5,701
Boral Group, including joint ventures	17,131	17,104	16,169	12,489
Contractors – FTE[2]				
Boral Australia – continuing			~4,900	~4,500
Boral Australia – continuing, including joint ventures			~4,900	~4,600
Boral Australia	~4,900	~5,100	~5,300	~4,800
Boral Australia, including joint ventures	~5,000	~5,200	~5,300	~4,900
Boral Group	~5,200	~5,300	~5,400	~4,900
Employees – Boral Australia (except where noted)				
By employment contract type				
Full-time			93%	93%
Part-time			2%	2%
Contract			2%	2%
Casual			3%	3%
Gender diversity				
Women on Board of Directors	50%	43%	43%	38%
Women Executive Committee members (Group)	23%	25%	27%	33%
Women employees	14%	13%	13%	14%
Women in management positions			11%	13%
Women in professional positions			31%	35%
Women new hires			19%	19%
By occupation				
Operators and drivers			53%	51%
Technicians and trade			13%	14%
Clerical and administrative			9%	10%
Sales			4%	4%
Other			21%	21%
Turnover				
Voluntary	13%	12%	10%	12%
Involuntary	4%	6%	6%	6%
Other				
Average length of service (years)	9.0	8.9	9.4	9.4
Female-to-male average base salary ratio[3]	1.01:1.00	1:1	1:1	0.99:1.00
% of employees covered by collective bargaining agreements				55%

1. Includes corporate employees.
2. Data for FY2020 (restated) and FY2021 is based on 230 working days per annum. Previous disclosures for FTE contractors were based on 260 working days, excluding the effect of standard annual leave days and public holidays.
3. Calculated as the average base cash salary for females as a proportion of the average base cash salary for males, as included in our confidential report to the Workplace Gender Equality Agency.

Greenhouse gas emissions

Reported Scope 2 emissions are location-based.

Note: data may not add due to rounding

	FY2018	FY2019 restated[4]	FY2020 restated[4]	FY2021
(k tonnes CO_2)				
Boral Australia – continuing operations				
Scope 1	1,558	1,441	1,354	1,317
Scope 2	340	316	293	281
Scope 1 and 2	1,898	1,757	1,647	1,598
Scope 3		2,321	2,113	2,119
Total		4,078	3,759	3,717
Scope 1 under emissions-limiting regulations	76%	82%	82%	84%
By business – Scope 1 and 2				
Cement	1,540	1,410	1,315	1,311
Construction Materials	358	346	332	287
Boral Australia – continuing operations	1,898	1,757	1,647	1,598
Discontinued	697	228	191	163
Total	2,595	1,984	1,837	1,761
By business – Scope 1				
Cement	1,317	1,199	1,120	1,121
Construction materials	242	242	233	197
Boral Australia – continuing operations	1,558	1,441	1,354	1,317
Discontinued	485	131	109	97
Total	2,044	1,572	1,462	1,415
By business – Scope 2				
Cement	223	211	194	190
Construction Materials	117	105	99	91
Boral Australia – continuing operations	340	316	293	281
Discontinued	212	97	82	66
Total	552	413	375	347
By source – Scope 1 and 2				
Boral Australia – continuing operations				
Calcination		43%	43%	45%
Coal		22%	22%	21%
Electricity		18%	18%	18%
Diesel and liquid fuels		13%	14%	12%
Natural gas		3%	4%	4%
Alternate fuels		0%	0%	1%
Boral Group				
Scope 1	2,044	1,572	1,462	1,415
Scope 2	552	413	375	347
Total	2,595	1,984	1,837	1,761

4. Restated to exclude joint ventures not under Boral's operational control.

Data summary

(continued)

Greenhouse gas emissions (continued)

	FY2018	FY2019 restated[1]	FY2020 restated[1]	FY2021
Boral Cement				
Specific CO_2 kg/tonne – gross (kg/tonne cementitious material)			620	613
Specific CO_2 kg/tonne – net (kg/tonne cementitious material)			620	608
Scope 3 – by category				
Purchased goods and services		55%	59%	60%
Investments in joint ventures		21%	17%	18%
Upstream transportation and distribution		14%	14%	13%
Fuel- and energy-related activities		4%	3%	3%
Other		6%	7%	6%
Scope 3 physical intensity vs target				
Scope 3 emissions within FY30 target (ktonnes CO_2)		1,580	1,471	1,406
CO_2 t / t cementitious tonnes produced		0.86	0.88	0.82
Cementitious tonnes produced – ktonnes		1,835	1,677	1,714

Scope 1 emissions: Direct emissions such as from the use of fuels in manufacturing, process emissions from calcination in cement manufacturing and transport of raw materials. Calculated using factors and methodologies set out in legislation, regulatory or international best practice guidance.

Scope 2 emissions: Indirect emissions from purchased electricity, calculated using factors particular to regional electricity grids. Such factors are usually defined in legislation or regulatory guidance.

Scope 3 emissions: Indirect emissions from our broader supply chain, such as from the goods and services we purchase and the transport of materials to our operations and to our customers not using our own vehicles. Calculated based on principles outlined in the Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Air emissions

As part of the National Pollutant Inventory (NPI) scheme, we report on pollutant emissions for significant operating sites. Further detailed data is available at npi.gov.au.

	FY2018	FY2019 restated[1]	FY2020 restated[1]	FY2021
(tonnes)				FY21 data available Dec-21
Facilities reporting (number)		94	96	
NOx emissions		5,500	4,170	
SOx emissions		12	15	
Particulate matter (PM10)		8,988	7,518	
Dioxins/furans		-	-	
Volatile organic compounds (VOCs)		190	175	
Polycyclic aromatic hydrocarbons (PAHs)		0.41	0.38	
Heavy metals		0.17	0.15	
Direct mercury emissions		0.03	0.03	

1. Restated to exclude joint ventures not under Boral's operational control.
2. Serious environmental incident frequency rate is defined as Level 3 (or greater) environmental, regulatory or community incident rate (per million hours). Incident thresholds are determined by using the Boral HSEQ risk matrix.
3. Regulators issue fines and the courts issue penalties.

Energy consumption

Note: data may not add due to rounding

	FY2018	FY2019 restated[1]	FY2020 restated[1]	FY2021
Boral Australia – continuing operations (PJ)				
Coal		4.2	4.0	3.8
Diesel and liquid fuels		3.3	3.2	2.7
Electricity		1.3	1.3	1.2
Natural gas		1.2	1.3	1.1
Renewable		0.2	0.3	0.4
Alternative		0.2	0.1	0.3
Total		10.5	10.1	9.5
% grid electricity		13%	13%	13%
% alternative		2%	3%	4%
% renewable		2%	1%	3%
Boral Cement				
Alternate fuel usage (% of thermal energy) – Berrima clinker		9%	10%	15%
Boral Group (PJ)				
Coal	4.9	4.2	4.0	3.8
Diesel and liquid fuels	4.6	4.1	4.0	3.1
Electricity	2.8	2.0	1.9	1.7
Natural gas	8.7	2.6	2.3	2.5
Renewable	0.5	0.6	0.7	0.5
Alternative	0.1	0.2	0.1	0.3
Total	21.6	13.7	12.9	11.9
Energy consumption (units of measure)				
Australia – continuing operations				
Coal (k tonnes)		201	188	180
Diesel and liquid fuels (m litres)		89	87	72
Electricity (GWh)		373	355	340
Natural gas (PJ)		1.2	1.2	1.1
Renewables (PJ)		0.2	0.3	0.4
Alternative (PJ)		0.2	0.1	0.3

Environmental compliance

	FY2018	FY2019	FY2020	FY2021
Environmental incidents – Boral Australia				
Serious environmental incident frequency rate[2]				0.3
Infringements and penalties – Boral Group				
Number	6	9	11	4
Fines[3]	$82,273	$38,820	$53,576	$0
Penalties[3]	$0	$0	$0	$12,310
Undertakings	$133,000	$0	$0	$0

Independent Limited Assurance Statement to the Management and Directors of Boral Limited

Our Conclusion

Ernst & Young ('EY', 'we') was engaged by Boral Limited ('Boral') to undertake 'limited assurance' as defined by Australian Auditing Standards, hereafter referred to as a 'review', over selected sustainability performance data within the Boral Sustainability Report ('Sustainability Report') for the year ended 30 June 2021 and selected restated comparative metrics for the year ended 30 June 2020. Based on our review, nothing came to our attention that caused us to believe that the selected sustainability data has not been prepared and presented fairly, in all material respects, in accordance with the Criteria below.

What our review covered

We carried out a review over selected sustainability performance data within the Sustainability Report for the year ended 30 June 2021 and selected restated comparative metrics for the year ended 30 June 2020.

Review Subject Matter

The Subject Matter for our limited assurance engagement included the selected sustainability performance data listed below.

Selected sustainability performance data (FY21) and selected restated comparative metrics (FY20)	FY20	FY21
GHG emissions and energy:		
Greenhouse gas (GHG) emissions – Scope 1 and 2 measured in tonnes of carbon dioxide equivalent (t CO_2-e) for Boral Australia*	√	√
GHG emissions – Scope 3 (t CO_2-e) for Boral Australia*	√	√
Total energy consumed measured in petajoules (PJ) for Boral Australia*	√	√
Scope 3 GHG emissions intensity (t CO_2-e/ t cementitious material) for Boral Australia* (for emissions within the FY2030 target)	√	√
GHG emissions covered under emissions reduction regulations (%) for Boral Australia*	√	√
Energy consumption from grid, renewables and alternatives (%) for Boral Australia*	√	√
Increase in revenue (%) from products branded as lower carbon concrete and Boral Recycling	√	√
Environment:		
Total number and value (in Australian dollars (AUD$)) of significant environmental infringements and penalties for Boral Australia and Boral North America		√
Health and safety (employees and contractors):		
Lost time injury frequency rate (LTIFR) for Boral Australia	√	√
Recordable injury frequency rate (RIFR) for Boral Australia	√	√
Serious harm incident frequency rate (actual and potential) for Boral Australia	√	√
Near miss frequency rate (NMFR) for Boral Australia	√	√
Number of new cases of silicosis cases (#number) and incidence rate for Boral Australia		√

**Reported data for Boral Australia excludes Building Products.*

The Subject Matter did not include Management's forward-looking statements.

Criteria applied by Boral

In preparing the Boral Report, Boral applied the following Criteria:

- Global Reporting Initiative (GRI) Standards
- Sustainability Accountability Standards Board (SASB) Standards
- National Greenhouse and Energy Reporting ('NGER') Act 2007, NGER Regulations 2008, and NGER (Measurement) Determination 2018
- Boral's own publicly disclosed criteria (policies and procedures).

Key responsibilities

EY's responsibility and independence

Our responsibility is to express a conclusion on the selected sustainability performance data based on our review. We are also responsible for maintaining our independence and confirm that we have met the requirements of the *APES 110 Code of Ethics for Professional Accountants* and that we have the required competencies and experience to conduct this assurance engagement.

Boral's responsibility

Boral's management is responsible for selecting the Criteria, and for preparing and fairly presenting the Sustainability Report in accordance with that Criteria. This responsibility includes establishing and maintaining internal controls, adequate records and making estimates that are reasonable in the circumstances.

Our approach to conducting the review

We conducted this review in accordance with the Australian Auditing and Assurance Standards Board *Australian Standard on Assurance Engagements Other Than Audits or Reviews of Historical Financial Information* ('*ASAE 3000*'), *Assurance Engagements on Greenhouse Gas Statements* ('*ASAE 3410*') and the terms of reference for this engagement, as agreed with Boral on 26 April 2021.

Summary of review procedures performed

A review consists of making enquiries, primarily of persons responsible for preparing the selected sustainability performance data and related information and applying analytical and other procedures including:

- Conducting interviews with key personnel to understand the process for collecting, collating and reporting the selected sustainability performance data during the reporting period
- Checking that the calculations have been appropriately applied in accordance with the methodologies outlined in Boral's Criteria
- Undertaking analytical review procedures to support the reasonableness of the data
- Identifying and testing assumptions supporting calculations
- Testing, on a sample basis, to underlying source information to check the accuracy of the data
- Reviewing the Report and testing a sample of assertions and claims made throughout the Report including checking claims to evidence provided.

We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusions.

Limited Assurance

Procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

While we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Further, our procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within IT systems.

Use of our Assurance Statement

We disclaim any assumption of responsibility for any reliance on this assurance report to any persons other than management and the Directors of Boral, or for any purpose other than that for which it was prepared.

Terence Jeyaretnam FIEAust EngExec
Partner
14 September 2021

Ernst & Young
Melbourne, Australia

BORAL LIMITED
ABN 13 008 421 761

Level 18, 15 Blue Street,
North Sydney NSW 2060

PO Box 1228,
North Sydney NSW 2059

t: +61 2 9220 6300
w: www.boral.com
e: info@boral.com.au

SHARE REGISTRY

c/- Link Market Services

Level 12, 680 George St,
Sydney NSW 2000

Locked Bag A14,
Sydney South NSW 1235

t: +61 1300 730 644
w: www.linkmarketservices.com.au
e: boral@linkmarketservices.com.au

AGM DETAILS

The Annual General Meeting
of Boral Limited will be held
on Thursday, 28 October 2021
at 10.30am (Sydney time).