

Sustainability Overview

At Boral, we recognise that sustainability is fundamental to our future success and our ability to *Build Something Great*. This means providing a safe, diverse and rewarding workplace for our people, minimising our environmental impacts and taking a socially responsible approach to how we operate. Delivering world-class safety performance and developing less resource- and energy-intensive products for our customers are also central to our vision of delivering performance excellence and sustainable growth.

In addition to this Sustainability Overview, information on Boral's sustainability performance is also provided in:

- the Corporate Governance, Remuneration, and Risks and Challenges sections of this Annual Report;
- case studies and information contained in Boral's Annual Review and Boral's employee magazine – Boral News;
- Boral's website, which includes supporting policies and information on our community engagement programs;
- pollutant emissions data reported to the National Pollutant Inventory for 94 of our Australian operations; and
- our voluntary response to the Carbon Disclosure Project.

This Sustainability Overview covers Boral's wholly owned operations and joint ventures that were at least 50% owned by Boral for the year ended 30 June 2016, unless stated otherwise.

Our people

Having a highly skilled, safe, motivated, and productive workforce is essential to delivering on our strategy. Our human resource strategies are focused on developing our people, building a diverse and inclusive culture, identifying and building talent, and enhancing productivity through strong engagement.

As at 30 June 2016, Boral employed 8,334 full-time equivalent (FTE) employees and approximately 4,800 contractors across our global operations, and 3,724 FTE employees and approximately 3,400 contractors in our joint venture operations.

The **average length of service** of a Boral employee remains broadly consistent with previous years – in Australia it is approximately 9.1 years, and in the US approximately 7.6 years.

Overall, 12% of our workforce has been working for Boral for more than 20 years.

At a glance	FY2016	FY2015	FY2014
Boral employees, FTE	8,334	8,356	8,953
Boral contractors, FTE	~4,800	~4,400	~4,000
JV employees, FTE	3,724	3,676	3,498
JV contractors, FTE	~3,400	~3,000	~2,600

Average length of service	FY2016	FY2015	FY2014
Australia	9.1 years	9.2 years	9.1 years
USA	7.6 years	7.8 years	7.5 years
Women in Boral	14%	14%	14%
Women on the Board	50%	38%	25%

Overall **employee turnover** in Australia remains broadly consistent with last year at 18%, with an increase in the USA to 17% in FY2016 from 15% in the prior year. The rate of employee-initiated turnover remains broadly consistent with last year at 10% in Australia and 8% in the USA.

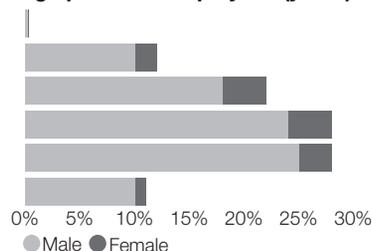
The average age of an employee in Boral is 45 years, with 38% of all employees aged 50 years and over.

Diversity

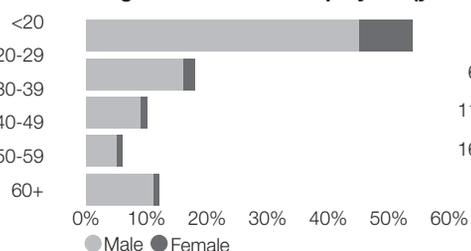
We are committed to delivering benefits through improved diversity throughout Boral, from senior leadership through to our operations, and embedding diversity in our culture. Our Diversity Policy underpins our actions and approach in fostering a positive work culture and inclusive workplace.

In FY2016, management, supported by Boral's Diversity Council, focused on delivering targeted outcomes outlined in Boral's diversity strategy and implementation plan, which was revised in FY2015. The plan outlines measurable objectives set by the Board across six strategic elements: leadership, communication and education, system and process design, gender equality and pay equity, generational diversity, and Indigenous relations.

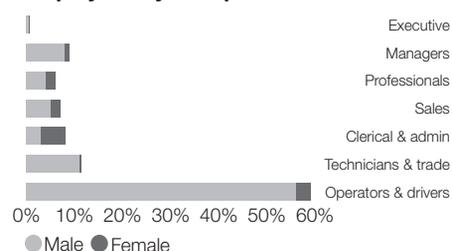
Age profile of employees (years)



Length of service of employees (years)



Employees by occupation



Increasing the **representation of women** across Boral, particularly in leadership roles, continues to be an important objective. At senior levels, Boral has a good representation of women. Four out of eight (50%) of our Directors of the Board and three out of 11 (27%) of our Executive Committee team are women, namely the Chief Financial Officer, Group Communications & Investor Relations Director and Group Human Resources Director. Women also fill 11% of Boral's management positions.

Across Boral, women represented 14% of Boral's employees at 30 June 2016, unchanged on the previous year, with the proportion of female employees continuing to vary by occupation. Women occupy 68% of clerical positions, 33% of sales positions and 32% of professional positions. In contrast, men accounted for 94% of Boral's trade, machinery operator and transport roles. In FY2016, 17% of new hires were women, with variation across occupations.

A comprehensive annual **gender pay equity** review was completed for our Australian and Asian operations during FY2016. This review indicated that while the female to male average base salary ratio was 1.01:1.00, on a total compensation basis, there remains opportunity to improve pay equity outcomes in Australia.

We strive to increase **Indigenous employment** in our workforce through proactive recruitment and retention strategies. The level of retention of Indigenous employees is over 85% for employees who joined Boral under a number of Indigenous employment programs since 2013.

For more information on Diversity refer to pages 39-41.

People development and leadership

Boral is focused on building a safe, capable and engaged workforce and attracting, developing and retaining talented leaders.

We have a structured and supportive approach to **employee development**. This encompasses three elements: we identify talent and assess capability, provide development pathways, and support this with a performance review process. Through the performance review process, managers work with employees to develop goals that incorporate business and personal development objectives, thereby establishing a plan to help employees fully develop their potential.

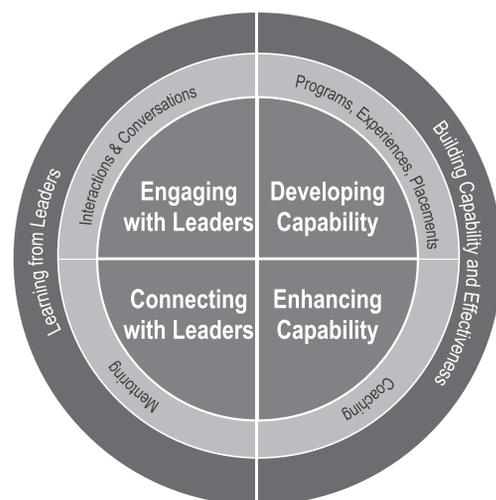
Learning@Boral, Boral's centre of excellence for training and development, delivers a wide range of training programs to build our people capability. In FY2016, we delivered:

- tailored learning solutions through our 'Skilled 4 Action' training program, which continued to focus on building capability of our employees and managers in safety, people development, Boral Production System, sales and marketing excellence, and innovation;
- Certificate II, III, IV or Diploma qualifications in disciplines such as Surface Extraction Operations, Civil Construction and Manufactured Mineral Products, Laboratory Skills and Techniques and Driving Operations, to over 170 employees through our Registered Training Organisation (RTO);
- Certificate III and IV qualifications in Boral's Competitive Systems and Practices and Work Health & Safety, which were completed by 115 employees;

- over 2,700 units of competency across a wide range of disciplines such as working at heights, conducting asphalt paver operations, conducting risk assessments and implementing traffic management plans;
- 'Creating Value Through Finance', a training initiative developed in partnership with Deloitte, to enhance skills and capability in finance and business partnering; more than 100 finance employees completed the first phase of this initiative; and
- Boral's refreshed online Code of Business Conduct training to over 2,200 employees.

These programs and units of competency, complemented with on-the-job support and local initiatives, work to ensure that our people have the opportunity to develop their careers with us, and have skills and knowledge to deliver Boral's plans and objectives.

Ongoing development of our leadership teams is vital for delivering on Boral's vision of performance excellence and sustainable growth. Boral has a multi-pronged approach to **leadership development** encompassing: training programs, work experience, placements, and coaching to develop leaders' capability to effectively engage our people, combined with learning from experienced leaders through mentoring, interactions and conversations. Our approach is set out below:



In FY2016, Boral's 'Learn from Leaders' series saw employees from across Boral participating in lunches with the CEO & Managing Director, the Board and key executives, as well as Diversity in Leadership Forums to provide learning opportunities and access to our senior leaders.

During the year, 43 employees participated in specialised leadership programs, developed and delivered in partnership with the Australian Graduate School of Management, and our top 100 leaders participated in a new, tailored program focused on improving organisational effectiveness through enhancing self-competence.

We believe that building a culture of engagement is crucial to our ability to retain our people and leadership talent. To identify opportunities to further engage and develop our people, we **measure employee engagement** through an independent employee survey across at least one division on a biennial basis. The last survey was completed last year with the next one to be completed in FY2017.

Enabling high performing leaders

Our leadership programs build the knowledge and capability of managers to motivate and stimulate their teams towards superior organisational performance.

In FY2016, we established a new program focused on our leaders recognising and developing the qualities of great leadership – through building self-awareness of their strengths and limitations, and their understanding of how to connect who they are with how they lead their people most effectively.

More than 30 facilitated sessions were held with Boral's top 100 leaders, accounting for 13% of our executive and middle managers. Over 90% of Australian senior leaders subsequently completed a Boral "Working Together" session with their teams. This program helps teams constructively engage to establish how they will work together to achieve performance excellence.

Health, safety and environment

Our goal is Zero Harm Today to people and the environment. Ensuring that our people, customers and the communities in which we operate are free from harm is a key driver in our decision making and is central to how we operate.

Boral's commitment to achieving Zero Harm was renewed and strengthened following a two day Leadership Summit held on Zero Harm in November 2015. Sponsored by Boral's CEO & Managing Director, the summit brought together over 100 of Boral's senior leaders, Board members and managers from our global operations to consider how the next stage of our safety journey to Zero Harm could be achieved. Our goal of Zero Harm became Zero Harm Today – reflecting the commitment and heightened urgency by our leaders to deliver Zero Harm, today and every day. Cascading initiatives are being implemented throughout our businesses, including Zero Harm Today safety workshops, which are successfully engaging all of our people in this goal.

From an environmental perspective, we acknowledge that the very nature of our operations means there will be impacts on the environment. However, we remain committed to a goal of Zero Harm and working to eliminate adverse environmental impacts. Where elimination is not possible, we seek to minimise the adverse environmental impacts of our operations and, wherever practicable, secure improved environmental outcomes.

Management approach

Boral's line management is accountable for health, safety and environment (HSE) performance, with HSE objectives considered an integral component of their leadership role rather than part of any incentive payment. They are supported by a network of HSE professionals working in Boral's divisions, and a small corporate team headed by Boral's Group HSE Director.

All employees are expected to lead by example, take personal responsibility for HSE outcomes, and adhere to Boral's strict HSE requirements. Our contractors must satisfy selection and qualification criteria incorporating Boral's HSE requirements, as outlined in Boral's contractor safety requirements. We also actively work with our customers to ensure delivery of their HSE targets when working on major projects and other work.

Safety training is provided through a number of means including: internal leadership courses, front line manager and supervisors (eg. 'Skilled 4 Action') and operator level training. In Australia, Boral is a registered training organisation and offers many vocational courses including safety and LEAN related courses at the Certificate II, III and IV and Diploma level.

Divisional management teams and the corporate HSE function provide formal reports on HSE performance, risks and management actions to the Board's HSE Committee on a quarterly basis, and to Boral's Executive Committee on a monthly basis. At a site level, safety performance and actions are discussed in various forums including daily pre-start meetings. More serious HSE incidents, including near miss events, are directly communicated to the CEO & Managing Director, with formal investigations and discussions involving local line management, relevant divisional executives and the Group HSE Director.

Our HSE reporting framework and systems, in conjunction with a culture of transparent reporting, ensure that reliable HSE information is provided both to our internal and external stakeholders. Open and transparent engagement in respect of HSE matters forms an integral part of our community consultation programs.

In FY2016, Boral commenced implementation of its revised Health, Safety, Environment and Quality Management System (HSEQ MS) which integrates a number of previously separate management systems. The HSEQ MS is a Group-level system which clarifies and targets the responsibilities and actions needed to deliver improved performance and strong governance.

Strategy

Boral's Group strategy for HSE, which was revised and re-initiated in FY2014, is focused on incorporating 20 improvement programs within five focus areas across the themes of people, systems, and products, plant and equipment.

In FY2016, we made substantial progress in implementing a broad range of new HSE initiatives including ambitious change programs to effect further cultural change and accelerate the rate of HSE performance improvements – these apply to leadership development and further transferring ownership of HSE activities into line management.

PEOPLE

Objective 1 – Capable and confident leaders

- HSE stewardship
 - Skilled 4 Action
- ✓ 'Leading Zero Harm' summit, and cascading activity to engage entire workforce in Zero Harm Today goal
 - ✓ 'Skilled 4 Action' program now considered 'business as usual' with operational managers better equipped to manage day-to-day HSE activities without direct support of HSE experts
-

Objective 2 – Engaged, empowered and competent workforce

- Human error reduction
 - Manual handling interventions
 - Leveraging LEAN
 - Roles and responsibilities
 - Consequence management
- ✓ Continued roll-out of human error reduction and allied behavioural programs across Boral Building Products, most of Construction Materials & Cement (CM&C), and USG Boral JV
 - ✓ Clearer definition of HSE-related roles and responsibilities providing focus to training content development and delivery
 - ✓ Adoption of LEAN skills and techniques, including LEAN safety principles in some areas, supporting continual improvement culture
 - ✓ 'Safety Absolutes' program (key safety rules), engrained across CM&C and introduced to other businesses
-

SYSTEMS

Objective 3 – Fit-for-purpose systems

- Contractor safety
 - Learning management system
 - Serious harm prevention
 - Incident management system
 - 1Boral SMS review
 - Self insurance
- ✓ Phase 1 of contractor safety program (selection and qualification) underway in CM&C
 - ✓ Roll-out of Boral's new learning management system, My Learning Space, completed across Asphalt and progressing into Concrete, Quarries and Cement
 - ✓ Serious Harm Prevention program further progressed, including reporting and phased review of controls around Serious Harm Precursors
 - ✓ HSE incident management system, adopted in Australia in FY2015, further developed; new system introduced within USG Boral JV
 - ✓ Commenced implementation of revised and integrated Health, Safety, Environment and Quality Management System (HSEQ MS)
-

PRODUCTS, PLANT AND EQUIPMENT

Objective 4 – Sustainable solutions

- Lifecycle analysis and environmental product disclosures
 - Occupational health and hygiene
 - Chemical management
- ✓ Increased resource capacity for hygiene assessments
 - ✓ Greater governance of material issues and programs, and greater systemisation of procedures and protocols around occupational health and hygiene key hazards and risks
-

Objective 5 – Fit-for-purpose plant and equipment

- Energy efficiency
 - Driver safety
 - Plant and equipment procurement
 - Product Council support
- ✓ Development and adoption of higher-stability concrete agitator design, and specification of advanced driver aids and technology across segments of heavy vehicle fleet; enhanced driver 'onboarding' process being introduced
 - ✓ Product Councils well established within CM&C, with senior HSE personnel assigned to support the development and adoption of operating standards and practices consistent with Zero Harm Today
-

Work health and safety

Performance

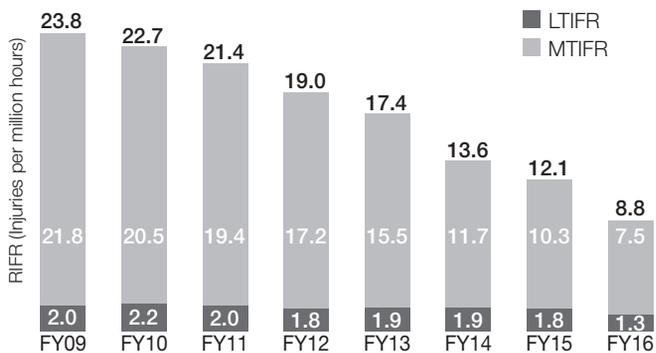
27% improvement in Recordable Injury Frequency Rate to 8.8

28% improvement in Lost Time Injury Frequency Rate to 1.3

Nil fatalities since 2013

Our safety performance continued to show solid improvement in FY2016. The rate of improvement in the Recordable Injury Frequency Rate (RIFR) for employees and contractors, our preferred indicator of injury performance, was well over twice the annual average improvement experienced over the past five years.

Employee and contractor injury rates



RIFR includes both Medical Treatment Injury Frequency Rate (MTIFR) and LTIFR for employees and contractors per million hours worked.

Boral's Construction Materials & Cement division achieved the largest improvement in RIFR, with Building Products and the USA division reporting solid improvements, and the USG Boral JV maintaining a low injury rate including a Lost Time Injury Frequency Rate (LTIFR) below one – considered by many to be a threshold into world best practice.

Recordable Injury Frequency Rate (RIFR)	FY2016	FY2015	Improvement
Boral Construction Materials & Cement	12.2	18.7	35%
Boral USA	5.2	6.1	15%
Boral Building Products	14.2	16.4	13%
Boral Gypsum	3.0	3.0	0%
Boral Corporate	0	0	–
Boral total	8.8	12.1	27%

Percentage Hours Lost¹, and Hours Away on Restricted or Transferred Duties¹, both measures of the impact of injuries at an organisational level, were largely unchanged at historically low levels of 0.03% and 0.16% respectively.

Boral also tracks Near Miss Events, which are those incidents that could have resulted in loss. The rate of reporting continued to increase across Boral in FY2016, which we view positively, as it reflects greater maturity in our safety reporting and allows us to secure learnings from a broader pool of incidents.

1. Defined as a percentage of total hours worked for employees and contractors in Boral's fully owned businesses.

During FY2016, a number of enhancements to Boral's HSE information management systems were made in Australia and within the USG Boral JV. These have improved our ability to monitor and report additional metrics; incorporate corrective and preventative action management, and behavioural observations; and facilitate advanced analysis to better focus our interventions and resources. Hazard reporting was also formally included in management reporting across Boral, although the identification and management of hazards has long been a standard operational practice.

Building knowledge and awareness of Serious Harm Exposures

While we seek to eliminate all injuries, our HSE strategy places greater emphasis on eliminating events that do, or have the potential to, cause fatalities, or life threatening and life changing injuries – referred to as Serious Harm Exposures.

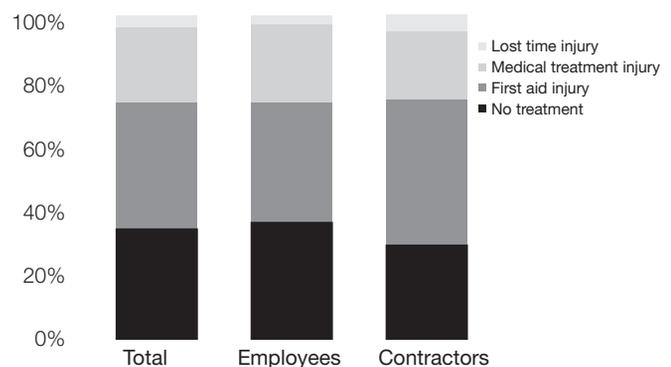
Boral's Serious Harm Prevention program, initiated in FY2015, is helping us better understand our operational risk profiles and focus management resources and on-the-ground operations teams on the more critical safety controls. Key to this program is understanding and managing Serious Harm Precursors, which are high hazard activities such as driving, and elevated and electrical work.

In FY2016, Boral joined a global research project conducted by DEKRA, where like-minded companies share data to better understand these events and the precursors to them, and improve preventative strategies. As part of this project, we identified that the vast majority of our Serious Harm Events are Near Miss Events that do not result in loss. This emphasises the importance of mature reporting systems that ensure heightened organisational attention on responding to, and preventing, serious Near Miss Events.

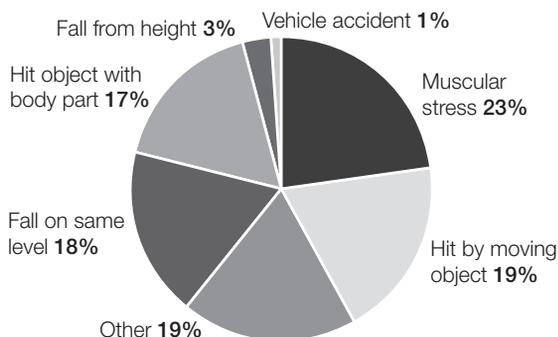
Injury analysis

Injury analysis assists in the development of corrective action plans, training and process redesign. In Australia, our systems allow us to analyse our injury experience in further detail for our fully owned businesses.

Of all injuries reported in FY2016, 34% required no treatment, 39% required first aid only, 23% required medical treatment without lost time, and 4% resulted in lost time.



Mechanism of injury – describing the action, exposure or event that led to an injury



In FY2016, an in-depth review of the 'Other' mechanism of injury category was undertaken, resulting in a reclassification of a significant proportion of these injuries to the six defined categories. This improved reporting accuracy is further enabling management focus and resources to be directed to the right areas.

The marked decline in the relative contribution of 'Other' injuries from 31% last year to 19% in FY2016 reflects this reclassification. Muscular stress injuries rose to 23%, from 13% in FY2015, largely reflecting the reclassification of the 'Other' category. Injuries from being hit by a moving object declined slightly, while injuries from hitting an object and falling on the same level increased slightly. Vehicle incidents decreased from 2% to 1%, which encourages the efforts being made in regard to driver training, GPS tracking and chain of responsibility compliance.

In FY2016, contractors were less likely than employees to be involved in falls on the same level. Similarly, employees continue to be more likely to be injured than contractors by incidents involving falls from height, muscular strains, vehicle incidents, being hit by an object and hitting an object with their body.

Outperforming industry safety benchmarks

The broader industries in which Boral operates in Australia experience lost time accidents six to eight times more frequently than Boral's employees and contractors.

In Australia, Boral has around 6,000 full-time equivalent (FTE) employees and 4,700 FTE contractors in our Construction Materials & Cement and Building Products divisions. Across these divisions, we have businesses that pour concrete and lay asphalt across major projects and construction sites. In addition, we have over 100 quarries and over 300 manufacturing operations producing cement, concrete, asphalt, bricks, roof tiles and timber products. With a fleet of around 3,000 Company-owned and contracted heavy vehicles transporting Boral products and materials, we are also one of Australia's largest transport managers.

Boral's safety performance can therefore be benchmarked against the transport, construction and manufacturing sectors.

The latest figures published by Safe Work Australia report the average injury rate across the transport, construction and manufacturing industries to range from 7.2 to 9.3 injuries¹ for every million hours worked. This compares with Boral's injury rate in Australia for employees and contractors in FY2016, measured on the same basis, of 1.1.

Managing our heavy vehicle road transport risks

Heavy vehicle road transport comes with risks, but we are very good at managing them through operational, engineering and compliance management.

We take a highly proactive and focused approach to managing safety risks across all our operations, striving for Zero Harm, but this is particularly so for vehicle transport.

We work with suppliers, customers, regulators, contractors and industry groups to innovate, share knowledge and implement the safest standards, train our people on safe use of plant and equipment and identifying behavioural triggers that contribute to critical errors and unsafe behaviour.

Our long-term safety performance in relation to truck-related work fatalities is better than the national average, and Boral has not experienced a fatality in any of its businesses since 2013. Nevertheless, between 2007 and 2013 there were four fatalities associated with Boral's operations in Australia – all involving contractors in transport-related accidents. So ensuring that our operations remain fatality free is critically important to us.

Boral's relative performance to Australian industry average lost time injuries¹



1. Source: Safe Work Australia data 2013-14. Based on Safe Work Australia's definition of Lost Time Injury Frequency Rate using injuries that resulted in five or more days lost time from work. Boral data for Australia only for comparative purposes for FY2016.

Environment

Priorities

As outlined in Boral's Environmental Policy, we are committed to:

- complying with environmental legislation, regulations, standards and codes of practice relevant to the particular business as the absolute minimum requirement in each of the communities in which we operate;
- reducing greenhouse gas emissions from our processes, operations and facilities, including appropriate use of alternative fuels and/or carbon offsets;
- eliminating waste in all its forms, by application of LEAN manufacturing principles, leading to:
 - efficient use of energy;
 - conservation of water;
 - minimising and recycling of waste production materials and energy;
 - prevention of pollution; and
 - effective use of virgin and recovered resources and supplemental materials;
- open, constructive engagement with communities surrounding our operations; and
- protecting biodiversity values at and around our facilities.

Environmental management system

In FY2016, our environmental management system was reviewed and integrated into our revised HSEQ MS. Boral's revised HSEQ MS is providing a clearer definition of the standards we expect our operations to achieve, and the practices required to achieve them. It is also requiring re-assessment of the environmental risks posed by each of our operations. For example, while handling of toxic chemicals or hazardous wastes are not material issues at a Boral Group level, at a particular local level these risks may be more relevant. Our system is ensuring that the framework and procedures in place at each of our operations are appropriate to optimally manage such risks.

The HSEQ MS has also enhanced our capacity to certify operations to the international environmental management standard ISO 14001, if and when required by tender processes or customers. Currently, 22 Boral locations across NSW, QLD and the ACT, mainly asphalt businesses, are ISO 14001 certified.

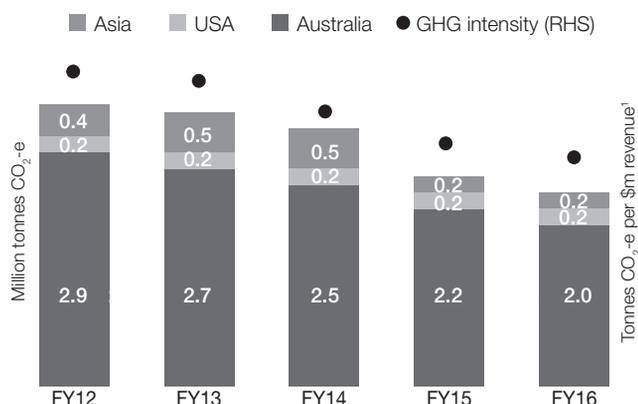
We have continued to strengthen our internal controls and systems to improve our compliance with the increasingly stringent regulatory requirements in Australia. In FY2016, we implemented a new online safety information management system that is also helping us more effectively manage breaches of environmental licence conditions. Formal regulatory notifications continue to be reviewed by our internal HSE function and reported to Boral's Executive Committee, with any material breaches also reported and discussed at Board Committee level, even if no penalty results.

Greenhouse gas emissions and energy use

In FY2016, Boral's greenhouse gas (GHG) emissions (Scope 1 and 2) totalled 2.46 million tonnes of carbon dioxide equivalent (CO₂-e), down 7% from FY2015. Compared to the prior year, emissions from Boral's Australian operations were down by 8%, the US operations down 2%, and Asian operations down 6%.

Boral's operations consumed 20 petajoules of energy during FY2016, down 8% from FY2015. Energy consumption in our Australian operations declined by 12%, US operations increased by 3%, and Asian operations fell by 6% compared to the prior year.

GHG emissions from operations



Changes in Boral's business portfolio during FY2015 underpinned the reported decline in GHG emissions and energy use in our Australian operations in FY2016. These portfolio changes included: formation of the Boral CSR Bricks joint venture in May 2015 (40% owned by Boral) which resulted in CSR thereafter fully reporting emissions and energy use of the joint venture, divestment of the Western Landfill business in March 2015, and cessation of operations at Maldon clinker kiln in October 2014.

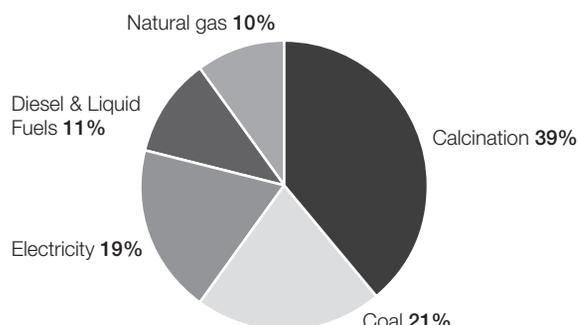
On a like-for-like basis, GHG emissions were broadly flat while energy use was marginally up for Australia and Boral overall in FY2016. Increased activity in NSW, resulting in higher production at cement manufacturing operations, offset reductions in emissions and energy use across other businesses. The Cement business accounted for 75% of our GHG emissions and 52% of our energy use in Australia during the year.

Boral's emissions intensity, based on GHG tonnes of CO₂-e per \$m revenue, declined 6% year on year¹. This improvement largely reflects the changes in our business portfolio in FY2015 combined with revenue growth of our less energy-intensive Gypsum business.

Boral's businesses continue to focus on energy and emission reduction initiatives including through LEAN management principles, plant efficiency projects and fuels programs. At the Berrima cement works, an alternative fuels program is being developed to lower local manufacturing costs and emissions. In the Timber business, a 'biofutures' project is exploring a range of opportunities to increase the use of residues, including for electricity generation and as new additives in the formulation of asphalt for roads to improve the properties of bitumen.

1. Boral reported revenue adjusted to include underlying revenue of Boral's 50% interest in the USG Boral.

Boral's Australian GHG emissions



Climate change and carbon policy

The safeguard mechanism of the Federal Government's Emissions Reduction Fund (ERF), which forms part of the Government's strategy to meet emissions reduction targets of 5% by 2020, came into force on 1 July 2016. The safeguard mechanism establishes emissions baselines for facilities with high levels of emissions and applies to Boral's operations at Berrima (Cement) and Marulan (Lime). We are currently in negotiation with the federal regulator in respect of appropriate emissions baselines to be used for the two facilities.

Boral continues to investigate potential ways that we may access funds from the ERF to apply towards improving the emissions efficiency of our operations.

In FY2016, we commenced developing programs to increase resilience and adaptation of Boral's operations to extreme weather events, with an initial focus on extreme rainfall events on Australia's East Coast.

Strengthening our resilience to extreme weather events

Expansion of operations at our Ormeau Quarry in QLD necessitated compliance with various environmental conditions for managing stormwater discharges into the Pimpama Creek, which flows through the site. In response, a comprehensive new stormwater system was designed which draws on best practice remediation processes and considered numerous other challenges including: ensuring flood immunity, preserving the creek riparian zone, and providing sufficient operational area to meet increased activity demands.

The new stormwater management infrastructure, which incorporates sediment pre-treatment basins, an engineered construction system using waste tyres and steep-sided walls made from waste concrete, is setting new standards within the quarrying industry. Importantly, it is also strengthening the quarry's resilience to extreme rain events.

Water, waste, recycling and re-use

While the management of water and waste materials is not considered a material risk for Boral at a Group level, Boral's businesses are committed to conserving water, minimising production of waste, and maximising recycling and re-use opportunities. For example, throughout Boral's operations, our own returned waste materials are re-used to produce the same product, including concrete washout slurry, recycled asphalt pavement (RAP), plasterboard waste from production and building sites, brick bats and bricks from customers' sites. External waste products or secondary resources that we use to manufacture our products include: cementitious waste materials including fly ash in our lightweight composite building products in the USA, by-products in cement, and crushed demolition concrete in new concrete and asphalt.

Boral's businesses only deal with minor amounts of hazardous waste, and this is managed in accordance with government regulations. Similarly, we only use relatively small amounts of packaging, as the vast majority of our products are delivered in bulk. Boral businesses that do use some packaging, such as Midland Brick and USG Boral, are signatories to the Australian Packaging Covenant; Boral Cement, through its membership of Cement Concrete Aggregates Australia, is also a signatory.

Infringements and penalties

	FY2016	FY2015	FY2014	FY2013
Number	9	3	15	7
Fines ¹	\$33,888	\$11,658	\$26,849	\$31,960
Penalties ¹	\$250,000	\$0	\$12,000	
Undertakings	\$0	\$0	\$100,000	

In FY2016, Boral was charged with eight regulatory infringements related to environmental contraventions in Australia and the USA, resulting in \$33,888 in fines, in addition to one major penalty from the prosecution discussed below. The fines relate to:

- turbid water discharge during a high rainfall event at Peppertree Quarry in NSW;
- a breached stormwater bund at a remote QLD quarry;
- noise from a before approved hours concrete delivery; and
- five separate fines in the USA for various reporting non-compliances.

In May 2016, there was one regulatory infringement in China; however at the time of publication, the potential penalty is unknown.

Legal proceedings in relation to aggregate allegedly being washed into a water course at Narangba Quarry, QLD, were resolved in September 2015. After pleading guilty to a reduced number of charges in relation to discharge of aggregate into Browns Creek, Boral received a penalty of \$250,000 and was required to pay the prosecuting authority's legal costs. No conviction was recorded. A portion (\$27,154) of the penalty was allocated to impacted landowners and a further \$75,000 to three regional environmental groups to fund various land rehabilitation projects.

1. Fines are directly issued by the regulator and penalties by a court hearing.

At the time of publication, Boral is engaged in legal proceedings with the Victorian Environment Protection Authority, which has commenced proceedings on three counts related to accepting concrete material at our Cosgrove Quarry near Shepparton. The material had been received for processing and recycling into construction materials.

Boral Timber

Boral Timber is the largest customer of Forestry Corporation of NSW, the state-owned largest manager of commercial native and plantation forests in NSW. With a substantial proportion of volumes supplied to Boral being valuable blackbutt timber, it is vitally important that we work closely with the Government to ensure sustainable harvesting of the north coast forests. Forestry Corporation of NSW is certified to meet the Australian Forestry Standard (AFS), an independently audited forest management standard that provides assurance that it is managing its forests in a sustainable manner.

Boral Timber's solid hardwood products are certified to the AFS Chain of Custody standard, which provides our customers with assurance that our products are sourced from certified, legal and sustainable resources by tracking our products back to their source of supply.

Biodiversity and heritage management

Protecting Australia's biodiversity and cultural heritage at our operational sites and in our local communities is a core component of our land management efforts to minimise our environmental footprint. Our long-standing community partnerships with Conservation Volunteers Australia and Taronga Conservation Society are also aimed at biodiversity, conservation and education, both in our local communities and more broadly.

In addition to our land rehabilitation efforts to re-establish natural ecosystems as part of our licensing requirements, we have undertaken a number of projects to protect biodiversity and Aboriginal heritage in the communities in which we operate, including:

- maintaining and inspecting bat boxes at our Dunmore Quarry in NSW for a number of threatened species;
- the ongoing supply of koala fodder from our plantations at our Narangba and Petrie quarries in QLD which commenced in 2002;
- working with local Aboriginal representatives at our Peppertree Quarry, which has resulted in the identification of nearly 100,000 Aboriginal artefacts; and
- relocating an Aboriginal scarred tree from our Dunmore Quarry to Killalea State park, where it was presented to the public in an official 'Close the Gap' ceremony.

Demonstrating our commitment to Peppertree's heritage management

During the initial approval process of Boral's Peppertree Quarry, a number of sites of significant heritage value were identified. Recognising the cultural importance of these sites, Boral revised the initial Aboriginal Heritage Management Plan in conjunction with the Ngunawal people and Pejar Local Aboriginal Land Council, which went over and beyond our regulatory approval requirements.

Representatives from the site's Aboriginal Heritage Management Committee were invited to undertake topsoil monitoring of any excavation work undertaken within an agreed identified area – involving an additional investment of 24,000 hours to salvage the areas. To date, nearly 100,000 artefacts have been salvaged which will be returned to Country within the quarry site under the direction of local Aboriginal leaders.

Community partnerships

\$880,000 contributed to 10 community partnerships and other corporate support initiatives

We have a strategic approach to community investment, focusing on supporting community groups and organisations that share our values and where there is relevance to our people, places and products. We want our community investment to provide a valued and sustained contribution to the communities in which we operate. Our focus is therefore on building meaningful long-term relationships with non-profit community organisations that are mutually beneficial.

In FY2016, Boral contributed approximately \$830,000 of cash to 10 corporate community partnerships and other corporate community support initiatives; a small increase on the \$820,000 contributed in the prior year. In addition, we provided approximately \$50,000 of materials in-kind support to assist with building projects undertaken by four of our partners: Habitat for Humanity Australia, Conservation Volunteers Australia, Touched by Olivia and HomeAid.

Boral's businesses and employees also support local activities, including charities, emergency services and sporting and environmental groups. Boral entered a two year sponsorship of the Australian Baseball League All-Star Game and Championship Series in FY2016, providing very cost-effective brand exposure through international television broadcasts to countries where Boral operates including Australia, the USA and Korea. This partnership also supports the growth of the sport at the grass roots in Australia and has allowed Boral employees and their families to experience baseball at the elite level.

Boral does not participate in or donate to any political or politically associated organisations.

Anzac Centenary Public Fund

Our donations to the Anzac Centenary Public Fund are supporting nationally significant Anzac centenary projects and commemoration events taking place between 2014 and 2018, marking 100 years since Australia's involvement in the First World War.

Bangarra Dance Theatre

Boral has been supporting Bangarra, Australia's leading Indigenous contemporary dance company, for 13 years. As Bangarra's Production Partner, this enabled Boral employees, families, customers and suppliers to attend Bangarra performances in Sydney, Melbourne, Brisbane and Townsville during the year.

Boral's sponsorship funding also contributed to supporting two graduate dancers selected through Bangarra's Graduate Program, and the employment and training of a behind-the-scenes production trainee.

Conservation Volunteers Australia (CVA)

We have been supporting conservation efforts around Australia through our partnership with CVA since 1988. Last year, Boral and CVA refreshed our approach and launched the Connected Communities Program, which is strategically linked to our community engagement program, forming an integral part of our commitment to supporting local communities. With the help of CVA volunteers, the program aims to assist in educating and inspiring youth to take action for the future of their environment.

In FY2016, 45 schools and communities relevant to Boral's operational footprint across Australia received assistance to undertake practical conservation and biodiversity projects through the partnership. Boral employees also joined CVA volunteers in working on these projects.

Habitat for Humanity Australia

Our partnership with Habitat for Humanity Australia, formed two years ago, is helping to provide decent and affordable housing solutions for families in need. As Habitat for Humanity Australia's Building Community Resilience partner, Boral is providing support to disaster resilience projects in the Quang Nam province in Vietnam and two urban slum projects in the Yogyakarta region in Indonesia.

In Australia, Boral and USG Boral donated in-kind building and construction materials for four homes in Yea, VIC and two homes in Tamworth, NSW. Over 30 Boral and USG Boral staff also volunteered with Habitat's Australian Build and Brush with Kindness programs.

HomeAid

In the USA, we continued to support HomeAid, our partner since 2006, through a cash donation and in-kind contribution towards housing projects for homeless families and individuals. The in-kind materials, including bricks and concrete roofing, were used for a shelter for at-risk children and an apartment building providing transitional housing.

Boral employees also supported HomeAid Atlanta's annual Christmas and Baby Essentials fundraising drives by donating goods and gifts.

Outward Bound

As part of our commitment to our local communities, we continued to support Outward Bound's Youth Leadership Program to assist disadvantaged youth.

The program provided an opportunity for 26 Year 9 students from the Southern Highlands and Southern Tablelands in NSW to engage in personal development through a seven day leadership program and camp. In addition to providing financial scholarships, Boral staff provided ongoing mentoring support to help the students implement their community service projects.

Redkite

Boral supports Redkite's Financial Assistance Program, which helps families of a child with cancer meet their day-to-day needs, such as paying utility bills and accommodation relating to treatment. Over the last four years, Boral and our staff have contributed more than \$500,000 to Redkite.

In FY2016, Boral's support assisted more than 156 families across Australia through our corporate donation and an additional \$43,000 in funds raised by Boral employees.

Taronga Conservation Society

With a focus on wildlife conservation and employee engagement, Boral's partnership with Taronga Zoo and Taronga Western Plains Zoo has been in place for 13 years. For the past 10 years, Boral has also sponsored the Youth at the Zoo (YATZ) educational program, which focuses on connecting teenagers with nature. More than 1,350 teenagers have participated in the program since 2006.

As Boral is a Crown Partner of Taronga Zoo, Boral staff can benefit from free entry and discounted tickets, with 1,474 visits made by Boral families during FY2016. More than 600 employees and their families attended Family Days at Taronga Zoo in October 2015.

Touched by Olivia Foundation

Through our partnership with Touched by Olivia Foundation, we help create vibrant, all abilities playgrounds that provide all children, including children with disabilities, the opportunity to play.

In FY2016, Touched by Olivia publicly opened Livvi's Place Casey and Livvi's Place Ballarat in VIC, both inclusive playgrounds to which Boral donated concrete. We also committed to donating concrete to Livvi's Place Jordan Springs, NSW and Livvi's Place Craigieburn, VIC.

University of Sydney

Boral has partnered with the University of Sydney's US Studies Centre in a multi-year public policy research program supported by the Australian Government. The Alliance 21 Program focuses on the relationship between Australia and the US, and the challenges and opportunities as it evolves in a changing Asian economy. The research program encompasses public and private conferences, seminars and roundtables as well as research studies and publications.