



AUSTRALIA'S SUSTAINABILITY SUCCESS STORIES

2015 BANKSIA SUSTAINABILITY AWARDS



2015 BANKSIA SUSTAINABILITY AWARDS

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WELCOME FROM THE BANKSIA FOUNDATION BOARD

As one of the items in last year's "Welcome from the Board" the Banksia Foundation promised change through the expansion of our Awards program and an increased interaction with finalists and winners throughout the year.

The changed format of the Awards Presentation program in 2014, where finalists and sponsors in all categories were given the opportunity to provide insight into their organisation and their innovation, was a truly inspiring event. Everyone at SD2014 was given the opportunity to network and seek out like-minded people across a broad range of sectors. This fantastic interaction will be continued at SD2015, with Sustainable Business Australia providing a high level CEO Forum in the morning, leading into the Finalists' presentation and culminating with the Banksia Award presentation across the afternoon and evening.

The Banksia Board believe the Foundation is increasingly operating as an important social knowledge enterprise in the sustainability area. We are doing this by:

- The Banksia Awards providing an important, positive platform for promoting Australian innovation in sustainability.
 - The Awards and other aligned activities creating a knowledge sharing opportunity where new connections are made. The Foundation is making significant progress in providing a knowledge hub for the Australian community.
 - Increasing the exposure of innovative approaches in community, industry and government with an expanded program of activities throughout the year. This has included The Environment Ministers Roundtable hosted by Australia Post, a long standing supporter and sponsor of the Foundation.
 - The eBook created for the 2014 awards "Australia's Sustainability Success Stories" being available to download by interested parties. This publication has received strong support and is being used by schools, tertiary and research institutions as providing a detailed snapshot of Australian innovation in sustainability.
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- The development of the Banksia White Paper on The Built Environment released in November 2015. This material showcases the innovation occurring and provides an insight into the future thinking of significant organisations within Australia. We will continue to engage our winners to compile one edition each year.
- Becoming the sustainability partner for VIVID Sydney in New South Wales. Banksia is assisting Destination NSW in realising VIVID Sydney's strategic vision of an enhanced focus on sustainability in the next two years.
- Other programs and initiatives in the pipeline that will further entrench Banksia as a positive voice in the sustainability community both locally and internationally.

The Banksia Foundation is entering an exciting time with expanded programs and drive to share knowledge and opportunities throughout the communities that are active within the Foundation's areas of operation.

Once again the Board wish to thank our judges, volunteers, supporters and sponsors. Without these people and organisations the fine work of a small dedicated team within Banksia would not be possible.

Board Members

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AUSTRALIA'S SUSTAINABILITY
SUCCESS STORIES

THE ENVIRONMENT MINISTER'S AWARD FOR A CLEANER ENVIRONMENT

The **Environment Minister's Award for a Cleaner Environment** recognises outstanding contributions by Australians towards achieving a cleaner, healthier environment and a more resilient and sustainable Australia.



Australian Government

Department of the Environment

Proudly sponsored by the Australian Government – Department of the Environment

The Australian Government is sponsoring the 2015 Environment Minister's Award for a Cleaner Environment to recognise outstanding contributions made by Australians towards achieving a cleaner, healthier environment.

The Australian Government is committed to the health of our unique and irreplaceable environment.

This rests on the Australian Government's Cleaner Environment plan's four pillars - Clean Air, Clean Land, Clean Water and national heritage protection and is central to the Government's vision for a stronger Australia.

- **Clean Air** - The Australian Government will reach its emissions reduction target through its Direct Action Plan to efficiently and effectively source low cost emissions reductions and improve Australia's environment.
- **Clean Land** - The Government's focus for the environment is to deliver practical solutions at the local level. The Government's Green Army is helping to clean up and revegetate urban environments including creek and riverbanks.
- **Clean Water** - The Government's Clean Water Plan has community-based and practical environmentalism at its core. It incorporates a sustainable plan for the Murray-Darling Basin, our Water Security Plan and protection of the Great Barrier Reef.

The award recognises Australians working at a local level towards these national objectives and the work and contribution that business, industry, communities and individuals can make that lead to a cleaner and healthier environment.

Last year's winner Kimberley-Clark was recognised for its commitment to creating a sustainable regional community around its Millicent Mill facility and for outstanding results in striving for a cleaner environment.

For more information www.environment.gov.au

THE ENVIRONMENT MINISTER'S AWARD FOR A CLEANER ENVIRONMENT

ALLEN RISELEY

TEACHER AND LANDCARE COORDINATOR, VIC



Landcare Coordinator, Sport Coordinator and Community Break-out team member, teacher Allen Riseley is a busy man fostering the growth of Mirboo North Secondary College's students and trees!

Allen Riseley set out with a vision to supply cost price trees to those who couldn't afford to plant trees on their land. Allen took on the Landcare Cadets group with no initial environmental interest. His father was a town firewood supplier years ago and had the philosophy that trees were the enemy. His interest has sprung from the seeds of a strong concept.

"I see the smiles on the students faces, the landholders faces, my colleagues and other community members involved and it is so rewarding- I smile also. I think it is making such a huge difference in so many ways. I am now driven to revegetate around every creek, every steep hill and every piece of marginal land in Australia through our children in schools."

Allen Riseley and his Landcare Cadets and Enviro Team have been operating at Mirboo North Secondary College (MNSC) for ten years. Initially, Allen worked with his students to provide a labour force for tree planting days. But, when the school embedded Landcare into the Year 9 curriculum five years ago, Allen felt the need for students to go further than merely planting trees for others, it was time for them to learn how to propagate and manage a business.

After the school received a fire relief grant from the Salvation Army, Allen was able to purchase propagation kits including potting mix, tubes, tube trays and seeds. Allen's goal

was to teach students how to take a tree from seed to forest- propagate, grow, then plant on the farm.

In 2013, Allen was approached by the Mirboo/Mardan Landcare Group to supply 10,000 trees at \$1.00 each to a koala habitat project. The money came from a bequest to the community and this was the catalyst for the projects growth.

Through mass tubing out sessions led by Allen, students were able to hone their skills and efficiency over time. They are very enthusiastic and have recently set a tubing record of 2800 trees in 100 minutes (with 50 students involved)!

Allen and MNSC partnered with South Gippsland Water and four private landholders in the local catchment. The landholders each received \$500 grants for waterway improvement; these funds are then passed on to the school to provide 650 trees for their waterways.

With Allen at the helm, the MNSC Enviro Team and Landcare Cadets hope to produce a minimum of 10,000 trees per year by selling trees to the public and continue with the South Gippsland Water grants program for 75 cents per tube. This is at least 35 cents under wholesale price and still ensures the school a 50-cent per tube profit- hence creating a \$5000 profit per year for the 10,000 trees produced.

*"My dad cut down every tree he saw- but I don't think he ever put one back in
- now I am doing it ten fold."*

We are also planning to form partnerships with VicRoads and the South Gippsland Shire to sell trees for large roadside reserves

All money raised from the sale of the trees is being spent on student driven initiatives within the Mirboo North Secondary College. The environment, students involved, and landholders all receive great benefits from the project and they are the main stakeholders involved in the project.

Allen is able to attract at least 50 new students at Mirboo North Secondary College per year teaching basic tree production and planting skills to more of the community every year.

The manager at the South Gippsland Seedbank guides Allen on the most appropriate seeds to propagate in their area. They currently raise 15 varieties, which are a mixture of trees, shrubs and ground covers. This is aimed to replicate the biodiversity of South Gippsland. One in particular, Strzelecki Gum is a threatened species and they are having good success in raising its seeds. Generally trees are planted around riverbanks or watercourses to slow the flow of water and replace willow infestations. This puts the native ecological systems and biodiversity back in place.

To broaden community outreach, Allen has been able to advertise this project in local newspapers and SG Landcare News. New markets for trees will be created through school community members buying trees to support the school. One landholder who has bought three lots of our trees commented that, "our children went to this school, so these planting projects are more meaningful and special because of the school and the students having produced them. "

Allen and the students will begin selling trees to private purchasers, thus broadening the community's environmental health and knowledge of our amazing work.

"I urge all who read this to assist me to make this project happen nationally. To have the school children of Australia involved in such a large way in the revegetation of Australia and to develop such an environmental consciousness in the process is a fabulous goal. This project has been started from scratch, it has been tested, AND it works- it is not just a theory!"

THE ENVIRONMENT MINISTER'S AWARD FOR A CLEANER ENVIRONMENT

EMIRATES ONE&ONLY WOLGAN VALLEY

NSW



Emirates One&Only Wolgan Valley is an ultra-luxury conservation-based resort located 2.5 hours' drive from Sydney and situated within the World Heritage-listed Greater Blue Mountains region. Set on a private 7,000-acre carbon-neutral conservation and wildlife reserve, the secluded resort intertwines ultra-luxury and comfort with a quintessentially Australian rugged bush experience.

Much awarded, the resort has built its success upon operating at the highest level of environmental credibility and integrity. The philosophy centres on creating a delicate balance between growth and preservation and this is achieved across all aspects of operations, including sourcing food regionally, supporting local crafts people and is proudly certified as carbon neutral each year since opening in 2009. Protecting the natural environment and conservation of native wildlife is also central to the resort's vision.

The former grazing property is now actively managed for biodiversity conservation outcomes. Historically, the property experienced heavy grazing of livestock, widespread clearing of vegetation and significant erosion damage to waterways. Routine conservation work includes revegetation of wildlife habitat and stream banks as well as an on-going program aimed at controlling feral predators and invasive noxious plant species.

The resort is deeply committed to the protection of native wildlife and a major focus for 2015 and 2016 is directed towards the eradication of Sarcoptic mange, a condition with potential to threaten the survival of Australia's native wombats. Guests are also actively involved in the conservation work conducted and the resort works closely with numerous

government, community and educational organisations to achieve conservation objectives.

The main objective of the resort's conservation program is to enhance the overall biodiversity, ecological processes and future resilience of the property and protect native wildlife by restoring the ecology of the reserve to that existing prior to European settlement. When the property was acquired in 2007, the habitat available to native wildlife was limited and highly fragmented due to previous clearing regimes. Much of the pre-existing native vegetation was systematically cleared by previous landholders to support pastoral grazing of domestic livestock. The resort's owners initially invested AUD125 million into this conservation project with an ongoing commitment to various projects.

The Conservation Management Plan has been shaped for 1 year, 5 year and 10 year periods, within the context of a 50 year timeframe, demonstrating both our strategic approach to conservation and long term commitment to the property. The CMP provides a framework to direct conservation activity, with shorter term objectives established through adaptive management.

**AUSTRALIA'S SUSTAINABILITY
SUCCESS STORIES**

THE RICHARD PRATT- BANKSIA CEO AWARD

The Richard Pratt Banksia CEO Award recognises an individual executive's contribution towards the economic, social and environmental sustainability achievements of the organisation or company they work for and which has collateral benefits for the globe.



FOR A BETTER WORLD

Proudly sponsored by Visy

Visy takes pride in supporting the Banksia Foundation's Richard Pratt- Banksia CEO Award. The late Richard Pratt was one of Australia's most successful entrepreneurs, a generous philanthropist, and a builder of educational and arts institutions. But he was also ahead of his time in understanding why sustainability and protecting the environment were not just desirable concepts to be tacked on to the business sector, but intrinsic to their growth and success.

Having grown up in a fruit-growing family in country Victoria, Richard had a farmer's appreciation of the importance of land, water, and conserving nature. But he adapted that understanding to Visy's development as a technology-driven manufacturing enterprise. Long before the idea of "the green factory" emerged in the environmental literature, he had envisioned Visy's state-of-the-art new pulp and paper mill at Tumut in New South Wales. He ensured the plant would be a world leader in meeting the highest environmental standards.

When the project's Stage One opened in 2001, it attracted international attention and commendation from "greenies" and "economic rationalists" alike, as a pioneering example of how innovative solutions to such problems as air and water pollution made sound business sense.

Since Richard Pratt's death in 2009, and under Anthony Pratt's leadership, Visy has extended the Richard Pratt legacy. The company has taken its sustainability planning in to new territory by working out how to produce clean energy from waste.

Visy hope that the Banksia Sustainability Awards, and the Richard Pratt Award in particular, will encourage a new generation of Australian business leaders to put sustainability at the very heart of their enterprises.

Banksia is very proud to be working with the Visy in conducting The Richard Pratt-Banksia CEO Award for 2015. This Award was created in 2013 to commemorate 25 years of the Banksia Foundation, and has been named in honour of Richard Pratt, who was seen as one of Australia's leading change agents in the environmental business sector.

Richard Pratt was a life-time Member of the Banksia Foundation and a great friend. The Banksia Board are delighted to announce the support of the Visy in continuing this prestigious award.

This award recognises, and further encourages more Australian leaders to take on innovative practices that will make a difference to our future as Richard Pratt has done.

THE RICHARD PRATT-BANKSIA CEO AWARD

AMANDA MCKENZIE

CEO, THE CLIMATE COUNCIL



Amanda McKenzie is an environmental leader and professional speaker and is currently CEO of the Climate Council.

After growing up in the suburbs of Melbourne, Amanda earned an Arts degree at Melbourne University and then a Law degree with Honours at Monash University.

While studying, she became increasingly concerned about the devastating impacts of climate change and the lack of political action on the issue.

Convinced young people were crucial to solving the climate crisis, she co-founded the Australian Youth Climate Coalition in 2006 and in three years, helped build one of Australia's largest climate change advocacy groups, with more than 100,000 members.

The Australian Government recognized her work at the AYCC with her inclusion at the Multi-Party Climate Change Committee Round Table in 2010 and she led the Australian youth delegations to the United Nations Climate Change Conferences in Bali, Poznan and Copenhagen.

She was named Young Environmentalist of the Year in 2009.

She joined the Climate Commission as a Senior Communications Advisor after it was established in 2011 to communicate reliable and authoritative information on climate change to the Australian public.

Over the next three years, she built the Commission into the most significant non-government national media presence on climate change, creating a communications training program for climate scientists and generating more than \$12 million in media coverage annually.

When the Abbott Government abolished the Climate Commission in September 2013, Amanda spearheaded Australia's largest crowd-funding campaign, netting \$1.3 million in 10 days from 16,000 people, to allow the commission to re-launch as the not for profit Climate Council.

She is now CEO of the Climate Council, an independent organisation dedicated to providing the Australian public with reliable and authoritative information climate change. In the last two years that Council has significantly shifted the public debate.

Amanda has overseen a rapid expansion of the Climate Council, garnering more than \$35 million in media coverage during its first two years, reaching more than 200 million people through over 14,000 media appearances and building a reputation as Australia's go-to organization for information on climate change and renewable energy.

Under Amanda's leadership, the Climate Council has played a significant role in reshaping the public conversation on climate change in Australia, including: moving the public debate from a discussion of the science and whether or not climate change is real, to a discussion of solutions, like renewable energy; shifting the public understanding of extreme weather and climate change with public polling showing that increasingly the public link the two; and elevating renewable energy to a top tier political issue.

This has been achieved through providing messaging guides and briefings to commentators including scientists, environment organisations, fire fighters, health professionals, farmers, politicians, military personnel and others. Additionally, we have supported a broad range of "trusted voices" to speak to the media and community. On extreme weather this has included emergency service workers, health professionals and farmers. We have also briefed thousands of nurses, doctors and fire fighters at all levels to speak to their community. On renewable energy we have helped build the profile of key actors like the Solar Council, Solar Citizens and the Wind Alliance.

The Climate Council uses a variety of tactics to change the public discourse. Since our inception, we have produced 44 publications (as of Oct 2015), across extreme weather, renewables, fossil fuels, and global and local policy. We break all research down into meaningful, relevant and visual content so that people will not only engage with the information, but they will more likely absorb the content. Our facts, information and stories have also reached 50 million people this year through our social media channels both locally and globally. 3 million people have engaged in this content by liking, sharing and commenting.

Amanda is currently chair of the board of the Centre for Australian Progress and serves on the board of Plan International Australia. She has also served on the boards of the Australian Youth Climate Coalition, the Committee for Melbourne and Climate Action Network Australia.

In 2014, she was named as one of the winners of the Westpac AFR 100 Women of Influence in recognition of her commitment to putting climate change on the public agenda.

She is a regular media commentator on climate change and renewable energy issues and has recently appeared on The Project, the 7.30 Report and Sunrise.

THE RICHARD PRATT-BANKSIA CEO AWARD

ROBBERT RIETBROEK

MANAGING DIRECTOR AND CHIEF EXECUTIVE,
KIMBERLY-CLARK AUSTRALIA, NEW ZEALAND AND THE PACIFIC
ISLANDS



Robbert Rietbroek is Managing Director and Chief Executive for Kimberly-Clark Australia, New Zealand and the Pacific Islands, heading up a business of over 1,400 employees across 14 different sites. Kimberly-Clark's well-known products are an indispensable part of life for people in more than 175 countries. In Australia, Kimberly-Clark is a proud manufacturer and marketer of leading household brands including Huggies®, Kleenex®, Kleenex® Cottonelle®, VIVA®, U by Kotex®, Poise®, Depend® and Snugglers®.

With a strong passion for sustainability, Robbert uses his leadership role as a platform to drive and champion sustainable processes and initiatives throughout Kimberly-Clark, and also with external stakeholders like customers, consumers, suppliers and industry partners.

Placing sustainability firmly on Kimberly-Clark's business agenda, Robbert has mobilised broad-reaching support from business units and employees. Upon joining, Robbert immediately identified the opportunity to ingrain sustainability further into the organisational culture by making it a key strategic business priority. He demonstrated this by promoting the Sustainability Manager to the Executive Leadership Team, bringing visibility and representation of sustainability to the executive leaders.

Externally, Robbert is an outspoken champion of environmental and social sustainability issues. He increases awareness and support for prominent issues through his Board of Director positions with the Australian Food & Grocery Council and American Chamber of Commerce. He is regularly quoted in the media about sustainability issues and the need for business to do more and regularly talks about sustainability issues at conferences external events and at customer meetings.

As a result of Robbert's approach there have been a number of broader benefits. We have seen increased consumer and customer awareness and engagement with Kimberly-Clark's brands and sustainability programs. Robbert also sees innovation as a key opportunity that sustainability challenges can create. For example, two areas for innovation that he is pushing the business to pursue are our 2025 goal to reduce the use of natural forest fibres in our products by 50%, and championing more solutions to recycle post-consumer waste.

Robbert is also particularly focused on the role of businesses in creating a better future and the role of consumer brands in inspiring change. To bring this vision to life, Robbert drives and supports a number of different initiatives. These include using the power of Kimberly-Clark's well-known brands to make a difference through partnerships with NGO's like WWF and the Heart of Borneo initiative; driving product innovations with alternate fibres; supporting post-consumer waste innovations through partnerships with organisations like REDcycle, Relivit and Envirocomp and championing a supply chain pallet optimisation initiative and reductions in natural resource consumption.

Under Robbert's leadership, Kimberly-Clark Australia has continued to thrive in the sustainability space, and is now one of the most awarded companies in Australia for sustainability, winning six major awards over the last two years.

As we move to the future, Robbert and his team will work on transitioning the business from the current 2015 strategy to a new Sustainability 2022 strategy (S2022) in Australia and New Zealand. S2022 will set out new challenging sustainability goals that will take the business through to our 150-year anniversary as an organisation.

Robbert's personal aspiration is to continue to make a difference in the environment and communities in which Kimberly-Clark operates. He is committed to analysing the short and long-term impacts of Kimberly-Clark products and operations, both environmentally and socially, and he is passionate about finding solutions to make them more sustainable. In particular, Robbert wants to be proud of the work he does each day and wants to leave a great legacy for the Australian business.

THE RICHARD PRATT-BANKSIA CEO AWARD



MARK RYAN

MANAGING DIRECTOR AND CHIEF EXECUTIVE OFFICER, TASSAL



Mark Ryan is a respected business leader and an economic visionary for Tasmania. Mark is a proud and passionate Tasmanian with a significant belief in the state and its many natural attributes.

One of Mark's core values is 'Zero Harm for Everyone, Everywhere' and his success as CEO of Tassal has been achieved with a strong focus on sustainability. He believes that paying attention to the culture of the company is an important aspect of leadership. Mark has established a pathway for the industry to grow sustainably, which will further benefit the Tasmanian economy and Tassal's employees.

Tassal is the most significant aquaculture business in Australia by volume and market share, and is committed to leading best practice environmentally responsible standards in the salmon farming industry.

Tassal is a vertically integrated company that includes freshwater hatcheries, saltwater aquaculture, salmon processing, value adding stages through to distribution, sales, marketing and retail. However, running such large-scale operations across some of the Tasmania's most important marine habitats means that the company must understand and manage their impacts on the wider ocean ecosystem.

Environmental sustainability is central to Tassal's business. It is core to planning and decision making to help further benefit the Tasmanian economy and Tassal's employees. This focus has contributed meaningfully to the culture of the company and has supported operational excellence and pride in the workplace.

In 2012 under Mark's leadership, Tassal partnered with WWF-Australia, part of the world's largest conservation organisation. The partnership with WWF, along with Mark's passion for

sustainability, led Tassal to become the first producer of farmed salmon in the world to achieve full Aquaculture Stewardship Council (ASC) certification across all sites in November 2014.

ASC certification is the highest standard for responsibly-farmed seafood in the world and provides credible, third party validation to consumers that they are purchasing seafood from farms that limit impacts on the environment and communities.

Mark's drive to create a sustainable aquaculture operation has been a defining quality that has influenced his leadership style and the attitude of his employees. An organisational focus on environmental sustainability, tied with extensive stakeholder engagement and a partnership with WWF, has allowed Mark to transform Tassal from a company in receivership to Australia's largest and most responsible aquaculture company.

The ethos 'Sustainability is the Key to our Future' is now truly embedded within Tassal and continues to inform and support the strategic direction of the company. From this strategy, Tassal continues to see increased profit, improved compliance, improved wildlife exclusion and escape prevention leading to decreased cost of production and improved fish growth and survival, improved environmental outcomes, improved community relations, and the development of a culture of caring within Tassal.

Tasmania is a small state with economic and societal challenges. The salmon industry is one of only a few shining economic lights on the horizon and Tassal, under Mark's direction, is leading the charge demonstrating that industry can be sustainable whilst taking care of the environment and local regional communities.

Tassal's ongoing solid environmental performance gives them a "licence" to continue to operate. It secures Tassal's growth path, and more importantly, jobs into the future, filling a very important economic gap in rural and regional communities in Tasmania. In FY 2015 alone Tassal increased from 850 to 950 employees (i.e. 12%).

Mark has embraced the new model of doing business – that growth and development are good, but should not be achieved at the exclusion of social and environmental considerations. Sustainability is considered a profit centre within the Tassal model. Mark believes in the company and the industry. He loves the employees at Tassal and genuinely cares for their wellbeing.

Most importantly, Mark believes in Tasmania and what a special and important part of Australia it is. He is a young CEO committed to doing business in a new way that respects communities and the environment. His commitment and vision for national food security and a health and economically stable Tasmania has made him a role model for business both nationally and internationally.

Moving forward, Mark aspires to continue to bring economic opportunities to Tasmania by selling a highly recognised, ethically valued brand and product to Australian consumers and retailers, while operating in a zero harm environment - protecting Tasmania's core social and environmental values. He also hopes to establish a pathway for the industry to grow sustainably which will further benefit the economy of the state and Tassal's employees.

**AUSTRALIA'S SUSTAINABILITY
SUCCESS STORIES**

BANKSIA INTERNATIONAL AWARD

Each year, the Board of the Banksia Foundation selects an outstanding international example of an individual that has a long lasting and broad ranging commitment and contribution to sustainable development.

The Board looks at the challenges that the candidate has faced and how they have dealt with them, as well as their ability to engage and inspire others, create awareness and form partnerships to protect our environment and promote sustainable development.



Proudly sponsored by Qantas

The Qantas Group is delighted to sponsor the 2015 Banksia International Award and to be associated with an outstanding Australian initiative that continues to set the highest standard for sustainability both here and overseas.

Qantas is on a journey to make sustainability central to everything we do. In some ways, sustainability has always been part of our business – like our unwavering commitment to safety as our first priority.

The Qantas Group believes climate change is a shared global challenge for governments, businesses and individuals, and we are committed to playing our part in the aviation industry's response.

We acknowledge our own impact on the environment and we have been working for many years to increase fuel-efficiency – and therefore reduce emissions – by investing in new aircraft, finding more efficient ways of operating, and working with manufacturers, regulators and other industry partners.

Since 2009, the Group's fuel efficiency has improved by 5 percent and this year we reduced our overall carbon emissions by 2.1%.

Qantas and Jetstar were among the first airlines in the world to introduce a voluntary carbon offsetting program – Fly Carbon Neutral – in 2009. It is now the largest airline carbon offset program in the world. Qantas does not profit from the program and passes on all funds to the purchase of verified carbon offsets, an annual contribution of more than \$1.2 million.

We are well on track to meet and exceed our electricity, water and waste to landfill targets ahead of time. In 2014/2015 we commenced replacing fluorescent tube lighting with energy efficient LED lights in our airports, hangars, ramp areas, warehouses and flight simulators nationally. This project will reduce our energy consumption by more than 13 million kilowatt hours.

On World Environment Day (5 June), we launched an improved onboard recycling program on Qantas domestic services, which means that all recyclable waste on our Boeing 737 and Airbus A330 aircraft is now separated and recycled.

The year ahead is full of new and exciting innovations in environmental sustainability for the Qantas Group as we aim to educate, motivate and inspire change through collaboration and strategic partnerships.

BANKSIA INTERNATIONAL AWARD

PAUL POLMAN
CEO, UNILEVER



- **CEO, Unilever**
- **Chairman of the World Business Council for Sustainable Development,**
- **Member of the International Business Council of the World Economic Forum,**
- **Member of the B Team**
- **Co-chairs the Sustainability Committee of the UN Global Compact and the Consumer Goods Forum.**

Paul Polman has been CEO of Unilever since January 2009. Under his leadership Unilever has an ambitious vision to fully decouple its growth from overall environmental footprint and increase its positive social impact through the Unilever Sustainable Living Plan. Four years into the Plan, Unilever is demonstrating that sustainable solutions make business sense, delivering growth and tackling global development challenges. Paul has been instrumental in leading collaboration between governments the private sector and society to drive long-term system change in key areas including Climate Change, Deforestation, Women's Empowerment and health and hygiene

Paul actively seeks cooperation with other companies to implement sustainable business strategies and drive systemic change. He is Chairman of the World Business Council for Sustainable Development, a member of the International Business Council of the World Economic Forum, a member of the B Team and sits on the Board of the UN Global Compact and the Consumer Goods Forum, where he co-chairs the Sustainability Committee.

Paul has been closely involved in global discussions on action to tackle climate change and the Post-2015 development agenda. He served on the International Council of the Global

Commission on the Economy and Climate, under former Mexican President, Felipe Calderon, whose flagship report 'New Climate Economy' demonstrates that lasting economic growth can be achieved at the same time as reducing the immense risk of climate change. At the invitation of the UN Secretary-General, Paul also served on the High Level Panel on the Post-2015 Development Agenda, presenting recommendations on the successor to the Millennium Development Goals.

Other roles include: UK Business Ambassador by invitation of UK Prime Minister David Cameron, member of the Global Taskforce for Scaling up Nutrition, Counsellor of One Young World. Paul was co-chair of the B-20 Food Security Task Force.

Since 2010, Paul has been a non-executive director of the Dow Chemical Company.

In recognition of his contribution to responsible business, Paul has received numerous awards and recognition, including the Atlantic Council Award for Distinguished Business Leadership (2012), WWF's Duke of Edinburgh Gold Conservation Medal (2013), the Centre for Global Development's Commitment to Development Ideas in Action Award (2013), the Rainforest Alliance Lifetime Achievement Award (2014) and the UN Foundation's Champion for Global Change Award (2014).

He earned a BBA/BA from the University of Groningen, Netherlands, in 1977 and an MA Economics and MBA finance/international marketing from the University of Cincinnati in 1979. He has been awarded honorary degrees from a number of Universities, including Newcastle, Liverpool, Groningen and the University of Cincinnati.

Paul is married with three children. In a personal capacity, Paul is Chairman of Perkins School for the Blind International Advisory Board and serves as President of the Kilimanjaro Blind Trust.

- 2009: Becomes Unilever's Chief Executive & member of Unilever Leadership Executive
- 2008: Executive Director to the Boards of Unilever PLC and Unilever N.V., the first time an external candidate was chosen for the role.
- 2008: Nestlé S.A. Executive Vice President and Zone Director for the Americas.
- 2007: Named by Investor Magazine as CFO of the Year.
- 2006: Chief Financial Officer at Nestlé S.A.
- 2001: Group President Europe and Officer of The Procter & Gamble Company
- 1979: Joins Procter & Gamble

Paul Polman exemplifies how business can show authentic leadership on global sustainability issues. In particular, he has been central in global discussions on action to tackle climate change and end poverty.

Paul has the business acumen to run Unilever in a profitable manner, but at the same time keep humanitarian and environmental responsibility forefront of its strategy

Paul Polman has showed time and time again that business can and must show authentic leadership on global sustainability issues. He understands that the challenges and opportunities of sustainability are as broad as the business he leads, but he's played a particularly influential role in global discussions on action to tackle climate change and reduce poverty: in doing so he's raised the bar for all global businesses.

**AUSTRALIA'S SUSTAINABILITY
SUCCESS STORIES**

BANKSIA EDUCATION FOR SUSTAINABILITY AWARD

The Banksia Education for Sustainability Award recognises leadership and achievement in raising awareness and understanding of sustainability issues, promoting tangible change in values and behaviour in support of sustainability throughout a selected target audience.



Proudly sponsored by Kimberly-Clark Australia & New Zealand

At Kimberly-Clark, we are very proud of our relationship with the Banksia Foundation and are pleased that this year we're able to sponsor the Education in Sustainability Award. It was an honour last year to win the Minister for Environment's Cleaner Environment Award for our work at our Millicent Mill in South Australia, and in 2013, the Banksia Award for Leading in Sustainability for large Organisations.

Kimberly-Clark makes well-loved brands like Huggies®, Kleenex®, U by Kotex® and VIVA®. Our vision is to lead the world in the essentials for a better life and we are committed to doing it sustainably to help create a better world for future generations. Since our company was founded over 140 years ago, sustainability has been a core part of how we do business, and today we remain deeply committed to reducing the impact of our products on the environment.

While our sustainability efforts have always been motivated by our values and doing the right thing, we also recognise that integrating sustainability into every aspect of our business provides us with several competitive advantages.

In Australia and New Zealand we are leading the way in the sustainability space. Our sustainability strategy called Our Essential World focuses on how we can work together with our employees, customers, consumers and suppliers to ensure we're looking after our world for generations to come. Our local sustainability initiatives are structured under our three pillars of sustainability – people, planet and products – and are focused on continuing to reduce our environmental footprint, and using the power of our globally recognised and loved brands to make a positive difference in the lives of our consumers and customers.

BANKSIA EDUCATION FOR SUSTAINABILITY AWARD

BENTLEIGH WEST PRIMARY SCHOOL

GLOBAL WATER COOPERATION - A MEANS FOR EDUCATORS TO
ADDRESS LOCAL AND GLOBAL ENVIRONMENT ISSUES, VIC



Bentleigh West Primary School, a 5 Star ResourceSmart School, is a government primary school with a current enrolment of 520 students, located 13 km south of Melbourne.

Over the past eight years, Bentleigh West Primary School has had a whole school Educating for Sustainability (EfS) ethos that focuses on sustainability and social responsibility not only for our own students but also for members of the wider community. Being a 5 Star ResourceSmart school necessitates leadership to other schools and educators and our achievements in raising awareness in sustainability for all students and educators across Victoria continue to be validated by winning numerous awards for Sustainability Education including ResourceSmart School of the Year awards for categories of Waste, Water, Biodiversity and Energy and Community Leadership, the Premier's Sustainability Award – Community, United Nations World Environment Awards – for Community and Biodiversity, as well as the Victorian Schools' Garden State awards.

In 2013 our EfS drivers extended further into the local community. Our successful 'Locals for Wildlife' project resulted in an increase in both biodiversity education and actions. This project involved multi-generational community members across 3 local municipalities. Twenty sites were regenerated at kindergartens, primary and secondary schools and retirement villages. This educational and practical initiative enabled community members to work together to celebrate biodiversity and the uniqueness of our local wildlife. It also won the 2013 United Nations World Environment Day Environmental School Award.

Our EfS policies and programs are far reaching and substantial, however staff at Bentleigh West Primary School recognised the need for a curriculum and programs that would embed the 3 cross curricula pillars of the National Curriculum and AusVELS (Sustainability, Indigenous Education and Asian Studies) into an authentic whole school curriculum.

A motivational factor for this project was the need to create a curriculum that reflected this by providing learning experiences that created positive behavioural change for all students involved.

Our Global Water Cooperation project is an innovative, creative and authentic curriculum model in which learning experiences are meaningful, relevant and applicable. Positive behavioural change and deeper global understandings are also created for all students.

Through existing networks partnerships were developed to form Sister School relationships with Luurnpa School, a remote Indigenous community school in the Tanami desert in Western Australia, Yayasan Cipta Mandiri (YCM School) a school for disadvantaged children and youth in Bogor, West Java Indonesia, and Solmaid Community School, a free school representing the poorest children in Dhaka, Bangladesh. We have partnered with SDN#5 Tonya in Bali on a joint Bottle for Botol project which aims to reduce the amount of single use plastic, by providing students with a stainless steel bottle. With each bottle Bentleigh West Primary School sells, a bottle is donated to a student in Bali.

These Indigenous and Asian connections and the sustainability stream of our project reflecting the aims of the United Nations Decade of 'Water for Life' not only provided a vehicle for our project aims but also connected global community members to global citizenship and social justice. It allowed all schools involved to demonstrate the uniqueness of each community, their different cultures and lifestyles.

As two of our three sister schools are located in extremely poor communities, the Bentleigh West Primary School community also saw the need to embed elements of social responsibility and global civics and citizenship into the project. Our 2014 school Art Show featured Bogor student art pieces including stuffed animals and tote bags made from recycled materials and paintings by the students from Dhaka. All pieces were sold and both schools received over \$500.

Our innovative Inquiry model incorporated in this project enables students to connect emotionally with international and remote indigenous peers; research to gain valid information and then create actions to cause positive behavioural change for themselves, families, local, wider and global communities.

The impact of our Sister School relationships with our whole school community has been extremely positive. Our curricula has been enhanced and enriched and our students have gained hands on, real life authentic learning experiences resulting in them becoming stronger more committed global citizens. Our project has allowed all students to also develop and demonstrate skills in critical thinking, creativity, collaboration and innovation. The project has provided opportunities for students to demonstrate outstanding communication and leadership skills. Whilst highlighting differences, students gained understandings of the importance of physical and cultural diversity, as well as the recognising the same fundamental wants and needs.

Participation in our Global Water Cooperation project assists students from Australia, Indonesia and Bangladesh to acquire knowledge, skills and values necessary to become active global citizens. The project integrates global perspectives into the curriculum and promotes active learning about complex global and environmental issues.

BANKSIA EDUCATION FOR SUSTAINABILITY AWARD



GLEN HUNTLY PRIMARY SCHOOL

KAMILA KRAUZE, VIC



Glen Huntly Primary School (GHPS) is a Victorian State school with a large multicultural community, where many of its students live in apartments without access to gardens.

Kamila has voluntarily worked as the schools Sustainability Coordinator for 7 years, outside of her Generalist classroom teaching position, to help students experience the benefits and beauty of nature.

In her role, accomplished after hours, she has continued to: write grant applications, enter competitions, organise learning programs, chair environment committees, coordinate sustainability events, update the School Environment Management Plan, evidence ResourceSmart modules and teach sustainability to senior school students.

She has also researched and advocated the school's indigenous land history, investigated students' connections to nature and the outdoors, featured in and published articles and raised thousands of dollars for endangered animal charities and the school program.

Each sustainability project has given her the opportunity to meet and work with a diverse range of dedicated professionals.

INDIGENOUS LAND HISTORY

Having a thorough understanding of the school's history from 1914-2009 from the book "The Story So Far", it became apparent that little was known about GHPS's land history, pre-European settlement. Compelled to research this topic, Kamila spent months compiling information from books, articles and interviews, piecing together a fascinating puzzle, that led her to uncover the story of the Boon Wurrung People, Leman's Swamp and diverse indigenous flora and fauna.

This information has raised public awareness, respect and consciousness for the Traditional Owners of the Land, resulted in the incorporation of the research into the school's curriculum and incited behaviour change in other institutions to learn about their land history.

It also resulted in the voluntary creation of a poster and movie by senior students at GHPS, which having attracted 4,000 online community votes, won the school \$3000 to fund the construction of an indigenous bird attracting garden to honour the Boon Wurrung people. The commemorative, reflective garden, completed in March 2015, is being used by the community and is increasing indigenous fauna. This project showed tangible evidence of theory put into practise in a short time frame.

GREEN EVENING EVENT

To further raise environmental awareness Kamila coordinated the schools first ever Green Evening Event. The event, with a time slot of one hour, consisted of numerous student and parent environmentally driven stalls. It celebrated and showcased sustainability projects from all students and highlighted the school's many environmental initiatives and promoted 'green' behaviours. First of its kind at GHPS and Victoria in its format, unique that it incorporated many curriculum areas, the event resulted in:

- Increased parent participation in environmental events
- Increased awareness of the Boon Wurrung people
- A strong sense of environmental purpose
- An unexpected friendship with a parent scientist from the CSIRO, which resulted in a Scientists in School Partnership
- An appreciation for the artistic talents of parents and students in the community with donated artwork auctioned to raise much needed money for endangered animal charities and our sustainability program and
- An annual spot in the yearly school event calendar.

The Green Evening Event highlighted the importance of looking within the student and parent community for talent, resources, knowledge, passions and to positively engage and involve them in environmental projects. "Tell me and I will forget. Show me and I may remember. Involve me and I will understand."

Recognition

Kamila has shared her sustainability experiences at network meetings and conferences at local, State, National and International forums. In 2013 she was invited to present to world leading environmental professionals at the International Greening Education Event, Germany and in 2015 asked to return to Germany to be a founding member of leadership initiative GREAT 21 (Global Reshaping of Education and Training for the 21st Century).

In 2014 Kamila completed a leadership 'Changemakers' course, focusing on increasing community participation in sustainability initiatives, from the Bastow Institute of Educational Leadership.

Grants

With financial challenges, she was proud of successfully winning eight environmental grants totalling \$17,500 for the school including the Lord Mayor's Community Grant in August 2015.

The Green Evening Events raised \$7500 in two hours. This money supported 12 Australian endangered animal charities, allowed the school to join the Stephanie Alexander Kitchen Garden Program to promote nutrition, funded an Eco-Centre consultant to aid with ResourceSmart accreditation, funded sensor taps in the toilets and recycling stations around the school.

Awards

In June 2015, Kamila was awarded the 2014 Excellence Award for Educators and Teachers Working in Schools and Early Childhood Centres by the VAAE.

BANKSIA EDUCATION FOR SUSTAINABILITY AWARD

GROWN AND GATHERED

EDUCATING FROM THE GROUND UP TOWARDS SUSTAINABLE FOOD
SYSTEMS AND A BRIGHT FUTURE, VIC



Grown and Gathered is a small business, started by two passionate people on a mission to make sustainability an achievable a part of everyone's life. Their finalist nomination was supported by numerous testimonials from chefs, the general public, colleagues, previous interns and well known media alike, who unanimously commented that Grown & Gathered "inspire everyone to live more consciously. Creating, growing and nurturing what we already have... as we move into the future", and "we walked away more inspired than we could have ever imagined... These guys have completely changed the way we look at the farm. I want to hug them daily."

Grown and Gathered provide an innovative and multifaceted education program. Founders and directors Matt and Lentil Purbrick have taken it upon themselves to educate and demonstrate to people from all walks of life what it really means to eat, farm and live sustainably. Their education programs have directly engaged approximately 88, 464 people since the project began in August 2013 and they will continue to reduce waste, promote sustainable and regenerative farming practices, connect community and inspire better food systems long into the future.

Matt and Lentil began by selling their produce to some of the top chefs of Melbourne's restaurants and cafes, encouraging them to adopt principles of local, real produce and sustainable farming and packaging. But they craved more. They wanted to extend the conversation. They decided to open their van doors to the people of Melbourne, selling their home-grown vegetables and flowers from the back of it. They soon sold out week after week and their education became something sought after. They are now educators, bloggers, and advocates for sustainability and a bright future!

On the Grown & Gathered farm in Tabilk, Victoria, Matt and Lentil grow over 500 different varieties of heirloom fruits, vegetables and flowers; raise animals; hunt; forage wild food; make natural preserves and ferments; rekindle near lost food traditions; and educate a huge following about it all - all without generating a single scrap of waste.

They deliver their produce to Melbourne and return with food waste from restaurants and customers to compost and return to the land - which they call closed-loop farming. Matt and Lentil teach concepts of near-lost, pre-industrial principles and waste-free living proven environmentally sound for thousands of years. Techniques they have researched extensively, trialled and tested over 3 farm sites and with numerous people.

They take a multifaceted approach to their education to maximize its impact across diverse social demographics and communities, currently providing education to businesses, farms, restaurants, individuals and public groups. They currently provide education in the means of:

- Internships on farm
- Workshops: Farming/growing, pickling, preserving and traditional food preparation and waste management.
- Speaking events and dinners
- Business consultations: mentoring re: sourcing sustainable food, decreasing waste, increase sustainable practices on farm.
- Private consultations: mentoring re: beginning a farm, production of food in small spaces, increasing sustainable practices on farm.
- Public blog and social media: They provide a constantly updated feed of information on their public blog and social media to promote and inspire re: sustainable practices.
- Trading and produce deliveries: They trade and sell produce (food or flowers) directly with restaurants and the public, to increase knowledge around the sustainability of local industry.
- Seasonal Chart: They released a seasonal vegetable chart, printed on waste cotton – to provide education re: sustainable food practices

Key initiatives and achievements:

- Currently Grown & Gathered divert over 30 tonnes of compostable waste from landfill annually and use it to produce over 30 tonnes of waste-free produce all transported in re-usable packaging.
- They have developed an irrigation system that allowed them to cut their water use on the farm by 80%.
- They have trained 14 new farmers to date – a band of enthusiastic, young individuals now enabled to begin production of their own waste-free produce.
- They do not generate waste during any on farm operations or in their home and all of their products are made from recycled waste and compostable.
- They are creating public behavioral change by allowing people to purchase local produce, support chemical free farming, grow their own, begin a farm, create less packaging, minimize waste, eat seasonally and cook from whole food ingredients, currently having reached over 11,253,604 individuals with their simple message of sustainable living.

Their passion and dedication to sustainability influences not only today's change making chefs and media but just as equally, everyday people, and their enthusiasm for what they do is infectious. Overall, Matt and Lentil believe that sustainability begins with the individual and they are doing all they can to empower as many individuals as possible, and they have big plans for the future.

BANKSIA EDUCATION FOR SUSTAINABILITY AWARD

MIRBOO NORTH SECONDARY COLLEGE

MIRBOO NORTH SECONDARY COLLEGE ENVIRO TEAM: SCHOOL TREE
PROJECT, VIC



Mirboo North Secondary College (MNSC) is a small school in the foothills of the Strzelecki Ranges in South Gippsland. Potato growing and dairy farming are major land uses in this region and many students are associated with these industries. MNSC is a member of the Mirboo North/Mardan Landcare Group and are active Landcarers. We, the staff and students at MNSC, operate a small-scale nursery on school grounds, which produces approximately 10,000 native trees per year. The students supply all the labour for the project. Over the last three years, we have provided around 30,000 trees to 25 local landholders, many of which were also planted by the students. MNSC currently have 15,000 trees tubed out, managing this feat in less than two days.

HISTORY

MNSC's Landcare Cadets have been operating at the school for more than ten years (five years on an extra-curricular basis). The project started with an offer to plant trees for local landholders, then five years ago the school introduced a "Community Breakout" program into the Year 9 curriculum, so suddenly MNSC was able to devote 6 periods per week to Landcare. Teaching students how to take a tree from seed to forest became the goal and MNSC purchased the first seeds, thus embarking on a journey to large-scale propagation

MARKETS

We had limited success early on, but we persevered producing and selling several thousand trees at cost price in the first two years at approximately 20 cents per tube. In 2013, we were approached by the Mirboo/Mardan Landcare Group to supply 10,000 trees at \$1 each to a koala habitat project. The money came from a bequest to the community and this was

the catalyst for the projects growth. More recently, we partnered with South Gippsland Water and four private landholders in the catchment. The landholders each received \$500 grants for waterway improvement; these funds are then passed onto us to provide 650 trees for their waterway.

Our next goal is to sell trees to the public for 75 cents per tube. This is at least 35 cents under wholesale price and still ensures the school a 50-cent per tube profit- hence creating a \$5000 profit per year for the 10,000 trees produced.

MODES OF PRODUCTION

- MASS TUBING OUT SESSIONS IN CLASS
- LANDCARE CADETS
- LUNCHTIME ENVIRO TEAM

BENEFITS

The benefits of this project are far more numerous and tangible than any project I have seen in 12 years in this field.

- 10,000 trees per year produced and planted in the local community.
- Community members' involvement at the school through people coming to assist.
- Students mixing with community members and farmers when planting.
- The development of students' physical work ethic, we concentrate so hard on academic outcomes in schools that this is often neglected.
- The development of propagation skills for every student in the school.
- Contributing their time to environmental projects enhances student self esteem- they feel useful
- Recycling of tubes and tube trays through landholders' donations. 9.
- Earning \$5000 minimum per year for student initiatives at the school.
- The community sees that schools and students can be active contributors to the community.
- Creating new markets for trees via selling as a school fundraiser.
- Students developing an environmental consciousness.

FUTURE DIRECTIONS

The mass tubing out session's output is the key to the success of this project. The students have honed their skills and efficiency over time and have set a tubing record of 2800 trees in 100 minutes (with 50 students involved)! Due to the success of the program at Mirboo North SC, Mr Riseley the lead teacher on this project is driven to get other schools involved. To earn over \$5,000 in less than a day is appealing to most schools. If just 200 schools took up the project and produced 10,000 trees per year, 2 million trees per year would be the result, an amazing environmental outcome. The challenge is how to procure funding to get each school started to which Mr Riseley has many ideas to this end.

"I urge all who read this to assist me to make this project happen nationally. To have the school children of Australia involved in such a large way in the revegetation of Australia and to develop such an environmental consciousness in the process is a fabulous goal. This project has been started from scratch, it has been tested, AND it works!"— Mr Riseley, Landcare Coordinator, Mirboo North Secondary College.



Every day, thousands of students and teachers across the state are delivering sustainability education outcomes and demonstrable environmental impact through ResourceSmart Schools.

ResourceSmart Schools is a comprehensive framework that helps schools embed sustainability into everything they do. By participating, Victorian schools learn how to manage their energy, waste, water and biodiversity. They are given access to tools and support so they can incorporate sustainability into the curriculum, manage and track their resource use over time through ResourceSmart Schools Online and celebrate their achievements through Sustainability Certification and the ResourceSmart Education Awards.

More than 50% of Victorian schools and 400,000 students have participated in ResourceSmart Schools, delivering impressive environmental savings (as at 30 September 2015):

- Waste: Diverted 15,000m³ of waste from landfill, saving \$6 million
- Electricity: Reduced consumption by 19,000 MWh and 34,000 Tonnes CO₂, saving \$6.7 million
- Water: Reduced consumption by 950 ML, saving \$2.2M
- Biodiversity: Planted 5.5 million plants

The ResourceSmart Schools that is delivered today has evolved from an Australian Government funded pilot that commenced in Victoria and New South Wales in 2003. The pilot led to the launch of the Australian Sustainable Schools Initiative (AuSSI) across

Australia in 2005 which, in Victoria, developed into ResourceSmart Schools.

In 2011, Sustainability Victoria established regional consortia to more effectively support schools right across the state. Our delivery partners are:

- CERES: Northern, Eastern and Southern Metropolitan
- Environment Education Victoria: Western Metropolitan
- Sense of Place: Barwon South West
- Gippsland Waste and Resource Recovery Group: Gippsland
- Goulburn Valley Water: Hume
- Loddon Mallee Waste and Resource Recovery Group: Loddon Mallee
- Grampians Central West Waste and Resource Recovery Group: Grampians

In addition to this regional support, any Victorian school can now sign up to ResourceSmart Schools Online, monitor their activities and resource use and be recognised for participating in other sustainability programs being delivered across the state.

One of the identified strengths of ResourceSmart Schools is it's logical structure that helps schools ensure that the activities they are doing all lead to a more sustainable outcome. However, the magic happens differently in each school as they take their own paths towards sustainability:

- **Barwon South West Primary School** developed a 'Let our ocean be plastic bag free' campaign to reduce plastics in the sea. They used puppetry to educate the community, negotiated with the school canteen to reduce packaging and established a bag share scheme with over 4,000 re-usable shopping bags made by the students distributed around town for shoppers to borrow.
- At **Solway Primary School**, parents started their schools' march towards sustainability in 2008. By 2014, Solway had reached 5 Star status, had transitioned from having one waste stream to having 10 waste streams, and the principal was promoting their 5 Star school status to prospective students and families. The parents have now set up their own enterprise – SoEco – to help other schools make the same transformation.
- Students from **Warracknabeal Secondary College** studied the data from their solar array, identified an inconsistency and found the array wasn't working. By applying mathematics, the students determined the savings potential if the array was operational and raised money to get it working again.
- **Armadale Primary School** had been involved in ResourceSmart Schools since 2012, though had struggled to embed sustainability. Through the 2011-15 initiative, they focused their efforts on waste and were so successful that at an all school assembly in 2014, students waved goodbye to their bins.
- At **Warrnambool Special Development School**, the Environmental Action Team – the WWEB (waste, water, energy and biodiversity) – entered a 'Caring for our Watersheds' competition with a project to stop organic waste going to landfill to reduce the leachate causing damage to waterways.

In 2014, Sustainability Victoria piloted the ResourceSmart Schools framework with nine Victorian early childhood services and found tremendous enthusiasm in the sector. The pilot helped the participating services shape their vision for the future and begin to realise it. While the framework was found to be useful, the pilot revealed the modifications that would need to be made to adapt it to our youngest learners and to the varied operating models in this sector.

ResourceSmart Schools attracts interest from around the world because it achieves measurable environmental improvements and provides young people and their school communities with the knowledge, skills and experiences they need to make sustainable choices for the rest of their lives. Through ResourceSmart Schools, students develop the practical sustainability and problem solving skills they will need to be the future workers, leaders and citizens of a world adapting to climate change.

**AUSTRALIA'S SUSTAINABILITY
SUCCESS STORIES**

BANKSIA FOOD FOR SUSTAINABLE THOUGHT AWARD

The Banksia Food for Sustainable Thought Award recognises demonstrated leadership, innovation and achievement in addressing matters of food security through sustainable food practices in the areas of distribution, storage, packaging, retailing, education, waste management and preparation.



Proudly sponsored by Closed Loop Environmental Solutions and KFC Australia

Closed Loop Environmental Solutions (Closed Loop) has been a long time sponsor of the Banksia Foundation, and this year they have partnered with KFC Australia (KFC) to co-sponsor the Banksia Food for Sustainable Thought Award.

Co-sponsoring the 'Food for Sustainable Thought' award is the perfect fit for the KFC Closed Loop partnership. This award focuses on demonstrating leadership of sustainable food practices and is the main focus of both companies' sustainability strategies.

CLOSED LOOP

Closed Loop is an Australian Company with more than 14 years' experience providing comprehensive environmental solutions across striving industries such as aviation, hospitality and health. We work with our clients to become global leaders in sustainability, adopting a forward thinking progressive approach to provide optimum financial, environmental and social outcomes.

Closed Loop entered a partnership with KFC in 2007 by providing packaging to KFC; this partnership has now grown to include the provision of recyclable packaging such as the KFC Krusher Cup which is made from 50% RPET, implementing the first national Front of House recycling program in the QSR industry and managing the waste and recycling for over 370 KFC restaurants.

Closed Loop is not only passionate about sustainability with our partners we also ensure we demonstrate this within our business, an example of this is Closed Loop's recent project 'The Farmer's Place' which is a perfect example of behaviour change in sustainable living. The Farmer's Place in Victoria is a working farm and cafe that sources local produce for its consumers, the unique space is made from recycled shipping containers, reclaimed timber and glass and all food waste is composted through a Closed Loop Organic Unit.

KFC AUSTRALIA

This award resonates strongly with KFC Australia's own journey to make sustainability a priority across its business operations and suppliers. KFC is dedicated to conducting positive environmental initiatives and has a leadership team that incorporates integrated CSR metrics into the business, recognising that positive social impact can bring benefits to the bottom line.

By working with over 45 suppliers, KFC believes it can dramatically shift the way the food industry approaches sustainability. KFC is proud to be the only QSR to ever be invited to sponsor an award and are thrilled to partner with an organisation that aims to recognise, reward, promote, educate and inspire Australians to protect and enhance our natural environment through sustainable practices.

To achieve significant impact, KFC recognises that it requires the collaboration, support and participation of not only external stakeholders such as suppliers, but also the cooperation of more than 60 franchisees across its network of more than 600 stores and around 30,000 employees.

The KFC and Closed Loop partnership seeks to continuously challenge the status quo and to further understand opportunities for developing and enhancing sustainable business practices within KFC stores. As partners both companies are focused on encouraging behavioural change across employees, franchisees, and the 2 million customers KFC serves every week.

We congratulate our finalists on their commitment to addressing food security through best practices in sustainability, an area that should be at the forefront in 2015. We also wish to recognise the Banksia Foundation for continuing to inspire excellence in sustainability throughout Australia.

BANKSIA FOOD FOR SUSTAINABLE THOUGHT AWARD

AUSTRALIAN DAIRY INDUSTRY COUNCIL

AUSTRALIAN DAIRY INDUSTRY SUSTAINABILITY FRAMEWORK:
MAKING DAIRY FOOD SUSTAINABLE FOR THE LONG TERM, VIC



The Australian dairy industry is worth \$13 billion to the Australian economy and directly employs 43,000 people. Dairy foods, with their rich source of nutrients, have contributed to the health of generations of Australians. In 2014, we produced 9.24 billion litres of milk. We each consumed 106 litres of milk and 13 kilograms of cheese.

A whole-of-chain approach

Increasingly, our customers and the community are demanding proof that we are doing the right thing by people, animals and our planet. Given the complexity of the value chain from raising and milking cows to producing products, we recognised that a cohesive approach was needed to demonstrate Australian dairy's commitment to sustainability, to align our efforts, and to continuously improve performance.

We have taken a whole-of-chain approach to sustainability through the creation and adoption of the Australian Dairy Industry Sustainability Framework - an initiative of the Australian Dairy Industry Council with key partners Australian Dairy Farmers Ltd, Australian Dairy Products Federation and Dairy Australia. It incorporates the extended dairy value chain from feed production to manufacturing, retail and packaging.

Endorsed by industry in 2012, the Framework centres on three themes – enhancing livelihoods, improving wellbeing, and reducing environmental impact. In 2013, 11 targets with 41 measures were set for 2020 focussed on profitability, community resilience, OH&S, skills, product safety, nutrition, animal care, and environmental impact.

Implementation began in 2014 and we report annually on progress in a cycle of “report, review, refine, revise” to allow for changing customer and community expectations, advances in technology and emerging issues.

The Framework underpins the industry's commitment to be responsible managers of natural resources in the production of dairy products. It also drives improved performance in sustainable food practices from the farm to the factory.

Benefits include:

- Continual improvement in whole of industry practices against an agreed roadmap for future improvement
- Strong evidence of a sustainable industry for customers so they can be confident that the dairy foods they are eating are sustainable
- Progress against targets tracked and transparently reported
- Improved ability to direct investment and effort to meet agreed targets
- Collective action on matters most effectively addressed as an industry

Consultation is key

Stakeholder dialogue within and outside the industry informed every stage of the Framework development to include multiple perspectives and expertise. Over the past three years a national consultation process based on International Association for Public Participation (IAP2) principles has involved farmers, manufacturers, interest groups, customers, retailers, suppliers and government.

Consultation is ongoing under a strong governance structure. A Steering Committee of farmer and manufacturer representatives, with support from Dairy Australia, oversees implementation under direction of the Australian Dairy Industry Council. Manufacturers participate via the Australian Dairy Products Federation and individual company representatives whose companies account for over 90% of Australian dairy food production.

A Dairy Sustainability Consultative Forum of experts has also been established to promote two-way discussion on the Framework and ensure it meets industry, community and customer needs. It convenes twice a year, providing a "reality check" for the industry, including feedback on emerging issues and trends.

Results and impact

Through the Framework, the spotlight has been turned onto sustainable dairy food production. Manufacturers large and small are adopting its targets as their own to show customers that their products are sustainable — economically, socially and environmentally.

In particular, dairy manufacturers are working to reduce water use by 20%, greenhouse gas intensity by 30% and waste to landfill by 40%. Manufacturers are also working closely with their farmer-suppliers to encourage sustainable practices on farms in line with targets.

Innovative techniques and technologies are showcased through the Framework, for example Devondale Murray Goulburn's two new milk processing plants which deliver significant environmental efficiencies.

Our customers are also taking notice. Based on the Framework, Unilever has given Australian dairy production accreditation as meeting its exacting Sustainable Agriculture Code. All Australian milk is now deemed to contribute to Unilever's sustainable sourcing goal.

BANKSIA FOOD FOR SUSTAINABLE THOUGHT AWARD



SAFFRRON

SAFFRRON, NT



Saffron is a Darwin restaurant putting sustainability on the table most prominently with an authentic yet innovative Indian signature cuisine that's all about utilising and promoting Territory produce, especially NT seafood.

Chef Sel's seasonal menus, and a calendar of delicious events, are about fresher, tastier, healthier eating that also delivers a real sense of place, and gets people excited about 'eating local', wherever they eat.

While "local" does not necessarily mean "sustainable", at Saffron we firmly believe that supporting local food systems is an essential part of investing in the future. Eating locally-sourced produce will generally have better outcomes for the product, the environment, local communities and the health and wellbeing of all involved. Supporting our local producers means helping keep our farmers on the land and our local fishing industry in business.

Saffron's sustainability story includes plant-based, biodegradable tableware and takeaway food packaging, right down to the straws. Doggie bags are as easy as putting on a lid, saving on plate waste. We use large tiffin tins for catering in place of disposable trays, and our waste cooking oil goes to Fryer Fuels for recycling into biofuel.

Each year since we opened in 2008 we've increased the amount of local produce on the menu as well as the diversity of produce, highlighting some lesser known ingredients and different varieties of produce. Working in partnership with local growers and like-minded organisations we've also increased the opportunities for sharing the Saffron ethos, bringing customers in to the Saffron kitchen and taking Saffron out to community events.

Our annual NT Seafood Festival, a 5-day special menu event in celebration and support of our local seafood industry and the Support NT Caught campaign, expresses our community engagement approach perfectly, and is really a culmination of everything we've done to date.

A sampling of our menu –

Humpty Doo Barra Varuval was a highlight of our seafood festival menu this year – fresh-caught Territory famous whole Humpty Doo barramundi, marinated in locally grown garlic, ginger and chilli.

Or something vegetarian, from our World Environment Day organic festival menu, Beetroot Poriyal, beetroot sautéed with onions, black mustard seeds, curry leaves and lentils.

The people's choice is still the butter chicken, but we're not your usual Indian restaurant. Enjoy your NT-inspired Indian feast with an organic Aussie wine, beer or chai tea – and leave room for a house-made dessert, such as our kulfi (Indian ice cream) made with local mangoes and pistachio nuts.

Saffron provides a local dining option as well as a very Territory visitor experience, for those who want to see their spend stay local, or know they are eating safe and sustainable produce, especially seafood.

We aim to raise consumer awareness, encouraging people to ask where their seafood is coming from, and to demand more accountability from food businesses, encouraging them to get with the program and reconsider their use of cheap imported seafood.

In 2015, our eighth year in business, we upheld 2 environmental accreditations, held our third NT Seafood Festival, opened sister business Saffron Express, doubled our full-time staff and maintained 100% NT-caught seafood on the menu.

In 2015 Saffron was also named Best Seafood Restaurant NT Seafood Industry Awards (at the time of writing a national finalist), finalist Best Environmental Practice AHA (NT) Awards for Excellence, and most recently Chef Sel was awarded NT Owner Manager of the Year at the Australian Institute of Management Awards (also a national finalist at time of writing).

We're a small restaurant with a big vision and some big local flavours, providing plenty of tasty, spicy, sustainable food for thought. We're thrilled to participate in the Banksia Sustainability Awards once again, this year with a category dedicated to sustainable eating. And we'd love to welcome you soon at Saffron.

AUSTRALIA'S SUSTAINABILITY
SUCCESS STORIES

BANKSIA INDIGENOUS LEADERSHIP FOR SUSTAINABILITY AWARD

The Banksia Sustainable Communities Award recognises a group or individual that has demonstrated strong local capacity building and implementation of locally relevant solutions, measurably enhancing the long-term social, economic and environmental status of the community.



BANKSIA INDIGENOUS LEADERSHIP FOR SUSTAINABILITY AWARD



LIRRWI YOLNGU TOURISM ABORIGINAL CORPORATION

LIRRWI YOLNGU TOURISM ABORIGINAL CORPORATION, NT



Lirrwi Tourism was formed in 2010 to develop a new economy and travel destination in Arnhem land through cultural tourism. Lirrwi has experienced rapid growth, and from a small start in 2010 running a few tours to two homelands, will in 2015 deliver 52 tours to corporate groups, schools and consumer tours in 10 homelands. In 2014 a 20 year Masterplan was launched. It has been acclaimed as a visionary new model for Indigenous economic development. Lirrwi's 20 year plan is to create 50 new businesses on homelands, and employment for up to 1,000 people.

At a conference in 2012 to launch the vision and concept an extensive workshop was held to provide Yolngu people with an opportunity to discuss and agree on the guiding principles for tourism development. The 27 guiding principles are highly valued and cover Caring for Country, Tourism Business, People, Culture and Respect. All these principles must be adhered to under Yolnu law [Rom] and are sacred. No major decisions are made without referring to the Guiding Principles.

Lirrwi is in reality creating a new economy in Arnhem Land. The target is 50 sustainable businesses by 2032 providing employment for up to 1,000 people. This creates direct employment on homelands, and since commencing operations, Lirrwi has engaged over 100 Yolngu people in some form of paid employment through tourism. A proportion of each tour is paid to the homeland. Lirrwi assists each homeland to establish their corporate structure and manage their governance as well as guiding them through the many steps involved in creating and sustaining a business. The aim is to develop over time, autonomous and sustainable family businesses on the homelands.

Inviting visitors to homelands is a perfect vehicle to ensure the Yolngu culture stays strong and alive, providing cultural integrity is protected, mass tourism is never allowed to develop,

and the Yolngu maintain control of their own destiny. It is also important for young people to become involved and learn about their culture to be able to pass it on to future generations. These values are instilled in the guiding principles developed by Yolngu people.

Protection of the environment is central to Yolngu philosophy practice. Environmental Impact Studies are being undertaken on homelands to prior to any infrastructure development [2016] to ensure minimum environmental impact from tourism. The first three studies will be completed by October 2015. The outcomes of the EIS will be to deliver tools and recommendation as a result of Yolngu working with Balanda [non-Indigenous people], combining traditional knowledge, wisdom, and experience with modern best practice and planning. This will ensure that all elements of caring for country are considered and integrated into a benchmark environmental management model that enhances the delivery of world class, low impact tourism by Yolngu Homelands.

The benefits of tourism as determined by the Yolngu people are

- Employment [particularly for young people]
- Ability to stay living on and connected to homelands
- Economic independence [free from welfare]
- Caring for country and culture
- Education [two way]
- Reconciliation

Lirrwi has a commitment to excellence with all tours and each participant is asked to provide formal feedback, which is then used to make improvements. The single word used most often in feedback is “life-changing”

The community benefits are already having a significant impact, with a demonstrable increase in pride, welcoming visitors and caring for country and homelands. There is a noticeable increase in young people in Arnhem Land wanting to work for and with Lirrwi

The organisation has achieved a very high local awareness level in a short time and one Yolngu Elder made a public comment to the effect that “Lirrwi is the most important organisation in Arnhem Land”

Lirrwi’s role in developing homeland businesses provides Yolngu with the means to determine their future as a result of being able to earn sustainable commercial revenue from their land and their intellectual property. This gives them a level of independence they have never seen before in terms of managing their traditional estates, infrastructure and access. It demonstrates that the right type of economic activity can strengthen connection to culture and country and promote wellbeing and a sense of community for Aboriginal people in a way that has never been achieved before.

BANKSIA INDIGENOUS LEADERSHIP FOR SUSTAINABILITY AWARD

TIWI LAND RANGERS IN PARTNERSHIP WITH CSIRO AND TIWI PLANTATIONS CORPORATION

TIWI FIRE ANT ERADICATION PROJECT, NT



The Tropical Fire Ant is one of the world's most highly invasive ants, is a major pest of agriculture and horticulture around the world, and therefore is a high priority invasive species in Australia. The ant gets its name from the burning sensation that results from its powerful sting, which can also result in anaphylactic shock in people allergic to wasps, ants or bees. Eradication of this ant from Australia is not feasible, but it is an option in remote locations, especially those of high environmental importance.

Over 12 years, the Tiwi fire ant eradication program has declared tropical fire ant eradicated from 3 locations covering 311 ha, with two of these eradications being the second and fourth largest ant eradications in the world. A fourth population of the ant covering approximately 600 ha is now also believed to have been eradicated, and is currently in a 2-year monitoring phase. Prior, the largest eradication of this species globally was only 3 ha. Although not properly assessed, another highly invasive ant, the African big-headed ant, is believed to have been eradicated from five locations throughout the Tiwi islands covering a combined area of approximately 30 ha. Given the well-known significant environmental and social impacts imposed by both ant species, these eradications clearly aid regional conservation. Ironically, we will never know the full extent of the environmental benefits of this program, because we have stopped the issues while they were in their infancy, or before they even started.

Achieving such significant results was not easy for this program. Initial work resulted only in high levels of ant suppression which almost resulted in project abandonment. Instead, to refine project protocols and achieve eradication, this project took an active adaptive approach (defined as where research is embedded into a management program) to increase knowledge of TFA, test new methodologies and improve understanding of invasions in

general. When the many facets of research were completed, and their implications were incorporated into the management protocols, eradications at the three sites were achieved in 0.4, 0.9 and 1.9 years respectively. Some of the ongoing aspects of this research is now part of a PhD based in Darwin.

Through the adaptive management the project researched the biology of the ant, identifying its reproductive phase when treatments were most critical, identified the periods of the year when colonies were most and least detectable, developed a predictive understanding of its foraging and nesting behaviour relative to season and daily weather, and most importantly determined the treatment regime that provided best efficacy for eradication.

Broader research collaborations also confirmed that Australia's population of tropical fire ant arrived only once around the turn of the 20th century⁸, and that the incursion on the Tiwi islands arrived from Darwin. This information is critical for eradication, because it confirms that if eradication is fully achieved, re-invasion is unlikely. The program has extensively disseminated lessons from its work to researchers and practitioners of invasive species eradications, and it is having a global influence. Most notably, new eradication programs against tropical fire ant on Ashmore reef and in the Galapagos are largely based on the Tiwi program.

This project is unique in that a non-government body took responsibility for such a significant eradication program. Likewise it is unusual in that the majority of resources have been provided in-kind. When the project commenced we were unaware of any precedents for such work globally, and very few exist now. At project commencement there were no environmental management plans that covered invasive ants. Instead this project and its staff have been instrumental in the development of such plans at the local, regional and national level. These are the National Tramp Ant Threat Abatement Plan, a management plan for pest ants on Indigenous lands, a management plan for pest ants on the Tiwi islands and Program 3 of the Northern Territory Integrated NRM plan.

This project would not have been possible without overwhelming public awareness and support in four communities and outstations. This acceptance is particularly demonstrated in the community of Pirlangimpi which allowed project staff to conduct inspections and treatments throughout all properties and backyards 55 times!

An unexpected outcome of this program was the discovery of no less than six new ant species

AUSTRALIA'S SUSTAINABILITY
SUCCESS STORIES

BANKSIA INNOVATOR OF THE YEAR AWARD

The Innovator of the Year Award recognises an individual (or team) that has best demonstrated innovation in taking an initiative from a concept, through collaborative research and the quick adoption of the findings, to making the concept a commercial reality.



Proudly sponsored by Mirvac

Mirvac create, own and manage a diverse portfolio of assets across office retail industrial and residential sectors. We are committed to sustainability leadership and innovation seeing the chance to align our commitment with the Banksia awards as a great partnership.

In 2014 Mirvac launched our plan for a sustainable future, This Changes Everything. This plan included several long term missions such as to be Net Positive by 2030, meaning we will generate more energy than we consume and a commitment to educate one million people by 2020. To enable Mirvac to deliver these commitments we needed to innovate. At the end of 2014 we also launched Hatch, our internal innovation program which included training over 45 Innovation champions. This year Mirvac been ranked number three in BRW's 50 Most Innovative Companies list for 2015 and awarded the Best Innovation Program.

In the last year Mirvac launched its first film competition Nudge by Mirvac aimed at educating people on sustainability, we delivered the first 6 star NABERS existing building, three 6star Green star projects including 200 George Street which received the most innovations ever awarded.

Our commitment to both innovation and sustainability mean we are proud to support the Banksia Innovator of the year award.

BANKSIA INNOVATOR OF THE YEAR AWARD

CARNEGIE WAVE ENERGY LIMITED THE PERTH WAVE ENERGY PROJECT, WA



Carnegie Wave Energy is a Fremantle-based, ASX listed wave energy developer focussed on developing its CETO wave energy technology. The CETO technology is capable of producing zero-emission power and directly desalinated freshwater using the energy generated from the ocean's waves. Carnegie have progressed the technology using advanced computational simulations, wave tank testing, 1/3 scale testing, onshore testing and, most recently commercial scale deployment.

Carnegie's proprietary innovation, CETO, is capable of producing zero-emission power and freshwater. CETO is a unique, fully submerged pump-based technology, whereby a submerged buoy moves with the ocean's waves, 1-2 metres below the ocean's surface. Sustainability was one of the main drivers behind the creation of the CETO technology as it works to address two global issues – emissions created by traditional forms of power generation and the availability of freshwater. The CETO technology aims to provide a sustainable alternative that has a benefit both to the environment and to society.

In 2015, the CETO technology became the world's only currently operating grid-connected wave energy array through Carnegie's flagship project, the Perth Wave Energy Project (Perth Project). The Perth Project has been under development since 2012 and required numerous negotiations with multiple parties in order for Carnegie to secure the funding for the project, an off taker for the power and water produced by the project as well as various site negotiations.

The Perth Project is located on Garden Island, Western Australia, approximately 40kms south of the Perth CBD. Garden Island is also home to HMAS Stirling, Australia's largest naval base.

Sustainability is at the core of the CETO Technology and the Perth Project. The CETO technology itself represents a sustainable solution for both power generation and desalination. The Perth Project is currently providing zero-emission power and directly desalinated freshwater to the Department of Defence.

Carnegie's CETO technology helps solve two worldwide problems – the environmental and financial costs of traditional forms of power generation and freshwater scarcity.

While many companies have tried to commercialise different approaches to wave power, Carnegie is currently the only one in the world that operates a grid connected facility that is capable of supplying clean power and freshwater to Australia's largest naval base, HMAS Stirling.

There has also been a social paradigm shift, which has increased the demand for a cost-competitive, sustainable solution to traditional power generation as well as a technology that is capable of producing zero-emission directly desalinated water. The CETO technology currently operating in the Perth Project, is the 5th generation of the technology, CETO 5.

The Perth Project is a key step in Carnegie's development pathway towards making wave energy cost-competitive with fossil fuel power. The Perth Project has demonstrated that CETO 5 is competitive with electricity from diesel, which is heavily relied upon by remote islands, one of Carnegie's identified target markets.

The Perth Project is significant to a variety of stakeholders including the HMAS Stirling Naval Base on Garden Island, where it is providing a source of zero-emission, sustainably produced power and water; it is significant to Carnegie's 9,000+ shareholder base which has grown significantly since the beginning of the Perth Project in 2012 – overall shareholder sentiment and investor confidence is on the increase, which is helping drive investment into renewables.

The local economy has also benefited from the delivery of the Perth Project, with much of the construction and operation activities being driven by local businesses. The Perth Project has also created jobs in the wave energy industry, with the Carnegie team growing from 20 to 46 over the life of the Project.

The Perth Project is unique in the wave energy industry as it is the only currently operating, grid-connected wave energy array. The Project is also Carnegie's first grid-connected demonstration of the CETO technology. The Project has been operating for over 14,000 cumulative hours, making it the longest continuous period of operation of any in-ocean wave power plant in the world.

BANKSIA INNOVATOR OF THE YEAR AWARD

CIM ENVIRONMENTAL GROUP

DATA ANALYTICS IN THE BUILT ENVIRONMENT, NSW



CIM is a disruptive Industrial Internet of Things (IIoT) technology company delivering tangible, world-class results. Their hardware and software platform is a pioneer in utilising big data that will revolutionise the engineering industry. CIM is delivering its clients energy cost savings of 10 - 15% on average and sometimes significantly higher.

Clients include property owners from the government, commercial, retail and hospitality sectors including the largest listed property groups. Along with energy cost savings, CIM's advanced software analytics deliver, improved tenant comfort, better environmental ratings, more effective maintenance and longer life-cycle of equipment.

Everyone has been in an office or meeting room that is either too hot or too cold. The current solution is to call the facility manager, who in turn calls the maintenance technician to investigate the complaint and to identify the fault. Meanwhile, the tenant is uncomfortable, equipment is running in fault mode, energy is being wasted and the environmental performance of the building decreases. This is happening all the time in virtually every commercial, retail, hotel and government building.

CIM Environmental Group (CIM) has developed a hardware and software solution called the ACE Platform, which solves this problem. It acquires machine level data and uses artificial intelligence software to identify mechanical faults by first analysing the data and subsequently diagnosing the cause of the faults. This unique approach radically improves building performance, reduces costs, creates new service models and optimises energy usage.

CIM's technology also significantly reduces the carbon footprint of its clients' buildings, with average usage savings of 10.6% and in some cases significantly more. CIM is saving its

clients an average of \$35,752 per building annually, excluding the benefits of longer equipment lifecycle, improved environmental performance and increased tenant comfort. Should CIM install their technology in 1000 buildings, which is just 31% of the addressable market in Australia, the savings would equal to 11% of all the photovoltaic (PV) electricity produced annually. This reduction, in terms of CO2 emissions, would equal negating 18 times the annual emissions produced by Sydney Opera House. CIM's technology saves electricity at the customers' end. This decreases the load on the electricity grid and therefore, if widely applied, leads to a significant deferral of the need for capital-intensive network upgrades.

CIM's clients include commercial, retail, hospitality and government property owners and the company has successfully formed a channel partner relationship with a leading Australian electricity utility. CIM is delivering profits and has entered into long term recurring revenue contracts. A managed-service business model has allowed CIM to develop a reputation for delivering results whilst allowing continuous communications between the development and operations team. This approach has meant that the ACE Platform is far ahead of CIM's competitor's software and the long term vision is to sell licenses of the ACE Platform.

Nationwide 3200 buildings are suitable for the implementation of the ACE Platform. This market is worth AUD 100 million per annum to CIM and over the next 36 months the company is on track to achieve a significant market share. Each of CIM's engineers can monitor 12 buildings concurrently, which can be carried out overseas in a lower labour cost environment.

The company's management team is experienced industry leading software and mechanical engineers, supported by a board which consists of finance and risk experts. CIM's technology is highly scalable and it is achieving internationally leading results. It can also be customised for other industry sectors including manufacturing and mining as well as oil and gas.

CIM is a recognised first mover in the data analytics and Industrial Internet of Things (IIoT) sector. Accenture estimates the IIoT industry could add USD 14.2 trillion to the global economy by 2030 with significant gains in mature economies in particular.

CIM believes that fault detection will become an integral part of IIoT applications. Software is impacting ever sector, CIM believes that the ACE Platform will revolutionise engineering comparable to how Skype within telecommunications and AirBnB within hospitality. By continuing to deliver results, grow profits and expand its operations overseas the company will own the term "fault detection" in a similar way to how Google owns the term "search".

CIM will use the Banksia Awards to increase its public profile and access growth capital funding from technology venture capitalists and/or strategic industry partners.

BANKSIA INNOVATOR OF THE YEAR AWARD

In pursuit of 100% sustainability, we decided to grow our own packaging



New Carbon Capture™ Pak

- ▶ Renewable sugarcane plastic
- ▶ 100% recyclable
- ▶ Reduces your carbon footprint

ecostore.com.au



ECOSTORE

THE AUSTRALIAN LAUNCH OF CARBON CAPTURE™ PAK, VIC



ecostore is the leading manufacturer of plant and mineral-based personal, home and Baby-care products that are safer for you, your family and the planet. We are also one of the first in Australasia to convert our entire proprietary bottle range to renewable, recyclable, sugarcane bio-plastic. We've named our new packaging Carbon Capture™ Pak for its ability to capture and store CO2 from the atmosphere.

Our requirements for a better plastic technology included meeting our standards for social and environmental responsibility, as well as performance, safety and functionality. Carbon Capture™ Pak is:

- 100% recyclable
 - helps to reduce our footprint. Every kg of this plastic captures and stores ~2kg of CO2 from the atmosphere*
 - 92% of each bottle is made from renewable sugarcane content.
- * Life Cycle Assessment Study conducted by our sugarcane HDPE supplier in 2013 (Cradle to Gate)

The successful launch of Carbon Capture™ Pak in March 2015 saw sales of ecostore increase eight times retail base sales. This was driven by an integrated marketing and communications campaign championing the bold statement: 'In pursuit of 100% sustainability we decided to grow our own packaging'. Tactically the campaign was supported by a national PR strategy, retail activations and key stakeholder engagement.

Over the next 5 years, FY16 to FY20, ecostore's Carbon Capture™ Pak is forecast to capture just over 4,000 tonnes of CO2 from the atmosphere.

As a brand that prides itself on its transparency and sustainability, the use of plastic derived from non-renewable fossil fuels had been an ongoing concern. Packaging represented a significant carbon footprint for ecostore and reducing it in a sustainable, ethical method had been a long term objective.

Carbon Capture™ Pak, a High Density Polyethylene (HDPE) plastic made using sugarcane bioplastic technology. This technology has completely transformed ecostore's resource use when it comes to packaging materials.

Saving 4,000 tonnes of CO2.

In the five years from FY2016 to FY2020, ecostore will produce an estimated 37 million bottles, manufactured using a projected 1.9 million tonnes of sugarcane high density polyethylene. During this period, the use of sugarcane bioplastic bottles will enable ecostore to capture and store just over 4,000 tonnes of CO. from the atmosphere. Moving ecostore's packaging materials away from conventional fossil fuel sources will increase annual production costs by an estimated \$250,000. However we have chosen to absorb these costs, CEO Malcolm Rands believes this demonstrates our commitment to operating as sustainably as possible.

Innovative, sustainable production

Plant derived polyethylene retains the same properties, performance and applications as fossil fuel based polyethylene. Our Brazilian based suppliers are world leaders in bioplastic innovation and production. An additional benefit of sugarcane-based polymers is that the by-products generated during the manufacturing can be re-used both in and after the process, minimising waste and greenhouse gases dramatically.

- Bagasse, a co-product of sugar and ethanol production, is rich in cellulose and is used to generate energy. A large proportion of Brazilian sugarcane mills that produce sugarcane bioplastic are self-sufficient due to the use of bagasse as a raw material for the production of energy.
- Water, sugarcane cultivation in Brazil is virtually never irrigated. Water requirements are supplied naturally by rainfall in the regions where sugarcane is grown.
- Vinasse, Many mills have introduced a system of fertigation where the vinasse, a co-product of production rich in nutrients and water is returned to the sugarcane fields. The process reduces improves the quality of soil and reduces greenhouse gas emissions.

Sharing Carbon Capture™Pak technology

The capability to share the positive impact sugarcane bioplastic technology delivers to business and the environment is a central tenement to our brand value of generosity.

Our vision is to support other manufacturers, to switch to plant based bioplastics and reduce their environmental footprint responsibly and improve their business sustainability.

Annual report card

Annually ecostore will report to our customers via a dedicated PR campaign, the CO2 that has been saved annually and the forecast savings over the next 12 months. This will be done in a bid to remind customers and stakeholders of ecostore's innovative packaging evolution and environmental responsibility.

BANKSIA INNOVATOR OF THE YEAR AWARD

FERRERO AUSTRALIA PTY LTD IN PARTNERSHIP WITH BIOGILL
A PASSION FOR RESEARCH AND INNOVATION, NSW



About Ferrero

Ferrero is a global confectionery company privately owned by the Ferrero family. Its Australian operations began in 1976 through the establishment of a manufacturing plant in Lithgow, NSW producing our market leading brands TIC TAC and NUTELLA.

For Ferrero, sustainability is an integral part of our business strategy. This is communicated via Ferrero's annual Corporate Social Responsibility Report which conveys our vision, goals and achievements. In Australia, we engage with our stakeholders to promote and advocate Ferrero's sustainability commitments across the value chain and to implement local actions which are aligned to our global commitments. Ferrero was the first company in the Australian Food Industry to achieve Gold recognition under the NSW Sustainability Advantage Program.

About BioGill – Water. Science. Nature.

BioGill technology brings together the power of science and nature, to help clean the water in our world.

BioGill are a biotechnology company producing above ground bioreactors and biofilters that deliver highly effective, low cost and energy efficient water treatment systems. BioGill's goal is to deliver water treatment solutions that are good for the environment and good for the bottom line.

The Challenge

Biological Oxygen Demand is a measure of the amount of oxygen required by a biological process to consume the amount of organic matter in a waterway. If all of the oxygen is consumed, natural plant and animal life dies off. Algal blooms / blue green algae outbreaks are symptomatic of this on a large scale. For any food processing company, the BOD represents a costly challenge in managing its liquid trade waste. Any organic matter (be it a spill or washing or cleaning activities) will increase the BOD.

Ferrero Australia acted to reduce the BOD in its liquid trade waste through a series of Effluent Improvement Programs such as identifying and tracing source material with ensuing reduction plans, re-plumbing and installation of a buffer tank. While successful they did not reach the goal we sought to ensure regulatory compliance and to minimise our environmental impact. During the course of these programs we learned of an innovative new Australian technology the BioGill being used in primary industry.

The BioGill System

The BioGill provides microbes the ideal oxygen rich environment in which to rapidly grow and multiply. The new Australian designed technology is comprised of a series of nano-ceramic membranes suspended vertically and surrounded by air to create a series of gills. Wastewater passes over the gills, enabling microbes to eat the nutrients out of the water and breathe the air to grow and multiply. Hence the system is a stomach and lung operation.

A batch process is used where the wastewater is transferred into a treatment tank. The treatment tank water is pumped to the top of the gills, dispersed across the membranes, and gravity moves the water over the gills back to the treatment tank. The wastewater is recirculated and processing continues until the wastewater is within discharge limits. At completion of the batch process the treated water is discharged back into the sewer system.

Implementation and results

A five month trial of the BioGill technology treated a small amount of liquid trade waste. It was run in conjunction with a student research project as part of a Master of Science Degree at University of Western Sydney. The trial indicated the BioGill could be commercially viable.

The Ferrero Group invested in this technology and scaled it to meet Ferrero Australia's requirements. The results show that the BioGill has been able to reduce the liquid trade waste of the Lithgow plant to meet the company's goals. The technology has been accepted for use by the regulatory authorities. The NSW Office of Water granted concurrence for Lithgow City Council to issue approval for the discharge of liquid trade waste from Ferrero Australia's manufacturing facility to Lithgow Council's sewerage system as the performance of the treatment system was deemed satisfactory.

One significant learning was that as ambient temperature dropped, biological activity slowed. A solar heating system with an electrical boost, using evacuated tubes was subsequently developed and installed by Ferrero Australia. This maintains the recirculating temperature at 30-35°C which is ideal for the desired biological activity.

Moving forward

Ferrero is the first organisation in Australian food production to apply this technology.

Progress has been tabled through the NSW Sustainability Advantage program to fellow member organisations and other interested parties. The project has been presented to Ferrero Australia's external stakeholders at a symposium hosted by Sustainable Business Australia. Ferrero has briefed organisations who are investigating uptake of the technology and is promoting the technology within its global network.

BANKSIA INNOVATOR OF THE YEAR AWARD

**PLANET ARK ENVIRONMENTAL FOUNDATION IN PARTNERSHIP WITH
GREENCHIP PTY. LTD.**

PACKAGING RECYCLABILITY EVALUATION PORTAL (PREP), NSW



The Packaging Recyclability Evaluation Portal (PREP) is a world-first assessment tool that uses an innovative, straightforward approach to help packaging designers determine whether their product can be deemed 'recyclable' in Australian kerbside bins.

The objective of the PREP is to help reduce contamination in the recycling stream and recover more recyclable material that has previously been sent to landfill. The PREP has also paved the way for Australia's first credible, standardised recycling label, the Australian Recycling Label, which was launched by Planet Ark in August 2015.

At the heart of the PREP's innovation is software that yields a more accurate packaging recyclability assessment than any assessment tool previously offered in Australia. It does this by assessing the characteristics of a pack rather than just the materials used, so takes into account the design considerations (i.e. size, shape, materials, glues and inks used) allowing designers to test different packaging configurations to increase the likelihood that they will be recycled.

Australia's packaging challenge

Despite the fact that 94% of Australians had access to kerbside recycling services in 2014, 1.23 million tonnes of packaging – more than a third of all packaging used -- went to landfill. Over the last three years, recycling rates for packaging have plateaued, signalling a need for a renewed focus on packaging design and innovation.

The Packaging Recyclability Evaluation Portal (PREP) was developed to meet that need, using an innovative online assessment process to help packaging designers determine whether or not their product can be deemed 'recyclable' in Australian kerbside bins.

Consumers demanding better recycling information

It has long been widely acknowledged that a standard, accurate and easy to understand recycling labeling system is required in Australia. Research by Planet Ark in 2014 showed that more than half of Australians are confused about the recyclability of at least one common packaging item.

Prior to the development of the PREP tool by Planet Ark and GreenChip, brand owners would consult with one or two recycling companies for guidance on the recyclability of a new item of packaging.

Now, the PREP gives packaging designers all over the country the ability to conduct an online assessment of their current packaging design, to verify any on-pack recycling claims.

Broad stakeholder engagement

Developed by Planet Ark and GreenChip with funding support from the Australian Packaging Covenant (APC), the PREP is the result of three years of extensive consultation with FMCG brand owners, local councils, resource recovery businesses and stakeholders throughout the broader Australian packaging supply chain.

A world first, multi-aspect process

The PREP assessment takes into account two main aspects of a package: its acceptance by local councils at kerbside collection services; and its ability to be converted into valuable raw materials.

To assess the first aspect, the PREP draws upon council collection data held within Planet Ark's national recycling directory, RecyclingNearYou.com.au. This data is the result of Planet Ark's long-running and close relationship with Australia's 560+ local government organisations, with RecyclingNearYou helping more than 2 million people find localised recycling information on a range of materials every year.

To assess the technical recyclability of an item, the PREP simulates how packaging will respond to processing at a Materials Recovery Facility (MRF) and then at downstream reprocessing facilities. This work has been driven by GreenChip and has involved extensive consultation with over 20 resource recovery businesses to validate the technical assessment framework. An additional 20 brand owners trialed the framework before its release in December 2014.

Early success for the PREP

Already, the PREP has been used by nine major FMCG companies to assess the recyclability of around 400 packaging products. Two major Australian brands, Officeworks and Blackmores, have taken the ultimate step and are using their PREP results to make claims using the Australian Recycling Label (ARL), which was launched in August 2015.

The PREP will drive innovation throughout the packaging value chain, by streamlining the packaging design process and educating packaging technologists how to design for recyclability.

The PREP will continue to be developed and streamlined to encourage its use by a wider number of companies both locally and overseas.

Currently, the PREP is the only approved methodology for underpinning claims by brands that adopt the Australian Recycling Label. This accountability reinforces the fundamental role that the PREP plays in reducing consumer confusion and delivering improved recycling outcomes.



SKY NEWS

"SMART MONEY WITH JON DEE", NSW



'Smart Money' is the first mainstream business sustainability program on Australian television. The program represents the first time that the issue of business sustainability has been front and centre as the key theme of a weekly nationally broadcast TV program.

Using real world case studies, interviews and panel discussions, the 'Smart Money' program shows business viewers that being smarter and more innovative with our use of energy and resources saves money and is good for business.

In that regard, although the program is about business sustainability, it doesn't stop the program from being unashamedly pro-business and pro-bottom line.

'Smart Money' is broadcast live in prime time every Wednesday at 6.30pm on the Sky News Money Channel and is repeated 7 times throughout the week on Sky News Business Channel and Sky News Money Channel.

Available nationally on Foxtel and via mobile through Foxtel Go, Sky News Business and Sky News Money reach close to 268,000 different people on average each week.

The 'Smart Money' program utilises the state-of-the-art studios and technology at the Sky News newsroom in Macquarie Park. Hosted and written by respected social entrepreneur Jon Dee, the 'Smart Money' program has a live half hour time slot.

The sustainability elements of the program are broken down into:

News Headlines:

This is a brief look at the top three sustainability-related news stories of the week. In the

week that we entered the Banksia Awards, the news headlines that we covered included:

- the Las Vegas launch of the new Prius hybrid car;
- planning approval being granted for a \$400 million solar farm in Tieri Queensland;
- how renewable energy met 80% of German electricity demand on August 23rd 2015.

Corporate Case Studies:

Every program features a 7-8 minute corporate case study video that is filmed on location by Jon Dee. It features an in-depth sustainability analysis of the companies who are saving money by:

- being smarter, efficient and more sustainable in how they run their operations
- creating new products or services that improve efficiency and sustainability outcomes for businesses and consumers
- helping businesses to improve their engagement with the local and wider community
- assisting businesses to reduce their environmental impact

Companies whose sustainability initiatives have been filmed by Jon Dee for 'Smart Money' include Coles Supermarkets, News Corp, IKEA, Marks & Spencer, River Cottage, McDonald's, Go Get, Qantas, LJ Hooker, Tesla, Salvos Stores, KFC, Clayton Utz, Toni and Guy Hairdressers and the Sydney Opera House.

Panel Discussions

Every week, 'Smart Money' has a panel discussion where Jon interviews experts on the sustainability solutions that businesses can implement in to their own operations.

It's an eight minute segment and each discussion features two experts (these are usually both in the main studio, but sometimes are brought in live from other Sky News studios around Australia).

Most of the panel topics to date have been about sustainability initiatives that save money. These include discussions about LED lighting, solar PV panels, energy efficient equipment, energy tariffs, saving fuel, going paperless, waste minimisation, recycling, HVAC, hot water, energy efficiency, eWaste and solar storage batteries.

The Weekly London Interview

Every week 'Smart Money' crosses live to the London Stock Exchange studios, so that Jon can interview a UK expert about how British and European companies are saving money, helping the environment and improving their community connections through sustainability initiatives.

'Smart Money' and Innovation

Many of the sustainability issues covered by 'Smart Money' have never been given an airing on a prime time program shown to a mainstream business audience.

Not only that but in doing so, we showcase real world solutions that have been proven in existing corporate environments.

By getting companies to share and talk about their sustainability successes, tips and learnings, we make it easier for other companies to follow their example. This has never been done before on Australian TV.

There is no other nationally broadcast weekly TV program in Australia or elsewhere that focuses exclusively on sustainability for business in the way that 'Smart Money' does. This is what makes the program so innovative. It is the first of its kind.

We also cover breakthroughs in sustainability innovation such as natural refrigerants, solar batteries, electric cars, digital business software, renewable energy innovation and new inventions.

In terms of its potential to provoke positive corporate change, the significance of the 'Smart Money' program cannot be underestimated.

BANKSIA INNOVATOR OF THE YEAR AWARD

UNSW SOLAR RACING TEAM SUNSWIFT

UNSW SOLAR RACING TEAM SUNSWIFT, NSW



We are UNSW Solar Racing Team, Sunswift. Unpaid volunteers who juggle university studies and employment; and in our spare Time we innovate, design and build the world's most advanced solar-electric vehicles.

With an average age of 21 we are engineers, designers and scientists, who range from engineering disciplines including mechanical, electrical, photovoltaic, aerospace, renewable energy. In addition, we have a number of members from computer science, industrial design, mathematics and commerce disciplines.

Our efforts represent a new direction in practical, zero-emission, renewable-powered transport that aims to revolutionise the automotive industry. Unlike the current petroleum based vehicles, *eVe* has the ability to recharge its power-supplies through generating power from sunlight.

From humble beginnings in 1996, we have developed a reputation for pioneering numerous cutting edge solar vehicles. In our time we have produced five distinct renditions of the solar vehicle. Notably in 2011, we received international recognition when our fourth car, *IVy*, broke the Guinness World Record for the fastest solar powered vehicle.

In 2013, we redefined the solar car - producing a more practical, 2-seater solar sports car known as *eVe*. Capable of producing speeds of 140km/h and travelling distances of over 800km, *eVe* represented a shift from conceptual, purpose-built solar racing vehicles to a more practical, consumer-friendly alternative. During *eVe*'s debut at the 2013 Bridgestone World Solar challenge, we received international acclaim for our sleek, ultra-efficient solar sports car design. Placing 1st over the finish line and 3rd overall, we received media reports from BBC, ABC News, Reuters and many other institutions.

2013 proved to be a pivotal point in Sunswift's history and yet this was only the beginning.

In 2014, we met this by breaking the Fédération Internationale de l'Automobile World Record for the fastest electric vehicle over 500 km in a single charge. With an average speed of 107km/h, eVe smashed the previous record of 73km/h, which stood for 26 years. The record aimed to dissolve the public's general fear of 'range anxiety' or fear of running out of charge with an electric vehicle. As a result, we received a viral influx of media interest from top tier institutions from around the globe.

In 2015, we set out to redesign eVe to become the Southern Hemisphere's first road-legal sports solar vehicle. This has been no easy feat, with eVe having to adhere to the Australia Design Rules, which are among the most rigorous safety and performance standards in the world. Our aim is to push the boundaries again, and take another leap forward towards the eventual commercialization of solar vehicles.

Without sunlight, eVe is able to travel for 500km, with the additional 300km coming from the power of the solar array. At velocities of less than 60km/h, eVe can travel purely on solar power—without the need of the battery pack.

eVe's ability to achieve such an impressive performance with such a low power input is due to 3 key design areas:

- Aerodynamic shape
- Ultra lightweight design
- High efficiency motors and electrical systems

The aerodynamic shape reduces drag dramatically at high speeds. With a carbon fibre chassis, eVe is incredibly lightweight and in conjunction with high efficiency electrical components, our vehicle is able to travel at such high speeds with low power input compared to other consumer electric vehicles.

Our efforts are not merely centered on the media, but also reaching the community and industry. The complex, technical nature of building solar vehicles has sparked a number of strong industrial relationships with a number of leading engineering companies.

We feel we have a duty to inspire and educate others about sustainability, renewable energy technology and the life lessons learnt through building such an ambitious vehicle. To achieve this, we have held public events, presented at tradeshow and exhibitions—total of 29 in 2014-15 to directly engage eVe with the public. In the same period we visited over 14 schools to inspire the next generation of engineers to develop new technology that can change the world. The overwhelming positivity we have received from the public has proved to be huge motivation to our team.

Overall, the core of what we do centres around three primary long-term aims:

- Advance solar-electric vehicle technology—to the point where they can be commercialized
- Inspire the public by demonstrating the potential of renewable energy
- Develop technical skills within our current and future members far beyond their academic studies

And as we persevere with our achievements we continue to build momentum towards spurring further innovation in communities and industry around the world.

AUSTRALIA'S SUSTAINABILITY
SUCCESS STORIES

BANKSIA LARGE BUSINESS SUSTAINABILITY LEADERSHIP AWARD

The Banksia Large Business Sustainability Leadership Award recognises fully integrated sustainable principles and practices into operational business activities, reducing the organisation's footprint and adding value to society. Entrants must employ over 200 full time staff.



Proudly sponsored by NSW Office of Environment and Heritage

The NSW Office of Environment and Heritage (OEH) is proud to sponsor the Large Business Sustainability Leadership Award, recognising leading sustainable business practices and operations which reduce organisation's environmental footprint.

OEH supports businesses and the community in protecting, strengthening and making the most of a healthy environment and economy in NSW.

We support a movement for change. A key part of our mission is to engage and empower people to take positive sustainable actions. Communities, businesses, householders and staff in Government agencies are all taking positive actions to make a difference to their lives and our environment.

Business sustainability is more than just reducing your impact on the environment. It can help businesses become more resilient, productive, save on costs and provide a distinct competitive advantage.

To support businesses on their sustainability journey, OEH provides tailored programs, management tools and training services to help businesses reduce energy consumption, overheads and costs.

Sustainability Advantage is recognised as an incubator program for innovation and continuous improvement. It is open to medium-sized and large businesses, not-for-profit organisations and government agencies. Over 550 organisations have saved a combined \$85 million each year through sustainability initiatives.

While results depend on a company's own efforts, the program provides expertise, training and business tools such as:

- practical workshops and a comprehensive range of guides, case studies and templates;
- one-on-one specialist support;
- an extended network of likeminded organisations.

Across the built environment, OEH helps property owners, managers and tenants across Australia improve their sustainability performance. It does this through NABERS.

NABERS is a national program administered by OEH. It provides the Australian property industry with a credible standard to confidently communicate results, and to judge environmental initiatives via a six-star rating scale, for energy efficiency, water efficiency, waste management and indoor environment quality.

OEH also supports partnerships with the energy efficiency industry that stimulate private investment and growth by boosting business innovation, improving skills and creating new jobs.

The NSW Government is also taking action on renewable energy. It has invested \$64.9 million to support the development of the 102 megawatt Nyngan solar plant and the 53 megawatt plant at Broken Hill.

BANKSIA LARGE BUSINESS SUSTAINABILITY LEADERSHIP AWARD

AUSTRALIA POST

EMBEDDING ENVIRONMENTAL SUSTAINABILITY ACROSS THE
BUSINESS, VIC



Helping our people, customers and community build a better environment

At Australia Post we recognise that we have a unique opportunity as a highly valued and trusted service in Australian people's lives, with one of the most significant number of touch points across the country - to not only reduce our impact, but to help our people, customers and community build a better environment.

We strive to influence our operational decisions and initiatives, contributing better efficiencies and productivity outcomes, delivering real value for the community and the environment through products and services that help solve environmental challenges.

With 11.4 million delivery points across the country, we deliver almost everywhere:

- We help over 1 million Australians across our retail network
- 4,406 Post Offices
- 15,591 street post boxes
- 200+ parcel locker locations
- 35,000+ workforce located in 3,832 communities across Australia

We are never far away – making it easier for our customers and the community to engage in environmental practices such as recycling of difficult materials including printer cartridges, cigarette butts and mobile phones.

We are embedding environmental sustainability across our organisation.

Driving environmental sustainability across Australia Post

Our approach to environmental sustainability has not always been this way. Over the past decade we have seen a clear shift in the approach and objectives of the program. Like many organisations we started with a compliance focus, ensuring we maintained responsibility in the eyes of our customer and stakeholders.

The focus then shifted to one of operational efficiency, driving environmental and cost benefits. However, now the focus and rationale of our approach is clearly around driving value for our business, the environment, our customers and the community through the implementation of environmental initiatives.

Our activities are guided by clear and decisive environmental and corporate responsibility policies and integrated across our activities with environmental considerations incorporated within business units including Strategy, Property, Procurement, Finance, Risk, Talent and Capability, Product Development and Business Efficiency processes.

This systemisation of environmental sustainability is supported by our environmental engagement programs that drive ongoing awareness, opportunities to participate and recognition for our workforce of over 35,000 people.

In 2010 we set our sights on achieving a 25 per cent reduction of carbon emissions by 2020. And in 2013, following the endorsement of our Environmental Sustainability Framework by our Executive Leadership Team, we set out on a path to position Australia Post at the heart of sustainable business in Australia.

The move to an integrated framework facilitated the organisational-wide transition from a strong foundation of carbon reduction management and compliance, to a more business, customer and community focused approach to sustainability and our carbon emission reduction target.

A critical element in successfully implementing in this approach involved each Australia Post business unit identifying and being accountable for environmental activities within their areas, ensuring environmental programs are now part of business-as-usual and drive ongoing business value through operational cost and risk reduction, customer value and revenue and environmental performance improvements.

BANKSIA LARGE BUSINESS SUSTAINABILITY LEADERSHIP AWARD



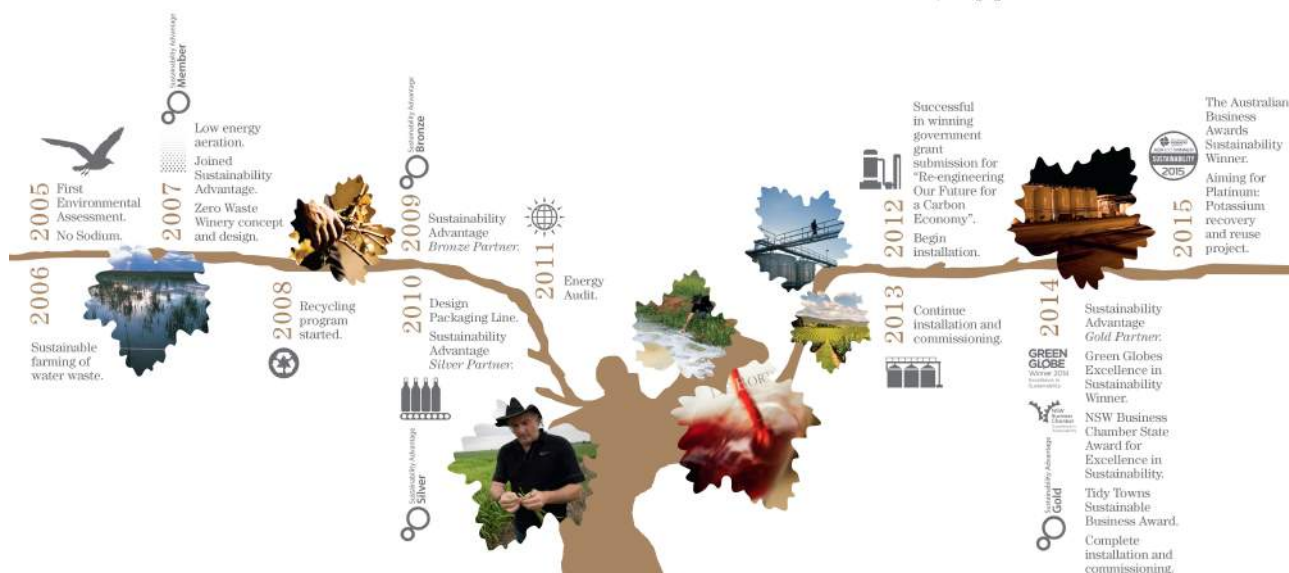
**WORKING FOR
A SUSTAINABLE
FUTURE**
A DECADE OF DEDICATION

We are committed to improving environmental responsibility to safeguard a future where great wine and a healthy environment can be enjoyed by everyone.



"For a family owned company looking to create a sustainable business for future generations, reducing our carbon footprint has become an integral part of the De Bortoli vision and philosophy."

DARREN DE BORTOLI, Managing Director



DE BORTOLI WINES

THE JOURNEY TO BECOMING "THE ZERO WASTE WINERY", NSW



Established in 1928, De Bortoli Wines (DBW) is one of Australia's oldest family owned wine groups, the second largest family owned winery and the sixth largest by sales of branded wines. Head quartered in Bilbul in the NSW Riverina and with wineries also in the Hunter Valley and Victoria's Yarra Valley, the company employs approximately 400 people worldwide. DBW is today under the custodianship of the third generation, with fourth generation De Bortolis also working for the business, continuing, and building on, its focus and culture of producing quality, premium wines in a sustainable environment.

The DBW philosophy is that great wine begins in the vineyard. They believe sustainable vineyard practices not only deliver exceptional fruit quality to the winery but also real environmental benefits.

As Managing Director Darren De Bortoli says, "We are committed to improving environmental responsibility to safeguard a future where great wine and a healthy environment can be enjoyed by everyone."

The De Bortoli team embarked on a journey in 2005 which create the spark to aim to become "The Zero Waste Winery".

The Journey has seen some notable achievements as well as recognition of the companies achievements.

Achievements have been:

- Reduction of waste water odour through low energy aeration and effective pH control..

- Removal of sodium based chemicals from the winery
- Reuse of waste water for the sustainable farming of broadacre crops.
- Measuring and communicating resource usage to employees.
- Auditing site equipment and planning and implementing upgrades of plant with a poor carbon footprint.
- Investigating and installing renewable power and heating to lower energy needs from non renewable resources.

Recognition of these achievements has been by:

- Sustainability Advantage, Bronze, Silver and Gold partner. Now working to Platinum
- Successful in receiving a grant from the Australian Government for a efficiency project “Re- Engineering our Future for a Carbon Economy”
- Received Green Globe for Sustainable Large Business 2014
- Received Local, Regional and State awards for Sustainable large business 2014.
- Received Tidy Towns Award sustainable business 2014.
- Receiving one of The Australian Business Awards Sustainable business awards large business 2015.

Savings since 2005 have been across the whole business. A selection of these are:

- Energy usage for waste water treatment lowered by 90% resulting in a reduction of CO₂e of 1112 tonnes per annum
- Recycling increased with a drop to land fill of 77% resulting in a 250 Tonnes per annum reduction in CO₂e
- Refrigeration and compressor upgrade resulting in savings of 270 mWh equating to 280 tonnes CO₂e per annum.
- Re-Engineering our Future for a Carbon Economy Savings of over 2.5m Kwh per annum electricity and 3000 gJ gas.

De Bortoli wines has addressed the future with a research and development project whose aim is to recover potassium from the waste water system in a form that can be reused in the winery for cleaning machinery. This project is significant as it leads the way to ensure that the De Bortoli wastewater farm is a sustainable option as well as reduce the need to purchase potassium cleaning agents. This is one more step to “The Zero Waste Winery” goal.

De Bortoli Wines aim is to create a climate in the business where sustainable practices are the norm. The aim is to safeguard our future and ensure that great wine and a healthy environment are enjoyed by all.

BANKSIA LARGE BUSINESS SUSTAINABILITY LEADERSHIP AWARD

INSURANCE AUSTRALIA GROUP (IAG)

CREATING SAFER, STRONGER AND MORE CONFIDENT COMMUNITIES,
NSW



Our purpose drives our approach to building resilience in our communities

Insurance Australia Group (IAG) exists to help make your world a safer place.

As Australia and New Zealand's largest general insurance company with household brands such as NRMA Insurance, CGU, NZI, SGI, WFI and Swann, we have been helping our customers and communities recover from natural disasters, accidents and loss since 1851.

We see our role extending beyond paying claims to educate communities about risk and what they can do to protect themselves, their families, homes and assets.

For the past two years, IAG has built on our longstanding sustainability leadership position, to evolve our focus to one of Shared Value.

Shared Value: a new approach for creating value for all of our stakeholders

Shared Value is an approach where organisations such as IAG, find an intersection between a business opportunity and a social or environmental problem. By doing this, we realise financial sustainability while also creating long-term value for the community.

Why are we doing this?

Every year, natural disasters claim almost 68,000 lives globally and affect a further 218 million people. The Australian Government spends an estimated \$560 million annually on disaster recovery. For IAG's financial year 2015, natural perils resulted in the largest volume of claims we have responded to in 15 years – resulting in over \$1 billion worth of claims.

IAG's rationale for embedding a shared value approach is clear: if we are to fulfil our purpose and *help make your world a safer place*, we need to build our communities' resilience to disasters. A Shared Value Framework will align our strategy to our purpose and enable us to leverage our scale to create sustainable value for all of our stakeholders: our customers, communities, shareholders, partners and our own people.

In simple terms: better prepared communities mean less claims which equals lower costs for our customers and our business.

How did IAG realise its Shared Value potential?

To embed Shared Value, IAG started from the very top: Our CEO and Board mandated that Shared Value was to be one of IAG's six strategic priorities.

Australia's first corporate Group Shared Value Team (GSV team) was then created to align and embed a shared value framework across the company's planning processes. Governance is overseen by a Shared Value Advisory Council.

After extensive consultation the GSV team created a Shared Value framework based on three pillars – *Safer, Stronger and More Confident communities* – which are then supported by eight focus areas where IAG is best positioned to have a positive influence.

Our success: The value we have created for our communities and our business

Shared Value is ensuring IAG is meeting its purpose: *We help make your world a safer place.*

Examples include:

- Widespread pride of Shared Value by our employees: IAG's 2015 Culture Survey results found 90% of our people believe 'to a great or moderate extent' that we support the community to be safer, stronger and more confident
- Through our partnership with the SES, we built **local** community resilience through the StormSafe campaign which delivered vital safety information to over three million people. Almost 30 percent of NSW residents now have a "ready plan" for storm season.
- Our ongoing leadership as founding member of the *Australian Business Roundtable for Disaster Resilience and Safer Communities* continues to build **national** disaster resilience. The Roundtable contributed to the findings of the Productivity Commission's Inquiry into Natural Disaster Funding Arrangements. This will be critical to ensuring Australian communities have adequate investment in the necessary infrastructure to protect them from natural disasters. The Roundtable's ongoing analysis, economic modelling and community engagement approach saw it awarded the Certificate of Distinction in the prestigious 2015 United Nations Sasakawa Awards for Disaster Risk Reduction; the first private sector organisation to do so in the 30-year history of the awards.
- At the **Global** level through our membership of the *UNEP FI Principles for Sustainable Insurance Global Resilience Project*, we launched the first Global Risk Map. It highlights the devastation caused by natural disasters in the world's most vulnerable communities.
- Launched an industry-leading insurance product - InsureLite - into the Queensland market in July 2015 to provide home insurance access to consumers struggling with affordability constraints
- Maintained our carbon neutrality through a combination of reducing our carbon emissions and purchasing offsets.
- Introduced our *EcoSmash* environmental accreditation program to our smash repair network, 90% of exclusive partners moved to water-based paints reducing VOC emissions and mandated 100% of repairers will be accredited by 2016

BANKSIA LARGE BUSINESS SUSTAINABILITY LEADERSHIP AWARD


Kathmandu®

KATHMANDU LTD

THE KATHMANDU EFFECT, VIC

live the dream™



Kathmandu is an international brand specialising in outdoor clothing and equipment. We inspire travel and adventure for our customers and with it a powerful sustainability message. We harness sustainability as a driving force behind our operations. We believe transparently communicating our sustainability initiatives to our customers, partners, investors and industry peers is critical in creating a stronger sustainable impact and awareness for our environment.

Our Sustain the Dream Plan lays out how we integrate sustainability into our business. Our approach focuses on product stewardship, promoting and protecting workers in our supply chain, reducing our operational footprint, creating strategic partnerships to strengthen communities and communication and transparency.

We were recently recognised by the Annual Council of Superannuation Investors as 'leading' S&P/ASX2000 companies in sustainability. Our use of organic cotton was recognised by the Textile Exchange who ranked us #7 in their global 'Race to the Top League Table by Organic Share' in the 2014 Organic Market Cotton Report. Our minimising footprint initiatives were recognised by the Australian Packaging Covenant (APC) who awarded us with the High Performer Award as well as being finalists for the Carbon Disclosure Project (CDP) for two awards in 2014.

The Textile Exchange described our overall sustainability leadership and influence in the outdoors industry in Australasia as 'The Kathmandu Effect'.

In the past financial year, our products team have introduced numerous aspirational sustainability initiatives into our apparel and equipment range:

- We are the first Australasian company to join the Better Cotton Initiative (BCI). The BCI approaches cotton growing at a main-stream approach positively changing the practices of cotton farming. We aim to use 100% sustainable cotton throughout our range by 2020. BCI has also joined our use of Fairtrade and organic cotton.
- We recycled 840,000 plastic bottles for our Repreve range. We on track and aim to surpass 1 million for the next financial year.
- We achieved 100% traceability for our down feathers, this clarified our use of ethically sourced down. As a result, we joined the Responsible Down Standard (RDS) which will certify our products by Winter 2016.
- Became an advisory member for the Responsible Wool Standard.
- Joined the Chemicals Convergence Initiative to benchmark and work with the industry to create a common chemical tool.

Human rights and working conditions for our supplier workers is one of our top five priorities. Our supply chain team provides our suppliers with information for improvements, Corrective Action Plans and deliver on-site audits to ensure suppliers meet our ethical Code of Conduct. We joined the Fair Labor Association (FLA) who we work with to benchmark and develop our feedback and audit processes with suppliers. We are also members of the Outdoor Industry Association (OIA) which provides us with industry sustainability insights and trend forecasts. Their industry leadership forums facilitate us with a high level of collaboration across the industry.

Minimising our environmental footprint is a strong focus as part of our sustainability commitments. In 2014, we became members and worked with the Green Building Council of Australia (GBCA) as part of our sustainable building design programme. We piloted and worked with the GBCA to produce an industry-first multiple Green Star store accreditation standard. This allows multiple stores to adopt sustainable interior fit-outs across a network and achieve Green Star certification. We are in the final stages of launching our first five star Green Star accredited store and we are rolling this programme out to another eight existing stores.

We report annually to the CDP which we use to measure, minimise and disclose on our carbon emissions and reduction initiatives. We report annually to the APC which provides us with an outline to measure and reduce our transportation and finished packaging use.

We strategically started partnering with community organisations in 2005, we now have six community partners who we support financially, through in-kind donations, fundraising through our Summit Club and volunteer hours. Our six community partners are the New Zealand Red Cross, the Australian Red Cross, The Department of Conservation, the Australian Wildlife Conservancy, the Australian Himalayan Foundation and Outward Bound. An example of our meaningful partnerships was the response to the recent devastating earthquake in Nepal in early 2015. We donated and mobilised \$230kNZD through company and customer donations, clothing and equipment to help the support affected communities.

BANKSIA LARGE BUSINESS SUSTAINABILITY LEADERSHIP AWARD

QANTAS AIRWAYS
QANTAS, NSW



Qantas is on a journey to make sustainability central to everything we do. In some ways, sustainability has always been part of our business – like our unwavering commitment to safety as our first priority.

The Qantas Group believes climate change is a shared global challenge for governments, businesses and individuals, and we are committed to playing our part in the aviation industry's response.

As an airline, we recognise that our largest ongoing environmental impact is the emissions from our jet fuel combustion. In fact, our jet fuel consumption makes up around 95% of our ~12million tonne Co2-e emissions footprint.

To help focus our environmental strategies, Qantas set fuel, emissions, electricity, water and waste reduction targets. Operating from a 2009/10 baseline, our targets demonstrate a determination to reduce our environmental impact. This environmental impact provides us with a strong incentive for

us to focus our efforts on reducing these emissions. Our emissions management plan is simple: measure, reduce, offset.

Outcomes

- The Qantas Group has reduced its overall emissions footprint by 2.1% in FY15;
- Our Group Fuel Optimisation Program has saved over 98,000 tonnes of carbon each year;

- Qantas Freight has invested in lightweight technology that will save approximately 3,000 tonnes of carbon per year;
- Qantas Freight has also introduced an entire battery-electric fleet of forklifts that has saved 82,000 litres of LPG, 134 litres of diesel oil and 57,846m³ of natural gas;
- The installation of LED fittings across our Sydney terminal is saving 906 Mega Watt Hours of energy each year;
- We have reduced our overall direct waste to landfill by 28%;
- We have reduced our total electricity consumption by 19%;
- We launched Australia's largest tri-generation power plant to supply our Sydney headquarters, jet base and catering centre which has cut emissions by 14,000 tonnes per year;
- Completing a major refurbishment of our Sydney headquarters has resulted in each of our buildings achieving a NABERS Energy rating of 5 Stars; and
- Through our voluntary carbon offset program Fly Carbon Neutral we have offset over 2 million tonnes with all funds purchasing verified offsets from projects that reduce emissions, protect habitat for native wildlife, support local economies and empower communities to create a more sustainable future.

Qantas and Jetstar were among the first airlines in the world to introduce a voluntary carbon offsetting program – Fly Carbon Neutral – in 2009. It is now the largest airline carbon offset program in the world. Qantas does not profit from the program and passes on all funds to the purchase of verified carbon offsets, an annual contribution of more than \$1.2 million.

In 2014/2015 we commenced replacing fluorescent tube lighting with energy efficient LED lights in our airports, hangars, ramp areas, warehouses and flight simulators nationally. This project will reduce our energy consumption by more than 13 million kilowatt hours.

On World Environment Day (5 June), we launched an improved onboard recycling program on Qantas domestic services, which means that all recyclable waste on our Boeing 737 and Airbus A330 aircraft is now separated and recycled.

Qantas has become the first and only Australian member of the Harvard University Sustainability, Transparency and Accountability Research (STAR) Lab. As a result of this membership, a team of Harvard STAR Lab researchers have engaged with Qantas across various business units to create opportunities for designing and testing new initiatives that can improve business outcomes while addressing core sustainability and responsibility issues for the company.

The aviation industry has a long history of technological innovation. Fuel efficiency has improved by 70 per cent over the last 40 years through new technology development. This trend continues today and

helps airlines reduce fuel consumption and carbon emissions. The Qantas Group has made a significant investment in next generation aircraft.

The Airbus 320neo and Boeing 787 aircraft provide significant fuel efficiency benefits compared to previous models, along with minimised noise profiles both inside the cabin and for the community. We will continue to target our investments to maximise the benefit of new technologies, one of our most recent examples being the delivery of the first eight Boeing 787 Dreamliners to the Qantas International fleet in 2017. The new aircraft will reduce fuel burn, cut heavy maintenance requirements and open up new destinations around the globe.

The year ahead is full of new and exciting innovations in environmental sustainability for the Qantas Group as we aim to educate, motivate and inspire change through collaboration and strategic partnerships.

AUSTRALIA'S SUSTAINABILITY
SUCCESS STORIES

BANKSIA MINDFUL MOVEMENT AWARD

The Banksia Mindful Movement Award recognises demonstrated leadership and achievement across all social, economical and environmental dimensions whilst implementing innovative ways of reducing the impacts associated with the transportation of people and/or goods that have demonstrated significant progress in using transportation and mobility to create more sustainable liveable regions now and into the future.



Proudly sponsored by RACV

The Banksia Mindful Movement Award recognises demonstrated leadership and achievement across all social, economical and environmental dimensions whilst implementing innovative ways of reducing the impacts associated with the transportation of people and/or goods that have demonstrated significant progress in using transportation and mobility to create more sustainable liveable regions now and into the future.

The Royal Automobile Club of Victoria (RACV) has existed since 1903 as a mutual organisation focused on servicing members' needs and delivering member value. Today RACV has over 2.1 million members.

RACV advocates on behalf of members on a range of motoring and mobility related issues, and ensures that its statements are relevant, well-researched, independent and apolitical.

Through a primary belief that Australia's economy and liveability rely on a transport network that moves people and goods safely, reliably and efficiently, RACV strive for improvements in the areas of sustainable motoring and mobility.

Successes include the previously- awarded Low Emission Drive Day and GreenWheels events as well as extensive programs paving the way for public acceptance of electric vehicles and e-bikes. In 2015, RACV is again being a global-leader by rolling out a fleet of electric vehicles into our Resort sites across Victoria, Queensland and Tasmania for exclusive use by guests and members.

RACV is proud to come on board as the sponsor of the 2015 Banksia Mindful Movement Award category. It marks a logical progression - from long-time participant, collaborator and judge – to a formal affirmation of our shared beliefs and pursuits in the areas of sustainable transport and reducing the impacts associated with moving people and/or goods.

Highlighting, rewarding and encouraging organisations to be innovative and leaders in this space will become more important to RACV, its members, the Australian community and future generations.

BANKSIA MINDFUL MOVEMENT AWARD

CITY OF SYDNEY

SUSTAINABLE FLEET PROGRAM, NSW



Sydney has become one of the world's finest and most sustainable global cities. As a Local Government authority, we are responsible for the CBD and more than 30 suburbs, serving a population of over 1.8 million residents, workers, visitors, students and tourists and every day.

We are committed to delivering our vision for a Sustainable Sydney by 2030 and enhancing the way we live, work and play in the city; now and into the future. The blueprint for Sustainable Sydney 2030 grew out of talking to our communities and our staff, asking how things could improve and what we can do to take the city forward.

In response to environmental concerns, ambitious targets were developed to reduce the City's greenhouse gas emissions by 70% before 2030. Our fleet emissions contribute to the City's total emissions, so strict targets were established to reduce them too.

The City of Sydney has for the past five years kept at the leading edge of the fleet management industry, pushing innovation, educating fleet managers and reducing greenhouse gas emissions. We have now completed a four-year multi-faceted program which aimed reduce our emissions by 20% across the light and heavy vehicle fleet by June 2014.

The program commenced in 2009/10 with baseline emissions data capture, structured reporting and a review of national and international products and best practice.

Our target was successfully achieved with an actual greenhouse gas emission reduction of 27 per cent (870 tonnes CO₂e), and it continues, with a further 127 tonnes of CO₂e saved during the past year to June 2015.

We secured a more sustainable fleet through eight key programs:

Fleet Size and Format - Monitoring vehicle utilisation and promoting resource sharing to reduce our fleet from 600 vehicles to 440, without reducing service delivery. Many trucks were replaced with utilities, and large utilities replaced with smaller diesel vans, effectively halving CO2 emissions.

Heavy Vehicles - 84 older diesel trucks were retrofitted with catalytic converters and particulate filters to meet Euro 4 engine compliance standards and reduce NOx gas and particulate emissions by up to 60 per cent. All new diesel trucks must meet the stringent Euro 5 emission standards.

Sustainable Bio-fuels – We use sustainable bio-fuels (B50 & B20) in all diesel vehicles. Our bio-diesel doesn't contribute to land clearing, habitat destruction or food pricing in developing countries. It's blended with local recycled cooking oil and waste animal fat to reduce emissions by up to 18 per cent.

Hybrid Trucks - 66 traditional diesel trucks were replaced with diesel-electric hybrids that emit up to 30 per cent less CO2. Over the next few years we will replace the whole mid-sized truck fleet with diesel-electric hybrids.

Electric Vehicles – Our staff car pool includes 20 zero-emission electric vehicles, the largest EV fleet in Australia. EV charging is offset by 100% renewable energy from solar photovoltaic installations on our own properties. We have also installed public EV charging facilities in our parking stations.

Changing Staff Behaviour - Eco-driving training programs have been rolled out to our operational drivers to improve their driving skills and behaviours. A full-time driver educator is working 'in-cabin' with them to help 'get their foot off it' and an Eco-driving Strategy is in place to guide further emission reductions.

Transport Hierarchy - Our staff are encouraged to avoid using taxis. As a zero emission alternative to our EVs, we have established a staff bicycle fleet and urban riding skills programs. Over the last 18 months, more than 7,000 kilometres of business travel was by bicycle.

Leadership – We have openly shared our learnings across the public and private fleet sectors, with many inquiries answered and visiting delegations hosted. Educational forums and keynote papers have been delivered at state, national and international levels.

Other Benefits - In addition to direct emission reductions, we have seen:

- Fuel costs remain static over five years, regardless of price increases.
- Increased driver awareness with new knowledge about climate change impacts.
- A change in driving culture resulting in greater safety and reduced crashes.
- A great reputation and respect for the City's approach to sustainability.

We have led by example and proven that sustainable bio-diesel does work; hybrid and EV vehicles are effective; bicycles are the best transport mode for short trips; eco-driver education is critical; and that most council vehicles are too big for their intended purpose.

The City will continue to capture and report on our emissions, strive to further reduce them and work hard to share our knowledge and help others to do the same.



BANKSIA MINDFUL MOVEMENT AWARD

RAC WA

THE RAC ELECTRIC HIGHWAY®, WA



RAC is a Western Australian member-based organisation committed to safe, accessible and sustainable mobility.

RAC represents the interests of more than 820,000 members and is the leading advocate on mobility issues and challenges facing Western Australia. As a membership organisation, RAC reinvests its profits for the benefit of members and the Western Australian community.

Since its beginnings in 1905, RAC has always acted as a voice for members and is a strong public advocate on the mobility issues affecting Western Australians. RAC employs more than 1,200 people and has evolved into one of the most trusted and recognised brands in WA.

For 110 years, RAC has advocated for its members, given back to the community and fought for a better WA. RAC created Western Australia's first road maps, installed the State's first railway signals, developed the world's first attention powered car and has now opened Australia's first electric highway.

The RAC Electric Highway®, the first of its kind in Australia, was opened in 2015. It comprises 12 strategically placed electric vehicle DC fast charging stations across a 520 kilometre route between Perth and the South West of Western Australia.

The primary goal of the RAC Electric Highway® is to open up the State to new vehicle technology and in doing so help reduce CO2 emissions from cars. This innovative project is an investment in the future of motoring in WA and provides environmental, social and economic outcomes. It also supports RAC's sustainable mobility agenda.

With sustainability as one of three advocacy pillars, it is a prominent feature in the strategic direction of the organisation. Sustainable mobility is broader than the environmental aspects of mobility: it encompasses the mobility needs of current and future generations. The RAC Electric Highway® supports the organisation's sustainable mobility agenda by helping to reduce carbon dioxide emissions from cars in WA.

A Toyota Camry is considered an average medium car and emits 183gCO₂/km. Travelling in this car from Perth to Augusta would emit 56.7kg of CO₂ and return 113.5kg of CO₂. There are currently approximately 150 electric vehicle (EV) owners in WA. If each owner travelled the RAC Electric Highway® once a year in their EV rather than a Camry, potentially 17 tonnes of CO₂ could be removed from the State's vehicle emissions.

The RAC Electric Highway® was not intended to be a commercial opportunity. RAC funded the capital, including installation and costs of the charging stations, however, local government authorities have been gifted the chargers and will be responsible for their ongoing management and maintenance including monitoring and assessment of use.

Prior to the RAC Electric Highway®, Western Australia had only one DC fast charging station for EVs, located in Perth at the University of Western Australia. The RAC Electric Highway® has provided a connected, uniform link of EV charging stations in desirable destinations throughout a major tourist region.

The RAC Electric Highway® covers 520 kilometres and with the average EV limited to a travel distance of approximately 150km on a single charge, the distance between each charging station was a major consideration.

There was also a desire for each charging station to be located within a town to help drive tourism and benefit the local economies. The charging stations also had to be located on local government land to ensure a genuine benefit to the communities.

The chargers selected for the RAC Electric Highway® are able to cater for the recharging needs of all EVs currently on the market in Australia.

The creation of the RAC Electric Highway® was a collaborative process. RAC had an opportunity to bring to life a project identified by a community-based Committee which had proposed publicly accessible EV charging stations throughout the South West of WA.

The RAC Electric Highway® is a real contribution towards opening up choices for transport options and enabling people to move around the State. Not only is RAC providing the catalyst to encourage the use of EVs in WA, RAC is also supporting and providing opportunities to benefit local regional communities and businesses in the short and long term.

The RAC Electric Highway® is a partnership with nine local governments; Shire of Harvey, City of Bunbury, City of Busselton, Shire of Augusta-Margaret River, Shire of Nannup, Shire of Bridgetown-Greenbushes, Shire of Donnybrook, City of Fremantle, and City of Mandurah. RAC also worked closely with Western Power, local electrical contractors and E-Station, which was selected as the supplier of the charging stations.

BANKSIA MINDFUL MOVEMENT AWARD

UNSW SOLAR RACING TEAM SUNSWIFT

UNSW SOLAR RACING TEAM SUNSWIFT, NSW



We are UNSW Solar Racing Team, Sunswift. Unpaid volunteers who juggle university studies and employment; and in our spare Time we innovate, design and build the world's most advanced solar-electric vehicles.

With an average age of 21 we are engineers, designers and scientists, who range from engineering disciplines including mechanical, electrical, photovoltaic, aerospace, renewable energy. In addition, we have a number of members from computer science, industrial design, mathematics and commerce disciplines.

Our efforts represent a new direction in practical, zero-emission, renewable-powered transport that aims to revolutionise the automotive industry. Unlike the current petroleum based vehicles, *eVe* has the ability to recharge its power-supplies through generating power from sunlight.

From humble beginnings in 1996, we have developed a reputation for pioneering numerous cutting edge solar vehicles. In our time we have produced five distinct renditions of the solar vehicle. Notably in 2011, we received international recognition when our fourth car, *IVy*, broke the Guinness World Record for the fastest solar powered vehicle.

In 2013, we redefined the solar car - producing a more practical, 2-seater solar sports car known as *eVe*. Capable of producing speeds of 140km/h and travelling distances of over 800km, *eVe* represented a shift from conceptual, purpose-built solar racing vehicles to a more practical, consumer-friendly alternative. During *eVe*'s debut at the 2013 Bridgestone World Solar challenge, we received international acclaim for our sleek, ultra-efficient solar sports car design. Placing 1st over the finish line and 3rd overall, we received media reports from BBC, ABC News, Reuters and many other institutions.

2013 proved to be a pivotal point in Sunswift's history and yet this was only the beginning.

In 2014, we met this by breaking the Fédération Internationale de l'Automobile World Record for the fastest electric vehicle over 500 km in a single charge. With an average speed of 107km/h, eVe smashed the previous record of 73km/h, which stood for 26 years. The record aimed to dissolve the public's general fear of 'range anxiety' or fear of running out of charge with an electric vehicle. As a result, we received a viral influx of media interest from top tier institutions from around the globe.

In 2015, we set out to redesign eVe to become the Southern Hemisphere's first road-legal sports solar vehicle. This has been no easy feat, with eVe having to adhere to the Australia Design Rules, which are among the most rigorous safety and performance standards in the world. Our aim is to push the boundaries again, and take another leap forward towards the eventual commercialization of solar vehicles.

Without sunlight, eVe is able to travel for 500km, with the additional 300km coming from the power of the solar array. At velocities of less than 60km/h, eVe can travel purely on solar power—without the need of the battery pack.

eVe's ability to achieve such an impressive performance with such a low power input is due to 3 key design areas:

- Aerodynamic shape
- Ultra lightweight design
- High efficiency motors and electrical systems

The aerodynamic shape reduces drag dramatically at high speeds. With a carbon fibre chassis, eVe is incredibly lightweight and in conjunction with high efficiency electrical components, our vehicle is able to travel at such high speeds with low power input compared to other consumer electric vehicles.

Our efforts are not merely centered on the media, but also reaching the community and industry. The complex, technical nature of building solar vehicles has sparked a number of strong industrial relationships with a number of leading engineering companies.

We feel we have a duty to inspire and educate others about sustainability, renewable energy technology and the life lessons learnt through building such an ambitious vehicle. To achieve this, we have held public events, presented at tradeshow and exhibitions—total of 29 in 2014-15 to directly engage eVe with the public. In the same period we visited over 14 schools to inspire the next generation of engineers to develop new technology that can change the world. The overwhelming positivity we have received from the public has proved to be huge motivation to our team.

Overall, the core of what we do centres around three primary long-term aims:

- Advance solar-electric vehicle technology—to the point where they can be commercialized
- Inspire the public by demonstrating the potential of renewable energy
- Develop technical skills within our current and future members far beyond their academic studies

And as we persevere with our achievements we continue to build momentum towards spurring further innovation in communities and industry around the world.

**AUSTRALIA'S SUSTAINABILITY
SUCCESS STORIES**

BANKSIA NATURAL CAPITAL AWARD

The Banksia Natural Capital Award recognises demonstrated leadership and innovation in the sustainable management of renewable resources (e.g. agricultural crops, vegetation, wildlife) and non-renewable resources (e.g. fossil fuels and mineral deposits).



Proudly sponsored by NAB

A healthy environment underpins a healthy economy – at NAB we understand this. We were the first Australian institution to ratify the Natural Capital Declaration (NCD); a global statement that recognises that natural capital holds significant risks and opportunities for the finance sector.

As a financial services organisation with over 12.7 million customers our aim is to engage in thought leadership to raise awareness of the importance of biodiversity and ecosystem services and to explore, through pilot projects, how we can better measure the contribution that natural capital assets make to our customers, our business and to our economy.

As Australia's largest Agricultural bank, Agribusiness is currently where our natural capital priorities lie. We are learning how our leading customers manage their natural capital risks. We're also building banker capability and piloting new products and services that support customers investing in their natural capital assets. We are also working with research partners to quantify the relationship between good management of natural capital and financial performance over time.

We understand that no one organisation can address natural capital degradation alone. It is a broad-based societal issue that requires collaboration across all industries and sectors. Thus, we are proud to be sponsoring the Natural Capital Category of the Banksia Awards and our sponsorship decision reflects our commitment to encourage much needed innovation and leadership around the management of our natural capital resources.

We wish the finalists all the best in the competition but more importantly in their endeavours.

BANKSIA NATURAL CAPITAL AWARD

BIRDLIFE AUSTRALIA, GLUEPOT RESERVE

GLUEPOT RESERVE – A RESERVE WITH A DIFFERENCE, SA



Gluepot Reserve is Australia's largest community managed and operated conservation reserve. Situated 64 km from the River Murray in South Australia's Riverland, the reserve is managed and operated entirely by volunteers. Some 54,000 ha in size, it is home to 18 nationally threatened species of birds, 53 species of reptiles and 12 species of bats, some of which are nationally threatened. There are few areas of the world that support such a concentration of threatened species.

By successfully combining the elements of biodiversity conservation and enhancement through land management, scientific research and monitoring, environmental education and sustainable ecotourism, Gluepot Reserve has taken conservation management into a new era. The Reserve is providing an international model to show that sustainable use of the landscape is both feasible and desirable. A highly successful program of this size and complexity is unique in Australian land management.

The Reserve's overall management philosophy is to *"Effectively manage a large, internationally significant protected area for biodiversity conservation as an addition to Australia's National Reserve System and to develop a successful, financially independent program that will be a model for other community groups with small operating budgets (approximately \$80,000)"*.

A skilled 19 person volunteer Management Committee, with a strong background in business management, conservation, land management, fire management, wildlife survey, research and monitoring, weed, feral and pest animal control, computing, GIS, database management, archaeology, history, education, ecotourism and community involvement, is responsible for all management issues.

The Reserve is manned on a continuous basis by Volunteer Rangers and Assistant Rangers with Volunteer Ranger positions being booked three years in advance. Gluepot has always

seen 'challenges' as a means to increase the resilience and viability of the Reserve - being able to ensure the long-term financial stability of Gluepot has been one of our largest and our most successful challenges. The Reserve is the recipient of 40 national and international awards in the fields of science, conservation, environment, ecotourism, health and the built environment – including six Landcare awards.

Volunteers are the life-blood of the Reserve and come from all states of Australia and overseas. Since the Reserve was purchased in July 1997 and to the end of 2014, volunteers had donated 403,605 hours and 2,416,263 km of mileage that equates to an overall donation of time and mileage of \$11,863 million. If you ever doubt that value of volunteer support, think of the 403,605 donated hours in this way: assuming that volunteers work 8 hours per day for a five day week for 52 weeks, those hours are the equivalent of: 10,090 weeks of volunteer work or 2.5 people working full time for 40 years or 11 people working full time for the complete 17 year period or 194 people working full time for a year – our volunteers truly are, 'the steel threads that bind together the fabric of the Reserve'.

The Reserve has been extremely successful in developing Gluepot as a 'Quality Centre for Scientific Research' and to-date, 19 Australian and overseas universities and research institutions conduct ongoing research projects on the Reserve. As an example, in 2014, six scientists from the University of New Mexico (USA) spent three months at Gluepot (as part of an international research project) studying the *"Physiology of heat tolerance in arid zone birds"*. Another PhD student from the University of Wisconsin (USA) commenced a DNA study of the Black-eared Miner and a PhD student from the ANU commenced her project looking at *"Aspects of bird responses to fire regimes in the mallee"*

Visitors to Gluepot are encouraged (where practical) to assist with the Reserve's research and monitoring projects.

The Reserve has established Australia's first permanent bat recording station (seven solar powered ANABAT systems are deployed across varying habitats on Gluepot) in addition to a number of long-term bat research projects (12 species of bats occur on Gluepot, two of which are on the endangered list).

By looking at challenges as 'opportunities,' Gluepot has been a national leader in a number of core environmental management issues: eg. Mallee fire management, land and environmental management, feral and pest animal control, weed management etc. Gluepot is a 'model' that both national and international conservation organizations and governments are following. Many of the research and monitoring projects undertaken at Gluepot Reserve will help solve the problems of land degradation and loss of biodiversity. They will assist in providing the opportunity for this generation to sustain itself and to make sure that there are resources left for the generations to come. Importantly, they will increase awareness of the environmental issues surrounding this highly endangered area of Australia's wilderness.

BANKSIA NATURAL CAPITAL AWARD

AUSTRALIA DAIRY INDUSTRY COUNCIL

AUSTRALIAN DAIRY INDUSTRY SUSTAINABILITY FRAMEWORK:
ENHANCING LIVELIHOODS, IMPROVING WELLBEING AND REDUCING
ENVIRONMENTAL IMPACT, VIC



Dairy is Australia's third-largest rural industry, worth \$13 billion and directly employing 43,000 people.

The industry has taken a whole-of-industry approach to sustainability. On farms and in manufacturing facilities, we contribute to enhancing livelihoods, improving wellbeing (of people and animals), and reducing our environmental impact.

In 2012, following extensive consultation with the industry and our stakeholders, we developed the Australian Dairy Industry Sustainability Framework. In 2013, further consultation set 11 targets with 41 measures covering environmental, social and economic goals for 2020.

Industry-wide implementation of the Framework began in 2014. We report annually in a cycle of "report, review, refine, revise" to allow for changing customer and community expectations, advances in technology and emerging issues.

The Framework is an initiative of the Australian Dairy Industry Council with key partners Australian Dairy Farmers Ltd, Australian Dairy Products Federation and Dairy Australia.

Why do we need a Framework?

Australian dairy seeks to be recognised worldwide as a responsible, responsive and prosperous producer of healthy food. Our customers and the community are demanding proof that we are doing the right thing by people, animals and our planet. In response, the Framework was developed, building on our existing activity and setting the direction for continual improvement. It will drive practice change where necessary.

The Framework underpins our reputation as responsible natural resource managers and guides behaviour from farm to factory. Benefits include:

- Continual improvement in whole of industry practices against an agreed roadmap for future improvement
- Strong evidence of a sustainable industry for customers so they can be confident that the dairy foods they are eating are sustainable
- Progress against targets tracked and transparently reported
- Improved ability to direct investment and effort to meet agreed targets
- Collective action on matters most effectively addressed as an industry

Every farmer plays a part

As managers of natural capital, every dairy farmer helps create a sustainable industry.

The Framework sets targets for farmers in natural resource management, including the exclusion of stock from waterways; nutrient management; irrigation automation; managing land for conservation and biodiversity; managing noxious weeds and recycling water. Farmers are instrumental in achieving goals for capital investment, community recognition of dairy's contribution, OH&S, skills training, avoiding chemical residues and best animal care.

Initially, there was significant grass-roots concern the Framework would create costs and imposts for farmers — unnecessary “green tape”. Listening to farmers’ concerns was critical to achieving industry endorsement. An example was farmers’ request to have “enhancing livelihoods” front and centre in the Framework, arguing that profitability is fundamental to sustainability. From this, the “keeping the Australian dairy in business for the long term” tagline emerged.

Through Dairy Australia’s Regional Development Programs, 6300 farmers are learning how they contribute to the Framework goals. Manufacturers are also adopting industry targets as their own.

Measuring progress

The first year of results was recorded in the 2014 Progress Report (see www.sustainableairyoz.com.au). One of the three Framework themes is ‘reducing environmental impact’. To measure progress, we report against:

- Target 8: Improve nutrient, land and water management
- Target 9: Reduce the consumptive water intensity of dairy manufacturers by 20%
- Target 10: Reduce greenhouse gas emissions intensity by 30%
- Target 11: Reduce waste to landfill by 40%

Target 8 in particular, shows the progress the industry is making on-farm to protect biodiversity and ecosystem services. Against Target 7 Provide best care for animals, survey results for recommended on-farm practices showed significant improvement.

A robust conversation

Stakeholder dialogue within and outside the industry informed every stage of the Framework development to include multiple perspectives and expertise. Over the past three years a national consultation process based on International Association for Public Participation (IAP2) principles has involved farmers; manufacturers; interest groups (e.g. WWF, ACF, Environment Victoria, RSPCA); customers; retailers; suppliers and government.

A Dairy Sustainability Consultative Forum of experts has also been established to promote two-way discussion on the Framework to ensure it meets industry, community and customer needs. It convenes twice a year, providing a “reality check” for the industry, including feedback on emerging issues and trends.

A sustainable future

As an industry, we now use the Framework to help drive practice change and benchmark our efforts against our peers nationally and internationally.

Based on the Framework, Unilever gave Australian dairy production accreditation as meeting its exacting Sustainable Agriculture Code. All Australian milk is now deemed to contribute to Unilever’s sustainable sourcing goal. However, we know there is still much to do and are committed as an industry to continue to improve our sustainable dairy practices.

BANKSIA NATURAL CAPITAL AWARD

PEEL HARVEY CATCHMENT COUNCIL

PEEL-HARVEY CATCHMENT COUNCIL'S RAMSAR INITIATIVE, WA



When a scientific report confirmed the internationally recognised Ramsar 482 Wetlands were under significant stress, the community based group, the Peel-Harvey Catchment Council (PHCC), commenced a monumental campaign to restore and protect them.

So began a crusade that has become one of the stand out achievements of the PHCC's 15-year history.

Led by the PHCC, the Ramsar Initiative is a collaborative effort to protect and manage the 26,530 hectare site. Covering land and water, the Peel-Yalgorup Ramsar System is the largest and most diverse estuarine complex in Western Australia, and home to the critically endangered Lake Clifton Thrombolites.

Given the environmental concerns surrounding the Wetlands, the PHCC wanted immediate action but there was no Management Plan. A long-term project plan ensued that would later be supported by a Monitoring and Evaluation Guide for assessment of management actions against Limits of Acceptable Change.

While the protection of Ramsar Wetlands is a Government responsibility, the complexity of the Peel-Yalgorup meant the preparation of a Plan was not a priority. Without an overarching management plan, or a single lead organisation to collectively guide the protection and restoration of the System, 'wise-use' of our Ramsar Wetland was not being met.

In an innovative, courageous and tenacious approach, the PHCC advocated to Government the need to raise awareness of the values of Ramsar 482, and the need for better management to protect those values. We secured seed funding from the Australian and State Government and preparation of the Plan commenced.

Exhibiting great leadership and armed with vision and focus, the community group took a principal role in identifying and securing the commitment of stakeholders that had direct management roles or responsibilities for the 26,530 hectare Peel-Yalgorup wetlands.

This was no easy feat. However, in 2004 twenty seven (27) groups came together under the guidance of the PHCC to establish the Ramsar Technical Advisory Group (TAG). A group that brought with it a cross pollination of skills, local and technical knowledge, and supporting technologies.

In a strong collaborative approach, the Ramsar TAG guided the development of the Management Plan and Ecological Character Description for the Peel-Yalgorup System.

The Plan was endorsed by the State and acknowledged by the Commonwealth. Its implementation has increasingly gained momentum and several millions of dollars have been secured by the PHCC and its stakeholders, to deliver restoration and community engagement programs.

A cascade of projects to increase ecological resilience have been implemented across the landscape since the Plan was adopted.

Highlights include:

- Listing of the Lake Clifton Thrombolites under the EPBC Act as a Threatened Ecological Community (TEC) – resulting in greater recognition and access to funding
- Collaborative land manager endorsement for, and formal submission to, expand the Peel-Yalgorup System Ramsar site
- Ecosystem monitoring in 12 targeted areas including water quality, habitats and fringing vegetation, migratory and resident waterbird count – including for 4 consecutive years, the largest volunteer monitoring programs towards the National Shorebird 2020 count
- Securing funds for Lake Mealup and Lake Clifton Recovery Projects (including the construction of a diversion weir to restore the acidic, weed infested and dry Lake Mealup)
- Securing \$3.6 million for the Rivers 2 Ramsar Project, covering six priority sites across 11,940km² to improve resilience and ecosystem function of the Harvey, Serpentine and Murray Rivers and thus the quality of the receiving waters of the Peel-Yalgorup System
- Preparation of the Wetlands and People Plan (2015) – to address the inclusion of long-term cultural, social, economic and environmental management principles into decision making and actions across government and community for the protection of the System

This platform of success by the PHCC and its stakeholders, demonstrates credibility, sound NRM management and positive environmental outcomes. The Initiative's ongoing success through a series of well-planned components has continued to attract ongoing support and funding, as well as raising its profile for greater protection by its decision-makers, residents and visitors.

To date the PHCC alone has secured \$17.7 million in funds to deliver programs that have positive cultural, social, economic and environmental outcomes directly and indirectly linked to the Ramsar Initiative.

Eleven years on, the Ramsar Initiative's on-going planning structure and commitment by its core 27 stakeholders, continues to bring people together to actively work towards the protection and enhancement of this internationally recognised wetland system.

The Initiative has shown how long-term vision, leadership and an ability to recognise and bring together a diverse range of individuals, groups and organisations with a shared vision, can indeed affect positive environmental change.

People Working Together for a Healthy Environment.

BANKSIA NATURAL CAPITAL AWARD

TASMANIAN PARKS AND WILDLIFE SERVICES MACQUARIE ISLAND PEST ERADICATION PROJECT, TAS



Macquarie Island is one of the truly remarkable places on Earth. Located half-way between New Zealand and Antarctica, World Heritage-listed Macquarie Island provides a rare speck of land in the Southern Ocean where vast congregations of marine mammals and seabirds gather and breed.

During the 19th century, sealers introduced a variety of animals – including cats, rats, rabbits and mice – which wreaked havoc on the island's natural ecosystem.

By the early 2000s, Macquarie Island was in a sorry state. Massive overgrazing by rabbits had reduced the abundant, waist-high vegetation to short-cropped dying grasslands or bare soil. Rats had eaten the eggs and chicks of burrowing seabirds and many bird species no longer occurred there. Insect populations were also seriously depleted.

Tasmania Parks and Wildlife Service (PWS) manages Tasmania's national parks and reserves which includes sub-Antarctic Macquarie Island – 1,500 km from Hobart. Given the devastating impacts of feral animals on the globally significant natural heritage values of Macquarie Island, removing rabbits and rodents was a high priority for PWS. After considering all available options for control, PWS concluded that eradication was the best and most cost-effective option for achieving the desired long-term conservation outcomes.

Eradication was no simple matter. Eradication meant removing every last rabbit, rat and mouse from Macquarie Island. A single survivor would mean project failure. Rabbits alone were estimated to number well over 150,000 and many thought the challenge of eradicating mice from such a large and rugged island was impossible. Eradication of any of the target species had not previously been attempted on an island over 1,000 hectares, so eradicating all three species from 12,875 ha Macquarie was a massive and unprecedented challenge.

Funding for the project was provided jointly by the Australian and Tasmanian Governments. Planning commenced in 2007 for an aerial baiting operation followed by hunting to remove

survivors. Taking account of experience gained from other international projects, methodologies were adapted and trialled for use on Macquarie. A team of four procured the regulatory approvals to implement the project, and managed the complex logistics required to deliver a team of 29 people, 12 trained rabbit detection dogs, four helicopters, 305 tonnes of bait, and associated field equipment by ship to Macquarie Island. Meticulous planning was vital because once on the island, there was no recourse for spare parts or forgotten equipment – everything had to be on hand, functional and with back-ups.

Behind all this effort was one driving vision – if all rabbits, rats and mice could be eradicated, Macquarie Island would, in time, recover to a natural state not seen in well over a century. Vegetation would again flourish and with no rodent predation, seabird species would return to the island and their populations would increase.

The aerial baiting program had to be conducted during winter when the pest populations were at their lowest annual levels, and when many of the non-target species had left the island for winter. Unfortunately, sustained bad weather during the first baiting attempt in 2010 meant it had to be abandoned – a very disappointing set-back. The second expedition in 2011 was highly successfully and the baiting program went totally to plan. Hunting teams with trained detection dogs then began searching for surviving pests. For the next three years, hunters walked over 92,000 km day and night, searching for and removing survivors.

The Macquarie Island Pest Eradication Project was declared successful in April 2014 after two and a half years of searching with no sign of the pest species.

The ecosystem response to the removal of rabbits and rodents was dramatic. Vegetation began recovering within months. The first summer after baiting, blue petrels returned to breed on the main island, from remnant colonies on off-shore rock stacks. Four years later, the coastal slopes are stabilising and lush vegetation covers the island once again. Several bird species absent for decades are establishing new populations, and invertebrate life is abundant.

Although full recovery will take decades, the island is clearly 'bouncing' back. The recovery of vegetation and birdlife clearly demonstrates the effectiveness of eradicating feral pests.

The Macquarie Island Pest Eradication Project is the largest successful eradication program for rabbits, ship rats or mice anywhere in the world, and is amongst the most significant conservation management achievements in Tasmania's history.

The restoration of Macquarie Island demonstrates the extraordinary results that can be achieved through joint government investment in significant projects, and is a testament to the dedication, capability and commitment of all those who had a vision and believed they could make a difference.

BANKSIA NATURAL CAPITAL AWARD

TWEED SHIRE COUNCIL

TWEED BYRON KOALA CONNECTIONS, NSW



Tweed Byron Koala Connections is a multi-disciplinary project delivering a regional approach to koala recovery and conservation based on science, strategic thinking, innovation and community engagement. Following years of anecdotes indicating koala populations were in decline, both Tweed and Byron Councils undertook koala habitat studies and in 2012 collaborated to develop and commence Australia's largest koala habitat restoration effort. The project involves an integrated approach to addressing the threats impacting koalas and working throughout the landscape to increase the extent and quality of koala habitat.

The project employs a cross tenure, collaborative approach that is successfully making and embracing "people connections" for the benefit of koalas. The establishment and engagement of a steering committee as a key governance measure ensures the oversight, involvement and contribution of important stakeholders. Pioneering community engagement methods build stronger communities and increase the capacity of stakeholders to manage their land more sustainably. These have included a koala tree competition, workshops and education activities with landowners, contractors and school groups and photo exhibitions to increase community awareness regarding koalas and their habitat. This reiterates the notion that genuine, effective outcomes in the natural environment rely on the community as a whole.

Significant ecological benefits to on ground habitat are highly evident. 64,000 trees have been planted at more than 100 locations identified as strategically important by the habitat studies. These planting sites increase the area of habitat to reconnect existing koala populations and create vegetated corridors at a landscape scale. Regular monitoring of planting sites has revealed planting survival rates greater than 90% and some amazing

growth rates of koala food trees. These growth rates have provided habitat that is being used by koalas in less than 18 months, something not considered possible before this project and the ideal independent validation of the project outcomes. The new habitat offers direct benefits not only to the threatened populations of koalas, but to many other species associated with the same ecosystems.

A further 140 hectares of existing but degraded habitats are under active regeneration. The removal of weed species that affect koala food tree growth and regeneration, or significantly hinder koala access to existing food trees, effectively increases the quality of the habitat for animal use. For example the removal of bamboo at one site allowed koalas to return to previously occupied habitat within two months of weed removal.

In addition to the creation and improvement of habitat, the critical requirement to address threats to koalas has also been undertaken. Through collaboration between the Rural Fire Service, National Parks and Wildlife Service and the project team, innovative solutions to reconciling fire management issues are being developed and implemented. This includes development of koala management guidelines for wildfire and hazard reduction that will assist land managers in all locations to protect koalas and their habitat. The threat of vehicle strike is also being addressed through the creation of the first 'koala road'. By combining variable message signs, pavement treatment, community engagement and education, koala roads aim to change driver behaviour and reduce the impact of vehicles on koalas. Monitoring of the first koala road is showing positive signs in relation to reduction in average vehicle speed and planning for similar works at other sites is underway.

Monitoring of vertebrate pest animals using remote cameras has recorded previously undocumented presence of koalas and provided critical information on wild dog and fox activity. This has significantly increased the knowledge of koala distribution and highlighted areas for prioritisation of pest management. This monitoring has also confirmed the first known use by a koala of a fauna overpass constructed over the Pacific Motorway. This is highly significant as the use of these connectivity measures is critical for ongoing management of the impacts of roads on koalas and their habitat.

The outcomes of the project and the framework for ongoing investment in koala conservation and recovery have been captured through the development of Comprehensive Koala Plans of Management. These plans include provisions for development controls, strategic planning, habitat restoration, threat management, community engagement and monitoring. Development of the plans has contributed to and benefited from the strong community awareness and passion for the plight of koalas on the Tweed and Byron coasts.

The structure, methods and outcomes of the project meet the challenge of the imperative to deliver a truly holistic, whole of community response to koala conservation on the Tweed and Byron coasts. Through combining and leveraging limited budgets and resources, the project has achieved significant economies of scale that deliver highly successful and sustainable outcomes.

AUSTRALIA'S SUSTAINABILITY
SUCCESS STORIES

BANKSIA SMALL TO MEDIUM BUSINESS SUSTAINABILITY LEADERSHIP AWARD

The Banksia Small to Medium Business Sustainability Leadership Award recognises a business that demonstrates leadership by fully integrating sustainability principles and practices into operational business activities and reducing the organisation's footprint. Also demonstrating societal value adds through its practices.



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Australia Post - helping our people, customers and community build a better environment.

For 206 years, serving the Australian community has been our reason for being. As an organisation, we understand that doing well in our business means that we can continue to do good in our community.

Every day we help individuals, communities, businesses and government connect with each other across the country, regardless of their size and location, fulfilling our purpose to help our people, customers, and communities build a better future.

At Australia Post we define environmental sustainability as valuing our natural resources. We aim to create a culture of innovation in our organisation, leveraging the unique breadth and depth of our network, to deliver solutions to environmental challenges for all Australians.

In particular, Australia Post plays an important role in supporting small business by helping them connect with their customers across Australia and the world. Whether businesses are looking to get started online, or growing their existing business, we're here to help them take the next step.

We understand the importance of providing commercial services and initiatives that deliver real value for our business and the local community. We describe this approach as the creation of "shared value" between Australia Post and the community. While our approach to determining and measuring shared value is new, the activities and mindset that underpin it are intrinsically woven into how we operate and who we serve; we are an organisation that provides both a community service and a commercial dividend.

Our opportunity today is to build better communities, through positive environmentally sustainable outcomes while solving environmental challenges for our customers.

BANKSIA SMALL TO MEDIUM BUSINESS SUSTAINABILITY LEADERSHIP AWARD

AUSTRALIAN ETHICAL INVESTMENT AUSTRALIAN ETHICAL INVESTMENT, NSW



Australian Ethical is a super fund and investment manager with a difference. We seek out high-quality investments that are positive for society and the environment and avoid investments in harmful activities.

Sustainability principles and practices have been formally integrated within and throughout our organisation's strategic planning, decision-making process, and core business operations since we were established in 1986. Our dedicated team of less than 40 staff are actively engaged in the purpose and mission of the business.

Since pioneering ethical investment in Australia, the company has grown to now manage over \$1 Billion for more than 25,000 clients.

We don't compromise returns for ethics or ethics for returns, we achieve both! We're the business model of the future, operating today.

Australian Ethical is a trailblazer in ethical investment, and has been able to set and deliver the best environmental practice in the sector globally.

We believe that the movement of money can make a positive impact in the world, and that the investment industry in particular has substantial power, which should be channelled in the right direction.

Our investments take account of the impacts of investment choices on the world, as well as the financial implications of those choices. Our Ethics team works closely with our Investment department to investigate the social and environmental impacts of companies as well as their financial performance and prospects.

We're one of only a few funds management companies in the country that specialises in

ethical-only investments. We are committed to a clean energy future and have never invested in coal or oil. We maintain the highest ethical conviction in our investments, and are transparent in our disclosure of them. We believe it's important that our members know what activities their investments are funding – so we are one of the few investment managers globally that disclose the companies we invest in.

Strong principles of sustainability are embedded throughout our investments, whose success we see as an integral part of building a stronger, more resilient society. Some of the companies we've invested in include;

- **Interface: Turning plastic pollution into carpets.** 9,000 kilos of discarded fishing nets in the Philippines have been collected for recycling into carpet tiles by Interface.
- **First Solar: Just built Australia's largest Solar PV plant.** The Nyngan Solar Plant in NSW is the largest of its kind in the Southern Hemisphere.
- **Stratasys: Delivering clean energy to the developing world.** Stratasys have built a portable solar generator using its 3D Printer technology.
- **Vestas: Producing renewable energy.** Vacon's wind turbine components so far have helped produce the equivalent of 9 hours of the world's entire annual electrical energy production.

We instigate a dialogue with businesses (both those we invest in and those we don't) to encourage more ethical behaviour, advocating they modify their business practices to make positive change. Through this corporate engagement, we're able to influence broader societal responsibility to true sustainability within the community.

Most recently, we've put significant effort into disclosure from the 'big four' Australian banks regarding their climate change and carbon risk impacts in lending activities. And, in April 2015, we instigated a public template for submissions to the Government on the post-2020 Targets Consultation.

Australian Ethical was one of the first companies in Australia to sign the Montreal Pledge encouraging investment and pension funds globally to set targets for emissions reductions. We were also the first to join the UN's Portfolio Decarbonisation Coalition, and is the only (to our knowledge) investment manager to set a science-based target to decarbonise our entire portfolio to zero by 2050, a pathway consistent with the view of Australia's independent Climate Change Authority.

We are a leading business in the growing global movement of B-Corps, which are dedicated to using the power of business to solve social and environmental problems. Australian Ethical was the first publicly listed company in Australia to achieve B-Corp status, meeting rigorous global standards for social and environmental performance and accountability. In April this year, Australian Ethical was awarded in the top 10 list of B Corps worldwide – the highest one of only two companies listed in Australia.

Through our yearly Community Grants program we have one of the highest rates of corporate giving in Australia. To date, we've given over \$2 million in donations to social enterprises and charitable causes – over \$300,000 in 2015 alone.

The next goal for Australian Ethical is to reach an ambitious \$3 billion funds under management. Through growth, we will further our purpose by reaching more clients, having a greater voice, and a greater ability to bring about change.

If every company operated in a similar way to Australian Ethical, many of the world's challenges would be solved.

BANKSIA SMALL TO MEDIUM BUSINESS SUSTAINABILITY LEADERSHIP AWARD



KALLESKE WINES PTY LTD

SUSTAINABLE PIONEERS IN ORGANIC WINE, SA



Kalleske Wines is a producer of certified organic and biodynamic wines, situated at Greenock in South Australia's Barossa Valley. Established in 2002, by brothers Tony and Troy Kalleske, the winery utilises grapes from the family property which has been owned and operated by the family since 1853. It is the oldest and largest certified organic and biodynamic grape-growing and winemaking operation in South Australia. Kalleske are sustainable pioneers in organic wine. They are leaders and innovators in their field ensuring they are truly sustainable environmentally, socially and economically.

Their organic/biodynamic farming methods involve recycling winery waste (skins, seeds, stalks) as natural compost back to the vineyard, growing a green-manure cover crop for organic matter and tillage for natural weed control. The benefits of growing grapes and making wine organically include no chemical runoff into waterways, more biodiversity (spiders, microbes, etc), more carbon retained in the soil (instead of being lost to atmosphere) and resultant nutritious soil, clean environment for vineyard workers, healthier wines to drink (no residual chemicals) and better wines that are more naturally balanced and of inherent quality.

The winery is ultra efficient in energy use. With a 15kW solar array, it is a net exporter of electricity and uses 230,000 kWh less of electricity than the average Australian winery its size. The Kalleske winery's energy efficiency is a result of using evaporative cooling instead of refrigeration, utilising product heat exchange and storing barrels of wine in a double-skin insulated barrel shed requiring no external cooling.

Water use by Kalleske is also efficient, using only 53% of the benchmark figure. The Kalleske winery uses an average of 1L of water per litre of wine made compared to the average Australian non-bottling winery using 1.9L. Kalleske uses such little water by using it wisely,

using pressure instead of volume, dry cleaning (broom and shovel) wherever possible, emptying lines into slotted bin to capture solid waste and using a single-step detergent. The water used by Kalleske is entirely sourced on site from their 250,000L rain water tank.

Kalleske are not only pioneers in the vineyard with economical organic viticulture, but they are constant innovators striving for best practice in the winery too. Smart barrel storage is one such innovation. This involves storing the barrels with the bung sideways instead of upright, resulting in less oxygen ingress into the barrel. Practically this means regular barrel topping is not required drastically reducing manual labour, forklift time and pump use. Efficient clarification is achieved with the use of Australia's first wide bore, 0.8 micron ceramic cross-flow installed at the winery. Compared to traditional filtration utilising disposable media (pad, sheets, earth), the cross-flow is infinitely washable with no filter media to replace or discard. Cutting edge analysis is employed at the winery with Australia's first Oenofoss analyser installed in 2008. The Oenofoss measures all key parameters via near infrared. It is rapid, accurate and utilises no consumable resources (chemical reagents), unlike traditional wet chemistry analysis.

Kalleske are economically viable, an important aspect to allow it to be sustainable environmentally. By growing grapes and making wine naturally and organically it makes better quality wines equating to potentially better sales. When properly and efficiently implemented the Kalleske organic/sustainable strategy does not cost any more to operate than conventional methods.

Wines from Kalleske are exported to twenty markets and together with their business have gained national and international awards. Kalleske are twice winners of the Sustainability Award, South Australian Regional Awards (2013 & 2012) and Regional Winner and Hall of Fame Inductee in 2014. They were named World's Best Organic Wine Producer at AWC Vienna in 2013 and the World's Best Biodynamic Wine Producer at the London International Wine Challenge in 2012. More recently in 2015 they were awarded the 2015 Telstra Small Business of the Year (SA) and at the China Wine & Spirit Awards were named producer of the World's Best Bio Wine.

Kalleske are constantly willing to share their knowledge and experience with peers and industry organisations. Locals contemplating organics in their vineyard and winery often come to Kalleske to discuss practices, experience, costs and certification. In 2014 the Australian Organic national conference visited Kalleske to learn about sustainable practices and in 2009 the Fifth Australian Wine Industry Conference visited the vineyard and winery for an education session. In 2013 the Aspen Accord Study & Discussion Tour from California spent a day at Kalleske learning about sustainable practices.

The future is bright for Kalleske Wines as they continue to seek and share knowledge to remain an innovative, leading edge sustainable wine company.

**BANKSIA SMALL TO MEDIUM
BUSINESS SUSTAINABILITY
LEADERSHIP AWARD**

KOOWEERUP REGIONAL HEALTH SERVICE (KRHS)

SUSTAINABILITY, A SMALL RURAL HEALTH SERVICE RESPONSE, VIC



Kooweerup Regional Health Service (KRHS) is a small rural health service located in the Shire of Cardinia on the metropolitan/rural fringe of Melbourne. KRHS has provided a broad range of health services to the local community since 1921 – is passionate about health and sustainability for its patients, staff and the community. In 2007, KRHS adopted a proactive approach to health, which includes the promotion and protection of health, protection of our natural environment and conservation of resources. Cardinia Shire is an area that is vulnerable to climate change and has experienced the impacts of bushfire and flood in recent years.

KRHS was one of the first acute health services in Victoria to integrate Health Promotion into its core business which has enabled Climate Change to be recognised as a priority issue. We believe we are one of the leading health services in Victoria in working towards addressing this significant global health issue

There are two key drivers for change within the organisation:

- Health Services are large consumers of energy, water, clinical and chemical products and large producers of waste; and
- Health Services play a vital role in responding to climate change risks, given the need for these responses to be framed at a local level.

INTERNAL HIGHLIGHTS

- Environmental Strategy reviewed and integrated into Strategic and Operational Plans for 2015-2018. With a key outcome to support our community to become

resilient to the health, social and environmental changes ahead.

- Ongoing monitoring of benchmarking of energy consumption and greenhouse gas emissions with commitment to reduce emissions by 10% per annum (benchmarked against all Victorian Small Rural Health Services). This has been achieved for the past three years and in the past 12 months KRHS was only one of three health services in the State of Victoria to reduce its water consumption.
- Installation of solar tubes in main corridors throughout the facility.
- Embedding of sustainability to all health promotion initiatives, both internally and with the community.
- Cleaning practices changed from mop, bucket and chemical to microfibre and steam cleaning resulting in safer chemical use.
- Conversion of laundry to ozone technology which has eliminated the use of hot water and reduced chemical use.
- Application of heat reflective product to roof which will reduce internal heat load by 5-8%.

COMMUNITY HIGHLIGHTS

There is general consensus that climate change will negatively affect health and social wellbeing, both directly/indirectly through extreme temperatures and weather events, i.e. heatwave, air pollution, changes to food and water security. It is also clear that climate change will affect our most vulnerable populations, in particular, those most vulnerable in our communities, both locally and globally, i.e. elderly and disabled.

KRHS bases its actions with the community on providing activities and services that will assist in both mitigation and adaptation to the effects of climate change. The following are highlights:

- KRHS's Men's Shed and Community Garden (co-located in KRHS grounds). This is an organic garden primarily utilising harvested water and is key to connecting the community to the health service. It provides a vibrant active setting for education and building social capital. Programs include: permaculture classes, cooking, preserving and nature play (children activities).
- Raising awareness of the protection of the habitat for the Southern Brown Bandicoot which resides in the KRHS environs. Wildlife corridors have been established by multigenerational groups.
- Mentoring program – initiative between local secondary college and Men's Shed that seeks to address the issue of disengaged young people. Projects have a focus on the development of skills and the environment. Current project is the conversion of a van that can be used at community events.
- Community Education – access to healthy food, chainsaw/mower safety, fact sheets on bushfire/flood preparedness.

COLLABORATIVE PARTNERSHIPS

Intersectoral partnerships have been formed with other health, education, community, local government and environmental agencies to work collaboratively to deliver a range of initiatives.

KRHS is a member of both the National Climate and Health Alliance (CAHA) and the International Global Green and Healthy Hospitals (GGHH). We support existing efforts to promote greater sustainability and environmental health and collaborate to strengthen healthy systems globally. As part of our membership with GGHH, KRHS has committed to the set goals of Leadership, Energy and Waste.

INNOVATION

Much of the work undertaken by KRHS is innovative within the health sector. Shifting the paradigm thinking from a medical model of health to a strong social model of health is quite unique.

BANKSIA SMALL TO MEDIUM BUSINESS SUSTAINABILITY LEADERSHIP AWARD

SERENDIPITY ICE CREAM

CARBON NEUTRAL ICE CREAM, NSW



Serendipity is possibly Australia's first carbon neutral ice cream producer. Certainly, it is one of only a handful of carbon neutral local food producers.

Founded in 1966 by the current CEO's mother, Serendipity produces an astonishing range of super premium ice cream and sorbets using primarily locally produced natural ingredients. Their product is available Australia-wide in both the independent retail sector as well as food service. Among their customers are some of Australia's best known chefs (who of course make their own ice cream!) and you'll find a little tub of Serendipity in the pointy end of quite a number of domestic and international airlines.

CEO Sarah Mandelson has been passionate about environmental issues and sustainability since studying science at both HSC and university level. Despairing at the lack of leadership by government in this area, she felt it was high time someone in her industry put their money where their mouth was...

In 2007 Serendipity introduced a number of sustainability initiatives including reducing carbon emissions and other waste at source.

The first step was adopting the use of 100% green power. This single step reduced the business' carbon emissions by around 250 tonnes in the first year, representing over 80% of its carbon output.

Then, working with Marrickville council's Target Sustainability program, the waste and recycling outputs of the company were assessed and a plan was implemented to reduce waste sent to landfill and increase materials collected for recycling. In its first year the project resulted in 8% reduction of waste to landfill while production output increased by 25%. Product output has more than doubled since, while waste to landfill volumes

have only grown by around 12%. This was achieved by improved sorting and collection of recyclable materials and reusing materials that had previously been part of the waste stream. Continual staff training has been an essential part of this process.

The next step to improved sustainability was reviewing the business' general practices and implementing even small changes where possible. Such measures included:

- using ethically sourced 100% recycled &/or carbon neutral copy paper, staple-less staplers, refillable marker pens, etc.
- re-using office paper for internal company documents
- introducing a 'no paper cups' policy
- using 100% recyclable packaging materials, with recycled content where available or appropriate
- introducing a 'no plastic bags' policy, and using of pre-loved newspaper to wrap ice cream sold through the factory outlet
- re-using clean water from cooling production machinery for rinsing and cleaning equipment
- shower and bicycle parking facilities are provided to encourage staff to ride or walk to work

Then in 2013, Sarah initiated the collection of data across all emission producing activities in the business. These areas include waste and recycling, electricity, gas, fuel for vehicles and generators, water usage, dry ice, and fugitive emissions from refrigerants. The data is summarised and entered into their Carbon Emission Calculator, a simple spread sheet which Sarah developed to convert data into tonnages of CO₂. Carbon credits are purchased for the remaining emissions, resulting in the company's carbon neutral status.

In 2015 total emissions were 374 tonnes, all of which was offset by green energy & carbon credits.

The company's efforts towards all measures of its sustainability are recognised by both its market as well as industry. Of 6000 businesses Serendipity was one of 6 finalists for the prestigious Royal Agricultural Society of NSW President's Medal in 2013 and also 2015. This award assesses businesses on 4 key criteria: overall quality of product; contribution to community; environmental responsibility; and general sustainability including profitability.

The company's customers regularly congratulate it on its environmental efforts. Indeed, some supply contracts have been won on the basis of the business' responsibility in this area.

Finally, one of the other benefits has been that staff have embraced being part of a solution rather than the problem. This has improved staff morale and staff retention, and seen improved awareness and behavioural change in all team members in the workplace and outside it.

Serendipity has been a market leader since its foundation in 1966. At its inception that leadership was in a gourmet market still in its infancy in Australia.

The importance of high quality foods sustainably and ethically produced is now well recognised, and forms the main growth area of most sectors of the food industry. Serendipity is one business that has led the way in its industry, and shows that even a small manufacturing and wholesaling operation with limited resources can successfully achieve broad-based waste minimisation.

BANKSIA SMALL TO MEDIUM BUSINESS SUSTAINABILITY LEADERSHIP AWARD

TAHBILK WINERY CARBONZERO CERTIFIED, VIC



"The fabric of Tahbilk, its buildings, its estate vineyards, its 1860 shiraz block, and its idyllic setting by the Goulburn River (and its anabranches), all have history so seamlessly woven through its fabric that it's become timeless. Nothing will be changed or added in the future unless it is part of the continuity stretching back to 1860." James Halliday, Vintage Stories – 150 Year History of Tahbilk

Established in 1860 and purchased by the Purbrick family in 1925, Tahbilk plays a central piece in Victoria's diverse history. Tahbilk's harmonious growth with the environment is a credit to the Purbrick family. They recognised that we are ultimately farmers whose produce is affected by a changing climate and that we needed to do our part to ensure our unique meso climate could be improved.

Tahbilk is 200ha of vineyards, home to the infamous 1860 Vines Shiraz and some of the oldest Marsanne plantings in the world. We are a place of the people offering a Café, Cellar Door and Wetlands & Wildlife Reserve (walking tracks and boat cruises). The Estate focuses on good wine and good food, enjoyed in natural surrounds.

Our journey to carbon neutrality started with revegetation in 1998 and we have continued to be dedicated to restoring the natural environment by planting 152ha of native trees to date. All of the trees planted with bio diverse objectives in mind, to ensure we are restoring the natural landscape for the local bird and wildlife. These trees will sequester enough carbon from the atmosphere in the future to be able to offset Tahbilk Winery's carbon footprint.

In 2005, key to achieving this project was the opening of the wetlands and wildlife reserve. This area was specifically opened up to the community to enable the public to engage with our plans to become carbon neutral winery. Through the wetlands and wildlife reserve we

have had a lot of opportunities for engagement directly through our own visitors and indirectly through our activity with local agencies. It was also the start of our journey in to the world of eco-tourism.

In 2008 we forayed in to the world of carbon, partnering with Maunsell Australia to attain a greater understanding of our footprint. The benefit of measuring our carbon emissions was immediately apparent, by delivering a meaningful and comparable set of figures.

In 2014 we took measuring our carbon footprint to a new level by partnering with carboNZero, the world's first internationally accredited greenhouse gas certification programme under ISO 14065.

Tahbilk became the first Australian carboNZero certified winery at both an organisation and product level and one of eight wineries globally at the time to have achieved full carboNZero certification.

There is currently no other Australian winery with the full carboNZero certification. This certification in combination with Tahbilk's tourism operation which focuses on good food, good wine and the natural environment is unmatched in the industry.

Our recent 2015 carbon audit results saw a reduction in our overall carbon footprint of 14% from 2014 results. Key to achieving this fantastic result was a change in our bottling arrangement to embrace 'bottling on demand', a wetter growing season and changes in the use of our external freight providers. The audit also highlighted the areas we need to focus on in the future; improved recycling and solar energy.

In the longer term our plan is to be **Naturally Carbon Balanced by 2020**. This means, through a transparent process of measuring emissions, reducing those emissions and offsetting residual emissions, our net calculated carbon emissions equal zero **without the need to purchase external offsets**.

The Tahbilk Environmental Plan outlines Tahbilk's pathway to achieving this goal in two parts; revegetation and carbon emission reduction through sustainable project implementation.

To date we have planted 152ha of trees including our 18.9ha wetlands and wildlife reserve. We believe this quantum of native plantings will sequester enough carbon to offset our carbon profile by 2020.

We have implemented numerous projects to date saving an estimated 289t CO₂ since 2012 which includes application of heat reflective paint, completion of a Level 2 Energy Audit, Implementation of Variable Speed Drives and creating our own grape marc compost.

We will continue to enact the Tahbilk Environmental Plan primarily focusing on reducing energy consumption, moving to green power and reducing our landfill contribution.

Becoming carboNZero certified is part of the journey, not the destination.

**AUSTRALIA'S SUSTAINABILITY
SUCCESS STORIES**

BANKSIA SMART TECHNOLOGY AWARD

The Banksia Smart Technology Award recognises demonstrated leadership and innovation in the development and application of technology, which directly promotes a more sustainable world. The Award covers all dimensions of sustainability including environmental performance (energy efficiency, resource management, waste minimisation, etc.), social wellbeing (education, health, welfare, communications, security, safety, etc.) and economic development (productivity, supply chain efficiency, transport, etc.).



BANKSIA SMART TECHNOLOGY AWARD

AUSTRALIAN CENTRE FOR FIELD ROBOTICS AND UNIVERSITY OF SYDNEY

ROBOTICS FOR SUSTAINABLE ROW CROP FARMING, NSW



The Australian Centre for Field Robotics (ACFR) is leading the world with its innovative autonomous robotic systems for sustainable row crop farming. These robotic systems span from farming research systems including the Ladybird Farm Robot™ through to the production prototype systems RIPPA™ (Robot for Intelligent Perception and Precision Application) and VIIPA™ (Variable Injection Intelligent Precision Applicator).

The ACFR is based in the School of Aerospace, Mechanical and Mechatronic Engineering at The University of Sydney, and is dedicated to the research, development, application and dissemination of autonomous and intelligent robots and systems for operation in outdoor environments. The ACFR is one of the largest robotics research institutes in the world and has been instrumental in developing breakthrough technologies and in conducting world-leading research and development of field robotics principles and systems. The ACFR has partnered with major national and international agencies in academia, government and industry, and has established a number of leading research centres funded by the Australian Research Council, mining, security and defence, and environmental agencies.

Agriculture is an area of increasing research and development focus for the ACFR, and sustainability within agriculture is now a key research driver since robotics can unlock new levels of sustainable farming practice. Automation has the potential to meet future food production requirements, whilst curtailing the rising median age of growers, lack of labour force in agriculture, and the need to deliver sustainable food production systems and land productivity. It is estimated that we will need to double our food production by the year 2050. There is also a rising need for more sustainable farming operations with limited natural resources such as oil, land and water. The general approach taken by growers to improve land and labour productivity is to implement bigger machines and increase the

use of chemical inputs (e.g. pesticide and fertiliser) although this has introduced problems such as increased soil compaction, increased fuel usage, pesticide resistance and soil degradation.

This has led the ACFR to the design of systems spanning from farming research systems including the Ladybird through to the production prototype systems RIPPA and VIIPA.

Ladybird is an advanced precision mobile robot for research into automated row crop intelligence and automated row crop farming operations. It is capable of omnidirectional movement, enabled by four regenerative motion modules with independent drive and steer. The system is powered by solar panels that also charge high capacity batteries when surplus energy is available. A suite of sensors scan the crop, data is processed by on-board computing, and a 6 degree of freedom (DOF) robotic manipulator allows for interaction with the crop and soil for applications such as weeding or spraying. As a research platform, Ladybird demonstrates smart technology by providing a superset of functionalities for a broad range of row crop farming research areas with applications including optimising chemical input use, energy use, land use, food quality and food security.

RIPPA and VIIPA demonstrate smart technology by going further with a subset of the functionalities provided by Ladybird in a specialized and targeted manner. RIPPA is lighter, more efficient and lower cost than Ladybird with a focus on input application and farm intelligence. Mounted to RIPPA is VIIPA, which has demonstrated autonomously shooting weeds at high speed using a directed micro-dose of liquid. This technology can be used to automatically apply the correct dose of fluid required anywhere on the farm. This smart use of fluids such as chemicals, water or fertilizer is enabled by the sophisticated perception and control systems within RIPPA and VIIPA. These technologies will enable farmers to minimise input costs such as herbicides and to improve information quality for better high level decision making.

The primary innovative techniques and technologies presented by Ladybird, RIPPA and VIIPA include the smart use of energy, advanced perception systems and precision targeted fluid application (e.g. fertiliser, chemicals and water). Ladybird and RIPPA are capable of operating economically whilst powered off only average amounts of solar power in Australia with a large battery buffer for up to 24 hours run time when it is completely dark or cloudy, whilst VIIPA is capable of high precision automatic fluid application at high speed for optimising farm inputs.

This work has the potential to implement a fundamental shift to the way row crop farming skills and information are shared globally. The technologies have been designed to be easily adaptable and generic in a way that supports ongoing developmental research into smart farming using Ladybird in parallel with deploying commercial row crop farming products such as RIPPA and VIIPA.

These technologies have been specially engineered with a vision towards revolutionizing row crop farming, and are currently leading the way for sustainable row crop food production into the future. The ACFR plans to continue to push the barrier with research by applying smart technologies towards sustainable row crop farming systems while developing cutting edge, high performance products and enabling opportunities for future farmers around the world.

This work is supported by the Australian Centre for Field Robotics at the University of Sydney, AUSVEG and Horticulture Innovation Australia through project VG12104 *An Intelligent Farm Robot for the Vegetable Industry*.

BANKSIA SMART TECHNOLOGY AWARD

GOLD COAST CITY COUNCIL

A NEW GENERATION FLOOD EMERGENCY DECISION SUPPORT SYSTEM:
INTEGRATION OF NATURAL HAZARDS MANAGEMENT IN SUSTAINABLE
GROWTH, QLD



The City of Gold Coasts' "New Generation Flood Emergency Decision Support System" demonstrates how smart technology can be used to address challenges associated with sustainable growth in areas subject to natural hazards.

Over the past two decades Australia has experienced an upsurge in the level of destruction caused by natural hazards and indications are the situation will only get worse. Climate change is likely to make weather patterns more extreme, increasing the impact of natural hazards. This will happen in parallel to an increase in population growth, expansion of human activity, growing urbanization and consequently increasing the level of exposure and vulnerability to an ever-increasing number of people. The escalation of severe disaster events is increasingly threatening our sustainable growth. There exists a critical question: how can we grow sustainably? A new generation flood emergency decision support system is part of the Gold Coast City's response to this question.

Indeed, in high-risk areas, sustainable growth is only possible to the degree that related decisions address the destructive potential of natural hazards. The Gold Coast, like many other coastal cities in Australia, is susceptible to flooding and its sustainability as a prosperous city depends on its ability to managing flood risk, both catchment-based and arising from Sea Level Rise.

Mitigation and protection measures are generally aimed at protecting people against flood events that occur within the design level for residential buildings. Building Regulations in Australia set the design level for residential buildings at 1 in 100 year annual return interval (ARI) flood. Risk over this standard measure is described as 'residual risk'. This residual risk is addressed through emergency management. In the absence of robust flood emergency management, this risk can cause significant loss of life and damage to assets. Robust

emergency management is an integral part of a sustainable city which is subject to natural hazards.

This submission describes how this residual risk is mitigated through a technologically advanced flood warning and decision support system. Flood forecasting is a complicated and evolving field of engineering and science. Without a technological innovation to provide fast and accurate forecasting, effective decision support to emergency managers would not be possible. This submission describes a technological innovation instigated by the City of Gold Coast in this field, using integrated real time two-dimensional flood modelling for flood emergency management. Based on a literature review, it appears a system addressing both accuracy and speed (at the level provided by this new system) is not in operation anywhere else in Australia.

The system utilises the most recent advances in computing and communication technologies to integrate hydrological modelling, detailed two dimensional rain-on-grid hydrodynamic modelling and a custom-made control centre to predict real time flood levels and flood flow hydrographs at any location on the Gold Coast. The system was developed through the following steps, i) extensive consultation was undertaken with emergency managers to understand their needs ii) review of literature and contemporary systems was undertaken to see if there are off-the-shelf solutions to meet these needs (no off-the-shelf solution was found), iii) the required capacity was built in the organisation to design and develop the system in-house. The construction of the system required establishing a new and innovative architecture that addresses emergency managers' needs by providing a higher level of accuracy and speed of forecasts. This new system makes surface flood forecasts in a fraction of time and to a very high degree of accuracy compared with other contemporary systems.

This technology enables accurate and timely decision making by emergency managers. An error by a decision maker during an emergency situation may result in a catastrophe and loss of lives. Providing essential warning times, increasing the community resilience, potentially saving lives, minimising damage to assets and averting disasters are the outcomes of this system. These outcomes directly contribute to the social, economic and environmental sustainability of a community.

The system stands out as it achieves both accuracy and speed in flood forecasting. A literature review shows that alternative contemporary systems may have sacrificed either accuracy or speed. This new system delivers both accuracy and speed in flood forecasting.

Principles of sustainability are embraced in a number of the Gold Coast corporate strategies and plans, most notably, Corporate Plan Gold Coast 2020, City Plan and Sustainable Flood Management Strategy, allowing the City of Gold Coast to be a leader in sustainable growth.

BANKSIA SMART TECHNOLOGY AWARD

SOUTHERN OIL REFINING

NORTHERN OIL REFINERY, QLD



The Northern Oil Refinery in Gladstone in central Queensland has been a \$65 million game changer in the way Australia approaches waste oil management.

An amalgam of Southern Oil Refining's re-refining expertise and J.J. Richards & Sons' waste collection knowledge, the Northern Oil Refinery restores waste lube oil to its original condition – which is its highest, best and most environmentally responsible use.

To the uninitiated, lubricating oil doesn't sound sexy. But it is essential. Lubricating oil is what keeps our cars running, our planes in the air and mining and farming equipment going – it literally lubricates the wheels of commerce and industry. It also doesn't wear out – it just gets dirty and the additives in the oil lose effectiveness over time. These contaminants can be removed and the oil restored to its original condition through re-refining.

Unfortunately about 60% of the 350 million litres of waste lube oil that is collected in Australia every year is burned, and another 24% is exported to be burned overseas – destroying a valuable and re-useable commodity and damaging the environment in the process.

Used oil contains compounds that are potentially harmful, including polyaromatic hydrocarbons, chlorinated hydrocarbons, heavy metals and dioxins/furans. These chemicals are known carcinogens and mutagens, and waste oil, if unregulated or burned at low temperatures, can potentially release a range of these toxic compounds directly into the environment. The mishandling of waste oil also puts our waterways at risk, with as little as one litre of oil capable of contaminating one million litres of water.

The Northern Oil Refinery means Queensland and other regions of Australia have the best option for their waste lube oil – using cutting-edge recycling technology to re-refine a

hazardous waste product into a valuable commodity that can be used again and again – and at no extra cost to existing disposal and recycling practices.

The re-refinery has the capacity to process a third of Australia's annual production of waste lube oil, underwriting a new industry in regional Queensland. The re-refined lube oil it produces uses 60% less energy compared to the production of lube oil from crude oil, all of which is imported into Australia, while the carbon footprint of re-refining is just an eighth of the carbon released by waste oil burning.

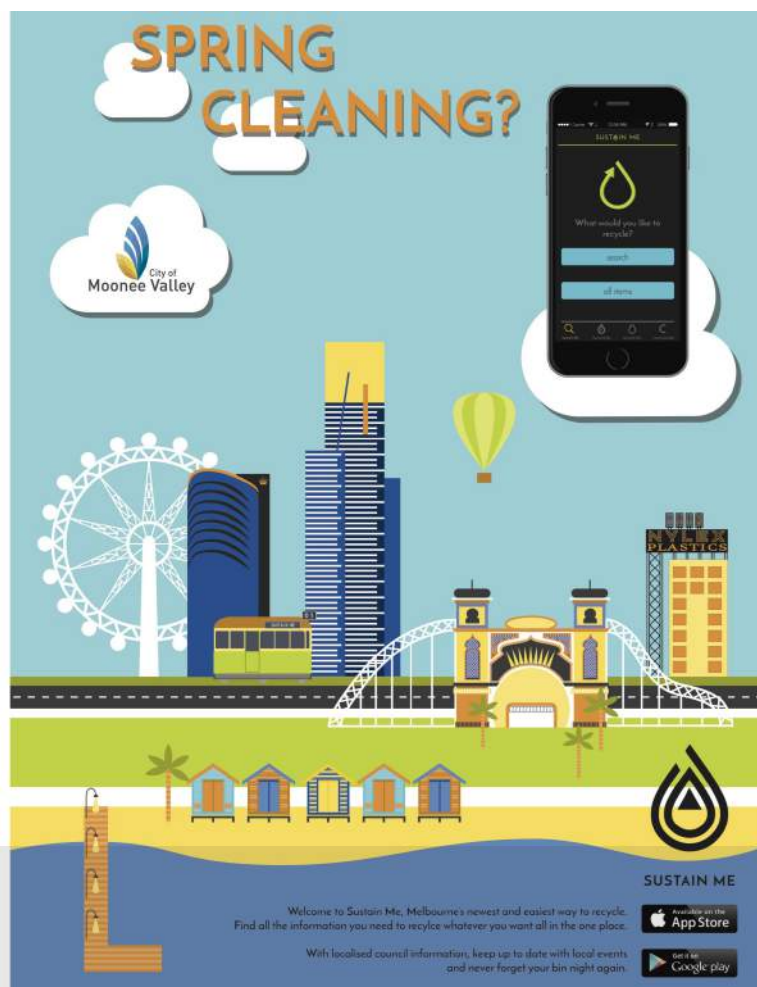
The re-refining process used in Gladstone produces no waste. Every component is reused and 99% of the lube oil component in the waste oil recovered as high quality lube oil, which is tested to meet quality standards under the national Product Stewardship (Oil) Act. This process is also measurable against life cycle KPIs, making it easier for industry players to assume more responsibility for the full life cycle of waste oil and the waste produced by re-refining.

The Northern Oil Refinery's combination of environmental, sustainability and local employment values has revolutionised how waste oil is treated in Australia, and this is reflected in commercial milestones. Since it opened in March 2014 the re-refinery has produced 30 million litres of base oil from waste lube oil – enough to run six million cars in Australia for a year – and reduced CO₂e emissions by more than 140,000 tonnes compared to waste oil burning.

Queensland and global leaders such as Brisbane City Council - Australia's largest municipality and metropolitan planning authority - now choose to direct their waste oil for re-refinement at the Northern Oil Refinery. This recognition continues to demonstrate to waste oil producers why they should choose the benefits of re-refining as a matter of principle and not just accept the best short term commercial quote for disposal.

BANKSIA SMART TECHNOLOGY AWARD

SUSTAIN ME GROUP
SUSTAIN ME, VIC



Sustain Me started as a grass roots initiative and has gained status as a national leader in sustainability due to the power of a good idea. Sustain Me is a recycling app that explains exactly how to recycle specific waste items. It gives people localised information at their fingertips, and offer councils an innovative tool to talk about recycling to their communities.

The app seeks to reduce recyclables going to landfill through education. Usual recycling communication takes the form of leaflets put through the mailbox. And yet, many Victorians note the main barrier for them to recycle is not knowing what can be recycled¹. This lack of knowledge accounts for the estimated 38% of recyclables being placed in landfill each year². Landfills are scarce resources and the available supply of land sites are diminishing³. 15 million tonnes of carbon pollution, or the equivalent to 3 percent of Australia's emissions, is caused by landfill⁴. Reducing landfill, increasing recycling, results in less carbon emissions entering the atmosphere and less land consumed by waste. This is the ultimate goal of the Sustain Me app.

Sustain Me's nomination for this award was backed by strong council endorsement of their project. Sustain Me reflects accurate council recycling information, but it is not isolated or limited to just one council. People can use this app all over Victoria, and soon all over Australia. The decision to position the app such was very strategic: the community moves about, even within one day - moving house, for work, holidays. Councils that come on board with Sustain Me join the community of councils and users alike; councils and users each feel the benefits of this community. The council can promote their recycling services, direct waste and recycling to their preferred locations, and benefit from the high level of engagement the community has with the app.

Sustain Me is designed, produced and powered by young social entrepreneurs Eleanor Meyer and Stephen Halpin, two committed and vibrant individuals bent on finding green solutions to waste and consumption. Eleanor and Stephen run on a little bit of money and a lot of passion, and have brought this project from conception to Australia-wide attention. By being nominated for this award, Sustain Me is recognised as a leader in Australia who innovates new technologies that directly promote a more sustainable world.

750 people currently use the app as of October 2015, after being available to the public for a little over two months. This number of downloads has been achieved on a \$0 marketing and advertising budget, demonstrating the strong community support and market demand for the services this app provides. More and more people download the app each day which make the group behind this start-up smile!

Of the 750 Sustain Me users, 148 people have used the Recycle Me function to collectively measure 21,231.6 litres of recyclables redirected from landfill, over the month of August 2015. Sustain Me is already producing positive environmental outcomes.

Due to the humbling support and backing from councils and communities, Eleanor and Stephen are not stopping. The app is currently available to be downloaded from the App Store and Google Play. Eleanor and Stephen will continue to work with councils across Australia to deliver accessible, customised and locally specific recycling information. They are excited and humbled by the small role they have played in advocating sustainable development in Victoria and Australia, and are pumped for their next achievements. Their next steps are to release the app Australia wide in 2016.

1 Sustainability Victoria, *Summary of social research on household kerbside service attitudes and behaviours in Victoria* (Sustainability Victoria: Melbourne, 2015)

2 Environment Victoria, *Recycling and landfill*, (Environment Victoria: 2015), <http://environmentvictoria.org.au/content/recycling-and-landfill>

3 Pickin, 2009, *Australian Landfill Capacities into the Future*, (the Department of Environment, Water, Heritage and the Arts: 2009)

4 Clean Energy Future, *Emissions from landfill facilities*, (Australian Government, 2011) <http://www.lms.com.au/assets/Media-Resources/Fact-Sheet-on-Emissions.pdf>

AUSTRALIA'S SUSTAINABILITY
SUCCESS STORIES

BANKSIA SUSTAINABLE COMMUNITIES AWARD

The Banksia Sustainable Communities Award recognises a group or individual that has demonstrated strong local capacity building and implementation of locally relevant solutions, measurably enhancing the long-term social, economic and environmental status of the community.



BANKSIA SUSTAINABLE COMMUNITIES AWARD

CLEARSKY SOLAR INVESTMENTS

CLEARSKY SOLAR INVESTMENTS, NSW



ClearSky Solar Investments is a not-for-profit community organisation that provides opportunities for community members to invest in solar installations on commercial and community buildings. It was set up by the Northern Beaches chapter of the community climate change organisation Clean Energy for Eternity, with the assistance of a grant from the NSW Office of Environment and Heritage in 2013. The objective of ClearSky Solar is to empower communities to benefit economically and environmentally from clean energy projects.

In September 2013 ClearSky launched the first community solar project funded by community investors in Australia. Since then the ClearSky portfolio has grown significantly and the organisation currently manages \$0.5 million of investor funds with installations at 11 sites across NSW and a total installed capacity of 335 kW.

Australia with more sun and wind than any other country is in an ideal position to benefit from the transition to clean energy. The Australian continent has the highest solar radiation per square metre and enormous, but mostly underutilised potential for solar power generation.

Solar energy has become increasingly popular in Australia, as it localises and democratises power generation. The cost of solar power systems has fallen dramatically over recent years and continues to fall. The increase in solar energy – generated during peak demand – has put downward pressure on energy prices in Australia. Solar energy therefore provides an insurance and safeguard against rising energy prizes. This has resulted in the rapid uptake of household solar systems in Australia, despite the lack of a fair feed-in tariff for the energy that is generated.

Households install solar PV to reduce their energy bills, to control their energy generation

and to make a positive difference to the environment by reducing their carbon emissions.

But some residents lack the roof space to install solar or have issues with overshadowing. Others would like to go beyond what they can fit on their roof. And for those households, investment in one of ClearSky's community energy projects provide a viable alternative

ClearSky Solar Investments works collaboratively with trusted commercial solar installation companies. The site owner signs a power purchase agreement with the commercial installer which sets out the price per kWh to be paid for electricity generated by the installation for each year of the term of the contract. Community investors fund the installation and receive the revenue from the sale of electricity. At the end of the term, which is typically 7-10 years, the installation is gifted to the site owner.

The size of the installation is scaled to ensure that the energy generated is used on site and substitutes for electricity which would otherwise have needed to be purchased from the grid. Suitable sites are those where there is a steady demand of electricity during daylight hours seven days a week, for example sites with a large refrigeration load or air conditioning system.

The term of the power purchase agreement is adjusted to ensure that by the time the term ends, the total revenue received from the sale of the electricity generated by the system covers the initial capital outlay from community investors with an acceptable interest rate. Sites with a high proportion of cloudless days where grid electricity is expensive have the shortest contract terms.

ClearSky Solar Investments is run entirely by volunteers committed to accelerating the rollout of renewable energy in Australia. Administration overheads have been minimised by operating entirely online with a web-based administrative system, which allows investors to keep track of their investment and monitor power output from their installation hour by hour

ClearSky Solar Investments is committed to empowering communities to play a constructive role in the response to climate change. It provides opportunities for environmental 'leadership by example' and in the process creates shared value and provides sustainable economic, ecological and social benefits to local communities.

ClearSky Solar Investments:

- has pioneered a mechanism for crowd funding renewable energy projects that has very short lead-times and low administrative overheads
- has built a network of committed individuals interested in investing in renewable energy projects
- has continually refined its processes over a succession of projects with a total installed capacity of 335 kW
- has promoted the idea of community energy and encouraged individuals to invest in community energy projects through presentations at various sustainability events
- has provided knowledge transfer and advice to other community groups interested in establishing community energy projects
- continues to advocate for support for the community renewable energy sector.



GOULBURN VALLEY WASTE AND RESOURCE RECOVERY GROUP AND MOIRA SHIRE COUNCIL

OVERCOMING BARRIERS TO EFFECTIVE HOUSEHOLD KERBSIDE
GARDEN AND FOOD ORGANICS RECOVERY, VIC



Goulburn Valley Waste and Resource Recovery Group (GVWRRG) works with its six councils – the City of Greater Shepparton and the smaller rural shire councils of Campaspe, Mitchell, Moira, Murrindindi and Strathbogie – to reduce waste and increase recovery of the valuable materials in the waste stream.

The Moira Shire made up of the former Cobram, Nathalia, Numurkah, Tungamah and Yarrawonga councils, has a population of nearly 30,000 and supports major irrigated dairying, cropping and horticulture industries. Its 4,045 km² straddles land between the Goulburn and Murray Rivers.

Since 2007 we have led our councils to develop a closed loop business case to introduce household food and garden recycling across the region to unlock its value as a compost and soil conditioner for agriculture, horticulture, parks and gardens in the region.

Challenge: Organics makes up 41% of the Goulburn Valley household garbage bins, lower than the state average but still a massive waste of a valuable material. In landfill, organics is the biggest generator of methane, 21 more times potent than carbon dioxide.

Household garden organics collections are common in metropolitan areas but not in regional Victoria. Food organics collections are even rarer due to a lack of processing facilities and secure end-markets close by to sell the recycled organic products. Only one metropolitan council had a food collection prior to this project, but has experienced very high contamination rates of over 20%. Interstate councils have also experienced unacceptable contamination rates. This deters councils from introducing food organics collections.

Response: We built a comprehensive evidence-based business case to sell to councils that addressed the valid concerns about high contamination rates. This included:

- garbage bin audits collection trials
- a region-wide householder attitude survey
- council assessments
- assessment of opportunities, barriers, risks and the need for recycled organic products
- market opportunities
- biosecurity risks and Dieldrin contamination investigation
- options for compostable nappies and nappy recycling.

Players: Currently the project includes the Moira, Strathbogie, Shepparton and Mitchell councils across 12,638 km² and a population of 132,696. When complete, a new food and garden organics collection will have been provided to an additional 25,440 households and for 15,700 Shepparton households to include food into their existing garden organics collection.

Moira started in December 2014, Strathbogie in July 2015, Shepparton will in November 2015 and Mitchell in July 2016.

In 2006, Western Composting Technology (WCT) built the first best practice in-vessel organics composting facility in Victoria with long-term investment from Shepparton's garden organics processing contract and support through Sustainability Victoria funding. Capitalising and growing WCT's facility has been part of our long-term strategy.

Both WCT and the local collection contractor, DS Kendall Waste Services, are small local businesses that take pride in providing excellent service and are invested in their community.

Funding: Based on the evidence-based business case GVVRRG secured \$550,000 from Sustainability Victoria's Organics Support Package in 2014 to introduce a garden and food waste collection in the Goulburn Valley. WCT also obtained \$174,600 from Sustainability Victoria's Driving Investment for New Recycling Fund to upgrade decontamination equipment to ensure a continued high quality product.

Community engagement: We understood the importance of community engagement to the project's success and, with financial support from Goulburn Murray Landcare, engaged well-known Australian science communicator, Dr Karl Kruszelnicki, as our project ambassador.

Dr Karl was a huge asset to the project starring in three paid TV ads, individual council videos, ran a schools day and an evening community event.

We enjoyed multiple cost benefits through adapting the Metropolitan Waste and Resource Recovery Group's existing Back to Earth garden organics education program to include food and expand it to a multi-pronged regional engagement program.

Our success is evident from the wide range of print, TV and radio articles and, most importantly, the extremely low contamination rate.

Potential and target: Based on 2010 bin audits, 10,000 tonnes of organic material was available to be recovered and 100% recovery would save nearly 10,000 t CO₂-e. We assumed 65% actual recovery for our target of 7,000 t CO₂-e.

Results: The small rural Moira Shire was the first to introduce the service achieving:

- an astounding contamination rate less than 1%
- reduced methane-generating organics to landfill by over 5kg of garbage per household per week
- reduced garbage by 42%
- 76% households embraced the service
- 0.35% or 27 households were non-compliant and had the service suspended.

Based on collections to date we will exceed all targets and achieve the added benefit of prolonging the life of our landfills.

Replication: Our regional closed-loop project demonstrates successful food and garden organics recovery with low contamination rates can be achieved through:

- a long-term plan
- a business case built on careful research
- a processor with capacity to expand
- a comprehensive education and engagement program to win community support
- a compliance monitoring and action plan (that is implemented)
- multi-council sign up
- external funding.

BANKSIA SUSTAINABLE COMMUNITIES AWARD

GROWN AND GATHERED

EMPOWERING COMMUNITY THROUGH SUSTAINABLE FOOD SYSTEMS
AND A BRIGHT FUTURE, VIC



Grown and Gathered is a small business, started by two passionate people on a mission to make sustainability an achievable a part of everyone's life. Their finalist nomination was supported by numerous testimonials from chefs, the general public, colleagues, previous interns and well known media alike, who unanimously commented that Grown & Gathered "inspire everyone to live more consciously. Creating, growing and nurturing what we already have... as we move into the future", and "we walked away more inspired than we could have ever imagined... These guys have completely changed the way we look at the farm. I want to hug them daily."

Grown and Gathered provide an innovative and multifaceted community programs. Founders and directors Matt and Lentil Purbrick have taken it upon themselves to educate and demonstrate to people from all walks of life what it really means to eat, farm and live sustainably. Their community initiatives have directly engaged approximately 88, 464 people since the project began in August 2013 and they will continue to reduce waste, promote sustainable and regenerative farming practices, connect community and inspire better food systems long into the future.

Matt and Lentil began by selling their produce to some of the top chefs of Melbourne's restaurants and cafes, encouraging them to adopt principles of local, real produce and sustainable farming and packaging. But they craved more. They wanted to extend the conversation. They decided to open their van doors to the people of Melbourne, selling their home-grown vegetables and flowers from the back of it. They soon sold out week after week and their education and community initiatives became something sought after. They are now educators, bloggers, and advocates for sustainability and a bright future!

On the Grown & Gathered farm in Tabilk, Victoria, Matt and Lentil grow over 500 different

varieties of heirloom fruits, vegetables and flowers; raise animals; hunt; forage wild food; make natural preserves and ferments; rekindle near lost food traditions; and educate a huge following about it all - all without generating a single scrap of waste.

They deliver their produce to Melbourne and return with food waste from restaurants and customers to compost and return to the land - which they call closed-loop farming. Matt and Lentil teach concepts of near-lost, pre-industrial principles and waste-free living proven environmentally sound for thousands of years. Techniques they have researched extensively, trialled and tested over 3 farm sites and with numerous people.

They take a multifaceted approach to their education in the community to maximize its impact across diverse social demographics and communities, currently reaching businesses, farms, restaurants, individuals and public groups, with initiatives such as:

- Internships on farm
- Workshops: Farming/growing, pickling, preserving and traditional food preparation and waste management.
- Speaking events and dinners
- Business consultations: mentoring re: sourcing sustainable food, decreasing waste, increase sustainable practices on farm.
- Private consultations: mentoring re: beginning a farm, production of food in small spaces, increasing sustainable practices on farm.
- Public blog and social media: They provide a constantly updated feed of information on their public blog and social media to promote and inspire re: sustainable practices.
- Trading and produce deliveries: They trade and sell produce (food or flowers) directly with restaurants and the public, to increase knowledge around the sustainability of local industry.
- Seasonal Chart: They released a seasonal vegetable chart, printed on waste cotton – to provide education re: sustainable food practices

Key initiatives and achievements:

- Currently Grown & Gathered divert over 30 tonnes of compostable waste from landfill annually and use it to produce over 30 tonnes of waste-free produce all transported in re-usable packaging.
- They have developed an irrigation system that allowed them to cut their water use on the farm by 80%.
- They have trained 14 new farmers to date – a band of enthusiastic, young individuals now enabled to begin production of their own waste-free produce.
- They do not generate waste during any on farm operations or in their home and all of their products are made from recycled waste and compostable.
- They are creating public behavioral change by allowing people to purchase local produce, support chemical free farming, grow their own, begin a farm, create less packaging, minimize waste, eat seasonally and cook from whole food ingredients, currently having reached over 11,253,604 individuals with their simple message of sustainable living.

Their passion and dedication to sustainability influences not only today's change making chefs and media but just as equally, everyday people, and their enthusiasm for what they do is infectious. Overall, Matt and Lentil believe that sustainability begins with the individual and they are doing all they can to empower as many individuals as possible, and they have big plans for the future.

BANKSIA SUSTAINABLE COMMUNITIES AWARD

MORELAND ENERGY FOUNDATION

EMPOWERING COMMUNITY THROUGH SUSTAINABLE FOOD SYSTEMS
AND A BRIGHT FUTURE, VIC



Moreland Energy Foundation Limited (MEFL) is a unique, not-for-profit community-based organisation dedicated to tackling climate change at the grassroots level. We were established in 2000 by the progressive local government of Moreland. Starting from humble beginnings with just a CEO and part time receptionist we have evolved over time to become a leader in renewable energy and energy efficiency solutions for local communities.

MEFL has consistently delivered ground breaking projects with each project providing the platform for more innovative and exciting projects to be delivered in Moreland and beyond. In 2014 we developed Moreland's Zero Carbon Evolution (ZCE) strategy, which details pathways of emissions reductions out to 2020. ZCE has five clear strategies to achieve a 22% reduction in community carbon emissions by 2020, guided by principles of whole community collaboration. The project has already delivered strong results with emissions reduction attributable to the Zero Carbon Evolution Strategy of 16,600 kT.

This strategy and the results attributable to it were a direct result of previous projects such as: Zero Carbon Moreland; a Solar Cities Project engaging 4,000 Moreland residents and 450 businesses, Merlynston Village Green; a project assessing the effectiveness of delivering services in small geographic areas, GreenTown; a project that trained bi-lingual participants to deliver home assessments and education in a culturally and language appropriate manner, and a number of other projects.

Each project we deliver builds capacity within our organisation and the organisations we work with. Involving our partners in project delivery is essential to build self-reliance and a greater breadth of knowledge and practical skills within the community and the industry.

In order to ensure the success of projects delivered in Moreland could be built upon by

other councils we established a social enterprise called Positive Charge. Positive Charge was designed to deliver independent energy-saving services and advice to local communities on behalf of local governments. It is a “one-stop shop” serving as the link between Councils, households and service providers. Since its establishment (2013), it has achieved great outcomes:

- 14 partner municipalities in Victoria
- 4400 households supported with energy advice
- 600 businesses across 12 business precincts
- Projects with 8 councils in NSW
- 7 solar PV bulk buy programs across 14 municipalities
- 1.95 MW of solar panels contracted
- 54,118 tonnes of greenhouse gas abated (equivalent to 11,514 cars taken off the road)
- Several schools and community groups supported and the list goes on...

Positive Charge also delivered Easy Energy Efficiency for SMEs which was a three year project that engaged with SMEs in four key employing sectors and partnered with six multicultural peak agencies to deliver information and support to empower energy efficiency action in SMEs. The project engaged directly with 400 businesses, delivered 20 “DIY” videos, trained environmental health officers and multicultural support workers to deliver energy efficiency advice and developed 100 case studies from energy efficient businesses in the northern metropolitan Melbourne region.

Another key area of activity is MEFL’s consultancy arm which is working with a range of urban, rural and interstate partners to deliver innovative programs that will influence policy, renewable energy use and innovation in project delivery for years to come. Projects such as: Zero Net Town; a pioneering initiative to create Australia’s first town which produces all of its own energy needs from renewable energy, Moira Virtual Power Station; which addressed the feasibility of establishing a virtual power station to take advantage of excess solar generation, OEH Clean Energy Tool; is a tool that can be used by NSW councils to assess the viability of clean energy projects in a simple and efficient manner.

MEFL have also delivered a number of projects to improve urban development delivery in Moreland and beyond. The Sustainable Urban Development Framework (SUDF), developed by MEFL, provides a detailed template to allow developers to understand best practice in similar developments and improve design and building practices accordingly. The SUDF is now being used to develop cutting edge developments such as the award winning “The Commons” in Brunswick.

Through constant innovation, we remain fresh, relevant and well-regarded; a consistent leader in local action on climate change. In everything we do, we strive to transform communities into active, inspired groups tackling climate change with sustainable energy solutions.

BANKSIA SUSTAINABLE COMMUNITIES AWARD



QUEENSLAND TRUST FOR NATURE (QTFN)

AVOID ISLAND PROJECT, QLD



The Queensland Trust for Nature (QTFN) is an independent, not-for-profit organisation focused on the protection of Queensland's biodiversity and natural landscapes.

QTFN is uniquely positioned to meet the challenges of biodiversity protection. Unlike other conservation funds, we are able to buy and sell private property to protect at-risk ecosystems and secure management solutions through commercial contracts on privately-owned land. In all, the Trust has used this revolving fund mechanism to safeguard more than 104,000 hectares of Queensland's important environments since 2004.

Avoid Island is our signature project and an exemplar of how not-for-profit organisations, corporate partners and members of the public can come together to deliver lasting scientific and conservation outcomes.

The Trust bought the 83 hectare island in 2006 to preserve nesting beaches for the flatback turtle (*Natator depressus*) - a sea turtle species endemic to the continental shelf of Australia and named for the distinctive shape of its shell, which is almost flat with upturned edges.

The flatback turtle is listed as Vulnerable in Queensland (Nature Conservation Act 1992) and nationally (Environment Protection and Biodiversity Conservation Act 1999). The species' recovery is ranked as a critical priority under the Queensland Department of Environment and Heritage Protection's Back on Track species prioritisation framework.

Avoid Island's eastern facing beaches provide nesting habitat for 25% - 30% of the female flatback turtles on the east coast of Australia, and the lack of mammalian predators such as pigs, dogs and foxes, and the absence of artificial light and human development make the location one of the most important nesting sites in Queensland. Today, Avoid Island is the only privately protected island nesting habitat for the flatback turtle in the world.

Since our purchase of the property, QTFN has managed Avoid Island to provide a high level of protection to nesting turtles and other conservation-significant flora and fauna, and has facilitated and informed crucial research into the little-understood and threatened flatback.

Annual nesting and hatchling surveys led by world-renowned sea turtle experts Dr Col Limpus and Dr Nancy FitzSimmons have been established and the island is now a representative index beach for the long-term monitoring of the east Australian stock of the flatback turtle.

After four seasons of collected census data, the findings of this work to date conclude:

- Female flatback turtles lay more than 7000 eggs on Avoid Island each year with hatchling success rate at 78.1%.
- Turtles at Avoid Island display high site fidelity, with nearly all remigrant turtles having been tagged previously at Avoid Island.
- Existing management at Avoid Island is providing important protected habitat for the Eastern Australian nesting population of flatback turtles in an area free of large terrestrial predators such as pigs, dogs, foxes and goannas.
- Continued monitoring is necessary to estimate the recruitment rate of first time breeding females into the adult nesting population.

The quality of the research program is such that Avoid Island doubles as a real-world classroom for the next generation of marine researchers from the University of Queensland, Griffith University and the University of New South Wales.

A partnership with the Great Barrier Reef Marine Park Authority Reef Guardian Schools program also allows Mackay primary and secondary students to learn about life on the Reef and important animals and their habitats through the lens of Avoid Island.

These core scientific and educational endeavours are supported by general awareness and hands-on conservation activity like our 'flying squad' initiative which brings groups to Avoid Island to collect, catalogue and remove litter from the foreshore. Together these everyday Queenslanders removed more than 150 kilograms of rubbish in 2014 alone.

The significance of Avoid Island to the survival of the flatback turtle will only grow as coastal development continues between Gladstone and Mackay.

We have created in Avoid Island a successful model for how to conduct research and education activity on a Nature Refuge and our ambition is to increase the scope of work to encompass this ecosystem's other conservation-significant species – migratory shorebirds, for example. More broadly we plan to replicate these outcomes on our other properties that touch the length and breadth of Queensland.

However the achievements of Avoid Island would have been unattainable without the sponsorship and in-kind contributions of our corporate and government partners, in particular the Queensland Government, Wild Mob and the Northern Oil Refinery in Gladstone – a fellow Banksia Sustainability Awards finalist! Thank you for your many years of support and be very proud of what you have helped accomplish.

**AUSTRALIA'S SUSTAINABILITY
SUCCESS STORIES**

BANKSIA SUSTAINABLE WATER MANAGEMENT AWARD

The Banksia Sustainable Water Management Award recognises demonstrated leadership and innovation in assuring continued environment and community access, both today and by future generations, to quality freshwater resources and vibrant marine environments.



Proudly sponsored by MMG

MMG is proud to be a sponsoring partner, for a fourth successive year, of the national Banksia Sustainability Awards. We warmly congratulate this year's finalists for their outstanding leadership and achievements, and the Foundation on its steadfast and evolving program of positively impact.

MMG is a global resources group that mines, develops and explores and base metal projects around the world.

With operations located in Australia, Laos and the Democratic Republic of the Congo (DRC), MMG also has three significant development projects in Australia and Peru, and a global portfolio of exploration projects.

At MMG, we believe that “we mine for progress” – to build wealth through the development of our people; the investments we make in improving local capability; and the value we deliver to our shareholders.

Our vision is to build the world’s most respected mining company. Sustainability is what really matters to us. Our challenge is to deliver the benefits of our operations to all our stakeholders – whether they are shareholders, employees or the communities in which we operate, while sustainability managing our business.

MMG is committed to excellence in sustainability performance through membership of the International Council on Mining and Metals and alignment to the Sustainable Development Framework.

Through the framework’s Ten Principals, we balance our economic, environmental, and community priorities to turn business success into the development of local people and local communities. Our Sustainability Report (see www.mmg.com) outlines our annual performance.

We are addressing the current environmental-social priorities across our operations, as well planning for those particular ones being presented by climate change and water resource scarcity.

Water – its availability, management, treatment and disposal – presents an increasing challenge for us and the mining sector, whether we are controlling flood waters in North West Queensland or Laos, dealing with scarcity, re-cycling and re-use in Western Australia, or providing potable drinking water to local villagers in Laos and the DRC.

To meet that challenge, we have developed a robust water management strategy. However, MMG recognises that broader commitments to efficient water use and management are required, and that Australian organisations and researchers are uniquely positioned to innovate to that need.

We have, therefore, chosen to sponsor the Banksia Sustainable Water Management Award to help acknowledge and encourage the innovators and leaders in this critical area for our region.

We also want to firmly support the Banksia Awards enduring mission, and to encourage other potential sponsors to do likewise. Thank you to the Banksia Foundation and all entrants for the opportunity to be part of the successes being acknowledged by these awards.

BANKSIA SUSTAINABLE WATER MANAGEMENT AWARD

GOULBURN BROKEN CATCHMENT MANAGEMENT AUTHORITY FARM WATER PROGRAM, VIC



The Farm Water Program provides a once in a lifetime opportunity for irrigators within Victoria's Goulburn-Murray Irrigation District to achieve farm water savings. The modernisation of farm irrigation infrastructure results in water savings which are shared between farmers and the environment. To date, the program has secured over \$200 million of investment to deliver over 100 GL in farm water savings, providing benefits to irrigators, the regional economy and communities, improved water quality and salinity management, and importantly, the environment.

Harry Rowlands successfully applied for funding from Round 1 of the Farm Water Program to install 3.5km of pipe and 50 risers on 85ha of the family's 113ha main farm property. He also upgraded his re-use pump, pump shed and installed another pump. The system allows for smaller pipes and created more consistent water flows from risers.

"Even in the higher paddocks, which used to take a lot longer to water, the water flow is the same as the other areas," Mr Rowlands said. "There's less water lying around, I'm watering faster and the pasture is growing better, so there's a lot more feed. And without channels there's now no more spraying and having to run around dealing with cracks and leaks and blocks," he added.

"It used to take up to six hours to get water to some paddocks now it's about 30 seconds," said Mr Rowlands. "The pumps are on timers, so there's no more getting up at all hours to turn them on and off. Because they are self-priming it's so much easier – just a press of a button - and by the time I get back over to the paddock the water's flowing."

Regarding the program's success, Mr Rowlands said, "The program has been a real boom for area. The local pump supplier's been run off his feet and the excavator operator's put on

someone else. It's good for everyone! Work that would have taken me 20 years to get done has instead taken two months."

GB CMA Chief Executive Officer and Farm Water Program Chair Chris Norman agrees. "The benefits are profound: farm improvements, environmental benefits, water savings, increased food security and positive regional development. All of this could not have been achieved without the commitment and dedication of the irrigators and consortium partners; it is a true reflection of the outcomes that can be realised through true community engagement and strong partnerships."

A consortium, led by Goulburn Broken Catchment Management Authority (GB CMA), receives State and Commonwealth Government investment. Consortium partners include GB CMA, North Central Catchment Management Authority, North East Catchment Management Authority, Goulburn-Murray Water, Murray Dairy and Dairy Australia, the Department of Environment, Land, Water and Planning, the Department of Economic Development, Jobs, Transport and Resources, and Northern Victorian irrigators.

Another participant Bill Gread sees the modernisation of the irrigation network and funding for farm efficiency works as a "blessing" for local irrigators. Situated on a 172 hectare grain property in Katunga (in Northern Victoria), Mr Gread had already started lasering and channel works when funding became available through the Farm Water Program in 2010. Modernisation works on nearby channels had commenced as part of a Northern Victorian Irrigation Renewal Project and through this process Mr Gread went from "getting 5 or 6 megalitres a day through the wheel to 20. To make the most of this, on-farm works were obviously the way to go."

Mr Gread believes, "This Goulburn-Murray Valley region is a golden region - a real Garden of Eden - but because of the drought, we were watching it wither before our eyes." Through the Farm Water Program, Mr Gread's project saw 34 ML of water savings transferred to the Commonwealth Environmental Water Holder for use for positive environmental purposes. "Now - because of what we've done with the bays and channels - most of the run-off (about 98% I'd say) is going into the re-use dam and that's got to be a good thing," he added.

So far, 517 projects have been funded through the Farm Water Program, with 67.9 gigalitres of water savings generated and \$124 million invested in farm infrastructure works. With an average cost-benefit ratio of 1.34, the funding administered is estimated to generate at least \$28 million a year in economic benefits across the region; support 355 regional jobs; provide significant social and environmental benefits; and boost industry confidence and co-investment. Industries undertaking works include dairy (311 projects), grains (99), beef and sheep (64), mixed industry properties (26) and other industries (17).

BANKSIA SUSTAINABLE WATER MANAGEMENT AWARD

LEIGHTON BROAD

MANAGING THE SWAN RIVER DURING THE DEVELOPMENT OF
ELIZABETH QUAY, WA



Elizabeth Quay is a \$440 million foreshore redevelopment and the centrepiece of the State Government's extensive plan to revitalise Perth as one of the world's most liveable cities.

Leighton Broad (a partnership between Leighton Contractors Pty Ltd and Broad Construction) is the managing contractor for the construction of this iconic infrastructure project which includes the creation of an inlet, island, suspension pedestrian bridge, new ferry terminal and a public realm with food and beverage outlets.

The Elizabeth Quay development is situated in the heart of Perth CBD, along the Swan River foreshore and on an area of land that has been progressively reclaimed from the early 1900s.

With the Swan River already experiencing long-term ecological stress including nutrient run off and rubbish pollution, Leighton Broad developed a comprehensive plan to manage the river and minimise the impacts during construction.

Leighton Broad's commitment to safeguarding the river during construction was imbedded within the fundamental principles of the Projects Environmental Management Plan. In addition, Leighton Broad developed rigorous monitoring programs, adopted industry best practice, scientific review and the drive to implement environmentally sensitive methodologies during construction.

The management of environmental aspects onsite have been diverse, including the management of Acid Sulphate Soils (ASS), European and Indigenous heritage, marine fauna and seagrass communities, groundwater, waste management, contamination and remediation and disposal and re-use of bulk excavated material. While consideration of all of these environmental aspects has been fundamental to environmental management across development of Elizabeth Quay, the most significant to date has been implementing

sustainable water management; maintaining river water quality surrounding the project area during dredging of the Swan River, inlet excavation, dewatering management and the final connection of the inlet with the Swan River.

Leighton Broad invested significant efforts and successfully gained Government approvals to change construction methodology from the mandated Cutter Suction Dredge to a more environmentally-friendly backhoe dredge with “enviro bucket”. The case to implement this amendment was presented to the Department of Parks and Wildlife (Rivers and Estuary Division) (formally known as the Swan River Trust) and the Western Australian Planning Commission who supported and approved the proposal. This was a significant environment and economic win for the project and the Leighton Broad team.

The implementation of rigorous and targeted water quality monitoring programs meant that review of environmental management practices and controls as they relate to water management could be founded on sound monitoring data collected during construction works. As these monitoring programs were developed with the input from regulators and environmental specialists, it ensured that any impacts to the surrounding Swan River from the construction of the inlet were identified promptly to guarantee negligible impacts to the wider Swan River and that controls were effective.

Management of inlet water quality and the first opening/flushing with the Swan River presented a highly significant milestone for the project. It also raised complex management issues; how to maintain inlet water quality to a standard that is reflective of the wider Swan River whilst continuing with inlet excavation and construction works. The methodology for excavating and filling the inlet involved the extensive engagement with the key stakeholders and environmental authorities.

Flushing modelling assisted in identifying the level of flushing with the river that would be achieved by cutting the flushing channel. The latter of which was seen fundamental to maintaining inlet water quality with that of the river environment. A comprehensive water monitoring program was developed and endorsed by regulatory authorities to ensure works were not impacting on the social and environmental attributes of the river. It consisted of water quality testing inside and outside the inlet, pathogen assessment and phytoplankton analysis. Extensive testing was completed prior to the first flush with the Swan River. The data was presented to environmental authorities who endorsed flushing prior to excavation and opening of the inlet.

The management of the Swan River during Leighton Broad’s construction of Elizabeth Quay is at the forefront of industry practice. The investigation and adoption of alternative methodologies, the completion of scientific modelling and the development of rigorous water monitoring programs are all testimony to this. The Elizabeth Quay construction illustrates that with appropriate consideration across all environmental aspects, developments interfacing with waterways of great community significance can be constructed whilst maintaining the quality of its surrounds for future use.

BANKSIA SUSTAINABLE WATER MANAGEMENT AWARD

PRIMARY INDUSTRIES AND REGIONS, SOUTH AUSTRALIA
SOUTH AUSTRALIAN RIVER MURRAY SUSTAINABILITY PROGRAM
(SARMS), SA



The South Australian River Murray Sustainability Program (SARMS) was developed and championed by industry, supported by the South Australian Government, and is funded by the Australian Government. The delivery of this unique, innovative and holistic suite of programs is underpinning the prosperity of the South Australian River Murray region.

SARMS is designed to return 40 billion litres of irrigation water to the River Murray environment to help meet water return targets under the Murray-Darling Basin Plan. In recognition of the socio-economic impacts of redirecting water from irrigation use, SARMS also provides opportunities for businesses to increase their profitability and insulate themselves from hard times, such as during drought.

The Murraylands and Riverland region of South Australia is home to almost 70,000 people. It is an important food producing region, with industries including vegetables, grains and livestock in the Murraylands, and irrigated horticulture in the Riverland.

As part of the South Australian Government's 'Fight for the Murray' campaign during the development of the Basin Plan, a collaborative partnership between the Water Industry Alliance (WIA) and the South Australian Government saw the development of an industry-led proposal to return water to the River Murray environment and, at the same time, support agricultural development. This proposal delivered on a shared understanding that South Australia's River Murray irrigators were ready for the next generation in irrigation business innovations.

The partnership between industry and government resulted in the Australian Government agreeing to fund the \$265 million SARMS, which includes the \$240 million flagship *Irrigation Industry Improvement Program* (3IP) element, and the \$25 million *Regional Economic*

Development (RED) element. RED comprises a suite of regional development, research and innovation programs, including the redevelopment of the Loxton Research Centre.

To the Program's knowledge, no other program in the world spans water returns, irrigation optimisation, industry assistance and regional economic development. This unique, holistic funding package has provided the right incentives for regional farms and businesses to apply in droves, and has led to the Program's successful implementation. SARMS is ahead of water return milestone requirements under the SARMS National Partnership Agreement, and has received expressions of interest from around a quarter of all eligible water license holders in the South Australian River Murray region (that is over 500 businesses!).

The 3IP is the core component of SARMS, supporting irrigated farming enterprises to optimise water use and achieve greater business resilience and productivity. The 3IP is comprised of three distinct funding streams:

- Stream One (Irrigation Efficiency) supports on- and off-farm improvements in the efficient use of water.
- Stream Two (Water Returns) enables the return of water access entitlements at market price.
- Stream Three (Irrigation Industry Assistance) becomes available once water has been returned through Streams One and/or Two to assist irrigation businesses to move toward more productive, competitive and resilient business models.

With significant concerns globally around food production, 3IP is helping to ensure South Australia's food and wine producing industries in the River Murray region are prepared for the challenges presented by future climate change and changed River operations as a result of the Basin Plan.

In just two years the 3IP has offered \$169 million in funding to 168 projects, and received offers of 34 gigalitres of water. Projects that have returned water are, perhaps counter-intuitively, realising productivity gains.

Enterprises are remodelling their business operations and project outcomes are resulting in spin-off benefits to local communities. Local businesses are busy either directly delivering on SARMS projects or providing services to those delivering projects. The confidence of the next generation of farmers is increasing and, with future generations wanting to stay in the region, this will flow-on to sustain local business centres and schools.

It is expected that the economic benefit of the Program will be in the order of \$1 billion through the long-term impacts on regional businesses; primarily from irrigation suppliers, nurseries, engineers and construction workers, shed builders, as well as businesses supplying new and second-hand machinery and business consulting services. So far, SARMS is directly supporting the generation of around 1500 new jobs for South Australian River Murray communities, as well as supporting hundreds of existing jobs throughout the region.

The SARMS is an innovative program that was developed by the region, for the region. The Water Industry Alliance continues to work with industry and government to ensure the Program is delivered in good faith, and the Australian and South Australian Governments are proud to be supporting this locally-led initiative through a substantial funding commitment and sound implementation and administration.

BANKSIA SUSTAINABLE WATER MANAGEMENT AWARD

**SOUTHERN RURAL WATER IN PARTNERSHIP WITH THE WGCMA,
VARIOUS STATE AGENCIES AND LOCAL IRRIGATORS**

MACALISTER NUTRIENT REDUCTION PROGRAM, VIC



The Macalister Nutrient Reduction Program (MNRP) has achieved great outcomes for the environment.

It has significantly reduced nutrient discharges to the Gippsland Lakes, and has saved 29,000 million litres of water each year throughout the Macalister Irrigation District (MID).

The program includes joint initiatives between Southern Rural Water (SRW), the West Gippsland Catchment Management Authority (WGCMA), state agencies and local farmers, and has been commended by the State Minister for Environment and Climate Change at the Premier's Sustainability Awards in 2014.

Why are the Lakes significant?

The Gippsland Lakes are one of Victoria's major environmental resources, an important tourism destination and home to people with a strong cultural connection to the Lakes including the Gunaikurnai people.

The Lakes provide a major hub for tourism, particularly for recreational boating and fishing. They are also of national and international significance as a home to between 20,000 and 50,000 waterbirds at any one time. The Lakes are protected under the Ramsar Convention, providing habitat to 185 different bird species, including species identified in the Japan-Australia Migratory Birds Agreement (JAMBA), the China-Australia Migratory Birds Agreement (CAMBA) and the Bonn Convention on the Conservation of Migratory Species of Wild Animals.

It is against this backdrop that the health of the Lakes is considered crucial from an environmental, economic and social perspective.

What is the issue?

Land use changes, mostly associated with agriculture, have increased nutrient and sediment input to the Lakes, causing deterioration of water quality and regular algal blooms. Situated close to the Lakes, the MID has been seen as posing a threat to water quality through the discharge of nutrients.

Originally developed a century ago, the MID has grown to some 53,000ha from Lake Glenmaggie to Sale in eastern Victoria. It is now the largest irrigation area in southern Victoria with dairying, grazing and vegetable production in excess of \$500 million per year.

What are we doing about it?

Local agencies, farmers and government departments have been working together to reduce agricultural impacts from the MID on the Lakes.

Plan

At the centre of the program is the Macalister Land and Water Management Plan. It adopts a risk-based approach, and is reviewed periodically to ensure resources are targeted to areas of greatest benefit.

The plan is overseen by the Macalister Irrigation District Sustainability Group and integrates with other strategies in the region. The group provides an on-going forum to share knowledge, information and prioritisation of new projects between agencies.

Modernisation

One of the contributing projects being delivered by Southern Rural Water is MID2030, a multi-million dollar irrigation modernisation program to improve water delivery to farms and reduce losses. This includes replacing aged, leaky and manual assets with new equipment, significantly reducing the amount of water lost from the system.

"MID 2030 will enable farmers to irrigate more efficiently and reduce the volume of water leaving the district," said SRW Managing Director Clinton Rodda.

Farm plans

Facilitated by state agencies and the WGCMA, local farmers have completed 380 irrigation farm plans covering 32,180 hectares (60%) of the MID. Almost 160 farmers have installed reuse systems, capturing 7,780 hectares of irrigation runoff, and 111 spray systems covering 3,756 hectares of the MID.

West Gippsland CMA Managing Director, Martin Fuller said this program has encouraged farmers to take an innovative approach to matching their irrigation systems to the soils on their property. "For example, converting flood irrigation to spray systems can improve irrigation efficiency by over 50% while reducing nutrient-rich runoff leaving the property and entering local waterways."

The on-farm improvements have enabled SRW to decommission drains serving 8,400 hectares of the district. By using these drains as re-use systems, farmers have been able to harvest the water and reuse it on their farms, reducing their water and fertiliser costs and significantly reducing the amount of nutrient-rich water leaving the district.

Monitoring

SRW has been monitoring nutrient discharges from the MID since 2000. It has invested heavily in an innovative river-based monitoring approach which provides a much more accurate measure of nutrients leaving the district. This gives more confidence in assessing how effective nutrient reduction activities have been.

By working together, agencies and most importantly local farmers have protected the long term viability of southern Victoria's premier irrigation district together with the health of the iconic Gippsland Lakes.

"The ongoing commitment to improving irrigation efficiency and nutrient reduction by MID farmers and agencies contributes greatly to protecting the health of the Gippsland Lakes into the future," said Local EPA Acting Manager, Nicala Oakley.

AUSTRALIA'S SUSTAINABILITY
SUCCESS STORIES

BANKSIA SUSTAINABILITY IN DESIGN, BUILD AWARD: PRODUCTS

The Banksia Sustainability in Design, Build Award: Products recognises outstanding achievement in improving sustainability through the design, manufacture and commercial application of a product/s. It includes new products as well as improvements in process or design that improve the sustainability of existing products.



BANKSIA SUSTAINABILITY IN DESIGN, BUILD AWARD: PRODUCTS

CASAFICO

POLYSTAT – INSPIRING OWNERS, EMPOWERING BUILDERS, VIC



As populations grow and resources become more scarce, recovery of natural resources becomes increasingly important to provide for the production of sustainable materials that benefit society and our planet.

At Casafico, we believe greater consideration must be given to lower-cost construction practices that take less time, use fewer materials and energy and, overall, leave a lighter footprint on the environment.

We know the solutions required should not involve the expensive importing of materials that also generates more and more CO₂; rather, by recovering and using recycled waste towards achieving zero landfill, we move much closer to a more acceptable, sustainable way of living.

A social and environmental challenge

We at Casafico have always been very conscious of the impact that the manufacturing, building and construction industries have on people and the planet.

The potential environmental impact alone is frightening: in 2010, the National Waste Report found that construction and demolition waste accounts for 38 per cent of Australia's waste sent to landfill.

Challenged by this and the desire to create more sustainable, less costly solutions for the built environment, we designed the Polystat panel – a unique product that will build our cities, work places and our homes of the future.

Polystat – a sustainable, socially acceptable solution

Polystat prefabricated panels are a unique, all-in-one product combining the frame and insulation, with cavities for services and a finished coat, ready for accelerated installation on site.

We source waste materials including newspaper, polystyrene and glass, saving them from landfill and transforming them into composite panels ready for on-site building construction.

While the actual wall panel itself is made from new steel and polystyrene, it is the recycled materials used in our coatings that make the difference. With a polystyrene foam core, clad in a pre-coated, cement-based, fibreglass-reinforced surface, Polystat panels are manufactured with vertical cavities every 100 mm for running services and metal studs each side.

The result is a pre-built, user-friendly lightweight panel with good thermal properties that exceed standard insulation ratings, strong enough to be used in load-bearing walls.

Prefabricated panels are great for all types of construction or when a building needs to go up quickly; reducing building and labour costs as well as minimising or eliminating waste.

Outcomes

As an innovative building product, Polystat panels uphold the three pillars of the triple bottom line: environmental, social and financial.

Environmental - the thermal efficiencies of the polystyrene core provide superior insulation, saving energy to heat and cool the house. Transport efficiencies are also gained from not moving small amounts of materials to site, saving time and minimising greenhouse gas emissions, air pollution and congestion from up to 60 per cent reduced truck movements. Thirdly, by prebuilding made-to-measure walls in our factory, we reduce waste on site.

On a social level, our Polystat Wall Systems are people-friendly. Being a lightweight 8kgs/m² combining the frame, coating and insulation, they are easier to manage, thereby maintaining worker welfare and reducing OH&S issues. Once erected, the site is instantly free for additional trades to install pipes and cabling using ready-made cavities, effectively creating more opportunities to complete more tasks, more efficiently: supporting greater earning potential and job security.

Financial - by incorporating the frame, insulation and cladding in one, we are saving the costs associated with employing several different trades as well as saving home owners' interest by getting to lock up stage quicker.

Innovation & Influence

As well as Polystat's social, environmental and financial credentials, Casafico is also forging partnerships with industry and academia to foster greater awareness and take-up of the need and opportunity to develop solutions for the future.

One partnership we are proud of is with Swinburne University of Technology, where we are helping to develop SUT's Advanced Diploma of Building Design. Swinburne is a great fit for Casafico, being focused on innovative research and promoting industry engaged teaching. Alongside our products, Casafico also provides full professional support to Swinburne's students in the form of 3D modelling assets and industry mentoring.

Passion for a sustainable future

For 40 years, our founder Tony Mucci has been committed to sharing his knowledge and expertise for the benefit of others, combining his passion for teaching the next generation of sustainable developers while simultaneously learning from them as to how best we can make building more efficient.

Polystat panels are the result of those two principles, weaving together the ideas and know-how needed to deliver sustainable products for the built environment of the future.

BANKSIA SUSTAINABILITY IN DESIGN, BUILD AWARD: PRODUCTS

FIELDTECH SOLUTIONS

SUSTAINABLE PRODUCTS FOR ENVIRONMENTAL PROFESSIONALS, VIC



Fieldtech Solutions (FTS) is an innovative company at the cutting edge for managing disposable and reusable plastic products.

FTS, through its manufacturing program is replacing conventional disposable plastic products with landfill-biodegradable plastic products. The company also replaces other longer life products made from plastic or other materials with recycled plastic materials to save our resources.

FTS is the only company in the world that produces a range of products for use in the contaminated land industry. Like many industries there has been a growing dependence on disposable plastic products. Unfortunately this means thousands of products are discarded to landfills after only a few minutes use. There they will persist for many hundreds of years. Plastic waste does not go away but rapidly accumulates elsewhere year after year. It is quite ironic that while plastic products are used to improve our groundwater and soil resources, they also add to this large plastic waste problem.

The rapidly expanding use of plastic not only causes gross plastic pollution, but microplastic problems for wildlife and the food chain. It also inflicts a high maiming and death toll on marine life. Irresponsible manufacturing, irresponsible or unaware consumers and often a lack of alternative choices exacerbate this problem. Hence the impetus for FTS to produce more sustainable plastic products was founded. It is the philosophy of the owners of FTS that our plastic waste will not be left for future generations.

Early research into the options available for plastic waste revealed that compostable plastics and degradable plastics were not the right solution. There are very few compostable facilities available and no infrastructure to support it. Degradable plastics fragment into little pieces of plastic which worsens the problem for the environment. Landfill biodegradable

plastics offered the best solution to the disposable of plastic waste. This is a new technology that has only been around for five years in the USA. With this method, an organic additive is added to the parent plastic at the time of extrusion or injection. The naturally occurring landfill microbes then seek out this additive as a food source and in the process they excrete enzymes that break the bonds in the long plastic molecule down to shorter chains. Once the molecule is short enough it allows the microbes to then digest them too.

The contaminated land industry was the starting point for FTS. There are a number of disposable products used by environmental consultants and drilling companies to perform their monitoring and remediation projects. Taking one product at a time, FTS remanufactured them with their own suppliers in Australia or abroad. They supplied and educated the various production factories how to use the additive. In parallel several products were able to be replaced with new products manufactured from recycled plastic resin.

Never before has such a product range been available. Previously the drilling companies and the environmental consultants made their purchase decisions primarily been based on price. However once FTS released its more sustainable product range, it offered a whole new set of choices for the industry to consider. In the first three years, over 125,000 items from 12 different products were sold. These sales displaced what would have been non-biodegradable sales had FTS not commenced business. Those plastic items would have remained in landfills, for many hundreds of years otherwise. It has been an interesting journey to be involved in the adoption of this new philosophy throughout the industry.

FTS has expanded this concept of converting existing plastic products to landfill biodegradable plastic products in other industries as well. Stretch wrap film used in the transport industry to secure loads to pellets is used extensively. FTS has just begun producing its own line of this film and will promote it nationwide.

Another area of opportunity lies with landfill biodegradable dog waste bags. Non- biodegradable bags are typically sold in pet stores or supplied by local councils. FTS has already started supplying these to councils.

Although the process has begun, FTS still has a long road ahead to educate people regarding more responsible use of plastics. The uncertainty of something new, a lack of education about non biodegradable plastic, and simple human and corporate resistance to change all pose challenges to making us more sustainable. The biggest success for FTS shall come from overcoming these doubts and showing others a more sustainable way forward.

With increasing global attention on the problem of plastic waste, now is an exciting time for our small Australian company, FTS, to be involved in leading a solution.

AUSTRALIA'S SUSTAINABILITY
SUCCESS STORIES

BANKSIA SUSTAINABILITY IN DESIGN, BUILD AWARD: BUILDINGS, LANDSCAPES AND INFRASTRUCTURE PROJECTS

The Banksia Sustainability in Design, Build –Buildings, Landscapes and Infrastructure Projects Award recognises the entry that best demonstrates leadership and innovation by integrating sustainable principles and practices in the design, construction and retrofitting of building and infrastructure projects



BANKSIA SUSTAINABILITY IN DESIGN, BUILD AWARD: BUILDINGS, LANDSCAPES AND INFRASTRUCTURE PROJECTS

CANBERRA AIRPORT

CANBERRA AIRPORT'S AIRVOLUTION ACT



Would it be possible for a capital city airport to operate completely off-grid?

We posed this question when our family business—Canberra Airport Group—set out to design and build the ‘world’s best small airport’ for the nation’s capital.

In an industry where there were no energy targets for a building of this type, we aspired to establish the benchmark for what could be achieved.

We purchased the lease of Canberra aviation facilities, land, infrastructure, and development rights from the Commonwealth Government in May 1998. Back then, the airport comprised a functionally obsolete terminal and a general aviation precinct surrounded by barren paddocks.

In our 1999 master plan we signalled our intention to develop a new passenger terminal ‘in the most efficient and environmentally sensitive manner’.

But to do this we needed multiple revenue streams, so we began by transforming surrounding paddocks into office and retail parks. As with the airport terminal, our vision for these business parks was to provide unique ‘green’ commercially viable office accommodation alternatives.

We trialled and embedded sustainability initiatives in each building of our Brindabella Business Park development, leading to the creation of Australia’s first 5-star green office there in 2004.

We then applied learnings from that development to our \$480 million ‘Airvolution’ which began in 2007.

We chose not to relocate our terminal, despite the ramifications of building around an operating airport with 9000 passengers a day. We had concluded that abandoning the existing site would have been short sighted, as the old terminal was located closest to the city centre, away from residential areas with an ideal north-north-east aspect allowing us to capitalise on solar passive design.

We progressively demolished every aircraft bay, car space, structure and in-ground service on airport as we began rebuilding in situ. The project was Canberra's largest building operation since the 1981 construction of Parliament House.

From the outset, we committed to using local companies (and products) wherever possible both to reduce the construction's carbon footprint, and to amplify the positive impacts for the region. Of the contractors and companies involved in the terminal's construction, around 85 per cent were locally based.

We also recycled 85 per cent of the old terminal, with concrete and steel being sorted for use on other projects in accordance with Green Star principles.

Our limit-waste commitment now extends to our operational efforts. General waste goes into our dedicated central collection facility which recently received a \$2.5 million upgrade to decrease waste going to landfill and introduce new procedures for retailers and business lounge operators to recycle everything from glass to cooking oil.

Every material, structure and system installed in the terminal has been chosen with life cycle and sustainability in mind ... from low maintenance surfaces and double-glazed glass, to cutting edge energy technology.

We were among the first airports in the world to introduce trigeneration technology which generates electricity, heating and cooling. Yet more than simply using the existing technology, we sought additional ways to increase its efficiency, working with our engineer contractors to develop a nationally unique stacking process that allows plant room 'towers' to be created with a smaller footprint, and reduced pipe works and power reticulation.

Our system provides 20 per cent more energy than we need to operate, however we remain connected to the grid for additional safety.

Having also investigated solar power generation, we continue a watching brief as the Australian Government develops standards to address the high reflectivity that solar panels would generate for airline pilots.

Our sustainability solutions also extend to water conservation. We have Canberra's largest non-potable water storage capability, with two on-site 650,000 litre tanks able to store water from roof-run off. When full, the tanks provide enough water for the terminal to operate for an entire summer without rain.

We have demonstrated that it is theoretically possible to operate a major piece of transport infrastructure off grid if careful planning is undertaken.

This terminal has been designed for 25 years of passenger growth—15 more years than would be considered normal in the aviation infrastructure industry.

All of our environmental initiatives have also been developed to complement any future expansion with our tri-generation energy outputs and water storage capable of servicing this expansion without retrofit.

Since the terminal officially opened in 2014, we have continued to refine our operating processes and procedures to ensure we gain the most environmental efficiencies from our well-planned infrastructure.

This holistic approach to life cycle design, build, implementation and continuous improvement sets the sustainability standard for Australia's aviation future.

BANKSIA SUSTAINABILITY IN DESIGN, BUILD AWARD: BUILDINGS, LANDSCAPES AND INFRASTRUCTURE PROJECTS

LENLEASE

BARANGAROO RESERVE, SYDNEY, NSW



Barangaroo Reserve is Sydney's newest and most spectacular public space.

The sprawling six-hectare headland park is set amongst naturalistic bushland and features a stunning sandstone foreshore, designed to mimic the original 1836 headland.

The challenge of recreating a naturalistic headland has rarely been attempted anywhere else in the world, let alone in a city the size of Sydney and in the world's best known harbour.

Clever engineering solutions enabled Lendlease to exceed its commitment to sustainability.

The most outstanding sustainability achievements include the reuse of 98 per cent of material excavated on site, an integrated water re-use system which provides for the park's future irrigation needs and the remarkable planting program which replicates the vegetation of the area before European settlement.

Great public spaces make great cities.

In Sydney, there's no more an exciting space than Barangaroo Reserve, which opened in August 2015 and marks the return of a key part of the western Sydney Harbour foreshore for public use for the first time in more than 100 years.

From the outset, Barangaroo Delivery Authority and Lendlease committed to creating a public space that would be a world leader in sustainability.

Barangaroo Reserve's most visually stunning feature is the 1.4 kilometre long sandstone foreshore, made up of over 6,600 blocks and designed to mimic the headland's original form.

The sheer volume of sandstone used – over 10,000 blocks in total, weighing 45,000 tonnes – represents the largest amount used on a Sydney project in over a century.

What's especially significant about the sandstone is it was almost totally sourced (93 per cent) from the site's extraction pit, beneath the underground carpark of the subterranean cultural facility, 14 metres deep into rock.

That the sandstone was excavated and processed adjacent to its final location delivered real environmental benefits – minimal transportation impacts, reduced carbon emissions and no off-site quarrying impacts.

Beyond its original purpose as an extraction pit, the space beneath the underground carpark also served as the final location for the integrated water re-use system, which captures, treats, stores and re-uses seepage and stormwater for irrigation of the park.

What's more, the water re-use system has been designed to take advantage of the headland's natural form to maximise water catchment.

Two tanks – an enormous 1,200m³ rainwater tank and 180m³ seepage tank – located underneath the carpark will irrigate Barangaroo Reserve during and beyond the park's 100 year design life.

Without a doubt, the most impressive sustainability achievement is the reuse of fill materials, without which building the project would have been unfeasible, both in terms of constructability and cost.

In total, 98 per cent of excavated fill material, or 200,000m³, has been reused within the park, as well as over 10,000 large sandstone blocks. This volume sets a new precedent in materials reuse, saving up to 60,000 truck movements through the centre of Sydney, as well as containing materials handling within the project, negating the need for various hub sites which would have been expected for a project of this scale.

In many ways, the decision to efficiently use land and resources at hand

instead of the conveniences of modern day transport and heavy moving equipment pays homage to the site's rich past when traditional construction methods of yesteryear would have been the norm.

The naturalistic bushland that undulates throughout the park is another highlight. The planting program alone – replicating vegetation before European settlement – is the most scientifically significant of its kind in central Sydney for decades.

To mimic the natural soil profile that forms Hawkesbury sandstone, special topsoil and subsoil was created specifically for the project. In line with the project's commitment to sustainability, the topsoil features a combination of compost and crushed sandstone from unused blocks, and the subsoil contains washed, recycled glass. Barangaroo Reserve has set a precedent for use of recovered glass sand in urban soils.

The remarkable planting program, comprising 675 trees, 2,200 shrubs and 70,000 plants all native to Sydney, has been hugely successful with a failure rate of less than 1 per cent.

In the months since Barangaroo Reserve opened, the park has already come to mean many things to many people: a place for locals to spend time outdoors, a spot for co-workers to spend time together on a lunch break, a gathering space for families, an educational resource for schools, a place to see the city in a new way and a major visitor attraction.

Lendlease's commitment to sustainability will ensure Barangaroo Reserve stands the test of time.

BANKSIA SUSTAINABILITY IN DESIGN, BUILD AWARD: BUILDINGS, LANDSCAPES AND INFRASTRUCTURE PROJECTS

NOWARCHITECTURE

A COMMUNITY CATALYST : HOLISTIC SUSTAINABLE DESIGN
REJUVENATES BAIRNSDALE'S LIBRARY, VIC



Bairnsdale's rejuvenated Library is Environmental and Social sustainability in action. It unifies the social, cultural and environmental significance of this heritage community asset. The design approach to this sub-\$4 million project demonstrates that sustainability is not just for big budget projects.

On this humble budget, NOWarchitecture reinvigorated a rundown heritage building into a place that re-engages its community while achieving the highest environmental credentials.

The building fabric, detail and volume of the 1889 Mechanics Hall was refurbished, and united with a host of integrated design decisions with Ecologically Sustainable Design everywhere. NOWarchitecture's holistic design is stimulating a happier and more socially sustainable community through :

- Community engagement with new Library from love of heritage
- Multi-stage hydrothermal air conditioning / stormwater system pre-cooling intake air and water for chilled radiant cooling
- Dramatically reduced water and energy use
- Substantially increased patronage and technology usage

Bairnsdale Library in-depth

NOWarchitecture's holistic design approach was fundamental to reducing construction, operation and energy costs and entreats the community back to this rejuvenated place.

Says Kate Nelson, Director of Planning and Community, East Gippsland Shire Council: *“NOWarchitecture was extremely conscious of the importance of our project to both Council and our community. They accommodated both the need to engage with and understand the desires of the community – as well as managing the complexities of a major Council project.”*

NOWarchitecture reset the civic heart of Bairnsdale providing a fresh focus for culture and education, and resolved urban design issues based on retaining the significance of the heritage building. Pedestrian circulation through the existing shaded, unfriendly park on the south of the site was redirected through the Library, while the reclaimed open space now provides a welcoming Plaza. This works to interact with street activities and provides landscaping and active attractors to the library as community focus.

The intersection between the old and new buildings was critical. The new extension echoes the familiar form and scale of the heritage building, but is rotated away and is opposite in materiality. The existing building, a solid, familiar landmark, contrasts with the transparent, accessible and inviting extension. Entry is clearly signalled by a copper canopy reaching out to the plaza, incorporating display cases for special exhibits.

Urban spaces around the library provide for social and cultural activities, including a cinema screen and performance platforms above the fresh air intakes. Secure outdoor areas are also provided for reading and children's play.

Careful design selections / decisions

Minimising the amount of materials used took this project much further on a restricted budget than expected. Latest technologies were used in the design and fabrication of the sustainable timber frame. Computer-controlled machining facilitated rapid erection time, and a joinery-quality finish was left exposed for its warm, aesthetic quality. People feel compelled to touch, stroke and even hug the reassuring 400mm x 375mm columns.

The high efficiency internal lighting behind a high-performance glazed facade is a glowing beacon in the evening, and activates the surrounding public spaces. NOWarchitecture further developed their innovative passive hydrothermal air-conditioning system, which provides pre-cooled air by thermal exchange. This system utilises 58,000L stored stormwater in underground tanks, thermal chimneys and thermal mass to passively moderate interior temperature.

NOWarchitecture reasoned that Council can retrofit and reap **more** savings when photovoltaics become more affordable, so prioritised crucial energy savings **within** the build :

- Water tanks - Irrigation and toilets
- Tanks underground for passive air cooling and pre-cooling hydronic chilled slab and fancoil unit boost
- Radiant hydronic heating
- Best U-value double-glazing
- External glass screen shades eastern facade
- Recycled aggregate concrete
- Virtually zero steel
- Plantation grown/fire rated timber structure
- Reduced secondary finishes
- Self-shading metal sheet cladding
- Breathable Bionictile cladding destroys pollutant gases
- Maximised exposed brick and concrete, floors and walls for thermal mass.

Much more than a regional library Ongoing analysis shows a dramatic reduction in water and energy use in addition to improved internal temperatures and air quality. This is all within a significantly larger building, providing for substantially increased community patronage and technology usage. Bairnsdale Library has become the benchmark for future developments and refurbishments for East Gippsland Shire.

Much more than a library, Bairnsdale's Library is an exciting, engaging community hub where people can meet, talk over coffee in the cafe/kitchen and lounge areas, read world news, and connect with their community, further linking through advanced technology and the Mobile Library service for vital interconnectedness throughout East Gippsland and beyond.

Environment for inspiration.

BANKSIA SUSTAINABILITY IN DESIGN, BUILD AWARD: BUILDINGS, LANDSCAPES AND INFRASTRUCTURE PROJECTS

REGIONAL RAIL LINK AUTHORITY

TAKING SUSTAINABILITY TO THE NEXT LEVEL FOR MAJOR TRANSPORT
PROJECTS, VIC



Regional Rail Link (RRL) was one of the most significant and complex infrastructure projects in Victoria's history.

Jointly funded by the Australian and Victorian governments, the \$3.65 billion project has greatly increased capacity and reliability for metropolitan and regional services accessing Melbourne from the west and provided a much-needed, new passenger rail service to Melbourne's western suburban growth area.

RRL has also delivered five new and upgraded railway stations and removed longstanding bottlenecks on Victoria's rail network. A significant outcome of the project has been the provision of improved infrastructure enabling more public transport services for Victorians living in metropolitan and regional centres.

A commitment to sustainability from the outset

The approach to sustainability across the planning, design and construction phases of RRL was unprecedented for the Victorian rail industry. In an Australian first for a major rail infrastructure project, the Regional Rail Link Authority (RRLA) incorporated a comprehensive Sustainability Policy within the contractual framework for the project's six major construction contracts.

RRLA sought to deliver a project where the commitment to sustainability exceeded "business as usual". With 22 environmental, social and economic targets, the Policy was a core influence on design, procurement and construction decisions throughout the project.

Major achievements include:

- Reduction in construction-phase energy and carbon by 20%, equating to the annual

electricity consumption of 44,000 Melbourne homes

- Certification of a ground-breaking sustainability rating tool for railway stations and achievement of an Australian-first Green Star four star rating at five stations
- Portland cement use was reduced by 35% for in-situ, 25% for pre-cast and 15% for pre-stressed concrete against the Reference Design
- Where recycled steel could be used, 80% of steel (by mass) either had a post-consumer recycled content of greater than 50%, or was reused
- Zero potable water was used for construction activities, saving more than 237 million litres of potable water
- 80% of demolition and construction waste (by mass) was reused or recycled, with a total saving of more than 81,000 tonnes
- 100% of usable spoil was beneficially reused
- Innovative use of materials and consequent changes to railway standards for future projects.

RRL also set a target to reduce operational-phase energy by 20%, which will deliver an ongoing saving equivalent to the annual electricity consumption of 6,000 Melbourne homes.

Project targets were ambitious and encouraged contractors to employ non-traditional practices. The project-specific initiatives had never been used by the Victorian rail industry. Stakeholder approvals and changes in specifications required to adopt these initiatives on RRL will enable their use on future Victorian infrastructure projects.

Measuring the sustainability performance of new and rebuilt railway stations was one area where an innovative approach was required. Existing rating tools did not provide adequate scope. The Footscray to Deer Park team and RRLA developed a custom Green Star rating tool for above-ground railway stations. Its implementation project-wide has resulted in significant energy savings. The tool is now available for use on future projects and has set a new benchmark for the construction and operation of sustainable railway stations.

Using large volumes of non-potable water for urban rail projects was not commonplace in Victoria. RRL demonstrated that alternate water sources can be used in projects of this scale. The City to Maribyrnong River team drew over 7.7 megalitres of brackish water from the Maribyrnong River for construction activities. Obtaining approval for its use demanded research, engagement with relevant approval authorities, and understanding of design impacts.

A proven blueprint for future benefits

While the project encountered initial scepticism as to the difficulty of the task and likely additional cost, RRL has left Victoria and the national infrastructure industry with a proven framework for delivering sustainable outcomes on major transport projects. The additional public transport capacity provided by the project will save around 14,000 tonnes of greenhouse emissions per year, which equates to taking 45,000 cars off the road during peak periods, and will result in an estimated \$300 million saving annually to the Victorian economy.

Regional Rail Link has delivered a positive legacy within the project communities and the broader infrastructure industry and achieved sustainability outcomes that exceeded industry best practice. Importantly the project team fostered an environment in which information, innovation, efficiencies and learnings were shared across the total project and with other organisations as a legacy for future rail and road projects.

BANKSIA SUSTAINABILITY AWARDS

HONOUR ROLL

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2014

Banksia Gold Award

ACT Solar Auction , ACT Environment and Planning Directorate, ACT

Banksia International Award

Sean Willmore, Founder of The Thin Green Line Foundation, AUS

The Richard Pratt – Banksia CEO Award

Damien Walsh, Managing Director bankmecu, VIC

Environment Minister's Award for a Cleaner Environment

Millicent Mill's Commitment to a Sustainable Regional Community
Kimberly-Clark Australia and New Zealand, SA

Local Government Sustainability Award

ACT Solar Auction
ACT Environment and Planning Directorate, ACT

Large Business Sustainability Leadership Award

The GPT Group, NSW

Innovation in Social Infrastructure > \$100 Million Award

Making it exemplar- the North West Rail Link
Transport for NSW, NSW

Leadership in Citizenship and Communities Award

Garage Sale Trail Foundation, NSW

Innovator of the Year Award

Better Buildings Partnership, NSW

Education for Sustainability Award

The Liveability Real Estate Framework- Training and Tools for the Next Generation of Real Estate
LJ Hooker Corporate, NSW

Indigenous Leadership for Sustainability Award

Indigenous Biocultural Knowledge (IBK) Working Group ACEAS, NSW

Natural Capital Award

Tasmanian Midlands Conservation Fund
Bush Heritage Australia in partnership with Tasmanian Land Conservancy, TAS

Sustainable Water Management Award

The Barwon Water Biosolids Management Project
Barwon Water, Plenary Group & Water Infrastructure Group, VIC

Product Sustainability – through design, manufacture and use Award

EarthCo Projects Pty Ltd, VIC

Small to Medium Business Sustainability Leadership Award

Psaros: Leading By Doing, Psaros, WA

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2013

Banksia Gold Award

Torres Strait Regional Authority (TSRA), QLD

Banksia International Award

Jochen Zeitz, Germany

The Richard Pratt – Banksia CEO Award

Ravi Naidu, leadership for a cleaner planet
Cooperative Research Centre for Contamination Assessment and Remediation of the Environment, SA

Innovation Award

Yun Liu , The Australian National University, ACT

Leading in Sustainability - Setting the Standard for Large Organisations Award

Leading in Essentials for a Better Life
Kimberly-Clark Australia and New Zealand, NSW

Leading in Sustainability - Setting the Standard for Small to Medium Businesses Award

Australia's Only Ethical Superannuation and Investment Fund
Australian Ethical Investment, NSW

Built Environment: Harmonious Manmade Landscapes Award

-Global GreenTag Product Certification System
Global GreenTag Pty Ltd, QLD

Indigenous Caring for Country Award

Torres Strait Regional Authority (TSRA), QLD

Local Government Sustainability Award

Sustainability at Sunshine Coast: It's who we are, it's what we do , Sunshine Coast Council, QLD

Energy Efficiency and Carbon Management Award

Climate Wizard Seeley International, SA

Water - Our Most Precious Resource Award

Restoring the balance- The Hattah Lakes Environmental Watering Program Mallee Catchment Management Authority, VIC

Agriculture and Food - From Paddock to Plate Sustainably Award

From Paddock to Plate to Paddock, Cecconi's Cantina, VIC

Business and Not-for-Profits - In Collaboration Award

'Magic Wand' Oiled Penguin Recovery Technology
Phillip Island Nature Parks VIC

Climate Adaptation Award

City of Melbourne's Urban Landscape Adaptation Program, City of Melbourne, VIC

Waste Minimisation Award

Dunlop Flooring, VIC

Land and Biodiversity - Preserving Our Ecosystems Award

Gondwana Link: 1000kms of goodwill and good work , Gondwana Link Ltd, WA

Education - Raising the Bar Award

Rio Tinto Naturescape Kings Park
Botanic Gardens and Parks Authority, WA

The GPT Group Community Grant

Wadawurrung Dya Baap Ngobeeyt Cultural Heritage Mapping & Management Project
Wathaurung Aboriginal Corporation, VIC

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2012

The Origin Gold Banksia Award

Target 100- Meat & Livestock Australia, NSW

Education Award - Raising the Bar

Target 100
Meat & Livestock Australia, NSW

Leading in Sustainability - Setting the Standard for Small to Medium Businesses

Ecoburba, WA

Leading in Sustainability - Setting the Standard for Large Organisations

Here for the Long Haul, Qantas, NSW

Water - Our Most Precious Resource Award

Dewfish Demonstration Reach- The Fish are Back!
Condamine Alliance, QLD

Agriculture and Food Award - From Paddock to Plate Sustainably

OzHarvest Ltd, NSW

Clean Technology Award - Harnessing Opportunities

SF6 Recycling Plant- ABB Australia Pty Limited, NSW

Indigenous Award - Caring for Country I-Tracker Initiative: Best Practice Tools and Partnerships for Indigenous Land and Sea Management

North Australian Indigenous Land and Sea Management Alliance Ltd., NT

Built Environment Award - Harmonious Manmade Landscapes

Darling Quarter and Commonwealth Bank Place –
Lend Lease and Commonwealth Bank, NSW

Land and Biodiversity Award - Preserving Our Ecosystems

The I-Tracker Initiative: New tools and Knowledge for Better Conservation-
North Australian Indigenous Land and Sea Management Alliance Ltd., NT

The GE Eco Innovation Award for Individual Excellence Award

Professor Veena Sahajwalla, The Eco Alchemist.

The University of New South Wales, NSW

The GPT Group Community Grant

Bookend Trust, TAS

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2011

The Origin Gold Banksia Award

Gippsland Water, VIC

The Prime Minister's Environmentalist of the Year

Bill Thomas, Head of Sustainable Practice, Bentleigh Secondary College, VIC

The Environment Minister's Young Environmentalist of the Year

Lindsay Soutar, NSW

Mercedes Benz Australian Environmental Research Award

Peak Phosphorous: the next global food crisis?

Institute for Sustainable Futures, NSW

Education Award - Raising the Bar

The Vortex Centre -

Water Wonders in a Building That Teaches – Gippsland Water, VIC

Indigenous Award- Caring for Country West Arnhem Land Fire Abatement Partnership:

a 140% success – Warddeken Land Management for WALFA Partners, NT

Land and Biodiversity Award - Preserving Our Ecosystems

Fox-Free Phillip Island , Phillip Island Nature Parks, VIC

Water Award - Our Most Precious Resource

Gippsland Water Factory -

A New Way to Care for Water – Gippsland Water, VIC

Agriculture and Food Award - From Paddock to Plate Sustainably

Gaia Banana Farming: For Healthy Soils, Wetlands and Great Barrier Reef – Gaia Farms, QLD

Built Environment Award - Harmonious Manmade Landscapes

Hepburn Community Wind Farm
Hepburn Wind, VIC

Leading in Sustainability Award - Setting the Standard for Large Organisations Sustainability is Good for Business

Fujitsu, VIC

Leading in Sustainability Award - Setting the Standard for Small Organisations

Greening The Wharf , Sydney Theatre Company, NSW

Clean Technology Award - Harnessing Opportunities BlueGen - Clean Power For Your Home

Ceramic Fuel Cells Ltd., VIC

Transportation Award - Mindful Movement

Making Electric Cars Make Sense , Better Place Australia, VIC

Banksia People's Choice Award

Don't Palm Us Off , Zoos Victoria

Banksia Community Grant

Sustainability Stars, E.W. Tipping Foundations, VIC

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2010

The Origin Gold Banksia Award

Yellow Crazy Ant Management Project
Dhimurru Aboriginal Corporation in partnership with CSIRO and RioTinto Alcan, NT

The Prime Minister's Environmentalist of the Year

Russell Seaman

Environmental Manager, Coorong Lower Lakes and Murray Mouth Program, SA

The Environment Minister's Young Environmentalist of the Year

Matthew Wright, Beyond Zero Emissions, VIC

Mercedes Benz Australian Environmental Research Award

Zero Carbon Australia 2020 Stationary Energy Plan

Beyond Zero Emissions, VIC

Education Award

Switch Your Thinking! Program , South East Regional Energy Group, WA

Water Award

Bringing Back the Fish , Industry and Investment NSW

Land and Biodiversity Award

Coorong, Lower Lakes and Murray Mouth- a Government / Community Partnership to ensure a Future for the Lower Murray
Department of Environment & Natural Resources South Australia, SA

Indigenous Award - 'Caring for Country'

Dhimurru Aboriginal Corporation , Dhimurru Aboriginal Corporation, NT

Built Environment Award

Grocon Pixel Building, Grocon, VIC

Clean Technology Award

Mini-Hydro Project , Melbourne Water Corporation, VIC

Large Business Sustainability Award

Fuji Xerox Australia, VIC

Small and Medium Enterprises Business Sustainability Award

A Family Commitment to Sustainability, Taylors Wines, NSW

Agriculture and Food Award

Project Catalyst –

The Coca-Cola Foundation, Reef Catchments, WWF, QLD

Transportation, Warehousing & Logistics Award

Flexicar, VIC

Banksia People's Choice Award

Kids Teaching Kids, Firestarter Pty Ltd, VIC

Banksia Community Grant

Secondbite, VIC

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2009

The Origin Gold Banksia Award

Fergusson Plarre Bakehouses P/L, VIC

Banksia International Award

Shai Agassi, Founder and CEO of Better

Place, Israel

The Environment Minister's Young Environmentalist of the Year

Anna Rose, Amanda McKenzie and Ellen Sandell,
Australian Youth Climate Coalition

Mercedes Benz Australian Environmental Research Award

Dr Amanda Barnard, CSIRO

Education Award

The Green Steps Program –
Monash University Sustainability Institute, VIC

Water Award

A Voice for Water – South East Queensland Healthy Waterways Partnership, QLD

Land and Biodiversity Award

ACT Land Keepers – Greening Australia Capital Region, ACT

Indigenous - 'Caring for Country' Award

Kimberley Toad Busters' Cane Toad Education Campaign – Kimberley Toad Busters, WA

Built Environment Award

Melbourne Convention & Exhibition Centre, VIC

Large Business Sustainability Award

The GPT Group, NSW

Small and Medium Enterprises Business Sustainability Award

Ferguson Plarre Bakehouses P/L, VIC

Agriculture and Food Award

Giving Vegemite a Sustainable Future , KRAFT Foods, VIC

Environmental Services Award

Sustainable Events Platform, Sustainable Living Foundation, VIC

Banksia People's Choice Award

Food Connect, QLD

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2008

The Origin Gold Banksia Award

Earth Hour Australia, WWF Australia, NSW

The Environment Minister's Young Environmentalist of the Year

Larissa Brown
Founder and Executive Director, Centre for Sustainability Leadership, VIC

Mercedes Benz Australian Environmental Research Award

Professor Matthew England, UNSW, NSW

Built Environment Award

Trevor Percy House
Australian Ethical Investment Ltd., ACT

Climate Award

Addressing Climate Change , Investa Property Group, NSW

Community Award

Kororoit Creek Waterway Rehabilitation
Friends of Lower Kororoit Creek Inc., VIC

Eco Innovation Award

Dulux Powder Coatings & CSIRO "100% eco-sustainable coatings technology" - Dulux Powder Coatings in partnership with CSIRO
Division of Materials Science & Engineering, VIC

Education Award

Earth Hour Australia , WWF Australia in partnership with Fairfax Media, Leo Burnett

Indigenous Award

“NAILSMA Dugong and Marine Turtle Project”
North Australian Indigenous Land and Sea Management Alliance, NT
(Partners- Cooperative Research Centre for Tropical Savannas Management, Kimberley Land Council, Northern Land Council, Carpentaria Land Council Aboriginal Corporation, Cape York Balkanu Development Corporation, Torres Strait Regional Authority)

Land and Biodiversity Award

BIGG- Biodiversity in Grain and Graze Kiri-ganai Research Pty. Ltd. and University of Tasmania, TAS
(Partners- Meat & Livestock Australia, Grains R & D Corporation, Australian Wool Innovations, Land & Water Australia and the 62 member organisations of the Grain & Graze Program)

Local Government Award

Managing Drought in the City of Parks, City of Melbourne, VIC

Business Sustainability Award

ETIKO Fair Trade- ESP P/L., VIC

Water Award

Vision for the Broken River Basin
Goulburn Broken Catchment Management Authority, VIC

Banksia People’s Choice Award

Rouse Hill Town Centre- The GPT Group, NSW

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2007

The Origin Gold Banksia Award

Westpac: Unlocking Value, VIC

Banksia International Award

Governor Arnold Schwarzenegger, USA

The Prime Minister’s Environmentalist of the Year Award

Aaron Wood
One Life, One World, One Future, VIC

Daimler-Chrysler Australian Research Award

Molecra Technologies, QLD

Built Environment Award

National Lifestyle Villages National Lifestyle, Villages, WA

Climate Award

GridX MiniGrid Tri-Generation System at Mirvac Vision Estate Glenfield, Mirvac in Partnership with GridX, NSW

Community Award

Kimberley Toad Busters Inc, WA

Eco Innovation Award

PaintbackTM
Dulux, Bunnings, Sustainability Victoria and Chemsal in partnership with Bluescope Steel and Steel Can Recycling Council, VIC

Education Award

GreenHome
Australian Conservation Foundation, NSW

Indigenous Award

Carpentaria Ghost Nets Programme, Northern Gulf Resource Management Group, QLD

Land and Biodiversity Award

Diversity in a Piped System Project , Birchip Cropping Group (BCG), VIC

Local Government Award

“Retrofitting Randwick”
Randwick City Council, NSW

Sustainability Award

Westpac: Unlocking Value, NSW

Water Award

Revive Our Wetlands
Conservation Volunteers Australia and BHP Billiton, AUS

Banksia People’s Choice Award

The Falls Festival, VIC

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2006

The Origin Gold Banksia Award

Australian Arrow, VIC

Banksia International Award

Professor Stephen Schneider and Terry Root, USA

The Prime Minister’s Environmentalist of the Year Award

Australian Wildlife Conservancy, WA

Daimler-Chrysler Australian Environmental Research Award

Professor David Lindenmayer, ANU, ACT

Built Environment Award

Szencorp Takes Sustainable Buildings to the Next Level at 40 Albert Road- Szencorp, VIC

Climate Award

National Green Power Accreditation Program
Department of Energy Utilities and Sustainability, NSW

Eco Innovation Award

The “ Waterless Wok” Stove, Sydney
Water’s “Every Drop Counts” Business Program , Department of Energy Utilities and Sustainability, NSW

Land and Biodiversity Award

Back From The Brink: Saving Victoria’s Threatened Orchids , Department of Sustainability and Environment, VIC

Sustainability Award

Visualising Our Environmental Footprint , Australian Arrow Pty Ltd, VIC

Water Award

Carpentaria Ghost Nets Programme, Northern Gulf Resource Management Group, QLD

Minerals Award

Sustainable Mining at Tiwest Cooljarloo, Tiwest, WA

Community Award

The Tree Scheme, Community Based Environmental Initiative, Trees For Life, SA

Education Award

Village Green’s Sustainable Business Management Model, Village Green Environmental Solutions, VIC

Local Government Award

Currie Sewage Treatment Wetlands, King Island Council in Partnership with Syrinx Environmental P/L, TAS

Media

Climate Change: Icons Under Threat, Melissa Fyfe and Simon O’Dwyer in Partnership with The Age Newspaper, VIC

Origin Gold Banksia Award Winner

Visualising our Environmental Footprint , Australian Arrow Pty Ltd, VIC

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2005

Banksia Gold Award

Mecu GoGreen Car Loan, VIC

Banksia International Award

BioRegional Development Group, United Kingdom

The Prime Minister’s Environmentalist of the Year Award

Lizzie Corke, VIC

Environmental Leadership In the Community Award

Men of the Trees WA (Inc), WA

Business Environmental Responsibility and Leadership Award

Sustaining Excellence at Toyota Australia, VIC

Government Leading by Example for a Sustainable Future Award

Fuelling the Future, Driving Sustainable Transport Energy in Western Australia, WA

Environmental Leadership in the Rural Sector Award

Sustainability through Open Inquiry at Random Valley, WA

Sustainable Development Leadership in the Minerals Industry Award

Bengalla Mining Company’s Culture of Sustainability, NSW

Environmental Leadership in Protecting the Bush, Land and Waterways Award Bush For Life: Training and Supporting Volunteers to Care for Bushland, SA**Leadership in Protecting Coastal and Marine Environments Award**

Living On The Edge, VIC

Environmental Leadership in Infrastructure and Services Award

SLIVER Cells, a Breakthrough in Solar Technology, ANU and Origin Energy, ACT

Leadership in Sustainable Buildings Award

The Puzzle of Sustainable Commercial Development: ‘National@Docklands’, VIC

Leadership in Financial Services and Sustainability Award

Different Cars, Same Colour- mecu goGreen® Car Loan, VIC

Environmental Leadership Education and Training Award

The Natural Advantage of Nations, Book and Training Initiatives, SA

Environmental Leadership in Media Communications Award

Marine National Parks and Marine Sanctuaries Media Communications, VIC

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2004

Banksia Gold Award

Visy Industries: “We Make It. We Take It” Visy, VIC

Banksia International Award

Dr Sylvia Earle, USA

The Prime Minister’s Environmentalist of the Year Award
Che’ Wall, NSW

Environmental Leadership in the Community Award

Saving the Paroo River, QLD

Business Environmental Responsibility and Leadership Award

Visy Industries: “We Make It. We Take It” Visy, VIC

Government Leading by Example for a Sustainable Future Award

An Ecosystem Approach to Protecting Biodiversity,
The Great Barrier Reef Representative Areas Program: QLD

Environmental Leadership in the Rural Community Award

Riverside Sanctuary, WA

Sustainable Development Leadership in the Minerals Industry Award

Leading Sustainable Mining Practices, Wesfarmers Premier Coal, WA

Environmental Leadership in Protecting Bush, Land and Waterways Award

Saving the Paroo River, NSW

Environmental Leadership in Protecting Coastal and Marine Award

Markwells Bait Tackles Killer Plastic Bags, Markwells Bait ,QLD

Environmental Leadership in Infrastructure and Service Award

Karuah Bypass, Thiess NSW

Leadership in Sustainable Product Design Award

Charlie Carp Fertilizer, NSW

Leadership in Sustainable Buildings Award

Darebin City Council, VIC

Leadership in Socially Responsible Investment Award

Investa Property Group, VIC

Environmental Leadership in Communications Award

Watch Every Drop, Drought Marketing Campaign, Gold Coast Water, QLD

- 2003

Banksia Gold Award

Marine and Coastal Community Network, NSW

Banksia International Award

Allan Savory, President and Co-Founder of The Savoury Institute, Zimbabwe

Environmental Leadership in the Community Award

Birds Australia Gluepot Reserve

Business Environmental Responsibility and Leadership Award

VicSuper Contributing to a Sustainable Future

Government Leading by Example for a Sustainable Future Award

Solar in Schools, Sustainable Energy Development Authority

Environmental Leadership in the Rural Sector Award

Plumbago Station, SA

Sustainable Development Leadership in the Minerals Industry Award

Transforming Policy into Sustainable Outcomes, BHP Billiton, WA

Environmental Leadership in Protecting Bush, Land and Waterways Award

Control of the Yellow Crazy Ant on Christmas Island Parks Australia and Monash University, VIC

Environmental Leadership in Protecting Coastal and Marine Environments Award

The Marine and Coastal Community Network

Environmental Leadership in Infrastructure and Service Award

Douglas Shire Council, QLD

Leadership in Sustainable Product Design Award

The Orbital Combustion Process 2-Stroke Motorcycle Technology, Orbital Engine Corporation Limited, WA

Leadership in Sustainable Buildings Award

60L Green Building, Spowers Victoria, Green Building Partnership, Lincoln Scott, VIC

Leadership in Socially Responsible Investment Award

Sustainability Investing for a Sustainable Future VicSuper, VIC

Environmental Leadership in Communications Award

‘Your Home?’ Institute for Sustainable Futures, University of Technology, Sydney, The Australian Greenhouse Office, NSW

- 2002

Banksia Gold Award

Phillip Island, VIC

Banksia International Award.

Lord John Browne, Group Chief Executive, BP, UK

Environmental Leadership in the Community Award

Central Hopkins Land Protection Association, VIC

Corporate Responsibility and Leadership Award

City West Water’s Path to Sustainability, City West Water, VIC

Government Leading By Example Award

Landcom Leading by Example, NSW

Bush, Land and Waterways Award

Bidgee Banks, Greening Australia NSW

Coastal and Marine Award

Protecting Little Penguins on the Summerland Peninsula, Phillip Island, Victoria,

Buildings Award

Piney Lakes Environmental Education Centre, City of Melville, WA

Infrastructure and Services Award

The Alcoa Portland SPL Treatment Process, Alcoa, VIC

Manufactured Products Award

Visy, Closed Loop and Qantas, VIC

Socially Responsible Investment Award

Australian Ethical Investment, NSW

Communications Award

Parks Victoria, Healthy Parks Healthy People

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2001

Banksia Gold Award

‘The Heirisson Prong Project’, Useless Loop Community Biosphere Project Group, WA

Banksia International Award

Sheri Lao, Global Village Beijing, CHINA

Outstanding Individual Achievement Award

Ian Lawrence

Community Group Achievement Award

‘The Heirisson Prong Project’, Useless Loop Community Biosphere Project Group, WA

Corporate Responsibility and Leadership Award

Stanwell Corporation Ltd, QLD

Government/ Non Profit: Leading by Example Award

Sustainable Energy Development Authority (SEDA), NSW

Small Business Responsibility and Leadership Award

Abbotsleigh Citrus Pty Ltd, QLD

Bush, Land and Waterways Award

National Parks and Wildlife, SA

Coastal and Marine Award

WWF Australia Dhimurru Land Management Aboriginal Corporation Conservation Volunteers Australia NT Department of Primary Industries and Fisheries

Buildings Award

The University Of Newcastle, NSW

Infrastructure and Services

Olympic Coordination Authority, NSW

Manufactured Products Award

AQ Australia, SA

Socially Responsible Investment Award

Westpac Investment Management/Monash, University, VIC

Communications Award

SunRace Sustainable Energy Enterprise Developments P/L: VIC

- 2000

Banksia Gold Award

Olympic Coordination Authority, NSW

Banksia International Award

Dr Don Huisingh, USA

Communications Award

CSIRO Publishing, VIC

Community Groups Award

WildCare Incorporated, TAS

Corporate Environmental Leadership Award

Stanwell Corporation Ltd, QLD

Education and Training Category Award

Water Corporation of West Australia, WA

Environmental Business Practice Award

Riverland Oil Seed Processors, VIC

Flora and Fauna Conservation Category Award

Olympic Co-ordination Authority, NSW

Innovation Award

Bill Hicks, NSW

Land, Bush and Waterways Award

Goulburn Murray Water, VIC

Local Agenda 21 Achievement Award

Brighton Council, TAS

Research and Development Award

Baleen Filters Pty Ltd, SA

Resource Conservation and Waste Minimisation Award

The Australian Grand Prix Corporation, VIC

BANKSIA SUSTAINABILITY AWARDS

JUDGES

The Banksia Judging Process is heavily underpinned by the dedicated individuals that give up their time and expertise in order to review each entry. These individuals have been selected for their expertise and their commitment to Banksia's mission of identifying and celebrating Australian leadership.

The Banksia Foundation would like to thank our judges - over 90 of them - based right around Australia. These judges are independent to the Banksia Board and Staff. It is of the utmost importance for the Foundation to maintain the independence of the judging process and this is fundamental to the integrity of the Banksia Awards. The judges are all specialists in their field and the judging panels constructed so that each judge is assigned to a category which matches their expertise. All potential conflicts of interest are declared from the outset and these judges do not take part in that particular entry's assessment.

Banksia would like to acknowledge our Chair of Judges, Mike Juleff and the Head of the Audit Panel, Geoff Mabbett. Their commitment and support is invaluable and ensures that we maintain a viable, efficient and reputable judging process.

On behalf of the Banksia Foundation we would like to thank the following individuals who have provided their time and expertise in judging the 2015 Banksia Awards:

Judith Alcorn	Greg Hunt	Aaron Organ
Bobby Ali-Kahn	Liz Hurst	Michael Parks
Anne Astin	Carolyn Ingvarson	Hermione Parsons
Kate Baker	Terence Jeyaretnam	Lester Partridge
Nicholas Bernhardt	Cameron Jones	Rob Pascoe
Rosemary Bissett	Evelyn Jonkman	Graeme Pearman
Andrew Block	Arif Jubaer	James Porteous
Nicolette Boehle	Mike Juleff	Rupert Posner
Jaroslav Boublik	Alex King	Horrie Poussard
Simon Boughey	Sue King	Steven Powell
Chris Bourke	Izabella Kobylanski	Candyce Presland
Tamara Boyd	Nadya Krienke-Becker	David Rako
Shona Cameron	Tim Langdon	Stephen Reardon
Rob Catchlove	Nathan Lim	Sara Redmond-Neal
Brett Cheatley	Mick LoMonaco	Steph Rich
Dave Collins	Scott Losee	Jeff Robinson
Stacey Daniel	Geoff Mabbett	Mark Rodrigue
Tom Davies	Cam Mackenzie	Anna Scott
Jane Doolan	Fran Madigan	Claudio Senese
Susannah Elliott	Pip Marks	Wendy Spencer
Chelsea Ford	Sue Marriott	Janet Stanley
Dai Forterre	Sheree Marris	Peter Stewart
Tom Garrish	Russ Martin	Francois Steyn
Marty Gellender	Aislinn Martin	David Telford
Ian Gunn	Bram Mason	Benjamin Thibault
Tanya Ha	Lorna Mathieson	Bill Thomas
Kristian Handberg	David McCarthy	Mark Thompson
Nick Harford	Garry McDonald	Andy Trott
Victoria Hart	Helen Millicer	Desley Ward
Zena Helman	Nicola Murphy	Nikki Willand
Dominique Hes	Peter Netchaef	Jon Womersley
Sawsan Howard	Oona Nicolson	Ross Wyatt
Caitlin Howlett	Mike O'Neill	



Vivid Sydney 2015, Image courtesy of Destination NSW.

VIVID SYDNEY

Sustainability Partner



Vivid Sydney, the world's largest festival of light, music and ideas, extended its commitment to environmental sustainability in 2015, with its first sustainability organisation partnership for the event with the Banksia Foundation.

Guidance provided by the Banksia Foundation on the festival's sustainability approach saw Vivid Sydney achieve an important milestone in its commitment to sustainability by powering all grid-connected lighting installations using 100 per cent GreenPower-accredited renewable energy, achieving zero net greenhouse gas emissions and minimal impact on the environment.

In addition to the switch to GreenPower other 2015 initiatives included setting a carbon neutral target across the whole event (previously the carbon neutral target was 97% carbon offset); the purchase of carbon credits and planning additional approaches to minimising waste, energy and water usage – for example discouraging use of plastic water bottles.

Vivid Sydney targeted the increased use of energy efficient LED lighting and energy saving motion sensors in sculptures, additional scheduling and promotion of public transport to encourage people to leave their cars at home, and a reduced reliance on print collateral through use of apps, electronic marketing, and online ticketing for events.

Destination NSW was proud to partner with the Banksia Foundation for Vivid Sydney in 2015, and hope we can continue our association at future events.

Vivid Sydney returns from 27 May to 13 June 2016.



In South Australia's Barossa Valley, the Kalleske family have been farming and growing grapes since 1853 on their family estate at Greenock. The Kalleske family are active practitioners of sustainable farming. They are caretakers of the land and not only want to maintain the environment but improve it for future generations. Kalleske is a producer of handcrafted certified organic/biodynamic wines, committed to making genuine wines of individuality and of vineyard and winemaking excellence.

Cellar Door Open Daily, 10am to 5pm | 6 Murray Street, Greenock
P: 08 8563 4000 | E: wine@kalleske.com | W: www.kalleske.com



Kalleske
BAROSSA VALLEY



*"Handcrafted, organic wines...
the way nature intended"*

This book is designed by Ashley Shao.

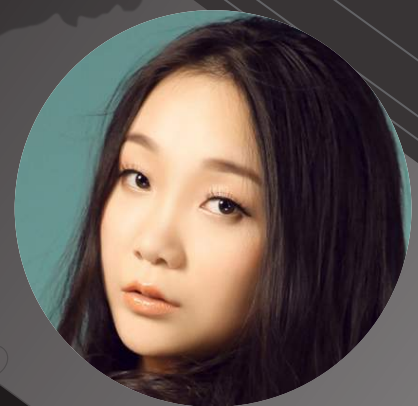
ASHLEY SHAO

Ashley Shao is an industrial and communication freelance designer graduated from RMIT, and is currently studying multimedia design at Monash University.

- She specializes in designing
- Branding
 - Packaging
 - Products
 - Print books and e-books
 - Posters and flyers
 - Short films

Feel free to contact:
jing_282@hotmail.com
+0433767435

Portfolio:
http://issuu.com/ashleyshaoyining/docs/portfolio_ashley_shao





2016

SYDNEY



SUSTAINABLE BRANDS' 16 SYDNEY (SB'16 SYDNEY)

THEME: How Now

DATES: 6-8 April 2016

LOCATION: Sydney, Australia

VENUE: Sofitel Sydney
Wentworth

WEBSITE: www.SB16Sydney.com

As Australia's leading global city and gateway to Asia, Sydney is recognised internationally for its outstanding environmental performance and as a future focused and innovative business center. Connect with the largest peer community of global brand leaders interested in driving value through sustainability in Sydney this autumn.

Sustainable Brands® is the premier global community of brand innovators who are shaping the future of commerce worldwide with focused attention on understanding and leveraging the role of brands in shaping that future. Live events are ideal for collectively aligning our community of brand innovators toward our common vision as well as convening members to share challenges and successes face to face.

Reinvent yourself in response to changing norms. We know the world is changing – transparency is driving a multitude of stakeholders to connect the dots between brands and their positive or negative environmental and social impacts. The demand for new products, services and business models that deliver purpose and profit is soaring and it's the resilient brand leaders of the 21st century who will thrive. Dive deep into the brand innovation trenches at SB'16 Sydney and learn How you can successfully innovate your brand for sustainability Now.

2016 marks the first year the SB community will gather in Australia! We'll be building on the HOW NOW theme to prompt leaders to actively apply the know HOW to shift business towards a more flourishing future NOW. Join us as and fully immerse yourself along with over 200 other distinguished leaders for a two jam-packed days of conversation and collaboration at the Sofitel Sydney Wentworth, 6-8 April 2016.

Sustainable Brands '16 Sydney – Brand, sustainability and design leaders find inspiration, tools and partnerships to drive business success and positive impact. Sydney, 6-8 April 2016.

www.SB16Sydney.com



FOR ALL ENQUIRIES PLEASE CONTACT:

Graz van Egmond,
CEO
Banksia Foundation

Level 1, 40 Albert Rd,
South Melbourne,
VIC 3205

T: 03 9684 4667
E: graz@banksiafdn.com

www.banksiafdn.com