

SUSTAINABILITY REPORT 2015



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MESSAGE FROM THE VICE-CHANCELLOR

I am delighted to present the inaugural University of Melbourne Sustainability Report.

As Australia's leading research-intensive institution, some 1300 researchers at the University apply their expertise in fields relevant to sustainability and resilience, with annual research expenditure of \$218 million.

The use of the University campuses as 'living laboratories' of sustainable and resilient communities enhances the Melbourne experience for students, staff and our broader community.

Since 2008, the University has implemented campus energy projects producing annual savings of \$3.1 million and 33,000 tonnes of carbon emissions.

The University's contribution to addressing these challenges resonates through significant projects such as the establishment of Carlton Connect, a world-class innovation precinct; linking urban communities with local farms through the Victorian Eco Innovation Lab 'Food Hub'; and development of the award-winning 'Growing Green Guide' by researchers in the School of Ecosystem & Forest Sciences, in collaboration with government and industry.

From 2016, the annual Sustainability Report – of which this is the first – will form part of the University's wider sustainability strategy. Other key elements of the strategy include the University's Sustainability Charter and the Sustainability Plan 2016-2020.

The Charter articulates the University's vision and commitment to sustainability across all areas of the institution. The Sustainability Plan identifies the actions and targets needed to realise these commitments.

This inaugural (2015) Report documents particular achievements in the University of Melbourne's environmental and social sustainability performance for the year.

As the Report shows, in 2015 the University expanded both its financial commitment and industry engagement in support of sustainability initiatives. Significant achievements in operational sustainability include securing \$9.1 million from the Clean Energy Finance Commission to invest in sustainability projects, partnering in the City of Melbourne Renewable Energy Project and receiving Australasian Green Gown Awards in the categories of Continuous Improvement, Facilities and Services, and recognition in the category of Student Engagement.

These achievements, and the passion of our researchers and students, are vital signs of the University's commitment to address the grand challenges of sustainability and resilience.

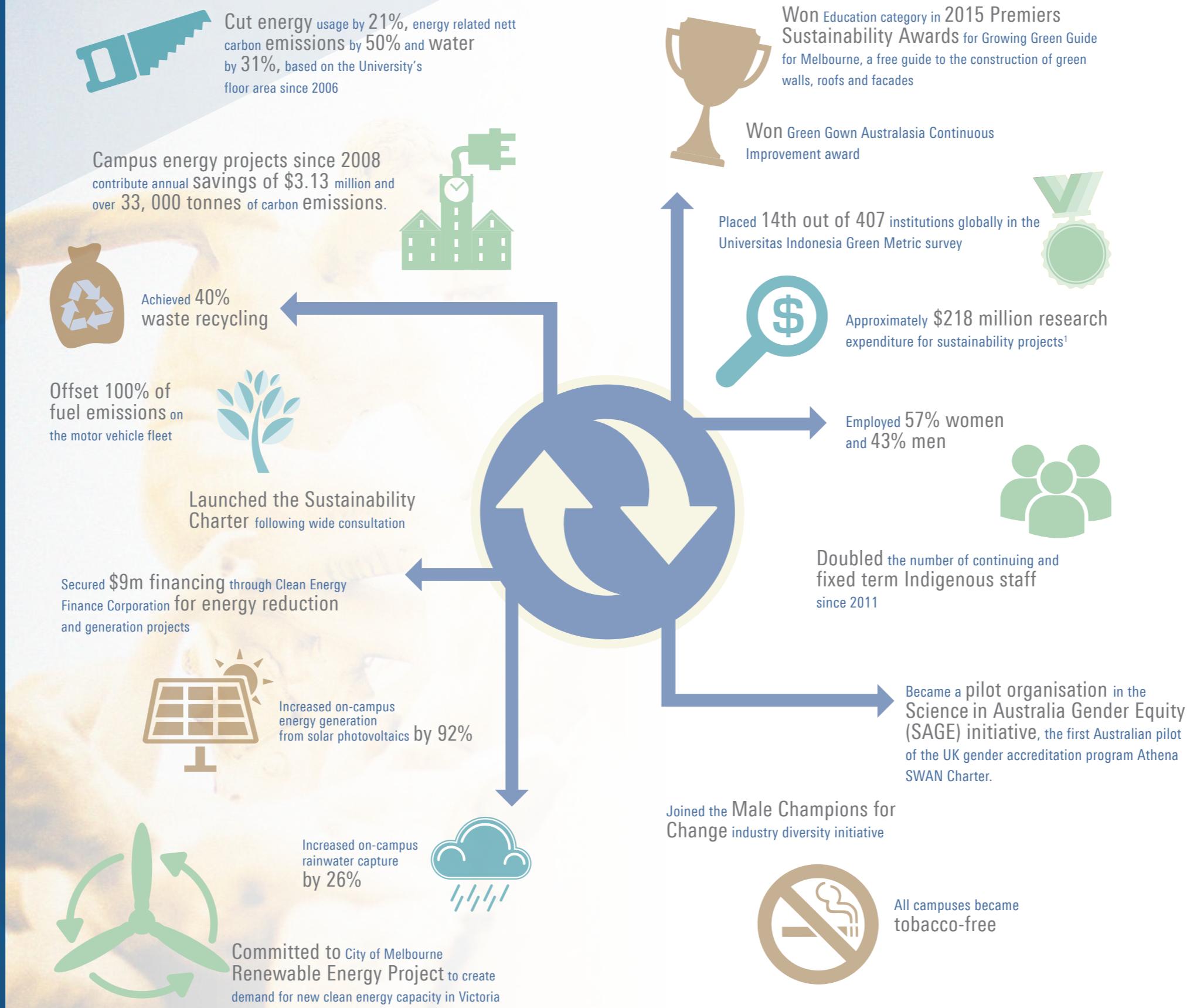
2. EXECUTIVE SUMMARY: PERFORMANCE AT A GLANCE

The University aims to deeply embed sustainability across all its activities: research, teaching and learning, engagement, operations and governance. Sustainability is not just about reducing our negative impacts – it's about maximising the University's contribution to environmental and social value.

The release of the Sustainability Charter in 2016 was a defining moment. It was the result of deep consultation and engagement with the University community in 2015. The Charter sets out the University's values and commitment to use its knowledge, imagination and influence to shape a sustainable planet and be an international exemplar of an ecologically sustainable community.

The University has a strong sustainability track record. Our goal is to reach carbon neutrality by 2030. The University has made great progress in its sustainability approach this year.

Key highlights were:



1. Sustainability at Melbourne. http://sustainable.unimelb.edu.au/sites/default/files/docs/MSSI_Sustainability_at_Melbourne_2015.pdf

This report showcases the University's holistic sustainability performance for 2015. It follows wide consultation with our staff, students and community on our Sustainability Charter and the important sustainability impacts to address in this report.

The important issues raised were:

- Showing sustainability leadership, creating innovative solutions and modelling sustainable behaviours
- Embedding sustainability in the curriculum, translating research into practice for business and the wider community, and using the campus as a laboratory for our transition to a sustainable and low carbon future
- Understanding the University's place in the community and building community resilience
- Engaging staff, students and other stakeholders in sustainability and on-campus initiatives
- Demonstrating open stakeholder engagement, clear sustainability governance structures, ethics and transparency.

Refer to Section 3.2 for locations of these issues in the report.

The University's strong focus on sustainability continues as we develop our Sustainability Plan 2016–2020. The Plan defines our approach to realising the aspirations and commitments in the Charter. We will harness the energy, passion and expertise of staff, students and the community to identify key goals and set the sustainability agenda.

3. THIS REPORT IN CONTEXT

3.1 ABOUT THIS REPORT

This is the University of Melbourne's first public sustainability report. The report covers our environmental and social performance during the calendar year from 1 January to 31 December 2015. We intend to report our performance annually.

The University's *Strategic Plan 2015-2020 Growing Esteem* sets out the vision for the University of Melbourne to be recognised as a leader in embedding sustainability in all aspects of our operations, teaching and learning, research, engagement and governance. This report tracks our progress against this aim.

This report is prepared in accordance with the Global Reporting Initiative (GRI) G4 framework at a Core level. It discloses our performance against the issues that are important to

our stakeholders, including students, staff, business, industry, government and community partners.

We are committed to improving our data systems so that we can capture our most significant impacts in future reports. This will help the University to continually improve its performance, achieve targets and transition to a sustainable future.

If you have any questions or queries about this report, please contact sustainable-campus@unimelb.edu.au.

Table 1: Identified important areas based on stakeholder consultation

ISSUE	REPORT SECTION
Responsible investment	4.5
Graduate employment	5
Staff and student wellbeing	5.2 and 8.1
Access to education	5.3
Sustainability research and innovation	6
Building resilient communities	7
Supply chain impacts	7.4
Diversity and inclusion	8.2
Sustainable campus operations	9
Campus sustainability initiatives	9.5
Student engagement on sustainability	9.6

This report tracks how we are addressing these impacts and responding to our stakeholders.

3.2 HOW STAKEHOLDERS INFORMED THIS REPORT

The University's stakeholders are passionate about sustainability. This was the strong message that came through in the public consultation on the Sustainability Charter. (See case study on page 9) The University is committed to listening to its stakeholders so they are part of its sustainability decision making.

In preparing this report, we asked our internal and external stakeholders about the important sustainability issues. These stakeholders included the University's senior leadership, representatives of student bodies, business partners, industry groups, government and community organisations.

The important issues raised are listed in Table 1 below.

3.3 ABOUT THE UNIVERSITY OF MELBOURNE

The University of Melbourne is a public educational institution dedicated to learning and teaching, research and engagement. The University consistently ranks among the top universities in the world. We place number one in Australia and number 33 in the world for the Times Higher Education World University Rankings 2015–16.

The University community is made up of:

- More than 50,000 students (approximately 42,500 full-time equivalents)
- Over 14,500 staff
- Over 338,000 alumni internationally

The University is a public-spirited institution that works with governments, industry, communities, overseas colleagues and

students to meet global societal challenges with intelligence and ingenuity.

The Parkville campus has remained the heart of the University of Melbourne for over 160 years. The University also has six other campuses in Melbourne and rural Victoria - Southbank, Werribee, Burnley, Shepparton, Dookie and Creswick. The University has a strong sense of place. Its unique cultural, architectural and landscape features play an important part in the history of the City of Melbourne and the state of Victoria.

Our vision is to be one of the finest universities in the world that contributes to society in ways that enrich and transform lives. The Triple Helix is the organising principle of the University's Strategic Plan 2015–2020 – Growing Esteem. The three pillars of the Triple Helix are:²

- Learning and Teaching: The University will offer learning that stimulates, challenges, and fulfils the potential of excellent students from around the world, leading to meaningful careers and profound contributions to society.
- Research: The University undertakes research that is brilliant, innovative and inspiring and that addresses the major social, economic and environmental challenges of our time.
- Engagement: This is the binding strand within the Triple Helix, enriching our teaching and research and deepening our contribution to a wider society.

Sustainability is recognised as an organising principle for decisions about the future of the University and as a public-spirited institution, enabling us to create positive contributions to society.

3.4 HOW WE SET THE SUSTAINABILITY AGENDA

Growing Esteem 2015-2020 sets out our aspiration to be recognised as a leader in embedding sustainability in all aspects of research, teaching and learning, engagement, operations and governance. This informs the values of the University and is reflected in our work.

Sustainability means having financial resilience, strong leadership and management, an engaged workforce and the successful alignment of teaching, research and engagement. It means having responsible institutional practices that consider and address the environmental, social and economic impacts of our strategies and operations. Sustainability is about maximising our positive impacts and influence on society.

Our sustainability commitments are enshrined in the Sustainability Charter. The Charter was released in March 2016 after consultation with the wider University community. It is an enduring statement of the University's sustainability values and principles that applies to all our activities.

Council is the University's governing body. It has oversight of the entire direction and superintendence of the University.

Our Vice-Chancellor is the University's chief executive officer. The Chancellery supports the realisation of Growing Esteem's vision and objectives for learning and teaching, academic performance and engagement. This includes the vision for sustainability.

The Vice-Principal Administration & Finance and Chief Financial Officer has overall accountability for the University's sustainability approach. This office leads the university-wide governance and strategy development of sustainability.

The Sustainability Executive provides the leadership to deliver the University's sustainability agenda. This group is made up of executives, academic and professional staff and presidents of the two major student associations. It is chaired by the Vice-Principal Administration & Finance and Chief Financial Officer and reports through Chancellery Executive to the University Executive. The Sustainability Executive provides regular updates on the University's sustainability achievements.

The Principal Advisor, Sustainability leads sustainability governance and strategy development.

The Sustainability Team based in University Services manages environmental sustainability at the University. The team implements the University's commitments to reduce resource use, manages sustainability projects on campus, and engages students, staff and the community on sustainability issues. The team's main goal is to drive better operational performance to enable the University to be a global leader in campus sustainability.

The Sustainability Advocates Forum is a group of staff and students who are passionate about sustainability. The forum reports to the Sustainability Executive and gives regular feedback and suggestions on the University's sustainability approach.

We are in the process of renewing our approach to sustainability to cover all our operations and engagements. A Sustainability Plan 2016-2020 is currently being shaped by input from our entire University community.

3.5 SUSTAINABILITY COLLABORATIONS

The University of Melbourne is a member, signatory or participant of many national and international multi-stakeholder initiatives. These initiatives enable us to leverage our influence and drive collective action on sustainability. Engaging in partnerships is an important way to share our knowledge and expertise with others and advance sustainability thinking.

Some of our key collaborations are listed on the right.

Initiative	Membership	Year of commencement
Universitas 21 Declaration on Sustainability	Signatory	2009
United Nations' Decade for Education for Sustainable Development (2005-2014) and Australian National Action Plan for Education for Sustainability	Signatory	2005 2013
The United Nations Global Compact and Member of the Global Compact Network of Australia (GCNA)	Signatory and member	2012
International Sustainable Campus Network	Member	2012
United Nations Academic Impact	Member	2012
Australasian Campuses Towards Sustainability	Member	
Group of Eight Sustainability Managers	Member	



Above: Mr Allan Tait, Professor Ross Garnaut, MLA Ellen Sandell, Dr. Roger Dargaville, Vice-Chancellor's Fellow Ms. Maxine McKew, Ms. Anisa Rogers

CASE STUDY: TAKING A COMMUNITY-WIDE APPROACH TO SHAPING OUR SUSTAINABILITY COMMITMENT

We recognise that our staff and students care deeply about sustainability – this is why from mid-October to December we sent out our Sustainability Charter for consultation. We wanted all our stakeholders to contribute to the discussion about how the University can shape its sustainability approach.

Hundreds of people gave their feedback—a mix of students, staff, alumni, and other stakeholders.

We sought feedback through many different channels. These included a dedicated

website, internal committee consultations with University bodies and public events like a South Lawn marquee and forum with an expert panel. Panellists who shared their views on sustainability were Mr Allan Tait; Professor Ross Garnaut; MLA Ms Ellen Sandell; Dr Roger Dargaville; Ms Anisa Rogers. Vice-Chancellor's Fellow Ms Maxine McKew MC'ed the event.

The overall topics of feedback from the consultation were suggestions about how to improve our operational performance. There were strong views on how to manage the University's relationship with fossil

fuel companies. Many were positive about the University's sustainability approach, but were concerned about responsible investment and said the University needed to show leadership in all sustainability areas. Full results are available online.

The Sustainability Charter was released in March 2016. We are proud to say that the University community as a whole supports our sustainability performance and contributes to setting the sustainability agenda.

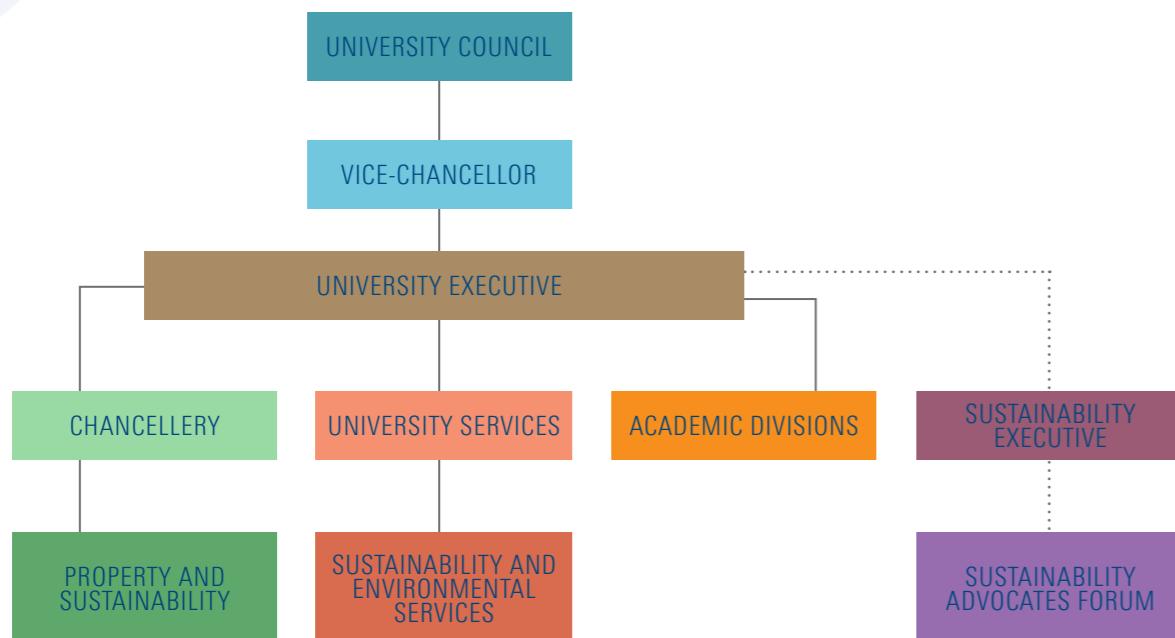


Figure 1: University of Melbourne Sustainability Governance structure



Won 3 sustainability awards in the 2015 Green Gown awards

4. LEADERSHIP IN SUSTAINABILITY

The University released its Sustainability Charter in March 2016 after extensive consultation in 2015. This important statement heralds the University's enduring commitment to sustainability as a guiding principle. The Charter recognises that as a pre-eminent research and teaching institution, the University can shape public thought and practices to achieve a sustainable future.

- The Charter states that the University will:
- demonstrate leadership, globally, nationally and locally;
 - generate interdisciplinary knowledge to underpin community action;
 - enable active global citizenship for all students and staff;
 - recognise the past and future contribution of Australian Indigenous peoples to custodianship of the environment;
 - promote equity in the use of global resources; and
 - ensure transparency and accountability in all institutional activities.

A clear message came through in our conversations with stakeholders about the Sustainability Charter. They expect the University to show sustainability leadership. This applies to our core activities and operations, but it is also about modelling sustainability solutions and showing others how to move towards a low carbon future.

The Charter recognises the University's important role:

"As a distinguished research and teaching institution, The University of Melbourne has a social responsibility to lead and engage in public debate and action."

The University strives to be an exemplar of sustainable practices and behaviours. We realise this vision through:

- Thought leadership, shaping the global conversation and public policy debate about sustainability and the necessary skills needed to thrive in the new economy
- Collaborating with external stakeholders like governments, industry partners, and the global research community to build community resilience, and,
- Using our campus as a living laboratory to model sustainable operations and behaviours. This shows others what is possible.

The Sustainability Plan 2016–2020 will be developed in the coming months. The Plan will realise the aspirations set out in the Charter. It will include detailed activities, milestones and timelines for the next five years. The University's first Sustainability Plan will be co-designed with staff, students and other stakeholders. It will continue the dialogue about sustainability so that students and staff can problem solve and engage with how the University can deliver on the Charter's commitments.

4.1 SHAPING DIALOGUE AND ACTION

The University engages in local and national level policy debates to raise public awareness and advance sustainability. We employ leading experts in sustainability who are often sought after by government and industry partners.

These academics participate in secondments, policy roundtables, submissions and parliamentary hearings to showcase the innovative projects and technology on campus.

They draw together inter-disciplinary knowledge to advise government on a range of issues from climate change to future industries and innovation. The University uses its convening power to engage with influential decision makers to support informed policy and action on sustainability.

Some of our activities in 2015 were:

- Policy roundtables on productivity, Medicare and health with the Prime Minister and Cabinet, Treasury, Finance and Health, and Victorian Government policy priorities, including liveable cities, with the Department of Premier and Cabinet.
- Attending the Paris Climate Change negotiations and supporting Australian businesses to pledge their support for a global climate deal (see case study)
- Policy submissions on the International Education Strategy, Research funding and

policy, Vision for a Science Nation, Smart ICT, and Victorian Government – Future Industries consultations

- Parliamentary committee hearings on Medical Research Future Fund, Smart ICT and Australia's Innovation System.
- Hosting regular campus visits for ministers, shadow ministers, government MPs and advisers to showcase the innovative projects and technology on campus.

4.2 PARTNERSHIPS FOR SUSTAINABILITY

The University also shapes the local sustainability agenda. We have a role in developing solutions to significant environmental and social challenges that affect our neighbouring communities in Melbourne City and the state of Victoria. At the local level, we build partnerships with government, industry and community organisations, take collective action and enhance community resilience.

In 2015, the University worked with the City of Melbourne on several activities to foster Melbourne's resilience. We established the City of Melbourne Chair in Resilient Cities to lead the City's resilience activities with communities and the University. The Vice-Chancellor Glyn Davis and Professorial Fellow Kate Auty are ambassadors appointed by the City of Melbourne to lead its strategy, *Future Melbourne 2026*.

To read more about these activities, go to the Building Community Resilience section.

The University collaborated with the City of Melbourne and other leading organisations in the Melbourne Renewable Energy Project. This landmark agreement will help the University achieve its 2030 carbon neutrality target. It will also contribute to City of Melbourne's target to source 25% of the city's power through renewable energy by 2018 (See case study P.12).

CASE STUDY: SUPPORTING GLOBAL CLIMATE ACTION

The scientific community laid out a challenge in the lead up to the Paris round of global negotiations on climate change. Limit global warming to two degrees. This called for urgent climate action from governments, industry and civil society.

The University rose to this grand challenge. The Melbourne Sustainable Society Institute (MSSI) spearheaded our efforts to achieve a global climate agreement and informed policy response from the Australian government.

MSSI led an ambitious program of research, engagement and outreach in the two years before the United Nations 21st Conference of Parties to the Framework Convention on Climate Change in Paris (COP 21).

MSSI drew on university staff and students to contribute to this historic event.

MSSI researchers and Advisory Board members attended the summit to shape the global talks on climate action. Senior academics included Professor Don Henry, Professor Robyn Eckersley (UNFCCC-accredited delegation leader), Professor John Wiseman, Professor Kate Auty and Professor Tim Flannery.

A live Paris Climate Summit Blog gave real time updates on the negotiations. The blog was led by MSSI's Cathy Alexander and Claire Denby. These blogs gave insights and analysis on the progress of negotiations and policy implications as talks unfolded. The blog received over 20,000 unique hits during the summit.

A number of MSSI professors played key roles in COP21. Professor Don Henry gave research and policy advice to the Hon. Al Gore, one of the world's leading thinkers on climate change. A significant part of Professor Henry's work was providing support to engage with key stakeholders to foster sustainable action. He represented the University and attended meetings with heads of delegations from various countries, international advocacy organisations and peak business bodies.

Associate Professor Malte Meinshausen also gave ongoing research and policy advice to a range of countries. Professor John Wiseman engaged with representatives of cities and state governments and spoke at the summit event called 'Spotlight on Australia'.

MSSI's engagement activities were a critical contribution. MSSI mobilised its leading sustainability research and influential network of thought leaders to advocate for a strong climate agreement. These efforts scaled up the University's global reach and impact. It showed the University's vital role as a thought leader that fosters action by engaging with decision makers.



Partnered with leading organisations on the Melbourne Renewable Energy Project

MSSI's Prof Don Henry and Hon. Al Gore at the COP21. [Credit: Cecilia Reischneider – Flickr]



Mr. Allan Tait with Lord Mayor and other representatives from the MREP partnership. [Credit: NEXTDC]

CASE STUDY: CREATING NEW BUSINESS MODELS FOR BUYING RENEWABLE ENERGY

In November 2015, the University signed an agreement with leading Melbourne businesses, councils, cultural institutions and other universities to combine our electricity buying power and create a new business model for purchasing renewable energy.

The Melbourne Renewable Energy Project (MREP) is an Australian-first. It is built on the concept of pooling resources. As major consumers of electricity, our university and partner organisations are pledging to purchase renewable energy through a group-purchasing model.

Consortium members include, the Bank of Australia, City of Melbourne, City of Port Philip, Citywide, Federation Square, Melbourne Convention and Exhibition Centre, Moreland City Council, National Australia Bank, NEXTDC, and RMIT University.

The University will play an integral role to harness our research, teaching and administrative resources to test new approaches and drive investment in renewable energy.

"We're proud to be involved in the Melbourne Renewable Energy Project," said University Vice-Principal Administration & Finance and Chief Financial Officer, Allan Tait. "We take seriously our responsibility as a public-spirited and global university to lead debate and act on sustainability issues."

In line with *Growing Esteem 2015–20* the MREP will help establish the University as a model of environmental sustainability, and significantly contribute to our 2030 carbon-neutrality target.

Clare Walker, Principal Advisor Sustainability, sees significant benefits from the project in research, teaching and learning, and in directly engaging the University's academic community. "This project offers the University great educational opportunities, in addition to providing significant environmental and community benefits," she said.

The City of Melbourne estimates that the consortium will save roughly 151,200 tonnes of CO₂ each year through the purchase of about 120 GWh of energy. This is the equivalent to planting more than 175,000 new trees a year.

4.3 INTEGRATING RESEARCH, INNOVATION AND OPERATIONS

We combine our research, teaching and learning to pilot 'campus as a living lab' projects. These projects use new technologies and approaches that model innovative ways to maximise social and environmental value. Living lab projects are part of our commitment to Education for Sustainability. They enable research informed learning using our campuses as testing grounds for technological innovations and social interactions that inform sustainable behaviours.

These projects help reduce our environmental footprint, but they also play another vital role. Living lab projects inspire the wider community and generate tangible industry outcomes. Early examples range from longstanding projects such as designing green roofs on our Burnley campus and shallow geothermal demonstration systems at Parkville. Recent projects in 2015 included the geothermal system at the Elizabeth Blackburn School of Sciences, the opening of the 6-star rated Melbourne School of Design and the solar installation on the roof of Wilson Hall. Future projects will extend to large scale infrastructure development projects like the Carlton Connect Initiative that brings together our researchers, industry partners and the wider community to incubate innovation projects. Others include the Melbourne Metro, Western Edge Biosciences precinct and Southbank campus redevelopment.

4.4 SUSTAINABLE DEVELOPMENT GOALS

The University is committed to both local and global action on sustainability. The Sustainability Charter affirms the belief that: "*Achieving a sustainable Earth requires global values and actions that are ecologically sound, socially just and economically viable.*"

The University supports the United Nations' Sustainable Development Goals (SDGs) as a global pathway to equitable development. The goals were launched and unanimously adopted by 193 countries in late 2015. The University commits to playing its part and working with other stakeholders to progress sustainability.



The University's Sustainability Team accepts the Continuous Improvement award at the Green Gown Awards in Geelong (from left: Judith Alcorn, Harry Troedel, Colin Reiter, Matt Stewart, Danielle Rostan-Herbert, Monique Edwards, and ACTS President Leanne Denby).

CASE STUDY: RECOGNISING OUR SUSTAINABILITY ACHIEVEMENTS

The University of Melbourne won three sustainability awards at the Green Gown Awards of the Australasian Campuses Towards Sustainability. This included the prestigious Continuous Improvement Award for our sustainability initiatives in leadership and governance; facilities and operations; learning, teaching and research; and partnerships and engagement

We also won the Facilities and Services category for the Furniture and Equipment

Our work as a leading education and research institution contributes to the following goals:

- Goal 4 Quality education: Ensure inclusive and quality education for all and promote lifelong education
- Goal 11 Sustainable Cities and Communities: Make cities inclusive, safe, resilient and sustainable
- Goal 17 Partnerships for the Goals: Revitalise the global partnership for sustainable development

Our staff and students are also working towards other Goals, individually and collectively in their professional endeavours and personal commitments.

In the year ahead, we will map University policies and plans to the 17 SDGs and related commitments. We will report on our key activities through annual Sustainability Reports.

Our leadership and commitments to sustainability received national and global recognition in 2015. The University won three

Re-use Service, which offers a range of workstations, storage solutions, other furniture, equipment and I.T. items for sale at low or no cost. This is a quick and sustainable alternative to purchasing new furniture or equipment and is available to University of Melbourne departments, faculties and affiliate organisations. The service has reused over 9,000 items and saved an estimated \$4.8 million in its four years of operation. This equates to more than 230,000 kilograms of waste diverted from landfill.

sustainability awards at the 2015 Australasian Green Gown Awards. We were also a Finalist at the 2015 International Green Gown Awards held at Bristol University. The University won the Education category in 2015 Premier's Sustainability Awards for Growing Green Guide for Melbourne, a free guide to the construction of green walls, roofs and facades.

4.5 RESPONSIBLE INVESTMENT

The University recognises that fossil fuel divestment is an important issue for the community. It has, for example, been an ongoing area of interest for students who are passionate about the University's investment approach.

The Sustainability Charter makes a commitment to sustainable investment, stating that the University will "implement investment strategies consistent with the University's commitment to sustainability and its financial and legal responsibilities."

We realise that investments may not reflect our most significant exposure to fossil fuel

We were also highly commended for Student Engagement for #C15Hack, Australia's biggest green innovation hackathon.

Our Sustainability Team has been working hard to expand on the University of Melbourne's position as a leader in campus sustainability through research, curriculum, innovation, and student organisations. The Green Gown award is evidence of the Chancellery and the Sustainability Team's hard work and persistence.

companies. Therefore, the University is taking a broad response to address all our interactions with the fossil fuel industry, rather than treating investments as a standalone issue.

The University is undertaking a stakeholder mapping project to understand our relationships with the fossil fuel sector in delivering our core activities of research, teaching, engagement and operations. This includes looking at a number of areas like our research collaborations, research and scholarship funding, graduate and alumni employment, and governing body memberships.

Understanding our broader involvement with this sector will inform a future strategy for effective action. It will enable us to develop a holistic approach that shows sustainability leadership by decarbonising our operations and working with industry and governments to reduce the use of fossil fuels. The Sustainability Plan will set priority actions for how to engage with the sector to advance sustainability.

5. INSPIRING THE NEXT GENERATION OF GLOBAL CITIZENS

Our core objective is to attract students with high academic potential from all backgrounds and give them outstanding learning experiences. We aim to cultivate leaders who are academically outstanding, practically grounded and socially responsible.

The Sustainability Charter commits the University to offering an education that enables graduates from all disciplines to learn about sustainability and provide specialist interdisciplinary education.

Graduates need to be ready for industries of the future. Therefore, our teaching and learning approach also needs to be forward looking. This prepares Melbourne graduates to play a vital role in shaping the future and developing societies, economies and industries that are prosperous and sustainable. We must support our graduates to attain meaningful careers and make profound contributions to society.

In the past decade, the University has reshaped its curriculum to create the distinctive Melbourne Curriculum and ethos that prepares our graduates to be professionals, leaders and active citizens. Our teaching and learning programs are designed to develop graduates with disciplinary knowledge and the capacity to evaluate issues from alternative perspectives.

5.1 EDUCATION FOR SUSTAINABILITY

Our vision is to develop graduates who will lead change for a sustainable future. The University is progressively embedding sustainability in the academic curricula, in line with the United Nations Declaration on Education for Sustainability (EfS).

This is key to ensuring that our graduates have an understanding of sustainability issues and the skills to respond to future challenges.

The University established a Working Group in 2010 to progress the EfS agenda. Its work contributed to the formulation of the "Active Citizenship" Graduate Attributes.

The Melbourne Graduate Attributes explicitly recognise sustainability and active citizenship. These inform the development of learning outcomes for every course and subject.

Melbourne graduates are expected to have high regard for human rights, social inclusion, ethics and the environment. They are also expected to use advocacy and innovation to lead change for a sustainable future.

We also recognise the power of the 'hidden curriculum'. The hidden curriculum exposes students to sustainability experiences in their everyday campus environment. This complements their formal academic study. Initiatives include 'campus as a living laboratory' projects, integrating sustainability aspects into building design and sustainability engagement activities to create dynamic learning environments.

Programs and courses

We recognise that education about sustainability is important to develop interest and passion in our graduates. This drives them to make positive contributions to their communities, cities

and countries. Sustainability education must be interdisciplinary, so students understand complex challenges through different lenses and develop holistic solutions.

Melbourne has offered over 800 graduate and undergraduate subjects covering sustainability and environmental aspects in the past five years. This represents about 14% of total University courses. These courses are offered at many faculties and schools, including Architecture, Building and Planning; Business and Economics; Education; Engineering; Law; Science; and Agricultural Sciences.

The Office for Environmental Programs (OEP) is a global leader in interdisciplinary graduate environmental education. It is committed to four core values: sustainability; disciplinary and inter-disciplinary excellence; a global-local outlook; and personalised support for students.

The OEP is responsible for the Graduate Environmental Program (GEP). The GEP is a flexible and challenging graduate program that fosters both a depth and breadth of environmental knowledge. The GEP offers three degree options. This includes a Master of Environment (100 and 200 point pathways), Graduate Diploma in Environment, and Graduate Certificate in Environment. Graduates can choose from 11 specialised paths of study or design a tailored program to suit their interests. Specialised streams allow students to gain in-depth knowledge of areas like climate change, sustainable cities and regions, education and social change, development, conservation, energy studies, governance, policy and markets, and public health.

Industry engagement

The University aims to educate graduates who have the skills to create, define and succeed in the future careers and industries of sustainable societies. Graduate programs have a strong focus on professional preparation and research, underpinned by industry partnerships. One of our key engagement commitments is to expand work-integrated learning experiences for students through internships, volunteering, applied research projects and industry placement, particularly at the graduate level. These experiences help the University achieve its ambition to offer world-class employment outcomes for undergraduate and graduate students.

Each faculty has a strong industry engagement agenda. The University seeks out the expertise of industry leaders to advise on course content, work-integrated learning and graduate employment outcomes. This close engagement is critical to develop students as future contributors to industry, society and the economy. The Melbourne Careers Centre helps our students to build their employability skills. It works with faculties to embed career development learning in the academic curriculum, and with employers to create connections with the University and students.

Our ongoing priority is to ensure that our graduates are job ready and courses are fit for purpose. The University is committed to working closely with industry to build on our strengths as a pre-eminent research institution and enhance graduate employment outcomes.

CASE STUDY: HARNESSING OUR GREATEST RESOURCE - STUDENTS

Giving our students live problems is a great way to build their skills and tackle the University's sustainability challenges. The University of Melbourne is committed to sustainability education. We want our students to be involved in shaping our sustainability leadership.

Students taking the *Interdisciplinarity and the Environment* subject were given the opportunity to advance the University's biodiversity approach. They were asked to assess the level of biodiversity on the Parkville campus by identifying knowledge gaps. They made recommendations to the University's Sustainability Team on the 'first steps' to approaching a strategic plan for the campus' biodiversity management. The students consulted widely and produced

high quality reports that provided varied and exciting ideas and recommendations which will be used in the first stage of the University's biodiversity planning process.

The University is a Gold Sponsor of the Green Building Council of Australia's *Green Star Communities* (GSC) sustainability rating tool. The Green Star Communities tool enables certification of precinct-level projects. The University has been involved in the pilot phase of the tool's development and is working towards accreditation of Parkville campus. Students took on the role of environmental consultants and worked in a multidisciplinary project team to prepare recommendations on the value of rating tools and the University's approach to accreditation.



The Hon. Al Gore's visit to Parkville campus. [Credit: Paul Burston]

CASE STUDY: DRIVING DIALOGUE ON ADDRESSING CLIMATE CHANGE



The Melbourne Sustainable Society Institute hosted the former United States' Vice President and Nobel Laureate The Hon. Al Gore. He discussed the latest developments in climate change, renewable energy opportunities, and what Australia can do to lead climate action.

Mr. Gore presented On the Climate Crisis and the Case for Hope to over 1200 staff, students and guests. He spoke about the growing global momentum for switching to

renewable energy technology and the vast number of jobs and economic opportunities in the new economy. MSSI also hosted a research roundtable with Al Gore and leading climate and energy researchers from the University, leading businesses, environmental groups, government and other universities. MSSI discussed its research on the Climate Reality Project on the case for climate action by key countries.

Students patting puppies as part of Stress Less Week.

Indigenous student enrolments have increased by 50% since 2011



5.2 STUDENT WELLBEING

Shaping the next generation of leaders calls for a social and educational experience. The way we create opportunities for students to enrich their personal experience on campus is just as important as offering a high quality academic curriculum. That is why we are focused on growing our students as citizens by enriching their student life, promoting social harmony and supporting health and wellbeing.

Supporting students' health and wellbeing enables them to succeed. [Students.unimelb](#) is our comprehensive website that provides useful resources for students. It has information on course planning, campus involvement opportunities, and health, wellbeing and support. The University offers free and confidential counselling and psychological services to currently enrolled students and staff, covering issues such as money management, sports and recreation, food and nutrition, housing, mental and emotional wellbeing, diversity and inclusion, and family health. These services help to create a positive campus experience for our students, while being actively involved in their communities.

The annual Student Experience Survey measures students' views on their learning experiences at Melbourne. Results guide how the University continuously improves the quality of its subject offerings and learning. In 2015, over 80% of students from bachelor, honours, associate degree, and advanced diploma cohorts were satisfied with the Melbourne experience. (See results below.)

Overall results remain strong, but there are a number of areas for improvement. These include student support services and learner

engagement. Performance is also uneven across different faculties and in comparison to our peers. This gives us clear guidance on how to engage with students in a more consistent way that exceeds the industry benchmark.

5.3 SUPPORTING SOCIAL INTEGRATION

The University aims to provide greater access to education. Its social inclusion strategies aim to overcome barriers to education for less advantaged members of society.

Students and staff of diverse cultural, socio-economic, geographical and personal backgrounds enrich the learning experiences and outcomes for the entire campus community. Therefore, the University strives to achieve a student cohort that reflects Australia's cosmopolitan society. We believe that access should be based on the principles of excellence, diversity and equity.

Our student equity strategies focus on improving access, participation and outcomes for four different groups of students: undergraduate low socio-economic status (low-SES) students, students from regional and remote areas, Indigenous students and students with a disability.

The University's international student population has remained constant in recent years. International enrolments were 33.5% of the student population in 2015 (15,208 EFTSL). The University offers a wide range of programs and services to international and English as a Second language (ESL) students. These include support to enhance language proficiency, maximise independent learning abilities,

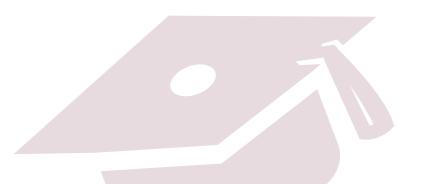
and develop key graduate attributes. The International Student Services offers current and future international students support and advice on adapting to life in Melbourne, cost of living, housing, working while studying, health, counselling and other services.

Low-SES participation has continued to rise in recent years because of the Access Melbourne program. The Program commits to enrol 20% of all domestic undergraduate students through this pathway. The University continues to exceed this target with 39% of the commencing undergraduate domestic cohort in 2015 enrolled through Access Melbourne.

The Melbourne Connect program linked alumni from 71 low-SES schools with 2955 prospective students. The program raises awareness of and aspiration to higher education for pre-tertiary students. It fosters peer-to-peer connections between Low-SES schools and their alumni attending the University. This year, the program carried out a number of activities, including a Melbourne Connect Study Skills day to develop study skills for VCE exams, a UniExperience camp, and a number of Meet Melbourne information sessions in regional Victoria.

The University also offers a range of programs to engage and support Indigenous students. Indigenous student enrolments have increased by 50% since 2011. A new Bachelor of Science Extended program launched in 2015. This aims to lift Indigenous student enrolment in the sciences, technology, engineering and mathematics disciplines. The degree is available to aspiring and motivated Indigenous students. Since 2013, 22 Indigenous students have commenced at the University in the elite category of Chancellor's Scholars.

Figure 2: Results of the Student Experience Survey (SES)



Student satisfaction with overall experience at 80%

Approximately \$218 million
research expenditure for
sustainability projects

6. SUSTAINABILITY AS A GRAND CHALLENGE

Current and future generations face unprecedented challenges from climate change, resource scarcity and environmental degradation, population growth, urban migration, and pressure on welfare systems. As a society, learning to live more sustainably is the grandest challenge facing our planet.

As a public-spirited and research-intensive institution, we have a responsibility to shape solutions for a more sustainable future. We are Australia's leading research University with around 1 billion dollars in research expenditure³. We draw on these considerable assets to support society in meeting these social and environmental challenges.

The research strategy *Research @ Melbourne: Ensuring Excellence and Impact to 2025* (R@M) guides our approach. The strategy commits the University to pursue three Grand Challenges to make a tangible impact in Australia and the world:

1. Understanding our place and purpose
2. Fostering health and wellbeing, and
3. Supporting sustainability and resilience.

These challenges call for interdisciplinary solutions that draw on strong and mature expertise in relevant disciplines. The University leverages faculty and department research agendas to combine disciplinary depth and academic breadth to address these multifaceted problems. This enables us to anticipate new trends and drive discoveries that will help improve local and global communities.

6.1 SUSTAINABILITY THEMED RESEARCH CENTRES AND FLAGSHIP PROGRAMS

There are about 1300 researchers working in fields relevant to sustainability and resilience, with annual research expenditure of about \$218 million.⁴ The research strategy invests in research that facilities and elevates the excellence and impact of Melbourne's work.

Our scholars work across disciplines and geographical borders to connect with industry and solve globally significant problems. Their work has led to major discoveries and technological breakthroughs that continue to have major economic and sustainability impacts around the world.

The University's five interdisciplinary institutes and nearly 100 research centres bring together researchers from across the University, as well as industry, government and civil society in Australia and overseas. They aim to challenge current thinking and offer new solutions. The three flagship Melbourne Institutes that drive the University's sustainability agenda are:

1. The Melbourne Sustainable Society Institute (MSSI) facilitates research linkages and conversations to increase understanding of sustainability and resilience trends, challenges and solutions. The MSSI approach emphasises the contribution of social sciences and humanities to understanding and addressing issues of sustainability. The institute's program of work for the next two years focuses on three research clusters: Future Cities, Climate Transformations, and Sustainability in the Anthropocene.⁵

2. The Melbourne Energy Institute brings together the work of over 150 researchers in providing international leadership in energy research and delivering solutions to meet our future energy needs. The institute works with industry, government and community partners in conducting ground-breaking research on new energy resources, new ways to harness renewable energy; more efficient ways to use energy; securing energy waste, and framing laws and regulation to achieve energy outcomes.

3. Melbourne Social Equity Institute (MSEI) identifies unjust or unfair practices that lead to social inequity and works towards finding ways to address disadvantage. The institute focuses on the full spectrum of social life, with particular focus on vulnerable populations, like people with disabilities, children, migrants and asylum seekers, and Indigenous Peoples.

To read the collection of stories about our researchers' who are working to make a difference go to: http://sustainable.unimelb.edu.au/sites/default/files/docs/MSSI_Sustainability_at_Melbourne_2015.pdf

This year, we continued to roll out our Hallmark Research Initiatives that were launched in 2014. The Hallmark Research Initiatives bring together interdisciplinary researchers to build on existing strengths at the University's faculties. The Ageing Research Initiative, Children's Lives Research Initiatives, Disability Research Initiative and Indigenous Research Initiative particularly focus on reducing vulnerabilities and improving social resilience in changing economies and societies around the world.⁵

Table 2: Key statistics from these three Melbourne Research Institutes, 2015

Research	MSSI	MSEI	MEI
Total research income 2015	\$1,512,000	\$1,109,000	\$1,807,000
Total number of flagship projects	11	12	16
Number of publications generated by Institute initiatives	39	51	50+
Number of events	53	37	71
Key partners	41	17	63

CASE STUDY: INCUBATING INNOVATION AT THE CARLTON CONNECT INITIATIVE⁶

The Carlton Connect Initiative (CCI) builds on our research and sustainability capabilities to create a world-class innovation precinct in South Carlton.

The CCI aims to combine a large-scale infrastructure development with a research and innovation agenda, extending the model for research at Melbourne. It puts explicit emphasis on external engagement and generating impact. It fosters new ways of collaborating with major industry partners, government and community organisations that will add a valuable new dimension to the University's capabilities and drive projects that advance energy efficiency, carbon and water management, climate change

mitigation, sustainable cities and regions, and disaster management.

The development, neighbouring the Parkville campus, includes commercial, retail and residential spaces. Anchor partners are invited to be part of Australia's largest 6-star green-star targeted project.

We currently have a dynamic mix of anchor organisations at CCI. These include the Australian-German Climate and Energy College, Innovative Manufacturing Cooperative Research Centre, Melbourne Accelerator Program, The EU Centre on Shared Complex Challenges, Victorian Life Sciences Computation Initiative, studios for the City of Melbourne's

Creative Spaces initiative, and Science Gallery Melbourne.

As CCI evolves, we will see new approaches to mixing disciplines to increase the sustainability of Australian business and communities. It will also pioneer breakthrough innovations that capitalise on new and disruptive technologies to tackle global challenges. The initiative will deploy ideas to meet new markets and exports, high value jobs, new skills and a knowledge driven future and a generation of graduates and professionals trained with the capability to recognise and manage innovation.

3. Reported in HERD collection to the ABS

4. Sustainability at Melbourne, http://sustainable.unimelb.edu.au/sites/default/files/docs/MSSI_Sustainability_at_Melbourne_2015.pdf

5. Hallmark Initiatives, <http://hallmarkinitiatives.unimelb.edu.au/>

CASE STUDY: BUILDING MORE SUSTAINABLE FOOD SUPPLY SYSTEMS

Many consumers have lost touch with where their food comes from and how it is made. An exciting action research project in Melbourne's outer suburbs has been bridging this gap to link urban communities with nearby farms. It aims to build more resilient and sustainable food supply systems.

Kirsten Larsen, Policy Challenges Research manager at the Victorian Eco Innovation Lac (VEIL) has set up a Food Hub in Dandenong.

Larsen's team chose to base the Hub on the city's south-eastern fringe because of its rapid growth but barriers to buying local, despite productive farmland nearby.

The project set up an online system for farmers to log their produce every week. Local people and businesses order online, then farmers bring their goods to a warehouse in Dandenong. Workers package up the orders, which are delivered to businesses and smaller hubs like community organisations for collection.

Larsen says the Hub is "no middle-class organic marketplace," and includes a focus on feeding vulnerable communities. Prices are usually lower than in supermarkets. This is significant, when big retailers control about 80% of the food market.

The Hub is partly funded by VicHealth and opened in early 2014. The project aims to supply high-quality, healthy, local fresh produce, to pay a fair price to farmers and reduce food waste. Larsen says food security is increasingly an issue and people shouldn't "just take for granted that there will always be an excess amount of everything".

Global research networks and collaboration

The University works globally to drive research quality and sustainability outcomes. This includes fostering Australia's global efforts to improve the lives of people in developing countries by building on our nation's strengths. These include multiculturalism, social equity, economic innovation and development, political systems and community wellbeing.⁷ Melbourne has over 250 agreements for academic cooperation and exchange with leading universities overseas. This year, we signed 20 new agreements with top-ranking institutions. These relationships give students and researchers access to a vast network where they can train and research important global issues.

The University has one of the largest academic cohorts focused on Asia and a long history of engagement in the region.⁸ The University aims to be the outstanding university in Australia for Asia-relevant research, tackling the grand challenges posed by the unprecedented scale and pace of modernisation in the region. The Asialink Centre and the Australia India Institute

play important roles in engaging with the region on issues of sustainability. The University secured support to establish the Australia-China Joint Research Centre of Healthy Soils for Sustainable Food Production and Environmental Quality in 2015. The Australian and Chinese governments will fund this Centre. It will work with leading researchers in both countries on threats to productive agricultural soils from drought, degradation and climate variability. The Centre's goal is to promote sustainable food production with minimal negative impacts on society and the environment.

The University also has strong research links with Europe. It has notable ties with Germany, whose robust economy and commitment to renewable energy and environmental sustainability creates opportunities to collaborate on innovative sustainability solutions for sustainability. The Australian-German Climate and Energy College offers a collaborative environment for Australian and international PhD candidates to search into core areas of the response to climate change. The EU Centre on Shared Complex Challenges

also works to enhance European Union and Australian collaboration in tackling shared complex challenges such as climate change and natural disasters.

Translating research

The University's innovation agenda encourages collaborations and innovations in industries, technologies, public policy and services informed by outstanding research. Melbourne aspires to create research that is accessible, practical and outcome-focused. This enables us to develop research that is valuable for and valued by the community.

The University is building new pathways to external collaborations and partnerships through an enhanced Business Development capability and other activities like the Carlton Connect Initiative. The University is involved in many research 'centres' with industry including Cooperative Research Centres, and Australian Research Council (ARC) Centres of Excellence.

A recent highlight is the ARC Linkage program. This program supports collaborative research and development projects between higher

education researchers and other parts of the national innovation system (specifically industry and other research end-users). The program applies advanced knowledge to problems so research outcomes create national economic, commercial, social or cultural benefits. The University of Melbourne received the largest allocation of funds for the Linkage program in 2015.

6.2 CAMPUS AS A LIVING LABORATORY

Our campus as a laboratory projects support our Education for Sustainability commitments. These projects enable research informed learning, using our campus as testing grounds for innovations and social interactions that inform sustainable behaviours. They draw together our teaching and research with operations, student and staff engagement to deliver sustainability focused outcomes.

The University focuses its sustainability efforts at the precinct level to achieve a wider community impact.

A great example of innovation projects at Melbourne is the Green Roofs demonstration site at our Burnley campus (see case study).

In late 2013, the University established a 25kW shallow geothermal demonstration system at the Walter Boas building. The system includes five 50-metre boreholes that pump water to reduce demand on heating and cooling systems in the building. The project engaged students and staff in the design and construction phase. System monitoring enables ongoing research and teaching opportunities. It then informed the design of a large-scale system as part of major construction works at the Bio21 Science Sub School, funded by the Victorian Government Department of Primary Industries.⁹

These initiatives have achieved significant environmental, economic and cultural outcomes. These include lowering building energy needs and associated costs and raising wider community awareness of solutions for sustainability.

CASE STUDY: CUTTING EDGE RESEARCH ADVANCING SOLUTIONS FOR URBAN SUSTAINABILITY

Researchers at the University of Melbourne are conducting leading research into innovative urban sustainability approaches.

Claire Farrell, a Lecturer in Green Infrastructure is finding ways to cool urban areas to reduce the environmental impacts of high air conditioning use in summer and rain water run-off in winter. 'Green roofs' are gardens planted on rooftops. They are popular in Europe and North America but have not taken off here because of Australia's hot and dry climate.

Researchers at the University's Burnley campus built Australia's first research green roof in 2012. The rooftop has more than 200 species, paths, seats and an umbrella. The vast array of plants in the garden attracts butterflies, birds, bees and is very popular with staff and the general public.

Burnley researchers found the cooling effect of a rooftop garden can cut air conditioning use by about 38 percent. Soil and plants reflect heat and provide shade and insulation. Green roofs are also known to reduce rainwater runoff which helps the quality of nearby waterways. Green roofs also reduce the "urban heat island effect" where the hard surfaces of cities store and release more heat compared with cooler leafy suburbs.

Claire found that people preferred green grassy vegetation on a green roof, and that working nearby improved concentration.

The Burnley team has gone on to design green roofs for five commercial and University buildings, including the first native grassland roof in the southern hemisphere. An important thing to remember is that not all buildings and

structures can hold the additional weight, though newer buildings cope better.

Mr John Rayner and Dr Susan Murphy, green infrastructure researcher and horticulture lecturer at the School of Ecosystem and Forest Sciences, with the help of Project Officer Julie Francis, worked with government and industry groups to produce The Growing Green Guide.

The Guide was published in February 2014, has been translated into Chinese and Spanish and has been downloaded more than 70,000 times. It won the 2015 Premier's Sustainability Award for Education and has also been incorporated into council guidelines for sustainable city living.



Established the Chair in Resilient Cities with the City of Melbourne

7. BUILDING COMMUNITY RESILIENCE

The University engages with industry, community and government to create innovative solutions to sustainability challenges. Our people come together with neighbourhoods around our campuses, the City of Melbourne, and community partners to share our knowledge and resources. We build the resilience of future cities and communities by fostering deep ties with communities in times of great environmental, social and economic change.

The University's Engagement Strategy 2015-20 outlines our commitment to work with the broader community in Victoria. We focus on influencing public conversations and policy development that contribute to the intellectual, economic and social advancement of Victoria.

The strategy includes establishing a program to advance economic and social development priorities in the west of Melbourne. We will also engage constructively with campus neighbourhoods and local governments, and contribute to the social, cultural and

economic development of Goulburn Valley (GV). Community engagement includes our contribution to the vibrant cultural life of Melbourne and other regions.

7.1 ENGAGING WITH LOCAL GOVERNMENTS FOR A MORE RESILIENT MELBOURNE

The University is a prominent player in the City of Melbourne precinct. We recognise that the way we run our campuses and engage with governments plays a significant role in shaping the future of a more liveable city.

The University engaged with government stakeholders by participating in secondments, policy roundtables, submissions and parliamentary hearings to share our expertise and shape local and national policies. These include roundtables with the Department of Premier & Cabinet on liveable cities and other Victorian Government policy priorities.

The University partnered with the City of Melbourne to establish the Chair in Resilient Cities in 2015. The Chair provides a key point of leadership to align the resilience activities of both the City and the University. To read more about this initiative, see Case Study.¹⁰

The City of Melbourne appointed a group of six ambassadors to lead and guide the Future Melbourne 2026. This strategy aims to ensure Melbourne's future prosperity and status as the world's most liveable city. The group is chaired by our Vice-Chancellor, Professor Glyn Davis. Kate Auty, Professorial Fellow is widely known for her work on climate change and with Aboriginal communities and is also one of the six ambassadors who will stimulate and contribute to the public conversation about the future of Melbourne. The conversation is based on five future trends: the digital city, climate change, future economies, urban growth and density, and citizens and government.

7.2 ENGAGING WITH LOCAL COMMUNITIES

The University engages in a range of community and cultural partnerships to address the sustainability challenges that face local and international communities.

We have a longstanding relationship with Goulburn Valley (GV), and a commitment to deepen our involvement in rural and regional Victoria through partnerships. As a part of this commitment, the University is leading cross-sector collaboration to develop a five-year economic, social and cultural development strategy for the region. This year, the University and the Albagonyah community cabinet co-convened an economic roundtable. This brought together leaders from government, universities, businesses and Aboriginal community leaders.

The University renewed a partnership with the Smith Family in 2015. The partnership supports a program for disadvantaged children to stay engaged in school and improve access to university education. The partnership focuses on the Goulburn Valley (in particular, the Yorta Yorta and Indigenous people of the region), the North and Western regions of Melbourne and disadvantaged inner city neighbourhoods.

The University engages with Carlton community as a partner and a neighbour to our Parkville campus. We have co-developed a community driven collaboration framework to guide our partnership activities. This sets out activities to

build capacity for community events, programs and services, partner with low socio-economic status schools and youth services to support

world-class educational experiences that benefit broader society.

The University launched *Believe – the Campaign for the University of Melbourne* in 2013. It had the ambitious goal to raise \$500 million by the end of 2017. Thanks to more than 20,000 alumni and donors worldwide, the University officially passed this mark two years ahead of schedule.

The campaign has provided more than \$150 million to educate tomorrow's leaders, \$120 million for enriching our communities, and more than \$230 million for ground breaking research in areas like skin cancers, childhood mental health and human rights law. We aim to raise \$1 billion by 2021 and engage 100,000 alumni in the campaign's second phase. Our Alumni play a vital role in helping Melbourne become Australia's leading university.

7.3 ENGAGING WITH INDIGENOUS PEOPLES

The University of Melbourne is a centre for comprehensive Indigenous studies. It is also a place of study, work and collaboration for Indigenous scholars. We pursue a rigorous Indigenous Australian agenda in our teaching, learning and engagements.

Our strategic priorities are to increase Indigenous staff and students' access to education and job participation. These targets are outlined in the Growing Esteem strategy, Reconciliation Action Plan 2015–2017 (RAP),

10. Making Melbourne more resilient. <http://sustainable.unimelb.edu.au/making-melbourne-resilient>

CASE STUDY: JOINING HANDS WITH THE CITY OF MELBOURNE TO BUILD URBAN RESILIENCE

The City of Melbourne is part of the 100 Resilient Cities Network. The 100 Resilient Cities challenge is funded by the Rockefeller Foundation. It calls for cities to become more resilient to the physical, social and economic challenges of the 21st century.

The University partnered with the City of Melbourne to establish the Chair in Resilient Cities. The Chair is a key point of leadership to align the resilience activities of both the City and the University in the face of sustainability challenges including global warming.

The Chair will be located in the Faculty of Architecture, Building and Planning and will work closely with the Melbourne Sustainable Society Institute (MSSI) to enhance

and support the many initiatives that enable resilience at the university, the City of Melbourne and our partners and communities.

Professor Brendan Gleeson, Director of MSSI said the Chair will look at urban resilience and identify new partnerships that enhance student opportunities to build world class teaching and research programs.

"MSSI is strongly committed to building a collaborative and supportive network to achieve our high expectations. The new role will build capacity to develop and support open communication based upon trust and respect". The role will aim to influence and stimulate public debate and policy by engaging local and international communities.



CASE STUDY: LISTENING TO INDIGENOUS KNOWLEDGE

Indigenous knowledge about the environment has much to teach us about living within the bounds of ecosystems. This is the focus of Kerry Arabena's work as Chair for Indigenous Health. She has established an Ecohealth research program that evaluates Indigenous knowledge on the environment to benefit both people and the land.

Arabena is a descendent of the Meriam people of the Torres Strait

"We've had 60,000 years or so of being able to live within the confines of an ecosystem, and people's entire lives were framed by that... now it's a deeply challenging mind-shift," she said.

She would like to revive Indigenous stewardship concepts.

"We know we've had custodial responsibilities to care for country, in doing that then it cares for us".

Arabena's research work includes investigating the health and wellbeing impacts of Indigenous people getting out onto country. "The vision is to take [Indigenous] people back out to country to improve their health and wellbeing by engaging in custodial responsibilities and cultural customs," she said.

Arabena's research agenda is ambitious. Her record shows she's prepared to challenge established norms and institutions on issues like Indigenous reconciliation and constitutional recognition. She describes herself as a provocateur, "I would hope that what I do is give people a different perspective". "I want to stretch the limits of people's thinking."

Indigenous Student Plan 2013–17 and the Indigenous Employment Framework.

To read more about our RAP and our Indigenous inclusion targets, please see the Valuing Diversity & Inclusion section.

Murrup Barak, the Melbourne Institute for Indigenous Development works to establish the University as a leader in indigenous development and advance its Indigenous Australian agenda. The institute implements activities that support the quality and impact of Indigenous teaching, learning and research, with a special focus on outcomes for Indigenous students.

An important aim of our social equity agenda is to improve the quality of Indigenous research and increase the number of Indigenous researchers. This intersects with other Grand Challenges in the Research Strategy. The University's research focus on Indigenous studies develops knowledge on Indigenous wellbeing and social development. It advances wider understanding of the challenges and opportunities facing Indigenous peoples in Australia and the Asia-Pacific Region. The University has much to contribute in a region

where native populations and social equity are at the forefront of public debate.

The University's Pro Vice-Chancellor (Engagement) Professor Ian Anderson was appointed as a Board member of the Global Compact Network Australia. He also joined its Indigenous Engagement Working Group (IEWG). The University hosted an IEWG panel of Indigenous leaders and experts. They came together to work on an Australian supplement to the UN Global Compact's Business Reference Guide to the UN Declaration on the Rights of Indigenous Peoples.

The University also established the Dr Margaret Williams-Weir Fellowship Program to recognise Indigenous leaders and intellectuals. The program honours Dr Williams-Weir, the first Indigenous graduate of an Australian university. Indigenous leader, Noel Pearson was appointed as the inaugural Fellow.

To see more highlights of our indigenous engagement activities in 2015, please see our Annual Report.

7.4 SUPPLY CHAIN IMPACTS

The consumption choices of the University's 58,000 students and staff have a big impact. That is why we are committed to improving our supply chain by making responsible consumption and procurement decisions.

The University purchases a wide range of essential goods and services that support its teaching and learning, research and campus operations. Procured goods include stationery and office supplies, furniture, food and cleaning supplies. We source external professional services in areas such as information and telecommunications, building construction, waste management and travel. The University aims to continually improve sustainable consumption choices for the campus community and make deliberate purchasing decisions to create an efficient and cost effective supply chain.

The University's Strategic Procurement Unit works closely with the Campus Services Team to develop policies and approaches that drive innovations in procurement practices.

Environmental sustainability considerations are integrated into procurement guidelines for purchasing office paper and stationery, and tender requirements for new e-waste, print and desktop service suppliers. The University assesses suppliers against sustainability criteria like energy, carbon emissions, waste, local sourcing, transport and product recycling. We are developing data systems to capture the percentage of new suppliers reviewed against environmental criteria, and intend to report on performance in the year ahead.

Fairtrade University

The University became accredited as a Fairtrade University by the Fairtrade Association of Australia and New Zealand in 2012. This commits the University to actively supporting and promoting Fairtrade products on campus. It also enables students and staff to enjoy a range of Fairtrade options like coffee, tea, chocolate, and other products.

Fairtrade choices on campus translate into fairer prices, decent working conditions, better terms of trade, more income and greater quality of life for farmers and communities in developing countries.

In May each year, the University celebrates Fairtrade Fortnight, Australia's biggest annual Fairtrade celebration. This event helps raise awareness and create an ethical consumer culture at the University. This year, Melbourne Business Practicum students from Faculty of Business and Economics completed an assessment of Fairtrade and alternative certification schemes for the Fairtrade Steering Committee. (See case study)

We currently do not evaluate our suppliers on their labor practices, human rights and impacts on society. We will review our approach to working with our suppliers on sustainability as part of the upcoming Sustainability Plan 2016–2020.

CASE STUDY: RUNNING A FAIRTRADE UNIVERSITY

Fairtrade stands for better prices and working conditions for farmers and workers around the world. It recognises that supply chains are tightly connected global communities. Buying choices in Australia can dictate how products are made and people are treated.

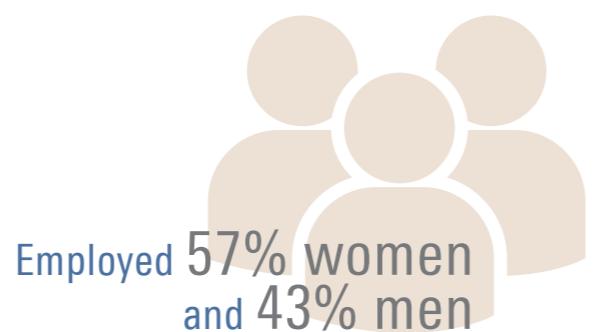
This idea motivated two students in 2010. Hamish McKenzie, President of University World Vision, and Kerrie Haria Adams, Co-founder of University Oxfam Group set out to assist the University to become Fairtrade certified. They realised this goal in 2012.

Four students took this a step further in the Melbourne Business Practicum (MBP) in-company intensive subject. Emily Gosal, Yang Liu, Quan Le and Dao Li completed an assessment of fairly traded certifications (including Direct Trade purchasing) and submitted their work to the University's Fairtrade Steering Committee (FTSC) for review.

The students assessed the various sustainability labels in coffee products. They then made recommendations to the FTSC to increase the purchase of fairly traded coffee. The certifications assessed included Fairtrade, Rain Forest Alliance and UTZ. DiBella Coffee was also assessed as an example of the Direct Trade approach.

The students undertook a standards assessment of the certifications using a set of sustainability areas including Environmental, Social, Management, Quality and Ethics. They also assessed how the standards are implemented. They then assessed the real impact on farmers from the certifications.

The students recommended the FTSC support all three certification labels. This was based on the University's values of supporting all areas of sustainability, the ability to reduce reputational risk, and having a wider range of purchase options.



8. BEING AN EMPLOYER OF CHOICE

The University's position as a centre of education and teaching excellence is based on employing world-class people. We value the important contribution our people make towards our academic success. They drive our success in all areas: how we achieve world-class research, provide positive student experiences and engage with the broader community.

The University of Melbourne People Strategy 2015–2020 outlines how we will leverage the talents and ambitions of our people to achieve our strategic goals. The strategy focuses on five key areas: leadership, performance, personal growth, our 'offer' as an employer, and diversity.¹¹

8.1 ENGAGING OUR PEOPLE

Our brand and reputation helps us attract the best academic and professional staff in the global market. Our future success depends on our continued ability to attract, develop and retain talented staff. This means that the University strives to provide a world-leading and inspirational work environment that positively supports, rewards and engages our staff.¹²

Our aim is to offer our staff more than just a job. We want to provide the opportunity to be part of a dynamic organisation with exceptional benefits and support at every stage of their life and career. Our staff have an opportunity to work in an inclusive environment, engage in dynamic campus life and develop their careers.

Benefits for employees offered by Melbourne include salary packaging options, discounts to employees and their families (including for courses offered by the University), and long service leave entitlements. Paid or unpaid parental leave is offered to continuing and fixed-term staff members, as well as eligible long-term casual staff.¹³ The University provides and promotes optimal carer's leave and flexible working policies, including home-based working, to help staff balance personal and professional responsibilities.

The total rate of permanent employee hires in 2015 was nine percent. This complements an organisation-wide turnover rate of 10%. The turnover rate and hiring rate are slightly higher for women than men.

Table 3: Workforce breakdown at University of Melbourne

	MALE	FEMALE	TOTAL
By Employment Contract			
Permanent	1707	2198	3905
Fixed-term contract	1394	2000	3394
Casual	3197	4050	7247
Total workforce	6298	8248	14546
By Employment Type			
Permanent Full Time	1567	1677	3244
Permanent Part Time	140	521	661
Employees and Supervised Workers			
Employees	6298	8248	14546
Supervised workers	151	59	210
By Age group			
< 30	1643	2164	3807
30-50	3002	4352	7354
50+	1653	1732	3385

11. People Strategy – introduction.

12. People Strategy – introduction.

13. Parental leave procedure. <https://policy.unimelb.edu.au/MPF1139#section-3.13>

Table 4: New hires and turnover

	NEW HIRES		TURNOVER	
	NUMBER	RATE	NUMBER	RATE
Male	513	8%	540	9%
Female	773	9%	865	10%
< 30	340	9%	200	5%
30-50	801	11%	807	11%
50+	145	4%	398	12%
Total	1286	9%	1405	10%

Table 5: Return to work and retention rates after parental leave

	MALE	FEMALE
Employees entitled to parental leave	3,101	4,198
Employees that took parental leave	108	300
Employees who returned to work after parental leave ended in 2015	107	196
Employees who returned to work after parental leave ended still employed 12 months later	101	260
Return to work rate of employees after leave ended	99%	97%
Retention rate of employees who returned to work after leave ended	94%	92%

We continued to invest in building skills, capabilities and the experience of our staff members in 2015. Career development activities focused on developing leadership capabilities, supporting individual career growth and enabling leaders to build organisational capability and to drive high performance.

Over 1000 staff members attended workshops in leadership and management, change, service culture and team building. About 85 University Services leaders attended a Behaviours Design Workshop to help improve our service culture and behaviours. We also offered an 'Enabling High Performance' workshop to our professional staff members, and continued to develop online training in key compliance areas like occupational health and safety, performance development, recruitment and selection, and promoting positive workplace behaviours.¹⁴

Looking after the health and wellbeing of our staff (and students) is a key focus area for the University. Melbourne offers a range of services, such as sporting facilities and clubs, health and optometry services and free counselling services for staff and students. Staff have access to discounted health services, an employee assistance program, and free health checks and vaccinations every year.¹⁵

Counselling and Psychological Services offers online resources and workshops throughout the year to help staff manage stress, relationship and mental wellbeing issues and practice mindfulness and meditation. The University's Employee Assistance Program also offers a confidential personal and professional development resource for all staff and their immediate family members, delivered by an external provider. The Melbourne University Sport (MUS) provides state-of-the-art

sporting and fitness facilities for the university community to promote health and active lifestyles. Programs and services include an extensive group fitness timetable, short courses, relaxation and sports massage, physiotherapy and personal training.

The University has a wide health and safety risk profile, which includes risks related to our laboratory and workshop operations, chemical storage, handling and use, and manual handling. The Health and Safety Management Plan 2014–2019 and the Health and Safety Policy require the University to provide a safe and healthy environment for the entire campus community, including contractors and visitors. The University's occupational health and safety performance appears in Table 6.

14. People Strategy – introduction.

15. Parental leave procedure. <https://policy.unimelb.edu.au/MPF1139#section-3.13>

Table 6: Occupational health and safety performance

Occupational Health & Safety	2015
Injury rates	14.26 per 100 FTE employees
Lost day rate	0.27 per 100 FTE employees
Work-related fatalities	0

*Rates are calculated by dividing the frequency of incidents by the total time worked by the total workforce in the reporting period.
Occupational disease rate is incorporated into injury and lost day rates

8.2 VALUING DIVERSITY AND INCLUSION

Growing Esteem states that the University aspires "to optimise the benefits of diversity ... to enhance learning and teaching, research and engagement across the University ... [to] help attract the best students and staff regardless of background, enriching our shared experience with myriad perspectives".

The many benefits of a diverse workforce and inclusive work practices maintain our excellence and ability to reach these goals. The differences in age, race, gender, ethnicity, sexual orientation, physical ability and background of our people bring richness to our environment.

The University has a suite of policies that commit to all aspects of diversity and inclusion in the workplace. Policies address diversity and inclusion, equal employment opportunity, discrimination, sexual harassment and bullying, and appropriate workplace behaviour.

The Staff Equity and Diversity Framework guides our actions through to 2016. The Framework promotes the representation, distribution and retention of staff with diverse personal attributes, experiences and backgrounds, where diversity is valued and respected.

As the Diversity Framework comes to an end in 2016, we are now developing a new diversity and inclusion framework to 2020. This will further embed a diverse and inclusive culture at Melbourne.

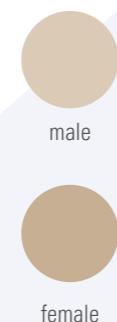


Figure 3: Gender and age breakdown of governance bodies and employees

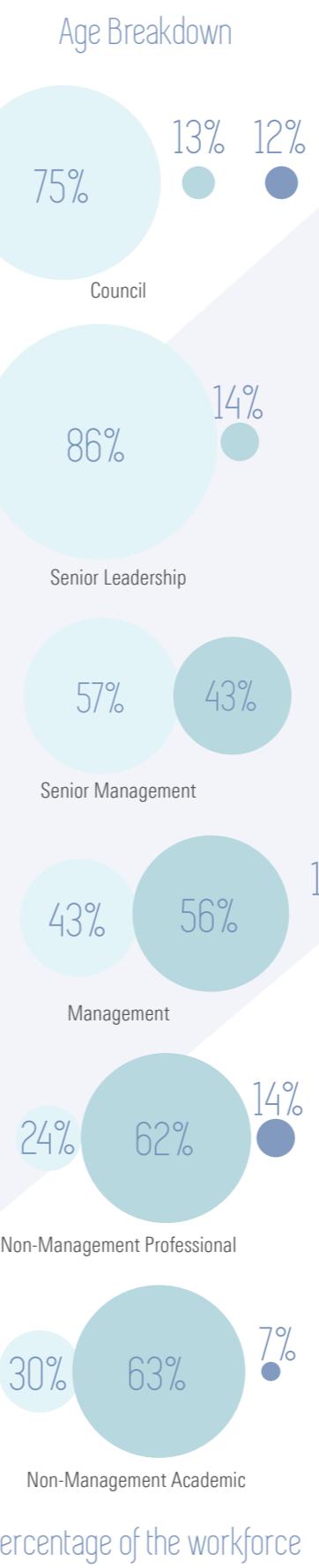
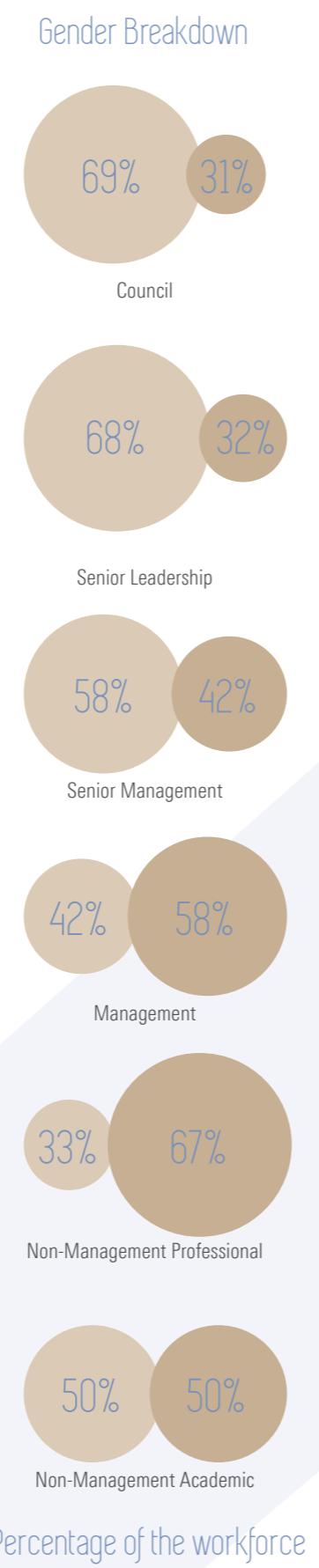


Table 7: Ratio of basic salary and remuneration of women to men by employee category

Corporate	Basic salary	Remuneration
Senior Leadership, Deans & Pro vice-chancellors	0.75	0.72
Senior Management	0.92	0.87
Management	0.94	0.92
Non-Management Professional	0.93	0.93
Non-Management Academic	0.87	0.84

Under our Staff Equity and Diversity Framework, Melbourne committed to demonstrated progress in reducing the gender pay gap. At each employee category, there is no significant pay equity gap, but more work is needed to bridge the gap between men and women in senior leadership roles. Our strategies to enhance gender pay equity focus on attracting, retaining and promoting more women to senior-level roles. (SEE TABLE 7)¹⁷

The University is strongly committed to Indigenous reconciliation. This is reflected in the work of the Murrup Barak Melbourne Institute for Indigenous Development. The Indigenous Employment Framework frames the University's approach and commitment to bring the number of Indigenous staff in the higher education sector closer to population parity by 2020.

The number of Indigenous continuing and fixed-term staff employed at the University has nearly tripled since 2010, from 28 to 79 this year.¹⁸

The University began to implement our second Reconciliation Action Plan (RAP) 2015 – 2017. This expands on our targets and commitments made under the previous RAP. Over 300 staff at Melbourne had completed Indigenous Cultural Awareness training, as part of our RAP commitments.¹⁹

16. Social inclusion barometer 2014, pg. 24

17. Social inclusion barometer 2014, pg. 24

18. Annual report, pg. 69

19. Annual report, pg. 69

Solar capacity on campus was increased by 92%

9. MANAGING A SUSTAINABLE CAMPUS

More than 58,000 people belong to the campus community. This means that running campus operations draws on significant physical resources which must be managed as efficiently as possible, while continually exploring ways to reduce our consumption.

The University's Sustainability Plan 2016–20 will set pathways for the University's longer-term sustainability objectives. This includes our overarching goal to achieve carbon neutrality by 2030.

The University secured a landmark agreement with the Clean Energy Finance Corporation to continue the transformation of our campuses into more sustainable and resilient communities. The \$9.1 million financing arrangement is for energy efficiency and renewable energy projects on campus. This is expected to cut grid electricity use by eight percent and carbon emissions by 9000 tonnes per year and supports our commitment to make the campus a living laboratory for innovative sustainability solutions.

We will engage our entire campus community to adopt sustainable behaviours that reduce consumption and support sustainable

consumption decisions. By modelling sustainable behaviours, we hope to share our stories and encourage the broader community to replicate our efforts in pursuit of sustainability.

A key focus of our new Sustainability Plan will be to further reduce our energy use and transition our energy supply to renewable energy sources.

9.1 RESOURCE USE

9.1.1 ENERGY AND CARBON EMISSIONS

The University has implemented an energy reduction program since 2008. Three hundred projects have been implemented to date. The program is now delivering annual reductions of over 33,000 tonnes of carbon dioxide equivalent emissions (t CO₂-e). **The University has saved over 200,000 t CO₂-e carbon emissions since 2008.** The cost of the program has been \$9.07M so far, with annual cost savings of \$3.13M.²⁰ The University achieved these reductions through a number of projects that increased energy efficiency and harnessed renewable energy.

The University annually reports its emissions through the National Greenhouse and Energy Reporting (NGER) Scheme. Total emissions were 155,540 t CO₂-e in 2015. This figure includes emissions from our affiliated entities for whom we do not have direct operational control.

The direct emissions from gas and fuel consumption (Scope 1) was 15,680 t CO₂-e (10%). Indirect emissions from purchased electricity (Scope 2) was 139,860 t CO₂-e (90%) for all University of Melbourne entities. See NGRS-reported energy consumption in Table 8

Performance against 2011–2015 energy and carbon emissions reduction targets are shown in Table 9. The energy usage target was not met despite considerable efforts in energy reduction.

Carbon offsets were purchased to help achieve the nett emissions target, supporting the Voluntary Carbon Standard-certified Tamil Nadu Wind and Rural China run-of-river hydro projects. Our sustainability targets are based on the entities over which the University has operational control.

Table 8: Energy consumption at University of Melbourne

	ENERGY CONSUMPTION (GJ)
Natural gas	266,000
Liquefied petroleum gas	2,740
Electricity consumption	394,000
Steam consumption	2,000
Self-generated electricity	7,000
Total energy consumption	671,740
Energy intensity (GJ/m ² GFA)	0.7

Energy projects contribute annual savings of \$3.13 million and over 33,000 tonnes of carbon emissions.

20. Sustainable campus – Energy: <http://sustainablecampus.unimelb.edu.au/key-areas/energy>

Table 9: Performance against 2015 carbon emissions and energy targets

Performance Measure	Baseline Value (from 2006)	2015 Target	2015 Actual Performance	2015 Target as % reduction from baseline	2015 Actual as % reduction from baseline
Energy Usage - GJ/m ² GFA	0.9	0.6	0.7	33%	21%
Nett Energy-related Carbon Emissions – kg CO ₂ /m ² GFA*	212	106	106	50%	50%

The Campus Services Sustainability Team implemented projects across all campuses to reduce energy use and carbon emissions in 2015. Ongoing projects include LED lighting upgrades, setting broader temperature bands, reducing operating schedules, mechanical service upgrades, enhanced Building Automation Systems (BAS) and installing carbon monoxide sensors in underground car parks.

We replaced over 5800 LED fittings on Parkville campus, at Redmond Barry, University Square car park and the Law building. This was part of ongoing Building Lighting Upgrades. Replacing 2800 lights with LEDs at the Melbourne Law School building cut emissions by more than 230 t-CO₂-e for the year. Installing LED floodlights at the Beaurepaire Centre Gym improved lighting levels and reduced energy use by 50%.

Intelligent voltage power optimisation systems installed at the Law and Spot buildings reduced

the excess energy demand from fluctuating voltage levels. This ensures that the buildings only consume the energy they need.

Renewable Energy

The University's transition to carbon neutrality calls for more investment in renewable sources to meet energy demand.

The new CEFC financing for a series of renewable energy generation and energy efficiency projects on campus is expected to reduce emissions by over 9,000 t CO₂-e per year. This amounts to cost savings of approximately \$0.9 million. See case study on page 32 for further details.

The landmark Melbourne Renewable Energy Project is another important pathway in shifting to innovative low carbon solutions. This partnership with leading Melbourne businesses, councils, cultural institutions

and other universities creates a new group-purchasing model to source renewable energy. Read the case study on p.12 for further information on this exciting project.

In 2015, solar capacity on campus was increased by 92%, with approximately 210 kW of solar panels now installed. The recently installed solar panels at Wilson Hall optimize generating capacity while protecting the building's heritage values. New inverter technology has enabled a dramatic reduction in the internal energy demands of the system.²¹ Wilson Hall generates more electricity than it uses and transfers excess energy to adjacent buildings.

The University has also recently completed a large-scale geothermal facility at the Bio21 Institute. These projects advance the University's transition to carbon neutrality by 2030.

21. Solar panels on Wilson Hall. <http://musse.unimelb.edu.au/july-15-162/new-solar-panels-wilson-hall-reducing-carbon-emissions-campus>



Claire Walker, Harry Troedel, Danielle Rostan-Herbert, Allan Tait and Greg Hunt, MP

CASE STUDY: CLEAN ENERGY FINANCE CORPORATION LOAN PAVES WAY TO LOW CARBON FUTURE

The University plays an important role in modelling the transition to a low carbon future. It has set the goal of being carbon neutral by 2030. Implementing innovative energy reduction and renewable energy technologies is an important way that the University can model the campuses as sustainable communities.

This approach has won support from the Clean Energy Finance Corporation. The University secured a \$9.1 million loan in February 2016 to establish several innovative energy reduction and generation projects.

These projects will install renewable energy infrastructure across our campuses, including photovoltaic cells, solar thermal and micro-wind turbines. The funding will also assist with energy reduction initiatives such as voltage optimisation and freezer upgrades for medical and science research facilities.

University Vice-Principal, Administration & Finance, and Chief Financial Officer, Allan Tait said the technologies will be a practical demonstration of the University's strengthening commitment to sustainability.

"As a public-spirited university, Melbourne is committed to promoting sustainability through our operations, as well as in our research and education programs."

The University has an obligation to show leadership in critical global issues such as those relating to climate change and sustainability," he said.

The new infrastructure and upgrades are expected to cut grid electricity use by approximately eight per cent across University-controlled property and deliver carbon emissions abatement of over 9,000 tonnes per year.

9.1.2 MANAGING OUR WATER USE

The University's total mains water consumption in 2015 was 447,000 kilolitres. This equates to 0.53 kilolitres per square metre of gross floor area (GFA). The University surpassed its 2015 target to reduce potable water consumption per square metre by 20% from the 2006 baseline by achieving a 31% reduction.

A draft Water Management Plan for our Parkville campus was launched in 2015. This will be progressively rolled out to other campuses. The Plan covers water conservation, harvesting, distribution and monitoring through a variety of building and grounds initiatives.

Grounds work has included the installation of drip irrigation lines, reduced irrigation schedules, enhanced automation of irrigation control systems and drought tolerant plants such as on the main sports oval at Parkville campus.

We have installed roof water retention tanks at our Creswick and Burnley campuses. A rain garden at the Victorian College of the Arts campus captures local stormwater run-off.

The University has significantly increased its capacity for rainwater capture and reuse in 2015. Total rainwater capture increased by 26% from 12,460 kilolitres to 15,652 kilolitres.

9.1.3 WASTE MANAGEMENT

The Sustainability Team engages the entire campus community in efforts to reduce waste to landfill through recycling and waste management programs. The University set an ambitious target to increase the recycled percentage of waste to 50% between 2011 and 2015. A recycling rate of 40% was achieved, which was an encouraging result amidst a time of significant organizational change.

The University currently has recycling programs in place for mixed recyclables (including paper, cardboard, cans and bottles). Furniture, e-waste, IT equipment, fluorescent light tubes,



Table 10: Total weight of waste by type and disposal method, 2015

Disposal method	Weight of waste (tonnes)
Reuse	119.3
Recycling	1,086.9
Composting	30.4
Landfill	1,498.8
Hazardous waste	30.8
Total waste	2,766.1

Recycling, landfill and hazardous waste is disposed of by our waste disposal contractor. Compost is disposed of directly by the University.

in 2015.²⁴ The Service has reused over 9000 items and saved an estimated \$4.8 million and 230,000 kilograms of waste diverted from landfill in its four years of operation. The program now includes IT equipment like monitors, desktops and laptops, equating to 4.5 tonnes of equipment and estimated \$280,000 in cost savings in 2015.²⁵

A Mini-Bin system is in place at all workstations so staff can systematically reduce waste going to landfill and increase the amount of recycling.²³ The Sustainable Campus website provides information and resources to the University community on how to responsibly dispose of different types of waste.

The Furniture and Equipment Re-use Program continued to grow in 2015. This built on past success in supporting the reuse of furniture. The program has redeployed furniture with a replacement value of around \$1.9 million

Internal and external water fountains on the Parkville and Southbank campuses were installed to minimise the purchase of bottled water. This gives staff and students easily accessible locations to refill their reusable drink bottles.

9.2 GREEN STAR BUILDINGS

The University has an ongoing commitment to a minimum target of 5 Star Green Star Design rating for all new buildings, and 4 Star Green Star Design rating for all major building upgrades.

The Melbourne School of Design building was completed in 2014 with a 6-star Green Star Building design rating. This includes the maximum possible ten points for Innovation.

The Peter Doherty Institute for Infection and Immunity achieved a 5 Star Green Star – Education Design v1 certification in 2012.



The building uses 20% less electricity and produces 50% less greenhouse gas emissions than comparable facilities.²⁶

The Melbourne Brain Centre at Parkville, also certified 5 Star Green Star contains a number of sustainability features such as highly efficient ventilation systems, a co-generation plant that minimises the use of grid electricity and a 50,000 litre rainwater tank.

The Spot at 198 Berkeley Street, Carlton is a certified 5 Star Green Star Design building. The building has a high performance façade to improve indoor air quality, maximise daylight and minimise solar heat gain. The Building achieved a 4.5 NABERS Energy Rating and used 46 % less energy in its first year than comparable University buildings.²⁷

9.3 BIODIVERSITY

The University's campus is home to a rich array of flora and fauna. Managing the University's ecological footprint and protecting biodiversity are growing areas of interest for staff and students. The Sustainability Team has appointed a Biodiversity Coordinator to work with students and staff to develop a University-wide Biodiversity Plan in 2016.

The plan will outline key activities that include:

- Grounds tours and events (such as the BioBlitz - in partnership with the City of Melbourne)
- Collating relevant ecological research on-campus into a public access database
- Ensuring that all future plans and projects take into account biodiversity impacts
- Engaging staff and students at all campuses to learn about and look after the local flora and fauna

The upcoming Sustainability Plan will further integrate biodiversity management into campus operations, research and learning and teaching. Data collection will commence to report on our performance within the next three years.

9.4 SUSTAINABLE TRANSPORT

The University encourages its staff and students to adopt low-impact travel practices. It fosters sustainable transport by promoting public transport use, multi-passenger use of University vehicles and providing bicycle and end of trip facilities. The University achieved its 2011–2015 target to offset 100% of its car fleet emissions annually.

Key initiatives include the Myki Commuter Club that gives discounted annual passes for public transport. We also continue to provide free bicycle parking facilities and repair stations. By the end of 2015, there were over 2200 bicycle parking spaces available at the University, up from 1700 in 2011.

The Sustainability Team works to ensure that all modes of transport are safe, equitable, accessible and more environmentally friendly. The team monitors the number of users of different transport options, updates transport plans within annual operation plans to achieve continuous improvements in community outcomes.

We are currently developing an Integrated Transport Strategy that will enable more sustainable transport options for students, staff and visitors who travel to and around our campuses. It will drive further efficiencies in how we manage our space and mobility.

9.5 CAMPUS SUSTAINABILITY INITIATIVES

Sound sustainability performance starts with engaging the campus community. The University campus is a test bed for sustainability innovations. University sustainability initiatives are an important way to prepare students for lives of leadership and active citizenship. Engagement in sustainability remains a key pillar of the University's new Sustainability Plan currently being developed.

Sustainability engagement activities are a regular feature in the annual University calendar. Our staff and students engage

with sustainability on campus in many ways. Students consistently rally support for causes they are passionate about, whether its energy savings or reducing food waste on campus. Meanwhile, the Sustainability Team organises events that build community awareness and sustainable behaviours.

There are more than 18 sustainability groups and clubs for students and over 35 Sustainability events on campus each year.

These events raise awareness about current sustainability issues and encourage the campus community to adopt sustainable behaviours.

About 100 members of the Sustainability Advocates Forum (SAF) represent faculties, departments and administrative areas. Members raise awareness about sustainability issues on campus, and encourage staff to be active and involved in sustainability events and programs.

The biennial Sustainability Survey provides a further avenue for staff and students to provide feedback and ideas. Survey findings are integrated into reviews of our sustainability plans.

The Green Innovation Fund and the #c15 Hack competition directly engage students with the campus. These initiatives encourage students to design projects that transform the University into a more sustainable and community-conscious space.²⁸ The Green Innovation Fund received 17 applications for grants up to \$10 000. The fund awarded grants to six projects (see case study on page 35).

200,000 tonnes of CO₂-e carbon emissions saved since 2008

26. <https://www.gbca.org.au/green-star/green-building-case-studies/the-university-of-melbourne-peter-doherty-institute-for-infection-and-immunity/>
27. GBCA The Spot profile. https://www.gbca.org.au/gbc_scripts/js/tiny_mce/plugins/filemanager/The_Spot_Melbourne_University.pdf
28. Annual Report 2014. Pg. 68

9.6 STUDENT AND STAFF SUSTAINABILITY SURVEY

In late 2014, we conducted a campus-wide sustainability survey that captured feedback from 1000 staff and students. The survey identified issues of concern for staff and students, their behaviours and views towards sustainability, measured awareness and performance of current sustainability initiatives, and identified new opportunities.

The biennial survey found that climate change, carbon emissions, energy and environmental leadership were the most important issues for staff and students. Waste reduction, reuse and recycling were the most important sustainability activity on campus. Most were pleased with the University's performance (61% satisfied). Recycling and switching off lights are the most widely embraced personal sustainability activities.

The survey also found that staff were more concerned about environmental impacts that directly affect them, while students were more concerned with global, social and equality issues. This reinforces that it is important for the University to show leadership in its own sustainable campus operations. However, it also has a role in contributing to global sustainability challenges.



CASE STUDY: SUPPORTING STUDENT INNOVATIONS

The Green Innovation Fund harnesses the collective intelligence of the University's 58,000- strong population. It aims to create a community of social innovators, transforming the campus into a living lab for sustainability. The fund is open to staff and students. Funding goes towards innovative projects that add value to sustainability, improve efficiency, raise awareness and activate the campus.

Projects supported by the Green Innovation Fund in 2015 were:

Solar Virtual Network Metering Trial
The social enterprise 'Allume Energy' was founded by Melbourne Law School students. Allume created the Solar Virtual Network Metering Trial which offers cheap solar energy to all Australian households who can't afford initial installation costs. Allume received funding to trial the Virtual Network Metering technology. Using this method, energy can be virtually transferred between separate buildings, sharing the solar resource so it can be used wherever the load is highest. This is an Australian-first that demonstrates the value of nurturing innovation.

Wildversity
'Wildversity' is an interactive app that collects on-campus biodiversity observations and photos. The project is led by a student team who won the student green hackathon, C15Hack, then supported through the Green

Innovation Fund. Development of the app is being completed by QuestaGame. Data from the app is fed into the Atlas of Living Australia, and will go into the University's first Biodiversity Plan. The Green Innovation Fund allows ideas such as the Wildversity app to transform into tangible innovation.

Wormi
'Wormi', or the Vermiculture Network is a system of multiple on-site worm composting systems at the Parkville, Werribee and Burnley campuses. Wormi will be used for research into the benefits and uptake of the service in an effort to save tonnes of organic waste from landfill. Partners for this project include Medley Hall and University High School.

Students have also driven the development of much-loved community gardens: one that sits quietly in the middle of the Parkville Campus ('MUC Garden') and one hidden in the field station at Burnley Campus ('Horticultured'). The gardens aim to grow food as sustainably and organically as possible, inspire people to grow their own, and provide a place for learning about healthy food. The gardens hold immense value to the University community by promoting the benefits of fresh food and relying less on store-bought produce.

10. GRI CONTENT INDEX

Indicators	Description	Reference (section)	UNGC Principles	SDGs	Reference (page)
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ORGANISATIONAL PROFILE					
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G4-4	Primary brands, products, and services.	About The University of Melbourne			7
G4-5	Location of the organization's headquarters.	About The University of Melbourne			7
G4-6	Number of countries where the organisation operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	About The University of Melbourne			7
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Indicators	Description	Reference (section)	UNGC Principles	SDGs	Reference (page)
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G4-15	Externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses.	This report in context - Sustainability collaborations	10. Work against corruption in all its forms	17. Partnerships for the goals	9
G4-16	Memberships of associations (such as industry associations) and national or international advocacy organizations.	This report in context - Sustainability collaborations	10. Work against corruption in all its forms	17. Partnerships for the goals	9
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G4-18	Process for defining the report content and the Aspect Boundaries.	This report in context - How stakeholders informed this report			6
G4-19	All material Aspects identified in the process for defining report content.	This report in context - How stakeholders informed this report			6
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G4-56	Describe the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics.t	How we set the sustainability agenda	8								
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G4-EN8	Total water withdrawal by source	Managing a sustainable campus - Resource use							Undertake initiatives to promote greater environmental responsibility	32	
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MATERIAL ASPECT: BIODIVERSITY			
G4-DMA	Biodiversity	Biodiversity; Case study: Supporting student innovations	34-35
G4-EN11	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Not reported This data is not currently available - we will report on this in the next three years	
MATERIAL ASPECT: EMISSIONS			
G4-DMA	Emissions	Message from the Vice-Chancellor; Executive Summary; Performance at a Glance; Managing a sustainable campus	3, 4-5 30-35
G4-EN15	Direct greenhouse gas (GHG) emissions (Scope 1)	Managing a sustainable campus - Resource use - Energy and carbon emissions	8. Undertake initiatives to promote greater environmental responsibility 30-31
G4-EN16	Energy indirect greenhouse gas (GHG) emissions (Scope 2)	Managing a sustainable campus - Resource use - Energy and carbon emissions	8. Undertake initiatives to promote greater environmental responsibility 30-31
G4-EN18	Greenhouse gas (GHG) emissions intensity	Managing a sustainable campus - Resource use - Energy and carbon emissions	This data is not currently available - we will report on this in the next three years 8. Undertake initiatives to promote greater environmental responsibility 30-31
G4-EN19	Reduction of greenhouse gas (GHG) emissions	Managing a sustainable campus - Resource use - Energy and carbon emissions	8. Undertake initiatives to promote greater environmental responsibility 30-31
MATERIAL ASPECT: EFFLUENTS AND WASTE			
G4-DMA	Effluents and Waste	Managing a sustainable campus - Waste management	32-33
G4-EN23	Total weight of waste by type and disposal method	Managing a sustainable campus - Resource use - Waste management	9. Encourage the development and diffusion of environmentally friendly technologies 32-33

MATERIAL ASPECT: SUPPLIER ENVIRONMENTAL ASSESSMENT					
G4-DMA	Supplier Environmental Assessment	Building community resilience – supply chain impacts			25
G4-EN32	Percentage of new suppliers that were screened using environmental criteria	Not reported	This data is not currently available. We will report this in our next sustainability report.	5. Uphold the effective abolition of child labour	11. Sustainable cities and communities
SOCIAL					
LABOR PRACTICES AND DECENT WORK					
MATERIAL ASPECT: EMPLOYMENT					
G4-DMA	Employment	Being an employer of choice			26-27
G4-LA1	Total number and rates of new employee hires and employee turnover	Being an employer of choice - Engaging our people		6. The elimination of discrimination in respect of employment and occupation	26-27
G4-LA2	Benefits provided to full-time employees	Being an employer of choice - Engaging our people		6. The elimination of discrimination in respect of employment and occupation	26-27
G4-LA3	Return to work and retention rates after parental leave	Being an employer of choice - Engaging our people	This data is not currently available. We will report this in our next sustainability report.	6. The elimination of discrimination in respect of employment and occupation	26-27
MATERIAL ASPECT: OCCUPATIONAL HEALTH AND SAFETY					
G4-DMA	OHS	Being an employer of choice Annual Report 2015 – Occupational Health and Safety			26-28
G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities	Partially reported; Being an employer of choice Annual Report 2015 – Occupational Health and Safety	Absentee rate, and Gender break down of all data	This data is not currently available. We will report this in our next sustainability report.	11. Sustainable cities and communities

MATERIAL ASPECT: DIVERSITY AND EQUAL OPPORTUNITY				
G4-DMA	Diversity and Equal Opportunity	Being an employer of choice		26-29
G4-LA12	Composition of governance bodies and breakdown of employees per employee category	Being an employer of choice – Valuing diversity and inclusion	6. The elimination of discrimination in respect of employment and occupation	28-29
MATERIAL ASPECT: EQUAL REMUNERATION FOR WOMEN AND MEN				
G4-DMA	Equal Remuneration for Women and Men	Being an employer of choice - Valuing diversity and inclusion		28-29
G4-LA13	Equal Remuneration for Women and Men	Being an employer of choice - Valuing diversity and inclusion	6. The elimination of discrimination in respect of employment and occupation	29
MATERIAL ASPECT: SUPPLIER ASSESSMENT FOR LABOR PRACTICES				
G4-DMA	Supplier Assessment for Labour Practices	Supply chain impacts		25
G4-LA14	Percentage of suppliers that were screened using labour practices criteria	Not reported	This data is not currently available. We will review this as part of our Sustainability Plan 2016-2020.	4. The elimination of all forms of forced and compulsory labour
HUMAN RIGHTS				
MATERIAL ASPECT: NON-DISCRIMINATION				
G4-DMA	Non- Discrimination	Valuing diversity and inclusion	2. Make sure businesses are not complicit in human rights abuses	28-29
G4-HR3	Total number of incidents of discrimination and corrective actions taken	Not reported	This data is not currently available. We will report this in our next sustainability report.	6. The elimination of discrimination in respect of employment and occupation
G4-HR10	Percentage of new suppliers that were screened using human rights criteria	Not reported	This data is not currently available. We will review this as part of our Sustainability Plan 2016-2020.	2. Make sure businesses are not complicit in human rights abuses
PRODUCT RESPONSIBILITY				
MATERIAL ASPECT: PRODUCT AND SERVICE LABELLING				
G4-DMA	Product and Service Labelling	Engaging our stakeholders		45
G4-PR5	Results of surveys measuring customer satisfaction	Student Wellbeing Student and staff sustainability survey	Quality education	17 35

11. APPENDIX: ENGAGING OUR STAKEHOLDERS

Engagement is the binding strand of the Triple Helix. It encompasses the interactions between the academy and wider society, for the enrichment of both.

Our stakeholders are many given the University's long history and the breadth of its activities. The University community includes our students, academic and professional staff, suppliers, and alumni. We also engage with external partners, such as industry, governments, multi-lateral governing bodies, industry associations and unions, the global research community, and local communities near our campuses.

We identify stakeholders based on their interest in and ability to influence our sustainability performance. How we engage with our key stakeholders is detailed in table below.

Stakeholder group	How we engage	Frequency	Key issues raised	Report section
Students	Student surveys	Biennial	Student wellbeing	5.2
	Sustainability Advocates Forum	Ongoing	Fossil fuel divestment	4.5
	Website		Student engagement on sustainability	9.6
	Events		Campus sustainability initiatives	9.5
Staff	Student surveys	Ongoing	Staff engagement and wellbeing	5.2, 8.1
	Sustainability Advocates Forum		Diversity and inclusion	8.2
	Website		Campus sustainability initiatives	9.5
	Events			
Suppliers	Contractual management processes	Ongoing	Supply chain impacts	9.4
	Tender processes		Sustainable campus operations	9
Alumni	Email communications	Ongoing	Sustainability research and innovation	6
	Alumni publications		Graduate employment	5
	Website		Building resilient communities	7
Governments	Meetings	Ongoing	Building resilient communities	7
	Annual Reporting	Annual	Access to education	5.3
Industry	Contractual management processes	Ongoing	Sustainability research and innovation	6
	Meetings		Graduate employment	5
	Website			

12. APPENDIX: MATERIAL ASPECTS & BOUNDARIES

Our sustainability impacts extend beyond our campus premises to external organisations, communities and individuals. The following table shows where our impacts occur, and where in this report you can find more information.

Our material issues	Who it affects	Boundary	Where to find information
Building resilient communities	University of Melbourne students and staff, Government, Communities	Inside and outside	7. Building community resilience
Access to education	University of Melbourne students and staff, Communities	Inside and outside	5. Inspiring the next generation of global citizens
Sustainability research and innovation	University of Melbourne students and staff, Business and Industry, Government	Inside and outside	6. Sustainability as a Grand Challenge
Graduate employment	University of Melbourne students, Alumni, Business and Industry	Inside and outside	5. Inspiring the next generation of global citizens
Responsible investment	University of Melbourne students and staff, Suppliers	Inside and outside	4. Leadership in sustainability
Student engagement on sustainability	University of Melbourne students and staff	Inside	9. Managing a sustainable campus
Sustainable campus operations	University of Melbourne students and staff, Business and Industry	Inside and outside	9. Managing a sustainable campus
Campus sustainability initiatives	University of Melbourne students and staff	Inside and outside	9. Managing a sustainable campus
Supply chain impacts	University of Melbourne students and staff, Suppliers, Business and Industry	Inside and outside	7. Building community resilience
Diversity and inclusion	University of Melbourne students and staff	Inside and outside	8. Being an employer of choice

