



THE UNIVERSITY OF  
MELBOURNE

# Sustainability Report 2016





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# 1. A message from the Vice-Chancellor



I am delighted to present the University of Melbourne Sustainability Report 2016.

Sustainability is both a guiding principle and a key operational focus for the University of Melbourne. As a public institution, we have a social responsibility to contribute to global efforts to address this grand societal challenge.

As the Report shows, 2016 was a year of significant progress for the University.

In March 2016 the University released its Sustainability Charter. Following the release of the Charter, work progressed in earnest to engage the whole University community in the development of a Sustainability Plan for 2017 to 2020. The Sustainability Plan translates the commitments of the Charter into ambitious targets and priority actions across all areas of institutional activity. This Plan was released in January 2017.

The Sustainability Charter, Plan and Report form the institutional framework for sustainability which will underpin our efforts for the coming years. Hundreds of students and staff were engaged in the development of this framework and we can feel rightly proud and confident in its implementation.

2016 saw also significant capital works such as the 5 Star Green Star Design rated Arts West redevelopment, which opened for semester 2 and will enhance teaching and learning by providing excellent indoor environment quality in all teaching and learning spaces. Installation commenced on over 550kW of solar photovoltaic cells across several University locations. Part of a broader program of redevelopment and sustainability projects, these solar arrays—on the Sports Centre, at Southbank and the University Archives, to name a few—will provide emissions-free electricity for decades to come.

These and other projects contribute to the development of universities as resilient communities—‘living laboratories’ for the change we wish to see in the world.

Glyn Davis

Vice-Chancellor





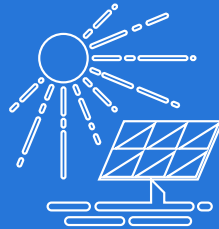


## 2. 2016 Performance Highlights

### New framework for Sustainability



**Charter, Plan and Report**  
engages the whole University  
community



**Installation commenced** on  
550kW of Solar PV arrays on  
campus as part of 2500kW  
**solar program**

### The Carbon Reduction Pathways project



**was completed**,  
mapping a path to zero  
emissions electricity



**Hosted 50 public lectures**  
on sustainability

**University-wide  
Biodiversity  
Management Plan**  
developed



**University student  
and a staff member win  
Australian Green  
Gown awards**



**University signs  
commitment  
to the UN Sustainable  
Development Goals**

### Arts West Building Completed



**5 star sustainable design**  
meeting students' future needs

**Since 2012 women  
have progressed from  
holding 23% of Level  
E positions** (Professor or  
Professorial Fellow) to 29%  
**in 2016**

### University joins TAKE2



**A state government  
initiative** to achieve net zero  
greenhouse gas emissions in  
Victoria by 2050



**University delegation**  
attended and presented at the  
**United Nations Habitat III**





# 3. Our sustainability agenda

## 3.1 About this report

This is the University of Melbourne's second publicly released sustainability report. The report covers our environmental and social performance during the calendar year from 1 January to 31 December 2016. We intend to continue to report our performance annually. Our first sustainability report was released in April 2016 for the 2015 calendar year.

This report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option. It discloses our performance against the issues that are considered most material to our stakeholders, including students, employees, business, industry, government and community partners. Information on how we identified material issues for this report and engaged our stakeholders appears in the Appendices.

The content of this report has been defined by the four reporting principles established by the GRI standards. These principles have guided the materiality process and been inherent in the development of this report.

## 3.2 About the University of Melbourne

The University of Melbourne is a public educational institution dedicated to learning and teaching, research and engagement. We rank among the top universities in the world and are a member of the Group of Eight top universities in Australia. We are the highest ranked Australian University (33rd) in the Times Higher Education World University Rankings 2016-17.

The University is a public-spirited institution that works with governments, industry, communities, international colleagues and students to meet global societal challenges with intelligence and ingenuity. Our vision is to be one of the finest universities in the world contributing to society in ways that enrich and transform lives.

The University community comprises more than 48,000 students (equivalent full-time student load) and over 8,000 employees (full-time equivalent) across seven campuses. The vast majority of our employees and students are located at Parkville campus in Melbourne, Victoria. The University comprises the main Parkville campus together with six other campuses throughout metropolitan Melbourne and rural Victoria - Southbank, Werribee, Burnley, Shepparton, Dookie and Creswick.

The Triple Helix is the organising principle of the University's Strategic Plan, *Growing Esteem 2015-2020*. It encompasses the three strands of our activity:

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

## 3.3 Leadership in sustainability

We are privileged to be home to some of the great environmental and social thinkers. Our students are active and engaged with social and environmental issues. We are positioned to shape public thought and practices to achieve a sustainable future. Sustainability has developed in the University over recent years to sit at the heart of all our activities and now exists as a guiding principle of the University's strategic plan - *Growing Esteem*.

*Growing Esteem* pays particular attention to the many different dimensions of sustainability. Our aspirations for society and environment inform the values of the University and are reflected in our work. There are opportunities to embed sustainability objectives in infrastructure planning and service delivery, in developing and supporting the capabilities of employees, and in our commitment to building a robust and financially viable organisation. Sustainability is about maximising our positive impacts and influence on society. In addition to having an engaged workforce supported by strong leadership, society requires responsible institutional practices that consider and address the environmental, social and economic impacts of our strategies and operations.

From mid-2015 to early 2017, we developed a framework for sustainability, to define and lead institution-wide sustainability endeavour into the future. The framework consists of a Sustainability Charter, a Plan for 2017-2020 and annual reporting under the Global Reporting Initiative (GRI) Standard.

## 3.4 The Sustainability Charter

In March 2016, the University released its first Sustainability Charter after extensive consultation in 2015. It sets out our values and principles around sustainability. The Charter states how we will apply these values and principles across all University activities: Research, Teaching and Learning, Engagement, Operations and Governance. It includes specific commitments for each activity area, which we must deliver if we are to truly model ourselves as a sustainable community and a leader in societal transition to a sustainable future.



### 3.5 The Sustainability Plan 2017-2020

Following the release of the Charter and our inaugural 2015 Sustainability Report, in January 2017 we released our Sustainability Plan 2017-2020 ('the Plan'). The Plan articulates ambitious targets and priority actions required to achieve the Charter commitments. We carefully considered each activity area to establish ambitious targets, allowing the University to lead by example among its peers. The Plan is designed with involvement from the University community – employees, students, alumni, and external stakeholders. There is an emphasis on reducing the impacts of our operations and developing our campuses as sustainable and resilient communities.

The Plan was endorsed by the Sustainability Executive and University Executive in October 2016 and approved by the University Council in November 2016.

Our annual sustainability report is the primary means by which we will track our progress toward achieving the commitments and targets of the Charter and Plan.

### 3.6 What have we committed to?

Our sustainability commitments align with the University's strategic goals to embed sustainability across all our activities.

Our key commitments are:

#### Teaching & Learning

- By 2020, all undergraduate degree programs can demonstrate (at the course and/or major level) that core and compulsory curriculum enable students to understand and apply sustainability knowledge and values to practice in their field, consistent with the Melbourne graduate attributes

#### Research

- Develop industry partnerships that emphasise our resources for sustainability research including the campus as a living laboratory

#### Operations

- Achieve carbon neutrality before 2030
- Achieve zero net emissions from electricity by 2021

#### Engagement

- Ensure the University's convening power is used to bring together policy leaders, industry and academic experts to advance issues of sustainability

#### Investments

By 2021 the University's investment portfolio will:

- Have divested from, or be in the process of divesting from within a reasonable period, any material holdings that do not satisfy the requirements of the University's sustainable investment framework for managing material climate change risk
- Incorporate a meaningful allocation of impact investments in the strategic asset allocation, potentially in partnership with peer organisations

#### Governance

- Report annually and publicly on the University's sustainability impacts and performance using global best practice standards

Find out more:

[ourcampus.unimelb.edu.au/sustainability-plan](http://ourcampus.unimelb.edu.au/sustainability-plan)

### Our Sustainability Plan – a collaborative creation

We know that the successful implementation of our framework for sustainability depends on how it is embraced by our employees, students and the wider University community. Beginning in mid-2015, we embarked on an extensive consultation process that led us to the heart of our stakeholders' views and expectations. We wanted the whole University community to contribute to the discussion about how the University can shape its sustainability approach and future.

The process began with focused interviews with key individuals and organisations who could influence, or who are impacted by, the University. The interviews focused on perceptions of the University's key sustainability impacts and our progress in addressing these, together with the main outcomes expected.

The public consultation phase for the Sustainability Plan ran from April to August 2016. Students, employees, alumni, and other stakeholders provided critical input that directly impacted the design of the Plan. The voice of our University community was heard loud and clear through the 475 attendees over two forum events, 72 feedback emails and 30 Hackathon workshop participants.

We acknowledge and thank the hundreds of people who contributed to the development of realistic and meaningful priority actions and targets to 2020. This process has enabled us to establish the issues of greatest importance to our community, to understand and address the University's material impacts and to consider the commitments required to make the greatest contribution to addressing sustainability issues.



# 4. How we set the agenda

The University Council is the University’s governing body. It guides the direction of the University. Our Vice-Chancellor is the University’s chief executive officer. The role of the Chancellery is to support the realisation of *Growing Esteem*’s vision and objectives for learning and teaching, academic performance and engagement. This includes the vision for sustainability.

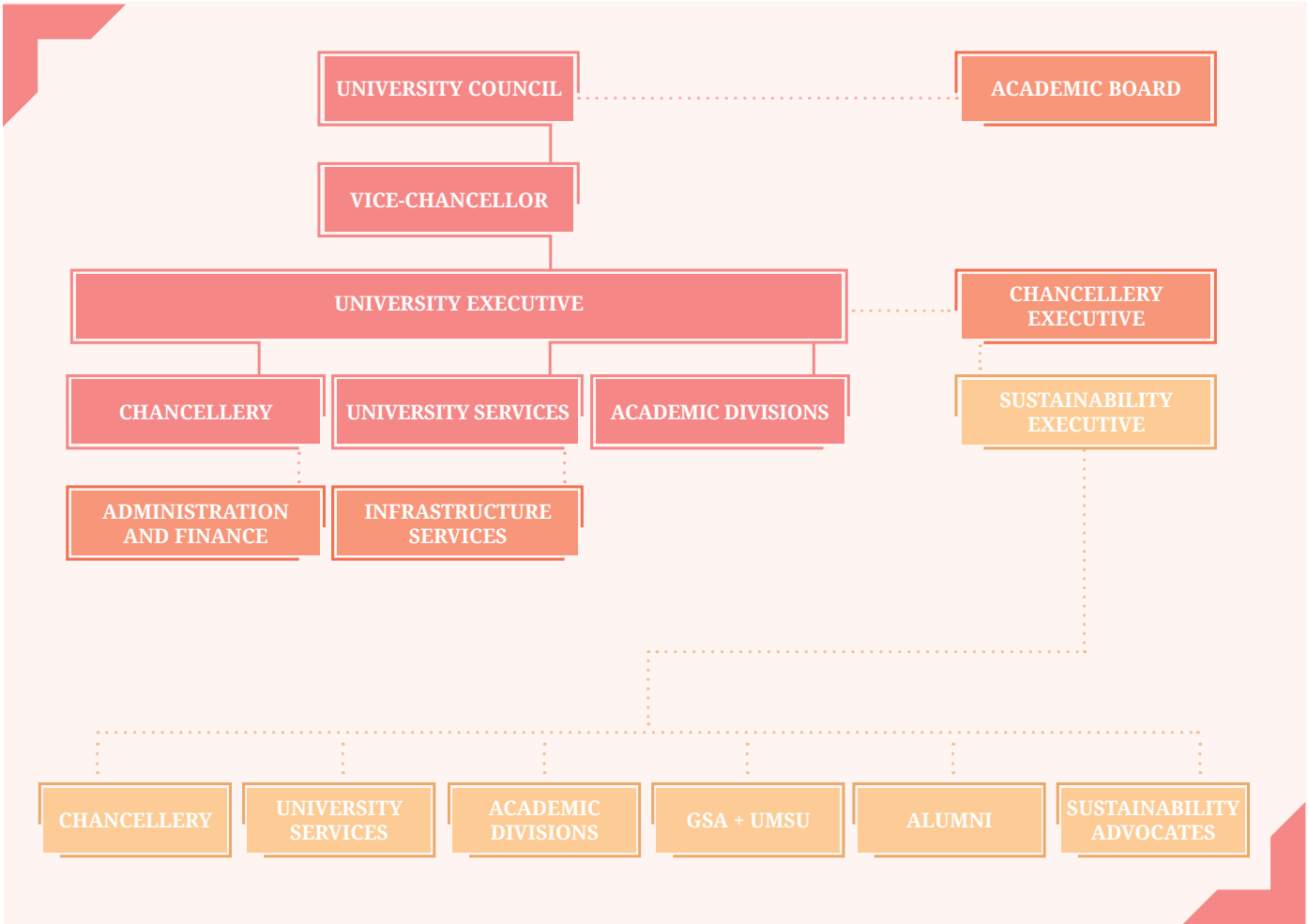
The Vice-Principal Administration & Finance and Chief Financial Officer has overall accountability for the University’s sustainability approach. This office leads the University-wide governance and strategy development of sustainability.

The Sustainability Executive provides the leadership to deliver the University’s sustainability agenda. This group comprises executives, academic and professional employees, and presidents (or nominees) of the two major student associations, and reports to University Executive. The Associate Director, Sustainability leads sustainability governance and strategy development.

Infrastructure Services is dedicated to the ongoing improvement of our resource use across waste, water, energy and carbon emissions. The team implements the University’s commitments to reduce

resource use, manage sustainability projects on campus, and engage students, employees and the community on sustainability issues. We strive to be a global leader on campus sustainability.

The Sustainability Advocates Forum is a group of employees and students who are passionate about sustainability. The forum members are active participants in the University’s sustainability endeavours and have a direct link to the Sustainability Executive through the Sustainability and Environmental Services Manager.





## Shaping the course of global urban development at Habitat III

A delegation of University of Melbourne researchers and postgraduate students attended the United Nations Habitat III Conference on Housing and Sustainable Urban Development in Quito, Ecuador in October 2016. The delegation of 14 was led by Professor Carolyn Whitzman (Melbourne School of Design) and jointly coordinated by the Melbourne Sustainable Society Institute (MSSI), Melbourne Social Equity Institute (MSEI) and Melbourne School of Design (MSD).

In her plenary speech, Professor Whitzman addressed 30,000 participants from over 150 countries, outlining the role of universities in implementing the New Urban Agenda, an agenda that sets global standards of achievement in sustainable urban development. In her address, Professor Whitzman detailed three mechanisms through which universities will affect the success of the Agenda.

- Our research seeks solutions to industry and policy relevant questions including how collaborative partnerships can increase the quantity and quality of affordable housing and what political and social transitions might be necessary for carbon neutral cities.
- Our teaching connects students from around the world who will work together in addressing urban transformation and equips them with the appropriate skills, knowledge and theory.
- We are advocates for evidence-based policy informed by participatory democracy and see universities as convenors of 'safe spaces' where people from differing perspectives can engage in productive dialogue towards change.

The University of Melbourne is committed to supporting the New Urban Agenda as we rethink the way we build, manage and live in cities. We look forward to partnering with government and industry in the effort to address the complex challenges that arise from rapid urbanisation.



*The University of Melbourne delegation: (from left) Dr André Stephan, Prof Carolyn Whitzman, Hesam Kamalipour, Dr Melanie Lowe, Hayley Henderson, Alexei Trundle and Justyna Karakiewicz. Source: <http://sustainable.unimelb.edu.au/habitat-III>*





## 4.1 Shaping policy and dialogue

The University of Melbourne is well placed to engage in local and global level policy debates to raise public awareness of the issues facing our future landscape. We employ leading experts in sustainability who are sought after by government and industry partners. These academics participate in secondments, policy roundtables, submissions and parliamentary hearings to share our expertise and shape public policies.

The University has a responsibility to engage with the public in conversations that stimulate future thinking and awareness on important issues for sustainability. In 2016, more than 50 free public lectures were hosted on the topic of sustainability, including:

- Observing carbon-climate feedbacks from space
- Toward a 2000-Watt Society – Energy Innovation for Sustainable Cities in Switzerland and Australia
- From the Millennium Development Goals to the Sustainable Development Goals

- Regional climate projections for Australia: a key input into national adaptation planning
- Future of Gas in Australia: a new paradigm?
- Closing the gap on indigenous health
- ThoughtLAB-14: My Veggie Garden Rules
- What Makes a Happy and Sustainable Workforce?
- The Economics of Wind and Solar Variability
- The Global Clean Energy Mix, and Why “All of the Above” Matters.

## 4.2 Sustainability associations

The University of Melbourne is a member, signatory, or participant of many national and international multi-stakeholder initiatives. Through these associations, we are able to project our influence and drive action on sustainability. Sharing knowledge and expertise with supporters and detractors spurs our commitment to leading public discourse in sustainability.

See below for some of our key associations.

## 4.3 Aligning our governance processes

Following the release of the University's Sustainability Charter in 2016 and Sustainability Plan in 2017, we will review a range of strategies and governance processes to ensure alignment with our sustainability commitments. This will include input into the University's Enterprise Risk Management System (ERMS), a new value framework for capital approvals and a review of building design standards, which were last updated in 2013 and define the University's expectations for building and landscape works on campus.

**Table 1. Professional Associations and Standards for Sustainability**

Initiative	Membership	Year of commencement
United Nations Global Compact	Signatory, Biennial Communication on Engagement	2001
Global Compact Network of Australia	Member	2012
UN Sustainable Development Solutions Network	Member	
United Nations Academic Impact	Member	2012
Universitas 21 - Declaration on Sustainability	Signatory	2009
International Sustainable Campus Network (ISCN)	Member	2012
Australian National Action Plan for Education for Sustainability	Signatory	2013
TAKE2 - Victorian Climate Change Pledge Program	Founding Partner	2016
University commitment to Sustainable Development Goals	Signatory	2016
Global Reporting Initiative (GRI)	Reporting standard	2015
GBCA Green Star Buildings	Design Standard	2008
GCBA Green Star Communities	Gold Sponsor - pilot Design Standard	2015
Fair Trade Association of Australia & New Zealand	Certification	2012
Tertiary Education Facilities Management Association (TEFMA)	Member Annual reporting on operational performance	
Tertiary Sustainability Network	Member	
Australasian Campuses Towards Sustainability (ACTS)	Member	
Group of Eight Sustainability Managers	Member	



## Time to commit to the SDGs

In September 2016, the University of Melbourne signed the 'University commitment to the Sustainable Development Goals (SDGs)'. The 17 Goals and 169 associated targets were adopted by all countries at the United Nations in late 2015 and comprise a shared global framework of local and global action on sustainable development to 2030.

We view the role of universities as critical to the attainment of the SDGs. Through our research, we are at the cutting edge of sustainable solutions to global problems. Through our teaching, we have a responsibility to develop the next generation of leaders, equipped with the skills and knowledge to promote sustainable development.

As part of our commitment, we undertake to contribute to the achievement of the SDGs by ensuring our campuses and major programs are environmentally sustainable and socially inclusive. Through our operations, we can pioneer innovation and set an example to other sectors. To drive the change we want to see, it is important that we embody the spirit and aspirations of the SDGs. We will report annually on our activities in support of the SDGs.



# 5. Catalysing a low-carbon future

## 5.1 Taking action on climate change

We have set ambitious energy targets to focus our efforts over coming years and demonstrate the leadership role of universities in the societal transition away from reliance on fossil fuels.

Our major targets set out in the Plan include:

- Achieve carbon neutrality before 2030
- Achieve zero net emissions from electricity by 2021
- Reduce emissions by 20,000 tonnes of carbon per year by 2020 through on-campus energy projects

The University will publicly report its progress toward a low-carbon future in this annual sustainability report.

See Section 9.2 for our 2016 emissions and energy performance.

## 5.2 Responsible investment

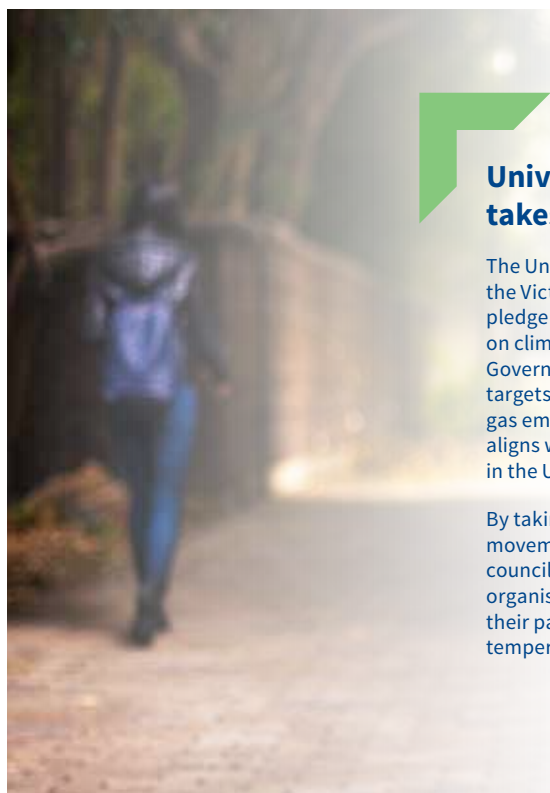
The University acknowledges the significant role it has to play in addressing the challenges posed by climate change. The impacts of climate change are felt within the confines of the University and beyond them.

Our Sustainability Charter states that the University will implement investment strategies consistent with the University's commitment to sustainability and its financial and legal responsibilities.

Section 9 of the Sustainability Plan outlines the University's approach to managing its investments in recognition of the financial risks associated with climate change.

The University has made a commitment to developing a sustainable investment framework for evaluating and managing material climate change risk. The process for this will be communicated by end March 2017, with the framework due to be completed by the end of 2017.

During consultation for the Sustainability Plan, we received significant feedback related to the University's investment portfolio with calls for divestment from Fossil Free Melbourne Uni (FFMU) and the broader community. In order to give a transparent account of our investments, we facilitated an investment forum on 9 August 2016. Employees, students, University stakeholders and industry experts discussed the topic of divestment and what it would mean for us.



## University of Melbourne takes the Pledge

The University of Melbourne has signed the Victorian Government's 'TAKE2' pledge aimed at driving collective action on climate change. The pledge signals Government action to legislate ambitious targets to achieve net zero greenhouse gas emissions in Victoria by 2050 and aligns with the commitments enshrined in the University's Sustainability Charter.

By taking the pledge, we join the growing movement of Victorian businesses, councils, educational and community organisations and households doing their part in the effort to keep rising temperatures below two degrees.

The University will report against its actions and seek emissions reductions through a number of pathways including but not limited to energy consumption, transport, travel, procurement and waste management.

We recognise the urgency of climate action, with Victoria already experiencing higher temperatures, longer fire seasons and rising sea levels. The University is committed to showing leadership on climate change and stands together with the Victorian Government as a founding partner of TAKE2.





### 5.3 Knowing our climate risks

Understanding that climate change risk affects all major institutions in different ways, the University is taking steps to ensure that we are fully informed of our risks and opportunities due to climate change (see Table 2).

Following on from our 2015 Climate Adaptation Plan (CAP) for the Parkville campus, in 2016 qualitative CAPs have been completed for the Melbourne Conservatorium of Music Project and the Western Edge Biosciences Project. In 2017, the University will develop qualitative climate change adaptation and resilience plans for all campuses in accordance with

AS 5334 Climate change adaptation for settlements and infrastructure - A risk based approach. We aim to complete this process by 2020. We do not financially quantify climate adaptation risks at present.

These plans are tools to help analyse risk levels and identify the adaptive actions to address climate change risks that are detrimental to communities and infrastructure. The University has begun exploring opportunities to integrate this climate change adaptation work with broader risk management processes so that climate risk can be incorporated into all future campus developments.

Table 2. Snapshot of University of Melbourne's climate risk - 2016

What is the risk?	What is the potential impact?	How do we manage this risk?	Type of risk	When will the impact be felt?
Damage to heritage and/or aged buildings in extreme weather	Loss of functionality of the building until repairs are made. Cost of repair. Health and safety to users of the building and surrounds. Loss of heritage value.	Undertake annual audits of building structures and facades to determine if there are signs of material failures that require maintenance.	Physical	High risk by 2030
Potential damage or disruption to sensitive building uses (e.g. sensitive research, wooden string instruments) due to extreme weather and/or impacts on utilities	Loss or delayed research results. Musical instruments out-of-tune.	Review the capacity of existing HVAC, electrical and drainage to cope with extreme conditions.	Physical	High risk by 2030
Disruption to business critical activities due to extreme weather damaging buildings, access to buildings and/or utilities.	Business disruption, which could impact the delivery of teaching, research or student support services.	Review the capacity of existing HVAC, electrical and drainage to cope with extreme conditions.	Physical	High risk by 2030
Increased health and safety risks due to extreme weather and related impacts (e.g. environmental science fieldwork)	Heat stress. Decreased ability to collect research data during field trips. Debris from trees in high winds.	There is currently a policy in place for working outdoors in hot temperatures. Ensure the policy is circulated to all employees who may work outdoors during the warmer months. Monitor tree health. Undertake pruning to minimise the risk of limbs being damaged by strong winds.	Physical	High risk by 2030

# 6. Sustainability as a grand challenge

Our research strategy, Research @ Melbourne: Ensuring Excellence and Impact to 2025, guides our approach to conducting world-class research. The strategy outlines the University's three Grand Challenges that shape our path to the future we envisage:

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

We are Australia's leading research University with around \$1 billion dollars in total research expenditure. We have the capacity to make significant contributions to major social, economic and environmental challenges. The University is deeply engaged in supporting sustainability and resilience as a Grand Challenge.

## 6.1 Sustainability research centres

The University of Melbourne is home to some of the most influential research institutes in Australia. Since 2008, the University has established a number of 'Melbourne Interdisciplinary Research Institutes' (MIRIs). They are led strategically by the Deputy Vice-Chancellor (Research).

Three of the flagship Melbourne Interdisciplinary Research Institutes drive the University's sustainability agenda through the following activities:

- 1. **The Melbourne Sustainable Society Institute (MSSI)** which takes an interest in all of the University's sustainability teaching, engagement, and operations, but is tasked specifically with the research strand. The MSSI specialises in two areas of sustainability enquiry; 'Climate Change' and 'Future Cities'. It uses an interdisciplinary approach which combines data and solutions from the physical and technical sciences with analysis and interpretation from the social sciences and humanities. To find out more about our research projects please go to <http://sustainable.unimelb.edu.au/research-projects-1>.
- 2. **The Melbourne Energy Institute (MEI)** represents the University's commitment to sustainability through an interdisciplinary research approach, developing the University capacity in meeting the challenges of a large-scale, low-emission energy system. The Institute works with faculties including Economics, Science, Engineering, Law, Architecture and Arts to develop new energy research programs. Funding secured for these programs totals over \$40 million. The Institute also works with industry and government partners to augment research outcomes. MEI research most relevant to sustainability includes programs that build technical capability and policy and market knowledge for the implementation of low carbon energy production technology needed to decarbonise our energy system. For more information on our research please go to <http://energy.unimelb.edu.au/#research>.
- 3. **The Melbourne Social Equity Institute (MSEI)** brings together researchers to address disadvantage across social life, including health, education, housing and work. The Institute identifies unjust or unfair practices that lead to social inequity and works towards finding ways to address disadvantage. MSEI works with people across the spectrum of life, with a particular focus on vulnerable populations. This includes people with disabilities, children, migrants and asylum seekers, and Indigenous People.

Table 3. Key statistics from these three Melbourne Research Institutes, 2016

	MSSI	MEI	MSEI <sup>1</sup>
Total number of flagship projects	6	8	11
Number of publications generated by Institute initiatives	10	11	50
Number of events	35	10	31
Key partners	22	20	19

1. Preliminary figures





## Our Nitrogen Footprint

On 4-8 December 2016, leading international researchers converged on Melbourne for the 7th International Nitrogen Initiative Conference to discuss the best new solutions to problems in nitrogen use.

One way to understand our nitrogen use is to look at our nitrogen footprint – the amount of nitrogen pollution released to the environment from food, housing, transportation and goods and services.

Research by University of Melbourne PhD candidate Emma Liang has shown Australia has a large nitrogen footprint. At 47 kg of nitrogen per person each year, Australia is far ahead of the US, with 28 kg of nitrogen per person each year.

Nitrogen can be a significant pollutant with substantial effects on air and water quality, biological diversity, and human health. A high animal-protein diet appears to be driving Australia's high nitrogen footprint. The consumption of animal products accounts for 82% of the Australian food nitrogen footprint. Animal products carry high nitrogen costs compared to vegetable products. Both products start with the same cost in nitrogen as a result of growing a crop, but significant further losses occur as the animal consumes food throughout its life cycle.

The N-Footprint project aims to help individuals and institutions calculate their nitrogen footprint. It shows how we can each have an impact on nitrogen pollution through our everyday choices. The good news is that if we reduce our nitrogen footprint, we also reduce our carbon footprint.

In 2016, we continued to roll out our Hallmark Research Initiatives. These Initiatives bring together interdisciplinary researchers to build on existing strengths at the University's faculties. The Disability Research Initiative, the Indigenous Research Initiative and the Ageing Research Initiative exist to reduce vulnerabilities and improve social resilience.

## 6.2 Technology enabling infrastructure

Becoming more 'digitally innovative' is vital to the University of Melbourne. As disruption enabled by technology continues to reshape the industries in which our students will find themselves, it also creates highly valuable opportunities to achieve efficiency and effectiveness, at scale.

The impact of this disruption on consumer behaviour and expectations also means that our students and staff are more tech savvy than ever, leading to exponential growth in devices used across the Parkville campus.

Along with requisite security and privacy measures, accommodating the need for high-speed and convenient connectivity and ready access to quality data has become a central driver of productivity and engagement.

The University has established a significant platform to support the growth of its digital innovation agenda. Examples of targeted investments include:

- Digital teaching and learning innovation and scholarship (including the successful establishment of 17 Massive Open Online Courses (MOOCs) which have attracted over 750,000 learners across the globe)
- Supporting more streamlined management of research data and computation in response to changes in the nature of the conduct of research
- Development of a comprehensive Digital Marketing Strategy and detailed mapping of the student life-cycle and 'customer experience'
- Development of a new enterprise IT architecture that will support modern application integration
- Application of unique 'Smart City' practices using location-based wireless technologies to enable more targeted building modernisation and energy efficiency.

The above is in addition to the University's extensive research in areas such as Machine Learning, Artificial Intelligence and Augmented/ Virtual Reality.

As a further statement of commitment to digital innovation, the University formed a Digital and Data team in January 2017. Led by the Pro Vice-Chancellor of Digital and Data, this team is responsible for creating a cohesive and forward-looking digital and data agenda which includes the governance frameworks and policies required to support the strategy.

The Digital and Data team will also help the University to measure progress towards its Charter commitment to deliver technological, financial and social innovation by benchmarking performance against digital and data best practices both inside and outside the tertiary sector. To date this has already included the benchmarking of current data governance against global best practices to inform the design of a new governance model.



## Smart Campus Living Lab enabling future innovations

One of our latest innovations involves using location-based analytics through a suite of Cisco wireless technologies to enable insights into which buildings and services should be developed next, how to develop a more sustainable campus, and how the University could better engage with visitors and prospective students.

For instance, each day around 20,000 people travel across Grattan Street to access the Parkville precinct. When the Victorian Government announced a planned street excavation, the University sought to minimize disruption to students and class attendance by using location-based analytics to examine traffic patterns from multiple angles, such as day, time and relative distance of buildings. We are also extending these insights to understand where the most and least popular locations are on campus so that congestion can be reduced and a better experience can be created for staff and students.

Through the innovative application of these technologies we can, for the first time, link multiple systems to better understand building occupancy demand, create energy savings throughout the day and better target building modernisation projects. Such initiatives directly support The University of Melbourne's firm commitment to reducing its carbon emissions and electricity usage.

### 6.3 Innovation as the way forward

The Carlton Connect Initiative (CCI) is Australia's leading innovation precinct. CCI drives partnerships between different sectors and disciplines to address global challenges that cannot be solved by one sector alone. It pioneers breakthrough innovations that capitalise on new and disruptive technologies to solve sustainability challenges. CCI invites the community to query, test and sample possible solutions to complex problems like affordable housing, water scarcity and the transition to renewable energy. Innovation partners collaborate with the social sciences as well as the physical sciences to enhance the social outcomes of research.

To find out more about CCI see <https://www.carltonconnect.com.au/>







## MAP Melbourne Startup Accelerator

Since 2012, the Melbourne Accelerator Program (MAP) has worked with aspiring entrepreneurs to transform their world-changing ideas into reality. This year, ten selected startups were awarded access into the Startup Accelerator and were provided with \$20,000 seed funding, office space in the University of Melbourne's LAB-14 workspace, structured mentoring, networking opportunities and pitching opportunities in Australia and Silicon Valley. Our high quality team of mentors

included CEOs, investment managers, company founders and entrepreneurs.

On 25 May 2016 over 700 people attended Melbourne's Plaza Ballroom to see the ten successful startups pitch their ideas. As an example, Allume Energy's unique distribution technology offers renewable energy to Australian housing communities and apartment blocks through grid sharing.

Between 2012 and 2016, alumni teams have raised over \$17 million in funding, created more than 200 jobs and generated over \$28 million in revenue<sup>2</sup>. We have

funded 34 startups<sup>3</sup> while connecting and up-skilling thousands of aspiring entrepreneurs through the program.

Melbourne Accelerator Program (MAP) alum Nura has raised \$6 million in seed funding led by Blackbird Ventures along with UK music industry leaders Ric Salmon and Brian Message of ATC Management, and Craig Barratt (Google Access, Atheros).

In 2016, Nura raised a record \$US1.8 million on Kickstarter, making it the most successful Australian campaign funded on the crowdfunding platform.

2. <http://themap.co/map-startup-accelerator/>

3. <http://themap.co/portfolio-2015/>

# 7. Engaging students as future leaders

## 7.1 Student engagement on campus

The biennial University Staff and Student Sustainability Survey was conducted in 2016. The survey showed that students are more engaged on sustainability compared with 2014. Climate change overtook environmental sustainability as the most important issue facing Australia in the view of staff and students.

Engagement of students in sustainability initiatives was wide-reaching in 2016, and included:

- The Fairtrade Steering Committee, which includes both undergraduate and postgraduate students. The students organized a one day Fairtrade market across campus in May 2016, to engage on the topic of Fairtrade and raise awareness about other sustainability related issues
- The “Follow Your Waste” tour, where staff and students visited the landfill center used by the University contactors

- The Student Union (UMSU) environment group organised a series of student led workshops to contribute to the University’s Sustainability Charter and Plan
- Active involvement of staff and students in the Sustainability Advocates Forum, which plays a key part in the University of Melbourne achieving a sustainable campus
- C16Hack held in April/May of 2016, where students participated in a series of workshops that involved providing innovative solutions to various sustainability problems on campus
- Bee keeping tours and lectures. This educational and information sharing series attracted a large number of students, along with staff and the general public
- Four “Ride to Uni” events, encouraging cycling as a sustainable means of transport, health and wellbeing.

In addition, Green Impact was adopted and developed in October 2016, with the launch of the pilot program in March 2017.

Green Impact is an international, sustainability change and engagement program developed in the UK by the National Union of Students (NUS). Piloted for the first time in Australia at the University of Melbourne, it aims to raise awareness of sustainability university-wide, by giving people a focused approach to tackling sustainability issues and supporting them in achieving these actions.

Engaging students is a significant part of the program and they will be involved in a number of ways, including as mentors and auditors. Green Impact is the primary overarching engagement tool for raising awareness about sustainability amongst staff and students in 2017 and beyond.

## Shaping the Future of Education for Sustainable Development

Dr Ani Wierenga, Honorary Senior Fellow in the School of Social and Political Sciences is contributing to global strategy for UNESCO’s Global Action Programme (GAP) on Education for Sustainable Development (ESD), the official follow-up to the UN Decade of ESD (2005-2014).

The first in the series of symposia throughout 2016-17 on the future of ESD was held November 2016 in Omori, Japan. Dr Wierenga is an expert panel member in this series and following the first symposium, she is preparing the

initial draft of UNESCO’s Position Paper on the Future of Education for Sustainable Development, the aim of which is to ensure continuity of vision in ESD to 2030.

At the recent Marrakech COP22 meeting, Director-General of UNESCO, Irina Bokova identified that education is not simply one of the Sustainable Development Goals, but underpins the achievement of all 17 of the goals, signalling a major repositioning of education, with profound implications for higher education, across all disciplines and faculties.

The University is well placed to develop students as leaders for sustainability. The Sustainability Plan recognises that the University’s most significant contribution

is through our students, both local students and the many international students that will return to their countries of origin around the globe. The increasing emphasis on graduate attributes and global citizenship, and the new University of Melbourne Engagement Strategy, with its high priority on student engagement, are embedded within the University’s strategic planning.

The University of Melbourne is committed to contributing intellectually to strategic and visionary work at the global level, through the outreach activities and impact of our academics. We look forward to continuing to engage with and contribute to the development of global strategies for ESD, especially as we implement the Sustainability Plan.



## 7.2 Equal access to education

The *Growing Esteem* strategy commits to providing opportunities for students, staff and the community from all cultures and all backgrounds to successfully participate in the educational, cultural and social life of the University. In particular, we are committed to the equitable access, participation and success of students from all backgrounds including four priority groups: students from low socio-economic backgrounds, students from regional and remote areas, Indigenous students and students with a disability. We strive to create a student cohort that reflects Australia's diverse society, and who will become our future community leaders.

The University's Access and Participation Plan 2015-2017 encompasses a suite of strategies and initiatives to support equal access to education. To build awareness and inspiration for higher education, we conduct sustained outreach to target regions aiming to increase student aspiration and pre-tertiary retention rates and providing university experience programs. To improve access, the University provides and promotes pathway programs, guaranteed entry, alternate selection criteria and tools and scholarships. A range of programs and services such as transition and mentoring programs, housing, employment and financial aid services support our students to achieve. These are underpinned by focussed research on national equity priorities and issues, and engagement outside the university to build socially inclusive communities and partnerships.

The Access Melbourne program assists educationally disadvantaged students to access tertiary education. The University commits to enrol 20% of all domestic undergraduate students through this pathway. In 2016, 28% of Round 1 VTAC offers went to Access Melbourne applicants and of the total VTAC applicants who enrolled, 33% were enrolled through Access Melbourne.

Addressing Indigenous disadvantage is a national priority for Australia. The University is committed to addressing this disadvantage by making a sustained contribution to lifting the health, education and living standards of Indigenous Australians through its expertise and resources in teaching and learning, research and engagement as described in our Reconciliation Action Plan 2015-2017. In 2016 the University of Melbourne enrolled more Indigenous students than ever before with 285 Indigenous students enrolled compared to a total of 40,357 (0.71%) domestic enrolments.

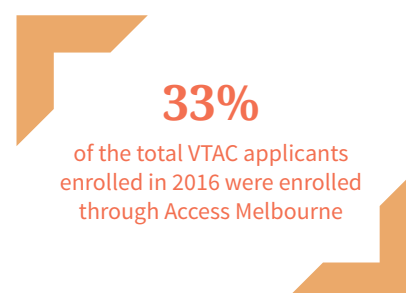
## 7.3 Graduate employment and attributes

Our graduates need to be ready to adapt to the industries of the future sustainable economy. The Melbourne Graduate Attributes explicitly recognise sustainability and active citizenship. These Attributes inform the development of learning outcomes for every course and subject. At the completion of their studies, University of Melbourne graduates are equipped with a high regard for human rights, social

inclusion, ethics and the environment. We have every confidence in our graduates using their voices to advocate for the most important issues facing sustainability.

The annual Graduate Outcomes Survey measures employment outcomes for students who graduated in the previous year. These are students who completed their undergraduate, graduate coursework, or research degrees in 2015.

The survey results indicate that 61 per cent of the University of Melbourne's undergraduates were in full-time employment four months after completing their degrees. The proportion of graduates by coursework and graduate researchers in full-time employment four months after graduation was 85 per cent and 84 per cent respectively, and research recently conducted by the University showed that, three years after graduation, only 2 per cent of UOM graduates are unemployed, with over 90 per cent in continuing employment.



# 8. Building a connected community

## 8.1 How we engage local communities

The University is well positioned to engage with the community, industry, government and academia to explore opportunities and address some of the gravest issues facing society.

As well as numerous local community development initiatives through our teaching, research and engagement efforts in faculties, the University's Engagement Strategy, Engagement at Melbourne 2015–2020, commits the University to three place-based 'Keystone Engagement Programs' that collaboratively set priorities with local communities. These are:

- Engaging Melbourne's West, a program to advance economic and social development priorities in the west of Melbourne
- Engaged Campus Neighbourhoods, a program to strengthen the University's civic contribution to the communities in our immediate campus precincts; and
- The Goulburn Valley, a transformative place-based program of collaborating with the region to support social, cultural and economic development.

The University has a community-driven collaboration framework that guides its relationship with the Carlton community, which includes representation from a number of local community agencies.

This drives activities to build capacity for community events, programs and services, and partnerships with low socio-economic status schools and youth services to support access to higher education, and develop a community website to connect residents, workers, students and visitors to Carlton.

Our definition of local community includes employees and students, and we believe that they should be represented in our decision-making. One member of the University Council is mandated to be a current student elected by the student body and one employee member is elected by the employees of the University. We comply with all planning requirements and additional grievance mechanisms for members of the community are included in each stakeholder engagement plan developed at the outset of all major capital projects.

Those within our community can be vulnerable to the effects of change beyond their control, therefore we assess the risks and benefits of our impacts so the community can continue to thrive around us. Impact assessments and cost benefit analyses on our operations are conducted as required<sup>4</sup>. Our environmental assessments are covered by our annual online reporting to the National Pollution Inventory (NPI). All environmental incidents are reported to the EPA.

## 8.2 Prioritising social resilience

The strength of Melbourne's social fabric is one of the reasons why the University of Melbourne is a preferred destination for prospective employees and students. We are part of a prosperous, vibrant and engaging local community.

The University's commitments to working with local communities in Victoria are formally stated in the University's Engagement Strategy, Engagement at Melbourne 2015–2020<sup>5</sup>, which seeks to contribute distinctively to the intellectual, economic and social advancement of Victoria and to the cultural life of Melbourne and our regions. The University has a role in influencing public conversation and policy development. The 'Engaged Campus Neighbourhoods' Keystone Engagement Program has the following purpose:

*'This program will strengthen our civil contribution to the communities in our immediate precincts. It aims to engage constructively with campus neighbourhoods and local governments, recognising that our locality is part of our appeal as a place to learn, work and engage. The University will develop shared goals to align our efforts with community aspirations.'*

### Taking early learning to the next level

The University of Melbourne's Early Learning Centre (ELC) was a finalist at the 2016 Green Gown Awards, run by Australian Campuses towards Sustainability (ACTS). The specialised research and demonstration kindergarten was

nominated under the Learning, Teaching and Skills category.

This honour is an endorsement of the innovative approach to early learning taking place at the centre. The ELC mission is to provide an exemplary educational experience in a humanistic and environmentally mindful setting. The unique curriculum encourages children to

develop academic capabilities, problem solving and decision-making skills, independence and self-discipline, while ensuring the values of empathy, integrity, respect and tolerance are instilled.

The philosophy of the ELC is based on the image of each child as creative, capable and inquisitive.

4. We do not report our impact as a percentage of our activities assessed  
5. <http://about.unimelb.edu.au/strategy-and-leadership/engagement>



## Leading a 20-year leadership program tackling social inequality

The Atlantic Fellows for Social Equity program seeks to train a new generation of leaders committed to tackling social disadvantage in Australia, New Zealand and the Pacific. The Fellowship program, launched in October 2016 by Prime Minister Malcolm Turnbull and due to commence in mid-2017, is to be led by the University of Melbourne and is driven by a game-changing US\$50 million grant from US-based Atlantic Philanthropies. This commitment has leveraged AUD\$160 million in additional contributions and in kind

support from the Australian Government and other partner organisations including the University of Auckland, Queensland University of Technology, the Brotherhood of St Laurence, the Business Council of Australia, and Jawun.

The program will be the sixth in a global network of leadership development programs known collectively as the Atlantic Fellows. It seeks to build capacity and enhance the capability of a new generation of Indigenous and non-Indigenous leaders committed to advancing a fairer, healthier, more resilient and inclusive society. Fellows will be mid-career, emerging leaders who are committed to using their positions to push for social change.

The funding will create a new Pacific regional hub of the Atlantic Fellows for Social Equity Program and will award 25 new Fellowships a year for 20 years. The hub will connect Fellows into a global network of aspiring leaders spanning hubs in North America, Ireland, the United Kingdom, South Africa, and China. Over its 20-year lifespan it will create a cohort of up to 500 leaders from a range of backgrounds, sectors and disciplines to tackle the global challenges of health, equity, opportunity and inclusion.

Source: <http://newsroom.melbourne.edu/news/university-lead-20-year-leadership-program-tackle-social-inequality>





### 8.3 Indigenous engagement

The University's priorities are to increase Indigenous employees' and students' access to education and job participation. These targets are outlined in the *Growing Esteem 2015-2020* strategy, the Reconciliation Action Plan 2015-2017 (RAP), the Indigenous Student Plan 2013-2017 and the Indigenous Employment Framework 2014-2016.

The University has a Traditional Owners and Elders Reference Group, chaired by the University's Pro Vice-Chancellor (Engagement). The reference group advises the University on its engagement with Victorian Aboriginal communities; provides cultural oversight of the University's RAP (Reconciliation Action Plan) and provides guidance on the University's cultural and community protocols.

Murrup Barak, the Melbourne Institute for Indigenous Development, has a leadership role in the implementation of the Reconciliation Action Plan and works to establish the University as a leader in indigenous development. The Institute implements activities that support the quality and impact of Indigenous teaching,

learning and research. Importantly, the Institute provides an organisational structure to link Indigenous academic development with employment and student programs.

The Indigenous Employment Framework 2014-2016 (IEF) was developed as an initiative under the RAP to guide the University's path towards both becoming an employer of choice for Indigenous Australians, and also contributing to closing the gap of disadvantage through the creation of employment opportunities for Indigenous people. A key initiative that flows from the IEF is the requirement that all faculties and administrative divisions develop their own localised Indigenous Employment Plans.

The University has an Indigenous Student Plan 2013-2017 (ISP) which embeds accountabilities for the University's student targets across the institution. The ISP supports faculties to develop their own Indigenous Student Recruitment and Retention Plans to ensure they meet their responsibility for providing Indigenous students with a high-quality teaching and learning experience.

The University's Urban Design Framework and major capital works projects give prominence and due recognition to Indigenous cultures and the role and contribution of Traditional Custodians in a number of ways. The University also holds two high-profile Indigenous Orations annually, has developed and implemented an Indigenous Cultural Heritage Policy and is developing an Indigenous cultural education strategy.

The University adopted a number of ambitious new targets with respect to the recruitment and retention of Indigenous students and employees. Progress towards these targets, and a comprehensive array of other metrics relating to students, employees, teaching and learning and research, are reported on annually in the Indigenous Outcomes Performance Report (IOPR).

The University has also implemented an Indigenous governance mechanism. This comprises the Traditional Owners and Elders Reference Group and an Indigenous Programs and RAP Implementation Working Group.



## The 2016 Narm Oration

The Narm Oration, delivered annually since 2009, is the University's key address profiling leading Indigenous peoples from across the world in order to enrich our ideas about possible futures for Indigenous Australia. 'Narm' refers to the country of the Melbourne region. The 2016 Narm Oration 'Between the Dreaming and the Market: Indigenous economic migrants and the world they made', was delivered by renowned journalist and author Stan Grant.

Introduced by the University's 2015 Narm orator and early mentor, Professor Marcia Langton, Wiradjuri man Stan Grant delivered a powerful oration to a theatre of more than 350 people. Those present included Indigenous Traditional Owners and Elders, members of the University's Senior Executive, Indigenous students and employees and members of the wider University community and general public.

Grant's oration was delivered in the context of what has been described as an 'annus horribilus' for Indigenous people. Indigenous youth suicide, domestic violence and incarceration rates, together with what is often seen as "a crisis in Indigenous policy" reflect a depressing reality. Grant, however, in opening and closing his oration with Australian author Eleanor Dark's

fictional imaginings of Bennelong of a world beyond one's own, identified 'a spark of hope'.

Grant noted that increasing numbers of Indigenous people are finishing school and completing university courses, are achieving acclaim in the arts and sports and "the Indigenous middle class is growing faster than any other sector of the population". He suggested that these people are the descendants of those involved in the great Indigenous economic migration of the 20th century and traces this transformation in a powerful and moving way through the journey of his own family.

As noted by the Vice-Chancellor, Professor Glyn Davis, in thanking Grant, the story of his family and of the many Indigenous people who have moved forward and created their own history rather than being defined by the history they have inherited, is inspirational and provides a lesson to us all.

Source: <http://engagement.unimelb.edu.au/public-value/narm-oration>



# 9. Campuses modelling sustainable communities

The University's guiding principles for sustainability are most clearly evident in our campus spaces.

Developing our campuses as models of sustainable and resilient communities, and protecting and enhancing biodiversity, are aspects highly valued for their positive impact and contribution to the University of Melbourne experience.

However, as a large community comprising more than 56,000 students and employees across our seven campuses, the University's operations draw significantly on natural resources. Resource use as a result of energy and water consumption, waste generation and transport are material impacts of our operations and services. They contribute directly to climate change and drive increasingly negative impacts for future generations. We are constantly striving to reduce these impacts by designing and managing our campuses for resource efficiency across water, energy, carbon and waste.

The University has set out targets and programs to improve each of these areas in the Sustainability Plan, which will allow ongoing performance tracking and evaluation.

## 9.1 Campus planning and development

To maintain our position as Australia's premier university and grow our research and leadership impact, we need to continue to develop our supporting infrastructure of buildings, precincts and campuses. We are retrofitting, adapting and redeveloping to rejuvenate existing parts of our campuses, as well as acquiring land for new facilities. There are exciting times ahead for our campus development teams who are exploring

the most sustainable ways to expand and enhance the University of Melbourne's physical footprint.

The 'Our Campus in the 21st Century' (OC21) framework defines the vision and principles guiding our campus development strategies over coming years, to provide high-quality campus-based experiences for diverse communities. OC21 was developed by the University in a series of workshops that explored the qualities wanted across all campuses and precincts. It is the formal response to the University of Melbourne's strategic plan *Growing Esteem* and is integral to how the University will plan for the future.

The University is committed to a minimum 5 Star Green Star rating for all new buildings, increasing to a minimum 6 Star or equivalent by 2020.

The Arts West redevelopment achieved a 5 Star Green Star Education v1 Design rating, which equates to Australian excellence. It was completed in 2016 and is designed to enhance teaching and learning by providing excellent indoor environment quality in all teaching and learning spaces. It is also energy efficient to run, with features including an iconic shading system, air-conditioning targeting the areas of need, and natural ventilation where possible. Extensive energy and water metering enables the University to monitor and understand how the building is used.

The Leicester St student accommodation, also completed in 2016, is a 14 storey student village which achieved a 5 Star Green Star – Multi Unit Residential Design v1 Certified Rating. Features of this development include solar panels, high performance insulation and glazing, and cross ventilation.

The heritage-listed Police Stables and

Police Stores buildings at the Southbank Campus started their adaptation journey in 2016. The Police Stables will become an arts teaching facility, while the Police Stores will become the Buxton Contemporary. The Buxton Museum will display exhibitions that explore some of the major concerns of the 21st Century, allowing our students and the community access to Australian's finest contemporary art. Property developer and passionate contemporary art collector Michael Buxton donated over 300 works by contemporary Australian artists, along with funds to help build and operate a gallery space.

The University is also working towards hosting Science Gallery Melbourne on the corner of Swanston and Grattan Streets at the Carlton Connect Initiative (CCI) in 2020. The Gallery will be part of a global network of science galleries with the goal of engaging 15 - 25 year olds in art and science. Science Gallery Melbourne is strongly aligned to the University's Triple Helix strategy: Research, Teaching and Learning and Engagement. We have undertaken extensive assessments to ensure the benefits to students, staff and the community are realised through the opportunity to engage with science in an open learning environment.

Infrastructure associated with these new constructions will positively impact the community by increasing access to these facilities. We will endeavour to minimise any negative impacts on the community during construction.



## Melbourne Metro Rail Project

A Melbourne Metro Rail Interface Project team was established in early 2016 to coordinate the University's response to the Metro Rail project and ensure that the interests of employees, students and the broader University community are represented. The University is working closely with the Melbourne Metro Rail Authority (MMRA) and their contractors to ensure that any adverse impacts from the project on the University land, operations and assets are avoided or minimised.

The University welcomes the central location of the proposed Parkville Station on University land and has made a suggestion to the MMRA that the station be renamed "University Station", to reflect its integration with the Parkville campus. The University raised a range of concerns regarding potential impacts through our response to the Metro Rail Environmental Effects Statement. This response is publically available via the Department of Environment, Land, Water and Planning website. In particular, the University raised concerns around noise, vibration, and electromagnetic interference and has been working closely with the MMRA to explore options for mitigation.

The University is strongly invested in maintaining a positive campus experience for employees and students throughout the construction of the station and is actively exploring a range of initiatives that capitalise on the opportunities presented by the project. A particular focus of these investigations has been around opportunities for positive environmental outcomes such as geothermal heat exchange.

## 9.2 Energy and carbon emissions

The University continued its focus on energy management on campus in 2016. Across the University, six solar photovoltaic (PV) installations at Parkville commenced in 2016, along with high efficiency freezer upgrades. Additionally, a series of LED lighting upgrades have been implemented. Large chillers in the Medical Building and 207 Bouverie St were also replaced with new, high efficiency chillers during the year. These new units use much less power than the units they are replacing, and are also considerably more energy efficient than the alternative chillers currently available in the market.

In February 2016, a loan of \$9.1 million from the Clean Energy Finance Corporation was secured to implement a series of projects which will help to drive significant energy reduction and clean energy generation on campus. Implementation of projects in this portfolio commenced in 2016. By program completion in mid-2018,

total solar PV installations across the University will provide 2500kW capacity, saving 4000 tonnes of carbon dioxide equivalent (t CO<sub>2</sub>-e) per year.

The University's direct emissions from gas and fuel consumption (Scope 1) were 13,412 (t CO<sub>2</sub>-e) in 2016.

Indirect emissions from purchased electricity (Scope 2) were 113,177 t CO<sub>2</sub>-e. These figures represent usage of entities under the University's direct operational control and in future years will form the basis for performance reporting against targets of the Sustainability Plan.



**Table 4. Energy consumption at the University of Melbourne (entities under direct operational control)<sup>6</sup>**

	Energy consumption (GJ)
Natural gas	253,413
Liquefied petroleum gas	2,726
Electricity consumption	373,796
Steam consumption	1,835
On-campus renewable electricity generation	594
<b>Total energy consumption</b>	<b>632,364</b>
<b>Energy intensity (GJ/m<sup>2</sup> GFA)</b>	<b>0.71</b>

6. The University reports its emissions on a financial year basis through the National Greenhouse and Energy Reporting (NGER) Scheme. For the financial year 2015-16, total emissions reported by the University were 153,770 t CO<sub>2</sub>-e, representing a reduction from 155,420 t CO<sub>2</sub>-e reported in 2014-15. NGERs reporting includes emissions from affiliated entities over which the University does not have direct operational control and is included in this report only to enable comparison with the 2015 report.

## Carbon Reduction Pathways Project

In April 2016, the Carbon Reduction Pathways project was initiated, to directly address the Sustainability Charter commitment to “lead technological, financial and social innovation through applied sustainability projects”. The objective was to identify, analyse and rank a range of carbon reduction pathways to zero net emissions electricity, under four main categories:

- Demand management: reducing electricity usage on campus

- On campus generation: generating zero emissions electricity on campus
- Off campus generation: generating zero emissions electricity off campus, whether owned by the University or by third parties, and
- Market mechanisms: applying green power or carbon market products such as offsets to reduce the University's carbon emissions.

Using a number of quantitative and qualitative criteria, indicative pathways were developed to zero emissions from electricity. Opportunities for on campus energy reduction and generation could reduce the University's carbon emissions by

up to 25,000 tonnes of carbon per annum. Off campus renewable energy generation, such as a solar or wind farm, would provide zero emissions supply, with high quality carbon offsets able to be used as an interim balancing item to enable the University to achieve zero net emissions from electricity.

Outcomes of this ongoing project fed into the Sustainability Plan, and informed the target to achieve zero net emissions from electricity by 2021. The University's longstanding aspiration to be Carbon Neutral by 2030 will be brought forward based on completion of a greenhouse gas inventory in 2017.

## 9.3 Waste

The University's Sustainability Team engages the entire campus community in efforts to reduce waste to landfill through recycling and waste management programs. The Sustainable Campus website provides information and resources to the University community on how to responsibly dispose of different types of waste.

The University currently has recycling programs in place for mixed recyclables (including paper, cardboard, cans and

bottles), as well as recycling furniture, e-waste, IT equipment, fluorescent light tubes, polystyrene, mobile phones and toner cartridges. Battery collection commenced in 2016, and resulted in the recycling of 1,280kg of batteries for the year.

In 2016, approximately 27kg of waste per person was sent to landfill. The Sustainability Plan includes a challenging target to reduce this number to 20kg per person by 2020 through a variety of initiatives, including ensuring waste minimisation considerations are

incorporated into procurement decisions, and enhanced waste measurement and reporting.

The Furniture and Equipment Reuse program, including electronic waste, once again played an important role in diverting potential waste from landfill. In 2016, over 95 tonnes of furniture was reused by the University, with an additional 30 tonnes redeployed externally through donations and employee events.

Table 5. Total weight of waste by type and disposal method for 2015 and 2016

Disposal method	Weight of waste (tonnes) 2015	Weight of waste (tonnes) 2016	Disposal method
Reuse	119.3	125.5	Disposed directly by UoM
Recycling	1,086.9	841.5	Organisational defaults of the waste disposal contractor
Composting	30.4	204.9	Disposed directly by UoM and waste contractors
Landfill	1,498.8	1,521.7	Organisational defaults of the waste disposal contractor
Hazardous waste	30.8	28.8	Organisational defaults of the waste disposal contractor
<b>Total waste</b>	<b>2,766.1</b>	<b>2,722.5</b>	





**307,000 kg**  
of furniture diverted from  
landfill since 2012

Table 6. University Furniture Reuse Figures from June 2012 – January 2017

Pieces of furniture reused	12,467 + items
Diverted from landfill	307,000 KG
Est. savings on retail replacement	\$6.7M +

## 9.4 Water

The University of Melbourne developed a suite of initiatives in 2016 to reduce potable water consumption, including deployment of significant metering infrastructure to measure consumption at different points across campuses. The new Arts West building captures rainwater in a 40,000 litre underground rainwater tank, for reuse to irrigate adjacent garden areas and flush toilets within the building.

The University's total mains water consumption in 2016 was 468,081 kilolitres (kL), which equates to 0.53 kL per square metre of external gross floor area (m<sup>2</sup> GFA), consistent with usage per m<sup>2</sup> GFA in 2015. The University is committed to reducing its mains water usage by floor area to 0.47 kL by 2020.

In 2016, the Werribee campus used 17,282 kL of non-potable recycled water, Burnley used 638 kL of rain water and

Parkville System Garden consumed 2,500 kL of non-potable water, equating to a total non-potable water consumption of 20,420 kL for the year. Although only a small portion of the University's overall water consumption, the University is committed to increasing its capture and use of non-potable water.

The University has a continuing focus on reducing potable water consumption and increasing the use of non-potable water through activities outlined in the Sustainability Plan. These include an annual report and review of Water Management Plans for each campus, and the expected commissioning of the Parkville campus "purple pipe" network to facilitate the use of harvested water.

## 9.5 Biodiversity

A university-wide Biodiversity Management Plan (BMP) was developed in 2016. The BMP will contribute to

developing and maintaining the University's campuses as living laboratories of sustainable practice. Outcomes of the plan will include the integration of biodiversity considerations into campus design and the establishment of a 'Research Action Partnership' to incorporate ecological and biodiversity research findings. The BMP will be published by end-March 2017 and will be followed by the establishment of biodiversity baseline data for Parkville and Southbank campuses by mid-2017.

The University's first BIOBLITZ was held in March 2016 in conjunction with the City of Melbourne. This was a citizen science event open to all employees, students and community members. The photographs and data gathered have been used to create a biodiversity inventory for campus, and to inform the Sustainability Plan.



## 9.6 Supply chain impacts and sustainable procurement

The University commits to procurement activities that meet the highest standards of ethical and sustainable conduct throughout the supply chain. We purchase a wide range of essential goods and services supplied across five categories: technology, property infrastructure, construction, business services and research/teaching. These categories support our primary activities of teaching, learning and research. Our estimated annual expenditure is \$750 million. As we grow, our supply chain grows with us. In 2016 alone we engaged over 10,000 suppliers.

We are currently developing a supplier code of conduct that will be implemented by the end of 2017. This policy aims to ensure procurement is conducted in an ethical, sustainable and transparent manner, without conflicts or breaches of probity standards to ensure equity, confidentiality, and confidence in the

integrity of decision makers. Further objectives of the code of conduct are to:

- develop a higher commercial orientation
- make quality part of the procurement process
- instil appropriate risk management into procurement processes
- ensure procurement processes fulfil the University's broad social and environmental obligations set out under the Sustainability Charter and Plan
- ensure procurement processes are easy to understand, use and audit; and
- develop awareness of the University's procurement obligations and compliance with them.

We currently assess a portion of our suppliers against environmental criteria but not all. Procurement within the University is highly decentralised. The forthcoming code of conduct will address

this issue. The University applies social criteria to its selection of suppliers. For example, suppliers in contracts relating to cleaning and security must ensure payments made to employees cover minimum award rates.

The University has signed up to Supply Nation and is developing an Indigenous Procurement strategy.

### Fairtrade University

The University has been a Fairtrade University since 2012. The consumer choices we make on campus matter. By using fair trade options, we help reduce poverty and make a real difference to the lives of farmers and to communities in the developing world. Every choice matters – and we, as a community of 56,000 consumers, could make a world of difference.

To see more information on our Fairtrade journey go to **sustainablecampus.unimelb.edu.au/key-areas/fair-trade**

## UMSU Environment Office leading sustainable change on and off campus

The UMSU Environment Office took on many projects to raise awareness and facilitate action in the student body on environment and social justice issues.

Weekly sustainable vegan dinners were held, helping students learn to cook with less waste and more sustainable food and weekly movie nights showed films about environmental and social justice. Our bike co-op found a permanent space and started opening many times per

week, giving students access to tools, bike parts, old bikes from the re-use centre and knowledge. We supported the Community Garden in its events and working bees.

Many students were assisted to attend the Students of Sustainability conference in Brisbane to meet like-minded people and share skills and radical visions for the future. Enviro Week activities included workshops and events to bring students and employees together around sustainability and environmental justice, including a trivia fundraiser for Seed Indigenous Youth Climate Network. The Office supported the Fossil Free Melbourne University campaign which held many

events raising awareness about the University's investments in the fossil fuel industry.

UMSU Environment Office was very active in bringing many voices to the development of the Sustainability Plan by holding fortnightly information and discussion sessions and stalls at the farmers market. We supported the On Stolen Land discussion group to bring together students to talk about and act on the issues of living and studying on the land of the Wurundjeri people.







# 10. Supporting a sustainable workforce

## 10.1 Engaging our people

The realisation of the University's *Growing Esteem 2015-2020* strategy will be enabled by its people. The People Strategy is informed by the many challenges facing the higher education sector, and underpins *Growing Esteem*. The continued ability to lead, create and innovate, and the University's ability to attract, develop and retain teams of talented academics and professionals is critical. Transformational leadership is required to guide the University into the future and an integrated approach to developing leadership capability,

supporting individual career growth, and enabling leaders to build organisational capability and drive performance to the highest level is essential.

The University of Melbourne People Strategy 2015-2020 outlines how the University will improve our ability to attract, develop and retain the best academic and professional employees, and create an environment in which they flourish and succeed. The Diversity & Inclusion Strategy and the Indigenous Employment Framework 2014-2016 support this overarching strategy.

Key policies that enable the University to manage employment issues include the Academic Appointment Policy, Appropriate Workplace Behaviour Policy, Health & Safety Policy, and Privacy Policy. Employees are further supported with programs such as the Employee Assistance Program and the Employees Wellbeing Program.

### Students and Staff driving Sustainability Excellence on Campus

The University of Melbourne congratulates Emily Newton and Danielle Rostan-Herbert on their superb achievement of winning 2016 Australian Campus towards Sustainability (ACTS) Awards for Excellence.

Emily received the student award which is based on exceptional leadership in implementing sustainability initiatives that positively impact peers, local community or institution. Emily has been deeply involved in countless sustainability initiatives both on and off campus, including planting trees, cleaning beaches, auditing waste for her local council and the University, and organising events to promote Fair Trade and increase use of re-usable coffee cups. Currently studying the Masters of Environment program, Emily also works in the sustainability team and volunteers in the community.

Sustainability and Environmental Services Manager Danielle Rostan-Herbert received the staff award in recognition of her outstanding contribution to delivering sustainability outcomes. Danielle praised the "energy, passion and commitment" of her sustainability team. Danielle is excited

about the impact the Sustainability Plan 2017-2020 will have in providing direction and goals for the sustainability team. "The Sustainability Plan has given us a renewed focus and we can really hone in on each of our operational areas. We are coming up with new and innovative

ways about how we are going to achieve the targets." Danielle is looking forward to reenergising the Sustainability Advocates Forum and the new Green Impact Program, which offers ways for faculties and departments to be involved in the Sustainability Plan.





Table 7. Total workforce at the University of Melbourne

	Female	Male	Total
<b>By Employment Contract</b>			
Permanent	2249	1764	4013
Fixed-term contract	2033	1454	3487
Casual	2934	1997	4931
Total employees <sup>7</sup>	7216	5215	12431
<b>By Employment Type</b>			
Permanent Full-time	1698	1612	3310
Permanent Part-time	551	152	703
Total permanent workforce	2249	1764	4013
<b>By Age Group</b>			
<30	193	96	289
30-50	1410	1007	2417
50+	646	661	1307
Total permanent workforce	2249	1764	4013

Table 8. New hires and turnover

	New Hires		Turnover	
	Number	Rate	Number	Rate
Female	178	8%	182	8%
Male	116	7%	149	8%
<30	76	26%	55	19%
30-50	194	8%	168	7%
50+	24	2%	108	8%
Total	294	7%	331	8%

Table 9. Return to work and parental leave

	Female	Male
Employees entitled to parental leave	4,282	3,218
Employee who took parental leave	341	96
Employees who returned to work after parental leave ended in 2016	227	93
Employees who returned to work after parental leave ended still employed 12 months later	179	98
Return to work rate of employees who returned to work after leave ended	98%	94%
Retention rate of employees who returned to work after leave ended	91%	89%

Table 10. Type of employee benefit available to full-time employees

4 weeks Annual leave	Paid Parental leave	University Fee Discount Scheme
15 days Personal/Carer's leave	Return to Work Bonus	Special Studies Program
5 days non-cumulative Carer's leave	Cultural/Ceremonial leave	Staff Education Scheme
13 weeks Long Service Leave (available at 10 years' service)	Special leave (can be used in circumstances of domestic violence)	Infectious Disease and Quarantine leave
4 additional public holidays over and above the minimum	Redundancy entitlements well above national standard	Reduced Working Week Scheme
17.5% Annual leave loading	Salary Packaging	

7. An employee is an individual who is, according to national law or practices, recognized as an employee of the University. The term supervised workers has been removed under the GRI Standards. Supervised workers and non-employees do not perform a significant portion of the University's activities.



## 10.2 OHS

We take the health and safety of our employees very seriously. 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 Risk Register<sup>8</sup> allows us to record, identify and monitor all health and safety hazards and risks at the University. The Health and Safety Management Plan 2014-2019<sup>9</sup> and the Health and Safety Policy<sup>10</sup> require the University to provide a safe and healthy environment for the entire campus community, inclusive of contractors and visitors. We hold External Certification to AS4801 Occupational Health and Safety Management Systems, the National Self Insurers Audit Tool, and use our Annual Management Systems Review and Report to monitor and report progress against the objectives and targets outlined in the Health and Safety Plan 2014-2019. See Table 11 for our health and safety performance.

Caring for the mental health and physical health of our people is equally important to us. Internal Counselling and Psychological Services offers employees online resources and workshops throughout the year. Building resilience in the workforce through training, mentoring and providing sporting and exercise facilities allow our employees to achieve their full potential. Employees can also participate in services and training such as Identification of Students at Risk and a Staff Wellbeing Program.

## 10.3 Valuing the strength of diversity

The University of Melbourne promotes diversity because we recognise that differences in age, race, gender, ethnicity, sexual orientation, physical ability and background of our people brings richness to our work environment. Developing a more cohesive, collaborative and creative work environment through a diverse workforce will drive continued growth, organisational success and competitiveness. Creating an environment that values, supports and respects a diverse range of views, knowledge and experience is vital in achieving and

sustaining excellence and reaching the objectives of *Growing Esteem 2015-2020*.

The University of Melbourne People Strategy sets out our commitments and priority actions for diversity and inclusion, is supported by the University's Appropriate Workplace Behaviour Policy, the Reconciliation Action Plan and the Indigenous Employment Framework 2014-2016.

Our Staff Equity and Diversity Framework 2013 – 2016 and the subsequent Diversity and Inclusion Implementation Plan 2016-2020 has led to positive initiatives being developed and led within academic divisions. Recent achievements include:

- Since 2012 women have progressed from holding 23% of Level E positions (Professor or Professorial Fellow) to 29% in 2016
- Between 2010 and 2016 we almost tripled the number of Indigenous staff
- Since 2014 over 300 employees have attended Indigenous Cultural Awareness training and workshops.

Table 11. Occupational health and safety performance

Occupational Health & Safety	2016
Injury rates	16.24 per 100 FTE employees
Lost day rate	0.13 per 100 FTE employees
Absentee rate	2.11%
Work-related fatalities	0

\*Injury and lost day 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 rate.

8. [http://safety.unimelb.edu.au/\\_data/assets/word\\_doc/0003/1938036/university-of-melbourne-health-and-safety-risk-register.docx](http://safety.unimelb.edu.au/_data/assets/word_doc/0003/1938036/university-of-melbourne-health-and-safety-risk-register.docx)  
 9. [http://safety.unimelb.edu.au/\\_data/assets/pdf\\_file/0004/2220583/Health-and-safety-management-plan-2014-2019-Annual-KPIs.pdf](http://safety.unimelb.edu.au/_data/assets/pdf_file/0004/2220583/Health-and-safety-management-plan-2014-2019-Annual-KPIs.pdf)  
 10. <http://policy.unimelb.edu.au/MPF1205>



We report annually to the Workplace Gender Equality Agency (WGEA) and are proud to partner with Science in Australia Gender Equity (SAGE) in the Athena SWAN gender accreditation program in Australia to significantly increase female participation in STEMM subjects and careers.

The University has also implemented various programs, fellowships and initiatives supporting its commitments to diversity and inclusion. These include:

- The Medicine, Dentistry and Health Sciences faculty mentoring program
- Annual diversity and staff development Forums
- A Best Practice Guide: Work & Family - the links and the balance
- Academic Women in Leadership program, the Indigenous Cultural Awareness Workshops, and
- Onsite early childcare facilities to employees and students.

The University also measures its performance annually as part of the Workplace Gender Equality Agency report. The effectiveness of our approach will be able to be measured when the University applies for Bronze medal status in 2018 as part of the Athena SWAN initiative. In the interim the University is able to benchmark against other universities through participation in the program.

**Table 12. Gender and age of governance bodies and employees<sup>11</sup>**

	Council	Senior Leadership	Senior Management	Management	Non-Management Professional	Non-Management Academic
<b>Female</b>	23%	26%	38%	60%	67%	49%
<b>Male</b>	77%	74%	62%	40%	33%	51%
<b>&lt;30</b>	8%	0%	<1%	<1%	14%	6%
<b>30-50</b>	0%	13%	47%	62%	64%	65%
<b>50+</b>	92%	87%	53%	38%	22%	29%
<b>ATSI <sup>12</sup></b>	8%	0%	<1%	<1%	2%	<1%
<b>Disability <sup>13</sup></b>	0%	0%	0%	<1%	<1%	<1%

11. Categories are as follows: Council – Governing Body of the University; Senior Leadership – Vice-Chancellor and Direct Reports (one reporting level from the VC); Senior Management – Executive Directors, Pro Vice-Chancellors (two reporting levels from the VC); Management – Directors (three reporting levels from the VC)

12. Aboriginal and Torres Strait Islander (self-identified in the University's administration system)

13. Those people who have self-identified in the University's administration system as having a disability

## 10.4 Non-discrimination

The University remains committed to non-discrimination through its promotion of all aspects of equal employment opportunity, diversity and inclusion in the workplace and by providing a safe, respectful and rewarding environment free from all forms of unlawful discrimination, harassment, vilification and victimisation. The University believes that by pursuing non-discrimination throughout the organisation, we can create an environment that respects difference, values, supports and respects a diverse range of views, knowledge and experience which is vital in achieving and sustaining excellence and reaching the objectives of *Growing Esteem 2015-2020*.

The Appropriate Workplace Behaviour Policy outlines the University's approach to unlawful discrimination, and provides the mechanism for employees who wish to raise a concern or complaint about possible inappropriate behaviour, particularly unlawful discrimination, harassment, vilification and victimisation. The University is committed to eliminating unlawful discrimination using all reasonable and proportionate measures in accordance with relevant equal opportunity laws.

Employees may raise concerns and complaints with their manager or Human Resources. The raising of concerns and complaints and regular reporting through these channels of communication facilitates the University to monitor incidents, trends and the nature of issues across the organisation. Also, participation in the University's various programs, events and initiatives promoting non-discrimination enables evaluation of our approach, including through feedback from our employees. The regular review of our policies and procedures ensures that the University is able to evaluate and adjust the approach in response to matters reported and feedback from employees using the process.

In 2017-18 we will establish a University-wide staff LGBTIQ network sponsored by a senior leader to drive engagement initiatives, champion role models and visibly demonstrate organisational support for LGBTIQ people.

We proudly support special events such as International Women's Day, National Reconciliation Week and the Midsumma Pride March.

## 10.5 Privacy

The University has legal obligations to protect the information privacy of all students, employees and members of public it comes into contact with. These obligations arise from the Privacy and Data Protection Act 2014 (Vic) and the Health Records Act 2001 (Vic). The University's commitment to respecting and protecting privacy is further stated in its Privacy Policy, which encourages employees to proactively embed privacy principles and practice in everyday work. This policy applies to all employees and all areas of the University, and any person who deals with the University is entitled to expect that their personal or health information will be treated in accordance with this policy. The University's Privacy website<sup>14</sup> makes available privacy statements, resources, key contact information, training and event opportunities to the University community and general public.

14. The University received one complaint from an outside party and one complaint from a regulatory body.







# 11. Appendix: Engaging our stakeholders

The University is committed to involving our stakeholders in key decisions on sustainability. Throughout 2016, we engaged with internal and external stakeholders, representatives of student bodies, business partners, industry groups, government at all levels and community organisations. Extensive stakeholder consultation for both the Charter and Plan meant we received hundreds of pieces of feedback that were incorporated into our decision making.

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 the table below.

Stakeholder group	How we engage	Frequency	Key issues raised	Report section
Students	Student surveys	Biennial	Responsible investment	5.2
	Sustainability Advocates Forum	Ongoing	Action on climate change	5.1
	Website		Student wellbeing	7.1
	Events		Campus sustainability initiatives and engagement	7.1
Staff	Staff surveys	Ongoing	Staff engagement and wellbeing	10.1
	Sustainability Advocates Forum		Diversity and inclusion	10.3
	Website		Maintaining a sustainable campus	9.1
	Events			
Suppliers	Contractual management processes	Ongoing	Supply chain impacts	9.6
	Tender processes		Sustainable campus operations	9.1
Alumni	Email communications	Ongoing	Sustainability research and innovation	6.1
	Alumni publications		Graduate employment	7.3
	Website		Responsible investment	5.2
Governments	Meetings	Ongoing	Building a connected community	8.0
	Annual Reporting	Annual	Access to education	7.2
Industry	Contractual management processes	Ongoing	Sustainability and research innovation	6.0
	Meetings		Graduate employment	7.3
	Website			
Local communities	Events	Ongoing		
	Research			
	Website			
Prospective students	Events	Ongoing		
	Website			
Prospective staff	Events	Ongoing		
	Website			



# 12. Appendix: Material topics & boundaries

In preparation for this report, we conducted an extensive review of our material topics through the lens of the commitments and targets set out in the Charter and Plan.

Internal stakeholders including members of

the Sustainability Executive came together in December 2016 to revise and validate our material topics. Our 2016 list of material topics incorporates how the University will address climate change, how we are

considering sustainability in our campus planning and development and how we are evolving with digital innovation.

Material topic	Description	Direct or indirect involvement	Boundary	Report section
Responsible investment	By 2021, the University will have divested or be in the process of divesting from, within a reasonable period, any material holdings that do not satisfy the requirements of the University's sustainability framework (to be developed by end-2017) for managing material climate change risk.	The University has direct involvement in decisions to invest responsibly.	Inside and outside	5.2
Campus development	Initiatives include the #C16Hack, Sustainability Survey, as well as student-run events, raising awareness of sustainability causes, advocacy and fundraising on campus.	The University has direct involvement in campus development decisions and ensuring they become as sustainable and efficient as possible.	Inside and outside	9.0
Governance	Alignment of governance processes with new Sustainability Plan and Charter. This will include aligning University activities with the Plan and Charter.	The University has direct responsibility for governance structures and decision making.	Inside and outside	4.3
Sustainable campus operations	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.	The University has direct involvement in campus operations and ensuring each campus's sustainability credentials.	Inside and outside	9.0
Culture change	Using our newly released Sustainability Plan to truly embed sustainability principles in all decision making processes.	The University has direct involvement in ensuring appropriate culture across the University community.	Inside and outside	3.3
Building resilient communities	The University engages with industry, community and government to create innovative solutions to sustainability challenges. Includes Leadership for sustainability.	The University has indirect control over the resilience of the communities we operate in. However we acknowledge our role in educating and providing a strong foundation of knowledge and innovation to the community.	Inside and outside	8.0
Taking action on climate change	The University will innovate through research and technology to provide adaptation solutions to meet the climate change needs of our community.	The University has direct control of our ability to take action on climate change.	Inside and outside	5.1
Sustainability research and innovation	The University will research solutions to current and future issues related to sustainability and deliver innovation to the community through this research. The University will support our staff and students	The University has direct involvement in continued research and innovation in sustainability.	Inside and outside	6.0
Digital innovation	The University will adapt to new ways of student learning through digital disruption and innovation.	The University has direct control of its ability to innovate digitally.	Inside	6.2
Student engagement on sustainability	Initiatives include 'campus as a living laboratory' projects, integrating sustainability aspects into building design and sustainability engagement activities to create dynamic learning environments.	The University has direct responsibility for student engagement on sustainability.	Inside	7.1
Material topic	Description	Direct or indirect involvement	Boundary	Report section

## 12. Appendix: Material topics & boundaries (continued)

Supply chain and procurement	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.	The University has both direct and indirect involvement in procurement processes and decisions. Note, once a contract has been awarded the University has limited control of the operations and forward procurement practices of suppliers. The University works to encourage sustainable practices by all suppliers.	Inside and outside	9.6
Diversity and inclusion	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.	The University has direct involvement in diversity and inclusion across the university community.	Inside and outside	10.3
Graduate employment and attributes	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.	The University has direct involvement and control of graduate attributes through the development and provision of education programs.	Inside and outside	7.3
Access to education	Access to education through community partnerships with the Smith Family, the Carlton community, and the Indigenous Student Plan.	The University has direct control over access to university services and education.	Inside and outside	7.2
Communication and information sharing	Communicating the University's goals and achievements to students, and students communicating their expectations back to the University	The University has direct involvement in communication and information sharing.	Inside	3.0 Case study on Plan consultation





# 13. GRI Content Index

Please note that GRI topic specific disclosures are listed under the University of Melbourne's material topics. Where this occurs, the management approach for

the University's material topic includes the management approach for the GRI topic specific disclosure. For example, the management approach for Sustainable

Campus Operations incorporates the management approach for GRI disclosure 302-1: Energy consumption within the organisation.

GRI Standard	Disclosure	Reference or response	UNGC Principles	Sustainable Development Goals	Reference (page)
General Disclosures					
GRI 102: General Disclosures 2016	102-1 Name of the organisation	3.2 About the University of Melbourne			p.6
	102-2 Primary brands, products and services	3.2 About the University of Melbourne			
	102-3 Location of headquarters	3.2 About the University of Melbourne			
	102-4 Location of operations	3.2 About the University of Melbourne			
	102-5 Ownership and legal form	3.2 About the University of Melbourne			
	102-6 Markets served	3.2 About the University of Melbourne			
	102-7 Scale of the organisation	3.2 About the University of Melbourne. Please refer to our Annual Report for the University's net revenue.			
	102-8 Information on employees and other workers	10.1 Engaging our people University systems do not capture data by region	6. The elimination of discrimination in respect of employment and occupation		p.31
	102-9 Supply chain	9.6 Supply chain impacts and sustainable procurement			p.28
	102-10 Significant changes to the organisation and its supply chain	No significant changes in the reporting period			
	102-11 Adoption of the precautionary approach	We support the precautionary approach by taking action to reduce our environmental impacts.			
	102-12 External initiatives	4.2 Sustainability associations	10. Work against corruption in all its forms	17. Partnerships for the goals	p.10
	102-13 Memberships of associations	4.2 Sustainability associations	10. Work against corruption in all its forms	17. Partnerships for the goals	
	102-14 Statement from senior decision maker	1. A message from the Vice-Chancellor			p.3
	102-16 Values, code of conduct and code of ethics	3.3 Leadership in sustainability			p.6
	102-18 Governance structure	4. How we set the agenda			p.8
	102-40 Stakeholder groups engaged	11. Appendix: Engaging our stakeholders			p.36
	102-41 Collective bargaining agreements	10.1 Engaging our people	3. Uphold freedom of association and the right to collective bargaining		p.30
	102-42 Identifying and selecting stakeholder groups	11. Appendix: Engaging our stakeholders			p.36
	102-43 Approach to stakeholder engagement	11. Appendix: Engaging our stakeholders			
	102-44 Key topics and concerns raised	11. Appendix: Engaging our stakeholders			

# 13. GRI Content Index (continued)

GRI Standard	Disclosure	Reference or response	UNGC Principles	Sustainable Development Goals	Reference (page)
General Disclosures					
	102-45 Entities included in the consolidated financial statements	See 2016 Annual Report, Financial Statements			
	102-46 Defining report content and topic boundaries	12. Appendix: Material topics & boundaries			p.37
	102-47 List of material topics	12. Appendix: Material topics & boundaries			
	102-48 Restatements of information	There are no restatements from our 2015 Sustainability Report.			
	102-49 Changes in reporting	12. Appendix: Material topics & boundaries			
	102-50 Reporting period	3.1 About this report			p.6
	102-51 Date of most recent previous report	3.1 About this report			
	102-52 Reporting cycle	3.1 About this report			
	102-53 Contact point for questions	10.5 Privacy			p.34
	102-54 Claims of reporting in accordance with the GRI Standards	3.1 About this report			
	102-55 GRI content index	13. GRI Content Index			p.39
	102-56 External assurance	No external assurance sought			
MATERIAL TOPICS					
Responsible investment					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundaries	12. Appendix: Material topics & boundaries		13. Climate Action	p.37
	103-2 The management approach and its components	5.2 Responsible Investment			p.12
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	Refer to Financial statements in 2016 Annual Report			
	201-2 Financial implications and other risks and opportunities due to climate change	5.3 Knowing our climate risks	7. Support a precautionary approach to environmental challenges	13. Climate Action	p.13
Campus development					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundaries	12.0 Appendix: Material topics & boundaries		13. Climate Action	
	103-2 The management approach and its components	12.0 Appendix: Material topics & boundaries			p.37
	103-3 Evaluation of the management approach	5.2 Responsible Investment			
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	9.1 Campus planning and development			p.24
Governance					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundaries	12. Appendix: Material topics & boundaries			p.37
	103-2 The management approach and its components	4.3 Aligning our governance processes			p.10
	103-3 Evaluation of the management approach	This will be evaluated through the implementation of the Sustainability Plan			



# 13. GRI Content Index (continued)

GRI Standard	Disclosure	Reference or response	UNGC Principles	Sustainable Development Goals	Reference (page)
Sustainable campus operations					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundaries	12. Appendix: Material topics & boundaries		13. Climate Action	p.37
	103-2 The management approach and its components	9.2 Energy and carbon emissions 9.3 Waste 9.4 Water 9.5 Biodiversity			p.25-27
	103-3 Evaluation of the management approach	9.2 Energy and carbon emissions 9.3 Waste 9.4 Water 9.5 Biodiversity			
GRI 302: Energy 2016	302-1 Energy consumption within the organisation	9.2 Energy and carbon emissions	9. Encourage the development and diffusion of environmentally friendly technologies	7. Affordable and clean energy 12. Responsible consumption and production 13. Climate action	p.25
	302-3 Energy intensity	9.2 Energy and carbon emissions	7. Support a precautionary approach to environmental challenges	12. Responsible consumption and production 13. Climate action	
GRI 303: Water 2016	303-1 Water withdrawal by source	9.4 Water	8. Undertake initiatives to promote greater environmental responsibility	13. Climate action	p.27
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	9.2 Energy and carbon emissions	8. Undertake initiatives to promote greater environmental responsibility	7. Affordable and clean energy 13. Climate action	
	305-2 Energy indirect (Scope 2) GHG emissions	9.2 Energy and carbon emissions	8. Undertake initiatives to promote greater environmental responsibility	7. Affordable and clean energy 13. Climate action	
GRI 306: Effluents and waste 2016	306-2 Waste by type and disposal method	9.3 Waste	9.3 Encourage the development and diffusion of environmentally friendly technologies	12. Responsible consumption and production	p.26
Culture change					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundaries	12. Appendix: Material topics & boundaries			p.37
	103-2 The management approach and its components	3.3 Leadership in sustainability			p.6
	103-3 Evaluation of the management approach	3.3 Leadership in sustainability			

# 13. GRI Content Index (continued)

GRI Standard	Disclosure	Reference or response	UNGC Principles	Sustainable Development Goals	Reference (page)
Building resilient communities					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundaries	12. Appendix: Material topics & boundaries		11. Sustainable cities and communities	p.37
	103-2 The management approach and its components	8.1 How we engage local communities			p.20
	103-3 Evaluation of the management approach	8.1 How we engage local communities			
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	9.1 Campus planning and development			p.24
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments and development programs	8.1 How we engage local communities			
Taking action on climate change					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundaries	12. Appendix: Material topics & boundaries		13. Climate action	p.37
	103-2 The management approach and its components	5.1 Taking action on climate change			p.12
	103-3 Evaluation of the management approach	9.2 Energy and carbon emissions			p.25
GRI 201: Economic Performance 2016	201-2 Financial implications and other risks and opportunities due to climate change	5.3 Knowing our climate risks	7. Support a precautionary approach to environmental challenges	13. Climate Action	p.13
Sustainability research and innovation					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundaries	12. Appendix: Material topics & boundaries		11. Sustainable cities and communities	p.37
	103-2 The management approach and its components	6. Sustainability as a grand challenge			p.14
	103-3 Evaluation of the management approach	6.1 Sustainability research centres			
Digital innovation					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundaries	12. Appendix: Material topics & boundaries		9. Industry, innovation and infrastructure	p.37
	103-2 The management approach and its components	6.2 Technology enabling infrastructure			p.15
	103-3 Evaluation of the management approach	6.2 Technology enabling infrastructure			
Student engagement on sustainability					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundaries	12. Appendix: Material topics & boundaries			p.37
	103-2 The management approach and its components	7. Engaging students as future leaders			p.18
	103-3 Evaluation of the management approach	7. Engaging students as future leaders			



# 13. GRI Content Index (continued)

GRI Standard	Disclosure	Reference or response	UNGC Principles	Sustainable Development Goals	Reference (page)
Supply chain and procurement					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundaries	12. Appendix: Material topics & boundaries			p.37
	103-2 The management approach and its components	9.6 Supply chain impacts and sustainable procurement			p.28
	103-3 Evaluation of the management approach	9.6 Supply chain impacts and sustainable procurement			
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	9.6 Supply chain impacts and sustainable procurement Screening of suppliers will be addressed in the 2017 Code of Conduct			
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	9.6 Supply chain impacts and sustainable procurement Screening of suppliers will be addressed in the 2017 Code of Conduct	4. Eliminate all forms of forced or compulsory labour 5. Uphold the effective abolition of child labour		
Diversity and inclusion					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundaries	12. Appendix: Material topics & boundaries	6. The elimination of discrimination in respect of employment and occupation	5. Gender equality	p.37
	103-2 The management approach and its components	10.3 Valuing the strength of diversity			p.32
	103-3 Evaluation of the management approach	10.3 Valuing the strength of diversity			
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	10.1 Engaging our people	6. The elimination of discrimination in respect of employment and occupation	5. Gender equality	p.30
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	10.1 Engaging our people Significant location of operation is Parkville campus The University does not provide life insurance, health care, disability and invalidity coverage, retirement provision and stock ownership	6. The elimination of discrimination in respect of employment and occupation		
	401-3 Parental leave	10.1 Engaging our people	6. The elimination of discrimination in respect of employment and occupation	8. Decent work and economic growth	
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	10.3 Valuing the strength of diversity	6. The elimination of discrimination in respect of employment and occupation	5. Gender equality	p.32
Graduate employment and attributes					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundaries	12. Appendix: Material topics & boundaries			p.37
	103-2 The management approach and its components	7. Engaging students as future leaders			p.18
	103-3 Evaluation of the management approach	The University will determine an appropriate metric and report this in our Sustainability Report within 3 years			

# 13. GRI Content Index (continued)

GRI Standard	Disclosure	Reference or response	UNGC Principles	Sustainable Development Goals	Reference (page)
Access to education					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundaries	12. Appendix: Material topics & boundaries			p.37
	103-2 The management approach and its components	7.2 Equal access to education			p.19
	103-3 Evaluation of the management approach	7.2 Equal access to education			
Communication and information sharing					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundaries	12. Appendix: Material topics & boundaries			p.37
	103-2 The management approach and its components	3.3 Leadership in sustainability			p.6
	103-3 Evaluation of the management approach	3.3 Leadership in sustainability			
Occupational health and safety					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundaries	10.2 Occupational Health and Safety		8. Decent work and economic growth	p.32
	103-2 The management approach and its components	10.2 Occupational Health and Safety			
	103-3 Evaluation of the management approach	10.2 Occupational Health and Safety			
GRI 403: Occupational Health and Safety 2016	403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	10.2 Occupational Health and Safety Region and gender not recorded			
Non-Discrimination					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundaries	10.4 Non-discrimination	6. Elimination of discrimination in respect of employment and occupation		p.34
	103-2 The management approach and its components	10.4 Non-discrimination			
	103-3 Evaluation of the management approach	10.4 Non-discrimination			
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	The University will determine an appropriate metric and report this in our Sustainability Report within 3 years		8. Decent work and economic growth	
Customer Privacy					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundaries	10.5 Privacy			p.34
	103-2 The management approach and its components	10.5 Privacy			
	103-3 Evaluation of the management approach	10.5 Privacy			
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	10.5 Privacy There were no identified leaks, thefts, or losses of customer data.			



# 14. Further Information

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Document	Link
Growing Esteem	<a href="http://about.unimelb.edu.au/__data/assets/pdf_file/0006/1462065/11364-GROWING-ESTEEM-2015-FA-WEB.pdf">http://about.unimelb.edu.au/__data/assets/pdf_file/0006/1462065/11364-GROWING-ESTEEM-2015-FA-WEB.pdf</a>
University strategies	<a href="http://about.unimelb.edu.au/strategy-and-leadership">http://about.unimelb.edu.au/strategy-and-leadership</a>
Sustainability Charter	<a href="https://ourcampus.unimelb.edu.au/sustainability-plan">https://ourcampus.unimelb.edu.au/sustainability-plan</a>
Sustainability Plan 2017-2020	<a href="https://ourcampus.unimelb.edu.au/sustainability-plan">https://ourcampus.unimelb.edu.au/sustainability-plan</a>
Sustainability Report 2015	<a href="https://ourcampus.unimelb.edu.au/sustainability-plan">https://ourcampus.unimelb.edu.au/sustainability-plan</a>
Sustainable Campus	<a href="http://sustainablecampus.unimelb.edu.au/">http://sustainablecampus.unimelb.edu.au/</a>
University commitment to the Sustainable Development Goals	<a href="http://ap-unsdsn.org/regional-initiatives/sdgs/university-commitment/">http://ap-unsdsn.org/regional-initiatives/sdgs/university-commitment/</a>
The Melbourne Graduate	<a href="http://provost.unimelb.edu.au/teaching-learning/the-melbourne-graduate">http://provost.unimelb.edu.au/teaching-learning/the-melbourne-graduate</a>
Reconciliation Action Plan	<a href="http://about.unimelb.edu.au/__data/assets/pdf_file/0011/1379369/10983-MurrupBarak-RAP LAND-V4b-FINAL.pdf">http://about.unimelb.edu.au/__data/assets/pdf_file/0011/1379369/10983-MurrupBarak-RAP LAND-V4b-FINAL.pdf</a>
TAKE2	<a href="https://www.take2.vic.gov.au/">https://www.take2.vic.gov.au/</a>
Annual Report 2016	<a href="http://publications.unimelb.edu.au/docs/UoM-AR-2016.pdf">http://publications.unimelb.edu.au/docs/UoM-AR-2016.pdf</a>
Privacy Policy	<a href="http://www.unimelb.edu.au/governance/compliance/privacy">http://www.unimelb.edu.au/governance/compliance/privacy</a>









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