THE UNIVERSITY OF MELBOURNE

Sustainability Report 2021

About this report

The Sustainability Report 2021 (the Report) outlines the University of Melbourne's progress in 2021 against the targets set in the *Sustainability Plan 2017–2020* (the Plan). The reporting period covered in the Plan was completed in 2020, however, due to the operational challenges arising from the COVID-19 pandemic, it was extended to include 2021 to enable sufficient time and resources to develop the next Sustainability Plan. As many of the specific actions were completed or superseded, this Report is focused on the University's progress related specifically to the targets. The University's new *Sustainability Plan 2030* was released in May 2022.

The Global Reporting Initiative Standard (GRI Standards) and the United Nations Sustainable Development Goals (SDGs) informed the development of and disclosures within this Report. The Plan – and therefore this Report – is focused on the environmental aspects of sustainability, including the social impacts inherent in the environment. It does not emphasise aspects or issues of social sustainability. These are covered in other University strategies and policies including the Reconciliation Action Plan, the Diversity and Inclusion Strategy, and Health and Safety policies. Where applicable, the Report references other University publications and information to provide a holistic picture of the University's sustainability endeavours.

To provide feedback on this Report, please contact sustainability-2030@unimelb.edu.au

For more information about University of Melbourne sustainability, see Sustainability at Melbourne

For more information on campus sustainability, see Sustainability on Campus

Message from the Vice Chancellor
Duncan Maskell

The calendar year 2021 was a significant time for tackling sustainability at the University of Melbourne. The pandemic and consequent lockdowns seriously affected our operations, yet the overall focus on the University's collective sustainability commitments was, if anything, sharpened during this year.

The early part of the year saw the launch of our flagship Melbourne Climate Futures initiative. Under the leadership of the Melbourne Law School's Professor Jackie Peel, Melbourne Climate Futures had an immediate galvanising effect on the University's work in research, education and operations, offering us the opportunity to demonstrate global sustainability leadership as an institution in years to come.

During 2021 the University also committed to new targets for reducing our carbon footprint: to achieve carbon neutrality by 2025, and even more ambitiously, to become 'climate positive' by 2030.

The University's pre-existing operational target — to achieve zero net emissions from electricity by 2021 – was achieved.

Beyond our campuses, the Report gives numerous examples of partnerships where University people engaged directly with others in tackling sustainability challenges – such as through the Victoria Drought Resilience and Innovation Hub (see p.26).

Indeed, in our partnerships with other institutions, sustainability is increasingly a prominent focus. One example is the Melbourne Partnerships charter, signed by the University and the City of Melbourne during 2021, which has four separate objectives of major strategic significance, one of which is to tackle the climate and biodiversity emergency (see p.52).

A primary purpose of universities is to shape the next generation of leaders through outstanding education. In 2021 our efforts on this front were enhanced through the Wattle Fellowships, a new sustainability leadership development program operating across all of our faculties, whose first cohort of students began its work this year (see p.18).

Significantly for the future, the University also made substantial progress toward the development of a new sustainability plan, which will look ahead to the year 2030. The developing plan harnesses the energy and input from members of the University community who were consulted about our sustainability planning during 2021, ahead of the launch of the new Plan in the first half of 2022.

This Sustainability Report for 2021 encapsulates many of the goals, aspirations and achievements of the University community in relation to sustainability during this critical year. I commend the report to readers at the University and beyond.

Yours sincerely

DUNCAN MASKELL
Vice Chancellor,
University of Melbourne

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Get in touch online

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- sustainablecampus.unimelb.edu.au
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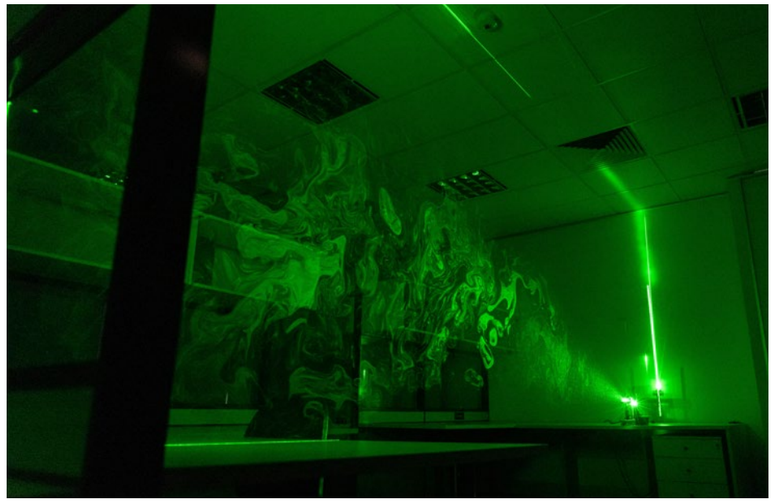
CASE STUDIES



2021 Sustainability performance at a glance

Overall

Sustainability Plan 2030

Sustainability Plan 2030 development to deliver aspirations of the University's Advancing Melbourne 2030 strategic plan.

Awards

Green Gown Awards

Our Virtual sustainability tour exploring our sustainable initiatives, services, and infrastructure, was Highly Commended at the Green Gown Awards.

ACTS Award of Excellence

Ruby Craven won the ACTS Award of Excellence – Student Award, for her contributions to sustainability as a university student.

Maurie Pawsey Award

Rachael Miller – Sustainability Officer won the Maurie Pawsey Award at the TEFMA 2021 Awards.

Mobilising knowledge

The Wattle Fellowship

This University-wide sustainability and leadership development program commenced in 2021 with its first cohort.

Joining Melbourne Module

Sustainability module embedded in discovery subjects for Commerce, Science and Biomedicine.

Sustainability and SDGs

Faculty of Business and Economics and Faculty of Engineering and Information Technology mapped subjects to sustainability and SDGs.

Engagement

CoM Partnership

Our long-standing relationship with the City of Melbourne was formalised in the Melbourne Partnerships charter, with climate and biodiversity emergency a key priority.

Walking the talk

Zero net emissions

Achieved zero net emissions from electricity.

Green Impact Program

Offered students a new, dedicated Green Impact toolkit.

Climate leadership

Carbon neutral targets

New, ambitious carbon neutral targets approved by University Council.

Melbourne Climate Futures

Melbourne Climate Futures (MCF) established to lead on the key 'global challenge' of climate change.

Signed up to Race to Zero

Signed on to participate in the global Race to Zero campaign for Universities and Colleges, reinforcing our commitment to climate action.

The University of Melbourne acknowledges the Traditional Owners of the unceded land on which we work, learn and live.

The Wurundjeri Woi Wurrung and Bunurong peoples (Burnley, Parkville, Southbank and Werribee campuses), the Yorta Yorta people (Dookie and Shepparton campuses), and the Dja Dja Wurrung people (Creswick campus).

The University also acknowledges and is grateful to the Traditional Owners, Elders and Knowledge Holders of other Indigenous nations and clans who have been instrumental in our reconciliation journey.

We recognise the unique place held by Aboriginal and Torres Strait Islander peoples as the original custodians of the lands and waterways across the Australian continent, with histories of continuous connection dating back more than 60,000 years.

We pay respect to Elders, past and present, and acknowledge the importance of Indigenous knowledge in the Academy. As a community of researchers, teachers, professional staff and students, we are privileged to work and learn every day with Indigenous colleagues across the University.

They are instrumental in our reconciliation journey and generous in providing their knowledge, leadership and support.

We acknowledge and pay respect to them, to our Aboriginal and Torres Strait Islander students, to the Traditional Owners, Elders and collaborators of the University of Melbourne, and the Aboriginal and Torres Strait Islander peoples who visit our campuses from across Australia and the world.

Introduction
About the University

The University of Melbourne was established by an Act of the Victorian Parliament in April 1853, and is now governed by a Council and Academic Board under the authority of the University of Melbourne Act 2009. The University is managed by a Vice-Chancellor and senior leadership team.

In 2021, the University community comprised 54,411 students and 9,451 staff, based at the main campus in Parkville, seven campuses throughout metropolitan Melbourne (Burnley, Hawthorn, Southbank, Werribee,) and regional Victoria (Creswick, Dookie and Shepparton), and through remote learning and working. A new campus is currently under development at Fishermans Bend on the outskirts of the Melbourne CBD.

In May 2020 the University introduced Advancing Melbourne, its strategy to reflect the University's commitment to its people, place and partners, and its aspiration to be known as a world-leading and globally connected Australian university. Advancing Melbourne also reflects the University's aspiration to be leaders for a sustainable future with students at the heart of everything it does.

Our sustainability agenda is intrinsic to the University values and principles, and spans all five Advancing Melbourne themes: Place, Community, Education, Discovery and Global.

Operating environment

Universities are enduring institutions that exist to serve society. They operate within a dynamic environment, where traditional practices are continually challenged to respond to rapid societal change and evolving expectations. In 2021, people and communities around the world experienced another challenging, pandemic-affected year, with continued impact on the way we study, work and live. Following on from the devastating bushfires of 2020, extreme rainfall on the east coast of Australia caused widespread flooding, leading the government to declare many parts of the east coast a natural disaster zone. What remains constant through these most challenging of times is the University's deep engagement with our students, staff, alumni and partners, working towards sustainable and resilient futures for our communities locally, nationally and on a global scale.

Governance

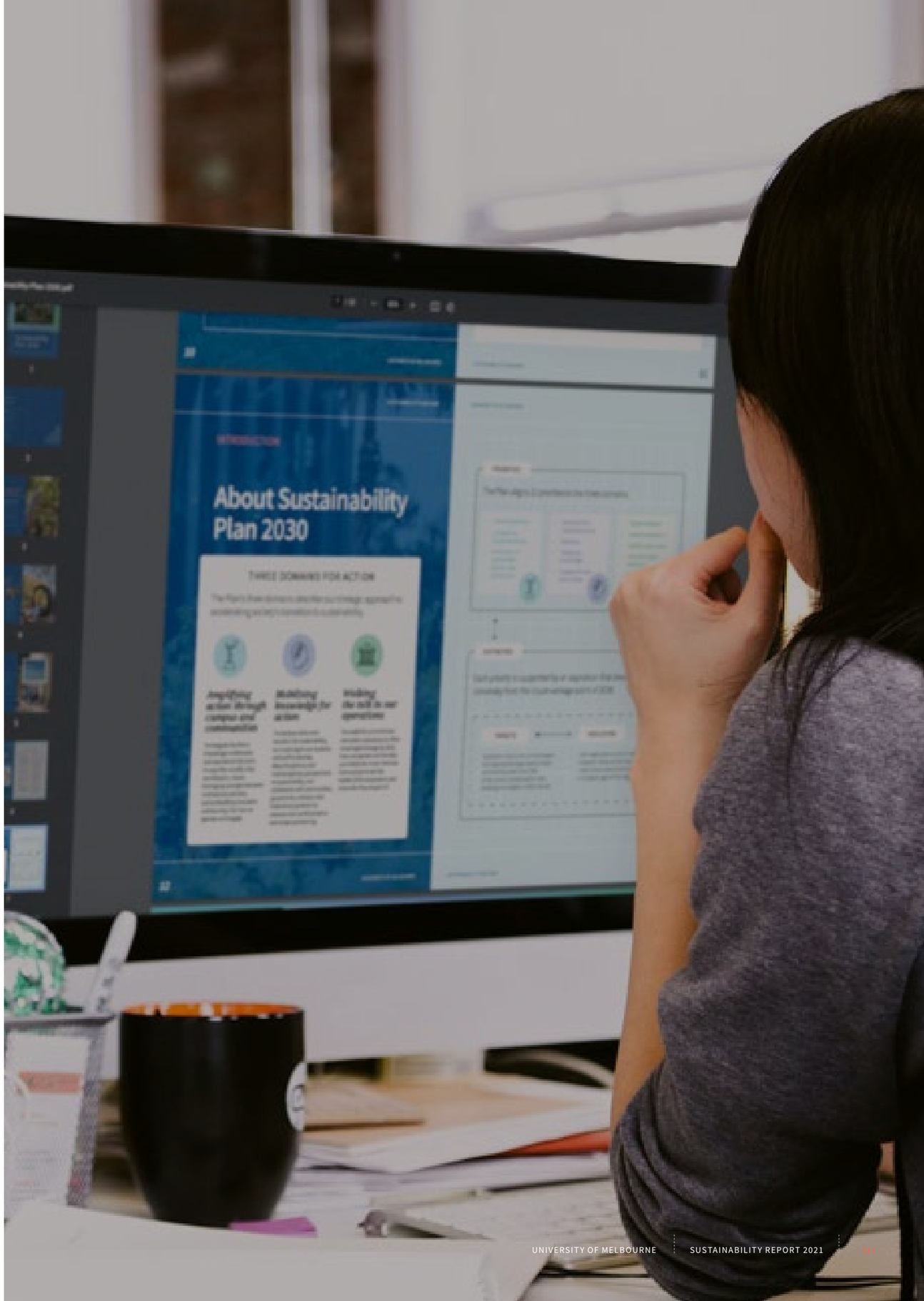
Developing a new plan

The University reaffirmed its commitment to sustainability in 2021 by progressing the development of a new Sustainability Plan.

Aspirations, targets, indicators and actions were proposed, reviewed and refined by a wide range of stakeholders through workshops, one-on-one conversations, and numerous drafts. A key part of this work was capturing lessons learnt from implementing the *Sustainability Plan 2017–2020*.

The *Sustainability Plan 2030* was approved by University Council and released in May 2022.

16 PEACE, JUSTICE AND STRONG INSTITUTIONS



Governance
Trust and values

Sustainability is integral to all the University of Melbourne activities. The supporting structure and processes are regularly reviewed to ensure best practice and alignment with the University's *Advancing Melbourne* strategy.

In 2021, as part of the development of the *Sustainability Plan 2030*, the sustainability governance structure and approach were reviewed and updated to ensure appropriate high-level support to enable achievement of *Sustainability Plan 2030* targets and aspirations.

Governance
Performance

Target	Comment
Ensure that sustainability remains enshrined at the highest level of University strategies	*Advancing Melbourne* provides the framework for the University's strategic direction to 2030. Released in 2020, *Advancing Melbourne* articulates the enduring purpose of the University as "to benefit society through the transformative impact of education and research". A commitment to Place is reflected in the aspiration to "be leaders for a sustainable future - through education and research, through our campuses and their operations, through partnerships and in the development of precincts intertwined with the city". The Vice-President (Administration & Finance) and Chief Operating Officer (COO) has overall accountability for the [sustainability] framework, including the Plan. The sustainability governance structure was reviewed during 2021 as part of Sustainability Plan 2030 development. An updated structure designed to support achievement of Sustainability Plan 2030 targets and aspirations will be implemented in 2022.
Report annually and publicly on the University's sustainability impacts and performance using global best practice standards	The University has released a Sustainability Report annually since 2015.
Uphold the principle of stakeholder inclusiveness in our reporting and decision-making processes	Extensive sustainability-related consultation with University students, staff and alumni was undertaken in 2020 and 2021, as the Sustainability Plan 2030 was developed and refined.

Governance
Responsible investment

Responsible investment refers to implementing investment strategies consistent with the University's commitment to sustainability and its financial and legal obligations. The University believes that companies which effectively manage their Environmental, Social and Governance (ESG) responsibilities should not experience any adverse impact on investment returns as a result.

During 2021, the University reviewed its overall investment model, with changes to be implemented in 2022. In addition, the University assessed its investment-related approach, commitments, targets and actions. The learnings from, and progress across, the Plan period provided the basis for development of a new responsible investment approach in the Sustainability Plan 2030.

Governance
Performance - SIF criteria

SIF performance criterion [1]	Comment
Fund Managers' performance in integrating climate change risk and opportunity into the investment process	External assessment was deferred in 2021, pending changes to the University's investment model and development of the Sustainability Plan 2030.
Listed equity carbon footprint, as measured by the weighted average carbon intensity (WACI) of the portfolio	University Management received reports of progress in the Victorian Funds Management Corporation's (VFMC) approach to climate change and alignment with the SIF during 2021.
Active Ownership activities, with a specific focus on how the Fund Manager(s) is incorporating climate change into its proxy voting and engagement activities	

Performance - Plan targets

Target summary [2]	Comment
By 2021, the University's investment portfolio will: **a)** 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 **b)** Incorporate a meaningful allocation of impact investments in the strategic asset allocation, potentially in partnership with peer organisations (SIF)	**a)** The University remains in active engagement with the Fund Manager(s) on SIF requirements. As at the end of 2021, there are no holdings in the portfolio that do not satisfy the requirements of the SIF. **b)** The impact investing framework was deferred in 2021, pending new responsible investment targets in the Sustainability Plan 2030.
Establish a separate specific investment fund where a donor wishes to stipulate (subject to certain conditions) investment parameters for their endowment that are not accommodated through the existing portfolio	No such request has been made.
Become a direct signatory to the United Nations Principles for Responsible Investment (UNPRI)	The University became a signatory to the UNPRI in 2020.

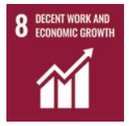
1. For the full list, please refer to the SIF
2. For details on targets and actions see *Sustainability Plan 2017-2020*, p. 37.

Core Activities
Teaching & Learning

Advancing Melbourne outlines the University's enduring purpose as benefitting society through the transformative impact of education and research.

In relation to Teaching and Learning, in 2021, the University built on previous years' progress, with academics providing significant input to development of the new Sustainability Plan.

The Sustainability Charter commits the University to teaching and learning programs that inspire and support students to be leaders for a sustainable future.



Teaching & Learning
Performance

Target	Comment
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	The University's complementary approach has continued, mapping the extent that sustainability is integrated into core and compulsory subjects, as well as integrating sustainability into curriculum. The Faculty of Business and Economics mapped subjects in the Bachelor of Commerce and Master of Management suite of degrees, and Faculty of Engineering and Information Technology deepened its 2020 work of mapping the SDGs to its subjects. In 2020, Chancellery initiated design of discovery subjects for all undergraduate students. These include six online modules, known as the Joining Melbourne modules (JMM). One JMM is sustainability which was integrated into the offerings of three faculties in 2021, for enrolments in 2022: • Sustainable Commerce (Bachelor of Commerce) • Today's Science, Tomorrow's World (Bachelor of Science) • Discovering Biomedicine (Bachelor of Biomedicine)
Increase the number of University of Melbourne graduates who can demonstrate a specialisation in environment and sustainability as defined by the National Learning and Teaching Academic Standards Statement for Environment and Sustainability, thereby contributing to their employability	Faculty of Business and Economics (FBE) introduced a new specialist undergraduate subject, Managing Sustainably (MGMT30008), which follows on from Business and Marketing Ethics (MKTG30012). At the postgraduate level, FBE introduced a new Graduate Certificate of Sustainable Business that requires students to select four subjects from six offerings. Two new subjects were created to enhance the six offerings, including Sustainable Investment (FNCE90087) and Marketing, Society and Sustainability (MKTG90049). The University continues to offer cross-disciplinary education through the Office of Environmental Programs (OEP), empowering student learning in environmental sustainability to achieve a better world. The program is University-wide with more than 200 subjects offered across nine faculties. Admissions to OEP courses have risen steadily, with almost 400 students enrolled in 2021. Complementary activities include the Wattle Fellowships – a year-long program running from June to June for a cohort of up to 20 students with a focus on leadership for global sustainability. The first cohort of students was selected in 2021 and provided access to a range of leadership development opportunities. This included training, mentorship and peer learning, and funding to complete a sustainability-focused action project.
Evidence of increased student engagement with organisations positively contributing to sustainability through work-integrated and classroom activities	Students engage with organisations, positively contributing to sustainability in a range of ways. Faculty of Business and Economics offers a number of practicum subjects at undergraduate and postgraduate levels, where teams of students work on a project with a corporate client. Approximately 40 per cent of these projects have a sustainability focus. In the Melbourne Law School, students participating in the Melbourne Law School Clinics are supervised in providing legal information to their own clients who would otherwise not have access to legal advice. In 2021, the focus was on communities potentially impacted by plastics. This was also linked with a Student Law Clinics Global Day of Action, involving law clinics from around the world. In the Faculty of Engineering and Information Technology, final year students work on projects in collaboration with industry, government, the community sector and various departments within the University. The results are showcased in the Endeavour Exhibition, which, in 2021, included projects such as: • Asahi Beverages: Container Loss Reduction • Solar powered wireless sensor node • Biodegradable concrete • Fall prevention and detection in aged care facilities.

Case Study
2021 Wattle Fellowships

The Wattle Fellowship is a University of Melbourne co-curricular leadership development program providing students with the opportunity to support action on sustainability within a supportive, multidisciplinary community. During the year-long program, students take part in program retreats, workshops and events, and receive mentoring and coaching support towards the development of their own action project.

Bringing together a diverse cohort who share a focus on solving global sustainability challenges, the program receives philanthropic support from the McCall MacBain Foundation. In 2021, the program's inaugural year, 18 students received the Wattle Fellowship and, from 2022, the program will look to accept 20 undergraduate and graduate University of Melbourne students annually.

The students come from a wide range of faculties and their projects are equally diverse.

Elizabeth Hu

Passionate about the issue of climate change and its impact on individual and human population health, Elizabeth Hu is studying for a Doctor of Medicine and completing a Diploma of Sustainable Living. Through the Wattle Fellowship, Elizabeth has developed a series of education-based videos, interactive displays, and activities to educate children and families on food and sustainability while they are waiting at general practice clinics.

Helen Shen

Studying a Master of Music (Research), Helen Shen, is combining her love of music and nature to create EnviroSound concerts, encouraging others to reflect on their relationship with nature. Helen hopes to use her musical abilities to inspire sustainable choices in everyday life.

"[The Wattle Fellowship] has inspired me, and will no doubt also inspire countless future healthcare professionals, to advocate for sustainability and preventative health, striving towards both a healthy population and system."

Elizabeth Hu,
Doctor of Medicine

"It matters to me that we start seeing ourselves as part of nature. If we become aware of this connection, we can more readily shift our perspectives to the new and creative."

Helen Shen,
Master of Music (Research)

Case Study
Environmental justice for local communities

Melbourne Law School Clinics give students an opportunity to hone their skills while contributing to the work of Melbourne Law School's community law partners.

In September 2021, Kate Fischer Doherty (Director, Melbourne Law School Clinics) and Dr Brad Jessup (Senior Lecturer and Co-ordinator, Sustainability Business Clinic) signed the Climate Justice Pledge. In so doing, Melbourne Law School Clinics (MLS Clinics) joined other student law clinics around the world in committing to raise awareness of climate change and supporting law students to contribute to climate justice. In November, MLS Clinics introduced a student life, co-curricular initiative and joined the 2021 Student Law Clinic Global Day of Action for Climate Justice.

The focus for the Global Day of Action in 2021 was plastics. Dr Jessup and his students tested the limits and possible reach of the new Victorian Environment Protection Act on behalf of what they termed Victoria's 'plastics communities': people who live in Melbourne suburbs near sites of plastics manufacture, plastic waste storage and incineration.

Their report fills an information gap and includes a five-step guide to empower 'plastics communities' to use the law to demand that businesses dealing in plastics have the risk management measures in place to prevent environmental or health disasters.

"Our environmental justice project centred on the lives of people living in culturally and linguistically diverse communities. Providing legal information, we increased their capabilities to participate in environmental governance that affects their lives. By giving students the lead in this project we also increased their skills to advocate for communities confronting environmental harm."

Kate Fischer Doherty, Director, Melbourne Law School Clinics


Synthetic statutes:

Unwrapping the new environmental duty within Victoria's plastics communities

Cite as: Miranda Aprile, Hayley Byrne, Brad Jessup, Alexander Laurence, Shuai Liu and L. M. Shirley, *Synthetic statutes: Unwrapping the new environmental duty within Victoria's plastics communities* (The University of Melbourne, December 2021)

Using the GED for environmental justice for plastics communities

STEP 1 – Identify a possible environmental or human health risk
The risk doesn't need to be likely, just possible. Pollution does not yet have to have occurred. See our discussion on 'Triggering the GED' for an explanation and examples.

STEP 2 – Find out if the business that has created the risk is taking actions to minimise the occurrence or magnitude of the risk. Have they taken action?
Examples of taking actions include: having an environmental management plan, monitoring and reporting emissions, and having systems or equipment to reduce the extent of emissions of degree of potential harm to the environment or human health.

STEP 3a – If the business is taking no action, then there is likely a breach of the duty *unless* the risk is to the environment or human health is very small or the costs of taking action would cause the business to close.
The EPA has specified a number of actions that must be taken, and not doing them may constitute a breach of the duty. We extract them in our discussion on 'Triggering the GED'.

STEP 3b – If the business is taking some actions, then you will need to identify other or more reasonable and practicable steps that the business should also be taking to minimise risks. Move onto Step 4.

STEP 4 – Can you identify an additional action from the list below that the law has said are actions that businesses should take that the business has not taken? There might be other actions you think that the business should take, but this list provides a short-cut for you.
Examples:
- management plans with measures to prevent or minimise environmental harm;
- use and upkeep of infrastructure that to monitor, prevent, or minimise harm;
- relocation or upgrade of equipment to minimise risks;
- regular monitoring and sampling of environmental quality;

STEP 5 – To argue that the action is reasonably practicable you will need to engage with the following factors. As a rule of thumb, a likely risk with high levels of harms will require more or more expensive actions to minimise risk. But even unlikely risks will require some actions.
- the likelihood of risks eventuating;
- the degree of harm that would result if those risks eventuated;
- what is known by the business about the harm or risks;
- the availability, cost and suitability of ways to eliminate or reduce those risks.

Core Activities
Research focus and impact

In 2021, Melbourne Climate Futures (MCF) and the Melbourne Centre for Cities (MCC) were established. MCF was established to lead on the key 'global challenge' of climate change, confirming sustainability as a strategic and academic priority. MCC is the evolution of the former Connected Cities Lab and focuses on the role of cities in major societal challenges.

Continuing the work of the Melbourne Sustainable Society Institute (MSSI), which closed in 2021 after 13 years, MCF and MCC undertake interdisciplinary research and knowledge mobilisation on climate change and sustainable cities.

Researchers across the University – including from institutes and initiatives such as MCF, MSSI and MCC – have continued to contribute to global sustainability work, producing a range of papers and articles that address not only the scientific aspects of climate and sustainability, but also the political, sociological and health impacts.

Research focus and impact
Performance

Targets	Comment
Equip ourselves to be a prominent actor in annual global sustainability policy development	Researchers across the University – including from institutes and initiatives such as Melbourne Climate Futures, Melbourne Sustainable Societies Institute, and Melbourne Centre for Cities – have continued to contribute to global sustainability work, producing a range of papers and articles that address not only the scientific aspects of climate and sustainability issues, but the political, sociological and health impacts. In March 2021, the University established Melbourne Climate Futures (MCF), a multi-disciplinary research initiative intended to contribute to greater action on climate change. It has led the University's climate action by harnessing diverse institutional expertise and using its convening power to work across disciplines, institutions and industries to advocate for real climate action. It empowers the next generation of researchers and students to strive for a sustainable climate future, and works alongside the University itself to ensure the institution is a world leader in decarbonisation. Malte Meinshausen, Associate Professor of the Climate and Energy College, was a lead author on the Intergovernmental Panel on Climate Change (IPCC) Working Group I contribution on the Physical Science Basis to the AR6 report, published in August 2021. The report determined that global warming of 1.5°C and 2°C will be exceeded during the 21st century unless deep reductions in carbon dioxide (CO_2) and other greenhouse gas emissions occur in the coming decades. COP26, the UN climate change conference, took place in Glasgow in November 2021, marking seven years since the signature of the Paris Agreement and an opportunity to assess and improve the progress made towards limiting global greenhouse gas emissions. A number of University researchers attended and participated in COP26 events, both in person and virtually due to COVID-19 pandemic conditions, to highlight the need for Australia to cooperate with its international counterparts and support its regional neighbours by reducing emissions. Despite the pandemic, the University research institutes and initiatives engaged with domestic and international audiences via online events, webinars and podcasts, bringing together research, policy and industry leaders for robust discussion. The Climate Talks podcast, presented by Melbourne Climate Futures and Melbourne Centre for Cities, produced monthly episodes that convened experts for discussion of a range of sustainability topics to provide context and information in the lead up to COP26.

Research focus and impact

Performance

Targets	Comment
Develop industry partnerships that emphasise our resources for sustainability research including the campus as a living laboratory	The University believes it has a responsibility to collaborate with its research partners and colleagues in the higher education sector to create a positive climate future. In November 2021, the University signed on to participate in the global Race to Zero campaign for Universities and Colleges, an official partner of the United Nations Framework Convention on Climate Change (UNFCCC) Race to Zero campaign. As such, the University reinforced its commitment to climate action alongside its higher education sector colleagues. At the time of publication, the campaign aligns 1107 higher education institutions in the race to reduce emissions to net zero. The University uses its campuses and precincts as resources from which researchers can investigate and innovate new ways to increase sustainability on campus, and in policy and industry. In April 2021, Melbourne Connect opened, bringing together world-class researchers, government, industry, subject matter experts, start-ups, higher-degree students, artists and Science Gallery Melbourne to help unlock digitally-driven, data-enabled and socially responsible sustainability solutions. Researchers continue to use the University's campuses as living labs to collaborate with industry partners and produce technology that will significantly improve sustainability worldwide. For example, Total Channel Control® (TCC)is a system for automating irrigation developed by Rubicon Water in partnership with the University of Melbourne. The partnership was trialled at the Dookie campus enabling up to 90 per cent of distributed water to reach farms, and thus saving billions of litres of water a year around the world. Research institutes and Academic Divisions across the University continue to convene industry discussions to improve sustainability outlooks. In 2021, Melbourne Climate Futures (MCF) continued the Climate Conversations webinar series, engaging with business leaders to discuss the power of industry to shift the dial on climate change.

Targets	Comment
Ensure strong research links to campus sustainability operations and planning	Academics played significant roles in the development of the University's new Sustainability Plan 2030. Staff from MCF co-ordinated development of research aspects of the new plan, while a wide range of other academics contributed their expertise across various topics within the new plan. The Sustainability Team in Campus Management engaged with student and academic researchers in three main ways in 2021: • As part of a capstone subject, data science students developed metrics for the Green Impact Program which aims to deliver knowledge and resources to the University community to encourage meaningful change at the local level. This relationship with data science students is carrying through to a biodiversity dashboard project in 2022. • The team acted as the 'client' for students, presenting problems that the students then solved in Geography (Semester 1), Sustainability breadth subject (Semester 1) and Master of Environment (Semester 2). • Collaborating with biodiversity academics on collating biodiversity metrics and data capture.
Communicate University sustainability research knowledge to the broader community	The launch of Melbourne Climate Futures (MCF) in March 2021 created a 'front door' through which University stakeholders could access the full breadth of Melbourne sustainability research and expertise. MCF provides a portal to research papers, events, news and opinion articles, and multimedia that provides the latest climate information. In 2021, MCF published over 50 news stories, as well as a full eight-episode season of the Climate Talks podcast. In addition, the University enhanced its climate and sustainability coverage by launching Melbourne Climate Hub. In 2021, the hub published 84 articles on climate research and commercialisation, demonstrating the University's climate research capabilities, research collaborations, and opportunities for further development. COP26 was a major opportunity to communicate University expertise to the global community. The University developed a strategic communication plan, resulting in a significant output of events, articles and media engagement between October and November 2021. In 2021, 61 sustainability-related stories were published on Pursuit and 29 were released on the University Newsroom website.

Case Study

Research and collaboration for more sustainable and resilient agriculture and rural communities

The Faculty of Veterinary and Agricultural Sciences is leading collaborative research in the field of agriculture and sustainability and, in 2021, launched two transformative hub projects in the field of agriculture for the wider rural community.

Victoria Drought Resilience Adoption and Innovation Hub

The Victoria Drought Resilience Adoption and Innovation hub, led from the University of Melbourne's Dookie Campus, addresses issues of drought-related preparedness, environmental resilience, food security, and economic sustainability.

A key feature of the hub project is a collaborative and multidisciplinary approach to drought resilience through co-designed and co-governed research and innovation. Through a multi-faceted partnership, the Victoria Hub will translate research into impactful outcomes and support testing, adoption and commercialisation of technologies.

Receiving $8 million in funding over four years through the Future Drought Fund, the hub brings together partners from government, industry and the wider university sector. This includes Agriculture Victoria, Birchip Cropping Group, Food & Fibre Gippsland, Mallee Regional Innovation Centre, Riverine Plains, and Southern Farming Systems, together with Deakin University, Federation University, and La Trobe University.

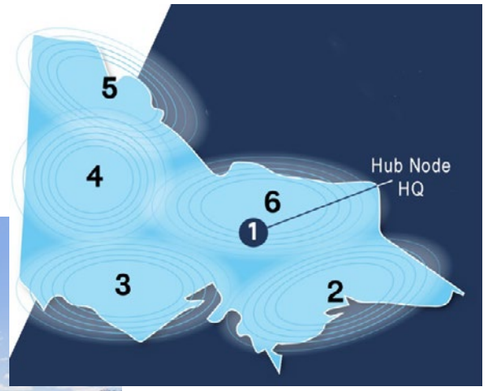
Australian Research Council (ARC) Hub for Smart Fertilisers

The ARC Hub for Smart Fertilisers established at the University of Melbourne Parkville campus. Essential to modern agriculture, the work undertaken by the hub will develop a new class of fertiliser, reducing cost burden to farmers and the environmental impacts of productive agriculture.

The project will take a multidisciplinary approach, bringing together plant and soil science, and chemistry and chemical engineering to develop new biochemical inhibitors and 'smart fertilisers', potentially increasing the efficiency of nitrogen fertilisers by up to 20 per cent.
Additionally, the Hub will develop evidence-based estimates of the environmental and health costs of nitrogen loss, and any social benefits from the new fertilisers to inform government policy, industry and the community.

The project will contribute significant value to the $67 billion Australian agriculture and agribusiness sector and bring together researchers from the University of Melbourne's Faculty of Engineering and Information Technology, Faculty of Science, Faculty of Veterinary and Agricultural Sciences, as well as from La Trobe University and industry partners.

Image
FVAS Dean Prof John Fazakerley with representatives from Agriculture Victoria, Birchip Cropping Group, Food & Fibre Gippsland, Mallee Regional Innovation Centre, Riverine Plains, and Southern Farming Systems, together with Deakin University, Federation University, and La Trobe University.



Case Study
Research for responsible business

The Faculty of Business and Economics (FBE) and the Melbourne Business School (MBSL) recognise and embrace their responsibility to address the big challenges of our time. FBE and MBSL's joint mission is to enable individuals and organisations to be global leaders through the creation, application and dissemination of business and economics knowledge. This is exemplified by FBE and MBSL signing up to the UN Principles for Responsible Management Education (PRME) in 2019. It was the first action of the Joint Ethics, Responsibility and Sustainability (ERS) Strategy and was embedded through the work of the Joint ERS Committee. In 2021, the inaugural Sharing Information on Progress (SIP) report was released. This report won the 'Excellence in Reporting – First Time Reporters' award, presented at the 2022 UN PRME Global Forum.

PRME principles embedded in research at FBE include the mapping of research activities to the Sustainable Development Goals (SDGs).

Principle 4 of the PRME Compact relates to Research: We will engage in conceptual and empirical research that advances our understanding about the role, dynamics, and impact of corporations in the creation of sustainable social, environmental and economic value.

A revised FBE research strategy was delivered in August 2021 with the vision to be "a contemporary and relevant provider of high-quality research that contributes to a prosperous, equitable and sustainable society, through engaging with the business public sector to address societal problems and inform policy, with a strong commitment to ERS." This expressly aligns research priorities to the SDGs and ERS more broadly, including the introduction of related internal research funding criteria. FBE and MBSL are developing a robust methodology for capturing and benchmarking grants and research outputs to SDGs and will report on this in the next SIP report.

Through PRME, MBSL and FBE undertook an initial benchmarking survey on research and other activities across teaching, leadership and service. The alignment of these activities to the SDGs, and the contributions that faculties make, are evidenced in the heat map on the next page.

The heatmap reflects FBE and MBSL's research-intensive focus, as well as research themes of Corporate Governance and Leadership (SDG17), Health and Wellbeing (for FBE and MBSL encompassing SDG3, SDG5 and SDG10), and Decision Making in Markets (feeding into SDG12).

PRME Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Purpose	5	1	3	2	11	0	4	2	2	11	7	9	6	1	0	4	20	88
Values	0	0	1	1	0	0	2	0	0	8	6	5	0	0	1	0	5	29
Method	5	1	2	1	1	3	0	13	9	8	0	18	2	0	0	4	26	93
Research	21	4	29	13	25	5	1	7	15	30	5	11	10	0	3	8	13	200
Partnerships	0	0	0	5	0	0	0	1	0	0	1	1	3	0	1	0	8	20
Dialogue	3	0	8	1	6	0	1	5	0	5	0	3	2	0	1	1	23	59
	34	6	43	23	43	8	8	28	26	62	19	47	23	1	6	17	95	489

Image
Faculty of Business and Economics, the University of Melbourne.

Campuses
Built environment and landscape

The commitment to Place in *Advancing Melbourne* is reflected in the aspiration to be a leader for a sustainable future through the University's campuses and their operations.

Climate adaptation and resilience
Performance

Targets	Comment
Develop and implement Climate Adaptation Plans for each University campus by 2020	At project and precinct level, climate adaptation plans have been incorporated in all major infrastructure developments. Climate adaptation plans have been completed for Parkville and Fishermans Bend campuses. Climate risk screening has been completed for Burnley, Creswick, Dookie and Werribee campuses. A 2021 focus was to better integrate climate change resilience into the University's activities, and capture its effectiveness in appropriate targets and indicators in the Sustainability Plan 2030.

Buildings
Performance

Targets	Comment
Achieve Green Star Communities accreditation for the Parkville campus by mid-2017	Achieved a 6-Star rating (5-Star rating initially targeted).
Maintain minimum 5-Star Green Star 'Design and As Built' rating (or equivalent) for all new buildings, achieving a minimum 6-Star or equivalent by 2020	Melbourne Connect opened in 2021 and is currently finalising its Green Star assessments. Note that procurement for this project started before implementation of the Sustainability Plan 2017–2020, with the project brief requiring a 6-Star Design & As-built rating for the commercial building, and a minimum 5-Star rating for the student accommodation building. The New Student Precinct project opened two buildings in 2021 – the refurbished 1888 Building and the ERC Building – both designed and constructed based on sustainability principles consistent with the rest of the precinct. Construction continued on the remainder of the precinct despite COVID-related disruptions, including on the Student Pavilion and Arts and Cultural building, which are aiming for Green Star 6-Star Design & As-built certification.

Biodiversity
Performance

Target	Comment
Publish a University-wide Biodiversity Management Plan by March 2017	Plan published in March 2017.
Establish biodiversity baseline data for Parkville and Southbank campuses by mid-2017	Biodiversity baseline data collection for all campuses began in late 2019. Work progressed across all campuses and metrics, with Burnley campus being a significant focus for 2021. New dashboards were developed, and a number of workshops were held with academics. The project is now 51 per cent complete. (See Figure 1 for completion by campus, and Figure 2 for completion by metric). Full campus data available on Sustainable Campus website.
Establish biodiversity baseline data for the remaining campuses by end-2018	See above.
Complete campus-specific plans and commence implementation by the end of 2020	Campus-specific plans have not been drafted. The 2017–2020 Biodiversity Management Plan was reviewed in 2021 and drafting will commence on a new campus-specific plan for 2022–2025.

Biodiversity baseline data

Figure 1 - progress by campus

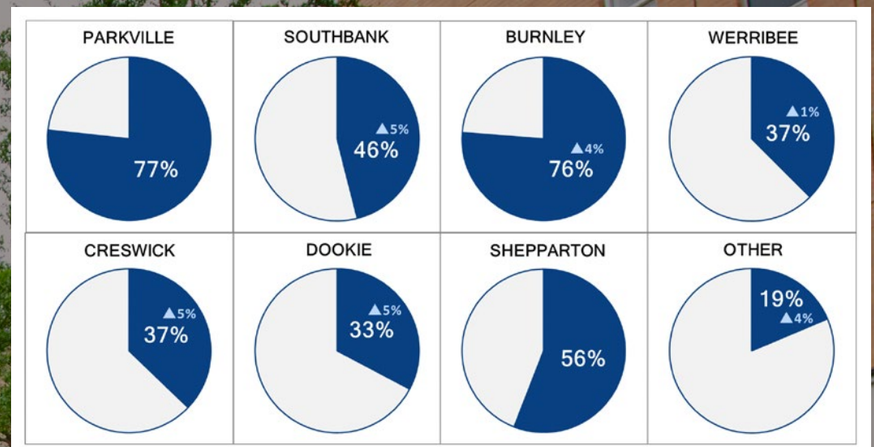
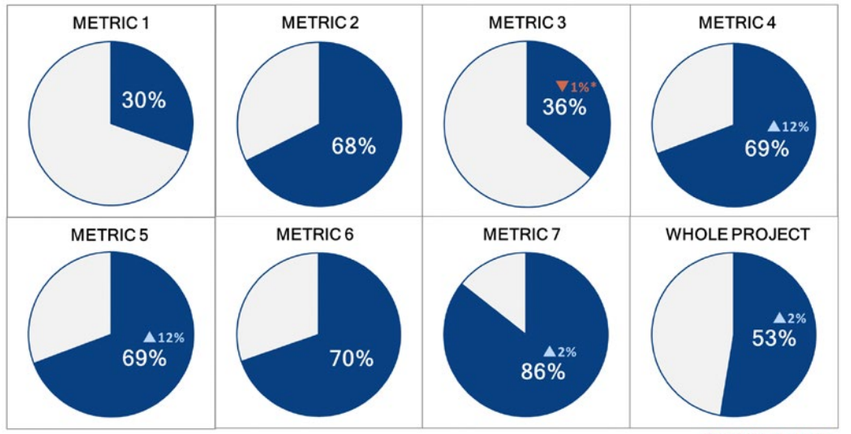


Figure 2 - progress by metric



*rescoped required works

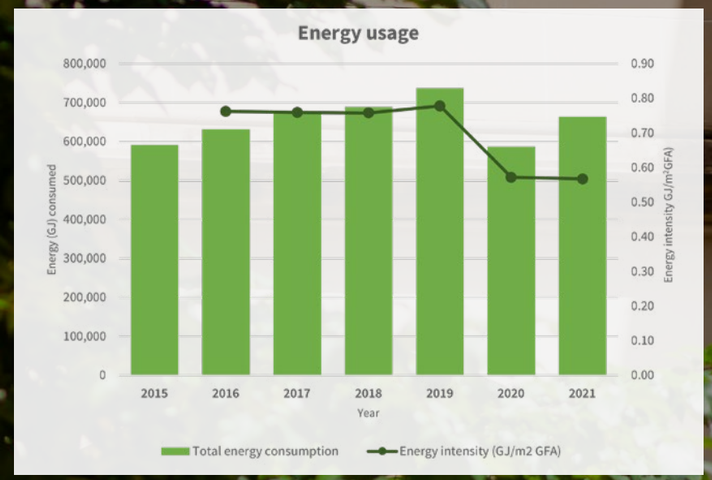
METRICS

1. PLANTABLE AREA
2. SPECIAL HABITAT
3. NUMBER OF PLANT SPECIES
4. NUMBER OF TREES
5. NUMBER OF TREE SPECIES
6. TREE CANOPY COVER
7. NUMBER OF FAUNA AND FUNGI

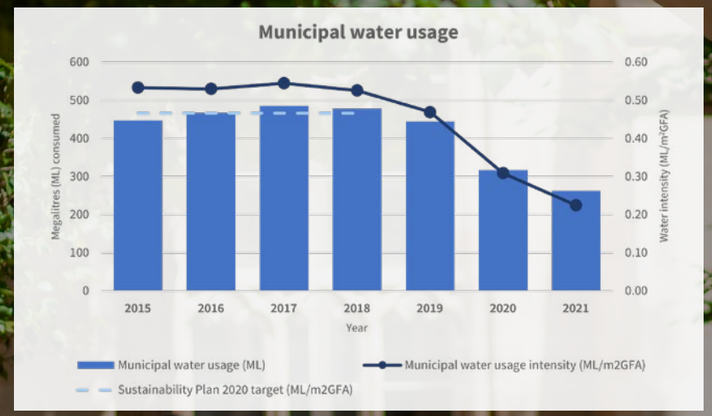
The Campus
Resource use in operations

In 2020, the move to a virtual campus for much of the year due to the COVID-19 pandemic resulted in a significant reduction in resource use.

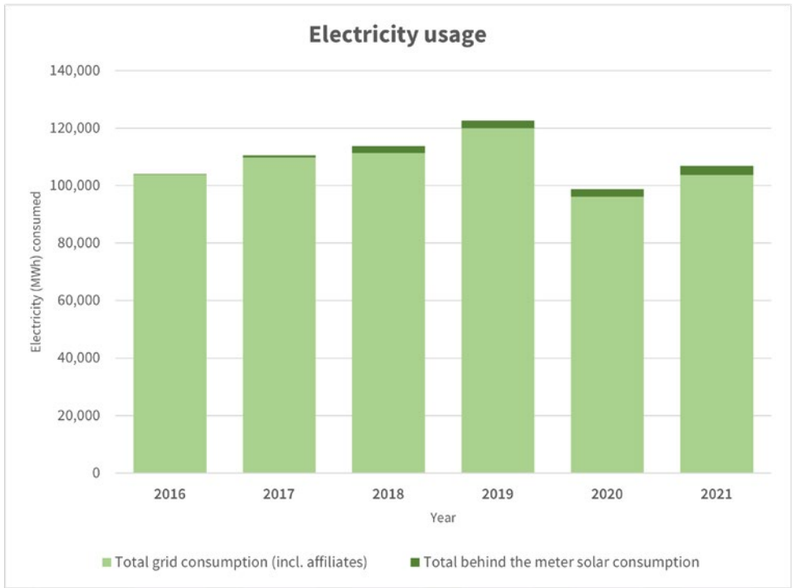
As staff and students return to campuses, resource use is expected to increase relative to 2020 levels. Nonetheless, the University remains fully committed to sustainable operational practices and the minimisation of resource use across all campuses and activities.



Note: energy includes electricity, natural gas, LPG and steam



Note: waste intensity is based on total staff ETF and student EFTSL



In 2021, the University achieved its target of zero net emissions from electricity. Total electricity consumption, including affiliates, of 106 GWh was an increase on 2020's result of 98 GWh, (again below pre-pandemic levels). To date, the University has renewable energy Power Purchase Agreements (PPAs) with the Murra Warra Wind Farm (MMWF) and Melbourne Renewable Energy Project (MREP)[3], and has installed 10,000 solar panels at more than 38 locations across our campuses. Our PPAs generated 77 GWh of renewable electricity in 2021.

The University's energy intensity was 0.57 GJ/m^2 GFA, unchanged from 2020 and significantly below the pre-pandemic level of 0.78 GJ/m^2 GFA in 2019. This reduction is largely due to the impact of COVID-19 and the measures taken by the University during the pandemic to minimise energy use while staff and students were not on campus.

Overall, net carbon emissions dropped to 37,512 tCO2-e in 2021, a 73 per cent reduction from 2020 net carbon emissions, primarily as a result of achieving the University's zero net emissions from electricity targets. Emissions from flights and the University fleet continued to be offset. Emissions across most categories continued at reduced levels relative to 2019, due to reduced resource use, business travel and campus utilisation. As the University returns to 'business as usual' in 2022, it is expected that gross emissions, particularly from energy use and business travel, will increase towards pre-pandemic levels.

3 https://sustainablecampus.unimelb.edu.au/energy/off-campus

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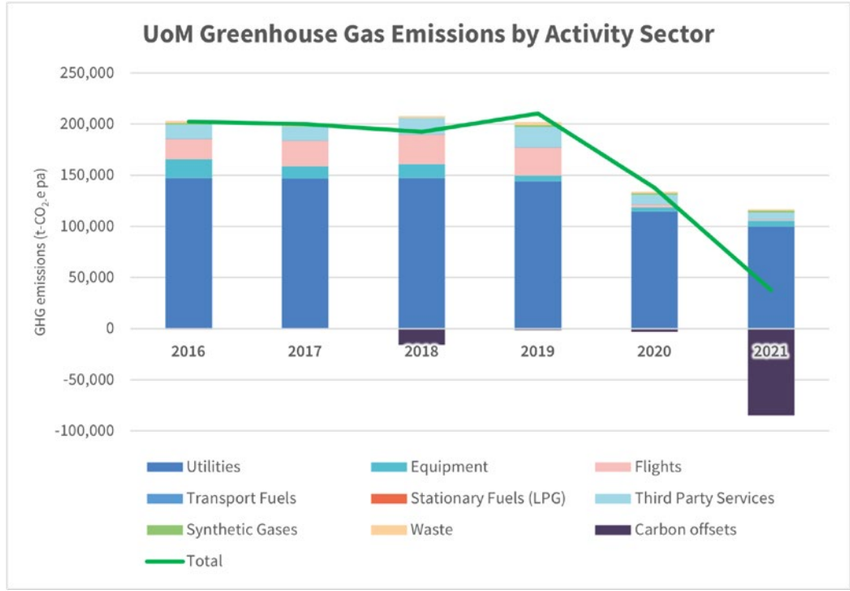


Table 1 - 2021 greenhouse gas inventory

Operational Boundary	Associated Inventory/Service	2016 (tCO_2-e)	2017 (tCO_2-e)	2018 (tCO_2-e)	2019 (tCO_2-e)	2020 (tCO_2-e)	2021 (tCO_2-e)
Scope 1	Natural Gas, Transport Fuels, Stationary Fuels	15,872	15,197	14,743	17,532	13,111	15,877
Scope 2 & 3 (electricity only)	Purchased Electricity (affiliates included from 2019, market based method used from 2021)	130,546	129,491	130,245	134,370	104,792	83,276
Scope 3 (excl electricity)	Equipment, Flights, Third Party Services, Employee commuting/ working from home, Off-site Waste Disposal, Fuel Extraction, Production & Distribution losses, Other Utilities	56,704	55,363	62,986	59,894	22,969	23,137
	Gross Total	203,422	200,050	207,975	211,794	140,871	122,290
Offsets	Other offsets (to fully offset fleet emissions and offset 50% of flight emissions in 2018, 100% of flight emissions from 2020, and balance of electricity emissions from 2021)	-765	—	-15,748	-1,710	-3,136	-84,778
Net total (1, 2 & 3)		202,657	200,050	192,227	210,084	137,735	37,512
Emissions Intensity	(gross tCo_2-e/ m^2 ext GFA)	0.23	0.22	0.23	0.22	0.14	0.10

Energy, carbon, waste and water
Performance

Target	Comment
Achieve carbon neutrality before 2030	In 2021, the University reinforced its commitment to carbon neutrality, bringing forward and enhancing previously agreed objectives with new targets: • Certified carbon neutrality by 2025 • Achievement of climate positive status by 2030. These targets form the centrepiece of the Sustainability Plan 2030. In 2021, the University initiated a project to assess potential long-term pathways for transition from natural gas for heating and hot water, to renewable electricity infrastructure, such as heat pumps. This project will be ongoing in 2022.
Achieve zero net emissions from electricity by 2021	The University has achieved zero net emissions from electricity through retiring Large scale Generation Certificates (LGCs) generated by renewable energy Power Purchase Agreements (PPAs) and purchasing carbon offsets (see Table 3).
Reduce electricity demand by 18,350 megawatt hours per year by 2020 through on-campus energy projects	The Clean Energy Finance Corporation (CEFC) projects are continuing to deliver electricity savings of 3 GWh per annum. The Smart Campus Energy Upgrades (SCEU) program was scaled back in both 2020 and 2021 due to the COVID-19 pandemic. In 2021, the SCEU committed capital to the installation of rooftop solar across three buildings, with the systems expected to generate approximately 283 MWh per annum. The SCEU also committed capital to a chiller upgrade and HVAC optimisation project for a seven-building heating and cooling precinct. The project is expected to generate energy savings of 3200 MWh per annum. Throughout 2022, the SCEU will scope new projects across the program's ten technology workstreams: • LED and IOT lighting • Chiller upgrades and building optimisation • Solar PV (rooftop, ground mount and vertical facades) • Anaerobic waste digestion • Electrification • Demand matching • Energy storage • Outside air recalibration • Fume cupboards and heat recovery • Building envelope improvements.
Reduce mains water usage by floor area by 12% from 2015 baseline by 2020	Water consumption across the University reduced by approximately 15 per cent in 2021, in part due to the continued impact of significantly fewer staff and students on campus. This corresponds to a reduction of 58 per cent from the 2015 baseline. The University is continuing to focus on reducing water intensity within new infrastructure and developing water harvesting and reuse projects. Water reduction technologies will continue to be prioritised and implemented in new and refurbished buildings.
Reduce waste to landfill to 20kg per person by 2020	Waste to landfill continued at reduced levels, with 13.1kg of waste to landfill per person (across all staff and students) over 2021. This result was achieved largely due to the impact of the COVID-19 lockdowns and significant reduction in the number of staff and students on campus. In 2021, the University's furniture and equipment reuse program saw 68 tonnes of potential landfill reused, saving $1.5 million. The Choose to Reuse program resulted in 58,000 items of reusable crockery and cutlery used and washed, saving 17 tonnes of waste from landfill.

7 The original Plan target to reduce emissions by 20,000 tCO_2-e per year was updated to reflect the equivalent energy reduction.

Supply chain and procurement
Performance

Target	Comment
Develop and implement a Supplier Code of Conduct together with Social Procurement Framework and response to Modern Slavery	Supplier Code of Conduct was developed and made available on external-facing website for all suppliers to review. Social Procurement Framework was developed in 2019 and sets out a five-year spend target.
Achieve commitments under the University's Fairtrade certification	In 2018 the University moved to 100 percent Fairtrade kitchen consumables.

Case Study

Net zero emissions from electricity in 2021

The University has made a commitment to achieving carbon neutrality by 2025, certified by Climate Active under the Carbon Neutral Standard. Climate Active is a partnership between the Australian Government and Australian businesses to drive voluntary climate action. To become carbon neutral, an organisation must measure its greenhouse gas emissions (Scopes 1, 2 and 3[4]), reduce these emissions where possible, and offset the remaining emissions using Climate Active eligible offsets.

There are two international best-practice methods for calculating electricity emissions[5]. The location-based method shows a business's electricity emissions in the context of its location. The market-based method shows a business's electricity emissions in the context of electricity purchases. Climate Active members must report their emissions from electricity under both methods and choose one method as primary to determine the offsets required to reach carbon neutrality. In preparation for achieving Climate Active carbon neutral certification by 2025, the University used the Climate Active electricity accounting method to calculate and report emissions for 2021 using both methods.

The market-based method "reports emissions according to a business's investments in different electricity products and markets, including from voluntary purchases of renewable electricity and mandatory schemes like the Renewable Energy Target" . This is the University's primary method for determining reported carbon emissions from electricity (see Table 2). The University has selected this method as most appropriate because it allows for the retirement of Large-scale Generation Certificates (LGCs), including under Power Purchase Agreements (PPAs) such as its Murra Warra and MREP agreements. Under the location-based method, LGCs from PPAs cannot be used to make zero-emissions claims.

Total Scope 2 and 3 emissions from electricity, including University affiliates, was 83,276 tCO2-e. As a comparison, Table 3 shows University emissions from electricity using Climate Active's location-based method. These calculated emissions are higher due to the University's location in Victoria, which has a high percentage of coal-generated electricity. The market-based method uses a national approach.

The University achieved zero net emissions from electricity by reducing emissions through SCEU projects, retiring LGCs from PPAs, and purchasing carbon offsets that are eligible under the Climate Active Carbon Neutral Standard[7]. Eligible offset units must meet integrity requirements under the Standard to ensure they represent genuine abatement. The credibility of publicly available offset units is regularly reviewed by the Australian Government.[8] The offset units selected by the University represent a combination of Australian forest regeneration and biodiversity projects, as well as local and international renewable energy, including hydropower and biomass/biogas to energy projects (see Table 4).

4 Scope 1: direct emissions from sources controlled by the University; Scope 2: indirect emissions from the generation of purchased energy eg. electricity; Scope 3: indirect emissions that occur in the value chain, as a consequence of the University's activities
5,6 www.climateactive.org.au/sites/default/files/2021-04/Climate Active Electricity Accounting.pdf

University of Melbourne

Table 2: 2021 carbon emissions from electricity (market-based method)

Market-based method	Activity data (MWh)	Emissions (tCO_2-e)	Renewable (%)
Large Scale Renewable Energy Target (applied to grid electricity only)	19,548	–	18.3%
Greenpower	–	–	0.0%
Retired LGCs	2,141	–	2.0%
Behind the meter (small-scale renewables)	1,349	–	1.3%
Remaining electricity consumption (grid + large scale renewables[9])	83,749	83,276	0.0%
Total gross electricity consumed	**106,787**	**83,276**	**21.6%**
Exported electricity	–	–	
Total net electricity	**106,787**	**83,276**	**21.6%**
Market-based emission footprint (tCO_2-e, scope 2 & 3)		**83,276**	

Table 3: 2021 calculated carbon emissions from electricity using the location-based method

Location-based method	Activity data (MWh)	Emissions (tCO_2-e)
Grid + large scale renewables electricity consumption[10]	105,438	106,492
Behind the meter (small-scale renewables)	1,349	–
Total gross electricity consumed	**106,787**	**106,492**
Location-based emission footprint (tCO_2-e, scope 2 & 3)		**106,492**

Table 4: Summary of carbon offsets purchased to offset electricity emissions[11]

Description –carbon offset project	Standard	Location	Offsets (tCO_2-e offset)
Paroo River Native Forest Regeneration	ACCU	Australia	5,000
Eco Australia biodiversity and carbon credit: Australian biodiversity units and Chinese hydropower and biogas units	ABU + GS	Australia (Victoria) and China	33,405
Siam Cement Group biomass to energy	VCS	Thailand	19,500
Victorian biogas to energy projects	ACCU	Australia (Victoria)	10,462
Hydropower Indonesia	VCS	Indonesia	12,024
Biomass power generation China	VCS	China	2,886
		TOTAL	83,276

7 See p. 46 of the Climate Active Carbon Neutral Standard for a list of eligible offsets. https://www.industry.gov.au/sites/default/files/2020-07/climate-active-carbon-neutral-standard-organisations.pdf
8 https://www.climateactive.org.au/be-climate-active/faqs#:~:text=Eligible%20offset%20units%20must%20meet,positive%20environmental%20or%20social%20benefits
9 Large scale renewables in this context refers to the University's solar installations which are >100kW in size and hence eligible for LGCs
10 Large scale renewables in this context refers to the University's solar installations which are >100kW in size and hence eligible for LGCs
11 ACCU = Australian Carbon Credit Unit; ABU = Australian Biodiversity Unit; GS = Gold Standard; VCS = Verified Carbon Standard

The Campus
Travel and transport

Performance

Target	Comment
Complete a Sustainable Transport Strategy for all University campuses by end-2017	No further activity was undertaken on a sustainable transport strategy. Transport to campus was not a priority during 2021 given the lockdowns and directions to work and study from home.
Offset staff air travel emissions – 50% by 2018, 100% by 2020	Climate Active accredited carbon offsets were purchased to offset the University's total 2021 staff air travel emissions (883 tonnes).
Reduce air travel emissions per staff member by 5 to 10% for international, 10% for domestic by 2020	In 2021, air travel emissions were less than 10 per cent of 2019 levels, due to COVID-related travel restrictions.
Reduce fuel emissions from fleet vehicles by 25% from the 2015 baseline by 2020	Emissions from fleet vehicles was 263 tCO2-e in 2021, a 56 per cent reduction on 2015 baseline.
Offset 100% of remaining fleet emissions annually	619 tCO_2-e was offset for 2020/21 financial year by Greenfleet.12
Reduce the University's car fleet by 20% from 2015 baseline by 2020	The University's car fleet was reduced to 139 vehicles at the end of 2020. This is a 25% reduction on the 2015 baseline.
Replace 10% of University car parking spaces with bicycle parking by 2018	This target was achieved in 2019.

Case Study
Understanding and responding to student food insecurity

Food insecurity has been a long-standing issue for students, along with the cost of tuition and living expenses, limited eligibility for government income support, and the privatisation of food provision on university campuses. COVID-19 accentuated these issues. To amplify awareness of the issue, University researchers have been working on a project to understand food insecurity among students. This research was funded by a University of Melbourne Student Services Amenities Fee Grant and supported by the Social Science Research Council and Melbourne Social Equity Institute.

The research showed that many students at the University of Melbourne currently experience food insecurity, and this is especially evident among international students.

Some students reported having to skip meals. More commonly, students reported having to compromise the diversity and nutritional quality of their diets because of a lack of money, time and information.

While for some international students, COVID-19 exacerbated food insecurity, others reported that the pandemic actually made it easier to access food, because of food relief measures introduced.

Programs initiated by the University during the COVID-19 pandemic to combat student food insecurity:

- Student Fresh Box, containing 5kgs – or a week's supply – of fresh, locally sourced fruit and vegetables.
- SecondBite frozen meals, providing free meals to students in need across Parkville (2021) and Southbank (2022), in partnership with not-for-profit organisation, SecondBite.

Between May and December 2021, the University provided students at Parkville campus with 4,523 Student Fresh Boxes, an average of 141 boxes per week. Between March and December 2021, 27,319 food packs were distributed to in-need members of the University community, an average of 700 meals per week.

Demand for both services have seen an increase in 2022, with an average of 211 Student Fresh Boxes delivered per week, and an average of 1,530 SecondBite meals supplied per week.

University of Melbourne

Images
SecondBite visit at Parkville campus along with guests Matt Preston and Victorian Minister Martin Pakula to distribute food to students.

Case Study

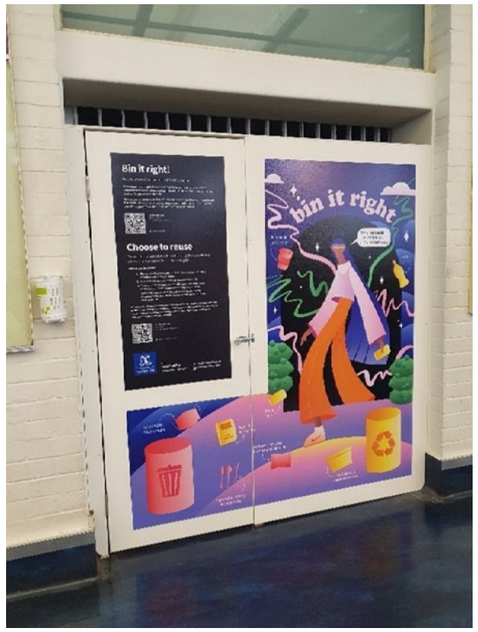
Using student murals for sustainability engagement

As part of relocating the University of Melbourne's food and retail centre to the New Student Precinct, the first half of 2021 saw several retail outlets in Union House close. The installation of hoarding around those tenancies presented the Sustainability team with a blank canvas and a unique opportunity to engage with the student community on the topic of sustainability.

The Sustainability Mural Competition was launched, providing four student entrants with the opportunity to create and showcase a sustainability-inspired mural in Union House.

Participants were selected based on a submitted folio of work, and subsequently asked to create artwork based on one of four sustainability themes including: biodiversity on campus, correct recycling habits, use of the Choose to Reuse Plate Program, and the negative impacts of disposable coffee cups.

Kiara Allis, *Bin it right*



Monica Yu, *Choose to Reuse*

Alice Coates, *Biodiversity on campus*

Timothy Hiew, *Coffee without Consequences*

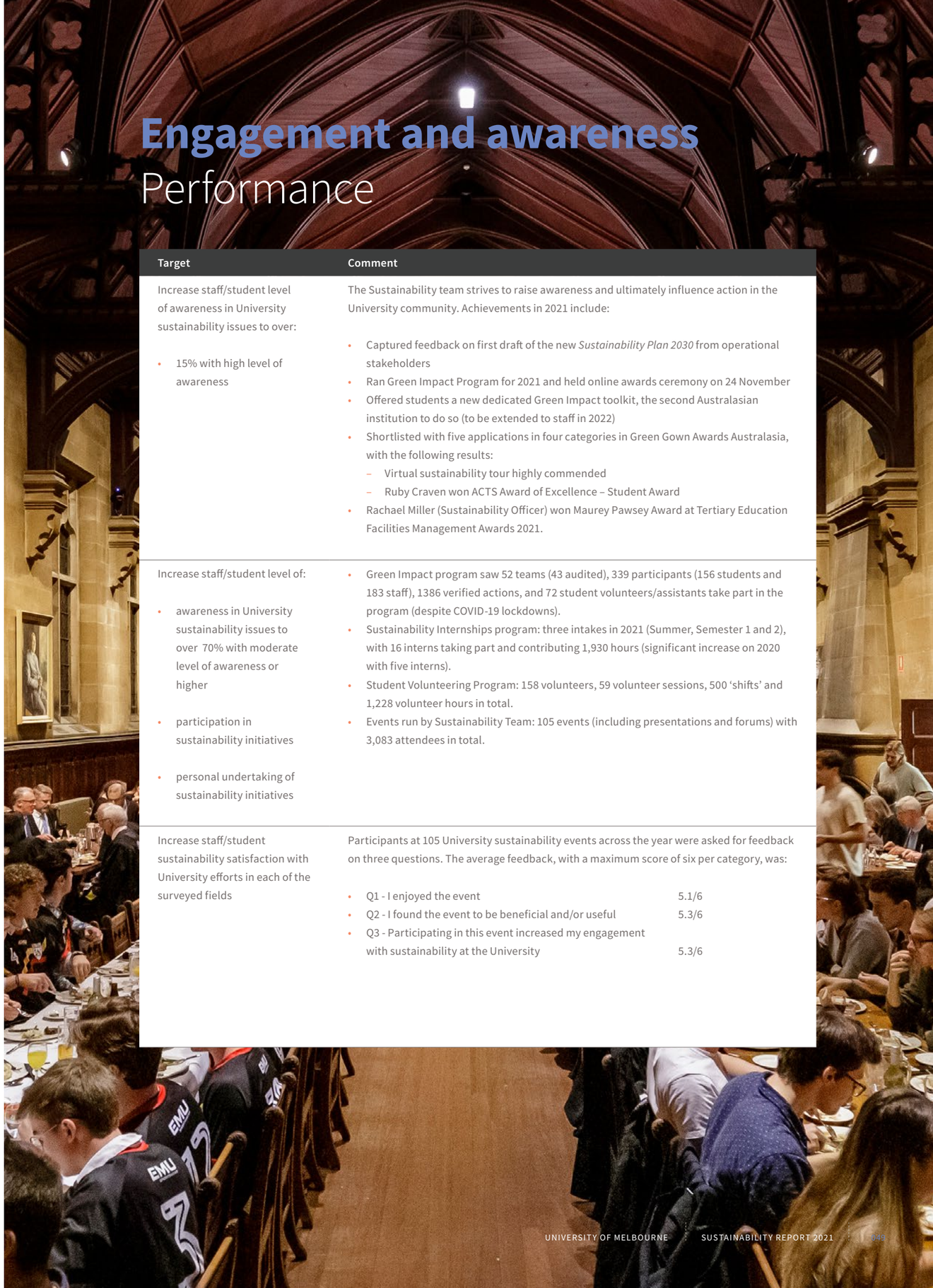
University Community
Engagement and awareness

Engaging the University of Melbourne community of students and staff in sustainability activities on campus has positive social and environmental benefits. Sustainability-related engagement and awareness is measured through the University's biennial Staff and Student Sustainability Survey (SSSS).

The University's SSSS is conducted biennially, with the most recent survey occurring in 2020 and results reported in the Sustainability Report 2020. Hence, for 2021, qualitative information only is reported. The next survey will be undertaken in 2022.

Aspects of social sustainability, such as diversity and inclusion, Indigenous development, and health, safety and wellbeing are discussed in detail in the University's Annual Report 2021.

17 PARTNERSHIPS FOR THE GOALS



Engagement and awareness
Performance

Target	Comment
Increase staff/student level of awareness in University sustainability issues to over: • 15% with high level of awareness	The Sustainability team strives to raise awareness and ultimately influence action in the University community. Achievements in 2021 include: • Captured feedback on first draft of the new *Sustainability Plan 2030* from operational stakeholders • Ran Green Impact Program for 2021 and held online awards ceremony on 24 November • Offered students a new dedicated Green Impact toolkit, the second Australasian institution to do so (to be extended to staff in 2022) • Shortlisted with five applications in four categories in Green Gown Awards Australasia, with the following results: – Virtual sustainability tour highly commended – Ruby Craven won ACTS Award of Excellence – Student Award • Rachael Miller (Sustainability Officer) won Maurey Pawsey Award at Tertiary Education Facilities Management Awards 2021.
Increase staff/student level of: • awareness in University sustainability issues to over 70% with moderate level of awareness or higher • participation in sustainability initiatives • personal undertaking of sustainability initiatives	• Green Impact program saw 52 teams (43 audited), 339 participants (156 students and 183 staff), 1386 verified actions, and 72 student volunteers/assistants take part in the program (despite COVID-19 lockdowns). • Sustainability Internships program: three intakes in 2021 (Summer, Semester 1 and 2), with 16 interns taking part and contributing 1,930 hours (significant increase on 2020 with five interns). • Student Volunteering Program: 158 volunteers, 59 volunteer sessions, 500 'shifts' and 1,228 volunteer hours in total. • Events run by Sustainability Team: 105 events (including presentations and forums) with 3,083 attendees in total.
Increase staff/student sustainability satisfaction with University efforts in each of the surveyed fields	Participants at 105 University sustainability events across the year were asked for feedback on three questions. The average feedback, with a maximum score of six per category, was: • Q1 - I enjoyed the event 5.1/6 • Q2 - I found the event to be beneficial and/or useful 5.3/6 • Q3 - Participating in this event increased my engagement with sustainability at the University 5.3/6

External Relationships

Partnerships, policy and community

The University's engagement connects staff, students and research work with local, national and global communities across all sectors.

External relationships

Performance

Target	Comment
Ensure the University's convening power is used to bring together policy leaders, industry and academic experts to advance issues of sustainability	The University formalised its long-standing relationship with the City of Melbourne in 2021, signing the Melbourne Partnerships charter in December. The partnership projects are focused on four themes, aligned with the City's strategy. Climate and Biodiversity emergency is a key priority for this partnership. Projects underway include Power Melbourne, the City of Melbourne's ambitious battery storage and renewable electricity project set to deliver cheaper power for small businesses and residents, while reducing emissions and contributing to a more sustainable future. Following extensive consultation with diverse stakeholders in the Goulburn Valley, the University is collaborating with La Trobe University, GO TAFE and Indigenous partners Rumbalara Football Netball Club, Kaiela Institute and Munarra Limited to develop a strategy and plan to co-create and deliver educational programs and support for families and students that will build pathways, curriculum and education initiatives and outcomes in the region. The strategy and plan will be launched and implemented from 2022. The University launched two collaborative projects from its Dookie campus, NorVicFoods and the Victoria Drought Resilience Adoption and Innovation Hub, to strengthen agri-food innovation and help farmers, agricultural businesses and communities become more resilient to the impacts of drought.
Deeply embed sustainability considerations within the six University-wide Keystone Engagement Programs of the Engagement Strategy	With the evolution of the six University-wide keystones to the Advancing Melbourne strategic plan, the University recognises that sustainability should be considered across all five focus areas of the University's strategic pillars (Place, Community, Education, Discovery and Global). In relation to Place, the University promotes its key engagements with people and communities of the regions it operates in. Two key initiatives were conducted to further the relationships. The University signed the Melbourne Partnerships Charter with City of Melbourne in 2021. (See following case study, 'Strengthening collaboration with the City of Melbourne'). In addressing climate change, the University will lead a unique state-wide partnership to help farmers, agricultural businesses and communities become more resilient to the impacts of future droughts. The Victoria Drought Resilience Adoption and Innovation Hub will play a critical role connecting these sectors to innovative technologies and practices. It will also translate research and knowledge into impactful outcomes, and support uptake through testing, adoption and upscaling of new solutions and commercialisation.

Case Study
Strengthening collaboration with the City of Melbourne

In December 2021, the City of Melbourne and University of Melbourne formalised their enduring collaboration and commitment to the Melbourne community by signing the Melbourne Partnerships Charter.

Under the partnership, the two organisations will collaborate on key projects for city recovery, and for the short, medium and long-term benefit of the people of Melbourne. The partnership focuses on four themes:

- Aboriginal Melbourne
- Economy for the future
- Place and identity
- Climate and biodiversity emergency.

Two projects were initiated in 2021:

- Project to minimise COVID-19 transmission in office buildings by retrofitting ventilation systems. The pilot research project BREATH will trial and evaluate different ventilation systems in a vacant CBD building, in partnership with the University and property company CBUS. The University's Head of Mechanical Engineering, Professor Jason Monty, said that the BREATH project addresses a previously overlooked problem: "This is the first time such a team has come together to solve this massive problem from energy use and infection control perspectives simultaneously."

- Partnering with City of Melbourne and RMIT on the Power Melbourne project, the City of Melbourne's ambitious battery storage and renewable electricity project set to deliver cheaper power for small businesses and residents while reducing emissions and contributing to a more sustainable future. As a research partner in the first stage of this innovative project, the University is bringing world-leading expertise to commercial feasibility modelling through the research of the team being led by Professor Pierluigi Mancarella (Chair of Electrical Power Systems, Electrical and Electronic Engineering).