VICTORIA UNIVERSITY WELLINGTON

TE WHARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI

2018 SUSTAINABILITY REPORT

CAPITAL THINKING. GLOBALLY MINDED.

MAI I TE IHO KI TE PAE

CONTENTS

FROM THE DIRECTOR

Manaaki whenua,
manaaki tangata,
haere whakamua.

Care for the land,
care for the people,
move forward.

Ngā mihi nui ki a koutou

At Victoria University of Wellington we have a deep understanding of the social and environmental challenges facing the world. Society, and particularly the student body, is increasingly calling for leadership to accelerate the transition to a sustainable future. We see this transition as an opportunity for New Zealand, and we are helping make it happen.

Our researchers are making new discoveries and developing sustainable solutions, our students are gaining sustainability expertise to take with them beyond graduation, we are informing public debate and policy, and we are demonstrating sustainable practice in our operations.

This report provides a snapshot of the work we are undertaking across the University, and demonstrates how we are working to make a sustainable future a reality. Go to www.victoria.ac.nz/sustainability for more information on the exciting initiatives we are working on, or to get involved.

Tēnā koutou, tēnā koutou, tēnā tātou katoa

Andrew Wilks
Director, Sustainability

AT A GLANCE

Globally ranked in 2018*

=221st of the world's **18,000 universities**

Top 1% of the world's universities
for 17 subjects and in the top 2% of universities overall

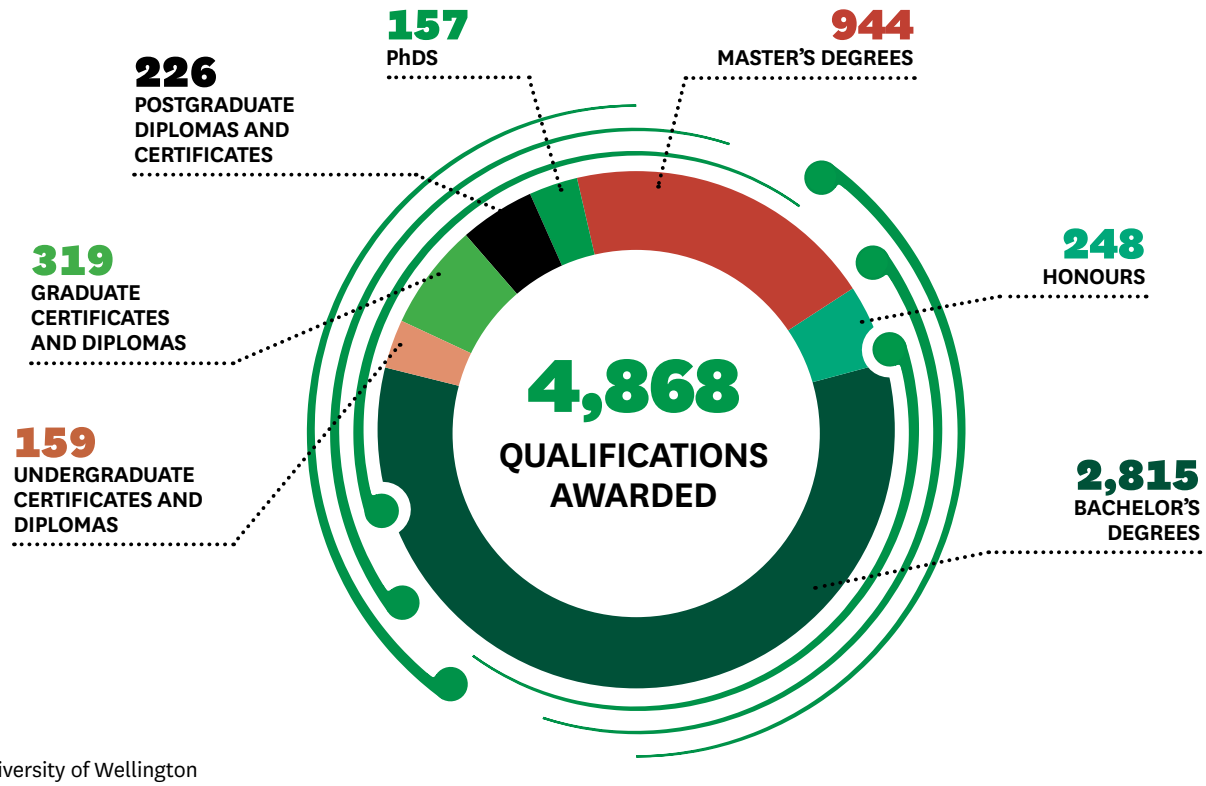
In the world's **Top 100** for twelve subjects

Archaeology, Development Studies, Earth Sciences, English, Geography, History, Hospitality and Leisure Management, Law, Library Management, Linguistics, Performing Arts, Psychology

* QS World University Rankings 2018.

240 EFTS
The increase to the number of Māori students since 2013,
AN INCREASE OF 15.8%

143 EFTS
The increase to the number of Pasifika students since 2013,
AN INCREASE OF 18.3%



As the largest and oldest tertiary education provider in Wellington, and one of the region's biggest employers, Victoria University of Wellington plays a vital role in the city. We contribute around $1 billion to the regional economy every year, employ more than 2,500 staff, and educate more than 20,000 students.

Our vision is to be a world-leading capital city university and one of the great global–civic universities. We undertake excellent research, teaching, and public engagement in the service of local, national, regional, and global communities.

As a large organisation, we make a significant contribution towards a sustainable future with our students, our research, our engagement activities, and our operations.

$23.7M
invested in scholarships by the university

TOTAL REVENUE
$490M

TOTAL EXPENDITURE
$475M

89.9%
of students rated their overall satisfaction with the university's services and facilities as 'good' or 'very good'

#1 IN NEW ZEALAND FOR RESEARCH INTENSITY*
* 2018 PBRF

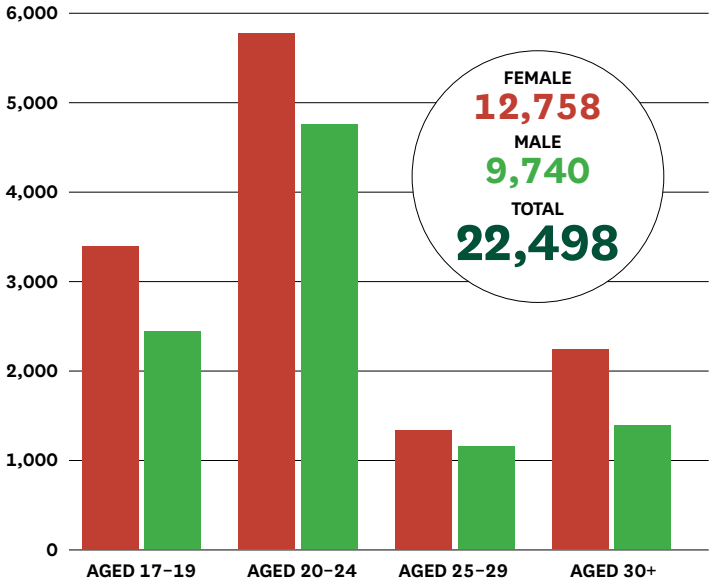
Equivalent full-time students

15,799 GOVERNMENT FUNDED

1,964 FULL FEE

3,764 international students from **114** countries

Student distribution[1]



2,317
staff (full-time equivalent)

1,090
teaching and research staff

[1]Student distribution by headcount.

2018 BY THE NUMBERS

Women on senior leadership team
50 percent

Māori students
11.2 percent
(14.9 percent of New Zealand population is Māori)

Pasifika students
4.3 percent
(7.4 percent of New Zealand population is Pasifika)

Student volunteer hours
6,500 hours for 105 community groups and 20,000 hours for 30 student support services

Sustainability-focused media releases
73 (up from 50 in 2017)

Sustainability Awards won
3
(2 Green Gown Awards Australasia—Benefitting Society and Student Engagement categories; 1 Energy Efficiency and Conservation Authority Business Energy Award—Public Sector category)

Major sustainability conferences and events hosted
5

Sustainability-focused researchers
177

Investments in fossil fuel extraction industry
$0

Energy use
1,881 kWh/EFTS (down from 2,135 in 2007)

Waste to landfill
411 tonnes—33 percent of waste is diverted to recycling

Sustainable commuting
Used by 91 percent of students and 76 percent of staff

Air travel
54 million kilometres (up from 50 million kilometres in 2017)

Water use
107,000 litres (down from 215,000 litres in 2008)

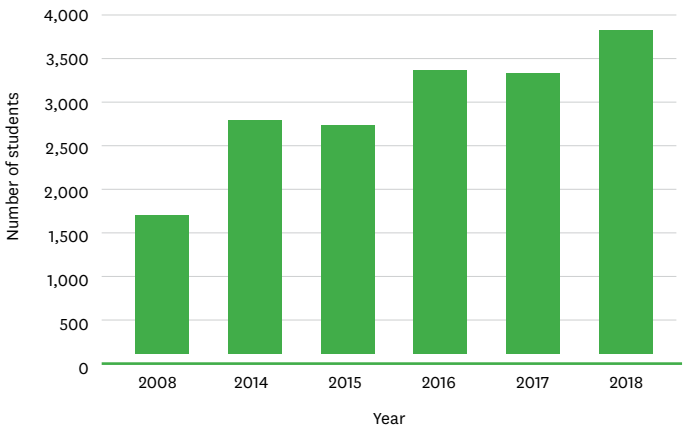
Paper consumption
36,000 reams (down from 62,000 reams in 2008)

Carbon emissions
15,137 tonnes (down from 15,607 tonnes in 2017)

OUR STUDENTS

Perhaps the greatest contribution we make to a sustainable future is equipping our students with the necessary skills and expertise to respond to the environmental challenges of tomorrow in their careers and as members of society. Sustainability-related teaching happens in every school and faculty across the University. This provides all students with the opportunity to include sustainability perspectives as part of their study. Over the past decade, total student enrolments in courses with a strong focus on sustainability have doubled, reflecting the growing student demand for learning about sustainability.

SUSTAINABILITY COURSE ENROLMENTS



In 2018, we increased the number of courses with a significant focus on environmental sustainability to 70, with 3,979 students enrolled, compared with 3,447 in 2017. There are a number of courses in Biology, Environmental Studies, and Geography, but environmental sustainability is also prevalent in Architecture, Māori Studies, Public Policy, Teaching, and Tourism. In 2018, the breadth of sustainability curriculum continued to expand. Some of the highlights include:

- new course, Design Thinking for Sustainability, School of Design
- new focus for an existing Information Systems course that requires applied learning to address a sustainability challenge
- the first intake of students into our new Renewable Energy programme
- a new Master's programme in Climate Change Science and Policy.

Outside the classroom, our students can participate in a range of extracurricular activities that engage them with sustainability. Our leadership programmes—Victoria Plus and Victoria International Leadership Programme—have a strong emphasis on sustainability.

We have 10 different student clubs and societies that are actively involved in environmental action, including Forest and Bird Youth, Generation Zero, and the Victoria Development Society. Last year, these clubs came together, in combination with the students' association, to host Sustainability Week. Kelburn campus, in particular, was abuzz with numerous events, daily action-station activities, eco-giveaways, an art competition, a dedicated 'Sustainability Special' of our student magazine, and opportunities galore to learn about today's most pressing environmental issues and how to take action. The result was incredible student engagement, with more than 1,000 people attending events and more than 30,000 reached via Facebook.

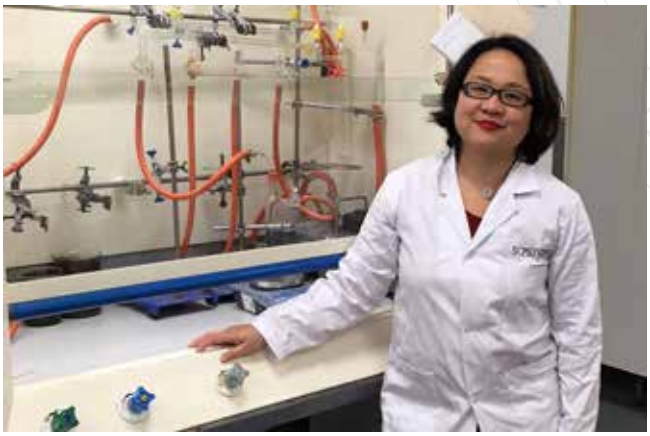
OUR RESEARCH

Victoria University of Wellington has a long history of environmental sustainability research expertise that generates new knowledge and real-world solutions for the global challenges we are facing.

Our leadership in sustainability research in 2018 helped the University to once again top the Performance-Based Research Fund measure of intensity of high-quality research.

SUSTAINABILITY RESEARCH SUCCESS

PhD student Putri Fraser and researchers from the School of Chemical and Physical Sciences have combined iron and natural silicates to create a safer, easier method of removing nitrate pollution from waterways. Nitrate pollution is a serious issue, causing deterioration to river habitats and decimating aquatic life.



PhD student Putri Fraser

Five Victoria University of Wellington academics are lead authors for the next report from the Intergovernmental Panel on Climate Change (IPCC)—one of the world's leading independent reports on our changing climate. The academics, Professors Dave Frame, Andrew Mackintosh, and James Renwick; Associate Professor Nick Golledge, and Dr Judy Lawrence make up one of the larger groups of authors from any organisation to be involved in preparing the report.

From left: Professor Dave Frame, Professor Andrew Mackintosh, Dr Judy Lawrence, Associate Professor Nick Golledge, Professor James Renwick

Professors Richard Furneaux and Phil Lester have worked with Humble Bee founder Veronica Harwood-Stevenson over the past year to take the first steps to create a viable bio-plastic product replicating the cellophane-like substance that bees use to line their nests. This substance repels water, flame, high temperatures, and strong acids and alkalis. A series of experiments have been conducted to reverse-engineer the bee's natural 'bio-plastic' and design a method to recreate that plastic without the bee.

A team of researchers led by Professor Thomas Nann has created a new electrolyte that could be the key to making safer and more environmentally friendly batteries. The electrolyte, which can be made from plants will make aluminium batteries cheaper and easier to produce – a better alternative than batteries currently made from lithium and cobalt, which are scarce and toxic raw materials.

2018 RESEARCH FUNDING FOR SUSTAINABILITY

- The outstanding work of the Antarctic Research Centre was rewarded with a $960,000 Marsden grant for Dr Rob McKay to study the interaction of the West Antarctic ice sheet with the ocean during past warm climates. Prestigious two-year postdoctoral research scholarships from the Rutherford Foundation were awarded to Holly Winton, Oliver Wigmore, and Bella Duncan.
- Dr Gerald Smith, from the School of Chemical and Physical Sciences, received a Ministry of Business, Innovation and Employment (MBIE) grant of $1 million to study the use of solar energy for water purification.
- Dr Dan Sinclair, from the School of Geography, Environment and Earth Sciences, received $1 million from MBIE to establish more reliable data for modelling ocean-ecosystem dynamics by studying the skeleton chemistry of deep-sea corals around New Zealand.
- Associate Professor Maria Bargh, from Te Kawa a Māui, received a Ngā Pae o te Māramatanga grant worth $195,000 to investigate Māori perspectives on the Government's target of New Zealand becoming predator-free by 2050.
- Dr Monica Gerth, from the School of Biological Sciences, received a Curious Minds grant for her work studying kauri dieback.

OUR ENGAGEMENT

Victoria University of Wellington regularly engages with the wider community, including business, government, and civil society on sustainability issues. With more than 200 individual academics actively involved in sustainability-related research, the engagement across all sectors is extensive. Of note are the formal partnerships with Wellington-based organisations Wellington City Council, Zealandia, and Wellington Zoo.

The University is seeking to grow external engagement with sustainability through its management and operational relationships. This includes strengthening connection across the tertiary education sector, central and local government, business, iwi, and civil society through collaborative projects, advocacy and advice, and student participation. We are increasingly trying to engage with the wider community on sustainability issues through public lectures and seminars. In addition, our students undertake around 6,500 hours per year of community volunteer work with more than 100 local organisations.

EXAMPLES OF SUSTAINABILITY ENGAGEMENT

The bi-annual Pacific Climate Change Conference is delivered by the University in partnership with the South Pacific Regional Environment Programme. It brings together a range of voices on climate change from the arts, faith, science, and Pasifika communities; non-governmental organisations; the business sector; and members of the public to provide a rich exchange of diverse ideas on how to tackle this biggest of problems.

Samoan Prime Minister and climate change action advocate, the Honourable Tuila'epa Dr Sa'ilele Malielegaoi, was among the high-profile experts presenting at the Pacific Climate Change Conference in 2018

OUR KEY SUSTAINABILITY RELATIONSHIPS

Ministry for the Environment – Manatū Mō Te Taiao
EnergyManagement – Association of New Zealand
VUWSA – Your Students' Association
Sustainable Business Network
Department of Conservation – Te Papa Atawhai
the sustainability society
NZGBC – New Zealand Green Building Council
Beca
Volunteer Wellington | Te Puna Tautoko – Your Community Connector
ZEALANDIA – Te Māra a Tāne
Sustainable Business Council – wbcsd Global Network Partner
Sustainable Development Solutions Network – A Global Initiative for the United Nations
ACTS INC – Australasian Campuses Towards Sustainability
meridian
EECA Business – Putting Energy to Work
greater Wellington Regional Council – Te Pane Matua Taiao
Absolutely Positively Wellington City Council – Me Heke Ki Pōneke
Wellington Zoo

Wellington locals can get an up-close look at the exciting marine biology discoveries happening right on their doorstep at the annual Victoria University of Wellington Coastal Ecology Lab. Visitors of all ages can interact with marine creatures, see research equipment in action, ask researchers anything they want to know about marine life, and learn about marine biology research from interactive displays.

Children making a splash at the open day.

The Great Kererū Count is a collaborative project led by Kererū Discovery in partnership with Victoria University of Wellington, World Wildlife Fund New Zealand, and Wellington City Council. Dr Stephen Hartley, director of the University's Centre for Biodiversity and Restoration Ecology, explains that, over time, we aim to discover whether numbers are increasing or decreasing and whether populations are faring better or worse in some parts of the country compared with others. Given the ecological importance of kererū, this information is critical, not just for protecting this species, but also for ensuring the vitality of our forest ecosystems for future generations.

OUR OPERATIONS

The University is similar to a small town—we have 25,000 people working, learning, eating, and playing in our facilities, plus more than 3,000 students in our halls of residence. There is a considerable demand for resources. For more than a decade, we have been working to minimise the negative environmental impacts of campus facilities and business operations.

Reducing greenhouse gas emissions has been a major focus. Since 2007, our total greenhouse gas emissions have fallen by 20 percent, despite a growing university population. Now we are working on how we can get to zero carbon emissions.

Major lighting upgrades, optimising the operation of heating, ventilation, air conditioning equipment, and computer power management has improved energy efficiency by more than 30 percent since 2006. Our success was recognised by winning the Energy Efficiency and Conservation Authority (EECA) Business Energy Award in the Public Sector category in September 2018.

From left: Jonny Parker, Andrew Wilks, and Shaan Cory

The promotion of sustainable commuting for staff and students, in collaboration with Greater Wellington Regional Council, has resulted in significant uptake of sustainable options. Discounted public transport fares for tertiary students, tougher car parking management, and improved end-of-journey facilities (bike racks, showers) have all contributed. Ninety-one percent of students and 71 percent of staff now use sustainable transport modes to get to and from campus.

The University is slowly becoming more digital—since 2006, total paper use has dropped by 63 percent.

Water consumption is closely managed through the introduction of more water-efficient fittings, increased amounts of rainwater harvesting, minimised irrigation for grounds, and regular leak-detection audits of our underground pipes. Since 2008, total water consumption has reduced by 31 percent.

GREENHOUSE GAS INVENTORY

GHG protocol reporting category	Activity/emission source	Kg CO_2e in 2018
Scope 1		
Stationary combustion	Diesel generators: campus and operated accommodation.	809
	Natural gas: campus and offices	2,875,354
	Natural gas: student accommodation (university owned and operated)	799,452
Mobile combustion	Petrol: fleet vehicles	64,048
	Diesel: fleet vehicles	25,033
Fugitive emissions	Refrigerants (HFC): campus	180,122
Scope 2		
Electricity	Campus and offices, including assets leased to third parties but operated by the University	1,824,385
	Student accommodation (operated by the University)	352,070
Scope 3		
Purchased goods and services	Print and paper	43,194
	Water (campus)	5,096
	Student accommodation (not owned or operated by the University): electricity and gas	129,475
Fuel and energy-related activities	Transmission and distribution losses for electricity consumed	164,849
	Transmission and distribution losses for natural gas consumed	429,670
Upstream transportation and distribution	Student commuting	1,360,273
	Student inter-campus travel	3,823
Waste generated in operations	Landfill waste	156,482
	Recycling	142,447
Business travel	Taxi	51,277
	Rentals	75,521
	Staff public transport	476
	Air travel	5,189,868
	P-Card fuel purchases	1,960
	Private mileage	26,335
Employee commuting	Public transport	94,749
	Private vehicle	738,575
Upstream leased assets	Campus spaces leased from third party	86,574
Downstream leased assets	Office and campus space owned by the University but operated by tenants	315,563

CONTRIBUTION TO THE SUSTAINABLE DEVELOPMENT GOALS

The 2030 Agenda for Sustainable Development, adopted by all United Nations member states in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 sustainable development goals (SDGs), which are an urgent call for action by all countries—developed and developing—in a global partnership. The University is a signatory of the University Commitment to the SDGs and is contributing to the goals across all aspects of our business.

The provision of scholarships and the hardship fund for students challenged financially.

The availability of the fruit and vegetable co-operative, community gardens, the community pantry, and distribution of surplus food from Kaibosh, facilitated by the Victoria University of Wellington Students' Association.

The services of Student Health and Student Counselling, the staff and student Wellness teams, Victoria Recreation, Diasbility Services, and the pastoral care provision of Victoria Accommodation and Victoria International.

Management processes to ensure a consistent high standard of teaching, equal access to education, and increasing numbers of people receiving education.

All of the tertiary teaching the University provides; the early childhood, primary, and secondary teacher training the University provides; and extracurricular learning provided through opportunities such as Victoria Plus and the Victoria International Leadership Programme.

The continued high proportion of female staff and students and the development of the Equity, Diversity, and Inclusion framework.

The water conservation measures such as water-efficient fittings, minimised irrigation, and rain-water harvesting initiatives.

The purchase of competitively priced electricity from a renewable generator—Meridian Energy.

The significant investment in energy efficiency measures and the increasing use of on-site renewable energy generation.

The revenue growth of the University and the increasing employment opportunities provided there. The wider Wellington economy also benefits from the increasing student population.

The commercialisation of research delivered by Viclink and the facilitation provided by Careers and Employment to connect employers with students.

Strategic asset management planning and ITS resilience planning to ensure our campus infrastructure is robust.

University-wide commitment to secure the intellectual potential put at risk through experience of disadvantage, particularly for Māori and Pasifika.

The facilities and support provided for the Māori, Pasifika, and religious communities on campus, such as Pasifika Haos, Te Herenga Waka marae, Te Pūtahi Atawhi (culturally safe places where Māori and Pasifika can study and seek advice) and prayer rooms.

The facilitation of volunteer opportunities for students and staff offered by CareerHub and the provision of public access to the University's facilities such as sports fields and the Adam Art Gallery.

Input to public transport planning and promotion, the provision of publicly accessible gardens, the provision of accessible routes and facilities for those with physical disabilities, and our emergency preparedness planning and welfare provisions.

Public reporting of environmental impact (through this report) and responsible investment decisions (such as the divestment from companies involvement in the exploration and extraction of fossil fuels).

Sustainable procurement practices, the promotion of fair trade on campus, and the collaboration with retailers on campus to encourage sustainable practice.

Waste minimisation and resource-efficiency initiatives, sustainable procurement practices, and appropriate handling of hazardous and trade waste.

The partnership with Wellington City Council to deliver the annual Climathon event and the connection to the numerous organisations involved in helping reduce the carbon emissions of the University.

Initiatives to actively measure and reduce greenhouse gas emissions from the University's operations.

The University is actively teaching and researching specific subject material relating to all 17 of the SDGs. We have particular academic strength in SDG 3—Good Health and Wellbeing; SDG 8—Decent Work and Economic Growth; SDG 9—Industry, Innovation, and Infrastructure; SDG 11—Sustainable Cities and Communities; SDG 13—Climate Action; and SDG 16—Peace, Justice, and Strong Institutions (as identified through mapping of academic activity).

The Coastal Ecology Lab held open days for the public.

Appropriate management of waste water to prevent pollution and excessive burden on the city's infrastructure.

The annual Growing Graduates tree-planting event hosted for students and delivered in partnership with the Wellington City Council.

The enhancement of biodiversity on campus from pest control and grounds-management practices.

Management processes to fairly elect representatives to governance positions (including the University Council and Academic Board) and transparency of annual reporting (in the University's Annual Report).

Participation in the Sustainable Development Solutions Network, specifically established to promote the goals, as well as other sustainability-focused partnerships and networks.

Interdisciplinary research, which connects the University academics with external stakeholders to contribute to the goals.