

AUT SUSTAINABILITY REPORT 2021

CONTENTS

Foreword from the Vice-Chancellor	3
Introduction – from the Vice-Chancellor's	
Sustainability Steering Group	6
Overview of key targets	7
AUT and sustainability	8
Theme 1 – Learning and Teaching -	
Creating exceptional learning experiences	—— 10
Theme 1 – Targets to 2025	10
Case study – New Social Justice courses	
at AUT's Law School	11
Theme 2 – Research – Discovery and application	
of knowledge for wellbeing and prosperity	12
Theme 2 – Targets to 2025	12
Case study – Research for food systems that	10
are prosperous and support wellbeing	13
Case study – Regeneration from a te aō Māori perspective	13
Theme 3 – Partnerships and Community –	
Responding to our place in the world	14
Theme 3 – Targets to 2025	14
Case study – AUT X Challenge	15
Theme 4 – Leadership - Building our position as	
New Zealand's University of Technology	16
Theme 4 – Targets to 2025	16
Case study – Externally funded research –	17
urban housing redevelopment	17
Theme 5 – Sustainability on Campus –	10
Being a place where people love to work and learn	18
Theme 5 – Biodiversity target to 2025	18
Theme 5 – Transport targets to 2025	18
Theme 5 - Waste, water and energy targets to 2025	20
Theme 5 – Sustainable ICT targets to 2025	20
Theme 5 – Sustainable food and sustainable building targets to 2025	20
Case study– Sustainable ICT Benchmark Report	20
Materiality assessment	22
Stakeholder engagement	22
What next?	22
Acknowledgements	22

FOREWORD FROM THE VICE-CHANCELLOR

Tēnā koutou katoa

AUT's three concepts in the Sustainability Roadmap are Ki Tua (futures), Whanaungatanga (connectivity), and Mauri ora (wellbeing). These three concepts begin to frame sustainability from a te ao Māori perspective and they pervade the targets that are in the Report. We also refer to the relevant United Nations Sustainable Development Goals (SDGs) for each of the targets and case studies, demonstrating AUT's commitment to the SDGs.

This is AUT's second Sustainability Report, which highlights what we achieved and as a result shows what more we must do. Fortunately, AUT is the university for the changing world, which involves a strong response to sustainability, including climate change, and developing a regenerative approach that involves systems-led thinking. Through AUT's teaching, research, and campus operations, we are well placed to lead in this area.

AUT moved up the Times Higher Education (THE) Impact rankings from 76th to 60th out of 1,406 universities this year. The ranking assesses universities based on their contribution to the United Nation's (UN's) SDGs. AUT remained in the top 20 universities in the world for decent work and economic growth (SDG8) and gender equality (SDG5).

LEARNING AND TEACHING

With the lockdown in August 2021, there was again a rapid return to online teaching, which our academic and support staff managed admirably. At the same time, students were offered a wealth of academic and personal support to continue their learning from home.



For the first time, we can assess our progress against learning and teaching targets, comparing 2020 with 2021. There is good progress to report, with four more compulsory sustainability-focused courses being offered in AUT programmes, majors, or minors in 2021 compared with 2020. Seven sustainability majors or minors were offered within undergraduate programmes, one more than in 2020. The new minor, Communication for Social Change, is taught within the School of Communication Studies. Furthermore, the number of sustainability-focused courses offered has increased from 67 to 79 in 2021, and 177 more students were enrolled in these courses, in comparison to 2020.

RESEARCH AND ENGAGEMENT

Generally, research events were hampered during the latter half of the year due to the lockdown. However, AUT academics led online events, including a regenerative design workshop and the Australasian Macromarketing Society Conference, that included an emphasis on sustainability.

The Faculty of Design and Creative Technologies' contestable research fund included three sustainability themes – health and wellbeing, future communities and/or environments, and design for society. Health Futures, a pan-university fund, continued to fund projects that solve complex health problems. There was a drop in the number of SDG-related research projects receiving external funding from 76 in 2020, to 60 in 2021. This was despite an increase in the financial value of externally-funded research projects, and there is clearly more work to do in this area.

FOREWORD FROM THE VICE-CHANCELLOR (continued)

In our Sustainability Roadmap, we highlight our commitment to the UN's SDGs, and we can see this commitment in our SDG-related research publications. Overall, there was an increasing trend in the percentage of AUT's research publications that relate to one or more SDGs (as reported by Dimensions). Relative to AUT's total research publications, the percentage of AUT's SDG-related publications increased from 16% in 2018, to 18% in 2021.

OPERATIONS ON CAMPUS

Advancing our environmental and financial sustainability is one of my five core priorities for AUT over the next three years. This report highlights strong progress around the key operations targets related to the environment, particularly overall CO₂e emissions and water consumption. Much of this progress relates to the pandemic-related lockdown of the campuses, and fewer staff and students being on campus. However, exemplary shutdown measures by key staff ensured that as many savings were achieved as possible during the lockdowns. There was also a suite of energy efficiency measures implemented during 2021, including projects within the WB/WC decarbonisation projects that received government funding. Projects included LED lighting upgrades in WC and WB buildings, installation of Thinsulate on north facing windows of WB, and commissioning hot water heat pumps, enabling the removal of gas-fired boilers.

Staff and student travel surveys revealed that we are not achieving our targets around them using sustainable transport to access our campuses. A travel plan is currently being developed, to create a modal shift that also supports a reduction in commuter-related CO₂e emissions.

We only planted native species across the campuses in 2021, apart from 23 fruit trees which are part of a project to provide students with fresh healthy food. Some of the native tree species planted on the campuses include rimu, matai, kohekohe, and taraire.

This report provides a wider view of how AUT is progressing. We saw advancements in learning and teaching in terms of sustainable course and minor offerings, and progress towards our research targets regarding SDG-related research publications. However, we can work to increase the number of externally-funded SDG research projects. Developing enduring CO₂e emissions reductions and waste and water savings, whilst staff and students access their work and study on campus, is another area of focus.

Together, we can continue to create a future for AUT that is not only sustainable, but regenerative.

Ngā manaakitanga

Professor Damon Salesa Vice-Chancellor, Auckland University of Technology



INTRODUCTION - FROM THE VICE-CHANCELLOR'S SUSTAINABILITY STEERING GROUP

When the COVID-19 pandemic first struck, many people talked about 'building back better'. The idea is to use a crisis as an opportunity, to rebound into new normals that are less exposed to risks.

This language ebbed away from our national conversation, but the need to 'build back better' is more important than ever. As we shift out of the emergency phase of the pandemic, this is the moment to ask ourselves what will make our community stronger and more adaptive to the risks ahead.

AUT's Sustainability Roadmap sets a pathway for a cleaner, greener university. But it also contributes to a more resilient university, to creating a community that is prepared for future risks. To pick just one example, as AUT students and staff reduce their dependence on fossil fuelled transport, then our community will be less exposed to rising oil prices and associated financial stress. Our roadmap targets establish a pathway to future resilience.

Getting started early on emissions reductions is critical for an orderly transition to netzero emissions. When the AUT Sustainability Roadmap was released in 2018, we made an ambitious commitment to reduce CO₂e emissions by 50% by 2025. This ambitious near-term target was chosen because long-term targets are too easy to ignore, which necessitates steeper and more costly reductions in future.

Due to the COVID-19 pandemic, this target was achieved earlier than we could have ever expected. In 2021, CO₂e emissions were 55% below 2018 levels.

But a pandemic is not an effective or enduring way to decarbonise. The transition to net zero requires structural, systemic change – from the substitution of assets and infrastructure, to adopting new ways of working, to changing mindsets and outlooks.

As we navigate the long tail of the pandemic, the challenge for years ahead is to avoid a complete rebound to high-emissions, prepandemic habits. We need to 'build back better', to futureproof our community by aligning with the global race to net-zero. In doing this, we also need to bring our whole community along on the journey, to agree collectively on pathways that are equitable, inclusive and enjoy broad legitimacy among our students and staff. The opportunity here is to develop a mauricentered culture focused on the integrated wellbeing of people and place.

Not only can AUT be a leader, but we can flourish by doing so. Our strengths as a university of technology are needed more than ever. Government, business and civil society are all pivoting towards a wellbeing-led transition to a low-emissions, climate-resilient future. Through our research and teaching, we can provide the ideas, innovations, technologies, and capabilities that our communities so urgently need.

We can do well by doing good and, more importantly, we can be well, enhancing our mauri and wellbeing – social, cultural and ecological - through our action. This report is a confirmation of AUT's vital contributions to sustainable and regenerative practices and a reminder of what is still to be done.

Vice-Chancellor's Sustainability Steering Group

OVERVIEW OF KEY TARGETS

AUT aspires to contribute to system transitions towards zero carbon energy, a circular economy, and ecological regeneration achieved through changes in the materials and services we use, and the way we manage our estates and develop regenerative campuses and buildings. The overview of key targets below highlights a pathway towards these aspirations, where we are progressing well and where more work is needed.

LEARNING AND TEACHING -MOHIO-ORA

ALL UNDERGRADUATE PROGRAMMES DEVELOP SUSTAINABILITY LITERACY, VALUES, AND PRACTICES



↑ 38 (increase of 4 from 2020)

(increase from 67 from 2020)

Number sustainability-focused courses

Number sustainability majors or minors

080 (increase of 177 from 2020)

were offered within undergraduate

Number students enrolled in the 79

sustainability-focused courses.

Number of compulsory sustainabilityfocused courses offered in AUT programmes, majors or minors.

MORE STUDENTS HAVE ACCESS TO SUSTAINABILITY MAJORS, MINORS, OR COURSES

↑7 (increase of 1 from 2020)

↑/9

offered in 2021.

programmes.

EXTERNALLY FUNDED SUSTAINABILITY RESEARCH PROJECTS

↓ 60 (decrease of 16 from 2020)

Number SDG-related research projects were generated in 2021.

PARTNERSHIP AND COMMUNITY - HAPORI-ORA

AUT BECOMING A FAIRTRADE REGISTERED ORGANISATION

Only Fairtrade coffee is sold at cafés on AUT campuses. In 2021

◆ 3.7 tonnes of Fairtrade coffee were consumed, a decrease of 2.5 tonnes when compared with 2020.

* AUT's CO₂e emissions inventory is verified against ISO 14064-1 Greenhouse Gases with an independent organisation. This report has been updated to reflect any changes in total CO₂e emissions post verification Reductions in total CO₂e, energy related CO₂e and water against the baseline mainly relate to the effects of COVID, including campuses being shut down during lockdowns, a ban on international air travel, and fewer people on campuses.

RESEARCH PROJECTS Three of the four themes in DCT's contestable research fund related to sustainability.

INCREASING PEER **REVIEWED SDG RESEARCH** OUTPUTS

▲284

SDG research outputs, 64 more compared to 2020. (Source: Dimensions)

RESEARCH - MOHIO-ORA









LOW CARBON - HIHIRI-ORA

CO_e REDUCED BY 50% BY 2025

↓55[%] (against 2018 bas 2018 baseline) 6.133 CO₂e tonnes produced in 2021.*

CO_ae FROM ENERGY REDUCED BY 50% BY 2025



CARBON FOOTPRINT OF OUR ICT USAGE REDUCED

↑ 34 tonnes

of CO₂e



CO2e

(increase of 4 tonnes of CO₂e from 2020) CO₂e proportioned to AUT for third party data centres.

WATER - WAI-ORA

MAINS WATER REDUCED BY 20% BY 2025

↓20[%] (against 2018 baseline)

90.820kL of mains water consumed.



M

AUT AND SUSTAINABILITY

AUT's main strategic document is AUT Directions, which highlights our strategic objectives through to 2025.

There are five themes within AUT Directions that relate to:

- Creating exceptional learning experiences Learning and Teaching
- Discovery and application of knowledge for wellbeing and prosperity Research
- Responding to our place in the world Partnerships and Community
- Building our position as New Zealand's University of Technology Leadership
- Being a place where people love to work and learn Sustainability on Campus

These five themes are reflected in AUT's Sustainability Roadmap. The targets under each theme are the focus of what we report on in this document. This is AUT's second sustainability report and we have focused reporting on just our key targets.

Our Sustainability Roadmap also encompasses AUT's commitment to the United Nations 17 Sustainable Development Goals and incorporates three main concepts:

auri ora Wellbeing	Ki Tua Futures	Whanaungatanga Connectivity
recognition that human ellbeing is dependent upon e wellbeing of the planet and e web of life that supports and sources our endeavours.	A viable future is inherent within sustainability and so future- oriented thinking for wellbeing and prosperity is key.	The wellbeing of planet and people is enabled by complex global systems, which connect across diverse regions, areas and functions.

We contribute to sustainability through our curricula, our research, and our actions. This report highlights our Tiriti-based responsibility to engage with te ao Māori, including Māori kaupapa and knowledge, progress towards reducing our emissions and increasing our contribution to sustainability knowledge and practice in New Zealand and further afield.





The SDGs are important internationally as an overarching framework for sustainability. There is also however an ongoing critique from indigenous communities that the SDGs do not meet indigenous realities on the ground.¹ It is appropriate that our university reflects on how the SDGs may fit within a larger te ao Māori and living systems perspective. In this Report we are testing the use of a mauri ora or holistic wellbeing compass (developed at AUT) as

Ratuva, S. (2016). Subalternization of the global south: Critique of mainstream 'Western' security discourses. Cultural Dynamics, 28(2), 211–228.
 Yap MLM and Watene K (2019) The sustainable development goals (SDGs) and Indigenous peoples: another missed opportunity. Journal of Human Development and Capabilities 20(4): 451–467.

a way of signalling regenerative goals and reflecting te ao Māori. The relevant SDGs and ora or wellbeings are referred to for every target. The research around this compass is highlighted in section five. In the coming year we hope to begin an engagement process to explore how a moreplaced based goal tool might support regenerative system change here at AUT.

THEME 1: LEARNING AND TEACHING – CREATING EXCEPTIONAL LEARNING EXPERIENCES

Each member of staff contributes to AUT's mission of great graduates. We offer exceptional learning experiences that prepare students to be successful wherever their career may take them. Increasingly, there is a need for graduates that have sustainability knowledge, within their profession of expertise or generally.

SUSTAINABILITY ROADMAP TARGETS	PROGRESS TOWARDS THE TARGETS	MAURI ORA COMPASS/SDGS
Ensure all undergraduate programmes develop sustainability literacy, values, and practices, consistent with the AUT Graduate Profile STATUS: ON TRACK	There were 38 compulsory sustainability-focused ¹ courses offered in AUT programmes, majors or minors. This is an increase of four, when compared with 2020.	Whole compass
Increasing number of students will have access to majors, minors, or courses with a sustainability orientation STATUS: ACHIEVED	In 2021, seven sustainability majors or minors were offered within undergraduate programmes. This is one more than in 2020. The minor Communication for Social Change was introduced in 2021 within the School of Communication Studies and has attracted strong student interest. The number of sustainability-focused courses offered has increased from 67 in 2020 to 79 in 2021. Some of this increase relates to three new Climate Change and Social Justice courses being offered within the Law School, and new Communications and Marine Biology courses being offered in 2021. Some natural flux in numbers is expected as not all courses are offered every year. In 2021, there were 177 more students enrolled (3,080 total students) in the 79 sustainability-focused courses. Approximately 11% of AUT's total student population enrolled in a sustainability- focused course in 2021, compared to 10% in 2020.	Whole compass

 Sustainability-focused courses – these include courses where the primary, explicit focus is on sustainability, the application of sustainability within a field and/or understanding or solving one or more major sustainability challenge(s) (Source – AASHE – Sustainability Tracking, Assessment and Rating System)

* The remaining two learning and teaching targets will be reported on in the 2022 Sustainability Report.

NEW SOCIAL JUSTICE COURSES AT AUT'S LAW SCHOOL

The Law School introduced new undergraduate and postgraduate courses in Social Justice, Law and Society. These courses relate to the SDG16 – Peace, Justice and Strong Institutions. Throughout the courses, all 17 SDGs are discussed as a weekly topic, with greater emphasis on those SDGs that have a social justice focus. Dr Katey Thom, Senior Lecturer, says "We collaborate to find our critical voice and enhance our practical ability to actively seek social justice in our daily interactions, when supporting our communities and in calling for systematic change. The idea is to not only sit with the social injustices, but to also learn skills to plan solutions that move us towards peace, justice and strong institutions."







THEME 2: **RESEARCH - DISCOVERY AND APPLICATION OF** KNOWLEDGE FOR WELLBEING AND PROSPERITY

AUT contributes to sustainability research that benefits society at regional, national and international levels. Our research is diverse and reflects the 17 SDGs. In 2021 our research publications included an emphasis on clean energy, sustainable cities and communities, health and wellbeing and social justice.

THEME 2- TARGETS TO 2025

SUSTAINABILITY ROADMAP TARGETS	PROGRESS TOWARDS THE TARGETS	MAURI ORA COMPASS/SDGS
Increase the number of mission-led and large-scale projects on the critical issues of our time, including projects which are tackling aspects of the climate emergency STATUS: ON TRACK	 AUT's Drone Lab is part of the Australian Research Council's A\$36m project - Securing Antarctica's Environmental Future. The project is an international research endeavour to: Forecast environmental change across Antarctica, sub-Antarctic and the Southern Ocean Deploy effective environmental stewardship strategies in the face of this change Secure Antarctica as a natural reserve devoted to peace and science The Drone Lab will measure vegetation, help map locations and monitor its change over time. 	Whenua-ora Wai-ora 15 IFF AN TO INFRAME TO INFRAME TO INFRAME TO INFRAME
Providing internal funding mechanisms which support research projects that advance knowledge and its application to sustainability STATUS: ON TRACK	Faculties offer contestable research funds to support academic staff. For Design and Creative Technologies, the 2021 fund related to three themes reflecting sustainability – health and wellbeing, future communities and/or environments, and design for society. The pan-university \$20 million Health Futures fund continued to fund projects that focus on solving significant and complex health problems in partnership.	Hapori-ora
Host annual research events addressing climate emergency responses and system change (mitigation, adaptation, transformation) STATUS: ON TRACK	The latter half of 2021 severely hampered in-person research events. However, Whakaora – a regenerative design group that includes Associate Professor Amanda Yates – held online sessions around transformative and regenerative design. Associate Dean – Research, Professor Ben Wooliscroft, hosted the online Macromarketing Society conference for Australasia. The Society is concerned with provisioning systems, sustainability and making the world a better place.	Whenua-ora Wai-ora
Increasing numbers of peer reviewed research outputs that contribute to the United Nations' Sustainable Development Goals STATUS: ACHIEVED	The percentage of AUT's research publications that relate to one or more SDGs (as reported by Dimensions) shows an increasing trend overall. Relative to AUT's total research publications, the percentage of AUT's SDG-related publications has increased from 16% in 2018 to 18% in 2021. There were 220 SDG research publications produced by AUT in 2020, and 284 in 2021.	Whole compass

RESEARCH FOR FOOD SYSTEMS THAT ARE

Dr Syrie Hermans was awarded a Rutherford Foundation Postdoctoral Fellowship to research soil microbes in conventional and regenerative agricultural sites. Regenerative agriculture – a biodiversity-driven management system – could potentially alleviate most of the deteriorating effects of conventional agriculture by establishing ecological synergy between soil, water, and atmosphere. Dr Hermans is working with AUT academics to determine how regenerative agriculture impacts carbon sequestration – the process of capturing and storing atmospheric carbon dioxide - and identify specific microbial indicators. This will provide scientific evidence of the costs and benefits of adopting regenerative agriculture across Aotearoa and into the future.





REGENERATION FROM A TE AO MÃORI PERSPECTIVE

The Mauri Ora Compass for holistic wellbeing conceptualises sustainability, or more positively regeneration, primarily from a Māori perspective. A compass starter kit has been developed by Associate Professor Amanda Yates with funding from the National Science Challenge programme. Compasses are co-created by organisations providing a governance and action framework for transformative decision making centered to mauri ora, social, cultural and ecological wellbeing. It results from an initial workshop between iwi governance group Te Tatau o Te Arawa and the Rotorua Lakes Council. A checklist of transformative actions, policies and quidance accompanies the compass.

* The remaining research target will be reported on in the 2022 Sustainability Report.



THEME 3: PARTNERSHIPS AND COMMUNITY -RESPONDING TO OUR PLACE IN THE WORLD

Working in partnership with communities, industry, iwi, and local and central government often lends itself to a transdisciplinary approach and supports systems-led thinking. Transformative and regenerative change can happen through these diverse partnerships, allowing an entirely new sustainable system to emerge.

THEME 3 - TARGETS TO 2025

SUSTAINABILITY ROADMAP TARGETS	PROGRESS TOWARDS THE TARGETS	MAURI ORA COMPASS/SDGS
Establishing partnerships with external organisations based on working together towards the UN Sustainable Development Goals and/or becoming low carbon STATUS: ON TRACK	The National Science Challenge funded project – Huritanga – includes Associate Professor Amanda Yates. The project involves the development of a wellbeing/mauri ora compass and this concept has been adopted by Rotorua Lakes Council. They are the first city in Aotearoa to use a mauri-led framework to influence governance and policy decisions. AUT partnered with Auckland Art Gallery to display collections by Bachelor of Design fashion majors in the Post Fossil Fashion exhibition. The exhibit sought to expand the conversation around what fashion is now and what it could be in terms of people's consumption and supporting ecology. This relates to SDG13 – climate action.	Whole compassImage: state
Working towards AUT becoming a Fairtrade-registered organisation STATUS: NOT ACHIEVED	Only Fairtrade-certified coffee is sold in the cafés on AUT's three main campuses and 3.7 tonnes was consumed in 2021. This decrease of 2.5 tonnes from 2020 was expected, with the campuses shut down from August 2021. Fairtrade instant coffee and tea is offered to staff in the staff rooms, as well as Fairtrade coffee beans for staff room coffee machines.	Ohanga-ora

AUT X CHALLENGE

Eight student teams pitched to win AUT's entrepreneurship competition - X Challenge. AUT postgraduate students Ander Castelltort Schnaas and Hannah Wetzel (both Master of Science in Astronomy and Astrophysics, Faculty of Design and Creative Technologies), together with the rest of the Delta Waterways team, won the Supreme Winner Award.

Delta Waterways' vision is to be at the forefront of global environmental monitoring. Using the latest in satellite data and their own proprietary machine learning technology, Delta Waterways say they will revolutionise how freshwater systems are monitored.

The judges said they showed "good understanding of a global and critical environmental issue with a comprehensive, clear business plan towards addressing the problem", and liked that they had already begun building key relationships with councils and freshwater scientists. The judges were also impressed with the strength of the team and advisory panel.





THEME 4: LEADERSHIP – BUILDING OUR POSITION AS NEW ZEALAND'S UNIVERSITY OF TECHNOLOGY

AUT is ranked in the top 1% of universities worldwide, and second equal in New Zealand. AUT also leads Australasia in global research impact (per Times Higher Education World University Rankings). Our research and teaching benefits our students and addresses issues facing the environment and society.

THEME 4 - TARGETS TO 2025

SUSTAINABILITY ROADMAP TARGETS	PROGRESS TOWARDS THE TARGETS	MAURI ORA COMPASS/SDGS
Generating sustainability research projects across AUT that attract external financial support STATUS: NOT ACHIEVED	There were 60 externally funded SDG-related research projects in 2021, which is a decrease from 76 in 2020. With the overall financial value of externally funded research projects increasing from \$17.9m in 2020 to \$22.1m in 2021, more work is required around generating externally funded SDG-related research projects. AUT was awarded \$8 million for the MBIE-funded research programme Te Hotonga Hapori – Connecting Communities (see case study on the next page). AUT also received \$800,000 from a Marsden grant for socially, culturally, and environmentally sustainable Māori burials, and \$1.2 million from the Health Research Council for community and whanau-based wellbeing research.	Whole compass
Demonstrating innovation in sustainability professional practice within the curriculum and our research STATUS: ON TRACK	Anke Nienhuis, Lecturer within the School of Art and Design, worked with a group of third-year industrial design students and challenged them to design products using plastic milk bottles from campus cafes. Engineering students also worked on the project, designing and building machinery to process the milk bottle plastic. Students created furniture, a hanging divider and a plastic felt used on dividers that has excellent acoustic properties. Ms Nienhuis says, "the student feedback about this project was fantastic. They felt proud of their innovative outcomes and empowered and more confident that they can make a difference."	Whole compass

EXTERNALLY FUNDED RESEARCH – URBAN HOUSING REDEVELOPMENT

AUT has begun research on how urban housing redevelopment affects people's wellbeing. MBIE is funding Te Hotonga Hapori (Connecting Communities), which is a five-year multi-university research programme on large scale, multi-billion-dollar urban redevelopment projects by Kāinga Ora and Isthmus, an integrated design studio.

The overarching aim of urban redevelopment is to improve liveability, social cohesion, and place-based identity by providing more affordable homes and shared community spaces, says Te Hotonga Hapori research-lead Associate Professor Scott Duncan. "This research will give developers and policymakers essential information on the multifaceted impact of urban redevelopment on the people of New Zealand, including mental and physical health, and a sense of community and place. Findings will give direction to further improvements."







L-R: ASSOCIATE PROFESSOR SCOTT DUNCAN, PROFESSOF ERICA HINCKSON, MINISTER OF HOUSING DR MEGAN WOODS AND PROFESSOR GAIL PACHECO

THEME 5: SUSTAINABILITY ON CAMPUS - BEING A PLACE WHERE PEOPLE LOVE TO WORK AND LEARN

AUT is making changes to progress sustainability across a range of areas, including biodiversity improvements, water consumption and CO₂e emissions. For the third consecutive year staff and student teams participated in Green Impact - a sustainability behaviour change programme. Some significant Green Impact projects included the development of a waste sorting QR code to help staff and students recycle correctly and the completion of a waste audit of WF building.

THEME 5 – BIODIVERSITY TARGET TO 2025

TARGET	PROGRESS TOWARDS THE TARGETS	MAURI ORA COMPASS/SDGS
Preferring indigenous planting, where appropriate STATUS: ACHIEVED	Only native species were planted across the campuses in 2021, except for 23 fruit trees at North and South campuses which are part of a project to provide students with fresh, healthy food. In total we planted 46 trees, 1 vine, 5 tree ferns and more than 400 ground covers across AUT's three campuses. The trees included, rimu, mataī, taraire, kohekohe and tanekaha.	Whenua-ora

THEME 5 - TRANSPORT TARGETS TO 2025

TARGET	PROGRESS TOWARDS THE TARGETS	MAURI ORA COMPASS/SDGS
85% of staff and students take sustainable transport to/from the university STATUS: NOT ACHIEVED	The 2021 student travel survey showed that across AUT's three main campuses 67% of AUT's students were taking sustainable transport to and from AUT, with 85% of students at the City Campus using sustainable transport. For staff, 63% choose sustainable modes of travel to/from work.	Ahei-ora Image: Construction of the second secon
50% reduction in emissions from Air Travel STATUS: ACHIEVED	CO_2e emissions associated with air travel have decreased from 4,546 tonnes of CO_2e in 2018 to 191 in 2021, a 96% reduction when compared to 2018 baseline data. Due to the pandemic all international travel for AUT business was restricted in 2021.	Ahei-ora

Auckland Transport normally conducts AUT staff and student travel surveys every two years, although this has been affected by lockdowns over the past two years. The 2021 student travel survey showed a 4% increase in public transport use by City Campus students from 2018 to 2021, a 5% increase by North Campus students, and a 1% decrease for South Campus students. Responses to the staff travel survey were affected by lockdowns, so confidence in the data is not as high as previous years. AUT will develop a Travel Plan in 2022, aimed at achieving a modal shift that also supports a reduction in commuter travel-related CO₂e emissions. In February 2021, AUT hosted a Bike to Work breakfast, with prizes and an authorised mechanic onsite. Significant improvements to bicycle parking facilities are required across all three campuses to truly support staff and students to make a transition to cycling to AUT for study or work.





THEME 5 - WASTE, WATER AND ENERGY TARGETS TO 2025

AUT's total (unverified) CO_2e emissions in 2021 were 6,133 tonnes. This is a 55% decrease against the 2018 baseline. While AUT achieved this target in 2021, much of the reduction is associated with restrictions on international air travel, campus shutdowns and commuter travel. However, as with 2020, some of the reduction also relates to effective campus shutdown practices and energy efficiency projects. We are developing a Carbon Reduction Plan to identify AUT's path to permanently halving CO_2e emissions by 2025.

TARGET	PROGRESS TOWARDS THE TARGETS	MAURI ORA COMPASS/SDGS
Carbon emissions halved by 2025 STATUS: ACHIEVED	AUT's CO_2e emissions in 2021 were 6,133 CO_2e tonnes, a 55% decrease on the 2018 baseline. During 2021, all international travel was restricted, which contributes significantly to AUT's total CO_2e emissions. The campuses were also closed from August until December, and most staff and students were working and studying off campus, which further reduced emissions associated with commuter travel.	Hihiri-ora
Emissions from energy reduced by 50% by 2025 STATUS: ON TRACK	AUT's energy consumption, including natural gas and electricity, produced 1,936 CO_2e tonnes of emissions. This is a 35% decrease on the 2018 baseline. This decrease is mostly due to the August-December closedown, supported by good shutdown procedures and energy efficiency measures.	Hihiri-ora T AFFORMATEAN T AFFORMA
Mains water reduced by 20% by 2025 STATUS: ACHIEVED	We consumed 90,820kL in mains water, meeting the 20% reduction target for 2021. A significant part of this reduction relates to the campus shutdown, but there were other water efficiency initiatives implemented, such as smart water meters in buildings and water flow restrictors in tapware. AUT continues to work with Watercare to implement water efficiency measures.	Wai-ora
Waste reduced by 50% by 2025 STATUS: ON TRACK	We generated 404 tonnes of waste. This is a reduction of 42% against the 2018 baseline year and is primarily related to the campus shutdowns from August 2021. The University is introducing organic waste bins for all of the City, South and North Campuses in early 2022 to help achieve the target in a more normal year.	Öhanga-ora

THEME 5 - SUSTAINABLE ICT TARGETS TO 2025

TARGET	PROGRESS TOWARDS TH
Carbon footprint of our ICT usage reduced STATUS: ACHIEVED	AUT has two third-party da emissions from ICT usage r providers ² . In 2021, 34 tonn data centre suppliers, a dec

* The second sustainable ICT target will be reported in the 2022 Sustainability Report
 2. CO₂e emissions from electricity consumed by ICT equipment is captured through the target relating to AUT's CO₂e emissions from energy consumption on the campuses.

THEME 5 - SUSTAINABLE FOOD AND SUSTAINABLE BUILDING TARGETS TO 2025

With the AUT campuses shut down from August until December 2021 the AUT cafés and hospitality teams were unable to operate. The sustainable food and building targets will be revised to reflect the operational changes caused by the pandemic.



SUSTAINABLE ICT BENCHMARK <u>REP</u>

0 0 0 0 1 010 1 1

On our 2021 Fujitsu benchmarking report, AUT scored 71 out of 100 for ICT sustainability, up from 55 in 2018, so progress has been made and there is still more to do. These improvements relate to a move to the cloud and external data centres, the introduction and awareness of ICT sustainability targets and improved supply chain outreach. Also, through the move to Microsoft Teams and the use of the call function, approximately 2,500 desk phones were removed across AUT, which resulted in savings of 126,000kWh per year. Some of the recommendations in the benchmarking report included assigning a sustainability weighting to ICT supply purchasing, reviewing e-waste recycling with vendors, and considering software that remotely puts PCs to sleep or remotely turns them off to save energy. We have begun work on implementing these recommendations.



PORT

MATERIALITY ASSESSMENT

STAKEHOLDER ENGAGEMENT

AUT's Sustainability team conducted stakeholder engagement with some AUT Faculty staff in December 2020, and separately with students in April/May 2021. Through this engagement both staff and students highlighted that the three most important sustainability issues were:

- Mental health and wellbeing
- Climate change
- Waste and packaging

These three issues align with the three core concepts of the Sustainability Plan, Ki Tua (futures), Whanaungatanga (connections) and Mauri ora (wellbeing). These concepts pervade through the targets in the report, as such they are implicitly represented in the targets.

WHAT NEXT?

This report has begun to show how AUT is progressing around learning and teaching and research targets for the first time and has highlighted where additional attention is required. This report has begun to show how AUT is progressing against key learning and teaching and research targets. The pandemic and associated shutdowns meant AUT achieved some of its operational targets ahead of time, overshadowing the improvements due to good operational practices. The key is sustaining these achievements in subsequent years. In 2022 we are focused on making tangible progress towards our operational targets and supporting learning, teaching and research. We intend to identify aspirational targets to improve AUT's trajectory forwards around sustainability and more particularly regeneration. 2022, will begin to highlight our real progress against many targets related to campus operations this may be an area where we are lagging and additional work and resources will be required to meet the targets with staff and students back on campus. There are also some targets where we need to develop metrics and the associated data to identify our progress or otherwise.

ACKNOWLEDGEMENTS

The Vice Chancellor's Sustainability Steering Group provided guidance and feedback on the report both in terms of sustainability and how we reflect and incorporate te Tiriti into the report.

AUT's Strategy and Planning Team - in particular Liam West and Ji-yeon Wi - provided data and analysis of the information and others within the team reviewed the report.





0800 AUT UNI (0800 288 864)

Auckland University of Technology Auckland, New Zealand aut.ac.nz

CITY CAMPUS 55 Wellesley Street East, Auckland Central

NORTH CAMPUS 90 Akoranga Drive, Northcote, Auckland

SOUTH CAMPUS 640 Great South Road, Manukau, Auckland

