

Vice Chancellor's Report to Council

November 2021

Introduction

The year 2021 has seen the University make marked progress in achieving its Strategic Vision 2020–2030 while also delivering good-quality education and research in a COVID-19-affected environment. In this report, I provide an overview of the year along with some recent highlights from October and early November.

There have been significant developments in bicultural relations both at UC and in the national context. Notable was the creation of our new Treaty partnership office, building on our commitment to strengthen Māori leadership and relationships, and the proposal for five new Treaty professorial roles. Within the partnership Tokona te Raki, the Māori Futures Collective, was launched and the team co-developed developed three new qualifications to provide highly relevant qualifications supporting the outcomes that mana whenua are seeking for rangatahi and the iwi. On a related note, in 2021, the professional body for the teaching of law, the Council of Legal Education, passed a historical resolution making it mandatory to teach tikanga Māori in New Zealand law degrees.

Kia Angitu has had its first full year of rolling out projects as part of the programme to enhance student success across the board, but particularly success for Māori, Pacific and first in whānau students. We have had a successful first year of the programme, which has included launching a number of foundational pillars. One of these is Analytics for Course Engagement (ACE) which is deploying its second iteration in readiness to meet the agreed delivery at the end of 2021. UC's adoption of new software to support student engagement has presented an opportunity to integrate ACE with broader case management processes. Looking ahead on a stronger, more coherent student advising centre for the University, Te Pātaka, will be launched in Puaka-James Hight in January 2022.

UC has had significant success in competitive research funding during 2021, securing some \$100 million of contracted and/or awarded projects. This is UC's second most successful year – only surpassed in 2020 with the eight-year cycle of Centres of Research Excellence (CoRE) funding and success of the QuakeCoRE rebid.

The year was again marked by COVID-19's impact on operations, which delayed some developments, but also provided a stronger incentive to ensure that our education is accessible and flexible through a delivery model that takes a far more hybrid approach than previous years. Also related to the COVID-19 context, a significant number of adults and school leavers chose to study or upskill in 2021, raising enrolments to the highest level on record at the University. On a less positive note, the continued closure of the borders has meant a significant reduction in international students and challenges in recruitment of staff.

Following the broad consultation process that informed the University's Strategy, a new academic structure was supported by Academic Board in October and endorsed by the University Council in

the same month. From 2022, the University will have seven faculties: the faculties of Arts, Education, Engineering, Health, Law and Science and the UC Business School.

Engagement

Increase our presence and impact in Ōtautahi Christchurch and Waitaha Canterbury.

In 2021, the University continued to strengthen our relationships with individuals, groups and organisations in the region. All regional and district local authorities in Canterbury consulted on and finalised their long-term plans. As part of its commitment to Engagement the University made submissions and forged closer relationships with Environment Canterbury (ECan) and the Christchurch City Council.

The UC Business School renewed its partnerships with the Institute of Directors, and the Canterbury Employers' Chamber of Commerce and continued to support the Asia New Zealand Foundation,

The University continues to deliver a wide range of experiences for the public, including Tauhere | UC Connect public lectures, the BrainDate series, MBA Thought Leadership Series, memorial and sponsored lectures, art exhibitions at the Ilam Campus Gallery, recreation services in the gym, music performances and free mass open online courses (MOOCs). Another notable experience is the University's antiquities museum, the Teece Museum, which this year recorded the milestone of 50,000 visitors since it opened its Arts Centre gallery in 2017. The Teece Museum gained international attention in 2021 when it matched its fragment of mummy shroud with a fragment in the United States following extensive digital archiving of the collection.

Ernest Rutherford's 150th birthday was celebrated virtually during August. The School of Earth and Environment also commemorated Emeritus Professor Jane Soons, UC's first woman professor, by renaming the Geography building the Jane Soons building.

National events

Te Hunga Rōia Māori o Aotearoa, Hui-Ā-Tau Conference 2021 was held from 1–3 July at UC, proudly supported by the Faculty of Law and the Canterbury Law Review Trust. The theme for the conference, gifted by Dr Moana Jackson, was "Māori Lawyers as Agents of Mana-Based Change". This was the first time in 19 years that the national event was held in the South Island and it brought together Māori legal practitioners, judges, parliamentarians, academics, policy analysts, researchers and Law students.

In July, a three-day conference hosted by Physical Education New Zealand, Health Education Association and Education Outdoors New Zealand attracted over 250 physical educators, health and outdoor education teachers from around New Zealand. It featured professional development workshops hosted by a number of College of Education, Health and Human Development academics.

The Music Therapy NZ's 2021 Symposium was hosted at the Arts Centre campus (13–15 August) and a number of staff presented and chaired sessions.

Partner with Ngāi Tūāhuriri and Ngāi Tahu to uphold the mana and aspirations of the mana whenua.

UC announced five new professor positions and the introduction of a new Treaty partnership office, building on its commitment to strengthen Māori leadership and relationships. Kā Waimaero (the Ngāi Tahu Research Centre) will be the foundation for the new Office of Treaty Partnership. This initiative,

in embedding mana whenua – Te Rūnanga o Ngāi Tahu – into the structure of Te Whare Wānanga o Waitaha | University of Canterbury, is believed to be the first of its kind among Aotearoa universities.

Ngāi Tūāhuriri Ūpoko and Associate Professor Te Maire Tau now holdsthe lead role of Pou Whakarae working alongside Tumu Whakarae | Vice-Chancellor to uphold Te Tiriti o Waitangi at the University, to ensure the inclusion of te ao mātauranga Māori.

Make a positive impact on social sustainability in Ōtautahi Christchurch and Waitaha Canterbury.

UC's international expertise in disaster law and response continues to support the national and local social sustainability. For example, in June, Dr Toni Collins and Professor Hopkins' documentary on disaster law aired on RNZ and Dr Collins' project with resilient organisations under an Earthquake Commission grant received media attention.

Social cohesion and resilience continue to be strengthened by cultural and intellectual events that UC supports or leads. For example, UC staff assisted with the WORD Christchurch literary festival and the annual musical UC Gala Concert attracted a good audience of 250.

Make a positive impact on hauora wellbeing of the people of Ōtautahi Christchurch and Waitaha Canterbury.

A group of Chemical and Process Engineering fourth-year design students worked during the year to design a new water supply for Te Rūnanga o Koukourarata (Port Levy). They made a site visit just prior to the August COVID-19 lockdown to meet the stakeholders, see the site and go to the marae.

This year Te Waka Pākākano led the delivery of two COVID-19 vaccination clinics with a focus on ensuring Māori, Pacific and priority learners had equitable access to this important service on campus. More than 2,400 vaccinations were given at the on-campus clinics, which were held over four days. The clinics were open to the wider community – students and staff have been encouraged to bring friends, colleagues, flatmates and whānau. A significant number of Māori and Pacific students, staff and whānau attended in addition to many international students and attendees who identify as Rainbow or have disabilities.

Hosted by Te Papa Hauora | Health Precinct, the Health Research Society of Canterbury and the Canterbury Medical Research Foundation, "We're talking health" on 4 November included School of Health Sciences Lecturer Tracy Clelland and Senior Lecturer Dr Matthew Hobbs. These UC staff spoke about parenting and sexuality education and whether where we live affects what we eat.

Co-develop with our partners a research platform and commons to respond to identified needs, support city development and the wellbeing of all who live here.

The focus of Te Pae Raka Hau| Canterbury Knowledge Commons is to develop a platform that creates opportunities for joint societal research to seek answer questions to some of our region's most pressing issues when it comes to wellbeing, equity and urban resilience to support intergenerational, action-oriented policy change.

Te Pae Raka Hau has formalised a multilateral partnership agreement between UC and eight influential organisations in the region. This multilateral memorandum of understanding (MOU) has been signed between UC, Ngāi Tahu Research Centre, Canterbury Police, Canterbury Ministry of Education, the Christchurch City Council, ChristchurchNZ, The Press (Canterbury), Canterbury District Health Board, and Canterbury Employers' Chamber of Commerce. This is the first

multilateral MOU of this magnitude UC has signed and is testament to both the desire for greater engagement by UC leadership and our partners' need and respect for UC's expertise. Beyond the founding partners, ECan, Lincoln University, Te Papa Hauora and numerous youth councils and organisations have all shown an interest in collaborating with Te Pae Raka Hau.

Retain and grow the diversity of talent in Ōtautahi Christchurch and Waitaha Canterbury.

Engagement with secondary students and teachers, and our Māori and Pacific communities continued at a significant pace with multiple outreach programmes and school visits conducted. For the first time a number of Māori and Pacific scholarship sessions were carried out at a range of Christchurch schools, which led to a large number of Māori and Pacific scholarship applications. The initiative will be continued next year.

Scholarships are a keyway of attracting and keeping talent at UC and in the region. This year saw a significant increase in first-year Engineering Māori Scholarships and first-year Engineering Pasifika scholarships, with a total of 32 awarded in 2021. A new scholarship providing financial support and leadership coaching is being offered to outstanding UC Business students with the generous support of the Ben Gough Family Foundation. Another new scholarship was provided by the Chalky Carr Trust for students affected directly or indirectly by cancer.

UC runs a range of residential experiences to prepare students interested in study at the University through the year and over summer. The Elaine P. Snowden Astronomy School residential camp was run in April for 20 year 13 students from around New Zealand, which included two evenings visiting the Mt John Observatory. The annual Women in Engineering (WiE CAN) camp and the Takere residential summer programmes ran in January 2021 and will run again in the 2021/22 summer. The first prepares young women interested in engineering, while Takere prepares Māori, Pacific and first in whānau students interested in study at UC. Unfortunately, the annual summer science camp for 60 year 12 students from around New Zealand has been cancelled due to ongoing restrictions for North Island students.

UC continued to offer school outreach programmes, where secondary, primary and preschool students are invited to engage in everything from maths craft to science experiences. COVID-19 management provisions affected some events, but most continued in 2021. For example, over 160 whānau and prospective students attended the Choose Science Careers Evening at the end of May. In June, the College of Engineering provided speakers for an Auckland careers event hosted by Auckland Boys' Grammar and St Cuthbert's College. Professor Matt Watson (Chemical and Process Engineering) and Dr Fabian Gilson (Computer Science and Software Engineering) represented Engineering and Dr Sarah Kessans spoke for Product Design.

A collaborative "STEMinism" event was held on 18 May with the Women in Engineering and Women in Technology student-led clubs, Students, parents and teachers attended in record high numbers: over 180 visitors attended on campus while many more attended online. The evening was also recorded and remains live as an ongoing resource for female students interested in pursuing Engineering.

Each year UC enrols hundreds of year 13 students in 100-level distance and on-campus courses through the national STAR programme. MATH199 is a very successful STAR course offered by distance and face-to-face to year 13 students from around the country. In general, these students have completed all their school-level National Certificate of Educational Achievement (NCEA) maths

options at school and are looking for a further challenge. MATH199 Experience Day was held on 15 July, following the MATH199 workshops for distance students. UC hosted 106 students who attended various engineering and science sessions, as well as going on tours of various halls of residence. This is an enormously successful programme, attracting top young minds to consider UC.

Teacher outreach

UC offers formal professional development of teachers in curriculum, e-learning, inclusive education, leadership, bilingual and immersion education, literacy, language teaching and behaviour support as part of its core offerings. These are delivered as micro-credentials or specialist endorsements. The 2021 year saw the first tranche of teacher development micro-credentials funded by the Ministry of Education. The Better Start Literacy Approach is an integrated classroom literacy programme for year 0/1 classrooms that was taken by over 1,000 teachers throughout Aotearoa New Zealand.

On 9–10 April, Te Kura Pāngarau | School of Mathematics and Statistics hosted the Canterbury Mathematical Association conference.

In July, on the Secondary Principals' Day 65 principals from New Zealand secondary schools met with 150 UC students to discuss employment opportunities and give career advice. The September Primary Principals' Day was converted to an online event due to lockdown. Nine principals from New Zealand schools took part in online "principal panel sessions", where they discussed employment opportunities, gave career advice and reflected on the key moments in their own career. Ninety UC students watched live while many more watched the video recordings on our learning management system, Learn.

Canterbury talent development events

On 5 May the UC Business School held its third annual Women in Finance Symposium. Students were joined by a panel of industry leaders who shared their experiences and provided advice for budding women in finance. In August, finance students were very fortunate to engage in an interactive Zoom presentation, "A Changing Investment World: Challenges and Trends for Asset Management" with UC alumnus Andrew Wilson, former CEO of Goldman Sachs Asset Management International for EMEA (GSAMI), Chairman of Global Fixed Income and Liquidity Solutions within Goldman Sachs Asset Management (GSAM).

Hosted in association with the UC Investment Society and UC Business School, the annual CMC Markets University of Canterbury Trading Challenge gives students an opportunity to put their investment strategies into practice with a range of financial derivative instruments, including cryptocurrencies, gold and silver commodities, forex and shares via the CMC Markets online trading platform. This year over 200 participants, who could be either individuals or pairs, competed in real-world financial markets over four weeks. Student Luc Mackay was the winner.

Education – Accessible, Flexible Future Focussed

Deliver a curriculum that prepares our students to be enquiring and enables them to create and contribute knowledge for a better society.

In 2021, UC academics developed, submitted and received approval for 15 new qualifications. These qualifications to be offered in 2022 are the Doctor of Health Sciences, Postgraduate Diploma in Youth and Community Leadership, Postgraduate Diploma in Engineering Management, Diploma in Health

Sciences, Certificate in Health Sciences, Postgraduate Certificate in Youth and Community Leadership, Master of Philosophy, Master of Mathematical Science, Master of Systems Change, Bachelor of Social and Environmental Sustainability, Bachelor of Māori Innovation, Master of Education (Thesis), and the new Bachelor of Teaching and Learning with endorsements in Early Childhood Education, Primary Education and Mātauranga Māori (BTchLn), a Certificate in Teaching and Learning (CertEdLn) and a Diploma in Teaching and Learning.

New Science degrees offered in 2021, the Bachelor of Environmental Science with (Hons) and the Bachelor of Data Science, are attracting a good level of interest for enrolments in 2022, after the delivery of a national advertising campaign between July and October.

Other new degrees offered in 2021 are the Professional Master of Computer Science; the Postgraduate Diploma and Postgraduate Certificate in Cognitive Behaviour Therapy; a new Master of Business with majors in Sustainable Supply Chain Management, Marketing, Management and Financial Management; the Graduate Diploma in Māori Language and Pedagogies: Aumiri Pounamu; and the Certificate in Māori Language and Pedagogies: Aumiri Pounamu.

Stimulate and support academic development and innovation to become the best educators in Aotearoa New Zealand.

A key leg to the continuing development of great teaching is the Distributed Leadership in Teaching Programme (DLTP). This programme offers teaching staff time out from day-to-day teaching and the opportunity to become leaders within the teaching community by giving them sufficient time to explore their curiosity. The programme has grown since its 2020 establishment, and UC now has 10 scholars. Scholars are sharing the learning from their work in a monthly series of successful presentations. By the end of 2021, five DLTP EdTalks had been delivered.

Dr Nick Emerson (School of Product Design) was most recently awarded a UC Distributed Leadership in Teaching Scholarship for "Using technology-enhanced pedagogy to create a framework for accessible, flexible, and future-focused learning in experiential degree programmes".

UC's Kaiārahi Rangahau Māori continue to receive requests to present to teams on Vision Mātauranga and how best to bring 'effect' to mātauranga across all aspects of teaching, learning and particularly research. A series of seminars has been delivered and collateral material is being developed for the LEARN website.

The final report in the Law Faculty's ground-breaking longitudinal study of law students and law teaching, *The Making of Lawyers: Expectations and Experiences of Sixth Year Aotearoa/New Zealand Law Students and Recent Law Graduates*, was published in 2021. Funded by Ako Aotearoa, the study began in 2014, followed students from the beginning of their law degree, and impacted teaching in law schools in Australia and New Zealand. Another publication in 2021 was an exploration of the likely effects of law school on students' psychological wellbeing – see Valerie Sotardi, Lynne Taylor, Erik Brogt, Ursula Cheer and Natalie Baird (2021) "Influences on students' interest in a legal career, satisfaction with law school, & psychological distress: trends in New Zealand", published in *The Law Teacher* (DOI: 10.1080/03069400.2021.1968166).

International recognition of qualifications and schools

UC was the first institution to gain Royal Society of Biology international accreditation for a three-year (pre-Honours) undergraduate major – the degree type offered in New Zealand and Australia. The

Royal Society of Biology (RSB), based in London, United Kingdom, recently made the decision after assessing the UC programme and meeting with the teaching team. The major is accredited by the Royal Society of Biology for the purpose of meeting in part the academic and experience requirement for the Membership and Chartered Biologist (CBiol).

A new major in the Bachelor of Data Science, Business Analytics, will be offered in 2022. As a result, the degree now offers majors from science, engineering, arts, health and business.

In January, the Association to Advance Collegiate Schools of Business (AACSB) confirmed the reaccreditation of UC Business for a further five-year period following the continuous improvement review undertaken in October 2020. AACSB, founded in 1916, is the longest-standing global accrediting body for business schools. Its accreditation is the hallmark of business education excellence and is earned by less than 5% of business schools worldwide. AACSB Accreditation Standards are used as the basis to evaluate a business school's mission, operations, faculty qualifications and contributions, programmes and other critical areas. AACSB accreditation assures students and parents that the business school is providing a top-quality education that is relevant to and engaged with industry.

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In August UC launched the Doctor of Health Sciences (DHSc) programme at the Canterbury District Health Board (CDHB) Career Expo. The Expo featured five events across five prominent health locations and was followed by advertising and promotions (including coverage in the CDHB enewsletter). Six applications have already been recorded for the qualification, which continues to attract significant interest in the Canterbury area.

New specialisations, minors and large courses for 2022

The Bachelor of Arts was revised to greatly improve the educational experience of students, by introducing a new set of core courses and a new range of specialisations – a first for the BA at UC. The specialisations have been strongly welcomed by schools, parents and students, and engagement is tracking well. Arts also substantially revised its Bachelor of Music degree, adding a new major in Creative Music Technology, building on the international expertise of staff in the School of Music.

UC will introduce a new minor in Business Analytics in the Bachelor of Commerce. This is designed to strengthen the UC offerings by providing a complementary offering in the area of business analytics/big data. To be 'housed' within the UC Business School, this proposed pan-University qualification (minor) is expected to attract new students to UC and into related degrees across many disciplines such as the BCom, BSc and BA.

An Aerospace minor is to be introduced in the Mechanical Engineering programme in response to student interest and the growth of the aerospace sector in New Zealand. This joins the Biomedical Engineering minor and will create new, exciting opportunities for Mechanical Engineering students starting in 2022.

COSC131 Introduction to Programming for Engineers was introduced in 2021 and is now the largest course on campus. Creating this course to cater to all first-year students across the nine engineering disciplines was a significant exercise, with thanks in particular to Dr Richard Lobb and his team in

Computer Science and Software Engineering (CSSE). Dr Lobb was recognised this year by Ako Aotearoa with a prestigious national award for Sustained Excellence in Tertiary Teaching.

Online learning

UC's Future Learning and Development team continues to deliver the contextualised co-design process entitled Aropapaki. During the year, as course development has continued, 28 courses have gone through the Aropapaki process to add quality online options and another 10-degree courses were supported to develop their online options. In response to workshops in early 2021, where participants considered having more support for online delivery is desirable, UC Online as a concept was developed and will expand future learning opportunities further. One obvious advantage of this approach to emerge already has been that courses are less dependent on printed material in a COVID-19 lockdown.

The Kaiārahi have continued to work alongside the Future Learning and Development team to support the development of online and blended/hybrid learning. Involvement in the centrally coordinated codesign process that enables rapid, high-quality online design and development has enabled further embedding of the bicultural graduate attribute.

The School of Psychology, Speech and Hearing will be offering the Graduate Diploma in Science, in Psychology, fully online in 2022. The programme will allow greater flexibility for students and lead to pathways in child and family psychology, clinical psychology, industrial and organisational psychology, and research.

This year UC developed a mentoring programme called Tūhono a-Ipurangi (Offshore, Online) to support students studying online in other countries. Feedback from offshore students has demonstrated the valuable connections these mentors provide for them, enhancing their UC experience.

UC is experiencing growing demand for online courses and massive open line courses. UC currently has 15 MOOCs online. The most popular are Mental Health and Nutrition; A Better Start to Reading; Basics of Statistical Inference and Modelling Using R; and Introducing Text Analytics and Natural Language Processing with Python.

Professor Ben Kennedy and their team are one of 12 international finalists for the sixth annual edX Prize for Exceptional Contributions in Online Teaching and Learning. The edX Prize is an annual award that celebrates the contributions and innovations of educators in the edX community and amplifies the powerful role that online learning plays in the transformation of education today.

A new MOOC is being offered by the School of Psychology, Speech and Hearing on Performance and Motivation at Work. This is being led by Professor Katharina Naswall and Dr Fleur Pawsey.

Executive Education

Another advance in 2021 was the formal establishment of the Executive Education programmes in the UC Business School. Following on from research into market need and competitor offerings, a suite of five short courses was developed, scheduled and promoted, largely through networking complemented by a small number of social media. The first course ran in May. Some course subjects have been in such demand that they have now been delivered as many as three times in the period May to November.

In mid-September, Executive Education was beneficiary of the Vice-Chancellor's strategic staffing funding to allow for the appointment of a number of Professors of Practice, industry experts who work on fractional contracts to design and deliver additional products to grow the suite and generate additional revenue. Planning for this is now underway.

From the ever-popular Te Ngao Tū: Conversational Māori for Absolute Beginners to Advanced Financial Accounting, the University continues to offer both on-campus and online Summer School courses. The 2021/22 programme will see a significant number of online and distance courses.

For 2021, UC's expanding accessible, flexible and future-focused education has developed rapidly. One of the key components of the Strategy was to provide better learning technologies and to support academics in using them. Online tools, while bringing their challenges, have been used more widely and improvements in them have been noted across the year. The Future Learning and Development team supported online exams with daily drop-in sessions for academics to support them in transitioning to remote teaching and learning and developing online exams, as well as offering afterhours support for online tests and exams.

The development of Te Rua Makerspace is complete. This innovative collaborative space has delivered a calendar of events across both semesters and supported student wellbeing during lockdowns. Operating smoothly, it enjoys a strong reputation as an interconnector and a multidisciplinary convergence learning space offering regular activities that support makers.

Turning the focus of the Library away from physical collections and towards learning spaces has been supported again in 2021 with significant collection withdrawal and relegation work on Level 4 Puaka-James Hight and various storage areas to enable the creation of additional flexible study areas. These have been developed in consultation with University of Canterbury Student Association (UCSA) and the design has taken into account the popularity of the recent changes to Level 10.

The School of Product Design's Food Grade Lab was completed in time for the start of Semester 2 and is open for use by a range of departments across Engineering and Science colleges. It has proved popular with Chemical Formulation Design students, who are now able to broaden their project work beyond personal care products to include food and nutrition-related product.

The Library has formed a Library Māori Staff whānau group to provide whakawhanaungatanga and support for Library Māori staff and recruitment to increase the support for priority groups, which has been a focus with additional Kaitakawaenga and Pacific support positions.

Research - Impact on a Changing World

Develop and support transdisciplinary research to better impact local and global challenges.

Transdisciplinary research has continued apace through the year. The three transdisciplinary clusters (Biosecurity Innovations, Community & Urban Resilience, Te Pae Hiwarau) funded from 2021 have progressed their respective research agendas with a full programme of research engagement, some external funding success, and a portfolio of new doctoral research projects initiated. Further transdisciplinary initiatives have commenced, including UC hosting a successful Climate Change Panel workshop discussion with more than 80 participants, to stimulate social and economic policy research so as to 'map' possible societal trajectories for New Zealand to transition to a carbon-neutral state without creating further social inequity. The goal of this workshop was to enhance opportunities

for non-STEM disciplines to address this important issue, so that academics across multiple disciplines work together to come up with potential solutions and adaption strategies.

UC is undertaking a cross-organisational engagement of UC academics with the New Zealand Space Agency. The recently appointed new sector development representative is now resident in Christchurch, further highlighting the national importance of the Canterbury region in growing this nascent industry. The goal is to develop broad and enduring relationships with the Space Agency, building on the successes of last year, and to leverage funding opportunities and international relationships. The breadth of nascent research includes issues of legal liability of satellite collision and damage, and potentially new satellite insurance markets.

Food Transitions 2050 – a collaborative postgraduate programme between UC and Lincoln University, AgResearch, Plant & Food, and Manaaki Whenua | Landcare Research – has funded a further 15 doctoral research projects addressing innovation and sustainability issues related to future food and fibre production. Each project is co-supervised by one of the universities and at least one researcher from a Crown research institute. The programme is beginning to attract and leverage additional scholarship funding with the Ministry for Primary Industries funding a further five doctoral research projects.

Underscoring the interdisciplinary innovation being undertaken at UC, all five winning entries for the Research and Innovation (R&I) annual Tech Jumpstart competition (sponsored by KiwiNet, WNT Ventures and Bridgewest Ventures) involved a combination of engineering and design academics. Three awards went to academics or teams involving Product Design, including collaborations with Civil and Natural Resources Engineering (a sustainable building panel design involving seaweed); Health Sciences and Computer Science (an app to help young people learn about sexuality); and nanosatellite applications. Another award went to Civil and Natural Resources Engineering (low-cost base isolators) and a collaboration between Biological Sciences and Electrical and Computer Engineering (a capillary-based sensor for wine quality).

During the year, the Centre for Waterways Freshwater Management has strengthened the partnership with Lincoln by consolidating staff and resources and locating them at UC. Two new Lincoln academics are being recruited and will be joining UC early in 2022.

Improve the national and international research profile, reputation and ranking of the University.

Professor Elisabeth McDonald's seminal research on trial practice in rape cases continues to have widespread and international impact, with the New South Wales Law Reform Commission citing her book as one of the developments "likely to have significant implications for law reform worldwide" (Report 148: *Consent in relation to sexual offences*). In *Sinclair v R* [2020] NZCA 608 the Court of Appeal cited Professor McDonald's work and agreed with her analysis of how the rules on admissibility of evidence of sexual history should be applied in the context of credibility assessments. With the support of Te Kura Kaiwhakawā, Professor McDonald visited judicial common rooms throughout the country from March to June to talk about the outcomes of her rape trial process research. Professor McDonald also presented the findings to Crown prosecutors at Meredith Connell and those working with vulnerable witnesses for Te Kura Kaiwhakawā.

Rankings

UC continues to progress actions across the University to improve its portfolio of international ranking outcomes, with each ranking scheme having slightly different methodologies and ranking

outcomes. One of the highlights for UC during 2021 was that we improved the Quacquarelli Symonds (QS) institutional ranking from 270 to 258 and so retained fourth place among the New Zealand universities. We were also assessed as Silver and Silver for the two aggregations of the 17 Sustainable Development Goals (SDGs) into "Environmental Impact" and "Equal Opportunity Impact" in the QS SDG Ratings, which places UC fifth among the New Zealand universities. For QS subject rankings, UC retained top 100 rankings for Civil Engineering and Linguistics; Earth and Marine Science, Geology, and Geophysics were all ranked 101–150; Politics and International Studies, Accounting and Finance, Law and Legal Studies, and Geography ranked 151–200; and English Language, Education, Sociology, Psychology, Economics and Econometrics, Statistics and Operational Research were all ranked 201–250.

Within the Times Higher Education (THE) rankings, UC declined in the institutional ranking to 501–600. However, it improved its subject rankings: in the arts and humanities, Art, Performing Art, Design, Language and Linguistics, and History and Philosophy rose to 251–300; in social sciences, Geography, Sociology, Political and International Studies, and Communication and Media Studies rose to 176–200; in business and economics, Accounting and Finance, Business and Management, and Economics and Econometrics rose to 151–175; Psychology rose to 301–400; and Computer Science rose to 401–500.

Additionally, UC submitted for the first time this year into the THE Impact Rankings, which assess both research publications and institutional actions addressing the SDGs. Here UC gained a ranking of 201–300. An important aspect of this particular ranking is providing publicly accessible documentation and demonstration of research impact via media reach. New emphasis is now being placed on linking research publications to both UC's research themes and individual SDGs where appropriate. UC will submit against at least eight of the 17 SDGs (where four is the minimum) and we anticipate a marked improvement in our results, though it is anticipated that more universities will submit in this relatively new ranking scheme.

Finally, within the lesser-known Shanghai Ranking (ARWU) system, UC retained an institutional ranking of 401–500. We remained highly ranked in Civil Engineering (ninth) and Hospitality, Tourism and Management (34th), while Ecology and Transport Science and Technology were ranked 151–200.

Gaining valuable insights into UC research impact

Institution-wide research analytics using recently acquired access to SciVal are being rolled out across the University to better understand where UC's research has high impact. This will, in part, underpin our future strategic research investments, aligning with UC's Strategy to enhance the University's research excellence and reputation. A reporting framework and guidelines for ethical use of metrics are in development. Similarly, UC academics are increasing their dissemination via tweets of recent research publications to increase their visibility. Initiatives around assisting researchers to make informed publishing decisions are progressing, including improved reporting from the UC Research Repository, which will tie in with the SciVal reporting framework and enable researchers to better assess their research performance.

Enhancing Post Graduate Research

Considerable progress has been made towards the development of the UC Graduate School. In August, the Academic Board resolved that the Graduate School would co-support doctoral and

research master's students, in conjunction with their supervisors and departments or schools. The Graduate School will provide consistency of support and advising, co-development of new and innovative degree offerings, provision of transferable skills opportunities, and supervisory professional development. Planning is now underway, with a soft launch for doctoral students expected in early 2022. Additionally, the portfolio of post-graduate research qualifications is being expanded with UC recently receiving Committee on University Academic Programmes (CUAP) approval for a MPhil. degree. Other professional doctorate programmes are under active consideration and development.

In 2021, a new doctoral orientation programme was launched at UC. The programme provides new students with clear and comprehensive information on expectations, degree requirements and important doctoral milestones – as well as opportunities to meet with other doctoral students from across UC, discuss their research, and form networks that we hope will be strengthened across their doctoral journey at UC. The in-person event is held three times per year, with an online option for students who have commenced their studies overseas.

In 2021, postgraduate student research was presented through a 12-episode series on the UC Science podcast. Students from across science spoke about their research. For example: master's student Catherine Sivertsen discussed her research on improving language development in children; biological sciences master's student Flynn Adcock presented on making bioplastics from bacteria; and environmental science PhD student Sarah Guy talked about environmental contaminants and the exposure to radioactivity through ingestion of shellfish. The series was shared on social media channels and was also distributed on Plains FM.

Science postgraduate students have achieved success in their respective 3 Minute Thesis (3MT) competitions. Natasha Gardiner, a PhD student from the School of Earth and Environment (SEE), represented UC as a semi-finalist in the 3MT Asia-Pacific competition for "defording an ice relationship in a warming world" and SEE master's student Charles Ching won the national 3MT on "How staring at a lake can save lives".

Associate Professor Stefanie Gutschmidt (Mechanical Engineering) introduced a new initiative to encourage postgraduate students to write papers/thesis chapters. Eighteen postgraduates and staff took part in a focused session. Master's and PhD students at all stages of their research attended, including some from co-supervised departments such as Mathematics and Computer-Science. Skills and experience were shared on a variety of topics including writing techniques, correspondence with editors and reviewers, re-submissions, formats, rejected work, journal rankings, and impact. Senior academic staff provided valuable insights into successful writing and publishing. Among the outcomes were five new paper submissions (including two PhD student submissions) and progression of various papers to an advanced stage of completion.

Recruiting high quality research students

Despite the border restrictions, new doctoral enrolments (at 189 students) are up approximately 45% compared with the same time in 2020 and are comparable with 2019 pre-COVID levels. Overall, the number of doctoral students, by head count and equivalent full-time students (EFTS), remains marginally ahead of 2020. Twenty percent of the new cohort have been funded via the Aho Hīnātore | Accelerator programme, which was established in 2020 in response to the pandemic, aiming to retain UC's best and brightest potential postgraduate students. The programme has been highly successful,

with UC recently awarding 46 new Aho Hīnātore | Accelerator scholarships for commencement in 2022.

Approximately 60 students from 28 countries have begun their PhD studies from overseas in 2021. A small proportion of these students have been able to enter New Zealand via the 'other critical worker' visa exemption. Supervisors and the Postgraduate Office alike are working hard to ensure this cohort of students have appropriate support, but at a distance providing such support requires additional effort and is not without risk.

Dr Cara Swit, in collaboration with the R&I team, has worked to expand the Emerging and Early Academic Researcher Network (EEARN) across UC. In mid-October the first University-wide EEARN hui took place, with approximately 30 academics in attendance.

Increase and diversify funding sources for the University's research portfolio including for research institutes, centres and clusters.

UC has had very significant success this year in securing competitive research funding during 2021, securing contracted and/or awarded projects to the value of some \$100 million during the year. This is UC's second most successful year – only surpassed in 2020 with the eight-year cycle of CoRE funding and success of the QuakeCoRE rebid. Notable achievements this year include the best-ever outcomes for UC in both of New Zealand's major research funding rounds: the Ministry of Business, Innovation and Employment (MBIE) Endeavour round resulted in funding for eight Smart ideas and two Research Programmes worth about \$24 million (see below); and the Marsden Fund produced 13 awards where UC is the lead and a further eight where another institution is the lead, which together are worth a total of more than \$11 million. Other significant highlights are: two successful awards (out of a total of three funded) in the NZ-German Platform for Green Hydrogen Integration worth a total of \$4 million; success as a partner in the Ministry of Foreign Affairs and Trade (MFAT) Pacific Climate Change project, which is a large-scale partnership with the University of South Pacific worth a total of value of \$4.5 million; a number of successes for the Child Well-being Research Institute with large Ministry of Education contracts, the most notable of which is a \$10 million contract around phonics-based literacy; and extensive success with the Canterbury Medical Research Fund for the second year in a row, including five successful project awards, making it our biggest success to date with this local philanthropic fund.

Professor Richard Green's (CSSE) MBIE-funded programme, enabling unmanned aerial vehicles (UAVs or drones) to perform precise tasks in complex environments, will benefit from \$9.8 million over five years. "Our research will go beyond simple surveying and inspection tasks. We will build a platform for UAVs to use precision tools in changing dynamic environments, such as outdoors, around hazardous infrastructure like power pylons, or in construction or forestry, without ladders or scaffolding," Professor Green says. "Enabling UAVs to use precision tools is a new technological capability and a radical change in functionality. It will not only transform the way UAVs can be used, but also how and where."

Dr Bill Heffernan's (Electric Power Engineering Centre) MBIE-funded research programme will benefit from \$5.2 million in funding over five years. It is focused on a new electromagnetic detection and imaging method aimed at boosting food safety systems. The technology, first developed for the timber industry, is being adapted to identify foreign objects in food, such as milk.

Improve strategic local, regional and international research collaborations to increase research impact.

Gateway Antarctica researchers have had an active year participating in joint research efforts, influencing Antarctic policy and connecting through international seminars such as the annual Antarctic Treaty Consultative Meeting, and the Committee for Environmental Protection meeting in June. Associate Professor Daniela Liggett was the plenary speaker on policy and governance at the recent Ninth Malaysian International Seminar on Antarctica. A number of staff and students are in Antarctica for the season including Associate Professor Wolfgang Rack and PhD student Usama Farooq. Postdoctoral fellow Gemma Brett and PhD student Natasha Gardiner travelled with Professor Ian Hawes (University of Waikato) to the Korean Base Jan Bogo (Terra Nova Bay), where they will investigate what 'fast ice' can tell us about climate change. Technician Pete Wilson will be travelling later in November, with over 400 kilograms of equipment to install and repair Antarctic weather systems and establish a new satellite communications system.

Recently R&I hosted its annual Innovation Jumpstart competition following a hiatus in 2020. This year saw 17 applications from across the university, many of which were transdisciplinary and involved postgraduate students. Five award winners were announced in an awards event. Each successful project received \$20,000 to support transforming their valuable ideas into commercial reality so they can make a difference in an ever-changing world. KiwiNet, WNT Ventures and Bridgewest Ventures contributed to the prize pool.

The Law Faculty advanced its influential work in the area of disaster law. The Institute of Law, Emergencies and Disasters (LEAD) brings together a cluster of multidisciplinary researchers based at the Faculty of Law, working on all aspects of law, governance and disasters. The group has connections with a global network of disaster law experts and has strong links both internationally and domestically with academics from various related disciplines. The group also engages with a range of stakeholders in local and central government as well as non-governmental organisations, businesses, the legal profession and the wider community. In March the International Disaster and Emergency Network (which is managed by LEAD and currently chaired by Professor John Hopkins) hosted an international seminar on "Vulnerability, Emergencies and Disasters", with speakers from the United Kingdom and Ireland.

Professor Hopkins was also awarded a QuakeCoRE Strategic Grant to undertake a mapping of disaster law judgments in New Zealand and the Pacific. This funded a postgraduate researcher to work with a wider International Federation of Red Cross (IFRC) project (managed by University College Cork) that is aiming to build a global database of disaster case law.

The IFRC had an Asian launch of its report on Law and Public Health Emergency Preparedness and Response: Lessons from the COVID-19 Pandemic in September. The contributing authors to this report were the IFRC, White and Case (a New York international law firm) and a Law Faculty team from LEAD. Special thanks go to Sulaiman Sarwary (PhD student), and Laura Braid and Talia Siataga (LLM International Law and Politics students) for their work putting together the reports on New Zealand (Sulaiman) and Pacific Island states (Laura and Talia – on Fiji, Republic of the Marshall Islands, Papua New Guinea, Tuvalu, Solomon Islands, Samoa and Vanuatu) under the joint supervision of Professor Hopkins and Finau Leveni (Deputy Director, Caritas NZ). The IFRC Pacific Office and the Pacific Island Forum Secretariat technical advisory group were particularly pleased that the Pacific Islands had a strong presence in international research on disaster law (25% of the 32 case studies). This is entirely thanks to LEAD.

See a two-page snapshot of the report. For other LEAD projects, see https://www.canterbury.ac.nz/law/research/lead/lead-projects/

The Digital Education Futures Lab (School of Educational Studies and Leadership) continues to build its international profile under the able leadership of its co-directors, Associate Professors Cheryl Brown and Kathryn MacCallum. During 2021 Associate Professors Brown and MacCallum have contributed three articles to *The Conversation*, particularly around opportunities and concerns related to young people's elevated engagement with digital technology in the context of COVID-19. The most recent of these articles generated over 23,000 reads. Associate Professor Brown progressed her MBIE-funded Curious Minds project, which had been deferred from 2020, while Associate Professor MacCallum was elected President of the International Association of Mobile Learning (IAmLearn).

Provide, access and share 'state of the art' research, equipment, facilities and e-infrastructure.

The Strategic Research CAPEX fund is finalising investment decisions in the coming weeks, allocating some \$1.5 million of funding to strengthen UC's research capability, with investments that build on UC's research strengths and are significant on at least an Australasian scale. Four business cases for investment are being assessed. This year UC has provided lab and office access to three University start-ups: ZinCovery, Transfection Holdings Limited and Aegis. Negotiations for further access for a growing UC spin-out company are also well advanced.

People – Nurturing Staff, Thriving Students

The ongoing personal effects of the pandemic have been testing for many staff and students A focus of the People and Culture team in 2021 has been on supporting the wellbeing and performance of leaders and staff in responding to the challenges of working in a COVID-19 environment. This has included the transition in to and out of the period of lockdown. This year has been another one of change as we continue to reorganise ourselves in order to implement the UC Strategy. People and Culture has supported structural change in academic units, Information Technology, Research and Innovation and the portfolio of the Deputy Vice-Chancellor (Academic), among other areas. A project team has been stood up to work with the Vice-Chancellor on the changes that have led to date to the creation of the new structure of seven faculties, led by Executive Deans. The initiative by Heads of Schools to create a regular forum has been a successful innovation for cross-University communication and leadership development during these changes. Another focus for People and Culture this year has been on systems improvement. A new staff recruitment system has been bedded down in 2021, and a new online staff orientation system introduced.

The Director of Facilities Management revamped his leadership structure and personnel in the first half of the year. This resulted in external appointments providing fresh direction for our Asset Planning and Delivery team, our Asset Operations team and our Support Services team. Progress has been made in developing a new space plan, with an initial focus on introducing tools to improve understanding of space utilisation. Major initiatives this year have included the sustainability project, supported by the Energy Efficiency and Conservation Authority, on the conversion of the Ilam boiler to biomass, as an interim step towards heating our buildings via ground-source heat pumps; the beginning of the multi-year programme of investment in our buildings to ensure that learning, low-carbon, seismic and general asset management objectives are achieved; in-depth analysis of the Pūtaiao Koiora building with a view to making recommendations in early 2022; and the remediation of the High Voltage Lab.

The University appointed its first-ever Emergency Management and Business Continuity Manager this year. This role will provide a day-to-day focus on championing the University's emergency preparedness, to supplement the leadership that the Incident Management Team provides in times of emergency. An early example of the role's influence is the creation of a COVID-19 Steering Group to oversee the addressing of business-as-usual matters relating to the pandemic. The University has again demonstrated this year that its people and systems capability to respond to an emergency is strong.

Values development

Te Waka Pākākano Māori staff Dr Darryn Russell, Liz Brown and Jeanine Tamati-Elliffe worked with members of the People and Culture team to develop a set of three values: Manaakitanga, Whanaungatanga, Tiakitanga. These were coupled with identified behaviours that make the values more tangible and observable. A series of workshops with staff and students were held to explain the values more explicitly and a series of resources is being developed to assist such communication further. Additional expertise and support have come from three academic colleagues who have research interests in this domain – Professor Katharina Naswall (Psychology, Speech and Hearing, Science) and Associate Professor Sanna Malinen and Dr Anna Earl (both from Management, Marketing and Entrepreneurship, Business and Law).

Despite the COVID-19 lockdown, Te Waka Pākākano continued to deliver professional development workshops throughout 2021 when restrictions allowed. Workshops included: six Tangata Tū, Tangata Ora two-day workshops, eight te Reo for the Workplace half-day workshops and four Culturally Responsive and Sustaining Pedagogy workshops. In addition, Te Waka Pākākano Māori and Pacific staff jointly delivered two blended Culturally Responsive and Sustaining Pedagogy mini workshops.

Develop and provide targeted interventions and a positive environment to support student success.

In line with our strategic focus to have more accessible education and also to see our students thrive, UC launched Kia Angitu, an ecosystem of projects aimed at student success Analytics for Course Engagement (ACE) is deploying its second iteration in readiness to meet the agreed delivery at the end of 2021.

Peer Assisted Learning Sessions (PALS) has also had its first full year and we have seen excellent results for those students who were included in the first pilot iteration. The programme was oversubscribed by students from Kia Angitu key target populations (Māori, Pacific, first in whānau, low school decile and students with disabilities). Initial results reveal that students who participated had significantly higher performance in the course than those who were invited to participate but did not take up the offer. PALS is a cost-effective and impactful intervention and, as part of Kia Angitu, it is set to be delivered to more first-year critical courses in 2022.

Another key 2021 development has been the changes to academic advisory services for first-year students. To ensure we can work to support all students, we are currently undertaking significant planning for coordinated and centralised advising. This will be joined up and delivered as part of a wider student services support function housed in Puaka-James Hight. A mini-student hub was formed at the start of 2021 and based in Matariki Level 0. This involved collaboration with several student services teams including Liaison, International Relationships Office, Admissions, Scholarships, Equity & Diversity, Student Care, Māori and Pasifika together with the Information Desk and IT teams. This was a one-stop shop to provide support for students in a single space. This

concept has grown in magnitude and student hub Te Pātaka will start operating in Puaka-James Hight in January 2022. Te Pātaka will cover two floors of the Library, with reception on entry level and advisory services located on the mezzanine. This prominent location will ensure students can easily access support services in a one-stop-shop delivery model. While planning for Te Pātaka has taken most of Semester 2, the busy period is about to commence. In November (post exams) and December, there will be a flurry of activity within Puaka-James Hight. The launch for Te Pātaka is set for late January.

A total of 36 Māori and Pacific students successfully completed a six-week Takere Academy programme, which included a 15-point first-year course, EDUC101, in early 2021. The Takere Academy provided new to UC students in priority groups (Māori and Pacific who are first in whānau and/or have a disability and/or come from lower-decile or low socio-economic backgrounds) with the support needed to transition better from school and home to UC. Research and evaluation of this cohort have been undertaken throughout the academic year, which has involved tracking, measuring and capturing key learnings for the cohort in the areas of growth mindset, fear of failure, self-efficacy and the identification of learning style. The final report is in preparation and will be available in late January 2022.

It is evident that the connection of the students as peers has been beneficial in supporting Māori and Pacific students to access support, advice and help whenever they need it. Additionally, their presence on campus has been positive and uplifting – both in academic spaces (acknowledged by several lecturers) and on the campus in general (Takere students volunteered to provide support at O-Day and Aukaha events). Regular connection across the academic year through structured study sessions and appointments with Te Waka Pākākano student advisors has also been a priority.

A new iteration of Takere is currently under development. We received 105 eligible applications for a new Takere Scholarship and Academy programme, of which 75 applicants were shortlisted for whānau interviews. Fifty applicants have now been sent a Letter of Offer; to date, 48 recipients have accepted, and two applicants are yet to accept. Among those who have accepted the offer, 46 have opted in for full-year subsidised accommodation at Tupuānuku for the 2022 academic year (the final two are yet to confirm). A new Special Topic 100-level 15-point course, MAOR120: He Takere Waka Nui, has now been developed and will be taught by Aotahi | School of Māori & Indigenous Studies throughout the six-week Takere Academy programme over the 2021/22 summer.

Recruitment of Taurima (RAs) to support the social, cultural and pastoral care of students throughout the Academy programme is underway. Many of these students are either current Takere students or senior Māori and Pasifika students who were Taurima for the inaugural programme. Four supplementary instructor leads are being recruited to support the delivery of academic content within the programme.

Both Māori and Pacific student enrolments grew significantly this year, leading us to our largest-ever cohort of students in these groups. During 2021 significant changes were implemented in student service delivery for Māori, Pacific and Rainbow students. To take advantage of scale, after being in Te Waka Pākākano for more than a year all student-facing services for Māori, Pacific and Rainbow were brought together under a new structure that focuses on function of role, in contrast to the previous siloed approach to delivering student support. This required physical relocation so that the 15 staff involved could be located together within Te Ao Mārama building. The new configuration has led to better office cover, more advisors for students to see, cross-pollination of student service

delivery, improvement in processes and efficiencies in student pastoral care, and better team collaboration. The change has also better placed the services to respond to the new pastoral care code, especially in regard to compliance for priority learners and communities. Furthermore, the timing of these enhancements to student services has synched well with the progression and growth of the Kia Angitu programme. Te Waka Pākākano student services staff have been significantly involved in cocreation and co-delivery of many of the Kia Angitu workstreams to ensure the space is responsive to priority learners.

Staff wellbeing, health and safety

The new Director of Health and Safety has recruited a largely new team early in the year and has instituted a partnership model so that every leader has an expert health and safety support person. A refreshed health and safety plan has been developed and activated, an in-depth analysis of risk across the institution has been conducted, and a new health and safety system (Assura) launched so that better data can be collected and reported.

UC is one of the first organisations in New Zealand to have a formal menopause support programme. Devised and led by College of Engineering Operations Manager Julie Stafford, the programme aims to provide education and support and to break the 'taboo' around openly discussing this important aspect of women's health. The launch of the programme on 18 October (World Menopause Day) was followed by a seminar by a leading endocrinologist on 22 October.

This work aligns with the following current pan-University projects:

- UC Strategy (Nurturing Staff and Inclusiveness)
- Wellbeing Implementation Plan
- UC Values.

The University launched our new health and safety reporting system, Assura, in 2021 to support increased engagement with health and safety right across the University. Assura is designed to record:

- incidents report work-related injury, illness, and near misses
- safety observations report safe practices, suggestions, unsafe practices and unsafe conditions
- meetings store your health and safety meeting minutes, record and track progress of meeting actions
- actions address health and safety concerns by assigning and closing out actions.

Assura aligns with UC's Strategic Vision of nurturing staff and better organisational efficacy: using technology and data in a responsible, ethical, effective and efficient way to enable and empower our people and communities. It is part of improvements to our systems to support staff in their daily work and create a positive work environment.

The School of Product Design successfully underwent its external SafePlus assessment in September. It was assessed as Leading in areas under Leadership, Worker Engagement and Risk Management, and Performing in all other areas. This is a great achievement for a new school, within four years of set-up, that has a challenging hands-on practical work component to the degree.

There was a strong focus on staff wellbeing in communications during the August COVID-19 lockdown while staff worked from home. The Health Centre, Recreation Centre and Student Care teams moved into the People, Culture and Campus portfolio this year. This now brings together all

the areas that champion wellbeing for staff and students and provides the opportunity for further integration of the University's approach to wellbeing for all members of its community. The Health Centre was open during all alert levels this year, with some physical reconfiguration needed at times. The Student Care team was able to offer online services during lockdown. The Recreation Centre also created a successful range of online classes for students and staff.

Student Wellbeing

UniLodge had a successful first year in running the new University-owned Tupuānuku facility. In October it also bought what is the majority of university accommodation from Campus Living Villages. UniLodge and the three other independent accommodation providers now have partnership agreements with the University and formal discussions take place regularly about performance against these agreements, notably about student wellbeing. With these fundamentals now in place, a planning process is underway to look at what the accommodation needs of students and the University are for the next decade and beyond. This includes considering how accommodation facilities might be used to enhance opportunities for residents to connect socially. Student wellbeing and support for access to resources that enable lecture attendance and study have been focus areas for the Accommodation Services team and their partner providers for 2021. During the period of COVID-19 lockdown this year, occupancy within halls of residence dropped to 52% of contracted students but returned to 97% following the mid-semester break and the resumption of students' ability to travel.

An app to support students (UCGO) is being refreshed with a new interface focusing on the student experience, making it easier to find support services. Materials for new to UC students are also undergoing a transformation in that they are being digitised, as a medium that is both more environmentally friendly and more accessible to students.

The Library has had a strong focus on supporting students through the year. Given that it provides popular study spaces, the Alert Level 2 restrictions on numbers have been challenging as the Libraries have reached the limits on numbers during the day. The new study pods on Level 10 of Te Puna Mātauraka | Central Library have proven a hit with students as silent study spaces. Te Rua Makerspace is growing in popularity, with 330 students attending an event or workshop there in October 2021.

A project team is progressing well towards ensuring the University's compliance with the new Education (Pastoral Care of Tertiary and International Learners) Code of Practice ("the Pastoral Care Code"). A gap analysis has been completed and an action plan developed to close identified gaps in the University's performance against code requirements. The team has identified, and is working with, managers who have taken responsibility for addressing each of the gaps.

Equity Review

This year we successfully completed the inaugural equity review and have started the co-design process with students and staff to inform the response plan. More than 800 students and staff have engaged in both the review and response planning to date. A range of equity-related goals have been achieved alongside the review and response planning process, including receiving investment and approval to record important priority student demographic attributes such as Rainbow on our UC enrolment platforms. This investment will allow student advisors to proactively engage with priority students when times are good, rather than after challenging situations that impact their study have already occurred. The equity review response planning co-design process will continue in early 2022.

In late 2021, Kaihautū Matua Pākākano | Executive Director Māori, Pacific and Equity Sacha McMeeking was appointed and will be developing and implementing a new organisational design for Te Waka Pākākano. Sacha will work in partnership with the Ngāi Tahu Centre to support the exploration of UC structural arrangements for engagement with the Māori community and for acknowledging UC's commitment to Pasifika development.

Pacific Development

Work has continued with CUAP proposals and professional development work to increase cultural responsiveness among staff to Pasifika students. This year UC's Pacific academic leads have consulted on 80 CUAP and new course proposals. This does not include the 11 Aropapaki online courses the team has worked on. To date they have delivered two UC Talanoa professional development days with a total of 39 staff attending and six AKO online two-hour professional development sessions with 33 teaching professionals from other institutions attending nationwide.

The UC Pacific Director is engaged with the other seven Pacific leaders from universities throughout New Zealand, leveraging collaborations to influence policies, processes and systems to improve Pasifika success. As a National Komiti, it is in discussion with the Minister of Pacific Peoples and Associate Minister of Education Hon Aupito Sio to find opportunities to support individual and collective efforts in progressing the Government-mandated Pacific Action Plan for Education.

Implementation plan 2021 action points have been progressed and reported on throughout the year to the Vice Chancellors Pacific Advisory Group and to the Senior Leadership Team when required. The only implementation action points that have not been progressed are ones that have been impacted by COVID 19, such as alumni activities in Samoa, which could not be launched.

Internationalisation – Locally Engaged, Globally Networked

Develop UC's global partnerships, particularly in the Asia-Pacific region, to support research and teaching excellence.

UC continues to build its strategic partnerships around the world, signing 15 international collaborations in 2021. Highlights include the establishment of three UC Study Centres with Chinese partners (where UC international students can base themselves while New Zealand's borders remain closed), a legacy partnership with Sendai University Japan, and a strategic partnership with the topranked university in Indonesia, Universitas Gadjah Mada (UGM). Significant progress has also been made in developing UC's Transnational Education (TNE) portfolio, in that a collaboration with Education New Zealand is underway for the launch of a UC TNE offering in Sri Lanka in 2022.

UC's exchange portfolio in Australia has also been expanded to increase accessibility to outbound mobility for students for whom wider travel may not be viable. Now we have added Australian National University, Queensland University of Technology and University of Wollongong to our existing partnership with the University of Adelaide.

Education New Zealand (ENZ) has confirmed that UC has been selected to lead the roll-out of the inaugural New Zealand Education Centre in Sri Lanka. ENZ will provide seed funding to UC as we develop a series of qualifications to be delivered at the centre by our in-country partner, University College Lanka (UCL). These qualifications can also be used for other future Trans National Education (TNE) opportunities in other countries as we seek to diversify our student profile. Over the next few

months, UC will take these qualifications through CUAP, while working with ENZ and University College London (UCL) to establish the centre, ahead of a September 2022 launch.

Dr Sriparna Saha has been working with IRO and ENZ to deliver online workshops on digital resources for effective science classrooms to school influencers in Indonesia and the Philippines. Dr Saha is a PhD student working on GeoEducation research with Professor Ben Kennedy in the School of Earth and Environment and Associate Professor Sara Tolbert in the College of Education, Health and Human Development. The workshops have been a good opportunity to make connections in potential recruitment markets, and work alongside Education NZ, which is interested in doing more of this type of activity with UC.

UC Business School partnered with Taylor's University, Malaysia this year to launch the new bachelor's in accounting (Fintech) (Honours) degree. The three-year programme blends the fundamentals of accounting with technology-focused subjects such as blockchain and data analytics. It is the first degree in Malaysia to enable students to specialise in financial technology (fintech) at an undergraduate level. A key feature of the programme allows interested students to spend their final year of study in UC and graduate with a UC Bachelor of Commerce in Accounting, with a minor in Information Systems, in addition to their Taylor's University degree.

Expand the nationalities and cultures represented in our student body.

Earlier this month, the Productivity Commission released preliminary findings in the inquiry into what immigration policy settings would best facilitate New Zealand's long-term economic growth and promote the wellbeing of New Zealanders. Early indications are that student visas will be reviewed, with a recommendation that "uncapped visa categories and those that offer open work rights, such as the various bilateral working holidaymaker schemes and student work visas, should be priorities for evaluation". These changes could have a significant impact on international student recruitment. UC has engaged with the consultation and is providing its view of the need to continue to encourage high-quality immigration, including allowing international students to engage in degree-level studies at New Zealand universities.

We continue to work with UC International College to look at ways we can enhance our recruitment offerings in markets outside of our historically larger cohorts from China and India. We are also working with the team from Christchurch City Council who have pulled together key players in the international space, to increase awareness of Christchurch and our advantages in key markets.

Virtual opportunities for student recruitment continue as we offer online starts for programmes where that is feasible. Our international domestic student offering has been very well received, and we are currently on track to exceed our 2021 intake from a smaller pool of prospective students.

Student Mobility (Study Abroad & Exchange)

The Mobility team is participating virtually in an International Education Week event in November with the University of California. UC has recently re-established and extended our exchange agreement with the University of California to allow for a larger number of students, with the intention that this will be a growth exchange partnership for us once borders reopen.

Virtual events with our exchange and Study Abroad partners are continuing so that we can maintain partnerships and remain active in the recruitment space.

We are currently working with two of our Australian exchange partner institutions to manage a cohort of inbound applications for Semester 1, 2022. We are keeping options open for their students with the idea that Australian students who do not require visas may still be able to travel.

The 'Summer in NZ' support programme is now underway with a series of events, competitions and buddy opportunities for our onshore international students to enjoy while New Zealand's borders remain closed. These students have not been able to return home for nearly two years and have experienced very difficult circumstances as many of them have families living in COVID-ravaged countries. Thanks goes to UC Foundation for providing funding to run a special end-of-year celebration specifically for these students, tentatively booked for 10 December.

Promote understanding of Aotearoa New Zealand's place in the world and its cultural distinctiveness, including Māori as Tangata Whenua and our responsibilities to Pacific nations.

UC and the University of the South Pacific, with support from the Ministry of Foreign Affairs and Trade, are partnering on a unique research project to help Pacific countries and the global community understand how climate change will impact the Pacific Islands region, and how indigenous knowledge can help Pacific communities to adapt. The \$4.6 million three-year project, led by Professor Steven Ratuva, addresses a lack of research into community resilience and response mechanisms, and the ways indigenous knowledge can work with social sciences and natural sciences to inform a range of responses, from government policies to community plans.

The Law Faculty supported the holding of a sentencing competition between the UC Pasifika Law Students Society and Otago Pasific Islands Law Students Association. This annual competition was hosted this year by UC (virtually). The competition sponsor, prominent law firm Raymond Donnelly, provided a workshop on sentencing, and judges came from the Law Faculty and Raymond Donnelly. The finalists were Style Uri (UC) and Priyanka Poulton (Otago). By the slimmest of margins on the judging criteria, the judges unanimously decided that the winner was Style Uri. This is the first time that UC has won the competition.

Organisational Efficacy – of a sustainable scale by 2030

Increase the economic impact of the University on the city and region.

In 2021, the University has grown larger than ever before. As it continues to grow, its economic impact has likewise become larger than ever.

UC Business and its departments, Executive Education and the Centre for Entrepreneurship (UCE) continue to make a direct impact on the financial and economic success of local and national businesses.

In April, the UC Business School held a symposium on "Blockchain in Agri-food Supply Chain", exploring the applications of blockchain to significant problems in food supply chains. The event was presented by UC Business School in collaboration with AgResearch.

UCE held a number of Disrupt Challenges with students and external organisations during the year, which are designed to support business growth and business problem solving. Challenges included Bridging the Gap for all UC students run with the Asia New Zealand Foundation, Marketing Smackdown run in collaboration with Cedra Express Elite Medical Couriers, and The Future of Health Challenge run with the CDHB's Design Lab.

ThincLab and UCE delivered the accelerator programme for companies participating in The Food, Fibre and Agritech Challenge supported by ChristchurchNZ, KiwiNet, AgResearch and the Canterbury Mayoral Forum. ThincLab delivered a business accelerator programme in cooperation with the Ministry of Awesome, as part of the Start Me Up partnership between the Ministry of Social Development and ChristchurchNZ.

UCE partnered with Canterbury Tech, Electrify Aotearoa and the Later-in-Life Innovators Group (local affiliate of Senior Entrepreneurs NZ (SENZ)).

Grow and diversify revenue to become an economically sustainable university able to initiate new, high impact projects.

The University has continued to work on diversifying revenue and improving its use of underused assets. Its record growth this year will provide a solid foundation for future economic sustainability of the institution and towards its target of 22,000 EFTS by 2030. Two key initiatives have been developed to support this growth: an expansion of fully online learning and an expansion of game development, cross reality and film education and research.

The University strengthened its business continuity preparedness for disasters and emergencies in 2021, with a complete refresh of all business continuity plans.

Ensure that the University's costs and funding mechanisms are efficient, simple and transparent.

This key objective in the University's Strategy was established after widespread consultation with staff evidenced that many did not understand how and why different academic units and services are funded in the way they are. In 2021, the University spend some time working to ensure that the funding model is better understood and looking at possible refinements to it. The consultation process on these refinements was completed in 2021 and in 2022 a decision will be made on whether to change the University's internal funding strategy going forward, with implementation of any such change likely to start in the 2023 budget cycle.

Use technology and data in a responsible, ethical, effective and efficient way to enable and empower our people and communities.

In 2021, the University developed and launched its new Digital Strategy, an ambitious and sweeping strategic approach to delivering services, education and research using modern digital tools. The Strategy builds on existing initiatives and foundations, and proposes a range of new online, mobile and cloud services that are student, teaching and researcher focused.

While the Strategy has been developed, the ITS team has also been busy progressing implementation of core enabling platform technologies such as Dynamics 365 Customer Relationship Management and Microsoft Teams. At the same time, it has been continuing to provide strong operational support during major incidents such as the recent COVID-19 Level 3 lockdown.

Environmentally Sustainable

The University has appointed Professor Jan Evans-Freeman to the newly created part-time role of Pro-Vice-Chancellor of Sustainability, to deliver the environmental sustainability goals of the University's Strategic Vision 2020–2030. The appointment of a Pro-Vice-Chancellor of Sustainability tops a year of sustainability action at UC. Professor Evans-Freeman, in her role, will

sit on both the central Learning and Teaching Committee and the Research Committee, to provide the necessary linkages and engagement.

Establish a carbon neutrality initiative to ensure that UC will be carbon net neutral by 2030.

UC has used Certified Emissions Measurement and Reduction Scheme (CEMARS) certification to measure and plan its reductions in greenhouse gas emissions since 2011. Since the mid-1990s UC has had an energy efficiency programme, and between 2010 and 2019 UC has achieved a 23% decrease in our carbon emissions.

The University is focusing its forestry carbon offset at its Mt Barker Forest. The University will have an additional 130 hectares at Mt Barker registered in the Emissions Trading Scheme in the near future, now that we have engaged with a consultant to assist us in achieving this.

The recent Air Travel Survey, completed by over 400 staff, has now been analysed. The results highlight, among other things, how difficult staff have found it to generate new networks and research projects, although existing networks and projects have been maintained at tolerable levels given closed borders. The results will feed into the development of a new Travel Plan for the University early in 2022.

Ensure that UC research contributes to resolving global sustainability challenges.

Faculty of Law Associate Professor Liz Macpherson is leading two major externally funded research projects related to environmental law: The Sustainable Seas National Science Challenge project on Policy and Legislation for Ecosystem-Based Marine Management (\$1.4 million) and the Norwegian Research Council funded project on Riverine Rights: Exploring the Currents and Consequences of Legal Innovations on the Rights of Rivers (\$2 million). Professor Macpherson's research is codeveloped with government and Indigenous communities and involves managing interdisciplinary and multicultural research teams. In 2021, Associate Professor Macpherson became a founding member of the Academic Hub of the Global Alliance for the Rights of Nature, which jointly secured US\$100,000 in funding from the Rockefeller Brothers Fund to build the 'Ecological Jurisprudence Monitor': an interactive web-based tool to track innovative legal developments that protect nature around the world.

Weave opportunities for students to learn and contribute to resolving the Sustainable Development Goals through UC teaching.

In 2021, the College of Arts completed the development and approval of the new Bachelor of Social and Environmental Sustainability (BSEnS), which explores the biggest global problems that injustice towards the environment and to communities has caused – problems ranging from pollution and climate change to world hunger. This new degree complements the Bachelor of Environmental Science with Honours (BEnvSci(Hons)), which was approved in 2020. Thus the University now has two bachelor's degrees providing environmental sustainability education, from both science and humanities perspectives.

In May the Faculty of Law held the Māori moot, judged by Adrienne Paul from the faculty and Dee Morgan from Lawhub solicitors. From the five mooters, the winner was Tamahou Thoms, who went on to represent the Law Faculty at Te Hunga Rōia Māori o Aotearoa National Kaupapa Māori Moot Final, at the Māori Land Court in July. Tamahou Thoms delivered impressive, bilingual submissions

on the extent to which tikanga should inform a claim by iwi for harm suffered as result of climate change.

Professor Karen Scott co-authored (with Professor Don Rothwell, Australian National University) two chapters ("Science, Politics and Governance in the ATS: A Symbiotic Relationship" and "Antarctic Law Enforcement") for *Antarctic Resolution*, edited by Giulia Foscari/UNLESS (Lars Müller Publishers GmbH, Zürich, 2021). This multidisciplinary volume is the first holistic body of research on the Antarctic, with contributions from specialists from the fields of architecture, biology, chemistry, climate science, engineering, geography, history, law, literature, logistics, medicine, physics, political science, sociology, technology, and the visual arts. It was premiered at the 17th Architecture Venice Biennale on the theme of "How Will We Live Together?", directed by Hashim Sarkis. The book was exhibited within the Central Pavilion of the Giardini della Biennale within the "Across Borders" section, and presented alongside the symbolic historic *snow goggles* worn by Captain Scott while man-hauling across the Antarctic during the Heroic Age, and the pioneering *Antarctic Suit* designed by D-Air Lab in collaboration with UNLESS as a portable environment that enables survival on the hostile white desert while promoting the reduction of the contaminating anthropogenic footprint on the continent. The exhibition ran until November 2021.

UC and Western Institute of Technology at Taranaki have signed an MOU to establish a strategic partnership. The agreement creates opportunities for joint teaching and for students to move more easily from one institution to the other. The partnership will have a focus on sustainable energy, business studies and supporting mana whenua tauira | Māori students. Taranaki is an early adopter in the transition to clean energy, moving away from fossil fuel industries, and we are looking forward to playing a part in the region's ambitious Taranaki 2050 Roadmap. This could be an example for the rest of Aotearoa to achieve carbon emission goals while providing equitable transitions and sustainable community development.

Grow and leverage our local, national and global sustainability networks to bring new thinking to our challenge and to share our practice

UC joined the Race to Zero for Universities and Colleges ahead of the 2021 United Nations Climate Change Conference (COP26), held in Glasgow recently. UC has also joined the United Nations Sustainable Development Solutions Network.

Handover of the SDG Summit Series has occurred with Waikato University and the Waikato Wellbeing Project. UC will remain involved in the Summit process out to 2030, mainly through the Universities New Zealand (UNZ) Panel on the SDGs. This panel was mentioned by the Office of the Auditor-General (OAG) as a point of reference for the MFAT Select Committee, when it heard the OAG's presentation on its report on the Government's preparedness to implement the SDGs.

VC Activities

Events since the previous VC report	
28 October 2021	Attended New Zealand Qualifications Authority Board (NZQA) Board meeting in Wellington
29 October 2021	 Attended the Universities New Zealand Vice-Chancellors meeting via Zoom Hosting UCSA Exec dinner for 2021
2 November 2021	 Attended and spoke at UC Teece Museum 50k Visitor event Attending Innovation Jumpstart Awards event
3 November 2021	Hosted on campus Christchurch Knowledge Commons meeting
9 November 2021	Attended Tokona Te Raki Board meeting
16 November 2021	Attended the Association of Commonwealth Universities meeting via Zoom
17 November 2021	Attended the Distinguished Professors Committee meeting
19 November 2021	Attended the Universities Vice-Chancellors meeting via Zoom
23 November 2021	Attended the Association of Commonwealth Universities meeting via Zoom
25 November 2021	Attending NZQA Board meeting in Wellington

Upcoming Events	
3 December 2021	Attending the Universities Vice-Chancellor's meeting via Zoom
7 December 2021	Attending the Joint Postgraduate School / Partner Senior Leaders meeting
8 December 2021	Attending the University of Canterbury Foundation Board meeting via Zoom
9 December 2021	Attended the Association of Commonwealth Universities meeting via Zoom