



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

INVESTMENT PLAN SUMMARY 2015 – 2017

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Section A: Strategic Intent

1. The role of the University of Waikato

Consistent with its statutory role as a New Zealand university under section 162 of the Education Act 1989, the University of Waikato

- is primarily concerned with more advanced learning, the principal aim being to develop intellectual independence
- delivers research and teaching that are closely interdependent, with most of the teaching done by people who are active in research
- meets international standards of research and teaching
- is a repository of knowledge and expertise
- accepts a role as critic and conscience of society.

The University plans and operates in accordance with its Charter¹ and Vision².

The University's Mission, as stated in its Charter, is 'To combine the creation of knowledge through research, scholarship and creative works with the dissemination of knowledge through teaching, publication and performance'.

The University's motto 'Ko Te Tangata', symbolises our commitment to its role under the Treaty of Waitangi. It also emphasises the role of collegiality and the importance that it places on people.

We apply the following values in all our activities and operations:

- Partnership with Māori / Tū ngātahi me te Māori
- Acting with integrity / Mahi pono
- Celebrating diversity / Whakanui i ngā huarahi hou
- Promoting creativity / Whakarewa i te hiringa i te mahara.

Over this plan period the University will build on its reputation as a world-leading tertiary institution that produces sought-after graduates and leaders, and contributes to solutions for global issues. These issues include transformation of business and economies, sustainable development (socially, economically and environmentally), and improving the quality of education.

To do this, we are committed to:

- (i) Providing a world-class curriculum and educational experience,
- (ii) Delivering social, educational, environmental and economic benefits through relevant and responsive research, and
- (iii) Partnering with Māori.

These three commitments require strong and strategic connections so that we can be regionally, nationally and internationally relevant and world-changing. During its first 50 years the University of Waikato has achieved international recognition in a diverse range of subject areas, including accounting and finance, biological and environmental sciences, computer science and information systems, economics, education, human geography, law, management, and Māori and indigenous studies.

As a comprehensive university, our Faculties offer a wide range of disciplines and distinctive programmes which produce graduates who are well prepared to contribute and lead in a global society. Moving forward, there will be even greater support for our Research Centres and Institutes, which underpin our interdisciplinary and multidisciplinary programmes.

We will continue to invest in maintaining our role as a prominent source of internationally-connected research expertise in our areas of strength, engaging stakeholders and communities with research developments and seeking out areas where researchers can collaborate with commercialisation agencies. Our commitment to both national and global partnerships will continue to influence our undergraduate, graduate and postgraduate programmes.

¹ <http://www.waikato.ac.nz/about/corporate/charter.shtml>

² <http://www.waikato.ac.nz/about/corporate/vision.shtml>

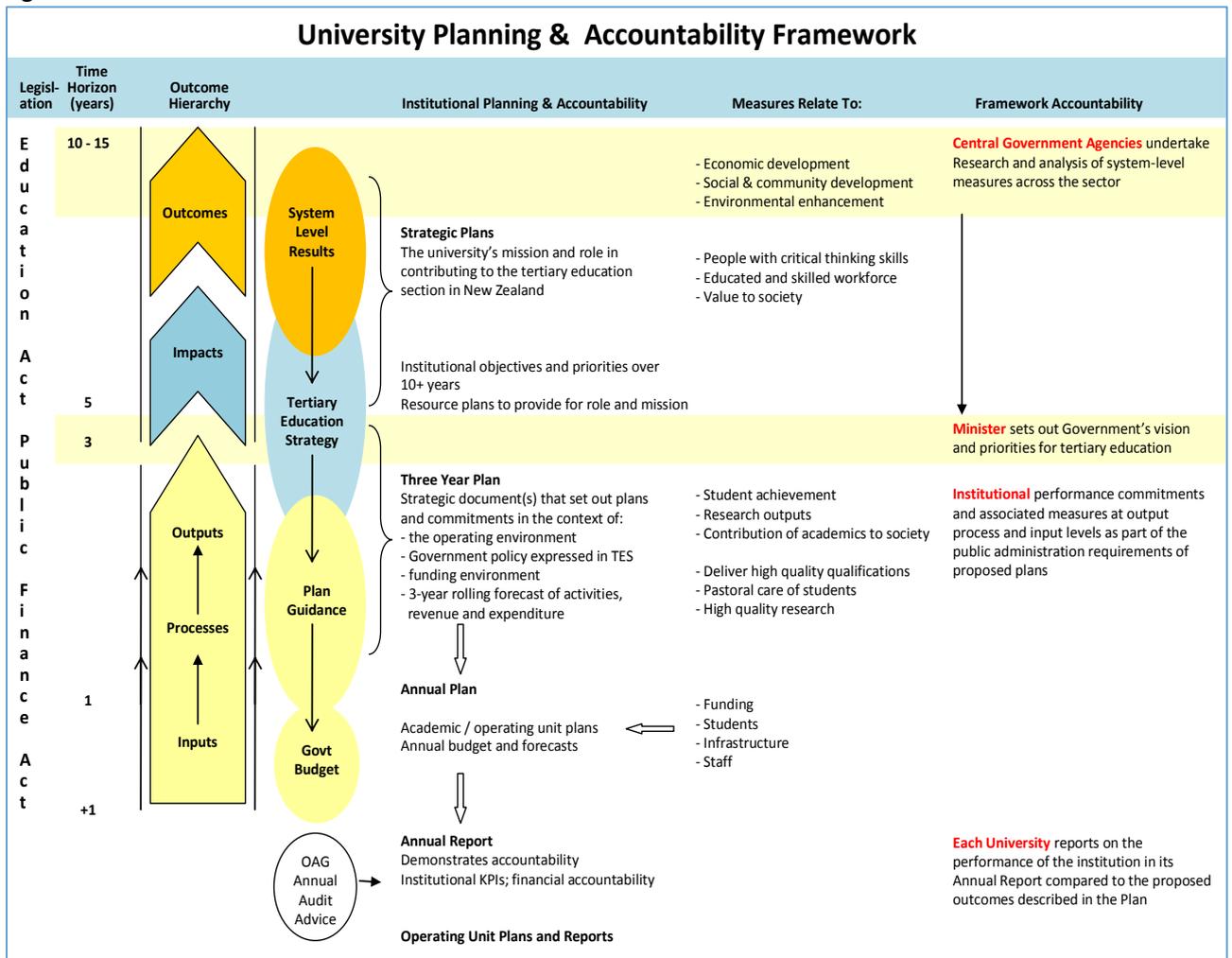
Growth is imperative for our continued success in an increasingly competitive funding environment and will be managed strategically. New revenue streams will be pursued from non-government sources, including philanthropy and the commercialisation of Intellectual Property (IP). We will increase our student enrolments. We will enhance our partnerships and deliver quality in all our activities. Campus developments in the Bay of Plenty will continue in partnership with that region.

The University’s commitment to partnerships with Māori is a key element of our identity and is reflected in the governance role of Te Rōpū Manukura. We are proud of our reputation as a trusted and effective partner in advancing research and scholarship in pursuit of Māori development and the perpetuation of Māori culture and language.

2. Strategic planning in an outcomes framework

Alongside all other universities in New Zealand, the University of Waikato operates within a planning and accountability framework focussed on outcomes, as shown in Figure 1.

Figure 1

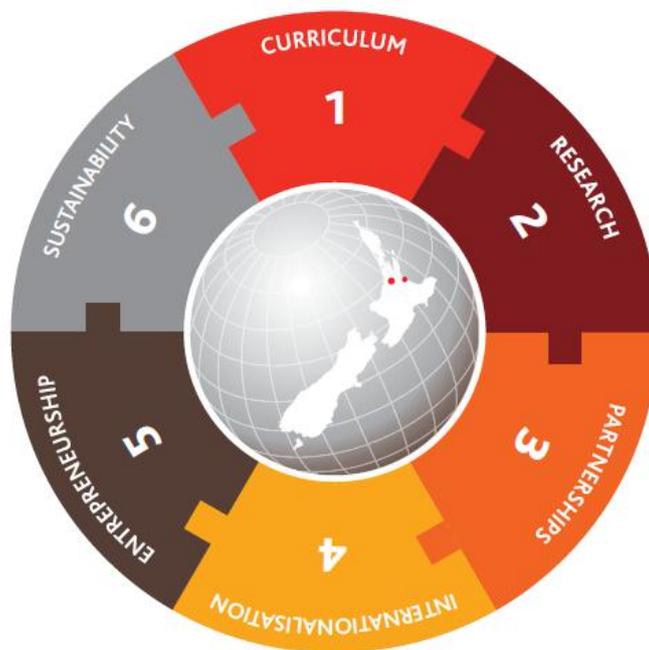


3. The University of Waikato Strategy

The University of Waikato Strategy³ identifies six inter-related strategic actions to enable it to fulfil its commitment to its Charter and Vision and support the high-level outcomes associated with New Zealand's social, economic, environmental and cultural well-being. They are:

1. Provide a relevant, future-focussed curriculum and world-class student experience
2. Conduct world-leading research and develop innovative researchers
3. Strengthen engagement and partnerships regionally and nationally
4. Implement a comprehensive programme of internationalisation
5. Embed a culture of innovation, entrepreneurship and leadership across the University
6. Ensure sustainable practices in all aspects of University activity.

These actions highlight our role as a world-leading university, conducting purposeful and relevant research that contributes to national and global challenges. This research underpins a future-focussed curriculum that prepares students to contribute effectively as global citizens. We are committed to connecting strongly with our region and nation and embedding a programme of internationalisation across our activities. We give priority to a culture of innovation, entrepreneurship and leadership and ensure that sustainable practices guide our decision-making processes.



The implementation of this Strategy is detailed in separate documents - our Academic Plan and a set of related plans - all of which reflect our ongoing commitment to the Treaty of Waitangi.

4. Driving regional and national growth

As the economy recovers, we are mindful of the ongoing impact of the labour market on our enrolment patterns. Having increased in each of the three previous quarters, unemployment in the Waikato region in the December 2013 quarter was, at 6.7%, higher than the national average⁴. The unemployment rate in the Bay of Plenty was 9.3% in the December 2013 quarter, up from 6.9% in the previous quarter⁵.

Typically, as the economy improves, unemployment rates decrease and demand for tertiary education also decreases. However, the direct impact of the improving economy on tertiary enrolments is likely to be less significant in the Waikato and Bay of Plenty because of the higher unemployment rates in these regions, particularly among younger age-groups.

³ University of Waikato Strategy 2014-2017. <http://www.waikato.ac.nz/about/corporate/strategy.shtml>

⁴ Statistics New Zealand. (2014). Statistics New Zealand. Retrieved from www.stats.govt.nz

⁵ Statistics New Zealand. (2014). Statistics New Zealand. Retrieved from www.stats.govt.nz

School-leavers make up a significant proportion (normally around 45%) of the University's new Ministry-Funded students, which means that changes to the size of school-leaver cohorts will inevitably have a significant impact on the University's total EFTS in a given year. Given that the University attracts a significant proportion of its school-leavers from the Waikato and Bay of Plenty regions (normally more than 70%), regional demographics relating to school-leavers are a key determinant of the University's enrolments in a given year.

While the actual number and proportion of 15-19 year-olds in the Waikato and Bay of Plenty regions have decreased slightly since 2006⁶, the scale of the change is not expected to impact on the size of the school-leaver cohorts over the period of the Investment Plan, because the proportion of secondary school students achieving University Entrance has increased significantly since 2009⁷. Retention rates among secondary school students have also increased leading to an increase in the pool of students attempting university entrance⁸.

The anticipated steady growth in the school-leaver cohort from the Waikato and Bay of Plenty regions is reflected in the University's EFTS targets over the period of this Plan.

Over the past several years, more than 20% of the University's Ministry-Funded EFTS have been generated by Māori students. The population of Māori in the Waikato region, in comparison with other regions across New Zealand, grew by 9.4% between 2006 and 2013, significantly more than the national increase (5.9%)⁹. However, because the majority of this growth is in the under 15 year age group, it is not, in itself, expected to have a significant impact on university enrolments over the period of this Investment Plan. (Initiatives to improve participation rates by Māori students are outlined in section A12.)

The University of Waikato is ideally placed to connect effectively into social and economic developments in the Central North Island and to strengthen its already significant contribution to the New Zealand economy. The region directly served by the University spans the central North Island; however the areas in which it has campus facilities (Waikato and the Bay of Plenty) make up 14% of GDP, second to Auckland and marginally larger than Wellington and Canterbury.¹⁰

The population of the Waikato/Bay of Plenty region increased by 4.9% between 2006 and 2013 and now represents 16% of the New Zealand population. According to an independent report published by consulting economist Dr Warren Hughes in January 2014, *The University of Waikato: Regional & NZ Economic Impacts for 2013*¹¹, the University of Waikato is one of the Waikato region's main drivers of economic prosperity. It is also a significant contributor to the New Zealand economy, generating \$938million in revenue, up nearly 10% on the \$860million revenue generated in 2012. This figure is expected to exceed \$1 billion within two years.

The University adds \$474m to the national GDP annually. The total amounts to 0.3% of the New Zealand economy and between 2-3% of the Waikato Regional Council economy. Every dollar spent by the University or its students generates another \$1.31 for New Zealand businesses, with 99 cents of this accruing to the core Waikato region. Operations generate more than 5200 jobs nationally, with every job at the University generating 0.57 jobs in the core Waikato region - which includes Hamilton and the neighbouring Waikato and Waipa district councils - and a further 0.67 jobs somewhere else in New Zealand. While Hamilton and the Waikato are the main beneficiaries of the University in terms of GDP, the Bay of Plenty also gets an annual boost to regional GDP of more than \$8million and more than 40 jobs from the 836 University of Waikato students studying there. The economic impacts estimated in the report for sales revenue, household income, employment and added value show the University of Waikato to be extremely important for the local and national economy. The report also shows the impact of international students, with each international student generating \$90,000 in sales revenue somewhere in New Zealand and every two international students generating a job.

The population of the Waikato region has grown steadily over recent decades, with the population projected to reach approximately 470,000 by 2031 (13.8 per cent above 2011). Waikato's population has a higher than national average share of Māori and is comparatively youthful¹². The Waikato Mayoral Forum is leading the development of a Waikato Economic Strategy to ensure that economic activities and investments have better coordination within the region and between the region and central government. The University is using this as a significant opportunity to collaborate with regional partners to deliver on the major objectives of this strategy which are to

⁶ Statistics New Zealand. (2014). Statistics New Zealand. Retrieved from www.stats.govt.nz

⁷ Education Counts. (2014 (1)). School-leavers with a university entrance standard.

⁸ Education Counts. (2014 (2)). Retention of students in senior secondary schools

⁹ MBIE. (2014). Regional Economic Activity Report 2014. Retrieved from www.mbie.govt.nz/what-we-do/business-growth-agenda/regions

¹⁰ MBIE. (2014). Regional Economic Activity Report 2014. Retrieved from www.mbie.govt.nz/what-we-do/business-growth-agenda/regions

¹¹ Hughes, W. (2014). *The University of Waikato: Regional & NZ Economics Impacts for 2013*. Hughes Economics.

¹² MBIE. (2014). Regional Economic Activity Report 2014. Retrieved from www.mbie.govt.nz/what-we-do/business-growth-agenda/regions

- leverage value from our location and connections as the key servicing hub of the North Island
- provide a quality education offering which encourages high levels of participation and lifelong learning
- be New Zealand's premier engineering and primary processing hub
- be known for excellence in sustainable food production, agriresearch and agribusiness.¹³

The population of the Bay Of Plenty region has also grown steadily with growth projected to reach approximately 320,000 by 2031 (14.5 per cent above 2011). The region performs above the national average in key secondary school qualifications but has a less-skilled workforce than New Zealand's other urban regions. It has a high proportion of Māori, particularly in the eastern Bay of Plenty. The region also had the third-highest positive net domestic migration nationally in the last five years. The region needs intervention that will assist in stemming the outflow of the Bay of Plenty's youth, address the region's fast growing and relatively youthful Māori population, and replenish the region's future skill needs.¹⁴ For more than a decade the Bay of Plenty Polytechnic and the University of Waikato have adopted a strategy of collaboration as an efficient means of enhancing tertiary provision in the Western Bay of Plenty sub-region. The addition of Te Whare Wānanga o Awanuiārangi and Waiariki Institute of Technology to the Partnership (in 2011 and 2013 respectively) has created a collaborative quad of institutions that have nearly 20,000 EFTS between them.

Across the Waikato, Bay of Plenty, and our other key regions (Hawke's Bay, Taranaki, East Coast and Northland), the University is committed to playing a significant role in ensuring that the population is appropriately skilled and able to contribute to the economic growth of New Zealand, as well as the general wellbeing of society.

5. Strengthening learner pathways

The link between effective outreach with secondary schools and strong educational performance outcomes is well recognised. The University of Waikato has long been committed to improving learner pathways to tertiary education. It has strong links with the secondary education sector, and offers a number of well-defined pathways for students from other tertiary sectors and providers.

These pathways involve guaranteed admission to particular degree programmes, often involving credit from previous study. Specific pathways are offered from national and institute-specific diploma programmes delivered through other providers across the region including the Bay of Plenty Polytechnic, Wintec, Te Whare Wānanga o Awanuiārangi, Waiariki Institute of Technology and Tairāwhiti Polytechnic.

The University also hosts a website that allows students to explore possible credit from previous study at other tertiary education providers <http://www.waikato.ac.nz/study/transfer-credit.shtml>.

The University's Certificate of University Preparation, which is targeted at students who have narrowly failed to achieve university entrance, is offered by Wintec and operates as a pathway to degree-level study at the University. It has proven to be a particularly important pathway for Māori students since its introduction in the 1990s and continues to support many first-in-family Māori students into degree-level study.

From 2015, the University will deliver a new STEM stream within the Certificate of University Preparation programme, targeted at students wishing to enrol in STEM programmes at degree level. (The University, rather than Wintec, will deliver this programme because Wintec does not have the necessary resources to do so.)

The University's secondary liaison programme involves regular visits to more than 200 mainly North Island secondary schools and has for many years included a particularly full set of programmes encouraging and promoting enrolments in science and engineering programmes. In support of Government's recent emphasis on STEM provision, the University will continue to invest in such programmes, which currently include

- on-campus days built around the science curriculum for year 12 & 13 students (and their teachers) in biology, chemistry and physics
- scholarship preparation days for very able students in the sciences, and support for teachers in preparing these students for scholarship examinations as well as international Olympiads
- the hosting of visits by individual schools and provision of speakers in school science classes
- the design and provision of a number of on-line resources (in the form of websites and blogs) for use by students and teachers across the main science subjects

¹³ <http://www.mpdc.govt.nz/waikatomayoralforum> <http://www.mpdc.govt.nz/pdf/News/MayoralForum/17MarchProgressReport.pdf>

¹⁴ University of Waikato Academic Plan 2012-2016. <http://www.waikato.ac.nz/about/corporate/academic.shtml>

- engineering and science open days to give secondary students the opportunity to experience interactive activities so that they can understand the different programmes and majors available at Waikato
- summer science camps for Year 12 students.

The University plays a national leadership role in enhancing the connection between science and technology and primary and secondary schools through its management of New Zealand's Science and Biotechnology Learning Hubs. The resources developed and provided by these Learning Hubs help teachers for school years 2 - 13 to be informed about the latest research in science and technology in New Zealand and to engage their students in science and technology.

The University of Waikato also contributes to the Government's tertiary participation and performance objectives through its role in teacher education and educational leadership programmes and a wide range of relevant research projects

A substantial and long-standing professional learning and development programme will continue to be delivered by the University under contract by the Ministry of Education. Services under that and other similar contracts all contribute to the enhancement of learner pathways into tertiary study. The University's Institute for Educational Professional Learning and Development and Te Toi Tupu, a consortium to which the University of Waikato belongs, have together become the major national provider of educational professional learning and development in New Zealand.

The University of Waikato is also developing a portfolio of joint ventures in professional development in New Zealand and overseas. With the Ministry of Education targeting its professional development funding at schools with high levels of underachieving students, the University is anticipating an increased demand for professional development from schools that fall outside this group, which will have to 'purchase' professional development. Learning4, the commercial arm of the Institute for Educational Professional Learning and Development, will be well-placed to offer programmes of professional learning and support on a full-cost recovery basis.

A wide variety of outreach activities is designed to give secondary students a sense of what tertiary study and a campus experience involves, and also to raise the profile of the University's programmes as feeders to future careers. They include regional information evenings, whānau information evenings, Year 10 Whānau Days, annual Open Days and Experience Waikato Days; all serve to inform, inspire and offer practical advice and support to students in secondary schools who have the desire and potential to undertake tertiary study.

Academic staff of the University serve regularly as judges of a number of secondary school competitions, including national kapa haka and speech competitions. The University hosts an annual secondary schools mooting competition, which is well subscribed by secondary schools across the greater North Island region.

The University also engages in a number of off-campus activities and conducts information sessions for secondary school students in a number of regions, collaborate in pan-university hiko in Whangarei and the Far North.

Providing a significant proportion of New Zealand's teacher education, the University is also educating the teachers who work with secondary school students, including those studying at Kura Kaupapa Māori and Wharekura.

6. Delivering skills for industry and producing graduates who can excel in the workplace

Ongoing local, regional and national engagement is crucial to the University's future relevance. High-level engagement with the University's community of stakeholders also ensures that we are contributing to the development of this region and nation as we advance knowledge and research on global economic, social and environmental issues.

We continue work with Crown Research Institutes (CRIs) and other research entities to expedite the development of joint postgraduate programmes in areas aligned to our academic strengths. We also continue to extend our collaborations with local and central Government, District Health Boards, businesses and co-operatives to increase access to undergraduate internships, postgraduate research placements and graduate employment opportunities.

Our collaborations with world-leading universities and businesses are dynamic and interactive and lead to

- the design and delivery of research programmes that are relevant to current and future business needs, ensuring progression opportunities at every level of achievement and a smooth transition between the different environments of universities and business
- graduates who seek knowledge and skills that are relevant to their future careers and who are confident in their ability
- opportunities for students to integrate work experience and study, ensuring connectivity between academic study and the world of employment
- a culture amongst university students and staff where success in enterprise and entrepreneurship is celebrated, rewarded and promoted
- businesses effectively and efficiently updating employee skills and seeing universities as a natural source of the expertise to do so
- graduate employment that matches business need with graduate skills
- sustaining world-class research, attracting the best talent to NZ, developing research informed leaders in both universities and business, and ensuring that there is a constant exchange between academia and business of research ideas and people
- a culture of pursuing the application of University-based research excellence, ensuring that University research capabilities are fully exploited in generating economic wealth, optimising the use of government support in research, innovation and development
- collaboration with government agencies to undertake regular forward looks to co-identify areas of future knowledge and capability creation, where research investment should be allocated and, wherever possible, collaboratively developed and resourced.

The University has developed strong relationships and networks with communities and businesses to ensure that its programmes and qualifications are relevant and responsive to student and employer needs as well as the needs of the community. The University is also responsive to a range of social and economic goals that have been identified as priorities by Government. The University engages with industry groups and employers through a wide range of means, including

- advisory boards - at University, Faculty, degree and programme level
- representation on formal University committees, e.g. Animal Ethics Committee, Faculty Boards, Te Rōpū Manukura
- inclusion of external members on academic review committees
- input into accreditation and re-accreditation reviews
- significant student work placements, internships and projects
- guest lectures by members of public and private organisations
- staff research, consultancies and commercial activities
- presentations and participation in conferences and symposia, public lecture series etc
- corporate and executive education programmes for corporates
- staff membership of external associations and boards
- stakeholder events e.g. regular stakeholder breakfasts in Tauranga and Hamilton
- graduate and employer surveys.

Industry-Business Advisory Board

A key step in the University's cementing of strong industry links was the establishment of an Industry-Business Advisory Board (IBAB) in 2014. The purpose of the IBAB is to provide strategic guidance and practical assistance to the University of Waikato in engaging with industry and business by leveraging their expertise, capability and networks. It will lead to the following benefits for the University:

- increased research and research funding (demand and supply side)
- increased commercialisation of intellectual property and taking a more commercial approach to the management of University assets such as the halls of residence
- better integration of work placements and practice-based components into a broader range of areas of the teaching curriculum
- industry and business input into the design and review of academic programmes
- alignment of capability development aligning with economic need
- advice on all aspects of industry and business activities and engagement that are relevant to the University's research, commercialisation and education goals
- support for the acceleration of product development and commercialisation
- support for, and development of, interdisciplinary teams focussed on key research areas with industry representatives as required
- support for engagement with Māori and iwi business
- support of open innovation and partnerships for intellectual property.

Professionally accredited Faculties

The Waikato Management School (Faculty of Management) is one of only approximately 60 business schools world-wide with Triple Crown status, accreditations that confirm its status as a world-class business school. It is accredited to the Association to Advance Collegiate Schools of Business (AACSB), the European Quality Improvement System (EQUIS) and the Association of MBAs (AMBA). All three accreditations require ongoing continuous improvement in academic programmes and five- or three-year peer review accreditation visits. The Waikato Management School's Centre for Corporate and Executive Education and Management Research Centre are both ISO9001 accredited.

The Waikato Management School has a diverse and extensive range of links with the corporate world. The School's membership of a variety of both national and international organisations ensures staff and students are kept in touch with trends in business and community. The Centre for Corporate and Executive Education has developed a set of corporate programmes that have enabled long-term partnerships to be developed. It has offered leadership and management development programmes to a number of corporates and consortiums of organisations such as WEL Energy, Carter Holt Harvey, Telecom, Prolife and Blueprint for Learning. It has also offered a joint qualification in governance with the Institute of Directors NZ. The Centre also has a strong alumni network, particularly amongst MBA graduates employed in senior roles in New Zealand and overseas.

The Waikato Management School maintains active corporate connections that guide its strategy and inform its teaching and research programmes. The Waikato Management School Business Advisory Board is a key body that helps ensure that the School understands the education and research needs of business. The Advisory Board provides support, comment and advice to the Dean and Management Group on a broad range of current activities and future developments. Its members include representatives of around 15 regional, national and international businesses, such as PricewaterhouseCoopers, the Gallagher Group and Fonterra, as well as senior management of the Waikato Management School.

The School often seeks advice from key employers or industry organisations. For example, when introducing Agribusiness as a subject the School sought advice from Waikato Federated farmers, an agribusiness company in the Waikato and AgResearch. It has also initiated the introduction of professional advisory groups in core areas of the School's activities. Most academic programmes undertaken within the School require applied research projects or work placements with external organisations and corporate partners. Case competitions are a core component of some programmes; the School consults with corporate partners in the preparation of business cases and representatives from these organisations participate in judging the competitions.

Professionally accredited degrees

The Bachelor of Engineering with Honours (BE(Hons)) is accredited by IPENZ, the Institution of Professional Engineers New Zealand. IPENZ benchmarks New Zealand engineering degrees to international standards. The four-year degree includes 800 hours of industry work experience in local and regional industry, which ensures that graduates are able to put into practice in the 'real world' what they learn. The Faculty of Science and Engineering is also a member of the Waikato Engineering careers Association (WECA) and participates in various activities aimed at recruiting students into engineering programmes within the region. The Engineering Advisory Board, which meets twice a year, provides input into the School of Engineering's programmes at strategic and programme levels. The Board is a key body that helps ensure that the School understands the engineering education and research needs of New Zealand. The Board has a minimum of 10 external members who are professional engineers, engineering managers, or similar, with extensive experience from working in industry, academia or government. Currently, the Board includes representatives from Fonterra, Mighty River Power, the Gallagher Group, and Tetra Pak. Most BE(Hons) graduates are employed in engineering in New Zealand, working in industry or for government-related institutes and agencies. Data indicates 90% of graduates are employed and 10% are doing higher studies. Engineering graduates from the University of Waikato are increasingly sought after by industry because their education and training allows them to fit into the work place easily and they quickly become a productive and valued member of the organisation.

The Bachelor of Environmental Planning (BEP), a specialist planning degree, is professionally accredited by the New Zealand Planning Institute (NZPI). Many of the papers offered for the four-year degree contain opportunities for practical experience. The BEP degree has excellent links with the planning and practitioner communities within the Waikato region, nationally in New Zealand and globally. The Waikato Environmental Planning Advisory Board, composed of regional professionals, provides a key linkage between the degree and planning practice. Its members include representatives from the New Zealand Planning Institute, local government and private consultancies, such as Waipa District Council, Waikato Regional Council, Hamilton City Council, AECOM, and Bloxam, Burnett and Olliver. Graduates of the BEP are well equipped for careers as planners in district and regional councils, central government (e.g. the Department of Conservation, Ministry for the Environment, Parliamentary

Commissioner for the Environment, Ministry of Fisheries, Ministry of Transport), natural resource users (e.g. Mighty River Power, Genesis Energy, Solid Energy, Fonterra) and planning and resource management consultancies.

The Bachelor of Laws (LLB) is recognised for professional purposes by an independent statutory body, the New Zealand Council of Legal Education (NZCLE) and its standards are moderated by the Council and by external assessment among the New Zealand law schools. The Faculty of Law offers quality professional training in all the core subjects required by the Council. Completion of the LLB provides eligibility to undertake the NZCLE Professional Legal Studies Course, the successful completion of which allows graduates to be admitted as barristers and solicitors in New Zealand. The constitution of the Faculty Board of the Faculty of Law includes provision for a member appointed annually by the Waikato Bay of Plenty Law Society and a member appointed annually by the Chief Justice.

The Bachelor of Social Work (BSW) is a four-year degree recognised by the Social Workers Registration Board as per section 99(f) of the Social Workers Registration Act (2003). The BSW provides a superior, research-led, practice-relevant education in social work. The degree is taught at the Windermere campus at Tauranga. University social work staff meet regularly with a Social Service Community Advisory Group which contributes to programme planning and development and whose members also, in many cases, provide fieldwork practicum opportunities for third and fourth year students. Supervised placement, in accordance with the requirements of the Social Work Registration Board, is an integral part of the programme. The University is a member of the Council of Social Work Education Aotearoa New Zealand which has links to the Asian Pacific Schools of Social Work Educators. All social work lecturers are members of the Aotearoa New Zealand Association of Social Workers and are registered social workers with the New Zealand Social Workers Registration Board.

The Bachelor of Teaching (BTchg), the Graduate Diploma of Teaching (GradDipT), and the new Masters of Teaching and Learning are Initial Teacher Education (ITE) qualifications. All providers of teacher education programmes in New Zealand must meet specific requirements set out and managed by the New Zealand Teachers Council (NZTC). A suitable external monitor is appointed by the Council to be responsible for evaluating the ongoing delivery of the programme as it is implemented, as well as following up any recommendations from the panel report. The external monitor writes an annual report for the Teachers Council for newly approved programmes. Monitoring is every two years for those with continuing approval. Programmes are reviewed every six years by a review panel. The Faculty of Education has international partnerships and exchange programmes with the National Institute of Education, Singapore. Students can undertake practicum placements and some coursework in Singapore to broaden their teacher education experiences. The Faculty of Education has strong programmes in Māori Medium and Bilingual Teacher Education and established relationships with Kura and Whare Kura.

Other industry links

Advisory boards for the purpose of stakeholder engagement are not limited to those Faculties and qualifications that are professionally accredited. For example, the School of Psychology's Postgraduate Diploma in Psychology (Clinical) (PGDipPsych(Clin)) works closely with community-based organisations and individuals, including the Psychology Centre, the Waikato District Health Board, the Department of Corrections, the Bay of Plenty District Health Board, Hauora Waikato, and local psychologists in private practice. These groups contribute to teaching, supervision, and assessment in the programme, as well as providing consultation and feedback on programme and professional issues.

In the area of Tourism, staff and students in the contributing departments/subjects have developed relationships with the tourism industry and community, and projects have been completed for the Waikato Conservancy Board, Department of Conservation, Hamilton City Council, Hamilton International Airport, Waikato Motel Association, Quality Hotel Hamilton, Mystery Creek Events Centre, Otorohanga District Council, The Gallagher Group, Tourism Waikato, Tourism Rotorua, New Zealand Māori Arts and Crafts Institute, Tourism Coromandel, and the Territorial Government of French Polynesia. As a result the reputation of student and staff research has been recognised as a significant contribution to New Zealand tourism.

Supporting students into careers

In response to the growing emphasis on transferable skills for graduates and employability the University established a Student Careers and Graduate Development Group in 2013. The Career Development Services team work with University staff, students (Hamilton, Tauranga and distance students), employers, and external stakeholders to develop and deliver innovative career development programmes and services. Its aim is to enhance graduate outcomes and the employability of our students by

- supporting students to self-manage their career and skill development
- developing an infrastructure that ensures all students graduate with a minimum level of career skills

- developing strategies, processes and services that ensure we are working with students on career development over their entire student life-cycle; from the time of their first enquiry to graduation and beyond
- developing targeted strategies for “priority groups” to improve participation and achievement and to ensure an inclusive educational environment
- recognising career development throughout the teaching and learning process e.g. working with Faculties and University services to identify key career competencies and transferable skills within course-work and to identify ways to embed career development into the curriculum
- actively engaging with employers to promote the University and its graduates, to facilitate understanding and opportunities, and to address skill-gaps
- supporting existing internship and volunteer programmes and encouraging the development of new programmes so that a wider range of students have access to these opportunities, enhancing students’ work-experience, skill levels and workplace knowledge
- giving alumni access to career services and encouraging them to engage with the career development of current students through mentoring, identifying internship and employment opportunities.

The Student Careers and Graduate Development services complement and support a number of Faculty initiatives, such as the Cooperative Education Unit in the Faculty of Science and Engineering and the Centre for Internships and Business Experience in the Faculty of Management, which provide students with opportunities that will help prepare them for the job market and establish better links with employers and business.

The University works in partnership with Careers New Zealand to develop and progress strategies of mutual interest. Careers New Zealand collaborates with the University to build the capability and effectiveness of the University’s systems and services for career development and employability and provides advice and training in the use of Career Development Benchmarks –Tertiary.

7. Curriculum enhancement and distinctiveness

The University of Waikato Strategy 2014-2017 outlines our commitment to “Provide a relevant, future-focussed curriculum and world-class student experience”. To deliver on this action we will

- invest in excellent teaching and flexible learning and delivery modes that are responsive to changes in student and societal needs
- deliver world-leading, research-informed, socially and culturally responsive undergraduate and postgraduate curricula that form part of a network of learning pathways
- align graduate outcomes with changing social and market drivers
- offer excellent and distinctive campus-based and online student experiences that respond to the needs of our diverse student profile and stakeholders
- work in partnership with Māori and Pacific peoples to contribute to their educational aspirations
- increase student progression rates and enhance transitions from pre-degree programmes at partner institutions to degree-level study and from undergraduate to graduate and postgraduate level study
- increase opportunities for work-based internships or overseas study as part of some academic programmes
- foster inter-institutional collaborations for joint postgraduate qualifications delivered nationally and internationally.

The i-Graduate student barometer survey tool is for tracking and comparing the decision-making, expectations, perceptions and intentions of students, both domestic and international, from application to graduation. Students respond to questions about their course of study as well as all other aspects of the student experience at the University of Waikato. The results of the surveys are used by the University to continually evaluate and enhance its curriculum and associated teaching and learning support systems and services. Through the most recent i-Graduate student barometer, the University was rated 11th in the world for student support.

The University of Waikato is ranked by Times Higher Education in the top 2% of universities in the world and in 2013 was ranked 46th in the world among new and emerging universities (i.e. universities under 50 years of age). Under the QS system in 2014, it was ranked among the top 200 universities in the world for education (46), law (101-150), computer science and information systems (101-150), modern languages (101-150) and economics and econometrics (101-150) and in 2013 human geography (101-150). Each of the University’s seven Faculties aims to provide a portfolio of academic programmes designed for the future careers and opportunities its students seek,

while continuing to promote fundamentally important skills such as critical thinking, a multicultural perspective, questioning and leadership.

The University of Waikato has begun a three-year Curriculum Enhancement Project to ensure its courses and qualifications meet the objectives of the University's Strategy. The project aims to ensure that in developing academic programmes, Faculties are guided by their distinctive research, as well as best international practice, the impetus to act as critic and conscience of society, and the needs of employers and representatives of relevant professions. The Curriculum Enhancement Project has a strong continuous improvement agenda, which sits alongside its quality assurance role

In undertaking the Curriculum Enhancement Project, the University aims to

- design and deliver a more future-focussed curriculum that is also more relevant to changes in student, employment and societal needs
- balance academic staff time spent on teaching effectively, and allow more academic staff time to be devoted to seeking and undertaking externally funded research
- make cost savings on teaching/curriculum costs that can be invested instead in workforce capability.

The **Faculty of Arts and Social Sciences** offers a wide range of qualifications from undergraduate certificates, diplomas and degrees through to postgraduate research. Subjects taught within the Faculty include the Social Sciences, the Humanities, including a number of modern foreign languages, and the Performing Arts. It makes a significant contribution to New Zealand communities through the creative and performing arts, language and literature, social planning and public policy, psychology, as well as social welfare and health in its broadest sense. The Faculty has developed a 1 year (3-semester) taught Masters in Clinical Animal Behaviour and work has recently been undertaken to internationalise the MAppPsy, and enrolments in the papers that make up that qualification are strong. The 180 point masters in the Master of Social Sciences and the Master of Arts have been developed and uptake of these degrees in 2014 has been strong with approximately 40 students opting for the one-year to 1.5 semester degrees in their current programmes of study. The Faculty has worked in collaboration with Science and other Faculties in the development of a taught Masters in Environmental Science, with a number of social science papers included in that programme. Drawing on its research strengths in the areas of sustainability and environmental studies, the Faculty is developing a one-year taught interdisciplinary Masters in Society and the Environment, and this is expected to commence delivery from 2016. In addition, discussions are underway with a Chinese partner to offer the Bachelor of Media and Creative Technologies in China.

The **Faculty of Computing and Mathematical Sciences** provides a stimulating and leading-edge environment of quality relevant teaching programmes and world-class research, producing graduates well matched for the challenges of the contemporary and future workplace. The Faculty comprises four academic subject areas: two in computing - Computer Science and Computer Graphic Design - and two in the mathematical sciences - Mathematics and Statistics. The Faculty launched a Master in Cyber Security in late 2013 which has attracted a high amount of interest from overseas students. Discussions are underway with a Chinese partner to offer the Bachelor of Computer Graphic Design in China. The Faculty is continuing to develop its Data Mining MOOC.

The **Faculty of Education** provides programmes in areas including teacher education, sport and leisure studies, counselling, human development, educational leadership and education studies. It distinguishes itself among other education schools through its tradition and reputation for innovation, leadership and research. A broad range of mixed media and fully online programmes and papers are offered across the teaching portfolio, as well innovative Māori medium teacher education programmes.

The Faculty of Education is heavily involved in sport research and development in the region and is a central player in the University's partnerships with High Performance Sport New Zealand and with the Home of Cycling, where it has high performance lab space and works with community groups as well as the high performance sports of cycling, rowing, rugby, netball, triathlon, and hockey.

Over the period of this investment plan the Faculty of Education intends to pursue further curriculum growth through activities with its international strategic partners in initiatives such as the provision of dual masters programmes, professional development and English language programmes and pedagogy for academic staff members of international universities. Other areas of growth for the Faculty of Education are in doctoral studies and one year masters programmes. Subject areas in demand include a range of aspects around English as a second language and Educational Leadership. The Doctor of Education (EdD) may be reshaped, as there is potential for growth in this area, particularly with a cohort approach.

In order to respond effectively to changes to University Entrance in secondary schools, the University will relaunch its Certificate in University Preparation programme. The current delivery arrangement through Wintec provides for

the delivery of a general bridging programme to qualify students for entry into university. Wintec do not have the capacity to provide any specialisation within the current CUP programme in Government priority areas such as STEM subjects. The University will deliver a small number of pre-degree EFTS outside its current arrangement with Wintec to satisfy the demands of students who require a pathway into STEM qualifications at the University.

Te Piringa - the Faculty of Law provides an innovative, student-focused Bachelor of Laws (LLB). It remains a national leader in its commitment to promoting professional skill development as well as in attracting and retaining Māori law students and staff along with encouraging a bicultural and bijudicial approach to legal education and research. Te Piringa's commitment to teaching law in context is complemented by research in a broad array of human rights and social justice issues. The Faculty of Law at the University of Waikato and Arizona Law have developed a Memorandum of Understanding (MOU) for a double Master of Laws (LLM) degree programme. The MOU provides for students with either a Bachelor of Laws (LLB) degree from the University of Waikato or a Juris Doctor (JD) degree from Arizona Law, to enrol in the LLM programs at both institutions with advanced standing so as to complete both degrees in less time than would be required if the degrees were pursued sequentially.

The **School of Māori and Pacific Development** offers programmes in Māori language and linguistics, culture, customs, creative and performing arts, media and communication, Treaty of Waitangi, and development studies. It is renowned for the teaching of Te Reo Māori and Tikanga Māori, and its application in a wide number of settings throughout society. The School is undertaking a number of new initiatives to support students wishing to research and undertake Masters and PhDs in Te Reo Māori, strengthen its taught postgraduate delivery by revitalising its interdisciplinary Development Studies programme, and increasing its online delivery of undergraduate programmes in Tikanga and Te Reo. The School is also committed to increasing its international student numbers, with discussions underway to offer a dual Masters degree in China. The Faculty will also continue to focus on indigenous development through a partnership with the University of Hawai'i at Manoa.

The **Faculty of Science and Engineering** offers a range of innovative programmes for the undergraduate degrees of Bachelor of Engineering, Bachelor of Science, and the Bachelor of Science (Technology). Graduate degrees include the Master of Engineering, Master of Science, and Master of Science (Technology). The development of the civil engineering programme and the environmental engineering programme will begin in earnest in 2015 with the appointment of two lecturers for these programmes. The newly developed 180 point MSc in Environmental Science provides an excellent opportunity for academic collaboration with social science, management and law in particular. The Faculty is also working with NIWA on the development of a graduate school specialising in Fresh Water (see section A10), and with a Chinese University to collaborate in the delivery of its engineering degrees.

The **Waikato Management School** has distinguished itself among New Zealand business schools by the relevance and rigour of its education and research, and its belief that business and enterprise are most successful when they improve the communities, societies, and nations in which they operate. Its MBA programme has Triple Crown status and it is in the process of professionalising its masters programmes. The Master of Professional Management programmes in Agribusiness, Finance, Public Relations and International Hospitality Management have been approved. Discussions are underway with a Chinese partner to offer the Bachelor of Business Administration degree in China. A Master of Professional Accounting and a Master of Professional Management in International Management will be launched in 2015 and plans are underway to launch at least two masters programmes on-line in 2015. A Bachelor of Entrepreneurship has been introduced. This provides a qualification for students interested in the business of creativity and innovation and also achieves a better balance in specialised degree offerings. The Faculty continues to work with Waikato-Tainui in offering the MBA in an indigenous form at the College for Research and Development. A Postgraduate Certificate in Management (Emergent Business Technologies) offered jointly with the University Münster is planned for 2015. The Centre of Corporate and Executive Education is expanding the range of specialist corporate programmes offered.

Improving adult literacy and numeracy

The National Centre of Literacy and Numeracy for Adults is a specialist centre of expertise in literacy and numeracy education for adults and young people, based at the University of Waikato. Working in partnership with Te Whare Wānanga o Awanuiārangī, the National Centre undertakes research-informed professional development, research and critical engagements with policy and practice at a national and international level, building capability to meet the country's adult literacy and numeracy challenge, with a particular focus on the Tertiary Education Strategy's Priority Groups: Māori, Pasifika and youth.

The National Centre has an enduring commitment to our vision of enhancing the lives of New Zealanders through improved literacy and numeracy outcomes for adults, focusing on adult literacy and numeracy as a large-scale issue of national strategic importance. Under the terms of its contract with the Tertiary Education Commission, the

overall objective of the National Centre is to build the capability and capacity of providers in all parts of the tertiary education sector, by raising their skills, knowledge and qualifications so that more tertiary learners improve their literacy and numeracy skills, especially those in the Tertiary Education Strategy priority groups: Māori, Pasifika and youth.

A great deal has been achieved the Centre since its establishment in 2009, particularly in the area of professional development, a key part of the capability building which is the core of its work and which also encompasses the supervision of many of the University's research students.

The University's Embedded Literacy and Numeracy Whole Organisation Framework is an innovative research-informed programme developed by the National Centre, building on best practice internationally. It supports Tertiary Education Organisations to improve adult literacy and numeracy outcomes through a negotiated 'whole organisation' approach.

The 2014 Symposium programme shows that the Centre is bringing together key players/leaders in the field; past Symposium reports also show positive impact and leadership by the National Centre.

At the international level, the National Centre was represented on the NZ national delegation to the Invitational Conference of the OECD's Programme for the International Assessment of Adult Competencies (PIAAC) in Washington DC in November 2013. The National Centre is producing a communications strategy in collaboration with Ministry of Education in preparation for the release of NZ's PIAAC results in 2016.

By the end of 2014, the Centre will have in place an Impact Evaluation Framework which will enable it to gauge the impact of its work more comprehensively and systematically. In addition, the National Centre awards the New Zealand International Literacy Day Award annually to someone who has made a major contribution to adult literacy and numeracy work in New Zealand.

The Centre is also developing a National Strategy for Māori Adult Literacy and Numeracy 2015 – 2020.

The staff of the National Centre of Literacy and Numeracy for Adults are involved in research-led teaching across a range of programmes at the University, including undergraduate and postgraduate teacher education, a range of Masters programmes in Education and professional development opportunities for teachers.

External quality assurance

All of the academic accreditations outlined in section A6 of this Investment Plan involves regular external quality review processes.

Like all other New Zealand universities, the University of Waikato is subject to regular external academic audit by the Academic Quality Agency for New Zealand Universities (AQA). In its report of the University's Cycle 4 audit in 2010, which focussed on the University's Maori distinctiveness, its care of students, its commitment to the regions it serves and its research-led teaching, the University was praised for its involvement with more than 16 iwi throughout the central North Island and Bay of Plenty region and the way in which Māori heritage and identity was embedded in the institution. It also praised the University for the pastoral care of Māori students and the provision for students to be taught, supervised and assessed in Te Reo Māori.

Other highlights in the report included:

- the project to turn the Library into the Student Centre, and the five-star rating from the New Zealand Green Building Council
- the University's comprehensive pastoral care and student support
- the focus on students being taught by staff who are active in research
- the University's real strength and commitment in serving its regions
- the energy, commitment and achievements of the University's research leaders
- the University's strong community engagement with a wide range of stakeholders
- the sustainability principles that are incorporated into a wide range of university activities
- the importance of the University's contribution through its strong links with the Bay of Plenty region
- the wide range of professional development opportunities for all staff.

The site visit for the University's Cycle 5 Academic Audit will take place in August 2015. In advance of the audit, the University is undertaking its own self-evaluation, which will be verified by the external panel as part of the site visit.

The Cycle 5 audit will be framed around academic activities related to teaching and learning and student support, and will focus on the key academic activities and quality assurance processes regarded as fundamental in a contemporary university of good standing. Seven 'Academic Activity Themes' form the framework for both self-evaluation and the audit as follows:

1. Leadership and Management of Teaching and Learning
2. Student Profile: Access, Transition and Admission Processes
3. Curriculum and Assessment
4. Student Engagement and Achievement
5. Student Feedback and Support
6. Teaching Quality
7. Supervision of Research Students.

8. New modes of educational delivery

We are committed to developing a 'blended learning' approach so that our students have the benefits of a campus-based experience combined with the latest technologies, as well as exploring fully online delivery. Our infrastructure includes an upgraded virtual infrastructure and storage systems that will provide capacity for future growth (e.g. ultra-fast broadband), data security, high performance computing systems, up-to-date mobile web software, and various enhancements to administration capability. The University will continue to extend its Wi-Fi infrastructure to support the exponential growth of commodity Wi-Fi enabled devices on campus. The University delivers a competitive and high speed internet service to students which enables students to utilise the University's internet service beyond the campus boundary (into the CDB) to access free web-based teaching and learning resources. The University will continue to use Cloud-based services to support flexible delivery in a global environment. For example, the Library Management System will be replaced by cloud based SAAS (Software as a Service) in 2015.

Our ICT capacity has facilitated a shift in organisational culture over the past five years to a new perspective on how the data services are provided - from minimum access to most things possible which include

- free internet access for students on campus
- a range of sophisticated software systems for flexible teaching and learning options; for example, Moodle which enables students to access learning resources anytime, from any place, and according to the student's own pace
- lecture-capture software (Panopto), which is available in most teaching rooms and allows lecturers to record their teaching sessions and students to replay lecture material in their own time and annotate notes about the lecture
- desktop web-conferencing (currently being implemented) will enable distance delivery to Tauranga and elsewhere to become more interactive
- service provision support to academic staff to utilise the technology purposively within their teaching to enrich synchronous communication with their distance students
- service provision support for off-campus learning via the Library Virtual Reference Desk, online tutorials, instant messaging/chat service (e.g. Ask a Librarian), and provision of open education resources (OERs) for which there is a growing demand.

In summary, the University currently can support, through its technological and human service support systems, innovative anywhere-anytime teaching and learning.

9. Expansion in the Bay of Plenty

The strategy of collaboration with tertiary institutions in the Western Bay of Plenty has proven to be an effective means of enhancing tertiary provision and, in particular, improving the participation and achievement rates of Māori in the region. The University's partners in the Bay of Plenty Tertiary Education Partnership are the Bay of Plenty Polytechnic, Te Whare Wānanga o Awanuiārangi and Waiariki Institute of Technology. The University also continues to work with regional and industry groups to develop new teaching and research programmes directly aligned to regional demand for skilled workers.

The establishment of appropriate infrastructure in Tauranga to support growth in student numbers and research activity is an important focus for the University and the region. The Tauranga City Council has agreed in principle to

the use of Council-owned land for the development of a partnership campus and the Bay of Plenty Regional Council and Tauranga Energy Consumer Trust have agreed to provide up to \$15million each to support the development of a campus (subject to conditions). Construction of a Tauranga campus is expected to commence over the period of this Investment Plan. Recent analysis by Martin Jenkins¹⁵ forecasts that by 2022, the Tauranga campus project will lead to the creation of an additional 6,246 FTE jobs in key business and industry.

The Tertiary Education Partnership is currently involved in many of the Bay of Plenty sectors and to date has invested in comprehensive pathway programmes in management, business analysis, tourism, biological sciences, marine sciences, computer science and applied computing, computer graphic design, mechanical and electrical engineering, teacher education and social services. The University is in the early stages of developing postgraduate and research programmes in the Bay of Plenty in logistics, ICT, marine sciences, titanium, water management, business development and agritech. One of the key strengths of the University of Waikato's approach is its strong interdisciplinary linkages which enable innovative synergies linking, for example, marine biotechnology and aquaculture with entrepreneurship and business/legal expertise, and logistics with management and new trade, and environmental sustainability with environmental engineering.

Programmes to meet regional needs are being enhanced and developed as follows:

Coastal Science

Coastal Science is one of the University's most successful and high profile education and research programmes in the Bay of Plenty. It is a stepping stone to careers that are in high demand in New Zealand and overseas in sectors spanning coastal environmental science, environmental management, environmental law, aquaculture, and 'blue' biotechnology. Once the new partnership campus is operational, the University will deliver a wide range of new Coastal Science programmes in Tauranga including: Marine Science/Coastal Science BSc Major, Aquaculture BSc Major, MSc/PhD programs in Coastal Science and Aquaculture, MBA ('marine futures'), Coastal Environmental Law (CEREL), and Environmental Engineering.

Marine Science

The University of Waikato has internationally recognised expertise in the area of marine science and has multiple collaborations with corporates and internationally renowned research centres and universities. The proposed marine programmes for the new campus will provide links in existing pathways between Te Whare Wānanga o Awanuiārangī and the Bay of Plenty Polytechnic; further pathways from Waiariki Institute of Technology are being explored. Pathways into the University of Waikato Bachelor of Science (Biological Sciences) are available from Polytechnic and Wānanga programmes in marine studies, aquaculture and environmental management. The University of Waikato currently teaches third year marine ecology and second year BSc aquaculture courses from Tauranga. Further offerings in marine biodiversity and ecology are under development.

Logistics and value chain management

In response to regional demand, the University of Waikato has made a major investment in the New Zealand Centre for Logistics and Value Chain Management. The programmes developed as part of this initiative are being designed to meet the following education objectives:

- professional skills development in logistics and value chain management for New Zealand students progressing from management or engineering qualifications
- an internationally competitive specialised programme in logistics and supply chain management that will attract international students with a background in management or engineering
- specialist graduate programmes designed for those already employed in logistics, supply chain management or related areas
- leadership and advanced skill development covering both general management and specialist logistic and supply chain management knowledge for experienced managers.

Although the priority for programme development is at the postgraduate level, the viability of a Supply Chain Major and Graduate Diploma in Supply Chain Management in Tauranga will also be investigated for delivery from the new campus. In addition to these programmes, research masters papers and the PhD based on advanced research projects of interest to industry partners will be available.

The University of Waikato also has collaborative links internationally with Cardiff University, the University of Münster, and the European Research Centre for Information Systems (ERCIS). A partnership is being established with the Indian Institute of Technology around a major logistics education initiative. Freight logistics are recognised

¹⁵ Jenkins, M. (2013). Bay of Connections, 20 November 2013. Final Report: Sector Strategy Employment Scenario.

as a significant cost to businesses, and by developing a world class logistics chain in our region, we can help to boost trade and the Bay of Plenty economy.

ICT innovation

The University has internationally recognised expertise in ICT research and innovation (it regularly belongs to the top 150 Departments according to world rankings such as QS) and its ability to convert research ideas into commercial opportunity (examples include Endace, ReelTwo, and RuralLink). The new campus in Tauranga will enable the development of further programmes in ICT, including a proposed postgraduate programme in ICT Innovation. This programme will provide an opportunity for students with an innovative ICT idea to work within a supportive environment to develop their ideas to the stage of attracting venture capital. The programme will work in partnership with local companies and will be supported by a planned Research and Innovation Centre, where students will have access to commercialisation expertise and other entrepreneurs. The academic/industry incubator will be modelled on a Silicon Valley initiative (<http://ycombinator.com/>) that has been highly successful in creating high-tech start-up companies. Consideration is being given to scholarships sourced from local businesses or successful alumni. It will also be supported by the international, regional and corporate relationships the University has with this sector. These include commercial contracts with local companies including Plant and Food and Zespri Innovation, and international companies in places such as Silicon Valley (Wave Semiconductor) and Holland (BLGG Research). Discussions are underway with The Wharf42 Plug and Play Technology Incubator, the first major Silicon Valley incubator to establish a formal presence in New Zealand. This has the potential to provide expanded networks into Silicon Valley for students and entrepreneurs and the collaboration will attract interest from across New Zealand as well as raise the profile of Tauranga and the Bay of Plenty as a centre of innovation and entrepreneurship.

The ICT programmes will provide a link in existing pathways between the Bay of Plenty Polytechnic and Te Whare Wānanga o Awanuiārangi, with further pathways under development from Waiariki Institute of Technology. In addition, new initiatives are being developed to engage youth, and particularly young Māori, with technology. The ICT sector contributes \$265million to regional GDP and is one of the fastest growing sectors in the Bay of Plenty region. There were 872 FTE staff working in the ICT sector in the Bay of Plenty in 2012; however, due to the Bay of Plenty's lifestyle advantages, there are many experienced ICT practitioners who are either retired, working remotely or part time, that will not appear in these figures.

10. Growing research capability and productivity

The University of Waikato Strategy 2014-2017 outlines our commitment to 'conduct world-leading research and develop innovative researchers'. To deliver on this action, we will

- invest in the best academic staff and infrastructure to conduct world-leading research
- contribute to regional, national and global challenges through relevant and responsive research and knowledge transfer
- enhance research collaborations and partnerships of mutual benefit and strategic value
- create closer links between applied research and commercialisation, while maintaining scope for 'blue skies' research in areas of strategic importance
- provide leadership in research that reflects the needs and aspirations of iwi and Māori communities
- pursue research relevant to the needs and aspirations of Pacific communities
- support and reward excellence in research, as measured by international standards
- nurture new and emerging researchers, including postgraduate students, as an integral part of the University's overall research activity
- enhance and promote pathways into postgraduate research.

We will continue to support open innovation, knowledge exchange, commercialisation, and collaboration with business and social enterprises. Our contribution to addressing national and global challenges will be enhanced in areas where we have comparative advantage, including: the transformation of business and economies, sustainable development (social, economic and environmental), improving the quality of education and issues related to quality water, food and health quality. We are extending our research contributions to include high performance and community sport, agribusiness, agritechologies, agrienvironment, and supply chain.

Research centres and institutes

Our Research Centres and Institutes facilitate interdisciplinary research teams of staff and postgraduate students. Research at these sites is complemented by new areas of research expertise and talent and further developed to meet stakeholder needs. The fact that these interdisciplinary research teams include postgraduate students means

that there is a direct link to the SAC funding generated by those students. Academic staff who belong to the Research Centres and Institutes are also engaged in research-led teaching at undergraduate level. These institutes and centres reflect our areas of national and international distinctiveness. We are enhancing our undergraduate and postgraduate courses in these areas with new knowledge generated in the research centres and institutes. We invest in scholarships to attract top students to the University and increase our postgraduate student numbers by establishing strategic partnerships and creating a strong reputation nationally and internationally for our postgraduate programmes, research culture and achievements. Our six research institutes and 12 centres, which align with our research strengths, facilitate interdisciplinary research teams of staff and postgraduate students and attract significant research and development funding are as follows:

National Institute of Demographic and Economic Analysis (NIDEA)

The National Institute for Demographic and Economic Analysis links a virtual and evolving community of national and international researchers whose research focus is the interaction of demographic, social and economic processes. NIDEA's research programme comprises five interconnected themes, and is supported and sustained by a strong capacity-building programme which spans local, national and international workshops, seminars, and postgraduate supervision.

Te Kotahi Research Institute (TKRI)

TKRI works with iwi, drawing on mātauranga Māori and multi-disciplines, to create new knowledge and innovations that will inspire our people and communities and lead to the well-being of our whānau, and society. It has collaborations with other universities, Crown Research Institutes, Wānanga, Māori organisations, and other organisations internationally.

Wilf Malcolm Institute of Educational Research (WMIER)

The Wilf Malcolm Institute of Educational Research undertakes, supports and disseminates research relating to the broad field of education. The focus is on research on learning teaching, curriculum, assessment, cultural, literacy and numeracy, and policy. The Institute has a sustained record of local studies in classroom research and cross-Faculty studies in tertiary pedagogy and curriculum.

Environmental Research Institute (ERI)

The Environmental Research Institute's focus is to produce world-class systems-level research and, through strong end-user relationships, successful outcomes for improved environmental resilience and management. The ERI's research programmes are multi-disciplinary in nature, drawing upon research expertise from the physical and social sciences, economics, engineering, planning, law and education. The Institute has the capability and capacity to address environmental issues across a range of ecosystems including terrestrial, freshwater, estuarine and marine.

Institute for Business Research (IBR)

The Institute for Business provides research leadership to underpin the economic, social and cultural development of the Waikato/Bay of Plenty regions and New Zealand. Current strengths include research relating to agribusiness - particularly supply chains, financial analysis and business performance, economic impact analysis, innovation, and the business of health. Within IBR the Management Research Centre (MRC) provides research and information services to professional, state and business organisations throughout New Zealand.

Institute of Professional Learning (IPL)

The Institute of Professional Learning in the Faculty of Education provides professional learning and development in the broad field of education, both nationally and internationally. This involves both short and long term programmes in areas such as educational leadership, coaching and mentoring, curriculum development, assessment and evaluation, information technology and eLearning, adult education, pedagogy, and policy development. It offers professional learning and development from early childhood education, through the compulsory education sector and into the tertiary level sector.

Centre for Biodiversity and Ecology Research

The Centre for Biodiversity and Ecology Research facilitates a coordinated, integrated approach to biodiversity and ecology research, consultancy, education and advocacy. CBER's emphasis is on New Zealand's indigenous biodiversity and natural ecosystems because the long history of evolutionary isolation has created highly distinctive and unique biota and ecosystems.

Centre for Environmental, Resources and Energy Law: Te Pūtahi o te Ture Taiāo

The Centre for Environmental, Resources and Energy Law Te Pūtahi o te Ture Taiāo (CEREL) facilitates teaching and research in fields of environmental law, natural resources law, and energy law. It has programmes of legal research

under way in the fields of energy efficiency, carbon capture and storage, and geothermal energy. Its strategic intent is to conduct research in these and other fields as funding permits; to deliver training courses on suitable subjects; and to continue its engagement with undergraduate and postgraduate students.

Centre for Global Studies in Education

The Centre for Global Studies in Education explores the educational dimensions of theories of globalisation and distinctive forms of global processes, interconnectivity, and intercultural education and dialogue on the model of open science, open education and open knowledge production.

Early Years Research Centre

The Early Years Research Centre focusses on three areas of research in the early years: pedagogy, policy and community connections. The Centre has a social justice agenda; it aims to make a difference for young children, early years teachers, families and whānau in Aotearoa New Zealand, undertaking robust research that influences policy and informs scholars worldwide.

International Centre for Terrestrial Antarctic Research

The International Centre for Terrestrial Antarctic Research promotes the protection of Antarctica through integrated international research into Antarctic terrestrial ecosystems, assuring New Zealand's continued leadership in this area. ICTAR aims to provide the science that will underpin the conservation, protection, and management of terrestrial ecosystems of the Ross Sea region through elucidating the status of the present biodiversity and predicting the effects of multiple impacts on ecosystems.

Māori and Indigenous Governance Centre: Te Mata Hautū Taketake

The Māori and Indigenous Governance Centre focusses on research issues concerning Māori and Indigenous Peoples' governance, rights and responsibilities. It promotes Indigenous worldviews and sound governance and development principles in order to build Indigenous capacity, facilitate Indigenous involvement in governance at all levels, and develop quality outcomes for Māori and Indigenous Peoples.

Mediarena Centre for Research

The Mediarena Centre for Research in Participatory Cultures and Creative Technologies is concerned with the emergence, impact and futures of technologically-enabled participatory cultures, i.e. the widespread shift from cultural consumption to cultural production, triggered by 'new media', and the development of new forms of content sharing and distribution.

National Centre of Literacy and Numeracy for Adults

The National Centre of Literacy and Numeracy for Adults is a key part of the national infrastructure to strengthen the literacy and numeracy skills of adult learners in New Zealand. The Centre was established in 2009 through a contract with the Tertiary Education Commission and facilitates collaborations with stakeholders nationally and internationally. It is hosted by the Faculty of Education and works in partnership with Te Whare Wānanga o Awanuiārangi, bringing together specialist skills in Māori pedagogy with literacy and numeracy expertise. The Centre undertakes research, analyses policy and promotes evidence-based professional learning which equips educators to identify literacy and numeracy needs and demands and supports adult learning in a range of contexts, especially with the Tertiary Education priority groups of Māori, Pacific and youth.

Relational Learning Centre

The Relational Learning Centre builds on the theoretical understandings that were developed prior to and during the implementation of the Te Kotahitanga project, which was to improve the educational outcomes for Māori students in mainstream classrooms and schools, thereby reducing the educational disparities that Māori people and the broader nation have struggled with for decades.

Centre for Open Software Innovation

The Centre for Open Software Innovation provides a focus for open software development at the University, promoting and supporting the principles of open development, and showcasing exemplars of open software.

Technology, Environmental, Mathematics and Science Education Research Centre

The Technology, Environmental, Mathematics and Science Education Research Centre (He Rangahau Toi Tangata) provides a focus for postgraduate teaching, research and development in technology, environmental mathematics and science education in the primary, secondary, and tertiary education sectors, as well as in commercial and community environments. The Centre is known throughout New Zealand and internationally for its innovative research and scholarship, and for its emphasis on the use of its research in the informing and development of policy, practice, curriculum and resources.

Waikato Centre for Advanced Materials

The Waikato Centre for Advanced Materials promotes interdisciplinary collaboration in research on advanced materials. A research group has formed at the University of Waikato based on a shared interest in agritech. It brings together a number of established research programmes in smart sensors, Geographic Information Systems, waste recycling, renewable energy, natural fibre composite materials, bio-polymers, mechanical and electronic design, software engineering, process control and IT, including data mining and machine learning. The research group aims to improve the efficiency, sustainability and profitability of New Zealand's primary industries by

- developing high-tech systems for traditionally low-tech processes
- developing useful materials from agricultural waste products
- developing bio-composites from natural fibres
- improving the energy efficiency of agritech systems and processes.

Other research collaborations

The Waikato hosts one of the largest concentrations of agriculture-related companies in the country. The University of Waikato is one of eight organisations (the others being Lincoln University, DairyNZ, Wintec, Hamilton City Council, Waikato Innovation Park, NIWA, AgResearch and Landcare Research) who have formed a **Waikato AgriHub**, a platform to attract investment to the region, and to deliver innovation, productivity and sustainability across the agrisector.

The University offers both educational and research resource in agribusiness, agritech and environmental sustainability. Our focus is different from that of traditional agricultural universities and is designed to offer a step-change for the agrisector. It involves expertise in competitive global markets, sustainable farm systems, international marketing, the management of complex and extended value chains, agricultural economics, soils science, big data and ICT solutions, fresh water management and engineering solutions, high-tech systems, waste recycling, biochemistry analysis, energy efficiency and renewable energy. A dedicated Agritech Innovation Manager will improve our connectedness with the sector, and a dedicated Agritech Seed Fund will assist with IP commercialisation and transfer. An Agritech Entrepreneurial Fellowship will be launched to help build capability focussed on industry innovation.

The **Waikato AgriTech Group**, which sits within the Faculty of Science and Technology, comprises staff who already have a successful track record of researching and developing systems and materials for New Zealand's primary industries including; microprocessor controlled machinery for forestry nurseries, bio-polymers from meat industry waste, robotic milk testing, high speed apple grading, hemp composite materials, slow release devices for the dairy industry, an optical grass quality measuring system, an optical meat quality measuring system, integrated solar energy systems, an egg crack detector and an energy-from-waste gasifier.

The **Cyber Security Researchers of Waikato (CROW)**, which sits within the Faculty of Computing and Mathematical Sciences, aims to return control of data to data owners, by focussing on research addressing data security from a user-centric perspective. With the emergence of cloud computing technologies and prevalent mobile device usage, we are witnessing the diminishing effectiveness of traditional cyber security approaches such as perimeter defence, intrusion detection and infrastructure hardening. To address this, CROW focusses on six major themes: Provenance, User-Centricity, Visualisation, Economics, Hardware, and Tools & Datasets. Together, these six themes empowers the return of control of data to users, thereby reducing reliance on third-party vendors or trust relationships commonly found in most cyber security contracts today.

The University is engaged in all of the **National Science Challenges**, as lead institutions in some cases.

In the field of **health research**, and is further developing partnerships with the Waikato District Health Board, the University of Auckland's Waikato Clinical School and the Waikato Medical Research Foundation. The University is a partner of the Institute of Healthy Ageing, a collaboration with the Waikato District Health Board and University of Auckland.

The University is further developing partnerships with sport organisations in **interdisciplinary sport research and development** in the region. Through its partnership with the Home of Cycling the University has high performance lab space and works with community groups as well as the high performance sports of cycling, rowing, rugby, netball, triathlon and hockey.

Graduate Schools

The University has made a commitment in its Strategy 2014-2017 to working with Crown Research Institutes (CRIs) and other research entities to establish joint postgraduate programmes in our areas of strength, in the form of Graduate Schools, to expose postgraduate students to inter-institutional, national, and international strategic

research collaborations. The aim is to engage more effectively with business, government, non-government, social and community organisations to develop research and teaching partnerships, and to pursue postgraduate placements and graduate employment opportunities. These Graduate Schools will support the University's role as a prominent source of research expertise and its investment in concentrations of established excellence, distinctiveness, interdisciplinary research, and national and international partnerships. They will provide a point of differentiation for the University of Waikato and a visible structure for postgraduate participation in open innovation, knowledge exchange, commercialisation, and collaboration with government, business, social and community enterprises.

Research, International, Commercialisation and Engagement Group

WaikatoLink was physically relocated alongside the University's Research Office in 2013 in order to achieve alignment between research and commercialisation activities. In 2014, WaikatoLink was included in the newly formed Research, International, Commercialisation and Engagement (RICE) Group to provide an integrated approach to research and development, commercialisation, and national and international collaborations to increase the University's external income. The University has recently appointed a Director of International Business to increase international partnerships, international students, and business opportunities. The University is investing in key business managers in Auckland and Wellington.

A new model for engagement between University research clusters, research nodes (supporting the clusters) and industry operationalises the RICE Group's strategy. The establishment of "Innovation Units" will bring together entrepreneurial researchers and commercialisation expertise to increase sustained engagement with industry both nationally and internationally. We plan to:

- resource these Innovation Units through WaikatoLink and integrate activity with the research clusters and nodes, and with Industry
- concentrate the Innovation Unit resource on a small number of sector themes to enable scale and focus as well as the alignment and profiling of University expertise e.g. Agritech, the Future of Education (iEngagEd Ltd) and high performance sport
- resource the Innovation Units with business innovation managers and entrepreneurial researchers
- build and grow each Innovation Unit in line with sustainable revenues, which will contribute to the University's external revenue targets. The generation of IP will be treated as a tool for engagement and partnerships
- use the Innovation Units to invest in and manage partnerships with Industry.

The aim of the above strategy is to align and integrate the resource, expertise and culture of WaikatoLink with the needs and strategy of the University in order to grow industry engagement and knowledge transfer, and the benefits and value these bring.

WaikatoLink's continued leadership of KiwiNet (13 National Partners) is well recognised externally and provides a useful profile for the University. The University's funding and leadership of KiwiNet positions us well to continue to demonstrate our collaborative approach as well as develop national initiatives which are aligned with our key research strengths. KiwiNet provides a significant source of external revenue opportunity under the management contract but, as importantly, access to external revenue via Pre-Seed Accelerator Funding (PSAF).

11. Growing our international reputation and linkages

The University of Waikato Strategy 2014-2017 outlines our commitment to 'Implement a comprehensive programme of internationalisation'. To deliver on this action, we will

- seek opportunities to establish new and grow existing agreements with strategic international partners to maximise our potential for research collaboration and joint educational programmes, including off-shore delivery
- promote our international profile by contributing to issues of global importance and celebrating our teaching and research programmes
- attract top quality students from a broader and global market through strategic student recruitment
- increase our focus and prioritise our connections with China and ASEAN countries
- embed an international perspective in all academic curricula, promote cross-cultural competence and create a multi-cultural campus environment
- offer excellent support to all students, including international students
- actively engage with our international alumni as global ambassadors.

Internationalisation is a key theme of the University's Vision. It is described as the process that links the region to the international community and introduces the international community to the strengths of the region thus establishing a global reputation for the University that will be reflected in the international rankings.

The widening of the University's internationalisation approach extends to

- research activities: where cross-border research plays a significant role in shaping New Zealand's knowledge economy, lifting the University's profile, attracting and retaining outstanding academic staff and contributing to economic and cultural development
- curriculum and teaching activities: where curriculum and pedagogy are designed to expose students to the international perspectives of their discipline, and programmes provide the opportunity for students to establish multicultural networks and gain both an international and uniquely New Zealand experience
- recruitment and retention activities: by ensuring an optimal level and profile of international students across academic disciplines and levels of study
- relationships and stakeholders: by engaging with tertiary institutions, professional bodies, academic peers and alumni to create partnerships and enhance the University's international reputation and rankings.

In response to several years of declining Full-Cost International enrolments, the University is now focussing on a more coherent and collaborative approach to international student recruitment across the institution. Recent changes to partnership programmes in China have seen Chinese student numbers increase significantly.

A continued focus on the development of partnerships and off-shore delivery is designed to grow both profile and revenue. To focus international activities and enhance opportunities for outcomes, the global market has been segmented into the following regions: China, India, South East Asia, Middle East, Europe, and North America. A specific strategy and business plan has been developed for each region, clearly outlining the University's priorities for each. The scope and regional approach encompasses international student recruitment and retention, commercialisation and off-shore delivery.

One of the key objectives of internationalisation is to enhance the reputation of the University; however it is imperative the outcomes also deliver increased and more diversified revenue streams, especially in an increasingly competitive and cost-conscious recruitment market. As the international market changes, fewer students will come from traditional sources and more will be recruited through partnership arrangements, government collaborations and commercially-based relationships. While the majority of international activity to date has been focussed on student recruitment and retention, the University intends to give greater emphasis in future to commercialisation of teaching programmes and off-shore delivery. Priorities include

- increasing the number of Full-Cost International students to a level that represents at least 15% of total EFTS by 2016
- achieving at least \$5million in revenue from research with strategic partners in Europe, USA and China, e.g. the Intercoast Project with Bremen University in Germany, and the China-New Zealand Coastal Biotechnology Joint Research Centre
- commercialising the University's intellectual property and expertise to create tailored professional development programmes, executive and international short courses, consultancies and contractual work that are aligned with the University's research and development strengths
- cross-border and off-shore activity: programmes of teaching and research that are delivered in foreign markets through partnerships with public and private institutions of high international standing, including the development of programmes to be delivered fully off-shore
- increasing the number of scholarships for high quality international students
- internationalisation of the curriculum, international partnerships for teaching and research, and student exchange programmes.

12. Enhanced relationships with Iwi and Mātauranga Māori research capability

The Māori distinctiveness of the University of Waikato is grounded in the establishment of the University in 1964 and the early leadership of key Māori staff who brought national prominence to the programmes of the University and created enduring relationships with Iwi and Māori communities across New Zealand. Underpinned by numerous connections and collaborations with Māori communities, innovative research partnerships, research leaders, excellent teachers, a vibrant, visible and diverse Māori student body and an organisational commitment to partnerships with Māori and the Treaty of Waitangi, the University has consistently maintained its positive reputation as a leading University for Māori.

The recent good progress can be measured with reference to the priorities which were identified by the University Council in February 2010:

- improve our more local iwi relationships with the Kīngitanga and Waikato-Tainui
- develop a relationship with the Waikato Endowed College for Research and Development
- reinvigorate and recommit members of Te Rōpū Manukura
- enhance the School of Māori and Pacific Development
- establish a new Research Institute that could engage with iwi
- engage with Te Whare Wānanga o Awanuiārangi.

The University's vision is to be seen by iwi and communities as a trusted and effective partner in advancing research and scholarship relating to Māori development and mātauranga Māori, and this vision underpins the priority work-streams and activities of the University for the term of this Investment Plan. The University's overarching Māori Plan provides the framework for the focus activities, and extensive consultation is taking place so that the Plan is informed and aspirational, and well supported by the communities and the leadership of the University into the future. The University's Māori Plan provides for the following:

Research collaborations

Consisting of 18 major iwi organisations of the North Island, Te Rōpū Manukura is a unique iwi forum that has been part of the University's governance arrangements since 1993. Te Rōpū Manukura is currently setting new challenges that will deepen the quality of the University's engagement with iwi individually and collectively. This includes strengthening iwi engagement with the University Council at a governance level, and with the University executive at a strategic planning level. It also includes strengthening research and education connections between iwi organisations and communities and the various Faculties and research institutes and centres of the University.

Forged at the individual researcher and contractor level, there are numerous research collaborations and partnerships involving University researchers and iwi, hapu and Māori community organisations across the breadth of New Zealand. The Rotorua Lakes Research with Te Arawa and the Rena Project with the hapu along the Bay of Plenty Coastline are examples of on-going successful research programmes involving senior research leaders of the University working closely with Māori communities and organisations. Identifying and supporting these researchers, students and communities will be a focus for the term of this Investment Plan.

The University also supports a wide range of relationships with iwi and Māori organisations that are based on specific contracts or programmes. For example, a Memorandum of Understanding with the Waikato-Tainui College for Research and Development facilitates programmes offered in partnership with the Faculty of Education and the delivery of an award-winning indigenous MBA programme for Māori leaders. There are other agreements and partnerships with other Māori entities such as Wānanga, local trusts and community based organisations, and the University will continue to support and further develop these initiatives.

Supporting mātauranga Māori and building Māori research capacity will continue to be an area of focus. Most of the University's Māori academic staff and Māori PhD and research masters students are engaged in some aspect of mātauranga Māori research in diverse areas such as language revitalisation, science and the environment, Māori art forms and traditions, heritage preservation, psychology, law, navigation, astronomy, oral histories, and Māori belief systems. Iwi partners are also expressing interest in research partnerships to do with aspects of mātauranga Māori and the Māori economy, and over the term of this Investment Plan, we will look to provide a framework for this activity that allows the University to identify, support and promote this research and its application in the many and varied contexts for which it was intended. The University has on its teaching staff some renowned experts in mātauranga Māori research whose advice is sought by others. Providing support for, and increasing the number of, Māori teaching and research staff are essential platforms for ensuring the University has the required capacity for research supervision in mātauranga Māori and for ensuring a strong Māori dimension to the curriculum.

The University will also continue to extend and deepen its international indigenous collaborations with other universities and indigenous communities.

Māori student achievement and success

The University has a strong Māori student profile, and the proportion of EFTS generated by Māori students has consistently been between 20-22% of the University's total domestic student enrolments. In 2013, the University had 2,290 Māori students, generating 1,867 EFTS; 20-21% of students in the Faculties of Law, Management, Arts and Social Sciences and Education identified as Māori, 98% in the School of Māori and Pacific Development, and about 9-13% in the Faculties of Science and Engineering and Computing and Mathematical Sciences. In these proportions, Māori students are a highly visible cohort across the Faculties of the University.

In terms of participation and achievement there is still a discrepancy in pass rates and completion rates between Māori students and all other domestic students, although in the last three years Māori pass rates have vastly improved across most Faculties. The University of Waikato has a comprehensive programme for supporting Māori student achievement that is University-wide, and raising Māori student achievement continues to be a priority area for the term of this Investment Plan.

The University's equity programme is designed to complement existing mainstream services and infrastructure with culturally responsive student support. The University's network of Faculty-based Māori mentoring programme is key to this approach, and through the term of this Investment Plan, more work will be done to ensure the mentoring programme is properly integrated into the systems and processes of the Faculties, and that teaching staff are proactive in identifying Māori students in need of support and connecting them with the appropriate services.

Other complementary programmes will be extended and new ones piloted. The Te Āhurutanga Māori Student Leadership Programme was established in 2012 to build a strong Māori student leadership base within the University of Waikato that fosters and develops global citizens grounded in kaupapa Māori. The overall vision of the Te Āhurutanga Leadership Programme is to prepare student participants as leaders for the future and to create outstanding Māori ambassadors of the University. Te Huakirangi is a pilot programme in the Faculty of Science and Engineering that brings year 11 Māori and Pasifika students to the University for a week-long summer school experience where they have the opportunity to experience the sciences through laboratory work, lectures, tutorials and field work. These initiatives and others will contribute to the effort to set strong platforms for student engagement and achievement.

Dedicated support for Māori graduate and PhD students will continue to be a priority area for development. The MAI Doctoral programme is funded by Ngā Pae o Te Māramatanga, the Māori Centre of Research Excellence to develop Māori doctoral capacity. The programme supports students through writing retreats, conference attendance and workshops. Similarly, Te Toi o Matariki is a University-wide programme of workshops and writing retreats for Māori graduate students. A highlight of the programme is the Te Toi o Matariki Māori graduate conference, which enables Māori students to present their research in a conference format with the added element of a competition with prizes for Faculties and outstanding individuals. Both of these initiatives are essential to supporting Māori student success and achievement at PhD and postgraduate levels and to promoting graduate opportunities to prospective students.

Research will also contribute to the strengthening of our approach to Māori student achievement. The Faculty of Education is leading (with University of Auckland and Te Whare Wānanga Awanuiārangī) the Building on Success programme which focusses on raising student achievement in New Zealand secondary schools and also enhancing the transition from school to tertiary study and university for Māori. For this term, we will be looking to extend the application of this research to inform and further enhance our University-based Māori student achievement programmes. More effort will also go into professional development opportunities for teaching staff to develop culturally responsive practices.

The work set out for the next three years will build on our current momentum and achievements, and will ensure that the University of Waikato continues to make a distinctive and significant contribution to Māori communities and to the priorities set out in the Tertiary Education Strategy.

13. Pacific student success

The University of Waikato Strategy 2014-2017 outlines our commitment to

- work in partnership with Māori and Pacific peoples to contribute to their educational aspirations
- pursue research relevant to the needs and aspirations of Pacific communities
- connect more effectively with Pacific communities living in New Zealand and in the Pacific.

Pacific communities are the fastest growing communities in New Zealand and the government has set a goal of creating conditions where Pacific students are achieving on a par with other students in tertiary education so that Pacific communities are strong and successful and contributing to a healthier New Zealand economy. The University aims to increase the number of Ministry-Funded Pacific students who enrol at the University at both undergraduate and postgraduate levels. We will target South Auckland and the immediate University catchment areas of Waikato, Bay of Plenty and Gisborne. The University also aims to increase paper completion, qualification completion and retention rates for Pacific students. To achieve this, the University will develop and further

strengthen integrated, diverse, culturally responsive, flexible learning environments and a culture of belonging that harnesses Pacific student potential to realise success. We are in the process of implementing systemic and cultural change across the University.

The University's main focus in terms of Pacific student recruitment since 2012 has been primarily in South Auckland and other schools with high Pacific student numbers. The University is proactively re-establishing connections with other providers across the country (especially in South Auckland) and across the Pacific to attract students who are ready to progress to degree-level and postgraduate study.

A strategy has been developed to engage all Pacific students and develop a sense of belonging through a range of activities. The University's Student Learning unit has a two-pronged initiative which includes weekly group sessions and multiple drop-in, one-on-one sessions during the week. There is good uptake of the drop-in sessions by Pacific students across the Faculties. An intervention programme focussed on Pacific students is being trialled in 2014. Using agreed indicators of success and engagement, Pacific students are being monitored and particular attention paid to those most likely to need special support.

Over the last nine years the University has undertaken a number of research contracts in the Pacific and with Pacific communities in New Zealand. Nine contracts worth a total of \$8.2million will be completed in 2014 or 2015. Five contracts focus on Pacific communities in the Pacific.

A Pacific Scholarship Framework is being developed to increase Pacific student participation rates, improve retention rates and progression rates into postgraduate studies. One of the University's halls of residence specifically monitors Pacific students' academic progress to ensure engagement for success. If the support programme proves successful for Pacific students it will be scaled up across all the University's halls of residence.

Work is ongoing to develop an authentic and legitimate profile in South Auckland communities. Authentic engagement will increase the likelihood of Pacific families seeing the University of Waikato as a viable tertiary option for their children. The University has partnered with 'Accelerating Auckland' in events associated with a community development strategy to increase community access to, and interaction with, digital technology. The University of Waikato engages as a partner and contributor of expert skills.

14. Addressing 'Low Performing Provision'

Only 13 of the University's papers (out of 1,746 papers that generated Ministry-Funded EFTS in 2013) did not meet the Tertiary Education Commission threshold for low performing provision (LPP) for 2013 - that is, a pass-rate of at least 60% in papers with enrolments ≥ 5 Ministry-Funded EFTS. This compares with 15 papers in 2012.

The University continues to work to reduce the number of LPP papers through a range of initiatives that have become embedded in recent years to identify 'at risk' students and intervene as soon as possible.

An ongoing concern for the University is the number of students who formally withdraw after the 'full refund' period, and while they are not regarded by the University as having failed the paper (they receive a Withdrawn (WD) grade), they do impact negatively on the pass rate. Of even more concern, are the numbers who fail to complete the compulsory items of assessment or who discontinue their studies without withdrawing at all, and who are awarded Incomplete (IC) grades, which are fail grades.

IC and WD grades represented 8.6% (4,982 IC/WD grades) of total grades in 2013, compared to only 7.3% (4,338 IC/WD grades) of total grades in 2012. Faculties have introduced a number of measures to improve student engagement over recent years. These initiatives include improvements to course descriptions so that students have a better understanding of course content and assessment requirements at the outset of their enrolment. Initiatives also include the re-design of assessment, and the setting of assessment earlier in the paper to allow earlier detection of disengagement and earlier interventions.

A particular initiative as part of the University's development of its business intelligence capability involves the profiling of students using a wide range of relevant data and the development of a model that links particular profiles with likely success. More targeted interventions are then able to be designed for particular student profiles.

15. Financial and capital asset management

Financial management

The financial management framework within which the University of Waikato operates is robust. It is underpinned by a high-level Finance Plan, the purpose of which is to guide the management of the University's finances in a manner that ensures financial growth, diversity, security, resilience and sustainability. The four key goals of the Plan are to

- ensure that the University is financially sustainable through the effective and efficient use of all resources
- apply a budget model and financial planning processes that are transparent, relevant, efficient, realistic and effective in supporting the achievement of the University's short, medium and long-term strategic goals
- ensure that financial management information is consistently accurate and timely and facilitates operational and strategic decision-making
- identify, evaluate, mitigate and manage financial risks associated with University strategy.

While the overall financial management of the University is the responsibility of the Vice-Chancellor, the University has in place an internal control and financial authority framework for the delegation of responsibilities and accountabilities in relation to specific aspects of financial management.

Operating plans and budgets are developed annually and are subject to approval by the University's Finance Committee and Council. Financial performance is monitored monthly against budgets; results and variances (and required actions) are reported monthly to senior management, the Finance Committee and Council.

Financial models and systems are maintained to enable the University to forecast future revenue and expenditure streams, cash flows and capital expenditure for the short, medium and long-term.

Capital asset management

As part of the University's capital planning framework, a Hamilton Campus Development Plan has been developed and serves as its key building, infrastructure and urban design planning tool. This Plan is lodged with both the University's landlord, Tainui Group Holdings, and the Hamilton City Council, and forms the basis of forward capital planning under the Major Facilities Zone of the Hamilton City Council District Plan.

The objectives defined in the Hamilton Campus Development Plan are the framework for the University's capital development. Those objectives relate to

- sustainable development
- sense of place
- built environment
- landscape environment
- transportation and parking
- town and gown integration
- development and process.

The University's capital development planning takes account of a number of diverse factors, including building condition audit data, enrolment projections, space-to-EFTS ratios and student numbers-to-EFTS ratios. It also takes account of trends and projections - both within this University as well as nationally and globally - associated with research, modes of teaching delivery and technology.

The University's capital development planning is managed by its Capital Asset Committee, which has developed a 10-year Capital Plan. The Plan takes account of the University's annual capital budget (nominally 'depreciation plus half the surplus', except for strategic projects), as well as the split of that expenditure among the various categories of assets.

Over the period of this Investment Plan, the University's major capital development projects will include the construction of a new Law/Management building to replace the Law Faculty's existing pre-fabricated accommodations.

Consideration is being given to the replacement of the University's Student Management System over the next three years, as well as the completion of the refurbishment of student accommodation.

The University will continue to liaise closely with Tainui Group Holdings with regard to its proposed mixed-use development project on Ruakura land adjacent to the University campus, to minimise and mitigate any environmental impact for the University.

As outlined in section A9 the University has been working closely with the regional and district councils, iwi, community agencies and other stakeholder groups in the Bay of Plenty, as well as its partner organisations - the Bay of Plenty Polytechnic, Te Whare Wānanga o Awanuiārangi and Waiariki Institute of Technology - to advance a proposal for a new research-led campus development in Tauranga. In July 2014, the Tauranga Energy Consumer Trust (TECT) announced its decision to provide up to \$15million, subject to conditions, towards the landmark downtown Tauranga campus development project. The TECT decision provided one of the key funding components for the project, after the Tauranga City Council had agreed to provide land for the campus and the Bay of Plenty Regional Council had agreed to fund up to \$15million for the development. Construction on the campus is expected to commence in 2016.

16. Performance against last Investment Plan (2013 - 2014)

The University of Waikato has continued to deliver a strong performance in what remains an extremely difficult fiscal environment. Along with delivering quality teaching, University of Waikato staff continued to undertake world-changing research which delivered vital contributions to national and international challenges across many areas, including climate change, sustainability, education and technology. Details of performance to date against commitments in its last Plan (2013 - 2014) are outlined in details in its Annual Report 2013. Particular achievements highlighted in the University's 2013 Annual Report are as follows:

Enrolments

In 2013, the University achieved 8,726 Ministry-Funded EFTS, the equivalent of 99.3% of our funding target agreed with the Tertiary Education Commission. The total number of students enrolled in formal programmes in 2013 was 12,344, with the bulk of them - 8,799 - coming from our core regions of the Waikato and Bay of Plenty. The proportion of new students joining us in 2013 who were school-leavers increased, and 68.6% of all Ministry-Funded EFTS were in the under-25 age bracket - a figure that's risen steadily since 2009. Students from Asia made up more than two-thirds of the 1,873 international students enrolled in 2013.

Education, curriculum and student experience

The launch of New Zealand's first masters degree in Cyber Security in 2013 reflects our ability to quickly identify and address challenging issues. It is one of many 180 point masters that are available at the University of Waikato, including Māori and Pacific Development, Business Management, Educational Leadership, Media and Creative Technologies, and Electronic Commerce. These programmes are attractive to domestic and international students who can complete the qualification in one year and move quickly into the workforce.

In 2013, five subject areas taught at the University of Waikato were assessed as being among the top 200 worldwide in the latest QS Subject Rankings. The Faculty of Education achieved a notable first for the University of Waikato, being ranked in the top 50 in the world. Education came in at 46 on the rankings, with four other subjects taught at the University - computer science and information systems, economics/econometrics, law and modern languages - ranked in the band 101-150.

In early 2013, Waikato Management School and Te Piringa - Faculty of Law launched a new Postgraduate Certificate, which had been developed in consultation with the NZ Institute of Directors. The Governance and Leadership programme is specially designed for company directors, board members, trustees and councillors.

The Management School followed that up later in the year with the launch of a new Bachelor of Entrepreneurship. The Faculty remains in the 1% of the world's business schools that have Triple Crown accreditation, having met the strict standards of all three accreditation bodies; AMBA, EQUIS and AACSB. The accreditation runs until at least 2017.

The University of Waikato was the first to offer an online teaching degree and we continue to lead the way in using technology to connect staff, students and community. In 2013, the Faculty of Computing & Mathematical Sciences launched New Zealand's first MOOC - Massive Open Online Course - on data mining with WEKA, based on open source digital software developed here. It attracted more than 5,000 students from around the world.

Making a mark in Tauranga

In Tauranga, the House of Science was launched. It is based at the University of Waikato's Coastal Marine Field Station at Sulphur Point and was established to enrich science education across the community. The aim is to get more students excited by science in the early years so they will be inspired to carry on with their studies through secondary and into tertiary education.

The Coastal Marine Field Station is playing an increasingly important role in the Bay of Plenty Tertiary Education Partnership, particularly as research continues into the impacts of the Rena spill. The Partnership brings together the University of Waikato, Te Whare Wānanga o Awanuiārangi, Bay of Plenty Polytechnic, and its most recent partner, Waiariki Institute of Technology, based in Rotorua. The partners work together to increase education and research opportunities in the region.

The Coastal Economic Symposium, called *Treasuring the Bay Whakamana te taonga o te Moana a Toi*, is now an annual event on the Bay of Plenty calendar. It is free and open to the public, and provides a chance for the community to engage with experts about research and economic developments taking place in the Bay of Plenty as well as looking at the issues the community is facing. The University of Waikato's Science Learning Hub was one of five winners in the e-learning and science category competing at the World Summit awards and was one of only two of the original eight New Zealand entries to make it through to the finals.

The largest graduation ceremony the University of Waikato has hosted in Tauranga took place in 2013 with 173 students graduating there. Among those capped were 20 of the first graduates of the new Tauranga-based biological sciences programme. The Bachelor of Science with a major in Biological Sciences is offered in partnership with Bay of Plenty Polytechnic and can be completed entirely in Tauranga.

Preparing students for employment

One of the distinctive aspects of studying at the University of Waikato is the strong emphasis placed on work placements or practicums. In 2013 alone, 1,879 students were assigned work placements across a diverse range of areas including teacher education, science, engineering, management, social work, environmental planning and accommodation management.

The University places a strong emphasis on placements through its Co-operative Education Unit; this work is backed up with focussed advice through Career Development Services. See section A6.

Scholarships

The Sir Edmund Hillary Scholarship Programme attracts top students who are strongly focussed on sport, art and leadership. The full fee paying scholarships are awarded to students, usually school-leavers, who have a strong academic record and excel in a particular sport or performing art. Leadership is an important component of the programme and the University makes a special point of accommodating student requirements when they are off campus with national or international commitments.

In 2013, the Step Higher Awards were offered for the second time to Hillary Scholars. Sponsored by the Compass Group, the chosen students visit the Khumbu Valley in Nepal to work with the local communities and see first-hand the work done by Sir Edmund Hillary and the Himalayan Trust.

The University continues to recognise the hard work of secondary school students with Merit and Excellence School-Leaver Scholarships. For the first-time in 2013, the University's six flagship research institutes each offered new doctoral and masters scholarships to support world-class research in environmental science, demography and economic analysis, business and leadership, professional learning and development, education, and Māori and indigenous development.

Research impact

Our research centres and institutes have continued to influence policy, professional development and community empowerment.

During 2013, the Early Years Research Centre was launched in the Faculty of Education with a focus on education and children up to eight years old. The Centre provides a broad platform of research and focus on three research themes: pedagogy, policy, and community connections.

In 2013, Te Kotahitanga won a major international award at the World Innovation Summit for Education (WISE). Six University of Waikato staff have received the national McKenzie Award since 1990 for their significant contribution to educational research.

Also in the Faculty of Education, the government announced late in 2013 that it was funding *Building on Success*, a programme that combines the best of earlier University of Waikato-led programmes Te Kotahitanga and He Kākano. The government has committed \$31million to the programme over the next three years to deliver a more integrated package in schools to raise the success of young Māori. The programme will support school leaders and teachers to develop professional leadership and schooling practices, and deliver the curriculum effectively, to increase educational success for Māori. Approximately a quarter of all secondary schools will be in the programme at any one time.

As one of New Zealand's major research organisations, the University of Waikato makes a significant contribution to research and innovation, nationally and internationally. In 2013, that contribution was recognised with \$5million in research funding from the Ministry of Business, Innovation and Employment's science investment round and with more than \$2million in Marsden funding for three major projects. Several young University of Waikato academics were among the recipients, reinforcing our intention to nurture the next generation of researchers.

The 2012 Performance-Based Research Fund exercise reflected that approach to capability development. The results, released in 2013, show 90% of our academic staff are research-active and more than half are classed as A or B researchers; A researchers are defined as world-class and B researchers are recognised for producing research of national and international significance. Ten of our A researchers have sustained their top grading over three successive evaluations.

Students can therefore be confident that classes at the University are underpinned by internationally-benchmarked, research informed teaching and in particular our postgraduate students have direct access to top national and international researchers.

Further acknowledgement of University of Waikato academics saw them taking home a variety of accolades, including New Zealand honours and regional awards, with six staff and students receiving Fulbright awards to study and research in the USA.

The University continued to take a lead role in research into the impacts of the 2011 Rena oil spill at Astrolabe Reef near Tauranga Harbour.

The Bay of Plenty Regional Council's funding of a Chair in Coastal Science since 2011 recognises the priority that the University and the regional council place on coastal science in the Bay of Plenty. The regional council also funds the Chair in Lakes Management and Restoration at the University.

Research results into the Rena oil spill released in December 2013 show few long-lasting impacts on maritime habitats throughout the wider Bay of Plenty. The two-year monitoring programme was led by the University of Waikato and the research team included staff and students from the University of Waikato, Bay of Plenty Polytechnic, Te Whare Wānanga o Awanuiārangi, Manāki Taha Moana, the University of Canterbury and the University of Bremen (Germany).

The University's Te Kotahi Research Institute received funding of \$1.84million from the Ministry of Business, Innovation and Employment (MBIE) for a four-year project to examine freshwater food gathering areas and how best to manage them through the use of both science and traditional Māori knowledge.

The University's Energy Research Group was awarded \$2.07million to identify energy efficiency in the dairy processing and timber drying industries. Funding of \$850,000 was awarded for the development of a new method for designing "next generation enzymes" for commercial use.

An MBIE grant was awarded as part of a two-year \$400,000 GNS Science project for the study of ownership rights to minerals found in geothermal fluids.

With joint MBIE and Chinese Ministry of Science and Technology funding, the University began work with NIWA, the Nanjing Institute of Geography and Limnology and Jinan University to improve land-use practices and restore the ecology of aquatic ecosystems in China. China has been one of the key international recipients of the research being undertaken at the University of Waikato into the restoration of lakes.

The University is co-leading a Marsden-funded project to study the significance of the Rewi Alley Chinese Art Collection housed in the Canterbury Museum.

The Faculty of Education was awarded nearly \$800,000 in Marsden funding for a study of children's information gathering. The National Institute of Demographic and Research Analysis at the University of Waikato was awarded \$748,000 for the continuation of a study into depopulation.

The University of Waikato continued to sharpen its focus on research that will lead to application transfer and commercialisation. The re-location of WaikatoLink, the University's commercialisation arm, to the Hamilton campus and its operational integration with the Research Office has helped the University to co-ordinate and maximise opportunities for creating value through innovative research and development.

Internationalisation

In 2013, the prestigious Times Higher Education organisation labelled the University of Waikato "a world-leading institution with the potential to become a global leader". Our students and staff are internationally connected and the University has continued to strengthen its connections as we expanded our global presence.

This included high-level delegations from the University of Waikato travelling to Asia and the Pacific region to meet key government and education leaders. While in China we renewed a Memorandum of Understanding with leading university Sun Yat-Sen, the Deputy Vice-Chancellor participated in a graduation celebration for the University's joint programme with Zhejiang University City College (ZUCC) in June and in recognition of our longstanding and successful joint programme, Minister of Tertiary Education Steven Joyce visited Shanghai International Studies University (SISU) in November.

The University hosted delegations from around the world - including groups from Taiwan, Indonesia, China, Colombia and the Philippines. Among the visitors were Colombia's Vice-Minister of Higher Education Patricia Martinez Barrios, and from Indonesia, Embassy First Secretary Maria Renata Hutagalung, and Ridwan Anzib, the Deputy Director for Qualification Affairs, Ministry of Education and Culture.

As we connect with our alumni globally, we are increasingly seeing our graduates in high-level government, business and academic positions. This was evident when a University delegation visited Samoa in August where some of our alumni include senior government officials and Ministers, high court judges and a university vice-chancellor.

Our Intercoast relationship continues with Bremen University in Germany. It is a successful example of international science collaboration and the initiative has coincided with long-term environmental monitoring programme in the wake of the Rena grounding near Tauranga Harbour.

We cemented links with a variety of universities around the world with numerous academics presenting their research at international conferences and overseas academics working collaboratively with University of Waikato researchers. We also welcomed high-level academics to conferences and colloquia held on campus. Internationalisation is a key theme of the University of Waikato's vision. It is the process that links the region to the international community and introduces the international community to the strengths of the region thus establishing a global reputation for the University.

The University of Waikato was the first New Zealand university to establish a partnership in China and we have continued to grow relationships there. The University is part of the New Zealand-China Tripartite Fund, sometimes known as the "three brothers programme" set up by both governments to encourage the development of strategic research relationships between the two countries. The University of Waikato is the overseas brother, working with colleagues at Fudan University in Shanghai (big brother) and the more remote and smaller Yunnan University (little brother) in China's less developed west. The programme involves Computer Science staff working with students and teachers there to learn English through FLAX, Flexible Language Acquisition, developed at the University of Waikato by the Digital Libraries Group.

In accordance with the Memorandum of Understanding between the Indian and New Zealand governments designed to promote bilateral trade, the University of Waikato followed up on the 2012 India Business Forum held on campus with a second Forum in 2013, held in Ahmedabad, Gujarat in India. The Forum brings together academics and corporate leaders from both countries to help understand the nuances of doing business in each other's territories. In 2013, the Forum provided a platform for exploring mutual and reciprocal opportunities in the areas of tourism and health, information technology, dairy and agribusiness, and trade and exports.

The University of Waikato was awarded almost \$130,000 for five India-related studies in the 2013 round of funding from the New Zealand India Education Council allocated through the New Zealand India Research Institute based at Victoria University. The University of Waikato grants were the largest amount for any New Zealand university

from a total of just over \$500,000. Indian students are the third largest contributor to New Zealand's international student population. The Management School was awarded nearly \$50,000 to lead a study into the experiences of Indian students before, during and after study in New Zealand.

Research by staff of the University's Economics Department focusses on rural-to-urban land-use change and development of India's National Capital Region, and \$30,000 was awarded to the Screen and Media Studies Department to run a workshop in New Zealand to consider a wide spectrum of developments (political, technological, commercial and sociological) in the Indian media economy.

i-Graduate International Student Barometer survey

The 2013 i-Graduate International Student Barometer survey showed how popular we are with international students. The survey, undertaken in 193 universities across 16 countries, asked 155,000 current international students about their experiences studying overseas. 82% of respondents from the University of Waikato said they would recommend our University to others.

International students focus strongly on universities' world rankings and career opportunities, and the 2013 ISB survey ranked the University of Waikato 11th in the world for careers office support. As well as the social and cultural contribution, while international students study with us they also contribute to our economy, with each of 2013's 2,543 international students generating \$90,000 for the local economy.

The International Student Barometer Survey also showed an increase in the number of international students saying they were satisfied with their experience at the University of Waikato - 91%, up from 88% in 2012. Waikato had the best response rate of students in New Zealand at 49%, well ahead of the national average response rate of 34%. The University of Waikato also ranked first or second in New Zealand in several areas in the survey, including accommodation office, orientation experience, learning (including virtual learning, the library and learning spaces), living (access to accommodation) and support (including IT support and careers help).

For domestic students, we have 55 partner institutions world-wide for student exchange, including the University of California, Babson College, Yonsei University in Korea, Nanyang Technological University in Singapore, Kansai Gaidai University in Japan and Shanghai International Studies University (SISU) in China.

International research

Our strength in early childhood education has brought us into a select group of universities working on a four-year project looking at transition and education - called Pedagogies of Educational Transitions (POET). The other universities in the project are Mälardalen University in Sweden, Strathclyde (UK), Iceland and Charles Sturt University in Australia.

The Conservatorium of Music's reputation continues to grow. Having been taught by world-class teachers, many of our top music graduates have left New Zealand to extend their study off-shore and pursue international solo careers. Staff and students of the University's music programme have played a major part in profiling the University of Waikato on the world stage.

The international cyber security market is expected to grow to US\$94 billion by 2017. In 2013 we launched a 180 point masters in cyber security - the first institution in New Zealand to offer a qualification of this kind. This is another example of the University taking steps to address a global challenge.

The University's carbon dating area has a strong international reputation. In 2013, our scientists pinpointed the age of a skeleton found in Australia, allowing police to identify the remains of a woman found in New South Wales 45 years after she went missing.

The Waikato Radiocarbon Dating Laboratory is also using New Zealand swamp kauri to compile a timeline of changes in climate around the world going back millennia. The kauri is analysed to determine the amount of Carbon 14 in the atmosphere over the tree's lifespan and the research is providing an indication of the environmental conditions experienced by the trees. Kauri can live for 2,000 years and are unique in providing accurate evidence over long periods. Kauri have been growing in Northland for over 60,000 years and the area provides one of the world's best swamp wood archives.

Partnerships and engagement

During its first 50 years, the University of Waikato has grown to become an integral part of the community. We continue to enhance connections with our community of stakeholders and friends regionally, nationally and internationally.

With community support, we took a big step towards increasing our presence in the Bay of Plenty and we entered into strategically significant partnerships with the sport, health and agriculture industries as well as with central and local government.

The University strengthened its Māori and Pacific connections, sending high-level delegations to regional iwi and Pacific Islands. To enhance support for and effectively respond to Pacific students, the University established two key Pacific roles - one in policy and one in student support.

We continued to fulfil our role as a critic and conscience of society, reaching out to our community with a range of engagements including the annual Winter Lecture Series, profiling of new professors and a range of public lectures, seminars and concerts.

We also sought new ways to engage, extending our social media presence and being the first New Zealand university to host innovative Google Hangouts - interactive online panel discussions dissecting the issues of the day.

Ongoing local, regional and national engagement is crucial to the University's future relevance. We continued to prioritise this engagement with our communities of interest for the benefit of our cities, region and nation. The Bay of Plenty Tertiary Education Partnership - comprising the University, Te Whare Wānanga o Awanuiārangī, Bay of Plenty Polytechnic and now Waiariki Polytechnic - progressed with plans for a new University-led campus in the Tauranga central business district. In August 2013, the Bay of Plenty Regional Council approved funding of up to \$15million towards this initiative and the partnership is now seeking further funding from the Tauranga Energy Consumer Trust.

The balance of about \$37million will be funded through EFTS growth in the Partnership, or third parties. The CBD campus is designed to be relevant to the needs of the region and will be an important facility for tertiary provision and research. These plans reinforce our long-term commitment to the area as evidenced by three decades of coastal marine work and teacher education.

The University signed a Memorandum of Understanding with Waikato Regional Council to formalise collaborations that help us deliver meaningful outcomes for the region. This joined existing agreements and collaborations with district health boards, Scion, the Institute of Healthy Ageing and the Home of Cycling Charitable Trust.

The University continued its strategic partnership with the biennial Te Matatini National Kapa Haka Championships. For an institution with the highest proportion of Māori students of any New Zealand university, supporting the festival aligns with our historic support for the revitalisation and fostering of Māori language and culture. Other initiatives include Kīngitanga Day, which acknowledges our ongoing support for the Kīngitanga, and the embracing of Te Wiki o Te Reo Māori - Māori Language Week.

Another of our longstanding commitments to the nation - particularly the agricultural sector - is the University's strategic partnership with the National Agricultural Fielddays held at Mystery Creek near Hamilton. The University's first Vice-Chancellor Sir Don Llewellyn was a strong supporter of Fielddays when it launched in the 1960s. The University is now several years into a new strategic partnership that highlights the connection between research and industry. With more than 100,000 people attending Fielddays annually, it allows the University to showcase how our teaching prepares graduates for the industry, and how our research is providing real-world solutions to global challenges.

In the latter half of 2013, the University launched its first Google Hangout featuring the situation in Syria. This dove-tailed with a series of public lectures on the subject throughout the region. We subsequently held three other Hangouts on high-profile issues in the news: the fluoridation of the Hamilton water supply, controversial deep sea oil drilling, and the emotive Roast Busters underage sex scandal. We also collaborated on an Antarctic research Hangout with Australian news outlet Science Alert, providing the opportunity to reflect upon and highlight our long involvement with Antarctica.

We hosted 500 delegates at the 'Aquatic Science at the Interface' conference in August, bringing together the New Zealand Freshwater Scientists Society, the New Zealand Marine Sciences Society and the Australian Society for Fish Biology. It was one of the biggest conferences of its type to be held in the region, and helped the University connect strongly with end-users of our research.

Other major conferences hosted by the University included the inaugural He Manawa Whenua Indigenous Research Conference in July, the Threshold Concepts and Learning at Tertiary Level in November and the

International Titanium Powder Processing, Consolidation and Metallurgy Conference in December. The IUCN Academy of Environmental Law Annual Colloquium was held on campus - the first time this colloquium has been held in New Zealand. Also on campus was the inaugural Kiwa's Colloquium T+10 Pacific Research Symposium, which attracted more than 100 students, researchers, academics and community members.

Section B: Forecast Statement of Service Performance

Institutional Sustainability							
	2011 Actual	2012 Actual	2013 Actual	2014 Target	2015 Target	2016 Target	2017 Target
1. Ministry-Funded EFTS	8,660 EFTS	8,776 EFTS	8,726 EFTS	8,538 EFTS	8,729 EFTS	TBC	TBC
2. Full-Cost International EFTS	1,543 EFTS	1,461 EFTS	1,408 EFTS	1,647 EFTS	1,471 EFTS	TBC	TBC
3. Risk rating against the TEC's Financial Monitoring Framework	4	4.3	4.0	≥3	≥ 3		

Student Participation and Performance					
	2011 Actual	2012 Actual	2013 Actual	2014 Target	2015-2017 Target
4. Proportion of all EFTS enrolled at postgraduate level and above	17.2%	16.7%	17.1%	17.3%	≥18.9% by 2017
5. Ministry-Funded EFTS generated by Māori students	21.3%	21.9%	21.4%	N/A ¹	≥21.0%
6. Ministry-Funded EFTS generated by Pacific students	4.9%	5.6%	6.1%	N/A ¹	≥6.4% by 2017
7. Successful course (paper) completion rate for Ministry-Funded students	87.1%	86.4%	84.2%	86.0%	≥86.0%
8. Successful course (paper) completion rate for Ministry-Funded Māori students	81.8%	81.4%	79.2%	84.5%	≥85.0% by 2017
9. Successful course (paper) completion rate for Ministry-Funded Pacific students	73.2%	71.1%	64.0%	79.0%	≥76.0% by 2017
10. Successful course (paper) completion rate for Full-Cost International students	84.1%	86.5%	86.8%	86.0%	≥86.0%
11. Qualification completions by domestic students	3,102	3,179	3,005	N/A ²	≥3,150 by 2017
12. Qualification completions by Māori students	582	626	654	N/A ²	≥680 by 2017
13. Qualification completions by Pacific students	155	172	135	N/A ²	≥150 by 2017
14. Qualification completions by international students	772	772	803	N/A ²	≥820 by 2017
15. Doctoral qualification completions	100	71	80	N/A ²	≥100 by 2017

Research Performance and Industry Relevance					
	2011 Actual	2012 Actual	2013 Actual	2014 Target	2015-2017 Target
16. Students undertaking industry placements	1,875	2,006	1,930	N/A ²	≥2,050 by 2017
17. Research and Development (R&D) ³ revenue	\$68.0M	\$61.0M	\$67.3M	N/A ⁴	≥66.1M by 2017

Organisational Culture: Staff and Students				
	2014 Target	2015 Target	2016 Target	2017 Target
18. In the annual Voice staff survey:				
a. 'staff engagement' scale result	77%	>2014 result	> 2015 result	> 2016 result
b. 'organisational progress' scale result	58%	>2014 result	> 2015 result	> 2016 result

	2014 Target	2015 Target	2016 Target	2017 Target
19. In the bi-annual i-Graduate Domestic Student Barometer survey:				
a. student satisfaction rating with overall university experience	N/A ²	≥93.0%	-.5	≥93.0%
b. student satisfaction rating with learning experience	N/A ²	≥91.0%	-.5	≥91.0%
c. student satisfaction rating with student support services	N/A ²	≥93.0%	-.5	≥93.0%
20. In the bi-annual i-Graduate International Student Barometer survey :				
a. student satisfaction rating with overall university experience	N/A ²	≥91.0%	-.5	≥91.0%
b. student satisfaction rating with learning experience	N/A ²	≥88.0%	-.5	≥88.0%
c. student satisfaction rating with student support services	N/A ²	≥91.0%	-.5	≥91.0%

Reputation					
	2011 Actual	2012 Actual	2013 Actual	2014 Target	2015-2017 Target
21. Maintain a ranking within the top 500 in the annual World THE University Ranking	318	302	311	N/A ²	≤500
22. Maintain a ranking within the top 500 in the annual QS World University Ranking	357	374	401-410	N/A ²	≤500
23. Maintain at least 5 subjects ranked in the top 200 in the annual QS World University Rankings by Subject	4	6	5	N/A ²	≥5

¹In the University's Investment Plan 2013-2015, the Māori and Pacific participation KPIs were expressed in terms of EFTS

²Not a KPI in 2014

³R&D revenue counts all non-teaching revenue generated by the Faculties, other academic units and WaikatoLink.

⁴KPI definition changed for 2015-2017

⁵Surveys not scheduled to be undertaken in 2016.