2015-2017





Massey University Investment Plan 2015-2017 for Public Distribution

VISION

To be New Zealand's defining university and a world leader in higher education and scholarship.

Kia hāpai ake I te rau tangata ki te toi o angitu.

MISSION

To define the future of our nation and to take the best of New Zealand to the rest of the world.

Kia arataki I te motu kia kawe i ōna painga ki te ao whānui.

VALUES

Create, Innovate, Connect.

Kia auaha, kia hihiri, kia hono.

Table of Contents

Part 1 Strategic Intent	4
1.1 Massey University Te Kunenga Ki Pūrehuroa	4
1.2 Performance Story	5
1.2.1 Distinctive character	5
1.2.2 Strategic direction	9
1.2.3 Outcomes framework	. 12
1.2.4 Progress from Investment Plan 2013-2015	. 12
1.3 Contribution to Government priorities	. 25
1.3.1 Priority One – Respond to the needs of stakeholders	. 26
1.3.2 Priority Two – Accelerate progress towards parity of participation and achievement for Māori and Pasifika learners	. 34
1.3.3 Priority Three – Contribute to the Government's goals for international education	. 38
1.3.4 Priority Four – Increase research intensity and support research-driven innovation and a highly skilled workforce	. 41
1.3.5 Priority Five – Contribute to improving social, economic and environment outcomes for a New Zealanders	
Part 2 Summary of Activities	. 49
Commercial in confidence to the Tertiary Education Commission.Part 3 Performance Commitments	49
3.1 Statement of Forecast Service Performance 2015-2017	. 50
3.2 Outputs	. 51
3.2.1 Research	. 51
3.2.2 Education	. 52
3.3.3 Services to the Community	54

Part 1 Strategic Intent

1.1 Massey University Te Kunenga Ki Pūrehuroa

Massey University is a leading tertiary education institution in New Zealand with a focus on providing a breadth of educational opportunities to a wide range of students seeking to enhance and develop their capability and capacity to contribute as effective 21st century citizens. Within the framework of a broad academic offer we have developed specialist programmes in agriculture and veterinary sciences, food technology, aviation, design and the creative arts, engineering, applied social sciences, business studies and health sciences. Our commitment to access and opportunity is underpinned by our distance education provision which supports a large population of part-time students, the majority of whom are in full-time employment and seeking to up-skill or re-skill themselves.

The original Massey University began as Massey Agricultural College in 1927, located in Palmerston North. In 1964 it became a comprehensive university with further expansion secured with the acquisition of the College of Creative Arts in 1999; 2014 marks its 50th anniversary. Massey University is New Zealand's national university, with major campuses in Palmerston North, Albany (Auckland), and Wellington, as well as a distance education campus that supports higher learning anywhere in New Zealand and around the world. Massey University engages over 32,000 students per year from New Zealand and from more than 100 other countries.

The Massey University Act 1963 describes the purpose of the University as existing "for the advancement of knowledge and the dissemination and maintenance thereof by teaching and research". Massey University understands its purpose and recognises that its role within the New Zealand context is further defined in the Education Act 1989 section 162 and guided by the Tertiary Education Strategy 2014-2019. Through its vision and mission, Massey University continues to deliver on the expectations of universities held by the Government by:

- Providing tertiary education that is primarily concerned with more advanced learning, with the aim to begin to develop intellectual independence;
- Supporting research and teaching that are closely interdependent, with most of the teaching done by people who are active in advancing knowledge;
- Meeting international standards of research and teaching;
- Being a repository of knowledge and expertise;
- Accepting the role as critic and conscience of society; and
- Maintaining, advancing, disseminating and assisting the application of knowledge through a
 wide diversity of teaching and research, especially at a higher level; developing intellectual
 independence and promoting community learning.

The purpose of this Investment Plan is to articulate Massey University's strategic direction and to contribute to meeting the Government's priorities for tertiary education in New Zealand. This Investment Plan is informed by the following sets of documents:

- Shaping the nation and taking the best to the world The Road to 2025 (Massey University's strategic plan and profile);
- The Tertiary Education Strategy 2014-2019;

Massey University Investment Plan 2015-2017 for Public Distribution

- The Gazette Notice relating to the Investment Plans (April 2014);
- The Plan Guidance for 2014 issued by the Tertiary Education Commission (June 2014);
- The letter of expectation prepared by the Tertiary Education Commission (TEC) for Massey University; and
- Discussions with the Tertiary Education Commission's University Investment team.

The development of the 2015-2017 Investment Plan was also informed by our ongoing responses to earlier TEC requirements to manage down our student numbers during a period of planned institutional growth. The restructuring of core provision and development of new academic programmes in response to a range of external stimuli (e.g. targeted industry demands, internationalisation, workforce development needs) has progressed. Our student pipeline has been adversely affected by both these directed cuts and the national shift in student participation in higher education which has affected most tertiary institutions. The 2015-2017 Investment Plan frames our ongoing plans for growth, our commitment to enhanced academic provision and performance excellence.

1.2 Performance Story

1.2.1 Distinctive character

For over fifty years, Massey University has shaped the lives of the people in New Zealand and around the world. Our distinctive range of subject provision, forward-thinking, research-led teaching, and cutting-edge discoveries enable Massey University graduates to contribute to the world through creative thought, innovative approaches, and a connectedness with industry, the business community, the professions, and their disciplines. We are distinguished by our applied and research-led approach, our comprehensive educational portfolio (enhanced by distance education and the innovative use of digital media), world-leading signature areas, our increased international presence, and our commitment to cultivating a lifelong learning ethos amongst our students. This is what makes Massey University the defining university of New Zealand.

Our Teaching and Learning Framework is the underpinning architecture for achieving an exceptional and distinctive learning experience for all students. It sets out our defining educational character in terms of both academic orientation and delivery, and emphasises the approaches to learning that distinguish Massey University graduates. It comprises six "defining elements" (Applied, Research-Led, Digital, Comprehensive, International and Lifelong Learning) which are enabled through a modern integrated approach that we are committed to strengthening over the next three years.

Massey University is leading vital New Zealand research and is internationally renowned for research and teaching in, agriculture, aviation, biological sciences, communication and media studies, defence, design and visual arts, education, food technology, psychology, management, nursing, public health, sociology and veterinary science. The College of Humanities and Social Sciences hosts one of the few Centres for Ecological Economics in the world, a Centre for Disaster Research which is hosted jointly with GNS Science. Our newly established College of Health hosts a Centre for Public Health Research that, with the Research Centre for Infectious Diseases in the College of Sciences, provides a unique capability exploring both human and animal health issues and the cross-species interactions that can be so devastating to economic and community well-being. The New Zealand Institute for Advanced

Massey University Investment Plan 2015-2017 for Public Distribution

Study allows elite scientists to pursue world-ranking fundamental scholarship at Massey University. The newly reconfigured Te Pūtahi-a-Toi, School of Māori Art, Knowledge and Education provides an academic focus for Māori cultural, educational, social and economic development. We seek to retain and develop New Zealand's heritage and contribute to the advancement of indigenous peoples. The Joint Graduate School of Horticulture and Food Enterprise has been established between Massey University and the crown research institute Plant and Food Research with the aim of increasing the opportunities for students at the university to become involved in research undertaken by Plant and Food Research and their partners.

Our research is also at the heart of New Zealand's key sectors. Our researchers are renowned for taking knowledge and applying it to meet the needs of both business, industry, as well as the public and non-profit sectors. We are one of the leading agri-food and agri-business universities in the world, ranked 19th in the world according to QS World University Rankings in 2014. As a founding partner of the NZ Food Innovation Network, the host of the NZ CoRE, the Riddet Institute, and as a key partner in the new international Global Food Alliance, we continue to provide a strong underpinning across the complete value chain for New Zealand's agri-food industry – a sector Massey University has supported since its inception, and one that continues to be key to New Zealand's future economic success and the government's economic growth agenda. Massey University is also a lead partner in the ever-growing presence of the Manawatū FoodHQ initiative involving the University and several cooperating partners: Ag Research, Asure Quality, the Bio Commerce Centre, Fonterra, Environmental Science and Research (ESR), Plant & Food Research, the Riddet Institute, the Manawatū District Council and Palmerston North City Council. FoodHQ is New Zealand's international centre for collaborative food research seeking to generate value for the global food industry through innovation across the value chain.

Massey University currently hosts two Government-funded centres of research excellence:

- The Allan Wilson Centre for Molecular Ecology and Evolution advances knowledge of the evolution and ecology of New Zealand and Pacific plant and animal life, and human history in the Pacific.
- The Riddet Institute specialises in advanced foods and human nutrition sciences, with world-class competency in the areas of biomaterials science, post-harvest technology, behavioural and sensory aspects of food choice and consumption, as well as digestive physiology relating to nutrient absorption and metabolism.

Massey University is the only university in New Zealand with a Veterinary School. It has both driven and supported the growth in New Zealand's economy through its contribution to world-class research and provision of graduates who are recognised internationally for their qualifications and expertise. Massey University's contribution to animal health, which has underpinned the primary sector, is substantial. Through its One Health initiatives, Massey University was the first-ever 'private' institution to receive a grant directly from the World Bank which granted the University \$5m in funding to extend its education provision strengthening Asian public health and veterinary capacity to combat zoonotic diseases. In the first phase of the programme that has just completed, 67 health professionals from India, Pakistan, Sri Lanka, Bangladesh, Afghanistan and Nepal were trained in One Health epidemiology concepts as part of two Massey University qualifications specifically developed for the World Bank programme — a Master of Veterinary Medicine (Biosecurity) and a Master of

Massey University Investment Plan 2015-2017 for Public Distribution

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¹ http://riddet.massey.ac.nz/news/contribution-to-a-new-zealand-agri-food-strategy-launched "Call to Arms"

Public Health (Biosecurity). Under the umbrella of Massey University Worldwide this is being extended through our strong connections to the agri-business sector both in New Zealand and across the world and will continue to underpin New Zealand's economic growth in the future.

Massey University is New Zealand's leading tertiary provider of design and creative arts education delivered from its Wellington Campus where innovative and able domestic and international graduates push the boundaries of artistic expression and product design. The academic foundations of the College date back over 125 years and Massey University recently secured international accreditation for its creative arts provision. In the past seven years, the University has had 84 finalists in the annual Best Awards held by the Design Institute of New Zealand. In 2013, the University was ranked among the best design schools in the world in the international Red Dot Design Awards.² Red Dot has ranked Massey University 4th in the Asia Pacific region for design concept – the only New Zealand or Australian design school to be so recognised. This ranking continues to place Massey University as one of the top universities in the Association of Southeast Asian Nations (ASEAN) region to produce, continuously and progressively, cutting edge and forward-thinking projects and products.

Massey University is a 55-year veteran in distance and blended education and these modes of tertiary education have been provided to 1 in 16 New Zealanders and have taught more than 250,000 students via distance learning both within New Zealand and globally. More than half of our current students study part-time and nearly half of our students are distance learners. Building on this pedigree, and our unique expertise in distance education we are working on a vision for the 21st century classroom which will ensure that all of our students gain access to higher education through blended learning (both on-campus and/or online). By this means we are fulfilling our commitment to supporting digital literacy and the New Zealand ICT strategy. Embracing new and emerging technologies to meet the needs of a changing world keeps Massey University at the leading edge of tertiary education delivery. Massey University has some of the nation's most inspiring teachers as demonstrated by the 15 national Tertiary Teaching Excellence Awards given to our staff in the past ten years. Our staff development programmes continue to have a particular focus on the ongoing improvement of teaching practice that will see the University continue to lead in this area.

Despite the many challenges which arise from supporting students who work full time and study part time, Massey University is making significant progress in improving educational achievement for distance learners. We are also focusing our attention on the performance of our many students who study on a mixed mode (both distance and campus based study). These students were amongst the most satisfied with our academic provision and student support. In the most recent survey, more than 88% of our students reported satisfaction rates in excess of 85% with the courses, facilities, and services provided. Our history of success in blended and distance learning has built an innovative and outward-looking staff culture and attitude towards student teaching and learning that is unparalleled elsewhere in New Zealand.

Massey University recognises that tertiary education provision must reflect the wider economic and community development context for Māori, Pasifika and new migrant communities to make a genuine difference. *Māori@Massey 2020: KIA MARAMA Strategy* is a statement of how the University will work to meet the priorities for Māori. Building on its current research, teaching, and

Massey University Investment Plan 2015-2017 for Public Distribution

² Red Dot is a global design awards scheme based in Germany and Singapore.

professional strengths, previous Massey University Māori strategies, and government and Māori development goals, it sets out the themes for Māori achievement and signals the areas where the University will make significant contributions in supporting graduate success, nurturing indigenous leadership and contributing to the knowledge matrix which supports Māori.

Massey University is committed to Pacific communities and assisting them to realise their aspirations. Through the Pasifika@Massey Strategy (Growing Pearls of Wisdom) the University aims to make a positive contribution to Pacific communities and nations through teaching, research, and consultancy services. Our active engagement with Pasifika students in selected schools in the Auckland and Wellington region has provided the impetus for an increase in Pasifika student entry to Massey University; we are now focusing on strengthening our ongoing support for current students to ensure they achieve academic success.

Massey University also recognises the increasing presence of new migrant clusters within New Zealand and the need to ensure that educational provision engages with, and provides for their special needs as they become increasingly effective and valued economic citizens and community members. Our expertise in this domain is recognised by Auckland City Council, for example, where we are providing specialist advice; our pathways and transition agenda will develop further with these groups in mind.

In addition to wide provision across New Zealand, Massey University is also part of a global network of higher education and innovators. Each year, over 3,000 international students from more than 100 countries select Massey University as their study destination. Internationally recognised for its excellence in teaching and research, the University is regarded as an innovative and progressive institution. Massey University receives independent international accreditation for its unique world-class programmes in accountancy, aviation, business, design, engineering and construction, finance, food technology, medical laboratory science, surveying and valuation and veterinary science.

A strong proven international reputation also means that the University is involved in high-level collaborations with tertiary institutions around the world. We have, for example, established research links with Germany (e.g. Max Planck, Plon), the Netherlands (e.g. Wageningen), China (e.g. Wuhan, Peking), Japan (e.g. University of Tokyo) and Malaysia, to name a few of over 200 active offshore engagements that enrich the research and academic cultures of Massey University and New Zealand and provide pivotal points of contact through which international student recruitment is leveraged into this country.

Massey University has a distinctive campus structure compared to other universities in New Zealand; it is New Zealand's truly national university with major campuses in Palmerston North (over 7,700 students in 2013), Albany in Auckland (over 6,300 students in 2013) and Wellington (over 3,000 students in 2013), as well as a Distance campus that serviced over 15,000 students in New Zealand and overseas in 2013.

The Manawatū campus is New Zealand's student city and the premiere and largest institution for the life sciences, agricultural, horticultural and veterinary teaching and research and is a leader in industrial innovation through areas such as food science and technology, biotechnology, advanced material sciences and product development. The Manawatū campus offers 150 programmes across the spectrum of sciences, education, business and humanities and social sciences. It is the only

Massey University Investment Plan 2015-2017 for Public Distribution

university in New Zealand to offer a veterinary science degree. The campus also offers 75 postgraduate programmes and is the engine room of the University's research culture.

Albany is the innovation campus; located on Auckland's rapidly growing and culturally diverse North Shore. There are over 70 majors on offer, including a number of specialised programmes in mathematics and information sciences, fundamental and natural sciences, food technology, nutrition, health sciences, engineering, humanities and social sciences, business and education. The e-centre, a high-technology business incubator, leads the way in shaping the businesses of the future. The Albany campus innovation focus is reflected on teaching that is interactive, progressive, and research led.

The Wellington campus is Massey University's creative campus situated in the heart of Wellington. The campus has established itself as a centre of excellence for study and research, with particular strengths in the areas of design, fine arts, communication, business and health and well-being. The Wellington campus is home to New Zealand's oldest and most distinguished School of Design, established in 1886 and hosts a number of number of world-class research centres including the Centre for Public Health Research, Sleep/Wake Research Centre, Māori Health Research Centre, Centre for Disaster Research (with GNS Science), the New Zealand Centre for Small and Medium Enterprise Research and the National Centre for Tertiary Teaching Excellence.

The Distance campus is the anywhere campus: it provides learning experiences to over 15,000 students, of which a significant number are studying mixed mode, in fifty undergraduate and postgraduate qualifications (over 110 majors available). It enables higher education learning through a dedicated online learning environment (STREAM), online discussion forums, online study support sessions, a distance library service with access to 870,000 books and journals online, an assignment pre-reading service, a rich online learning environment, a team of dedicated learning consultants, and expert tutors and consultants to support distance learning.

1.2.2 Strategic direction

In 2014, Massey University launched its revised strategic plan "Shaping the nation taking the best to the world – The Road to 2025". The strategy was developed in consultation with the University's stakeholders and the wider community, and sets out how Massey University intends to contribute to the future of New Zealand and to the major challenges that face the global community. We aim to make a difference and this ambition has been captured by the seven big goals that lie at the heart of the University's strategy:

- We are a research-led university committed to the generation and application of innovation and knowledge;
- Our students can expect a teaching and learning environment that will enable them to be creative, innovative and connected contributors of society;
- Close attention is given to building mutually beneficial relationships with the many partners and stakeholders who work with the University;
- Increasingly our focus is on building the University's capacity and capability to work around the globe;
- As a major intellectual resource, we have been identifying ways that we can help to address the major challenges faced by New Zealand and the global community;

Massey University Investment Plan 2015-2017 for Public Distribution

- We are committed to diversifying our funding base to ensure that we can resource the plans
 which will see us grow our New Zealand student based and take the best of New Zealand to
 the world; and
- We are providing support for students and staff to excel while investing in the information technology (IT) and physical environment they need.

Over the past few years, Massey University has developed a number of initiatives designed to build on and enhance our academic strengths. These included assessing ways to better align institutes within the College of Sciences with its distinctive academic platforms, and consolidating schools within the College of Humanities and Social Sciences to improve their alignment with teaching programmes and support interdisciplinary developments. In addition, our College of Education was re-cast as an Institute of Education within the College of Humanities and Social Sciences, with an Initial Teacher Education (ITE) focus on three existing Graduate Diploma programmes (Early Childhood, Primary and Secondary), and a new Masterate programme as a pathway to teacher registration. In each case, the intention of the new direction is to underpin stronger, more focused research alliances across disciplines and to consolidate expertise to ensure competitive critical mass. This has had a short-time effect in terms of our student numbers pipeline while qualifications are terminated and new qualifications are introduced.

The University also established a new College of Health. New Zealand, like the rest of the world, is facing a rapidly approaching health crisis – we have an ageing and increasingly diverse population, a tight health budget, new disease threats, and escalating costs of new technologies and pharmaceuticals. There is a growing realisation that medically based solutions will not, by themselves, provide an answer. Massey University's new College of Health has the potential to make a significant and innovative contribution to New Zealand's health and wellbeing. It has been specifically designed to develop workforce capacity and innovation through research, teaching and strategic partnerships to address current and emerging health challenges of the 21st century.

Growth in existing programmes as well new initiatives will specifically address the recommendations of workforce New Zealand to increase the nation's capacity in fields such as healthy ageing and development, geriatric care, chronic disease prevention and management, Māori and Pasifika health, mental health and addiction, rehabilitation, occupational and environmental health³. We will develop world leading expertise in the field of public health and health system informatics and analytics to provide novel ways of improving health through improved integration of health, social and environmental services. An especially exciting dimension for the new College of Health is the alignment of Massey University's leadership in food and related sectors with health provision and our (global) capability to build an entity with one of its key platforms being advanced foods for human wellness and illness treatment. For example, we will work with industry partners in New Zealand's bio-medical and biotechnology sectors to develop functional foods, nutraceuticals, and interventional microbiomics. The University recognises that improving health outcomes and raising the quality of health and disability services, within an environment of large growth in demand for health services at a time of economic constraint, means there must be an integrated education and training approach to life-course challenges, both for health professionals and for individual citizens. The College of Health will combine biological science and social science disciplines with teaching and research

Massey University Investment Plan 2015-2017 for Public Distribution

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³ Advice to Tertiary Organisations on Health and Disability Sector training priorities (Health Workforce NZ) – June 2012

programmes spanning clinical interventions, population-based perspectives, to address a wide array of interacting health determinants from biological and genetic, to behavioural, social, cultural and economic.

Over the past four years Massey University has had a significant shift in terms of education provision based on subject areas. For example, we have secured a substantial increase in enrolment in areas such as land based sciences (up 26%) and health (up 3%). We have seen a reduced uptake in areas such as humanities and education. In education we have actively managed enrolments down (by 34%) as part of the transition to postgraduate teacher education provision. In humanities (8% category A decline over four years) the issue is largely one of pipeline management as we develop, for example, a modern, more employer-focused Bachelor of Arts (BA) programme and extend our provision in applied languages, defence and security studies, psychology and political sciences. The College of Humanities and Social Sciences launched two MOOCS in 2013 both of which have been very successful in terms of both uptake and completion. Emergency management attracted over 2,500 students and achieved a 25% completion rate, whilst indigenous studies achieved completion rates over 30% from a cohort of over 1,500. These are important new educational developments which we are exploring further given our completion rates are well above the reported norms for the majority of MOOCs being offered globally.

Over the next three years the University also intends to reposition itself in relation to achieving its plans for managed growth and **regaining the volume of provision** lost since 2010, as a result of the structural changes discussed earlier, but also in response to the Government's direction to manage enrolments to ensure the University remained within the Student Achievement Component tolerance range.

As part of the response from Massey University to the Tertiary Education Commission to restrain high enrolment levels, the following activities were put into place in 2010:

- Terminating marketing expenditure on specific programmes;
- Restrictions on specific course offerings;
- Discontinuation of qualifications and reduction of low student volume papers;
- Introduction of guidelines to manage late enrolments more carefully;
- Enhanced guidance for students to encourage full year enrolment; and
- Management plans for Semester 2 and Summer School intakes after enrolments in Semester
 1 and Double Semester were finalised at the end of March each year.

All of these activities combined ensured the success of Massey University in reducing its enrolment numbers in 2010 in line with the Government's direction and ensured commitments on enrolment caps continued to be met since 2011. With the list in the tolerance range to 105%, the University has indicated that its preferred strategy is to grow student enrolments, both nationally and internationally and this continues to be its strategy for the future.

Our ability to rebuild our domestic EFTS to the 2010 level is fundamental to ensure the University is able to make contributions to New Zealand by servicing the growing demand for tertiary education in the Auckland region (by increasing enrolments on the Albany campus), as well as continuing to support life-long learning and professional development by providing skills and expertise to build

capability in New Zealand industries and businesses (by supporting flexible, distance, online learning enrolments) across New Zealand.

1.2.3 Outcomes framework

Massey University's contribution to outcomes for New Zealand, the national vision for the education system, the Tertiary Education priorities, and the priorities for the Investment Plan period can be illustrated in the following diagram (Massey University Outcomes Framework). The Massey University Outcomes Framework remains consistent with the framework and guidelines for reporting on outcomes developed by a joint TEC and Universities New Zealand working group and endorsed in June 2010. The framework for the university sector provides a shared view of the national contribution of the NZ universities and informs the preparation of this Investment Plan.

The University frames the strategic goals of the institution and the strategy for their delivery in *The Road to 2025,* and also identifies the activities in our plans and the processes which underpin them. We actively measure our progress against these strategic goals through a series of performance measures under each goal.

The key activities in Massey University's plans derive from its commitment to supporting learning through research, education (teaching) and community/business engagement (public and private sector contribution), and they are strongly aligned with the priorities for the sector (from the Tertiary Education Strategy) and for the immediate Investment Plan period (from the 2014 Plan Guidance). By delivering on *The Road to 2025* strategic goals (which are founded on the values of creativity, innovation and connectedness), Massey University contributes to outcomes for New Zealand and the overarching vision for education which links this nation to a wider global community.

1.2.4 Progress from Investment Plan 2013-2015

Substantial progress has been made by the University in relation to the priorities identified in the Investment Plan 2013-2015.

These are summarised under each priority identified in the previous Plan:

A bigger and clearer economic contribution to society

Massey University makes a significant contribution to national and regional economic growth and skills development through provision of innovative teaching, research and community engagement. As outlined in the previous plan, Massey University's contribution is distinguished by educational leadership, especially in respect to:

- Enabling wider access to higher levels of tertiary education;
- Research excellence in areas of specialisation relevant to the future prosperity of the new New Zealand; and

Massey University Outcomes Framework

OUTCOMES FOR NEW ZEALAND

Economic Social Environmental

OVERARCHING EDUCATION VISION

A world leading education system that equips all New Zealanders with the knowledge, skills and values to be successful citizens in the 21st century.

MASSEY UNIVERSITY'S VISION

To be New Zealand's defining university and a world leader in higher education and scholarship



IMPACTS OF TERTIARY SYSTEM

(reflected by the VISION FOR TERTIARY EDUCATION and MASSEY UNIVERSITY'S CORE VALUES)

IMPACTS

Educated and Value added People with critical skilled workforce to society thinking skills

MASSEY UNIVERSITY VALUES

Create Innovate Connect



TERTIARY EDUCATION STRATEGY PRIORITIES

Delivering skills At-risk young people in careers Māori and Pasifika
Adult literacy and numeracy Strengthening research-based Growing international linkages institutions

INVESTMENT PLAN PRIORITIES

For Tertiary Sector

- Delivering skills for industry
- Getting at-risk young people into a career
- Boosting achievement of Māori and Pasifika
- Improving adult literacy and numeracy
- Strengthening research-based institutions
- Growing international linkages

Focus For Universities Sub-sector

- Respond to stakeholders needs
- Accelerate progress towards parity of participation and achievement for Māori and Pasifika learners
- Contribute to the Government's goals for international education
- Increase research intensity and support researchdriven innovation and a highly skilled workforce
- Contribute to improving social, economic and environmental outcomes for all New Zealanders



MASSEY UNIVERSITY OUTPUTS AND STRATEGIC GOALS

(that contribute to the Tertiary Education Strategy and Investment Plan Priorities)

OUTPUTS

Research Education Community

STRATEGIC GOALS & STRATEGY (THE ROAD TO 2025)

Research and Teaching and Connections
Enterprise Learning Responsibility

Enablers:

← Generating Income← Enabling Excellence

← Internationalisation

Key Activities and Processes (what we are doing to contribute to TES priorities – Our Plans.)

Performance Measures and Mix of Provision (how progress will be measured – Our Performance Commitments.)

Massey University Investment Plan 2015-2017 for Public Distribution

 Science and technological innovation and knowledge exchange that is recognised internationally and supports sector-based, regional and national economic growth, and benefits the New Zealand business community and the public sector by underpinning new knowledge-rich enterprises, and via connections created through working partnerships with industries, regional communities, professional organisations and other sectors.

Since the last Investment Plan, substantial progress has been made in relation to our key initiatives to build on these distinctive contributions to regional and national economic development. In particular, throughout the previous Investment Plan period, Massey University hosted the launch of the new FoodHQ innovation hub in 2013 at the Manawatū campus by the Minister for Science and Innovation. FoodHQ will form the largest food innovation hub in the Southern Hemisphere. This new hub will deliver on the Government's Business Growth Agenda, which calls for a trebling of the real value of food exports in the next twelve years. It is expected that there will be an investment into the Palmerston North based campus of \$250 million over 20 years.

The Massey University Enterprise Strategy and its constituent platforms were approved in 2013, highlighting Massey University's commitment to translating innovative research into commercial opportunities. As part of developing the Massey University Enterprise Strategy, a key focus was to diversify Massey University's contract and trading income and to increase the number of externally-funded studentships/scholarships. Major successes were seen in developing funding such as Primary Growth Partnership (PGP) Ravensdown; the spin out of new companies (Biolumic and Lifeonics); and the negotiation of summer studentships and internships connected to key business (retail) and industry (food) sectors. We have also seen an increase in royalty income recovery from licensed intellectual property. Business support for new College developments, such as OpenLab in the College of Creative Arts, has provided an enabling framework for these initiatives.

Business growth in High Technology Manufacturing is a cornerstone of Government policy for exports to grow to 40% of GDP by 2025. In this context, Massey University has created a Centre for Additive Manufacturing at its Albany campus based in the School of Engineering and Advanced Technology, but linked to industrial design capability in the College of Creative Arts. Additive Manufacturing uses emerging technologies to allow on-demand, flexible, short run production of high margin, high quality, and highly customised products with high levels of embedded knowledge and design. These technologies currently include 3D Printing, 3D laser scanning, laser- and water-jet cutting, vacuum moulding, hi-speed CNC machining, and software and electronic development tools. These recent investments in equipment for both soft and hard materials engineering will enhance our provision to industry through our Albany campus and ensure our engineering graduates are provided with skills to meet the growing demands for NZ high value manufacturing.

Other new initiatives that were completed in 2013 to support the wider commercialisation footprint at Massey University included: appointment of a new Director of Business Development and Commercialisation; development of a regional team with staff deployed in Taranaki and Hawke's Bay to support innovative partnership agreements; focused effort on the Manawatū campus on strategic partnerships such as Proliant plc; management of intellectual property in the College of Creative Arts associated with student work being shown in 2013 BLOW; leveraging of discussions on student internships for a number of the Colleges, including food production in the College of Sciences, workforce development in the College of Health and security studies in the College of Humanities and Social Sciences; drafting of skills development plans with Sport Wellington to support the recently

Massey University Investment Plan 2015-2017 for Public Distribution

signed Memorandum of Understanding; and development of the Innovation Precinct at the Albany campus which will link to the AKE (Auckland Knowledge Exchange Hub)⁴ which will promote commercial business development and graduate enterprise. The restructure of Research Management Services was completed in 2013 with the aim to improve research support infrastructure and to grow research commercialisation and business development.

International benchmarking continues to be crucial in portraying a positive perception of Massey University on the national and world stages. Massey University's agriculture and life sciences programme was ranked 19th in the world in the QS World University Subject Rankings in 2014. It is the second-highest ranked agriculture programme in the southern hemisphere. In 2013 the responsibility for the 2000ha of land holdings was transferred to the College of Sciences and, as a first step, the pivotal role of this resource in supporting teaching, research and technology transfer was recognised through the formation of the Massey University Agricultural Experiment Station.

The College of Creative Arts also maintained their current ranking as highest ranked Australasian university. Alongside this, the United States National Association of Schools of Art and Design granted the College "substantial equivalency", the most comprehensive international benchmark of quality in art and design education in the world. This is a substantial achievement towards the College's aim of being ranked in the top ten of the international league tables.

Finally, the results of 1,108 submitted Evidence Portfolios across 27 Subject Panels identified Massey University as one of the leading New Zealand research institutions meeting international standards of research excellence (based on the number of A or B ranked researchers). Massey University secured the second-highest level of improvement in a Tertiary Education Organisation and achieved further significant improvement in its research quality profile in key areas of research specialisation. Significant effort has been expended to align our doctoral provision with international standards for completion and a record number of candidates completed in 2013. Going forward the focus will now be on growth in numbers and as noted above, we have developed new partnerships to support this endeavour.

More learners engaged in study towards STEM qualifications

Science, technology, engineering and mathematics (STEM) were identified as Signature Platforms and Defining Specialisations within Massey University's Teaching and Learning Framework. The distinguishing character of the Sciences at Massey University is broadly defined by agriculture, veterinary, life and health sciences, land, water and the environment, and industrial innovation via engineering and advanced technology, all underpinned by excellence in (relevant) fundamental sciences.

In 2013, the Bachelor of Science was the third largest undergraduate programme in the University; and the University's largest cohort of doctoral students continued to be registered across the College of Sciences. Both the Bachelor of Veterinary Science and the Bachelor of Food Technology (Honours) continue to hold the highest international accreditations and Massey University continues to be one of the two universities outside the Americas to have achieved this recognition.

⁴ http://www.massey.ac.nz/massey/initiatives/enterprise/auckland-knowledge-exchange/auckland-knowledge-exchange_home.cfm

Plans to extend our engineering provision have been underpinned by a restructuring of the core teaching programmes, a commitment to adopt a flipped classroom model and, as noted earlier, investment in new equipment and facilities. These and other related initiatives will support our pipeline for growth and provide capacity to enhance and increase our international articulation agreements. Our new intensive 'fast start' engineering provision launched in 2012 has proved successful and will be developed further. Other initiatives supporting student recruitment in STEM include an active science outreach programme to local schools and the ongoing support of Massey University for VexRobotics⁵.

The development of the new natural and biological sciences programme and the reframing of our offer in, for example, marine ecology and conservation sciences has also been enacted to support our development of a relevant and distinctive offer in these key knowledge domains and underpin our plans growth at Albany. New partnerships with iwi, New Zealand's Department of Conservation and Auckland Museum, for example, have also been developed to ensure we have an integrated approach to recruitment and employability going forward.

Massey University hosts the only veterinary programme in New Zealand and it forms a key part of our plans for growth. The curriculum has been modernised to accommodate new teaching practices and to make best use of technology. Plans to widen our recruitment profile into ASEAN markets are being developed with Education New Zealand. Massey University intends to pursue specialist leverage opportunities arising from its veterinary powerhouse. For instance, the University has provided strategic investment funds to develop specialist accredited training in oiled wild life recovery in response to international demand for Massey University's expertise as one of only two global centres of excellence.

Finally, we have explored the utility of new technologies and pedagogies to engage students and support their informed engagement with STEM study. In partnership with Open2Study we were the first New Zealand University to launch Massive Open Online Courses (MOOCs). "An Introduction to Agriculture" has attracted over 2,000 participants since last October (2013) with a very high completion rate (21% attaining certificate of completion); we are currently reviewing how we might award credit and successfully transition the students onto core programmes.

Managing for Performance

Massey University has made substantial progress in relation to its planned activity to improve both educational and financial performance management.

Educational Performance

In terms of enhancing institutional information management capability for tracking and supporting student progression and success, Massey University has made progress in the development of the MER (Massey Enterprise Reporting) project, as well as in the Student Management System Replacement which has a targeted completion date in 2017.

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⁵ http://www.kiwibots.co.nz

Massey University has also implemented the **Student Success Strategy** and has strengthened academic advice, learning support and pastoral care services to students, and as a result built higher levels of student success, retention and progression to postgraduate study. The Student Success Framework was approved in 2013; major initiatives in this area so far include the establishment of a study "readiness platform", revision of the orientation programme, revision of communication protocols, and implementation of the Academic Standing model (monitoring of student progress). The impact of these activities will be assessed at the end of 2014.

Massey University, through its Student Success Strategy, is committed to strengthening support for student achievement and to implementing practices that enhance student retention, success and completion. An overarching Student Success Framework, developed through research, is being used to inform which interventions (academic and pastoral care) should be delivered to any particular cohort of students at any given point in the study life-cycle.

The framework (Figure 1) combines three components to define activities that are early, proactive, just in time, and personalised. The first of these components is key success factors, namely, appropriate course choice, the early identification of vulnerable students, continuous proactive support from the University and the harnessing of the most powerful tool of all, external support from family and friends. The second component is the identification of critical entry and exit points. These exit and entry points provide the basis for the study lifecycle. The study life-cycle moves through thinking about study, making choices, enrolment, first weeks, progression and completion. Students have different needs during these stages. The third component recognises that not all students have similar needs. The framework allows the ability to distinguish between cohorts of students and acknowledge that different interventions may be necessary if effective, targeted services are to be delivered. This provides an ability to determine information needs for: (1) all students; (2) specific groups (e.g., particular ethnic groups); (3) at risk students; and (4) failing students.

The following groups have been identified as priority areas for the University: Māori, Pasifika, Distance, International, New Migrants and High Achievers.

This conceptual model extends the Framework to the next level of detail and provides a mechanism by which activities and initiatives are identified and prioritised; it ensures that any new initiatives are first considered in light of work being done throughout the University.

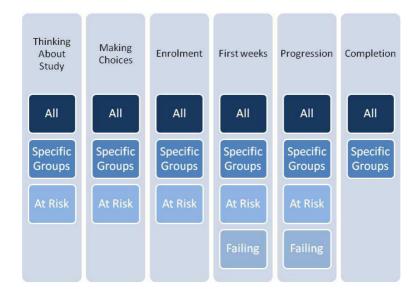
As an example on how the University is addressing the **low successful course completion issues**, Massey University's College of Sciences, supported by staff from the National and Regional Centres for Teaching and Learning and the Office of the Assistant Vice Chancellor (Research, Academic and Enterprise), has adopted a multi-tiered approach to addressing completions and student success, which include:

- Appointing specialist academic staff to deliver key courses;
- Enhancing the capabilities of academic staff as tertiary teachers, through required participation in tertiary teaching courses;
- Peer support through improved communication in programme management groups and through peer mentoring groups;
- Embedded teaching support by both National and Regional Centre for Teaching and Learning staff for subject-focused groups;

Massey University Investment Plan 2015-2017 for Public Distribution

- On-going curriculum review and revision of pedagogy in a planned way at both qualification and major-level;
- Improving the use of the Massey University Learning Management System (STREAM), in providing timely and appropriate for students about coursework expectations;
- Providing additional learning support in key subjects; and
- Devising pathway qualifications comprising "Intermediate-level", pathway papers designed to
 provide students with underpinning education in the core science subjects so that on
 successful completion of these courses students can progress to more advanced level
 courses in their desired qualification;

Figure 1 – Student Success Framework



In the University environment beyond the Colleges, academic staff are also actively involved with:

- Specialist foundation educators to design and organise Foundation and preparatory pathway qualifications;
- Staff involved in the Student Success Framework;
- The development of policies that better reward students who excel, support students who
 need assistance and assist those who need to reconsider their study focus to find a path to
 success outside the University.

In 2013, Massey University offered new programme commencement dates in the spring enrolment window to coincide with the northern and southern hemisphere school years. This specifically targeted school-leavers from Europe, North America, Asia and the Middle East who finished school in the middle of the calendar year. Since this announcement, social media traffic to Massey University's International Students' website increased by 500% (as at the beginning of May 2013), and this initiative resulted in new enrolments that year. The new start date initiative also provides a 're-start' opportunity for those students who commenced, but were under-prepared in Semester 1 to begin afresh, and if successful, 'come back on track' with the original schedule for their degree.

At Massey University, distance students are generally highly motivated, bring a wealth of experience to the study experience and, in the majority of cases, they are high achievers. One of the biggest issues we have is the fact that distance students usually take longer to complete a whole qualification Massey University Investment Plan 2015-2017 for Public Distribution

than their full-time internal counterparts. Also, some distance students may not wish to complete a full qualification at all, but rather, access tertiary study from time-to-time to simply 'top up' their knowledge, or to support a shift in career direction.

Given the significance of distance learning provision to the TEC priorities for enhancing skills for industry (by facilitating simultaneous work and up-skilling; improving educational access to marginalised youth, Māori and Pasifika; enhancing adult literacy; growing international linkages; improving efficiency of capital expenditures) Massey University remains committed to developing and advancing online education within the framework of the 21st century classroom and advocating for the support of students pursuing work and study options. To enhance educational performance measures, three priorities areas have been identified for specific focus following a series of recent institutional research projects; these being study guidance, improved mentoring and support of students, and improved advice and guidance to staff.

Every indicator we can measure reinforces the need to provide better advice to incoming distance students before they enrol. We have improved the course advice that is provided at the point of enrolling, including what distance study might involve and have developed better guidance to prevent students from enrolling in too many papers. We also now offer better support to enable distance students to monitor their own workloads. We have just launched a new **online calculator**⁶ available to all students, but primarily aimed at distance students. This new app will allow students to input the various time commitments they have, choose the number of papers they intend to study and they get a result and advice. If they are over committed then they are advised to reduce their study commitments, or try to find time through better management of other activities, i.e. get the family to help out with domestic duties, reduce entertainment time, etc. For Māori students enrolling in distance papers, a plan to offer specific advice around enrolment has been agreed for priority action in 2014.

Setting clear expectations and guidance throughout the course of study, good course design, timely feedback and a commitment to engaging with students are all hallmarks of a top class, quality educational experience regardless of who the students are. Once students connect with the Massey University online Learning Management System (STREAM) we can now secure good intelligence around their engagement and plans are in place to significantly ramp up our care of, and guidance to students who are in danger of falling by the wayside (e.g. low activity, poor assessment responses, and lack of engagement). With increasing use of the Virtual Learning Environment and with significant numbers of papers presented through this portal, we can now develop informative learning analytics and monitor the behaviour of individuals and groups and address key aspects of sub-optimal performance.

Another key intervention being promoted in 2014 is the launch of a student facing progress monitor so that students in their STREAM environments can see whether they are keeping up with paper and programme expectations. An *engagement plugin* that was staff facing for monitoring activities, e.g. times a student logins, etc. has been 'flipped' so that our students can track whether they are maintaining progress. For Māori students enrolling in distance papers, a related series of specific interventions have been agreed for priority action in 2014.

Massey University Investment Plan 2015-2017 for Public Distribution

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⁶ http://www.massey.ac.nz/massey/learning/distance-learning/course/planning/planning/home.cfm#review

Initial work commenced in 2013 to implement a mobile theme for Stream, with a refreshed login page and video promoting the use of STREAM. This will build on our media rich, digital learning platforms which will support our distance learning and blended provision.

Finally, the University is in the midst of a substantial effort to reform and update our curriculum, including efforts to introduce more experiential and problem-based learning, enhance student experience through functional class sizes, enhance the utilisation of digital media, and improve the integration and coherence of programmes. For example, we have completely revised the Bachelor of Health Science programme by introducing more common core papers, as well as opportunities to customise the learning experience by enrolling in joint majors and minors.

Financial Performance

Building Massey University's internal capacity with robust administration and financial systems progressed well, and as a result the University received a low risk rating in 2013.

As noted earlier, the University, at the Government's direction, managed its enrolments downwards from 2010 onwards. The combination of the pipeline effects of the managed reduction in enrolments (being the enrolment term of three or more years) and the lifting of the tolerance range in 2013 (and hence non-payment for under-delivery) has significantly increased the negative financial effect on the University.

The University to date has been managing these changes through a number of strategies to contain growth in costs whilst maintaining or improving quality of provision. More than \$6.8 million savings in operating and capital expenditure were made through procurement initiatives and these initiatives are continuing.

A number of initiatives were completed in 2013 on capital asset management. These included a positive independent review of asset management capability, the divestment of the Atawhai sections, further negotiations undertaken of the Ruawharo site, and a procurement process on the Hokowhitū site commenced for commercial property brokerage services (marketing of which will commence in mid-2014).

Staff financial management capability and understanding were improved in 2013 through the reviewing and developing of best practice service models (including training on policies, financial processes, and procurement).

The University remains focused on strategic growth (as outlined in this plan) and aims to reinvest its financial resources to deliver on the Government's objectives.

Better Outcomes for Māori and Pasifika Learners

Massey University is one of the largest tertiary education institutions in New Zealand measured by student numbers or EFTS and continues to have the largest number of Māori students (22%) than any other New Zealand university. Massey University also has a good representation of Pasifika students (11%) and has seen major growth in Pasifika enrolments in key subjects (13.7% in STEM between 2012 and 2013). Over 50% of Māori study part-time and a similar number of Māori study through distance learning to cater for family or work commitments. For this reason, Massey University's multi-modal delivery system with its distance delivery network and its three campuses established in Massey University Investment Plan 2015-2017 for Public Distribution

Auckland, Wellington and Palmerston North works very well for Māori and Pasifika mature students. Māori and Pasifika students predominantly study in programmes within the College of Humanities and Social Sciences and the College of Business.

Two important strategies were updated in 2013 which included "Kia Marama" (Māori) and "Growing Pearls of Wisdom" (Pasifika). These strategies provide Massey University with strategic leadership and aspirational goals for the development of Māori and Pasifika students.

In 2013, the Centre for Māori Business Research and Leadership was developed and became operational in February 2014. Also under consideration in 2013 was the Centre for Māori Social Research and the Pacific Research and Policy Centre. Development of these Centres will progress in 2014.

Current research initiatives, particularly with Te Wānanga o Raukawa, have provided articulation opportunities for Māori students, and particularly those interested in research careers. A Memorandum of Understanding signed with Te Whānau o Waipereira in 2013 also provided an opportunity for Massey University to develop initiatives with this Trust, with the aim of increasing staff participation in Massey University programmes. Stronger connections have been made with three key institutions, with a commitment to work more collaboratively in the interest of current and prospective Māori students.

Throughout 2013, a Pasifika students' plan and a separate Māori students' plan was implemented to increase the profile of Massey University and enrolments from within these two demographics.

Massey University's relationships with Māori alumni were enriched in 2013 with a new "Te Rau Whakaara" (Māori advisors) approach to graduation ceremonies on all campuses. This initiative has enabled an opportunity to start an accurate database of Massey University Māori alumni. Through this increased focus on Māori graduates at graduation ceremonies, a number of benefits were realised which included an increase in the number of Māori alumni offering to support future Massey University recruitment and retention activities, and increased involvement of Māori alumni in recruitment activities with their former secondary schools.

In March 2014, a significant increase was shown for new enrolments of Māori students. This is an indication of the potential and on-going effectiveness of Te Rau Whakaara's customised and focused approach to engagement with a niche audience. The Te Rau Whakaara approach is unique to Massey University and is showing impressive results.

In 2014 the College of Humanities and Social Sciences is progressing an initiative to recruit and support Māori students into programmes. This includes provision of targeted tutorial support for Māori students in undergraduate Psychology studying via distance and building on initial scoping work done in 2013 around Environmental Planning and Management.

In 2014 a new Māori academic staff member with specific research and research leadership responsibilities was appointed to the Institute of Education at the College of Humanities and Social Sciences. The appointment will increase the College's capacity to support the engagement of Māori

(and Pasifika) with advanced scholarship and research in Education. As noted earlier, the College also produced one of our innovative specialist MOOCs on Indigenous Peoples in Australia and Aotearoa⁷.

To align with our commitment to enhance participation in STEM subjects and to better support the growing Māori agricultural economy we have also developed a new programme in Māori Agri business which will recruit from 2015.

Our College of Health is committed to doubling its current contingent of Māori and Pasifika students and staff between 2014 and 2020. It is in the process of revising current papers and programmes in Māori health. It has started to consult with Māori and Pasifika partners about creating a highly innovative and culturally safe School of Māori and Indigenous Health. Innovations include partnerships with Iwi and Hapu to create culturally specific programmes delivered through alternative modes and sites. The College will seek articulation agreements with other tertiary sector organisations to recognise prior learning and help build capacity in partner agencies. The College is also revitalising and expanding a Research Centre on Māori Health and Development to produce high quality research and provide consultations to communities and service providers around key health challenges.

Various Pasifika initiatives were also progressed throughout Massey University in 2013. These included: hosting celebrations for Pasifika graduates; holding several engagement events for Pasifika students and their communities which included a Pasifika Research Symposium for Pasifika staff, students and alumni; offering professional development opportunities to all Massey University staff on Pasifika aspirations and development; and including a Pasifika component as part of the new-to-Massey University staff orientation.

Information for Learners

Massey University places great importance in providing high quality services and advice to students, with a number of initiatives completed in 2013. The Student Administrative Alignment Implementation Project was completed, and will improve Massey University's academic advice and administrative support to students to make more informed course choices.

Other initiatives to enhance student services included: establishing a Distance Students' Centre on the Manawatū campus to provide services to students who study away from any one of the Massey University campuses; implementing the Student Accommodation Strategy on each campus to provide a framework for the provision of student accommodation on or close to each campus; reviewing and developing Career and Employment Services; enhancing the Academy of Sport, and establishing the Manawatū Athlete Development Academy to develop the next generation of elite athletes but who are not yet eligible for High Performance New Zealand assistance; further developing student levyfunded services including additional support to student clubs and societies; and completing a successful pilot programme on the Wellington campus of a "non-residential halls" programme.

The recruitment and induction of higher degree research students at doctoral level was reviewed and new processes were documented for discussion and future approval by the Doctoral Research

Massey University Investment Plan 2015-2017 for Public Distribution

⁷ https://www.class-central.com/mooc/1472/open2study-indigenous-studies-australia-and-aotearoa-new-zealand

Committee. The Doctoral Research Committee and University Research Committee have both focused on securing an improvement in PhD completions and affirmed a commitment to international benchmarks (e.g. completions within four years of full time equivalent study).

As required by the Education Act 1989, Massey University completed its fifth Academic Audit in November 2013, with feedback indicating the University in almost all cases the expectations were met. The Audit commended the University for its excellent levels of service by the Library, for the extensive learning support services across campuses, the attention being paid to support for Māori and Pasifika students, for its comprehensive and effective emergency management provisions and business continuity expectations, and for its teaching awards framework. The audit is intended to assure the University community that the processes that Massey University uses to achieve good outcomes for students are acceptable, appropriate and effective. We are currently reviewing the feedback received in the report published in March 2014 and will provide NZQAA with a detailed map of how we will respond to, and address key recommendations by the end of this year.

A number of surveys tools have been utilised to allow Massey University to measure student engagement and satisfaction in a number of areas on either an annual or biennial basis. Student satisfaction as shown in the Student Experience Survey remained high at 81% of students satisfied with their educational experience and 79% of students satisfied with Massey University's services and facilities.

We are currently completing a pan-institutional audit of support given to students to develop and enhance their employability ranging from advice and guidance provided at recruitment and the contribution of careers advisory service to the opportunities provided within and across programmes developing. Our plans for the development and embedding of business hubs (e.g. hot desks for businesses, graduate enterprises) on each campus will be reviewed following targeted investment in pilot projects in 2014. This information will be added to our recently approved Programmes Guides which are comprehensive guidance packs to be used in supporting informed student choice during recruitment and enrolment.

Pathways and Transitions

Massey University identified academic preparedness as a priority area in the previous planning period. The intention was to ensure students had the right information to make good enrolment choices, and were academically prepared for success in the courses they selected. Massey University made significant progress in expanding Professional and Continuing Education (PaCE) programmes, including programmes that support transition to higher learning. Other activities that took place in the previous planning period include:

- Student Advice hubs were established on each campus in 2013, to provide a one-stop shop for information and student services;
- In both 2012 and 2013, two PaCE mediated bridging programmes were run by Massey University;
- We have initiated a series of regular meeting with local school principals drawn from the communities around each of our campuses to discuss transition pathways for international students; a specific focus of future discussions will be ICT and STEM alignments;
- Consistent with the Internationalisation Strategy 2011-2015, relationship building with key domestic and international government agencies and diplomatic personnel was a key focus in

Massey University Investment Plan 2015-2017 for Public Distribution

- 2013, along with building enduring and productive relationships with appropriate University providers and onshore pathway providers;
- International process reviews were completed for both international pathway teaching agreements and international offshore delivery teaching agreements. These have formed the basis for a number of new international pathway/articulation and offshore delivery teaching agreements; and
- Development of a comprehensive learning pathways programme to assist all students to successfully map through their study programmes.

International Education

International education continues to be a cornerstone of Massey University's contribution to New Zealand's education system. The University acknowledges and recognises the leadership statement for international education that sets out the Government's policy objectives and goals for international education. As stated in the previous plan, our contributions extend well beyond the traditional delivery of learning for full-fee paying international students studying in New Zealand, to a range of innovative offshore delivery arrangements and partnerships that will make a significant contribution to the Government's inspirational goal of doubling the annual value of New Zealand's international education services to \$5 billion over the next 15 years.

Initiatives targeted to provide internationally-respected accreditations for qualifications, to help drive future international student recruitment and to enhance Massey University's reputation, progressed well in 2013. As noted earlier, Massey University's College of Creative Arts became the first art and design school outside North America to be awarded a highly prestigious mark of quality by the United States National Association of Schools' of Art and Design (NASAD). Within the College of Business, the Standard Alignment Plan for Association to Advance Collegiate Schools of Business (AACSB) accounting accreditation was completed and submitted to AACSB. Preparation has since begun for the AACSB re-accreditation in 2015. Work also continued to evaluate the feasibility of the European Quality Improvement System (EQUIS), the European Foundation for Management Development Programme Accreditation System (EPAS) and Accrediting Council on Education in Journalism and Mass Communication (ACEJMC) accreditations. In April 2014 the Vet School Accreditation visit took place. Accreditation is a core part of our promotion of veterinary sciences to growing international markets as it will provide competitive opportunities for international students to practice once qualified.

Massey University was successful in the first round of Education New Zealand's new contestable fund for innovative export education, winning two of the three projects submitted by the University. The fund was designed to help New Zealand's education providers achieve significant growth by making the most of international education opportunities by offering up to 50% of the total project cost. The successful projects that were awarded funding included: "Study Abroad 3.0 – Modular Themed Study Abroad", to focus on developing a strategically targeted package offer to reinvigorate study abroad recruitment; and "Distance Education Agent Platform in Indonesia", to support Education New Zealand in training and recruiting for the development of off-shore delivery of programmes, papers, short courses/seminars, and professional development opportunities in Indonesia.

Massey University was also successful in a bid to Education New Zealand in late 2013, to support the new Massey University Worldwide initiative. This initiative is formed through building on Massey

Massey University Investment Plan 2015-2017 for Public Distribution

University's extensive capability and experience in distance and online learning, to extend Massey University's offshore educational delivery. Through this portal we aim to increase international student recruitment to our dedicated online portal (currently hosting about 1000 students), develop a stronger off-shore blended portfolio of specialist education provision and extend our educational consultancy.

This initiative forms part of our response to the Tertiary Education Strategy 2014-2019 which notes that

"While patterns of competition, demand, and work continue to change rapidly, geographical barriers to learning are reducing as a result of advances enabled by digital technologies. For example, super-fast broadband is supporting new modes of internet-based provision and a broader trend toward more flexible, less place-based provision. These technology-driven changes will require New Zealand's tertiary education sector to advance its thinking quickly on new delivery models".

In June 2013, the Vice-Chancellor led a mission to China (Xiamen, Wuhan and Beijing) to meet with Chinese counterparts to advance a range of Massey University's strategic interests in China. This included collaborative student recruitment, research, distance and online education, professional development training, as well as Chinese Government, New Zealand Embassy, alumni and academic partner engagement and the renewal of multiple MOUs.

Other collaborative relationships formed throughout 2013 included: signing of an agreement between Massey University and Qatar Airways to deliver a two-year MBA programme for Qatar Airways staff; signing of a MOU with Guangzhou Medical University to formalise opportunities for international students to experience New Zealand education; establishing foundations for a series of professional development short courses on governance for senior management of the Tokelauan Government; expanding recognition in China of Massey University's expertise in agriculture, business and emergency management through a Chinese Government delegation visit; hosting a delegation from Maejo University (Thailand) on the Manawatū campus to further cement their agri-business working relationship and discussed opportunities for student exchange; providing a twelve-week English teaching skills course that was attended by seventeen Thai university lecturers; and celebrating five years of PaCE successfully running a Chinese interpreters and translator's professional development programme.

1.3 Contribution to Government priorities

The Tertiary Education Strategy (TES) 2014-2019 promotes a more outward-facing and engaged tertiary education provision in New Zealand, to accommodate for an international expansion of tertiary education, to meet the needs of a growing New Zealand economy and to adapt provision to new technologies. According to the TES, increased and strong linkages with industry, community, schools and global economy will be required for a successful system.

The TES states that over the next decades, the tertiary education sector will need continue to improve the quality and relevance of tertiary education and research by building international relationships that contribute to improved competitiveness, supporting business and innovation through development of relevant skills and research and improving outcomes for all. Massey University Investment Plan 2015-2017 for Public Distribution

University supports this vision and reflects on the need to ensure that the implementation of this strategy by the Government is guided by effective operational frameworks, particularly around funding mechanisms and performance measures, so that tertiary education providers are able to achieve this vision.

Massey University is very innovative in how its educational provision responds to student and employer needs. Just less than 40% of all our student demographic (headcount) is part-time studying at a distance. The University is exposed to market fluctuations as the volume of these types of enrolments is sensitive to employment cycles. Massey University has managed these cycles well, but it needs to preserve a greater growth path as a result. The University should not be capped at the upside and removed from a growth path that will help achieve the Government's vision of a more skilled, educated workforce and society. Massey University is very well positioned to deliver on this vision through its part-time study options, distance provision and partial delivery of qualifications through Certificates of Proficiency, both at undergraduate and postgraduate levels, which allow students to unbundle blocks of education provision and access learning anytime, anywhere, in a flexible way that meet their needs. The unbundling of provision also assists employers in retraining or upskilling staff while employed. Students are able to make a direct contribution to their employers and, at the same time, advance their careers. This requires some flexibility from the Government, both in terms of easing funding caps as well as adjusting performance measures so that these contributions are taken into account.

Our part-time, distance learners often have different reasons to engage in tertiary education compared to our other 40% of learners sitting at the other end of the scale (internal and full-time students) – whose performance are actually on par with the university sub-sector performance. The University is vulnerable to the limited measures of education performance currently in place; these are based purely on the completion of papers, qualifications and retention year-on-year and not by any other measures of contribution to society through employment, income generation or well-being.

The Government has identified six strategic priorities for the tertiary education system, which include:

- Delivering skills for industry (refer to Priority One);
- Getting at-risk young people into a career (not applicable for Universities);
- Boosting achievement of Māori and Pasifika (Refer to Priority Two);
- Improving adult literacy and numeracy (not applicable for Universities);
- Strengthening research-based institutions (Refer to Priority Four); and
- Growing international linkages (Refer to Priority Three).

The remainder of this section will articulate how Massey University will contribute to each of these priorities.

1.3.1 Priority One – Respond to the needs of stakeholders

Our contribution to this priority

Massey University continues to review and refresh its academic portfolio. Overall it comprises broad-based and discipline-orientated education, professional degrees, taught and postgraduate degrees,

Massey University Investment Plan 2015-2017 for Public Distribution

and professional development experiences. Through our qualification portfolio we are able to meet the needs of the national labour market and build capability in industries, businesses, the public sector, not-for-profit organisations, iwi and in our communities.

Massey University's contribution to outcomes for New Zealand, the national vision for the education system, the Tertiary Education priorities, and the priorities for the Investment Plan period is outlined in Section 1.2.3 (Outcomes Framework). The University's purpose as existing is "for the advancement of knowledge and the dissemination and maintenance thereof by teaching and research". As articulated in the Tertiary Education Strategy 2014-2019, Massey University has a role to play in meeting the needs of the nation's labour market through linking academic provision to future employer skills needs and in recognising and responding to shifts in employment trends. This includes addressing new and emerging shortages in specific areas, such as information and communications technology (ICT) and STEM, along with design; all of which are skills needed for innovation and economic growth.

Demand for workers in STEM occupations is projected to grow due to a variety of factors. These include a growing demand for engineers and architects as the construction sector recovers and the Canterbury rebuild takes place; a need for more food technologists and product designers as New Zealand's food exports increase; and a need for more graduates with information science and technology skills, to meet the world's increasing demand for smarter software and technology. There will also be an increasing demand for persons with skills to develop biotechnological and microbiological solutions to problems such as zoonotic disease, antibiotic resistance, complex care for frail seniors, and enhancing self-care.

The employment outlook overall is for strongest employment growth for highly skilled occupations, including managers and professionals. These require transferable skills that qualifications such as the Bachelor of Arts can offer. For building and construction activity there is strong growth in demand for construction-related managers along with growth in demand for architects, designers, planners and surveyors. There is also strong demand for managers in the areas of business, retail, advertising, sales, hospitality and office administration. Professionals in information and organisation, social and welfare, sales, accountancy, marketing and public relations areas are also in strong demand. Employment growth in the primary and primary processing sector is forecast to be strong. Massey University's Bachelor of Construction, Bachelor of Retail and Business Management, and Engineering and Innovation Management major in the Bachelor of Engineering give further strength to Massey University's qualification portfolio.

Factors such as population ageing, professional retirements, and the emergence of chronic disease will drive the demand for highly skilled health professionals, especially nursing, social work and public health. The need to reform and integrate health care is at the centre of Massey University's plans to create the country's first post graduate programmes in public health and health system informatics and analytics. The programme will combine our expertise in bio-statistics, epidemiology, public health, economics, demographics, policy analysis, data visualisation, and other areas to find, link data sets, look for informative patterns, and use micro-simulation to enable policy makers to visualise and explore the impact of alternative policy scenarios on health and wellbeing.

Massey University's qualification portfolio already includes New Zealand's leading veterinary science and food technology programmes, as well as agricommerce and agriscience programmes. The

Massey University Investment Plan 2015-2017 for Public Distribution

agricommerce programme incorporates the most recent developments in agribusiness and primary production. Students gain management skills that can be used across the complete primary industry value chain and a strong understanding of what it takes to be sustainable and competitive in the global food and fibre markets. The agriscience programme provides the knowledge and the analytical and management skills to improve the productivity and sustainability of agricultural systems. Massey University graduates end up working in New Zealand and overseas, in agriculture, horticulture, viticulture, supply chain management, food and beverage product development. The retail, finance, international trade, marketing, policy, regulations, human resources and research arms of the primary industries, expertise in food, microbiology, as well as dairy will be combined to develop new biotechnological products.

Supporting our students for successful outcomes following graduation is one of our key priorities. While base knowledge remains important in university education, the 'new' priority attributes for enhancing graduate employability include: analytical evaluation and problem solving; energetic and positive leadership; communication, flexibility and team player; and loyalty, integrity and passion for the employment role. In the past, these attributes were acquired 'in passing' rather than through focused design. At Massey University, the Graduate Profile-led model for re-designing the curriculum and the delivery and the assessment methods ensure that formal attention is now paid to meeting these 'new' graduate attributes. In turn, the learning and assessment culture of Massey University is becoming more strongly student-centred and increasingly embraces the 'new' context for education through deliberate consideration of aspects such as: an increasing diversity of learners and their preferred provision arrangements; technology-enhanced learning; contextualised learning involving real-life experiences that are research-led; global awareness and connection; self-directed learning; and commitment to lifelong learning. More succinctly, in terms of employability, Massey University recognises that its graduates must not only be 'match-ready', but also, through due attention to above-listed graduate attributes; they must be 'match-ready', but also, through due attention to

The number of workers retiring is expected to rise from 52,000 per year during 2011-16 to 71,000 per year during 2016-21⁸; this is despite participation rates by the older workers rising further. This means that while 34,900 new workers could be required on average per year during the 2016-21 period, another 71,000 people a year are likely to be required to replace those retiring from the labour force. So, an ageing population means proportionately fewer people in the workforce. Higher productivity will require increased demands for further investment in lifelong learning and professional development for people already in the workforce. Meeting these challenges through the University's unique blended learning offer and PaCE will become increasingly important to the economic well-being of New Zealand and those who depend on New Zealand's economic prosperity, particularly for adults who will be contributing productively to the workforce for longer.

Massey University has built a reputation for providing applied, real-world, problem-solving teaching and learning opportunities so that graduates have an advanced ability to transform ideas into material outcomes. Students learn to communicate and connect knowledge and practice as they engage with curricula informed by research and enriched by applied learning opportunities. Our staff

http://dol.govt.nz/publications/research/short-term-employment-prospects/ and http://www.dol.govt.nz/publications/research/medium-long-term-employment-outlook-2021/

members are embedding applied learning and international perspectives within the curriculum so that our students experience higher education of a quality and kind that enhances their confidence, flexibility, employability, and intellectual independence.

Massey University provides a range of experiential learning opportunities for students to apply theory in practice, including work integrated learning, service learning, simulations, laboratory experimentation, scenarios, practice-based learning, and to explore and develop relationships between research and teaching. Examples include:

- Practicums, e.g. Bachelor of Sport and Exercise; Bachelor of Engineering;
- Professional practice (work/industry based), e.g. Bachelor of Resource and Environmental Planning; Graduate Diploma in Teaching;
- Clinical placements, e.g. Bachelor of Veterinary Science; Bachelor of Nursing, Bachelor of Speech Language Therapy, Psychology;
- Internships, e.g. Bachelor of Communication; Bachelor of Business Studies; Bachelor of Fine Arts (Hons);
- Field work, e.g. Bachelor of Science; Master of Applied Social Work;
- Project-based group learning (flat floor), e.g. Bachelor of Engineering, Bachelor of Food Technology, Bachelor of Veterinary Sciences; and
- Specific courses oriented to practical application of social sciences, such "Social Sciences at Work" which is an advance course in the application of social science and knowledge to real world challenges faced by local social agencies and organisations, and "Creativity in the Community" an internship paper offered both in Wellington and Albany.

As well as on-campus engagement with:

- Scenario-based learning and simulations, e.g. Bachelor of Aviation;
- Clinics, e.g. Bachelor of Speech and Language Therapy, Psychology;
- Live briefs, industry projects, e.g. Bachelor of Design; and
- Undertaking a research qualification that provides the basis for the practical application of knowledge.

Massey University is exploring the creation of professional practice centres to serve the needs of businesses, community organisations, and the public, while creating a platform for our students to gain real world experience. For example, our Food Pilot Plant enables businesses to explore the development of new food products by accessing expert advice and specialised equipment. Massey University is establishing clinics where the public can undergo nutrition and exercise assessments and receive professional advice. A new Science and Business Centre is planned for the Albany campus which will see education and NZ businesses merge into one location.

Massey University also provides numerous non-credit-bearing co-curricular learning opportunities and activities collectively known as "Leadership through Service". These provide valuable complementary opportunities to enhance students' professional and personal development. Such activities include: student liaison representatives, the Massey University student leadership programme, residential assistants and peer-assisted learning coordinators, event volunteers and open lab projects.

Finally, Massey University recognises that the needs of its stakeholders are wider than provision of skills and ensuring success of our students following graduation. Massey University responds to Massey University Investment Plan 2015-2017 for Public Distribution

stakeholders needs through increased its connections with tangata whenua and local, national and international partners and stakeholders creating mutual benefits, and through responsibility goal, which aims to enhance Massey University's reputation as New Zealand's defining university by contributing to an understanding of, and providing innovative responses to, the social, economic, cultural, and environmental issues including those that affect tangata whenua. These are outlined in detail in Massey University's strategy, Shaping the nation taking the best to the world, The Road to 2025⁹.

Our Success Stories

Science and Industry Projects

Massey University's research-led science programmes provide students with the fundamental knowledge and develop problem-solving skills relevant to the modern markets. Increasingly this learning is project-based and students take part in commercial work.

Papers like the Bachelor of Science's Nanoscience Research Project offer the opportunity to provide solutions to industry projects.

Graduate students are encouraged to be both innovative and develop their own ideas and potential new businesses, and to work on projects funded by the industry and supported by research providers.

Successful transition to work

Open Lab is a design enterprise studio that links clients with fresh emergent design talent from the College of Creative Arts in a professional studio context, providing integrated solutions across visual communication, product, spatial, fashion and textile design, and all the spaces between. Open Lab brings students, graduates, academic staff and clients together to collaborate in traditional and unconventional design problem-solving projects. In 2013, Open Lab employed 90 students who worked on live client briefs. During employment they are mentored by senior design academics. They can then list their experiences on projects and clients they have worked with on their CVs. Approximately 90 per cent have gone on to be employed by industry.

Industry placements

Students enrolled in the Bachelor of Nursing undertake 1500 hours of clinical experience during their three-year degree. All placements are supervised by clinical teaching staff associated with the University. Clinical practice experience allows the translation of knowledge and evidence into practice

http://www.massey.ac.nz/massey/fms/About%20Massey/University-Management/documents/156512%20Road%202025%20WEB.pdf?E16946928C096DBABD84BC20911E8BEC

and the opportunity to apply the skills of assessment, decision-making, implementation and evaluation with patients and community members in the context of family/whanau and in a range of health service providers. Placement sites are nationwide and include several district health boards and primary health organisations, long-term care providers and retirement village operators.

Students completing the Bachelor of Social Work and the Master of Applied Social Work undertake two 60-day placements in different organisational settings and fields of practice. All placements are supervised by a registered social worker. Placements may be in a broad range of social work agencies, community development organisations, government or local government environments and non-government organisations.

Students in the Bachelor of Sport and Exercise (Prescription Exercise major) and the Bachelor of Health Science (Sport and Exercise major) undertake a practicum paper in year three. They work within the cardiac rehabilitation clinic throughout the year. They also complete at least three separate (and different) placements for a total of 200-plus hours, working as a personal trainer in an approved fitness centre/personal training business, as trainer with a sports team or in a clinical setting such as physiotherapy, prescribing rehabilitation exercises.

Bachelor of Engineering (Hons) and Bachelor of Food Technology (Hons) students complete 900 hours of work experience and a substantial research or development project in their studies. The projects take about 300 hours – 25 per cent – of the final year of each qualification and directly relate to the needs of industry. The relationships developed with companies during work experience and projects frequently lead to jobs.

Sir Stephen Tindall Chair in Retail Management

The Warehouse Group, New Zealand's largest listed retailer, is funding a new chair at Massey University under an agreement that will see the appointment of a Professor in Retail Management within the College of Business. This is the first step towards the development of New Zealand's first retail-specific degree, aimed at those already employed in the retail industry who want to upskill, or secondary school leavers attracted to a professional career in the retail sector. It has widespread industry support and the University hopes to welcome its first intake of students in 2015. Areas of study will include retail marketing, buying, planning, logistics and supply chain management, management information systems, human resources, retail strategy and entrepreneurship. An internship programme in partnership with industry is also a key component.

Our Plan

The University is currently undertaking an institutional research project which has been designed to gather information on the diverse range of both formal and information activities that currently support student employability. The design of the project has been informed by the extensive research undertaken by the Higher Education Funding Council of England (HEFCE) and the Higher Education Academy. It is another step which cements the high calibre strategic approach taken by Massey University.

Massey University Investment Plan 2015-2017 for Public Distribution

One outcome of the project will be an improved understanding of "employability" characteristics that staff at Massey University collectively aim to teach and develop as part of the delivery of programmes and papers and the wider student support environment. Drawing from a draft list of qualities, against the domains of 'knowledge', 'skills' and 'attributes' sought by employers, the project aims to identify the opportunities, support and activities that are provided to teach or develop employability qualities for students. Skills and knowledge may be directly taught, and the development of employable attributes is encouraged in the design and delivery of the paper and programmes.

Analysis of student comments in the annual university Graduate Destination Survey has also revealed 'what more' students would have liked at university with respect to 'transitioning out'. To complement the Graduation Destination Survey feedback mechanism and to give current students a voice on shaping employability, a series of questions have also been included in the 2014 Student Experience Survey.

By 2017 Massey University will progress a number of key initiatives to respond to the needs of stakeholders and deliver skills for industry. In particular, throughout this Investment Plan period, we will develop an employability framework to include the following activities:

- Seek to boost our existing services which relate to job preparation and job seeking assistance;
- Provide infrastructures to encourage students to network with business and use 21st century technologies and social media to facilitate these networks;
- Encourage early engagement with industry, business and employers and seek to increase
 interactions through a range of networking opportunities for students and business (for
 example, employer evenings, alumni connections) as well as demonstrate to industry our
 capacity to assist, for example, through student interns;
- Engage internationally for global employability and expand opportunities for volunteer work and externships (e.g. volunteer and service learning programmes run by student leaders managing teams of student volunteers in areas such as environment, literacy, youth have been effective and we are exploring potential credit for course work related to volunteering)¹⁰.
- Embed strongly the concept of employability in relation to both curricular and cocurricular activities.
- Provide students with real world opportunities by undertaking projects within Massey University (termed "intrapreneurship" by York's Learning and Employability series¹¹): engineering students designing equipment for veterinary students, for example; and Massey University establishing more entrepreneurial ventures.

We also aim to ensure that Massey University graduate attributes are known by employers (and students) and have developed Graduate Profiles for all qualifications that include employability attributes. Massey University will develop an 'Employability Framework' as an adjunct to our Teaching and Learning Framework to include all aspects of employability. As noted earlier, we are drawing heavily from the extensive research which informed the development of UK models to use as

¹⁰ For our many part-time distance students the majority of whom are engaged in full time employment whilst studying we are exploring pedagogic models which best serve to develop and recognise experiential learning. The new "My Portfolio" technology embedded in our VLE STREAM site functionality offers an important new model for this type of teaching and learning development.

http://www.employability.ed.ac.uk/documents/Staff/HEABriefings/ESECT-3-Embedding_employability_into_curriculum.pdf

a base, in particular the report by Cole & Tibby (2013) "Defining and developing your approach to employability: A framework for higher education institutions"¹². The framework will assist in embedding "employability" across the curriculum in acknowledgement that while there is a vital and essential role for career services, employability is a university-wide responsibility. The framework will be useful for encouraging an awareness of employability in specific programmes and papers. Implementation of the framework will encourage mechanisms for ensuring assessment remains upto-date (relevant case studies for example) and promote the active teaching of some traits (e.g. how to work in teams, and how to engage in self-reflection). Furthermore, a framework will highlight the extra benefits of study to students. It is critical that students understand which employability traits are being developed or enhanced so that when they do apply for positions they understand the connection between their study and what they can promote as their level of employability.

An "employability spectrum" is presented below, as an example of how we will commence mapping the potential strength of connection between qualifications and direct employment. It should be emphasised that the underlying assumption is that if a Massey University qualification that does not intentionally have a direct link that does not mean graduates' levels of employability is lower, rather their qualification will be aligned to a multitude of employability traits and skills they can use to create their own employment outcomes.

Directly linked with a vocation

- This qualification is needed to work in a specific area
- The content knowledge (as well as skills and attributes) is directly linked to employment (e.g., a Bachelor of Veterinary Science)

Closely aligned with a vocation

- This qualification will lead the student to an area where they will be able to make a number of choices
- The content knowledge (as well as skills and attributes) will allow the student to work in a range of areas within a particular field (for example, a Bachelor of Information Sciences)

No direct link to a vocation

- This qualification will provide students with skills
- The specific content knowledge may or may not be used in future employment (for example, a Bachelor of Arts)

Massey University's employability framework will embed employability into Massey University wide practice and allow the opportunity to:

- Embed employability into all elements of the curriculum;
- Develop clear employability "messages" for current and future students,
- Establish systems and strategies for creating more applied learning opportunities for students;
- Provide a route to better connect business, industry and alumni with current students; and
- Improve systems for connecting students with employers.

Our Performance Commitments

Our contribution will be measured through the increased interaction of students with practical learning opportunities, as well as increased successful outcomes following graduation.

¹² https://www.heacademy.ac.uk/node/6797

We will use national and international benchmarks to assess performance for:

- Student participation in experiential and applied learning (% of total HC);
- Number of qualifications with embedded models of applied learning; and
- Number of third parties providing support for experiential learning.

1.3.2 Priority Two – Accelerate progress towards parity of participation and achievement for Māori and Pasifika learners

Massey University has a strong history and reputation for producing graduates who are able to make a meaningful and sustained contribution to their communities. The University's focus on Māori and Pasifika learners is reflective of a broader strategy to invest in these key populations and to ensure that our reputation within these communities continues to grow.

Our contribution to this priority

The University waiata Te Kunenga ki Pūrehuroa expresses our broad goals and aspirations: "Nei rā te reo karanga e tau atu nei, ki te hāpai ake I te rau tangata". Hear the call, the message, to uplift all people, I urge you to join us in the spirit of sharing and generosity, and lifelong learning.

Massey University prides itself on being a place that values diversity, and encourages people to "bring their culture" to the learning context. The way in which Massey University engages with and responds to the needs of Māori and Pasifika is a fundamental function of the University, as is the desire to equip people academically and technically, but which is also creative, innovative and connecting.

Māori@Massey 2020: KIA MARAMA Strategy is a statement of how the University will meet the priorities for Māori. It describes the aspirational goals for the development of Māori, but importantly outlines a strategy through which these goals can be achieved. It is focused on ensuring that Māori achieve academic success as Māori. Building on its current research, teaching, and professional strengths, previous Massey Māori strategies, and government and Māori development goals, it sets out the themes for Māori achievement and signals the areas where the University will make significant contributions. The themes are:

- Theme 1: He ara mātauranga: Forging academic pathways.
 We will forge academic pathways to extend the reach and impact of higher education for Māori.
- Theme 2: He waka mātauranga: Building catalysts for learning and scholarship.
 We will build catalysts to promote academic excellence, enhance scholarship, and affirm culture.
- Theme 3: He puna mātauranga: Generating new knowledge relevant to Māori development.
 We will generate and share platforms for developing new knowledge that can be translated into social economic and cultural benefits for Māori.

These themes have a wide scope and provide the broad frame within which a more comprehensive and integrated approach to Māori development can be facilitated. Importantly, they describe the various ways in which the University can contribute to Māori development, how our activities can build and sustain Māori capacity, and how the aspirations of Māori communities can be promoted. A range of strategies have been put in place to activate these themes and to ensure that the aspirations of Māori@Massey 2020: KIA MARAMA are achieved.

Staffing and activities to support Māori student participation and success include the provision of:

- Recruitment, through in-school careers' planning workshops for Māori students, careers and study information to parents and wider whanau; university-experience days for Māori years 12 and 13 students; Science for Hauora (hands-on science workshops for Māori years 10 and 11 students) and Kura Pūtaiao health and sciences workshops for Māori years 12 and 13 students;
- Student success and support activities, through Māori student recruitment and retention positions on each campus; provision of completion scholarships for Māori postgraduate students; support for Māori student collectives on each campus, dedicated space for Māori students on each campus and Māori librarian positions;
- Academic advice through course planning, other study advice and transitional support for Māori first-year students; early contact with all Māori first-year distance students; academic support services for Māori students by programme; and
- Annual events to celebrate Māori graduates on each campus;

Massey University was also the first University to recognise the importance and value of our Pasifika communities when in 2007 a strategy was introduced, the Pasifika@Massey Strategy: En route to Cultural Democracy, which specifically identified the needs of the Pasifika communities and as a University, how we would respond to these needs. The updated strategy, Pasifika@Massey 2020: Growing Pearls of Wisdom, continues this legacy. It outlines the strategic framework to support the educational aspirations and economic needs of Pasifika communities and our role in achieving this.

Pasifika@Massey 2020: Growing Pearls of Wisdom provides the University with strategic direction that will better cater to the needs of Pasifika students to ensure that they enjoy success here at Massey University and beyond. University study is held in high regard by Pasifika communities, and many Pasifika students can be the 'first in their family' to attend university. The Pasifika student – 'the precious pearl in the shell' – is at the centre of the strategy. Pasifika values that emanate from the inherent beliefs and Pasifika ways of being, wrap around the student, providing a solid foundation that holds together all the subsequent layers of the shell.

The strategy applies across the whole university. It strives for excellence in all aspects of Pasifika tertiary education and research – student success; organisational capacity, capability and expertise; meaningful engagement with key partners and stakeholders; Pasifika research and policy; and a curriculum offering that has strong academic and market appeal. It relates to education that recognises and embraces Pasifika values, delivered in the ways that Pasifika people learn, and includes Pasifika research, policy and curriculum. It represents a commitment to Pasifika people that extends beyond tertiary success, where Massey University graduates, research and programmes will contribute to the social and economic advancement of Pasifika peoples. It embraces two key elements, Pasifika identity and Pasifika values. Strongly held principles characterise Pasifika people

Massey University Investment Plan 2015-2017 for Public Distribution

and communities and are demonstrated in their customs, practices, and ways of being. The values are: reciprocity, service, respect, inclusion, spirituality, relationships, leadership, family, love. Growing pearls of wisdom, both literally and metaphorically, depend to a great extent on providing an environment that is conducive to growth. "...ke melie lahi 'I he hone pea mahu'inga'I he mata'itofe – success – "...should be sweeter than honey and more valuable than a pearl". In other words, to really grow pearls of wisdom, we look beyond existing objectives.

Our Plan

It will be important to concentrate programme interventions at key points that will make a difference for Māori and Pasifika students. Over the 2015-2017 planning period, we will:

- Continue to strengthen access routes into tertiary education provision for Māori and Pasifika by:
 - o Increasing current relationships with community leaders, schools, families and whanau, iwi and hapu, and students upon enrolment with Massey;
 - o Building pathways for Māori and Pasifika through foundation programmes, particularly those where participation is low (e.g. Sciences); and
 - Ensuring that all new Māori and Pasifika students have appropriate course advice before their programme confirmation;
 - o Collaborating and building partnerships with other universities, institutes of technology and polytechnics, private training establishments and Wanangas to ensure pathways to further learning are available across different providers.
- Provide strategic and support structures to ensure Māori and Pasifika student success by:
 - Increasing investment in bursaries and scholarships as pathways to tertiary education and developing innovative ways in which maximum benefit from these investments can be achieved;
 - Appointing appropriate learning advisors for both pastoral and academic support;
 - Providing specialised support for distance learning students;
 - o Providing study and support spaces for Māori and Pasifika students in all campuses;
 - Appropriation of specific and appropriate pedagogies for accelerating student success;
 - Better involvement and facilitation of all Māori and Pasifika staff in student learning by Colleges; and
 - o Effective involvement of the Directorates in all decisions affecting students and staff.
- Enhance progression and completions of Māori and Pasifika students by:
 - Proactively monitoring enrolments, engagement in key papers and student performance in course completions, qualification completions and progression to further studies;
 - Ensuring appropriate interventions are introduced at an early stage to avoid failure and increase chances of success for Māori and Pasifika students;
 - Leading research and presenting findings from implementation of Māori and Pasifika programme interventions; and
 - Developing intensive workshops for Māori and Pasifika to gain relevant academic skills.
- Foster the development of support communities by:
 - Better coordinating student activities across the three campuses through regular events;
 - Supporting students' associations;
 - Providing facilities that support Māori and Pasifika needs, as well as support events to celebrate Māori and Pasifika at Massey University;
 - o Enhancing of Alumni engagement and celebration of their success;

Massey University Investment Plan 2015-2017 for Public Distribution

- Encouraging all Māori and Pasifika students to participate in online and campus communities of learning organised on subject areas, modes of education, or affiliations such as iwi or professional membership;
- Developing services to ensure Māori and Pasifika distance learning students are engaged and progressing with their studies; and
- Committing to building postgraduate forums that will lead to strong cohorts of Māori and Pasifika leaders with higher academic qualifications and strong associations within each of their Māori and Pacifica communities.

Our Success Stories

Working with Māori in Agriculture

Several iwi are exploring and developing land-based production businesses and have identified a need for the knowledge and skills to support these. Papers for study and a study programme in the Bachelor of AgriCommerce, namely a major in Māori Agribusiness, are under development in consultation with iwi, hapū whānau, government departments, the finance and banking sector, and Māori organisations involved in farming. Graduates from the programme will have the agricultural, agribusiness and tikanga to lead increasingly complex, large, land-based Māori businesses. An advisory group has been established to ensure the study programme continues to meet the needs of Māori.

Technology boost for te reo Māori

An iPhone application developed to help new staff members and new settlers to New Zealand get to grips with Māori language, culture and customs was awarded a top prize at the Māori Language Awards in 2013 for its innovative use of technology to increase the normalisation of te reo Māori in everyday language.

Community Mathematics

Dr Roberta "Bobbie" Hunter has been leading a revolution to raise maths achievement among Pasifika and Māori children in low decile Auckland primary schools for the past five years. Dr Hunter's "mathematical communities of inquiry" teaching model, developed during her doctoral research, was piloted in 2009 with remarkable results. This year the Ministry of Education allocated \$1.5m to enable her to train 140 more teachers in nine schools, noting the model was receiving international recognition. The model — in which pupils work collaboratively in groups and use cultural models to solve problems — is now so popular it is known as "Bobbie maths" by the schools.

Our Performance Commitments

Progress in achieving this priority over the planning period will be measured through the performance commitments listed below:

Massey University Investment Plan 2015-2017 for Public Distribution

- Student Participation as % of EFTS for Māori and Pasifika;
- Successful Course Completion % for all SAC students, Māori and Pasifika;
- Qualification Completion % for all SAC students, Māori and Pasifika;
- Student Retention % for all SAC students, Māori and Pasifika;

1.3.3 Priority Three – Contribute to the Government's goals for international education

Our contribution to this priority

Massey University is committed to taking the best of New Zealand to the rest of the world. Massey University is acknowledged as the leading provider of tertiary level distance education in New Zealand. With the emergence of digital technologies, we have taken advantage of the opportunities to advance our modes of delivery through progressive online provision and the development of pedagogies and modern methodologies for curriculum design and assessment which better serve the 21st century learner. Our student community is now served by a rich virtual learning environment and we are able to support them at multiple locations around the globe. More recently, Massey University has established a specialist international portfolio which builds on our acknowledged academic strengths and provides tailored educational resources to off-shore student cohorts.

Given that all recent horizon scanning reports make it clear that online provision including Massive Open Online Courses (MOOCs) will be the key growth area in the future¹³, and with blended learning (which combines online and classroom teaching) predicted to become more prevalent by 2020, it is clear that the University is very well placed to take advantage of the expected growth in international demand.

Massey University currently offers online and blended teaching resources to established and emerging markets in educational domains where we excel academically; these currently include - agrisciences (rated 19th in the world), public health (preferred supplier to World Bank), specialised management resources (e.g. aviation, sports), defence studies and work force development (ranked NZ number 1 in 2012 PBRF), languages and indigenous studies.

Massey University World Wide was launched in 2014 and Massey Global Limited currently hosts this business unit. With the stimulus of growing demand, Massey University is well placed to lead the tertiary sector in hosting and promoting a distinctive New Zealand platform for international markets. Massey University World Wide is an umbrella under which the University engages, promotes and delivers educational programmes, projects, and educational consultancy offshore. Massey University World Wide is the means by which Massey University and partners will continue to develop and build international educational resources.

Massey University is very committed to continue growing the numbers of international students studying onshore. In the next 10 years Massey University's international activities, both onshore and offshore, will expand significantly – particularly in our Albany campus. We will ensure that our students and staff continue to benefit from engaging with other cultures and being exposed to a globalised environment. This is a key tertiary education priority for the Government, with the

¹³ Horizon Scanning: What will higher education look like in 2020?, http://www.obhe.ac.uk/documents/view_details?id=934

decrease in the volume of onshore international student now contained and reverted to growth since 2009. As 69% of all international students and 77% of all international EFTS in 2013 were enrolled in New Zealand universities, Massey University has an important role in supporting this priority. Since 2009, Massey University has increased its international student enrolments by 16.8% and international EFTS by 18.3% in a very competitive environment, both nationally and internationally. Other New Zealand providers have experienced decreases in their international numbers over the same period.

Our Success Stories

Global pandemics

Massey's Veterinary Epidemiology and Public Health team has a global reputation and is helping the world to prepare for pandemics by increasing understanding of the spread and control of diseases in human, animal and wildlife populations, and of hazards in food of animal origin. Massey University received \$14 million from the European Commission/World Bank to strengthen veterinary and public health capabilities in combating zoonotic diseases in South Asia, China and Mongolia. Between 2010 and 2017 it will train more than 100 graduates to master's degree level while creating multidisciplinary networks with government sector engagement across the region, addressing one of the world's major health challenges: the transnational risk and spread of pandemic/epidemic diseases of animal origin to people.

MBA in Qatar

In 2013 Massey University signed a two-year agreement to provide a custom Master of Business Administration for Qatar Airways.

The pilots, engineers and managers taking part in the programme have face-to-face classes, online learning and practical study tours of leading New Zealand organisations as part of their training. As one of the few tertiary institutions that offer aviation degrees, and as an expert in the delivery of education overseas, Massey's pedigree was recognised in Qatar's choice of the University for this important programme.

The Albany Campus pathway contribution to international education in Auckland

The College of Business has several articulation agreements with local private training establishments in the Auckland region under which international students can transition into Massey University's Bachelor of Business Studies.

Building International Perspectives in our Curriculum: Bachelor of Engineering in Albany

Taking on a global challenge to help villagers in Nepal has inspired two Year 12 Albany Senior High School pupils to consider studying engineering when they finish high school. Hannah Cassone and

Massey University Investment Plan 2015-2017 for Public Distribution

Amanda Tan used the time allowed for their weekly Impact Project to take part in a first-year paper at the School of Engineering and Advanced Technology (SEAT) at Massey's Albany campus. The paper covered the Engineers Without Border (EWB) challenge that all first-year engineering students take on.

"The EWB Challenge is an annual trans-Tasman design competition where teams work together to create a tangible solution. This year, the teams focused on the village of Sandikhola, in the Gorkha District of Nepal. Hannah and Amanda created a ventilation system to help dissipate unhealthy cooking smoke in homes. They did a great job of working through the problem, documenting their process and coming up with a novel solution," Dr Aruna Shekar says. "As course co-ordinator, I am proud of Hannah's and Amanda's achievements and how well they took on board the challenge. Their efforts earned a special mention from the judges."

Teaching Partnerships

The College of Humanities and Social Sciences is currently working to reach international audiences and raise the international profile of Massey University by providing innovative teaching practices for international delivery and developing international research and teaching partnerships. To contribute to the Government's goals for international education, the College is internationalising the curriculum as part of the Bachelor of Arts (BA) degree renewal with an awareness of student experiences and the need for knowledge of global citizenship. In addition, the College is exploring ways to increase international revenue through expanding current, and developing new, opportunities in Australia (Spanish and Māori) and for the delivery of Psychology for Sustainable Development, Resource and Planning and Evaluation programmes to international markets. It is expected that the introduction of reduced credit (180 credit) masterate qualifications will appeal to international students.

Our Plans

During the 2015-2017 planning period we will:

- Develop Massey University Worldwide by expanding our education provision overseas through blended and distance delivery, increasing partnerships with selected offshore institutions, developing new models for promoting our research and growing the University's portfolio of international development and aid projects;
- Strengthen and develop key relationships that underpin our agenda for research excellence by building research collaborations and exchanges that enhance the quality and breadth of our research and support the development of Massey University researchers; developing and implementing a more targeted strategy for higher-research-degree student recruitment;
- Build international perspectives into our curricula by expanding the provision of outgoing student exchange scholarships, fostering links with external cultural community associations and other agencies that also provide pastoral and social support to Pasifika, new migrants and international visitors seeking access to New Zealand's tertiary education system and internationalising the academic environment and student learning experience with curricula that prepare students for life and work within a global community;
- Build our staff international capabilities; and

Massey University Investment Plan 2015-2017 for Public Distribution

 Build our international student community and support our on-campus and offshore international students.

Our performance commitments

Progress in achieving this priority will be measured against the following performance commitments:

- Student participation as a % of total EFTS for International full fee¹⁴ and all international students¹⁵; and
- Active number of international partnerships¹⁶.

1.3.4 Priority Four – Increase research intensity and support research-driven innovation and a highly skilled workforce

Our contribution to this priority and our plans

The University's Research Strategy and related documents, such as the Teaching and Learning Framework, are linked through three key drivers that underpin our evolving research-led mission — (a) Recognition and Reach, (b) Place and Purpose and (c) Influence and Impact, and are designed to support our drive to increase research intensity and support the contribution of the University to developing a highly skilled NZ based workforce. The Enterprise Strategy is co-aligned to ensure that we use a 'best team' approach to realising effective value from the intellectual capital we develop and adding value to the intellectual property of others through meaningful collaborative partnerships. To achieve enable these drivers we will:

- Maintain our focus on developing and promoting models of research excellence, academic leadership and engagement;
- Embed support for researcher success to secure excellence in both research and academic scholarship;
- Build a stronger international dimension to our research through a portfolio of international relationships that is rich with potential and by recruiting an international academy;
- Build an effective "critical mass" of leading scholars through creative collaborations and partnerships with other universities, research institutions and businesses both in New Zealand and internationally to promote knowledge exchange to underpin innovation in a way that makes us a partner of first choice; and
- In conjunction with partners, build specialist expertise in particular areas of applied research (e.g. agrisciences and agribusiness, health sciences, workforce development).

Recognition and Reach frames our commitment to excel and be a research-led organisation, supported by an academy that is acknowledged as world-class in key specialisms and recognised for

¹⁵ All International Students: Students that pay full international fees and subsidised and international students, e.g. Foreign wholly research students.

¹⁴ International Full Fee: Students that pay full international fees.

¹⁶ Active International Partnerships: Only those partnerships where Massey University is the first party (the lead contractor) to the programme/contract.

the quality and effectiveness of our knowledge exchange. Our key goals over this Planning period are to:

- Continue to foster "critical mass" of leading researchers in key specialisms (e.g. agriscience, food technology and high value nutrition, creative design, fundamental sciences, ICT, applied social sciences, public health, resilience) and develop state-of-the-art research infrastructure to ensure that talented people have the time and resources to pursue quality research and scholarship;
- Develop our capability in those key thematic areas that promote the contribution of Massey University to solving the "big problems"; these include health and well-being, future food systems (e.g. spanning agri-sciences, food and nutrition and food safety), solutionoriented design, adaptive social cultural behaviours in the context of 21st century citizenship, and natural hazard and resource management;
- Adopt flexible, smart working practices that enable authoritative university scholarship, and recognise and promote the mechanisms required to drive research selectivity to ensure that institutional resources are focused on proven areas of research excellence;
- Create the opportunities for entrepreneurial practices that drive know ledge transfer and add value to the social, economic and cultural dimensions of global society;
- Develop partnerships with certain industries, including the creation of strategic advisory panels to assist in decision-making around mission focused research; and
- Celebrate and support intellectual creativity and academic innovation to ensure effective and purposeful know ledge translation.

Place and Purpose addresses the need to nurture and build a sustainable innovative researcher community. Our key goals over this Planning period are to:

- Develop a suite of postgraduate research programmes that benchmark to international standards and attract an increased number of higher-research-degree students;
- Be a university that attracts a wider range of internationally ranked scholars who wish to participate in knowledge-sharing within our community;
- Promote and extend our engagement with academic scholarship to ensure it is relevant to the 21st century; and
- Facilitate indigenous knowledge development and leadership, particularly amongst Māori as the tangata whenua of Aotearoa New Zealand.

Influence and Impact focuses attention and effort on our connectivity with a wide community of research partners and industries to ensure that the intellectual capital arising from our research endeavours is relevant and valued. Key goals across this Planning period are to:

- Build and enhance the key areas of research excellence where we can demonstrate our international reputation through independent external benchmarking and partnering, (e.g. Global Food Security Research Consortium, applied social sciences research in 21st century population dynamics with Max Planck, affiliation to the MIT FabLAb);
- Advance our contributions to solving the "big problems" (for example climate change, sustainability, resilience, world health, food security and demographic challenge) so that our research has impact and provides positive influence on the economic and social development of New Zealand and to other communities globally;
- Partner in networks (e.g. FoodHQ) which support the utilization and/or commercialization of research and ensure the rapid translation of intellectual capital to those who can make best use of this resource and bring economic and social impact and advantage to New Zealand;
- Develop our knowledge-sharing capabilities and entrepreneurship models (e.g. OpenLAb, WonderRoom, Auckland Knowledge Exchange) to ensure that Massey University research is

- relevant and connected, that the outcomes of this work are used for best purpose;
- Nurture and advance key international strategic research partnerships that promote specific dimensions of the University's Research and Enterprise Strategy alongside the Internationalisation Strategy;
- Build the Massey Enterprise brand and improve the pipeline of "spin-out/spin-in" opportunities through the Massey Enterprise, Massey Ventures Ltd, Massey University Worldwide and Massey Global brands, including exploring opportunities for third parties (including key industries and businesses) to co-locate their facilities and explore opportunities to share intellectual property and contribute to our teaching and learning provision on all four campuses;
- Forge closer working relationships with national, regional and local policy-makers and whanau, hapu, iwi and other Māori business concerns. Our focus will be to extend and mature our alliances around specific themes, including land conservation, primary food production, health and wellbeing and education.

Our success stories

East Packaging MBIE

Massey University research was awarded \$5.1 million in government funding from the Ministry of Business, Innovation and Enterprise to improve the way export food products are packaged. The project to develop modelling tools to assist in the design of better packaging solutions to export food products is hoped to lead to increased efficiencies and savings for industry. The project will work closely with industry partners in the hope to produce models that can be applied to multiple food products in different transportation chains. This project shows Massey University's strength in innovative research that is anticipating real-world solutions that will boost New Zealand global competitiveness and deliver genuine savings for New Zealand companies.

Biolumic Ltd.

Research by Dr Jason Wargent investigating the underlying mechanisms behind a plants response to UV light has led to the creation of spin-out company Biolumic Ltd. The research challenged the historical understanding of how plants responded to UV light and developed approaches that harness the power of UV to increase crop hardiness, pest and disease resistance and produce quality. With support from the Pre-Seed Accelerator fund from the Ministry of Business, Innovation and Enterprise the intellectual property has been protected and a spin out company formed. The company, Biolumic Ltd, has attracted private funding and is investing in developing and proving the technology in a commercial setting.

Life Cycle Management Centre

Consumers are increasingly concerned about how green the products and services they are using really are. Research is also showing that being sustainable can help the value of company stocks and

Massey University Investment Plan 2015-2017 for Public Distribution

shares. In 2011 Massey University set up the New Zealand Life Cycle Management Centre, with AgResearch, Landcare Research, Plant and Food Research and Scion. This education, training and research centre, led by Associate Professor Sarah McLaren, works across Massey University's colleges. It aims to meet the need for more information on products' sustainability, working to model the supply chain of a product to potentially reveal everything back to the fertilisers and pesticides used in agricultural production.

Graduate research supporting food export growth

Graduate schools with research providers increase opportunities for students to be involved in industry research. This year, the Joint Graduate School of Horticulture and Food Enterprise was established between Massey University and Plant and Food Research. The school plays an important part in developing and progressing research initiatives that deliver New Zealand's export growth targets in horticulture and food. Students get the chance to be involved in the industry-focused research undertaken at Plant and Food Research. About a dozen Massey University masters and doctoral students are studying topics that will, in future, be offered by the school. The number is expected to increase with availability of new research projects and supervisors.

Our Performance Commitments

Progress in achieving this priority will be measured against the following performance commitments:

- External Research Income;
- PBRF External Research Income;
- Number of Research Degree Completions for all students, international students, Māori students and Pasifika students;
- Number of new disclosures;
- Number of new licences and commercialisation deals executed;
- Licensing revenue;
- Percentage of postgraduate research students (EFTS) as a percentage of total EFTS; and
- Successful course completion % of postgraduate students

1.3.5 Priority Five – Contribute to improving social, economic and environment outcomes for all New Zealanders

Our contributions to this priority

The aggregate of our strategic activities will contribute significantly, and in a variety of ways, to the sustainability and resilience of New Zealand through contributions to the social and economic structures of this country and to the unique environment (both land and water).

Through the development of mission aligned research, the provision of academic qualifications and the development of skilled graduates, we are providing intellectual capital and a workforce which is prepared to contribute to a 21st century community in a variety of ways.

Massey University Investment Plan 2015-2017 for Public Distribution

Through veterinary, agrisciences, agribusiness and food technology provision and the underpinning research which supports it, Massey University is enabling the primary industries which contribute to 23% of the New Zealand export capacity. Massey University also adds value to the brands of New Zealand agri-food exports through our international reputation (19th world wide in Agricultural Sciences as ranked by QS in 2014).

Enhancing the capacity and capability of the New Zealand workforce in agriculture is a key focus of a new research-led initiative across social sciences, business and sciences to provide effective professional development and knowledge enhancement for farmers and the wider agricultural workforce, building on a recent pilot with Federated Farmers.

The effective deployment of novel intellectual property and associated know-how is providing new and innovative food generation and production capacity (e.g. Biolumic providing novel intellectual property to enhance crop viability; Riddet Institute addressing food innovation and food design issues; a new intellectual property management agreement with Bayer to secure the commercial deployment of innovations in animal welfare).

The fusing of interdisciplinary skills, and linking of entrepreneurship and creativity to provide an essential stimulus to the development of New Zealand. Research such as the AHRC (Arts and Humanities Research Council) funded Brighton Fuse Report gives empirical evidence and justification of the economic impact of the arts as drivers of innovation and growth especially in the digital economy. The research identifies new types of businesses termed 'superfused'. These are businesses that have a mix of creative, technical and business skills and are achieving growth almost three times as fast as other businesses. Our understanding this important driver has prompted the development of new provision, e.g. Bachelor of Creative Media Production: The introduction of a degree in media production in 2015 responds to radical shifts in the media and entertainment industries where new technologies and platforms have disrupted business models, consumer trends and behaviours.

Nurturing next generation entrepreneurs and transformational leaders is another key dimension of our expanding commitment to the new New Zealand. With a focus on employability ensuring that our students are connected to the world of work throughout their programmes of study, we are also focusing on a range of initiatives to incentivize student and graduate enterprise. This includes supporting student-fostered technology spin outs, (e.g. Lifeonics), social enterprise and mentoring of student enterprise in the creative arts (e.g. Spring). We are preparing and enabling students to be constructive agents of change and transformation by ensuring they are familiar with concepts of leadership and organizational change.

Recognizing the changing commercial world and rise of service industries and enhanced demand for expertise in logistics and analytics has prompted Massey University to partner with the retail sector (as noted earlier, see Priority One) and develop innovative new teaching models for improving workforce skills and enhancing global competitiveness.

Massey University values cultural diversity and supports Māori and Pasifika learners. Through the targeted development of new programmes in New Zealand we aim to provide an opportunity to draw on the unique cultural diversity and heritage of this land. In particular, Massey University recognises New Zealand's multicultural context and the role of tangata whenua as a guiding principle of key new programmes in media and music, health and agribusiness. Māori cultural concepts, symbols, values

Massey University Investment Plan 2015-2017 for Public Distribution

and practices have a major impact on New Zealand's identity and a focus on these in the design of these new programmes can play an important role in acknowledging the significance and importance of Māori and Pasifika culture to New Zealand identity. For example, plans to advance and promote such cultural strength, alongside the growth of Māori Visual Arts, will position new academic programmes in creative media and commercial music as leaders in embracing and promoting kaupapa Māori and Pasifika opportunities in burgeoning creative areas. Other new initiatives include a Pasifika Achievement Plan supported by the Pasifika Curriculum Advisory Committee in the College of Creative Arts and a Pasifika artist in residence programme. The College has recently appointed its first three Pasifika academic staff, and hopes to be in a position to develop a new programme in Pasifika Visual Arts by 2018.

Massey's Centre for Māori Business Research (Te Au Rangahau) is being re-launched in 2014 as the Centre for Māori Leadership and Business Research. The new Centre will engage in a programme of research that contributes to the understanding and advancement of Māori business and Māori leadership; identify and facilitate the offering of education opportunities that contribute to the understanding and advancement of Māori business and leadership; and build strong research and education-based ties to key stakeholders.

The rapidly changing demographic profile of New Zealand requires us to consider, attract and support the new migrants who are joining our communities and to adopt different approaches in supporting workforce development. In 2014, Massey University established a New Migrant Directorate, based at Albany Campus, to facilitate and enhance connections with Auckland's increasingly culturally diverse communities and to advise on Massey's engagement with these communities. Massey University is currently developing a strategy which will consider a range of issues relevant to New Migrants including the framework of a globalized and diverse curricula, facilities, teaching and learning experiences and Campus Life. The purpose of this initiative is to give effect to educational aspirations of the New Migrant communities and to broaden the overall educational experience and participation at Massey University of the communities which help to make up the new New Zealand.

As noted in Priority One, factors such as population ageing, professional retirements, and the emergence of chronic disease will drive the demand for highly skilled health professionals, especially nursing, social work and public health. Our College of Health is introducing specialized training in professions such as nursing, social work, sport and exercise, nutrition and public health for the care of older adults.

Finally, natural resource management is a key area of strength at Massey University with a wide range of academic programmes, a diverse series of research clusters (e.g. Allan Wilson Centre, Ecological Economics Research New Zealand (EERNZ), Al Rae Centre for Quantitative Genetics and Breeding, Lime and Fertilizer Research Group, Marine Mammal Conservation Group) and a number community-based activities (e.g. Living Labs, Wildbase, Millenium Seedbank) all contributing to the sharing of knowledge, development of expertise and strengthening of resilience capacity in New Zealand. Many of these activities also have a strong international profile and generate revenue through research and consultancy, international student recruitment and facilitate partnering arrangements with key trading partners (e.g. China).

Our success stories

Regional connections

Massey University engages with a wide range of public and private organisations throughout New Zealand. In particular, it has strong relationships in the cities and regions in which it is based – Auckland, Manawatū and Wellington, but also partnership relationships with regional bodies such as Venture Taranaki and the Hawke's Bay Regional Council Business Development Managers are jointly appointed and located. The key objectives are of these initiatives are to connect regional organisations with the expertise, knowledge and innovation of the University in order to provide growth and benefits to the both the regions and the University. Progress to date includes a regionally based MBA cohort in Taranaki, facilitated engagement with multiple companies for both regions, student engagement with regional companies via studentships, scholarships and project support and engagement.

Integration of Immigrants Programme

New Zealand's labour force, more than most other countries in the OECD, is being transformed by international migration. The country is distinctive within the OECD in having both the highest per capita rates of both immigration and emigration. Achieving growth in productivity and innovation, while sustaining an inclusive society that is tolerant of increasing socio-cultural diversity in membership and economic activities, requires a much stronger evidence base on the economic incorporation of migrants and their children. A Ministry of Science, Innovation and Employment funded five year project on the Integration of Immigrants Programme (IIP) aims to provide the desired evidence base.

The study which was awarded \$3.2million employs leading-edge conceptual and methodological approaches from international as well as local research to conduct innovative analyses of existing and new data bases in order to generate policy-relevant evidence about pathways to economic incorporation in New Zealand for immigrants and their immediate descendants. The IIP aims to make a significant contribution to the policy objective of optimising the use of immigrant human capital by quantifying the nature and extent of skill under-utilisation, identifying barriers to effective economic integration of migrants and their families, and developing strategies for enhancing family/household well-being in formal and informal economic settings. The study received a gold standard from the Ministry in 2013 under its new rating system devised to recognise funded projects that have met and exceeded contract requirements.

Our performance commitments

We are developing measures for performance which will include:

- % of distance students in employment
- % of enrolments in professional qualifications

Massey University Investment Plan 2015-2017 for Public Distribution

% of distance student participation by region (regional economic focus)
 Number of collaboration agreements within New Zealand (to measure how we are connecting)

Part 2 Summary of Activities Commercial in confidence to the Tertiary Education Commission. Massey University Investment Plan 2015-2017 for Public Distribution

Part 3 Performance Commitments

3.1 Statement of Forecast Service Performance 2015-2017

The Massey University Act 1963 describes the purpose of the University as existing "for the advancement of knowledge and the dissemination and maintenance thereof by teaching and research". Massey University understands its purpose and recognises that its role within the New Zealand context is further defined in the Education Act 1989 and guided by the Tertiary Education Strategy 2014-2019. Through its vision and mission, Massey University continues to deliver on the expectations of universities held by the Government to:

- Enable a wide range of students to successfully complete degree and postgraduate qualifications;
- Undertake internationally recognised original research and scholarship; and
- Create and share knowledge that contributes to the economic and social development and environmental management of the nation.

Massey University's contribution to outcomes for New Zealand, the national vision for the education system, the Tertiary Education priorities, and the priorities for the Investment Plan period is outlined in Section 1.2.3 (Outcomes Framework) of the University's Investment Plan. The diagram (Massey University Outcomes Framework) in this section illustrates the links between Massey University's outputs, strategic goals and vision, the priorities for tertiary education, the overarching vision for education in New Zealand and at the highest level, outcomes for New Zealand. The Framework is consistent with the framework and guidelines for reporting on outcomes developed by a joint TEC and Universities New Zealand working group and endorsed in June 2010. The framework for the university sector provides a shared view of the universities' national contribution and informs the preparation of the University's Investment Plan.

The University frames the strategic goals of the institution and the strategy for delivery in *Shaping the nation taking the best to the world – The Road to 2025* through the key activities in our plans and the processes which underpin them. We actively measure our progress against these strategic goals through a series of performance measures under each goal. Massey University's key outputs (Research, Education and Service to the Community) contribute to the impacts sought from the tertiary system (an educated and skilled workforce; adding value to society; and developing people with critical thinking skills) to meet the Government's vision of a world-leading tertiary education system that equips New Zealanders with the knowledge, skills and values to be successful citizens in the 21st century.

The key activities in Massey University's plans derive from its commitment to supporting learning through research, education (teaching) and community engagement (public and private sector contribution), and are strongly aligned with the priorities for the sector (from the Tertiary Education Strategy). By delivering on *The Road to 2025* strategic goals (which are founded on the values of creativity, innovation and connectedness), Massey University contributes to outcomes for New Zealand and the overarching vision for education which links this nation to a wider global community.

3.2 Outputs

Universities generally provide three key core services or outputs – research, education and services to the community. Massey University's distinctive contribution to these outputs is outlined in the Investment Plan.

3.2.1 Research

Massey University will promote the highest standards of research and scholarship, be a world leader in our areas of specialisation and support active engagement with, and participation in, knowledge exchange to ensure that the intellectual capital we generate is used to best advantage.

Massey University's research outputs will drive innovation, knowledge transfer and economic development both regionally and nationally. Such research will also enhance educational outcomes for the students.

Activities

Activities contributing to this output include:

- Project-based contractual research for the private and public sector;
- Teaching-related research;
- Commercialisation of research outputs;
- Supervision of research-based Masters and Doctoral students; and
- Participation in and hosting Centres of Research Excellence.

Output Measures

2014 2015 2016 2017 **Target Target Target Target** External Research Income (\$m) 62 65 67 69 PBRF External Research Income (\$m) 55 56 57 58 **Research Degree Completions (number of)** 345 350 355 360 Commercialisation New Disclosures (Number of) 40 45 48 50 Licenses/Commercialisation Deals Executed 8 10 12 14 (Number of) Licensing Revenue (\$000s) 450 500 550 600 **Postgraduate students** Student participation by equivalent full-time students (EFTS) as a % of total EFTS Postgraduate research¹⁷ 7.5% 7.4% 7.5% 7.5% Successful Course Completion 18 (%) 88.5% 89.0% 89.5% Postgraduate students 90.0%

¹⁷ Postgraduate Research: Paper enrolments in papers at Funding Category Levels 4 and 5 as defined by the TEC.

¹⁸ Successful Course Completion: Successful course completion EFTS, as a proportion of the total EFTS delivered.

Overall Student Satisfaction ¹⁹ with educational experience (%)				
Postgraduate research	TBC	TBC	TBC	ТВС

3.2.2 Education

Massey University will ensure an exceptional and distinctive learning experience for all students.

An educated and skilled workforce is necessary to contribute to the economic development of New Zealand. Massey University contributes to this by ensuring that its students are taught by dedicated and skilled academics in a stimulating environment that is conducive to active learning. Massey University's Teaching and Learning framework identifies the key characteristics of Massey University's teaching and learning environment as Research-led, Applied, International, Distance and Lifelong, and Digital. Each of these dimensions is supported by a strategy to fully realise the potential of each area.

Activities

Activities contributing to this output include:

- Higher Level Tertiary Education (teaching, learning and assessment)²⁰;
- Foundation Level Tertiary Education²¹;
- Comprehensive portfolio of education offerings including:
 - Professional degrees (for professional groups e.g. veterinary, nursing, accounting, education, engineering, etc);
 - Degrees developed in partnership with business and industry (e.g. defence and security, food, agriculture, design and fine arts) and to meet the needs of community groups (regional and ethnic communities including Māori, Pasifika, New Migrants communities);
 - Professional and Continuing Education short course programmes;
 - Distance and blended education (New Zealand's leading university);
 - International education (both on-shore and off-shore); and
- Student support services including residential and social.

¹⁹ Student satisfaction with educational experience: New measure-data to be collected from the PRAQ survey. This survey will be conducted every second year. Results from 2014 will be valid for 2015, and results for 2016 will be valid for 2017.

²⁰ Higher level tertiary education: primarily degree level (undergraduate and postgraduate) education at qualification levels 7 and above

²¹ Foundation level tertiary education: sub-degree level education at qualification levels 5 and 6.

Output Measures

	2014	2015	2016	2017
	Target	Target	Target	Target
Student Participation By Equivalent Full- Time Students (EFTS)				
Total University EFTS delivered	18,452	18,945	19,247	19,534
Student participation by equivalent full-time students (EFTS) as a % of total EFTS All International students ²²	14.9%	14.9%	14.9%	14.9%
Postgraduate taught ²³	13.9%	13.9%	13.8%	13.8%
Student Retention-all students ²⁴ (%)	69.0%	73.0%	74.0%	75.0%
Successful Course Completion-all students ²⁵ (%)				
Internal Students	85.5%	85.8%	86.0%	86.3%
Distance students	72.0%	72.5%	73.0%	74.0%
Qualification Completion-all students ²⁶ (%)	49.0%	60.0%	61.0%	62.0%
Student Progression ²⁷ (%)	50.0%	51.0%	52.0%	53.0%
Overall Student Satisfaction ²⁸ with educational experience (%)	82%	82%	82%	82%
Overall Student satisfaction with services and facilities (% of students rating services good/very good)	88%	88%	88%	88%
Graduate Outcomes ²⁹				
Progression to employment (%)	80%-85%	80%-85%	80%-85%	80%-85%
Engaged in further study (%)	8%-10%	8%-10%	8%-10%	8%-10%

Massey University Investment Plan 2015-2017 for Public Distribution

²² All International Students: Students that pay full international fees and subsidised international students, e.g. Foreign wholly research students.

²³ Postgraduate Taught: Paper enrolments in papers at Funding Category Level 3 as defined by the TEC.

²⁴ Student Retention: The proportion of SAC eligible students in a year who either re-enrol in the next year or complete a qualification.

²⁵ Successful Course Completion: SAC eligible successful course completion EFTS, as a proportion of the total SAC eligible EFTS delivered.

²⁶ Qualification Completions: Qualifications completed by students, weighted by the EFTS value of the qualification, as a proportion of total SAC eligible EFTS enrolled in qualifications.

²⁷ Student Progression: Progression to higher levels of study in the tertiary sector by students (by students at qualification levels 1–4).

²⁸ Student satisfaction with educational experience: As measured by the Australasian Survey of Student Engagement (AUSSE).

²⁹ Graduate Outcomes-Progression to employment: New Measure-data collected from 2015 Graduate Destination Survey.

3.3.3 Services to the Community

Massey University will enhance its reputation as New Zealand's defining university by contributing to an understanding of - and innovative responses to - the social, economic, cultural and environmental issues including those that affect tangata whenua, and will promote and value citizenship and leadership across Massey University staff and students.

Massey University will strengthen its connections with tangata whenua and local, national and international partners and stakeholders, creating mutual benefits.

Academic staff and students contribute to the community with their advanced critical thinking on matters relevant to society, including providing expert commentary and advice locally, nationally and internationally.

Activities

Activities contributing to this output include:

- Engagement with all our stakeholder communities including business and industry, government (local and central), iwi, Pacific peoples, new migrant communities, and schools;
- Maintaining an ongoing relationship with Massey University alumni;
- Provision of advanced critical thinking on matters relevant to society, including providing expert commentary and advice locally, nationally and internationally;
- Sharing the academic and professional expertise of staff, particularly on issues of national and regional significance and on research which is of benefit to the community;
- Holding and/or participating in regional and national events;
- Hosting conferences and public lectures; and
- Supporting and contributing to a diverse range of community-oriented programmes and initiatives.

Output Measures

2014 2015 2016 2017 Target Target Target Target Active International Partnerships³⁰ (Number of) 242 252 262 272 University academic staff involved in community 80%+ 80%+ 80%+ 80%+ service activities³¹ (%) University academic staff serving on advisory boards 20%+ 20%+ 20%+ 20%+ and committees³² (%)

³⁰ Active International Partnerships: Only those partnerships where Massey University is the first party (the lead contractor) to the programme/contract.

³¹University academic staff involved in community service activities: New Measure-data to be collected from staff survey ³² University academic staff serving on advisory boards and committees: New Measure-data to be collected from staff survey.