

MASSEY UNIVERSITY
2018 – 2022

RESEARCH STRATEGY HE RAUTAKI RANGAHAU



**MASSEY
UNIVERSITY**
TE KUNENGA KI PŪREHUROA

UNIVERSITY OF NEW ZEALAND

**RESEARCH
STRATEGY
HE RAUTAKI
RANGAHAU**

Massey University is a research-led New Zealand university with a reputation for excellence in innovation and the creation of new knowledge.

Our research spans discovery, commercialisation, scholarship and the production of creative works and is inclusive of both professional and clinical practice. We have an unrivalled record of research excellence in subject areas vital to New Zealand's society and economy, reaching back more than 50 years' and more than 130 years' in the creative arts. Our areas of research strength include veterinary science, land and food based research, nursing, public health, finance, and key areas of the social sciences and creative arts and design. At Massey, we define 'excellence' to mean best practice and we value both pure and applied research. We are distinguished by our focus on solving contemporary societal challenges, in addition to maintaining our commitment to fundamental knowledge discovery. This dual focus, along with our unwavering responsibility to build a better New Zealand, differentiates Massey from other New Zealand universities. This approach to our research also informs the connection with our teaching and postgraduate supervision through the teaching-research nexus.

Guided by the Massey University Strategic Plan 2018-2022' and our ambition to deliver world-leading research, conducted in partnership with industries and the communities we serve', Research Strategy 2018-2022 is the primary mechanism through which support for our research and researchers will be implemented and the means through which investment in University research is prioritised.



Recognising the critical role universities play in society as civic institutions and the interdependence between research and teaching, as per sec 162 of the *Education Act 1989*, *Research Strategy 2018–22* should be read in partnership with the University's commitment to support and drive excellence in learning and teaching. It takes as a fundamental assumption that research and learning and teaching are inextricably linked. Moreover, it is acknowledged here that the effective management of teaching workloads and prudent management of our academic teaching offer is critical if our researchers are to have the time to commit to research.

Research Strategy 2018–22 positions Massey University to lift both the quality and quantum of our research output and impact. It also proposes, that while excellent research and researchers will be supported, chronic research underperformance, wherever that exists, will be addressed. We believe that the successful implementation of this Strategy will lead to research at Massey being synonymous with world-class research. To do this, we will improve our ranking and quality score in the Performance Based Research Fund (PBRF); lift our performance in targeted international research rankings; increase our external research income as a proportion of our overall revenue; recruit, develop and support high-quality researchers; provide excellent training for researchers; prioritise quality research service, facilities and infrastructure; create and maintain authentic and meaningful relationships with research partners and research collaborators; and advance research into commercial and wider applications to ensure maximum benefit and impact.

At Massey, we are committed to Māori and Pasifika advancement through research by adhering to the strategic pathways and goals as outlined in *Kia Marama* and *Growing Pearls of Wisdom*. This will be achieved by strengthening our Tiriti o Waitangi responsibilities and relationships internally and externally. We see this as contributing to improving the well-being of Māori and all New Zealanders. We will empower Pasifika staff and students, supporting research that benefits Pasifika peoples and their communities, along with other indigenous cultures and communities, to achieve their social and economic aspirations through high-quality research.

This document acknowledges that the research landscape, both in terms of need and funding, is dynamic and competitive; not only in the increasing prioritisation of measures of research impact and outcome, but in terms of what research will be supported. We must, therefore, be very clear about what we excel at and what we will be known for, now and in the future. Massey's traditional fields of research strength – agriculture, life and applied sciences and veterinary medicine – will remain at the centre of our distinctiveness, noting the emergence of new areas in recent years such as creative arts and design, nursing and public health. This Strategy acknowledges our signature research areas and seeks new opportunities to foster, extend and capitalise upon these existing strengths, to ensure that 'Massey research' means excellent research.

Finally, this Strategy includes an implementation plan, that links directly to our agreed goals and serves to direct progress towards achieving specific outcomes. At Massey, we are committed to extending knowledge for its own sake and in partnership with others for the benefit of New Zealand. We will do this by strategically investing in areas of excellence, driving accountability for research activities where underperformance is actively addressed, clarifying and improving our internal systems, structures and processes to ensure we are 'good to do business with' as research collaborators and partners and we will maximise the commercial benefit of intellectual property derived from research.

TE PAE TAWHITI OUR COMMITMENTS



1

Kakea te toi o ngā rangi

Developing and maintaining the high quality of our research and researchers



2

He kōhanga kupu, he kōhanga tangata

Being a leading institution in New Zealand for the recruitment, development and retention of researchers



3

He huruhuru te manu e tau

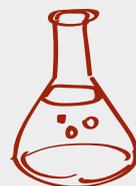
Increasing research income and providing world-class research infrastructure



4

He taura here tangata

Having active relationships with key partners both nationally and globally to ensure mutual benefit and effective capacity and capability building



5

He kura nui, he kura roa

Developing, supporting and excelling in both the depth and breadth of our research



6

Whaowhia ngā kete o te wānanga

Leading effective knowledge transfer, engagement and entrepreneurial activities to realize social, cultural, economic and environmental benefits



Kakea te toi o ngā rangi

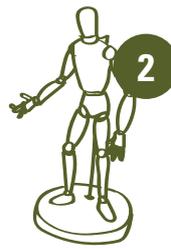
Massey University is committed to developing and maintaining the high quality of our research and researchers

In recent years, Massey has not significantly improved our overall position in several key ranking tables. We must improve the public visibility and measure of our research quality.

We need to ensure that the quality of our research, especially in our signature areas, is recognised in published measures of performance excellence. This includes lifting our status in international rankings, improving our success in the Performance Based Research Fund, increase our publishing in quality research outlets, and attracting high levels of citations for our research outputs. We accept that publicly promoted research rankings matter; in terms of securing our reputation and attracting quality staff and industry partners. Research rankings are closely linked to student choice at both undergraduate and postgraduate levels. We must acknowledge and address our urgent need to grow the number of quality postgraduate research students and maintain positive completion rates.

While published outputs and creative works produced with international partners tend to be more highly cited, demonstrating the power of research partnerships and collaborations to lift quality, it is critical that there is an increase in both the volume and quality of research by Massey's researchers. Advancing a broader dissemination of published work and increasing the citation impact, alongside ensuring research quality, will be a key focus. To support this, we will step up our utilisation of research impact assessment models and methods, as appropriate to disciplinary fields.

Massey will continue to foster and support a strong culture of striving for research excellence. The University will support researchers to enhance and articulate the impact of their research. We will continue to support staff to receive recognition for research excellence through actively targeting research prizes and awards for leading researchers and recruiting high-quality researchers to sustain our future research workforce. To support this, there will be clear research expectations for all staff.



He kōhanga kupu, he kōhanga tangata

Massey University is committed to being a leading institution in New Zealand for the recruitment, development and retention of researchers

Any university is only as good as its researchers. As a community of scholars, Massey commits to developing and promoting clear academic career pathways, recruiting high-quality staff, supporting quality aspiring researchers, including postgraduate research students, nurturing early career talent and potential, providing quality ethical approval processes, and valuing experienced senior researchers.

We aim to provide a collegial working environment for staff. This will be achieved by aligning recruitment and support for the development of research careers with clear research expectations. Heads of units, supported by central University service lines, are responsible for ensuring that teaching workloads and formative mentoring enable early career researchers to advance their research plans. In supporting research success, heads of units will work alongside staff to develop their research trajectory via an annual Personal Development Plan (PDP) and a three-year Individual Research Plan (IRP).

Research Strategy 2018-22 therefore embraces an integrated approach towards career development for Massey academic staff, from postgraduate and early career researchers through to established researchers. The University will continue to provide quality support and advice to postgraduate supervisors and doctoral examination conveners. In addition, the University will clearly articulate and provide clear and consistent advice on research expectations, as appropriate to each discipline.



He huruhuru te manu e tau

Massey University is committed to increasing research income and providing world-class research infrastructure.

Research activity at Massey spans more than 30 units over five Colleges. In 2017, our total research income was over \$100 million. Of this sum, more than \$60 million was sourced from externally funded grants and contracts. In this context, Massey is focused on increasing both the quantum and quality of our research.

We will structure our research support services to enable excellent researchers to realise their individual research goals and advance the University's overall research ambitions. Current institutional data and benchmarking studies show that Massey has the potential to significantly increase external research grant income from conventional contestable funds (MBIE, the Marsden Fund, HRC) and new funding sources. Growth in these sources of research funding is essential to advancing our profile and for the University to continue to improve in national and international rankings.

To achieve our research ambitions, Massey will draw upon a broad range of financial, physical and knowledge resources to ensure that our internal processes, systems and support structures best enable research excellence and deliver research effectiveness and efficiency. Researchers rely on quality infrastructure and this must not only be fit for purpose, but also maintained and developed, in accordance with our key strategic intentions.



He taura here tangata

Massey University is committed to having active relationships with key partners both nationally and globally to ensure mutual benefit and effective capacity and capability building.

Massey is linked formally with a range of key partners and communities in New Zealand and internationally. Authentic research partnerships help to build the University's profile as well as extend our research impact. This includes fostering field-specific partnerships with world-leading institutions and businesses to develop research quality with real-world impact.

To achieve this, Massey will focus on partnering with quality institutions internationally to secure and optimize new and underutilized opportunities. Alongside Massey's global reach, New Zealand-based research partnerships, especially with Maori and with Pasifika communities, remain vital to the achievement of our strategic commitments to enhancing New Zealand's social, cultural, economic and sustainable infrastructure. Key partnerships that define our contribution in this manner will be strategically identified, developed and sustained. We will aim to bring an enterprising culture of innovation and adaptation to our relationships to ensure maximum benefit for New Zealand.

Research is also embedded in our relationships with the community, many of whom define their own research needs. We will remain a responsive and responsible partner for delivering research results that addresses the needs of the various and diverse communities we serve. Through alliances with other respected researchers and institutions, Massey will build greater depth and breadth in our researcher community.

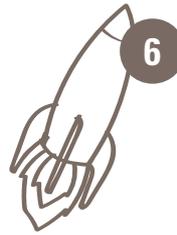


He kura nui, he kura roa
Massey University is committed to developing, supporting and excelling in both the depth and breadth of our research.

For Massey to deliver research excellence, breadth and depth within our researcher community are essential, both within the University and via external partnerships.

Given that an essential measure of individual and institutional effectiveness will be the demonstrable impact and influence of our research, we will support both broad and niche research wherever that is also excellent research. To foster investment the University will continue to value highly niche areas of research where there is research distinction and high-quality, recognizing that individual excellence is a driver of innovation and enterprise.

Massey will establish a stronger competitive presence for larger-scale multi-dimensional projects through clustering expertise in key areas, especially via disciplinary or interdisciplinary collaboration within and across colleges. The University seeks to build upon existing research expertise spread across the institution by encouraging and supporting the development, formalization and visibility of groups of researchers working in common areas through the creation and recognition of collaborative interdisciplinary research groups. This will increase our profile and enhance the quality of our teaching in key areas consistent with Massey's traditional strengths. The benefits of this approach include the ability to recruit and develop next-generation researchers and to facilitate engagement with industry, business and other collaborators with Massey University researchers.



Whaowhia ngā kete o te wānanga
Massey University is committed to leading effective knowledge transfer, engagement and entrepreneurial activities to realize social, cultural, economic and environmental benefits.

To achieve impact beyond the University and yield authentic benefits, the application of research will be one of the characteristics of Massey's research distinctiveness. Innovation and adaptation, core values in our relationships with external partners, will be developed to fully realise quality research outcomes.

Massey will draw on appropriate structures (e.g. Massey Ventures Limited) to bring to market the intellectual property arising from our research activities, to derive social, cultural, economic and environmental benefits.

Further, Massey commits to ensuring esteem through the academic promotions process regarding knowledge creation, translational research, knowledge transfer, engagement, commercialization and business development. We stand by research that addresses big societal challenges; this is a key measure of Massey's responsibility to engage effectively with the communities it serves.

OBJECTIVES

COMMITMENT 1:

- 1 Secure high-quality research outputs, outcomes and impacts with over 80% of outputs being disseminated in quality-assured outlets, as appropriate to the discipline. Where journal articles are the discipline norm, at least 80% will be published in high quality journals.
- 2 Improve at least two places in the 2018 Performance Based Research Fund AQS metric.
- 3 Encourage and support researchers to apply for national and international awards, prizes and fellowships, especially those researchers contributing to the University's signature research areas.

COMMITMENT 2:

- 4 Recruit, promote and retain high-quality research-active staff.
- 5 Build a culture of collaborative research engagement and co-publication for all researchers.
- 6 Build on and disseminate best practice in developing and maintaining existing collegial networks of peer review, research mentoring and research leadership.
- 7 Support and facilitate effective use of research career development resources, especially for early career researchers.

COMMITMENT 3:

- 8 Secure increased external research funding and achieve an annual submission to at least one funding body by 80% of academic staff by 2022.
- 9 Secure an annual increase of external research income of 5% per annum from all sources especially industry funding.
- 10 Provide clear and transparent processes to facilitate investment in research infrastructure and resources with a decision time-frame of less than 12 months. Provide high-quality and robust Research Information Management Systems.
- 11 Provide high quality IT infrastructure and facilities support for the management and support of research.

COMMITMENT 4:

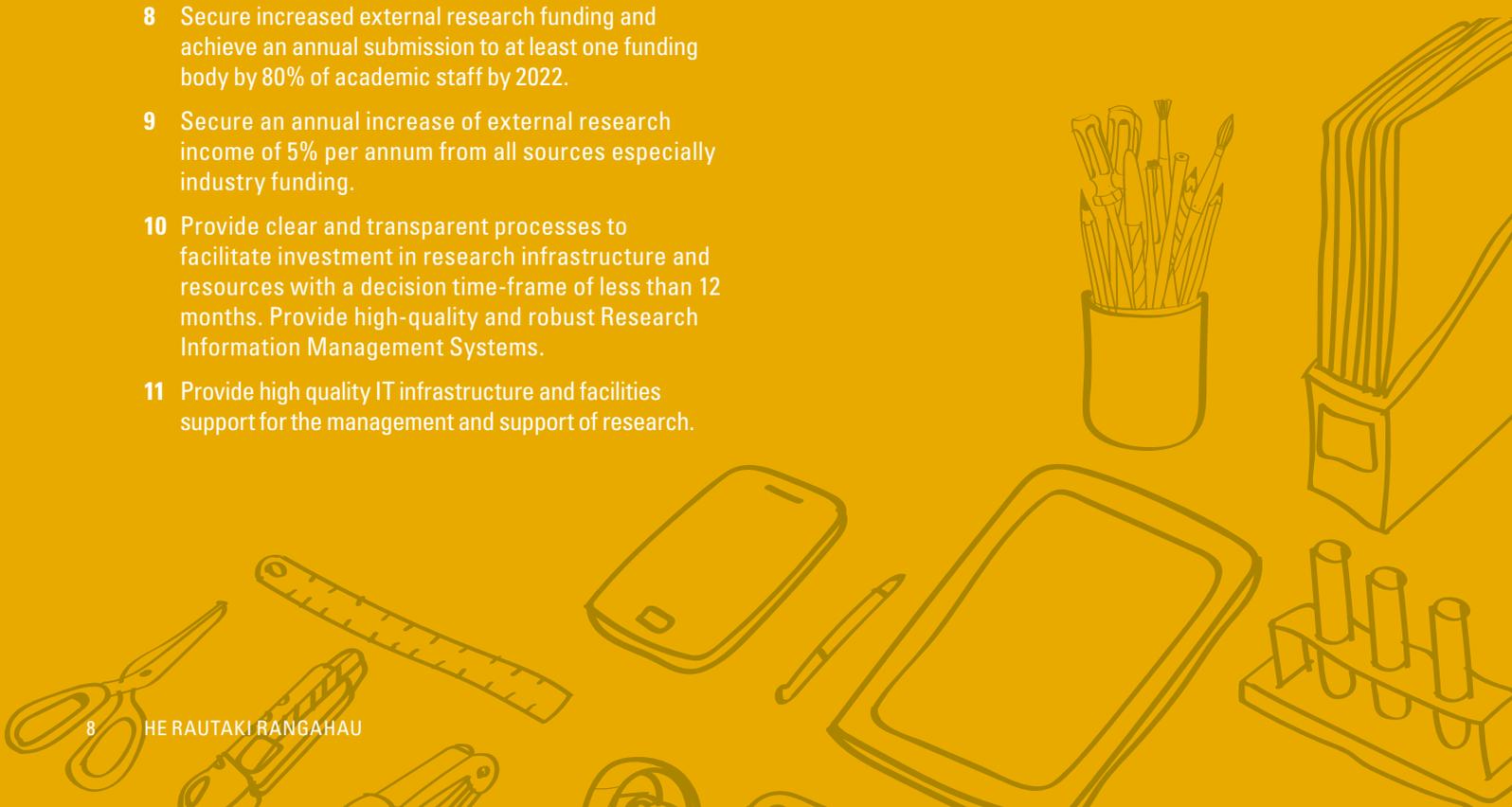
- 12 Identify, through a process of review, best practice in ensuring effective partnerships with key funders in national, regional and local business, industry and NGOs, and local and central government, and disseminate that practice across the University.

COMMITMENT 5:

- 13 Foster and support productive interdisciplinary collaborations across the University, especially where interdisciplinary research builds on signature areas of research excellence.

COMMITMENT 6:

- 14 Encourage, recognise and reward research conducted and communicated in Te Reo Māori.
- 15 Build capacity and capability in Pasifika research, and recognise, support and reward researchers who contribute to Pasifika development.
- 16 Encourage and support academics to act as public intellectuals and fulfil their role as the 'critic and conscience of society'.



Implementation Plan

The following table summarizes, at a glance, the objectives and who is responsible for implementing these objectives.

	Responsibility	Timeline	Excellence	Staff and students	ERI and Infrastructure	Connections	Breadth and depth	Enterprise and KT
1	Individuals, Colleges	●	✓	✓		✓	✓	
2	Colleges, RO, Individuals	●	✓		✓	✓	✓	
3	RO, Colleges, PVCs, Individuals	●	✓	✓		✓	✓	
4	Colleges, PVCs, AVCRAE	●	✓	✓	✓	✓	✓	✓
5	Colleges, PVCs, RO, AVCRAE	●	✓	✓			✓	
6	RO, PVCs, Colleges, Individuals	●	✓	✓	✓	✓		
7	AVCRAE, RO, Colleges, Individuals	●	✓	✓	✓	✓	✓	
8	RO, Colleges, Individuals, PVCs, AVCRAE	●	✓	✓	✓			✓
9	RO, Colleges, AVCRAE	●	✓		✓	✓		
10	RO, Colleges, AVCRAE, AVCSFITCO	●	✓	✓	✓	✓		✓
11	RO, Colleges, AVCRAE, AVCSFITCO, AVCOIUR	●	✓	✓	✓			
12	RO, Colleges	●	✓	✓		✓		✓
13	AVCRAE, RO	●	✓	✓		✓	✓	✓
14	RO, Colleges, AVCMP	●	✓					
15	RO, Colleges, AVCMP	●	✓	✓		✓	✓	
16	PVCs, Colleges, AVCRAE	●	✓			✓		✓

Timeline key:

- Annual
- Annual measure (Year on year through to 2022)
- Annual measure (based on three-yearly IRP's)
- Annual increase (by 2022)
- Short term (by 2019)
- Long term (with annual review)

PVCs – Pro Vice Chancellors

AVCRAE – Assistant Vice Chancellor, Research, Academic and Enterprise

AVCSFITCO – Assistant Vice Chancellor, Strategy, Finance, IT and Commercial Operations

AVCMP – Assistant Vice Chancellor, Māori and Pasifika

AVCOIUR – Assistant Vice-Chancellor, Operations, International and University Registrar

RO – Research Operations

COMMITMENT 1:

Kakea te toi o ngā rangi

Develop and maintain high quality research and researchers

Objective 1

Secure high-quality research outputs, outcomes and impacts with over 80% of outputs being disseminated in quality-assured outlets, as appropriate to the discipline. Where journal articles are the discipline norm, at least 80% will be published in high quality journals.

WE WILL DO THIS BY:

- Managing workload allocation models across the University to ensure academic staff have sufficient time to undertake research and enterprise activities.
- Supporting and promoting opportunities for co-publication of research findings
- Ensuring researchers have access to support and advice about where to best place the results of their research.

Objective 2

Improve at least two places in the 2018 Performance Based Research Fund AQS metric.

WE WILL DO THIS BY:

- Communicating on a regular basis to research staff how to best prepare and position their Evidence Portfolio for the 2018 PBRF exercise.
- Clarifying questions of eligibility and participation to staff, especially those responsible for the management of researchers and research teams.
- Providing central service support, in addition to college-based advice, to ensure all eligible researchers submit high quality Evidence Portfolios, aligned with their disciplinary and subject area expectations.

Objective 3

Encourage and support researchers to apply for national and international awards, prizes and fellowships, especially those researchers contributing to the University's signature research areas.

WE WILL DO THIS BY:

- Targeting key researchers and research teams to apply for national and international awards on a regular basis.
- Providing seed funds to all Principal Investigators who are successful in the first round of the Marsden Fund, to support them to success in round two.
- Improving the visibility, presence and access of Research and Enterprise services and staff virtually (website), via supporting materials and in person.
- Providing professional writing support as required to ensure high quality applications and alignment with award criteria.
- Ensuring that Massey submits only the very best quality applications to all national and international competitive funds.

COMMITMENT 2:

He kōhanga kupu, he kōhanga tangata Recruit, develop and retain high-quality researchers

Objective 4

Recruit, promote and retain high-quality research-active staff.

WE WILL DO THIS BY:

- Ensuring that all new staff appointed to research active positions are PhD qualified (or equivalent) and of high-quality.
- Ensuring that our high-quality productive researchers are valued and celebrated.
- Committing to realising positive levels of staff satisfaction through regular staff surveys.
- Actively addressing levels of staff attrition, especially in our distinctive and excellent areas of research as demonstrated by research rankings metrics, peer esteem and research impact.
- Providing clear career pathways for early career and developing researchers and ensuring that succession plans are in place for all research units, especially in our areas of research excellence.

Objective 5

Build a culture of collaborative research engagement and co-publication for all researchers.

WE WILL DO THIS BY:

- Providing, at both University and college levels, research grants to promote and facilitate collaborative research support and funding opportunities.
- Providing, at the University level, research grants to support co-authored research outputs, especially with international research collaborators.
- Undertaking annual reviews of central service support to ensure that all agreed expectations are met or exceeded.

Objective 6

Build on and disseminate best practice in developing and maintaining existing collegial networks of peer review, research mentoring and research leadership.

WE WILL DO THIS BY:

- Providing, at the University level, support for organised research symposia, especially on areas of or relating to the University's signature areas of research.
- Providing, at the University level, support for and facilitation of research mentoring networks designed to support researchers at critical junctures in their research careers.
- Recognising and rewarding, through promotion and reward, individuals and teams who contribute to research mentoring and research leadership.

Objective 7

Support and facilitate effective use of research career development resources, especially for early career researchers.

WE WILL DO THIS BY:

- Increasing the number of postgraduate research scholarships to 200 by 2022 to ensure we are competitive with other New Zealand universities.
- Providing high-quality doctoral training provision on all campuses to ensure effective and appropriate outcomes (e.g. completion rates which align with international benchmarks and publication and co-publication rates as appropriate to discipline norms).
- Providing financial support on an annual basis to researchers through University-level and college level strategic research funds.
- Ensuring that PDP processes and three-year IRP plans are active and operational.
- Continuing to roll out staff and research postgraduate student engagement with VITAE.
- Supporting requests for short and long research leave, as aligned with school and unit plans.

COMMITMENT 3:

He huruhuru te manu e tau

Increase our research income and provide world-class research infrastructure

Objective 8

Secure increased external research funding and achieve an annual submission to at least one funding body by 80% of academic staff by 2022.

WE WILL DO THIS BY:

- Managing workload allocation models across the University to ensure academic staff have sufficient time to undertake research and enterprise activities.
- Providing regular, appropriate and timely communication of research funding opportunities to the University research community.

Objective 10

Provide clear and transparent processes to facilitate investment in research infrastructure and resources with a decision timeframe of less than 12 months.

WE WILL DO THIS BY:

- Ensuring researchers can participate in both management and governance forums to clarify their research infrastructure and support requirements.
- Ensuring that decision-making processes around the allocation of research resources are strategic, transparent and fair.

Objective 9

Secure an annual increase of external research income of 5% per annum from all sources especially industry funding.

WE WILL DO THIS BY:

- Managing workload allocation models across the University to ensure academic staff have sufficient time to undertake research and enterprise activities.
- Providing regular, appropriate and timely communication of research funding opportunities to the University research community.
- Ensuring appropriate support, including financial, writing and presentation advice, is available at the University and college level on a regular basis.

Objective 11

Provide high quality IT infrastructure and facilities support for the management and support of research.

WE WILL DO THIS BY:

- Committing to University-level provision of high quality and robust research information management systems in which the research community and all stakeholders have trust and confidence.
- Ensuring researchers can participate in both management and governance forums to clarify their research infrastructure and support requirements.
- Ensuring that decision-making processes around the allocation of research resources are transparent and fair.



COMMITMENT 4:

He taura here tangata

Sustain active relationships with key partners both nationally and globally to ensure mutual benefit and effective capacity and capability building

Objective 12

Identify, through a process of review, best practice in ensuring effective partnerships with key funders in national, regional and local business, industry and NGOs, and local and central government, and disseminate that practice across the University.

WE WILL DO THIS BY:

- Supporting co-sponsored research and postgraduate research projects.
- Providing investment in shared facilities where these facilities will benefit Massey researchers.
- Securing and promoting research internships to allow, wherever possible, all Massey students to experience real world research engagement.
- Improving the visibility, presence and access of Research and Enterprise services and staff virtually (website), via supporting materials and in person.



COMMITMENT 5:

He kura nui, he kura roa

Develop, support and grow the depth and breadth of our research, especially in our signature research areas

Objective 13

Foster and support productive interdisciplinary collaborations across the University, especially where interdisciplinary research builds on signature areas of research excellence.

WE WILL DO THIS BY:

- Supporting, at the University and college levels, joint funding proposals, co-publication and joint teaching across disciplines.
- Providing an improved e-infrastructure to support interdisciplinary collaborative research, especially where this is leveraged off our areas of research excellence.
- Seeking opportunities for new centres of excellence and supporting suitable investment plans to drive these bids.

COMMITMENT 6:

Whaowhia ngā kete o te wānanga

Lead effective knowledge transfer, engagement and entrepreneurial activities to realize social, cultural, economic and environmental benefits

Objective 14

Encourage, recognise and reward research conducted and communicated in Te Reo Māori.

WE WILL DO THIS BY:

- Providing, at the University and college levels, support for and facilitation of mentoring networks designed to support researchers working in Te Reo Māori, especially those at critical junctures in their research careers.
- Recognising and rewarding, through promotion and reward, individuals and teams who contribute to research mentoring and research leadership through advancing the medium of Te Reo Māori.

Objective 15

Build capacity and capability in Pasifika research, and recognise, support and reward researchers who contribute to Pasifika development.

WE WILL DO THIS BY:

- Providing, at the University level, support for and facilitation of mentoring networks designed to support researchers working in Pasifika research and development, especially those working in partnership with external stakeholders and Pasifika communities.
- Recognising and rewarding, through promotion and reward, individuals and teams who contribute to research mentoring and research leadership through advancing Pasifika research and development.

Objective 16

Encourage and support academics to act as public intellectuals and fulfil their role as the 'critic and conscience of society'.

WE WILL DO THIS BY:

- Offering annual awards to researchers who successfully demonstrate this critical leadership role.
- Identifying relevant and socially significant research and enterprise areas in which capacity can be further invested and developed.
- Providing an accurate and accessible University expertise database with 100% staff engagement by 2019.
- Maintaining a visible public profile of research and enterprise at the University through University-level sponsorship of inaugural professorial lectures, public celebration of success through media channels and the widespread promotion of University research awards.



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