

Strategic Research Plan 2016 - 2020

Message from the Deputy Vice Chancellor Research and Innovation

The Federation University Australia Strategic Plan 2016-2020 outlines our aim to be a teaching excellent and research focused university that is regional in focus, national in scope and international in reach, and that meets the needs of our students, staff, industry partners and the community. Research is central to achieving this vision.

We are proud of the well-recognised excellence of our teaching, our courses and the quality of our graduates. We are also proud of our research achievements across a broad range of disciplines but also recognise that to realise our vision we need to enhance our research performance further by strengthening our research capacity and culture further.

This Strategic Research Plan builds upon and extends our commitment to research excellence and engagement. The aim of this plan will be achieved by strategies aimed at enhancing and sustaining a vibrant research culture across the whole University as well as providing targeted investment in focused areas of research strength where we are already recognised as having a significant national and international research reputation.

Professor Leigh Sullivan

Deputy Vice Chancellor, Research and Innovation

University Strategic Plan 2016 – 2020

The Federation University Australia Strategic Research Plan supports the University's Strategic Plan 2016 – 2020 as defined by the Strategic Plan's vision, principles, objectives and priorities set out below:

University Strategic Plan Vision

By 2020 FedUni will be renowned for being accessible, inclusive, supportive and empathetic in its connection to its students.

University Strategic Plan Principles

Excellence

Our passion for teaching and research, student support and welfare, and staff development, drives our quest for excellence.

Responsibility

Ethical practice, student care and effective stewardship of our environment and resources are immutable qualities of Federation University Australia.

Access

We welcome and celebrate diversity and inclusion to create educational experiences that are equitable, inspirational and transformative.

Respect

Respect for our staff, our students and our communities, provides an educational culture in which all realise their full potential.

Engagement

We are committed to local, national and international partnerships that are innovative, professional and mutually beneficial.

University Strategic Plan Objectives:

Regional in focus, national in scope and international in reach:

Being regional sets a framework for Federation University Australia's priorities enabling it to pursue wider agendas through our federated network of campuses in regional Victoria and our partner-provider institutions across Australia and overseas. Our VET and higher education graduates will be well prepared for taking their place no matter where they are in the world.

Comprehensive in its offerings, student-centred in its approach and providing access to effective and high quality learning:

Federation University Australia offers a balanced profile of VET, undergraduate and postgraduate degree programs from across the Australian Qualifications Framework, maximising student opportunity through flexible entry to programs and provision of multiple pathways.

Strategic in fostering world-class research:

Federation University Australia facilitates world-class research activity which is focused in a number of key areas, regionally relevant and internationally recognised and which complements its Higher Degree by Research (HDR) programs for Australian and international students.

Productive and effective in forming partnerships and engaging with its communities and regions:

Federation University Australia actively pursues partnerships to enhance access to its education and training, research, knowledge mobilisation and commercial activities. It takes full advantage of the expertise and capability of its staff and the talents and abilities of its students and graduates.

Accountable for what it does:

In its fiscal, resource and environmental strategies Federation University Australia is accountable and transparent in the way in which it allocates, manages, monitors and reports its activities and outcomes.

University Strategic Plan Priorities for Research 2016 – 2020

Federation University Australia's research will be regionally, nationally, and internationally recognised for its excellence. This will be achieved by:

- Delivering focused research programs led by highly active researchers.
- Increasing research revenue.
- Developing and sustaining a number of strategically important research areas that are aligned to the Government's research priority areas and acknowledged in the Excellence in Research for Australia (ERA) exercise as being at or above world-class standard.
- Developing a strong research culture through research academic leadership and the concentration of research activity in designated research areas.

The Annual Milestones for the Plan Priorities are:-

2016

1. University Strategic Research Plan finalized and reported to Council.
2. Identification of University Research Priority Areas informed by 2015 ERA and reported to Council.

2017

3. Adoption of University Research Priority Areas.
4. Designated University Research Centres established.

2018

5. Annual reviews of the performance of University Research Priority Areas, Designated University Research Centres and Higher Degree by Research students.

2019

6. Annual reviews of research performance.

2020

7. Annual reviews of research performance.
8. Federation University Australia recognized as a Teaching Excellent, Research Focused University.

Strategic Research Objectives

The specific research objectives are:

- Developing a strong research culture through research academic leadership and the concentration of research activity in designated research areas.
- Increasing the quality of training of Higher Degree by Research Services and improving the timely completion rate of HDR students.
- Developing and sustaining a number of research priority areas led by highly active researchers that are aligned to the Government's research priority areas and acknowledged in the Excellence in Research for Australia (ERA) exercise as being at or above world-class standard.
- Growing the number of HDR students undertaking research.
- Increasing the quantity and improving the quality of research publications.
- Increasing the number of successful category 1 grants from the ARC and NHMRC.
- Increasing partnerships and engagement with regional enterprise and communities.
- Growing external research income across all grant categories.

The key performance indicators and performance measures to demonstrate the progress towards achievement of these objectives are identified in the Annexure to this plan.

Research Environment

This strategic plan is designed to support and enhance research performance across the University and to enhance the vitality, quality, reach, relevance and impact of our research.

Research will be supported within Faculties and Schools as governed by their research plans, within research entities such as Centres, as well as by university- wide initiatives including our Research Priority Areas and the Robert H.T. Smith Professorial Fellow scheme.

Federation University Australia aims to deliver research that is regionally, nationally and internationally recognised for its excellence. This includes research activities that provide leadership in regional, national and international alliances, partnerships and collaborations. We will achieve research excellence by supporting all viable areas of research within the University including developing highly focused research programs within Research Priority Areas (RPAs) led by highly active researchers.

Research Priority Areas

Federation University Australia's Research Priority Areas are in appropriate disciplines, aligned to the Government's science and research priority areas (specifically, Food, Soil and Water, Cybersecurity, Resources, Environmental Change, and Health) and their practical challenges, and acknowledged in the Excellence in Research for Australia (ERA) exercise as being at or above world-class standard. Our Research Priority Areas, and where appropriate the Research Priority Focus Areas (RPFA) within each RPA, are:

Information Forensics and Security

RPFA – Cyber Security

This RPFA covers research in (i) cyber security, (ii) optimal and adaptive security, (iii) healthcare privacy, (iv) Internet of Things and software defined network security and (v) analytics for cyber security attribution.

RPFA – Multimedia Signal Processing and Machine Learning

This RPFA covers research in computer science and technical intelligence including machine intelligence for the advanced and automated management, and analyses of the growing volume of crime scene and evidence related data embedded in various digital multimedia and communications forms.

Transformative and Preventative Health

RPFA – Injury Prevention in Active Populations

This RPFA uses public health and epidemiological approaches in data-driven research to provide new information to underpin the development and evaluation of injury prevention measures for the benefit of all active populations.

RPFA – Sport and Recreation Spatial

This RPFA undertakes research on sport and recreation participation, facilities and health outcomes, to support evidence-based planning and decision making in the sport and recreation sector.

RPFA – Discovery to Recovery: Translating basic and applied research to improve healthcare

This RPFA employs a multi-disciplinary approach that translates basic and applied research into new solutions that improve knowledge in mental health and physical disease for the betterment of healthcare.

History and Heritage

This RPA undertakes research using a humanities approach in Australian history and heritage, as well as in the allied areas of historical justice and community regional engagement.

Improving Policy and Practice in Vocational Education and Training

This RPA employs a multi-disciplinary approach to examine and improve major policy and practice issues in the VET sector, which covers learning and training in TAFE and private Registered Training Organisations and in workplaces.

Dynamic Landscapes

The research in this RPA delivers environmental knowledge and management tools for landscapes in transition; including the rehabilitation of lands and waterscapes damaged through human activities, such as mining and agriculture, and through the impacts of fire and a changing climate.

Designated University Research Centres

The University will strategically identify and create Designated University Research centres to:

- promote existing and emerging areas of research strength,
- assist in enriching our research culture,
- enhance the University's national and international reputation,
- promote research partnerships and engagement with external partners,
- assist in developing, and attracting and retaining outstanding staff,
- assist in attracting external research funding,
- attract higher degree by research students, and enhance research performance.

Research Objective

Federation University Australia will be strategic in fostering world-class research.

Key Performance Indicators:

National Competitive Grant Income; External Research Income; HDR Completions; High-quality Research Publications; university h-index; Industry Partnerships; International Research Partnerships

Performance Measures:

Growth in total research income, national competitive grant income, HDR completions, high-quality research publication by 5% annually

KPI 11: Higher Degree by Research students (HDR)				
Measurement Definition	Objective	Strategies/projects/actions	Annual targets (from previous year, starting in 2015)/Delivery Date	Responsible Officer/Committee
HDR Students – timely completion rate	Improve the quality of HDR training	1. Increase HDR enrolments by enhancing scholarship opportunities via greater provision of both university and industry funded scholarships.	At least 5% increase in enrolments*	DVCRI [#] , Exec Deans, Exec Dean (GS), ADRs, HDRC, RHDSC, Director (RS)
		2. Establish and maintain Executive Dean Graduate Studies (GS) to enhance the HDR experience and outcomes.	Satisfactory annual review by DVCRI	DVCRI
		3. Increase HDR completions by: a) provision of enhanced HDR training and development programs to enhance HDR performance, and b) provision of HDR supervisory registration and development programs to enhance supervisory capacity and performance	At least 5% increase in completions*	Exec Dean (GS)
		4. Conduct an annual HDR Conference to allow HDR candidates to present their early research findings	Satisfactory annual review by Exec Dean (GS)	Exec Dean (GS)

*Based on rolling 3 year average

[#]Abbreviations are described in the "Abbreviations" section listed at the end of the document

KPI 12: Research Outputs				
Measurement Definition	Objective	Strategies/projects/actions	Annual targets (from previous year, starting in 2015)	Responsible Officer/Committee
<ul style="list-style-type: none"> • Weighted HERDC publications • Annual citation rate for all FedUni publications measured by SCOPUS • FedUni h-index measured by SCOPUS 	Increase quantity and improve quality of research outputs	1. Provision of development programs for our ECRs and MCRs including enhancing publication strategies	Satisfactory annual review by RC	DVCRI, Director RS
		2. Increase annual citation rate for all FedUni publications measured by SCOPUS by enhancing open access to FedUni's research publications.	At least 5% increase	DVCRI, Director RS, RC
		3. Increase FedUni h-index measured by SCOPUS by enhancing open access to our research publications	At least 5% increase	DVCRI, Director RS, RC
		4. Enhance FedUni's marketing and communication of our research activities, outputs and opportunities by development and implementation of an annual communication and marketing plan	Satisfactory annual review by RC	DVCRI, Director RS, Director MACE, RC
		5. Increase research publications (including Non-Traditional Research outputs) by the provision of enhanced support for researchers including targeted funding to enhance research capacity in our Research Priority Areas	At least 5% increase	DVCRI, Exec Deans, ADRs, RC
		6. Provision of equity and diversity programs supporting researchers including commitment to Athena Swan initiative.	Satisfactory annual review by RC	DVCRI
		7. Enhance research information management systems to allow for enhanced monitoring and analysis of our research outputs for reporting and management purposes.	Satisfactory annual review by RC	DVCRI, Director RS, Director SCIP, Director ITS

KPI 13: External Research Income				
Measurement Definition	Objective	Strategies/projects/actions	Annual targets (from previous year/delivery date)	Responsible Officer/Committee
<ul style="list-style-type: none"> Total external research income (all sources) Number of successful ARC and NHMRC funded grants 	Growing research income and the number of successful ARC and NHMRC funding grants will improve the University's reputation, reach, relevance and impact	1. Enhance the provision of support for researchers within Research Services for national and international research project development with external funding agencies (especially the ARC and NHMRC) and industry	Satisfactory annual review by RC	DVCRI, Director RS
		2. Provision of development programs for our ECRs and MCRs including enhancing mentoring opportunities, grant writing skills, and industry engagement capacity	Satisfactory annual review by RC	DVCRI, Director RS
		3. Provision of equity and diversity programs for our researchers including commitment to Athena Swan initiative	Satisfactory annual review by RC	DVCRI
		4. Adopt best practice for researchers to establish and manage externally funded research projects	Satisfactory annual review by RC	DVCRI, COO, Director RS
		5. Increase external research income from all sources by the provision of enhanced support for researchers including targeted funding to enhance research capacity in our Research Priority Areas	At least 5% increase in external research income*	DVCRI, Exec Deans, ADRs, RC
		6. Target increased research engagement with industry leading to the generation of enhanced external research income by enhancing participation in CRCs	At least 5% increase in external research income	DVCRI
		7. To enhance research collaboration and engagement with Ballarat Technology Park partners	At least 5% increase in external research income	DVCRI, Exec Dir (BTP)

*The institutional target for 2020 is that "Total research revenue (both external research revenue and research block grant revenue) will be increased to at least the average of Regional Universities Network members"

Annexure

Abbreviations

Abbreviation	Description
ADR	Associate Dean Research
ARC	Australian Research Council
COO	Chief Operating Officer
CRC	Cooperative Research Centre
Director RS	Director, Research Services
ECR	Early Career Researcher
Exec Dean	Executive Dean (Faculty)
Exec Dean (GS)	Executive Dean Graduate Studies
Exec Dir BTP	Executive Director, Ballarat Tech Park
GS	Graduate Studies
HDRs	Higher Degree by Research Student
HERDC	Higher Education Research Data Collection
MACE	Marketing, Advancement and Community Engagement
MCR	Mid-Career Researcher
NHMRC	National Health and Medical Research Council
RC	Research Committee
RPA	Research Priority Area
RPFA	Research Priority Focus Area
SCIP	Strategic Capital, Infrastructure and Projects

