Welcome

Murdoch University: driven by innovation

**Core priorities**

1. Research focus
2. Research culture and performance
3. Working together
4. Growing our world-class research workforce
5. Knowledge sharing
6. Helping solve real-world problems
From its inception in 1975, Murdoch University was established as a research and teaching institution. It quickly established a national and international reputation for innovative and high quality research. In the 2012 Federal Government audit of Excellence in Research for Australia (ERA), Murdoch was rated as achieving world-class standard or above in 85 per cent of assessed areas, up from 65 per cent in 2010. In quite a number of these areas our researchers were assessed as performing at a level that is well above world standard. In the years ahead, it is critical that we not only maintain our position but that we strive to improve upon it in a context where there is fierce global competition.

This document is a revision of our Research Strategy 2013-2017. This updated version reflects the considerable work undertaken in identifying our key areas of research excellence. This was a key objective of the previous version and now this edition has been updated to reflect our refined priorities. As previously, this plan is not a static document. The University will continue to monitor and support areas of research excellence through strategic investment. We will encourage new areas of excellence as they emerge and where necessary restore some that may have stalled where they are deemed to be of strategic importance.

The broad narrative for our research is that it is translational in nature and substance with much of its inspiration coming from our nearby community and local industry-based partnerships, as well as our more distally located international collaborators with whom we tackle some of the major challenges of our time.

Four key areas of research focus have emerged from a thorough analysis of research outputs in the previous six years including:

(i) primary food production (e.g. grains, meat, fish including agricultural biotechnologies);
(ii) climate variation and adaption; and environmental and natural resources (e.g. land and marine ecosystems science, environmental engineering, land and water management including dry land agriculture);
(iii) human and animal health and welfare (e.g. including infectious diseases, rare diseases, genetics and bioinformatics);
(iv) a broad contribution is made by colleagues in Arts Humanities and Social Sciences who add significantly to the research effort of the University through careful analysis and critique, especially in history, culture and media studies. The are especially important as translational disciplines notably Public Policy, Governance, Political Science, Culture, and Communication.

From these fundamental disciplines three broad themes have emerged:

(i) Health Futures;
(ii) Food Security and
(iii) Sustainable Development.

Although we are focussing our investment efforts, we are a comprehensive University with excellence across many areas of the campus. Our challenge is to adapt and improve in a coherent fashion given the era of public accountability and in an environment where excellence and innovation will be fuelled through big funding, in areas of critical (multidisciplinary) mass and international engagement.

Research reputation has an important influence on student choice and it impacts greatly on staff attraction and retention. Research engagement has a direct effect on the student experience. Through our research we seek to imbue students with the thrill of creating new knowledge, the development of an enduring lifelong curiosity and a set of skills that will be of benefit to the communities, wherever they may be, in which they live and work.

Research is expensive and we must strive to grow the income that sustains both research and teaching. To do this, staff must be given time, the incentive to perform and recognition for their efforts. Our workload models must factor in research effort and reward research achievement. Building long term relationships with industrial partners and near neighbours must be a part of the strategy as they will enable us to grapple with the complex challenges that affect and threaten our very existence.

The establishment of a health precinct within the Murdoch Activity Centre adjacent to the campus on South Street will provide unique research opportunities for the University, especially in the broadly defined areas of health, biomedicine, bioinformatics and other fields including, health education, communication and health sector management policy. The concentration of specialised medical practices and leading-edge medical technologies in the health precinct is expected to generate a range of productive research and training synergies.

The introduction of the Graduate School of Public Policy and International Affairs will help establish ways of turning excellent research into good practice. Our long established expertise in Asian politics and governance will enable us to engage with academics within our global region to tackle the big problems facing our world, many of which are intertwined in complex ways. It is also important to be relevant and have impact in local communities and not forget that inequality and social disadvantage take a toll on our most vulnerable of citizens young and old.

Critical analyses of our research culture and values will offer the opportunity to reflect upon the ways in which performance data can be digested and innovation can be stimulated. The sustainability of the world seems to hang in the balance as we contemplate population growth, land fertility, food and water security, as well as pandemic infectious diseases, those diseases afflicting the aged and the myriad diseases and health conditions that blight so many lives. At Murdoch we already excel in many of these areas and thus Murdoch can, and therefore must, make a contribution to these challenges of the 21st century.

Professor David Morrison
Deputy Vice Chancellor, Research and Development
October 2015
Achieving international research excellence by acting locally, thinking globally.
Murdoch University: driven by innovation

Murdoch University is a member of the Innovative Research Universities (IRU) group of Australia – a collection of young, vibrant research intensive universities created in the 1970s. It is, and always has been, a research-led university with a reputation for world class research in a broad range of disciplines. We are recognised as one of Australia’s leading research institutions with over 85 per cent of our research effort being assessed as at world standard or better by independent assessors in the recent Australian Research Council Excellence in Research Assessment (ERA). Additionally, we have been ranked amongst the world’s top 5 per cent of universities by the THES and QS ranking systems. These results should not, however, lead to complacency as we seek to attain higher standards through benchmarking with universities above the European and North American standard.

Our researchers engage with many of the significant social and scientific challenges of our time that include, but are not limited to: climate change, environmental sustainability and adaptation, food, water and bio securities, as well as human and animal health and welfare. All are underpinned by a deep understanding of politics, governance and international affairs, translating world class science into public policy. Additionally, we have enjoyed a reputation for excellence in teaching fuelled by our enthusiasm for research and the dissemination of new knowledge, taught in context, for the benefit of our communities both locally and abroad.

We place research at the centre of everything we do. It is, and should be, as much a part of the student experience as it is at the heart of our hiring policies. Research is now embedded in our teaching and forms the spine of our degree programs. Through this approach, we will “future proof” the qualifications of our students and ensure that they have the skill base to adapt to an ever-changing world of opportunity.

Our researchers work closely with communities near and far, their inspiration stems from being engaged with the recipients and end-users of their endeavours. Our graduates must be equipped with lifelong skills and, through their training, they will be enabled to make a sustained contribution in the communities and industries that we serve.

The questions pursued by our researchers and their proposed solutions have and will be focused on delivering outcomes that benefit not only our local communities but our near regional neighbours and beyond. Acting locally, while thinking globally, is one way of delivering research with impact. Currently, we know we are working on problems that also trouble our international colleagues and through our collaborations with them, it is clear we will be able to achieve more than working on our own. Our network of current international collaborations extends into the emerging economies of African countries, China, India, Indonesia and Malaysia. While embryonic in some cases, government and university initiatives and strategies will foster these research partnerships to maturity in ways that benefit research quality, quantity and impact.
We live in a rapidly evolving world with emergent complex problems and interconnected causes; the so-called wicked problems. Examples of such include: climate change, obesity, minority group disadvantage, land degradation, food security and infectious disease. For each there is probably no single cause and a complexity to the solutions beyond the capability of any single discipline.

To gain traction there is a temptation for individual researchers to try and simplify the problems we address beyond the point of utility. In many cases this approach can impact on perceptions of relevance and compromise translation. By remaining connected to our communities we seek to avoid irrelevance and, in so doing, promote and reward impact.

To do this will require the formation of multi-skilled teams addressing different elements of the translational chain of research delivery. It is clear big research funding opportunities lie in this direction.

The reality we are faced with, however, is that resources (financial, human and infrastructure) are limited. This requires that Murdoch University, in common with other universities, must identify and focus its efforts on its areas of research strength while being mindful of broader responsibilities. We must support and enhance our key areas of current research strength in order to be world class in an environment where the funders of research have choices. Additionally, we must be responsive to change and identify key areas of emerging strength and take advantage of opportunities to extend existing clusters of research to attain critical mass.

We aim to continue to increase the proportion of our research assessed as being at world standard or better, but should aspire to exceed the standards set by Europe and North America. We will build on the well established narrative for our research as being translational in nature and significant in its impact. We will also establish ways of undertaking and supporting research that makes us resilient to political change and adaptable to national and global needs.

Both the quality and quantity of our research effort will help with these, especially where impact can clearly be demonstrated.

A critical element of our activity over recent years has been to to identify our areas of key research strength, emerging strength and research opportunity. The strategic concentration of research investment into the areas represented in the Murdoch Mandala are coherent, consistent not only with the available data on our research excellence but also national and regional research priorities. We must now plan the best ways to support these areas through improved infrastructure, appropriate resourcing and development of key alliances. To do this we must overhaul the ways in which research is supported from within the University which we will do over the period of this plan.

Finally, it is important that our research excellence and foci are promoted so that they can be acknowledged. This is important for attracting collaborators, students and staff to visit, study and work on our campuses.
Strategies

1. To support with strategic investment:
   a. our position within the broader national and international research environments in areas of strategic importance as identified in the Murdoch Mandala.
   b. those areas of emerging excellence and opportunity that are consistent with the broad research themes identified and decide on those areas to vacate.

2. To develop a University approach to funding research which is sustainable and rewards effort.

3. Guided by the pursuit of research excellence, to further develop close research and research training links with partners of strategic importance, be they located proximally e.g. St John of God Hospital and the new Fiona Stanley Hospital, or distally e.g. Africa, China, Indonesia and Malaysia.

4. To identify and engage with strategic decision making bodies that set research priorities in order to influence them and to be influenced by them to our advantage.

5. To build appropriate infrastructure and facilities to support identified areas of research and develop operational plans to resource and maintain as required.

6. Create a research structure of Research Institutes and Centres to reflect the key research themes of the University.

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<th>Goals</th>
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<tr>
<td>1. Create at least three Research Institutes to support a campus wide inclusive approach to multidisciplinary research</td>
<td>• Creation of centrally funded and sustainable Research Institutes with critical mass and demonstrable excellence.</td>
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<td>2. Increase depth of research quality</td>
<td>• Maintain at least 85 per cent of assessed areas of research, at the four digit Field of Research (FOR) code level and increase to 70 per cent at the two digit FOR code level at world standard or above.</td>
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<td>• Increase publications in peer-reviewed journals assessed to be in the top 20 per cent of the discipline.</td>
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<td>• Increase the percentage of staff with a PhD to 80 per cent.</td>
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<td>3. To be recognised as a thought leader in a number of key areas of research strength</td>
<td>• Engagement in and administration of key research meetings, symposia and other public forums (e.g. The Omics Conference, The Murdoch Commission, Africa Downunder Research Forum).</td>
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<td>• Number of strategic research partnerships with universities and other research entities with complementary research excellence profiles.</td>
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<td>4. Provide staff and visitors easy access to our research profile</td>
<td>• Redesigned website to highlight areas of research excellence and expertise, key parts which will be presented in a multi-lingual format.</td>
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<td>• Use of new technologies to promote stories of research excellence and impact.</td>
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<td>• All staff have an up to date web profile.</td>
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<td>5. Complete the review of the Research Centre ecology to consolidate existing Research Centres in to broader research coalitions appropriately supported by central resources</td>
<td>• Number of productive research Centres operating within the major research themes identified for the key Research Insititutes.</td>
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2 Research culture and performance

The University as a whole benefits from the reputation developed from the delivery and communication of world-class research. Research reputation serves as an attractant for staff, students and visiting scholars. Research, therefore, is a fundamental part of the university experience for staff and students alike. For staff, it provides a vehicle to channel their intellectual abilities to benefit students and the community. Students benefit from exposure to research engaged staff who deliver cutting edge teaching material from first-hand knowledge and experience.

In developing a more entrenched research culture we will ensure that new academic staff appointments will be informed by the need to attract quality staff with strong research backgrounds or show the potential to develop. This will be coupled with development and recognition arrangements that reinforce the critical part that research plays in the fabric of Murdoch University.

Top quality research needs to be funded adequately. Strategic research funds will be found to kick-start new areas of priority and support will be given to maintain and develop those areas of excellence which already exist, where appropriate. Means must be found to increase both the number of applications for research funding and our success rate. Accordingly, management policies, structures and incentives must reinforce the research culture that encourages the seeking of outside funds. Workload policies and role designation will be a part of this puzzle, as will international collaborations. In addition, the University must commit to providing the administrative support and information to facilitate fund-seeking behaviour. The role of the Office of Research and Development will be pivotal in this regard.

We recognise the need to understand, not only how its performance in terms of research activity is changing over time, but also how it compares to peers both within Australia and globally. University performance is now frequently referred to by potential research partners, staff and students to assist them in making decisions relating to engagement with universities. Accordingly, Murdoch University seeks to improve the way in which we measure, monitor and manage research performance and research engagement in order to enable us to make the best strategic decisions to drive our future direction.

Quantity and quality of the research effort are important with an emphasis on the latter. Both are facilitated through adequate funding and resources, and it is imperative that our position is improved in this regard. Quality is enhanced through appropriate selection and mentoring of staff, as well as subjecting ourselves to constant exposure to review with appropriate feedback and the capacity to adapt.

GOAL:
Embed research into the culture of Murdoch.
**Strategies**

1. Promote and reward research quality and success.
2. Recognise and reward research excellence at the group and individual levels in ways that support research engagement beyond School boundaries, but at the same time emphasise School collegiality and membership.
3. Provide opportunities for staff to continuously develop their research skills, including grant crafting.
4. Adopt transparent budget models that reward research success at the School and individual levels.
5. Where practicable, appoint only research dedicated staff to Research and Teaching positions with established or emerging international reputations.
6. Continually monitor the performance of the Office of Research and Development to ensure it contains the right skills and is optimally configured to support a research culture.
7. Increase access to appropriate and current research equipment and facilities.
8. Regular School reviews of research engagement and research embeddedness.
9. Establish mechanisms to deliver up to date, accurate and appropriate research performance metrics to School Deans and individual staff members on demand.
10. Maintain a consistent presence in the major world university ranking schemes.
11. Understand the research success stories of universities of a similar age, discipline profile and mission.
12. Increase research productivity through appropriate strategies and incentives (e.g. workload allocation, funding and role definition).

**Goals**

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<td>1. Improve research engagement of staff.</td>
<td>- Percentage improvement in aggregate numbers of academic staff at Lecturer Level B and above who are research active. Target of 60 per cent by 2020.</td>
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<td>2. All staff on Research and Teaching Contracts to have one current externally funded research project.</td>
<td>- Improved application numbers and success rate of research grant applications. Target to be at national average by 2020.</td>
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<td>3. Improve research quality.</td>
<td>- Staff appointment policies and procedures in place that reflect academic recruitment practices based on research excellence as the primary filter for selection.</td>
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<td>4. Improve research infrastructure.</td>
<td>- Improve application and success rate of research and large infrastructure grant proposals won from government and other sources. Target national average.</td>
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<td>5. Every School and discipline cluster has an up to date set of metrics of research performance that allows a realistic, appropriately benchmarked assessment of performance.</td>
<td>- Articulated research infrastructure development and improvement plan in place by 2016.</td>
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<td>6. Be ranked consistently in the top 5 per cent of world universities.</td>
<td>- Participate in cross institutional initiatives to consolidate key infrastructure on single campuses on an equal access basis by 2016.</td>
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<td>7. Increase research quality as defined by a variety of means, including ERA or equivalent.</td>
<td>- On-line research performance dashboard established by 2017.</td>
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<td>8. Increase by 50 per cent the number of publications in journals recognised as high quality in top tier (e.g. top quintile) journals.</td>
<td>- Ranked in the top 400 of all universities and in the top 100 of like universities (e.g. under 50 years of age) in reputable world ranking systems.</td>
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<td>9. Increase cross disciplinary research.</td>
<td>- Number of FOR codes at the two digit level rated at world standard or better (target 70 per cent).</td>
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<td>10. Benchmark against universities of similar age, mission and discipline spread in top 200 of world universities.</td>
<td>- Percent of papers in quality journals or other recognised high quality output forums as pre-defined by disciplines. Target 50 per cent by 2020.</td>
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**Indicators**

- Percentage improvement in aggregate numbers of academic staff at Lecturer Level B and above who are research active. Target of 60 per cent by 2020.
- Number of research and teaching staff on research study programs in each year particularly those engaging with international universities. Target 10 per cent of research and teaching staff.
- Improved application numbers and success rate of research grant applications. Target to be at national average by 2020.
- Staff appointment policies and procedures in place that reflect academic recruitment practices based on research excellence as the primary filter for selection.
- Improve application and success rate of research and large infrastructure grant proposals won from government and other sources. Target national average.
- Articulated research infrastructure development and improvement plan in place by 2016.
- Participate in cross institutional initiatives to consolidate key infrastructure on single campuses on an equal access basis by 2016.
- Ranked in the top 400 of all universities and in the top 100 of like universities (e.g. under 50 years of age) in reputable world ranking systems.
- Number of FOR codes at the two digit level rated at world standard or better (target 70 per cent).
- Percent of papers in quality journals or other recognised high quality output forums as pre-defined by disciplines. Target 50 per cent by 2020.
- Number of funding applications and grants held from within and outside the University that are multidisciplinary.
- Up to six formal benchmarking agreements with appropriate universities by 2017.
GOAL:
Develop our strategic collaborations, particularly those with an international focus and local relevance.
The University recognises the need to work across discipline boundaries as well as institutional, national and international borders in order to develop and foster teams to consider and find solutions for the so-called wicked problems of today and of the future. The research environment is rapidly changing and knowledge is more easily shared with digital communication than ever before. Sharing resources and facilities can often provide opportunities to achieve more together than that which can be done alone. Moreover, different environments offer increased opportunities to access data and samples for the purposes of performing critical tests in ways that enhance novelty, impact and quality of research. Collaborative engagement locally and globally therefore offers the prospect of enhanced research performance through access to facilities and equipment, as well as expertise. Accordingly, we intend to identify, foster and develop international collaborations that can provide the broadest possible benefit to ourselves, our current and prospective partners, and the communities in which we and they operate.

While being engaged in the region we must not be remote in our engagement with local communities. Social justice and equity are long-standing concerns of our academic and student community. We must continue to engage with those close to us, but also build new long term relationships that will keep us grounded and in touch; to see ourselves as others see us. Local industry connections, specifically those engaged in food production, adaptation to environmental change, resources and sustainability, and community health and welfare are especially important. Local relationships provide inspiration, training opportunities and relevance. They make a uniquely Australian contribution to broader global problems, if we take the time to look. Our contributions will play a big part in our future security.

**Strategies**

1. To develop region specific international research engagement plans.
2. Review current MOU arrangements with universities and research entities with a view to concentrating on those where intentions have or can be turned into action.
3. To continue to develop strategies, such as the Sir Walter Murdoch Adjunct Professor and Distinguished Collaborator programs, with at least annual application rounds.
4. Develop formal local community research partnerships with private and public entities, especially those in our local catchment area.
5. Encourage and support the development of multidisciplinary research consortia.
6. Organise strategic research funding in a way that reinforced the Murdoch Mandala.

**Goals**

1. Increase the number of international universities, research institutions and academics with whom we actively collaborate.
2. Increase the number of local community entities with which we have research collaborations.
3. To be known nationally and internationally for our excellence in research.
4. Support research consortia applying for significant research funds.

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<td>1. Increase the number of international universities, research institutions and academics with whom we actively collaborate.</td>
<td>• Maintain Sir Walter Murdoch Adjunct Professor and Distinguished Collaborator programs, 30 collaborators visiting annually. • Increase our percentage of HERDC reported publications, undertaken jointly with international collaborators, to 50 per cent of our total reported publications. • Jointly held grants with other institutions increased by 20 per cent over 2012 levels. • Revised regional research engagement plans completed by the end of 2015.</td>
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<td>2. Increase the number of local community entities with which we have research collaborations.</td>
<td>• Number of local entity funded research positions. • Number of local entity funded research applications and funded projects. • Number of local entity secondments. • Number of industry and community based PhD students.</td>
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<td>3. To be known nationally and internationally for our excellence in research.</td>
<td>• Number and amount of research projects funded with overseas partners. • Number of PhD students co-supervised with international partners to be at least 25 per cent of all PhD student supervisions. • Position in university rankings.</td>
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<td>4. Support research consortia applying for significant research funds.</td>
<td>• Increased number of externally funded research centres led by Murdoch University. • Increased membership as a significant partner (e.g. program leader) in research consortia.</td>
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GOAL:
Grow our world-class research workforce.
Growing our world-class research workforce

The University operates in a competitive environment in which many institutions are seeking to attract, retain and develop academic staff of international standing and performance. Over 70 per cent of our research and teaching staff have PhDs and over 30 per cent of our staff received their highest qualification from overseas institutions. The ‘gene pool’ of ideas and approaches to complex problems will benefit from staff with the highest qualifications and training collected from diverse sources. International recruiting builds our networks and our reputation, as well as creating global opportunities for our graduates. In order to operate effectively in the academic global market it is critical that Murdoch University becomes known as offering a challenging yet supportive environment that encourages high quality, internationally relevant research and scholarship. The cornerstone of our recruitment strategy and hiring policies will be that of requiring and enabling research excellence as a basic function of academic work life. All staff, academic and administrative, will be expected to engage in and/or support research activity and output. This will be achieved through diverse means such as adopting practices and work methods that afford research active staff the means to be productive.

A key component of our research capacity resides in the on-going development of academic staff. To facilitate this we will foster international collaborations and, where appropriate, we will give our staff the opportunity to test their ideas in the most prestigious of world academic institutions. Staff will be supported through enabling policies such as those relating to workload allocation, outside studies and strategic initiative funding. The development of an effective mentoring program for early career staff is an essential component of the strategy.

Strategies

1. To provide opportunities and to develop existing staff to increase research performance and improve impact.
2. To employ scholars with established or emerging international reputations in identified strategic research areas.
3. To provide staff with clear goals, feedback and recognition in regard to research performance and impact.
4. To develop early career and mid-career researcher mentoring programs.

Goals

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| 1. Improve levels of research activity. | • Each staff member identified as an early career researcher has an identified mentor who is an established international scholar.  
• Each staff member identified as a mid-career researcher has a development plan agreed with his or her School Dean. |
| 2. All appointment decisions are built around research performance. | • Percent of new hires with a PhD from a university with an international reputation for research excellence. Target 100 per cent by 2020. |
| 3. Recognise and reward research excellence and the promotion of excellence. | • Academic promotion policies and processes in place that adequately recognise and reward research performance and impact, as well as research mentoring activities. |
| 4. Increase the research capacity of every academic staff member. | • Increase in number of research master classes run on campus.  
• Increase in number of research only staff.  
• Increase in number of PhD students supervised by research and teaching staff to six per cent of enrolment by 2020.  
• Recognition of research productivity in workload allocation.  
• Implementation of early career mentoring program by the end of 2016. |
The provision of high quality postgraduate research training is fundamental to the ongoing mission of research-intensive universities that must be global in their outlook and be responsive to rapidly changing societal demands and expectations.

Research candidates traditionally have been enrolled across the full breadth of disciplines offered by Murdoch University, reflecting a philosophy of research-led teaching, that links undergraduate to postgraduate studies. While this breadth of research engagement will be maintained, greater focus will be placed on increasing research concentration and quality in key areas of research strength and emerging areas of research priority, as depicted in the Murdoch Mandala.

Recent changes to research by higher degree (HDR) candidature management policy and procedures have focussed on strengthening the research preparedness of students, and the quality and continuity of supervision. The quality agenda of the University will be reinforced through the careful selection of students and improved resourcing – leading to reduced completion times and enhanced completion rates over the next year five years.

Providing HDR students with enhanced skills in evidence-based decision making is a key contributor to local and global productivity, and provides students the capacity for a successful transition into the workforce.

Regional engagement, a recurrent theme in this strategic document, will be both fuelled by and enriched by increasing the number of international PhD candidates through collaborative agreements with universities aligned with our research goals.

We will also continue to review and revise our curriculum to ensure that teaching informs research while recognising that research can also benefit from support by teaching activities. This will result in degrees that prepare students to be intelligent consumers of knowledge. By making research skills a cornerstone of our programs students will be able to contribute to the research effort of our University and to the knowledge bank of our global society.

### Goals

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| 1. Establish collaborative arrangements for HDR training with international universities and research organisations, including development of co-tutelle agreements, where appropriate. | • Increase number of PhD students co-supervised with international partners with a long-term aim of 25 per cent of all PhD student supervisions.  
• Number of Distinguished Collaborators and Sir Walter Murdoch Distinguished Adjunct professors as co-supervisors of PhD students. Target 100 per cent by 2017. |
| 2. Increase domestic HDR enrolments through targeted scholarships and advertising campaigns associated with identified areas of strategic research strength and investment. | • Increase PhD applications and enrolment of qualified students to six per cent of enrolments. |
| 3. Introduce coursework into the PhD with a focus on generic content aimed at one or more of: enabling research, extending specialist skills and facilitating the transition to work, tailored to the individual needs of students. | • First student cohort for coursework in the PhD program to be in place by end of 2017. |
| 4. Review and revise supervisor accreditation, training and monitoring procedures. | • On-line supervisor register to be in place for supervisor monitoring and management. Target 2017. |
| 5. Establish a system of prizes/awards for best thesis and best publication by a HDR student, by broad field of study. | • First recipients of HDR research excellence awards to be delivered within the period of this strategic plan. |
| 6. Improve access for research students with diverse cultural backgrounds. | • Increase number to population parity of Graduate Research Degree students from diverse backgrounds with appropriate financial support. |
| 7. Develop student enthusiasm for research. | • Research embedded in all degrees.  
• Increase number of Honours students across the University. |
Strategies

1. Develop close research and research training links with partners of strategic importance, be they located proximally e.g. St John of God Hospital and the new Fiona Stanley Hospital or distally e.g. China, Indonesia, Malaysia, India and Africa.

2. Improve access for research students with culturally diverse backgrounds.

3. Provide HDR students with generic, specialist research and career aspirational skills that will best serve them during HDR candidature and in career development after graduation.

4. Enhance the quality of HDR supervision, of theses, and of completion rates through the on-going review and modification of HDR candidature management policy and procedures.

5. Encourage timely peer-reviewed publication of research outcomes during candidature through development of improved candidature management policy and procedures, and the introduction of research excellence awards for HDR students.

6. Reinforce the research teaching nexus through curriculum design.
There are a range of activities that we can, and will, undertake in a planned and coherent way, to ensure that the new knowledge that we create and develop can be translated into broad benefit for our State, nation, region and the global community. To this end we will undertake to develop a broad based plan for future knowledge transfer that will position Murdoch University as a key provider, supporter and driver of Australian and international innovation.

Our University has already undertaken a number of projects to investigate opportunities offered by the development of intellectual property by our staff. To date, this has predominantly been spin-off company creation, technology licensing, and contract/consulting research, with other forms of knowledge transfer achieved via short course programs and our more formal undergraduate and postgraduate coursework degree programs. With an increasing government focus on showcasing or measuring the societal benefits and impact of research outcomes, coupled with the ‘knowledge hub’ opportunities of the Murdoch Activity Centre, the time has now come to consider more broadly how the knowledge and expertise held and developed at the University can be utilised to benefit both industry and society.

While exploitation of commercial opportunities from research outputs demonstrates impact, it should not be forgotten that other forms of impact are also valued. For example, we still live in a world where there is significant social and economic disadvantage experienced by members of our community. The life expectancy of Aboriginal people, for example, is significantly below that of non-Aboriginal people. In the period covered by this strategy we will seek to increase our participation in developing the social capital of our local communities and those developing communities with which we work overseas. The importance of community engagement is reflected in the Murdoch Mandala where one of the key themes is recognised as Sustainable Development. We shall endeavour to ensure that our engagement with economic development is done in a societally and environmentally responsible manner. We shall work towards reducing disadvantage through our research as well as promoting social and economic development of the communities with which we work in a way that benefits those communities.

### 2017 Goals

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<td>1. Develop a Knowledge Transfer Plan.</td>
<td>• Plan published on the University website by end of 2016.</td>
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<td>2. Increase awareness of the University’s invention disclosure process to academic staff and encourage disclosure.</td>
<td>• Increase the number invention disclosures and assessment requests.</td>
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| 3. Active engagement with government and industry programs for translating research knowledge into practice. | • Increased number of appropriate grants won from schemes that include industry and or community members (e.g. ARC linkage, Industry Transformation, CRC). Target national average by 2020.  
  • Increased number of joint appointments with government and industry over 2012 levels.  
  • Year on year increase (five per cent) of number of joint publications with members of Government and industry over 2012 levels.  
  • Demonstrable community incorporation of research findings into public policy. |
| 4. Research at Murdoch has demonstrable translational community benefit. | • All research institutes to have a funding contingent mandate to demonstrate positive community impact in annual reports.  
  • Number of community awards for research impact.                                                                                              |
| 5. Increase research engagement of staff with culturally appropriate knowledge for communities in which we work. | • Raise and maintain numbers of staff with diverse cultural backgrounds (e.g. Aboriginal, Asian and African) who are research active to population parity over 2012 levels.  
  • Student and staff regional mobility as indicated by the Internationalisation Strategy.  
  • Number of research projects with direct community involvement in planning execution, dissemination and translation. |
GOAL:
Help local and international communities to benefit from our research.

Strategies
1. To develop a broad based knowledge transfer plan, incorporating commercialisation, industry knowledge transfer and community knowledge transfer.
2. To foster increased research and teaching links with state and federal governments and industry bodies and organisations.
3. To encourage IP and invention disclosure by academic staff.
4. To engage with community and industry leaders in meaningful partnerships to disseminate knowledge.
5. To foster and support research translation through collaborations that consider explicitly social and economic impact and preferentially support those with those identified as having the most positive community impact.
6. Create the Research Institutes indicated by the Murdoch Mandala with the mandate to consider and report on how research projects pursued therein are of positive benefit to the communities with which we work.