



Research Impact Strategy

White Paper | June 2019



UNIVERSITY
OF WOLLONGONG
AUSTRALIA

Stands
for purpose



CONTENTS

CONTENTS.....	2
EXECUTIVE SUMMARY	3
BACKGROUND	4
UOW DEFINITION OF IMPACT	5
KEY THEMES	8
Generating Impact.....	8
Supporting Impact.....	9
Overseeing Impact	10
ENABLERS OF IMPACT.....	11
Training.....	11
Needs-mapping	13
Communication.....	14
Tracking	16
PRIORITISATION OF RECOMMENDATIONS	18
PROPOSED IMPLEMENTATION	19
APPENDIX 1 – UOW PERFORMANCE IN IMPACT ASSESSMENTS	20
APPENDIX 2 – TERMS OF REFERENCE.....	24
BIBLIOGRAPHY	26

EXECUTIVE SUMMARY

This White Paper comes at a time when the global university research sector is undergoing rapid transformation; when government and public confidence in experts is at an all-time low; and when funding for research is facing stagnation and decline. Universities are the primary drivers of knowledge generation in our societies and are critical to our long-term advancement, but without clear articulation of this return on investment public support for research will likely continue to drop.

In Australia the imperative to demonstrate the impact of university research is at an all-time high. Competitive grants now require evidence of research impact in track records and government expect clearer articulation of how proposed research will benefit the nation. Universities are currently being assessed for the first time on the impact of their research and how they support and facilitate impact within each academic discipline.

For UOW research to remain competitive we need a coherent impact strategy that brings together our existing strengths and capabilities and provides an appropriate support structure and learning environment for our staff.

UOW is in a unique position to demonstrate leadership by building on our strong foundations of research excellence, knowledge exchange and impact to deliver a strategy that empowers our researchers to enhance the benefits of their research and aligns our research mission with our institutional goal of producing graduates with purpose.

In this paper we present a suite of 19 recommendations responding to the Working Group's terms of reference to strengthen and grow our support for research impact including:

- A broad and inclusive new definition of research impact
- A support structure that emphasises researcher development and learning
- Explicit recognition of impact within career development and promotion pathways
- Impact champions embedded within disciplines to provide appropriate peer support

These recommendations put people at the centre of the strategy and recognise that for the university to reach its full potential the contributions of all of our staff and students are important. Our definition of impact is therefore more inclusive than you will see elsewhere, encompassing the impact of embedding research excellence within our curriculum, influencing our academic peers and delivering benefits to our broader communities.



Professor Will Price

Chair, URC Research Engagement and Impact Strategy Working Group

BACKGROUND

In mid-2018 the University Research Committee established the Research Engagement and Impact Strategy Working Group. As per its terms of reference (see APPENDIX 2), the Working Group oversaw the development of the University's Research Impact Strategy and recommended avenues for best practice in research engagement and impact. This Working Group comprised academic researchers from across all UOW faculties with experience in research engagement, impact and impact assessment.

The need for this group and a university-wide approach to research impact was identified by the university following a number of changes to the external research environment. Research impact is of far greater importance than ever before, and its significance for university rankings and the awarding of research funding has grown rapidly and substantially.

Times Higher Education (THE) recently launched a global university impact ranking, based on how universities are addressing the UN Sustainable Development Goals (SDGs). This was the first global assessment of university research impact and has already generated significant interest in how universities are contributing to outcomes beyond the higher education sector. UOW placed joint 13th in the world based on strengths in our government and community engagement, research addressing the UN SDGs and policies and provisions addressing equity and access to higher education. In addition the QS World Rankings and THE University Rankings both include significant weighting for reputation surveys in their ranking methodologies. These surveys are likely to be influenced in part, by perceptions of university research impact and by the extent of university engagement.

In 2018, the Australian Research Council (ARC) conducted its first Engagement and Impact Assessment (EI), which required all participating universities to submit impact case studies, engagement narratives and engagement data. UOW's submission to the ARC consisted of 22 impact case studies and 20 engagement submissions. In this assessment UOW ranked joint 7th in Australia for the number of 'significant' or 'highly significant' impact case studies, but ranked only joint 16th for the number of 'effective' or 'highly effective' translation mechanisms in its approach to impact. Whilst UOW is a clear leader in delivering impactful research there is still room to improve the formal institutional support for delivering impact.

There is now significant emphasis on research impact in application processes for Australian competitive grants (and equivalent international schemes). These schemes have adopted impact assessment methodologies and taxonomies into track record assessment and research proposal aims.

In 2019, NHMRC introduced the assessment criteria for their new flagship Investigator Grant scheme, which requires impact case studies (worth 20%) as part of the track record assessment and requests information on 'Knowledge Gain' (worth 30%) to assess the prospective benefits of the research (including advancing knowledge, practice or policy).

The ARC has adopted impact terminology within their Discovery and Linkage schemes and requires a 'National Interest Test' covering proposed benefits and impact of the research along with details of prior impact in an applicant's track record, which references the ARC Research Impact Principles and Framework. It is anticipated that this requirement may increase to a more substantial impact plan. The ARC Centres of Excellence scheme has also adopted the impact terminology. Proposals must describe the extent to which "the research program has articulated the path to Research Impact of the proposed research program in terms of delivering benefit to Australia" and "partners and end-users will be involved in the translation of outcomes arising from the proposed research program".

In this context, there is no doubt it is necessary for the University to refine and resolve its approach to research impact. The recommendations contained in this Strategy White Paper have been developed by the *Research Engagement and Impact Strategy Working Group* with this goal in mind.

UOW DEFINITION OF IMPACT

“Research impact is the contribution that research makes to the generation of knowledge for the benefit of health, society, economy, environment and culture, including verifiable outcomes or progress towards long-term goals.”

This definition implicitly includes:

- Research training and the impact of research on teaching.
- Fundamental or discovery research.
- The contributions of research students, early and mid-career researchers.
- Knowledge exchange with industry, community, government and non-profit stakeholders.

Impact stems from research that is informed and motivated by tangible outcomes beyond the publication of results. The UOW definition of research impact acknowledges the importance of all types of research, including fundamental and long-term research, where real-world impact may take decades to occur. It explicitly recognises the importance of progressing towards goals where the nature of research, and the relative opportunity and career stage of researchers may limit the scale and breadth of impact achievable within short timeframes. It includes the impact of research informing our curriculum and training our graduates and the influence of ‘discovery’ research within academic disciplines.

Researchers should be able to articulate the *contribution* that their research has made to an outcome or to a body of knowledge. In doing so it is necessary to describe the *generation* or transformation of knowledge that demonstrates the research contribution. One should be able to describe the *benefits* of this new knowledge in the domains of health, society, economy, environment, education and/or culture. Outcomes should be *verifiable* and backed by evidence when possible and for longer term research the *progress* towards long-term goals should be clearly described.

For fundamental or long-term research, where non-academic impacts may take decades to occur, UOW’s definition of impact includes the meaningful changes within academia that result from research including adoption of methods, building upon prior results or questioning established beliefs. This approach moves beyond simplistic research performance metrics to descriptive evaluation of the significance of research adopted with an academic setting,

The UOW definition of impact includes benefits delivered by our Higher Degree Research students and the impact our research has by informing our teaching and exposing our graduates to research methods and concepts that can be applied in their future careers.

Engagement, the interaction and knowledge exchange between researchers and our communities, is intertwined with impact and often an essential approach to achieving impact. Therefore engagement and impact are considered together here.

Evaluating the impact of research is not simply a benefit for communicating its value, but is also a critical factor influencing the quality and efficacy of our research.

The definition of impact presented here was informed by a number of stakeholders including national and international government agencies [1] [2] [3], UOW researchers [4], donors and alumni [5]. These inputs were considered by the *UOW Research Engagement and Impact Strategy Working Group* to compose the precise definition of impact presented above.

At UOW research impact is for everyone.

Recommendation 1 – The working group recommends the adoption of this definition of research impact for use at the University of Wollongong.

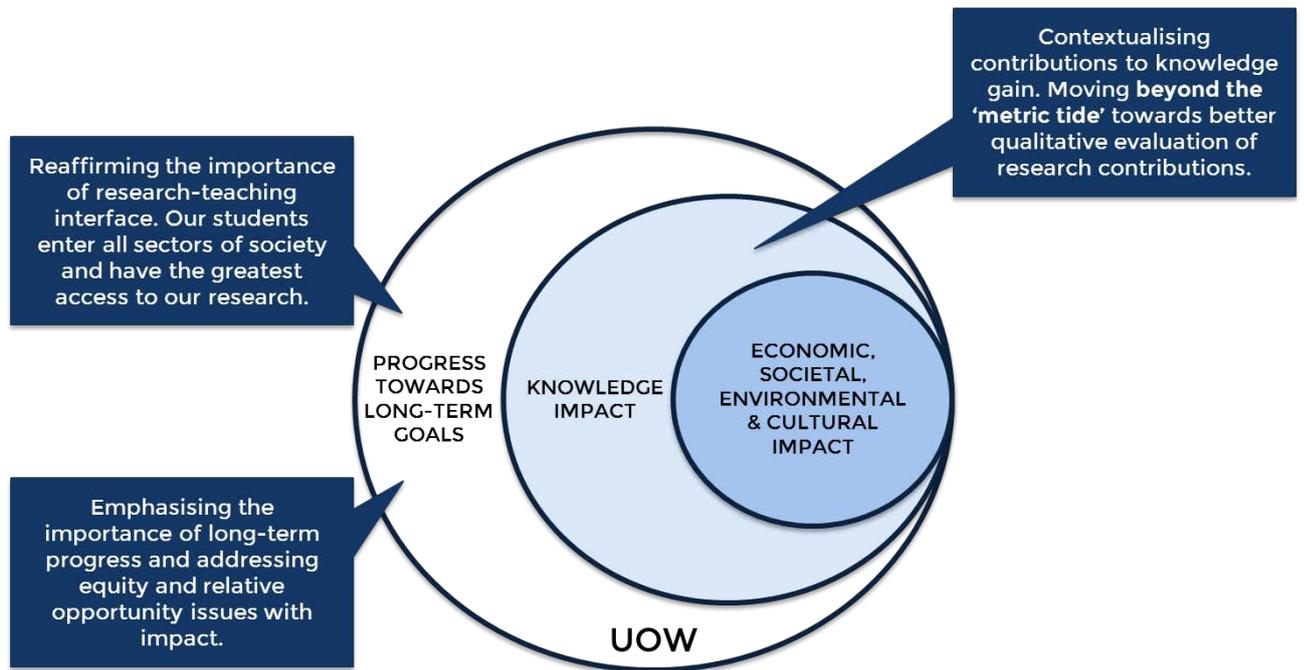


Figure 1: A conceptual diagram highlighting domains covered by UOW's definition of impact. The definition encompasses the ARC definition (dark blue) and NHMRC definition (light blue).

STAKEHOLDERS

KEY INITIATIVES

TRAINING

NEEDS-MAPPING

COMMUNICATION

TRACKING

OVERSEEING

STEERING COMMITTEE



- ⌘ UNIVERSITY WIDE APPROACH
- ⌘ COMMITTEE OVERSIGHT

- Coordinating Researcher Development

- ⦿ EXTERNAL STAKEHOLDER ENGAGEMENT

- Incentives for impact communication

- ✓ INTERNAL ASSESSMENT BY IMPACT STEERING COMMITTEE

SUPPORTING

RESEARCH SUPPORT



- ⌘ IMPACT CHAMPIONS
- ⌘ EQUITABLE AND ETHICAL APPROACH
- ⌘ COORDINATED APPROACH TO RESEARCHER DEVELOPMENT

- Conducting university-wide training programs

- ⦿ SHARING BEST PRACTICE: IMPACT CHAMPIONS RETREAT

- Internal communications strategy

- ✓ IMPACT EVALUATION SUPPORT SCHEME

GENERATING

RESEARCHERS



- ⌘ JOB DESCRIPTION INTEGRATION
- ⌘ RECOGNITION AND REWARD
- ⌘ RESEARCH TRAINING INTEGRATION

- Training new habits
- Discipline-specific training

- ⦿ PRIORITIES FOR CONCEIVING RESEARCH

- Media training
- Individual impact stories

- ✓ UOW SCHOLARS IMPACT STORIES
- ✓ VERTIGO IMPACT TRACKER

KEY THEMES

Research impact varies significantly in its nature and its generation and evaluation relies upon the efforts and interpretation of a multitude of stakeholders [6]. For this reason, the Working Group considers impact to be primarily an outcome of our culture. This encompasses both our institutional culture of encouraging and supporting researchers to have impact and our researchers' culture of proactively engaging with communities, industry and government and delivering high-quality research that makes a difference.

The Working Group also recognises that the most profound impact often occurs at the end of the longest research pipelines, so foundational excellence supporting future impact is critical. It is the university's responsibility to foster a holistic view of impact that ensures sustainability of research over the long term.

UOW is fortunate to be building on an existing culture of impact, but there are some key opportunities to strengthen our approach to impact and our support for researcher development. Whilst these opportunities build on current strengths and expertise they will still require additional resources to deliver an optimal return on investment.

The core facets of the *UOW Research Engagement and Impact Strategy*, shown in the conceptual diagram above, are therefore arranged based on roles and responsibilities, at the ground-level with our individual researchers responsible for *generating impact*, at the support-level with our research support staff and local academic leadership *supporting impact* and at an institutional-level with our experienced staff *overseeing impact*.

These recommendations would form the basis of a broader Knowledge Exchange Framework that will encompass a whole of institution approach to engagement and impact. This would include the impact of our teaching, relationships with external partners and our role within our broader community.

Generating Impact

Acknowledging the Value of Impact

Pursuing impact and engagement requires time and energy and should be explicitly valued activities for all relevant staff. Our researchers balance a multitude of responsibilities including research, teaching, mentoring, supervision, governance and professional development. Impact and engagement are integral to research, teaching and governance and should be a valued use of academic time, recognising the interplay between research and teaching and the broader impacts of the university's mission.

Recognition, Review and Reward

Achieving impact and engagement is already a criterion in the Academic Performance Framework (APF), but updates are now required. An updated APF should include more explicit guidance on performance criteria for impact and knowledge exchange and should present a viable alternative promotion pathway. Job descriptions and Career Development Interviews (CDIs) should be updated to explicitly recognise impact and engagement in track records and should present a viable option for recruitment based on these criteria.

Research Training

Facilitating research impact and building and maintaining research engagements takes dedication, resources, and skill [6]. Specialist training can provide researchers with best practice advice, opportunities to broaden their skills or approach new challenges. Since research impact is underpinned by excellent research, training must be underpinned by a strong foundation in broader research skills such as mentoring, stakeholder engagement and communication. Researchers at all career stages (including HDR students) should have access to training for impact and be time for professional development recognised in an individual's workload.

Recommendation 2 – *The working group recommends that the Academic Performance Framework be reviewed to more explicitly recognise contributions to impact and knowledge exchange.*

UOW should provide viable career pathways based on these and provide support to facilitate and enhance these outcomes.

Supporting Impact

Equitable and Ethical Approach

Embedding impact and engagement training within a broader researcher development framework would provide a greater opportunity to address issues around equity generated by the impact agenda [8]. UOW's definition of impact is broad to enable support for both pure and applied research and for both research with strong existing financial support (e.g. commercial, health, centres and major programs) and research with more modest financial support (e.g. non-profit engagement, indigenous and community, small business, local government). The national assessment framework for impact and engagement (the ARC EI assessment) in its current form has few safeguards in place to balance these competing priorities [9] [10] [11] and it remains an obligation for the institution to ensure that incentives are ethical, common-sense, balanced and allow research to remain sustainable in the long-term [12]. This includes the need to continue the provision of internal funding (both seed funding and continuity between external funding) [13] [4]. This also includes extending our focus on embedding indigenous principles and practice in our curriculum into our research processes. A holistic and inclusive institutional view of impact along with academic leadership will also safeguard against instrumentalising university research (directing research solely towards utilisation or political priorities) [14] [15] [16].

Coordinated Approach to Researcher Development

Sustaining impact and engagement requires strong support for research excellence [17]. Whilst impact is the driving factor behind this strategy it was widely acknowledged that impact itself is the product of high-quality research and that researcher development and support underpins all research impact. Heads of research impact and development (at the School or Faculty level) with coordination at the institutional level could be responsible for addressing the priorities for research training at the discipline and institution level. In light of this strategy it would be timely to revisit the university's researcher development needs analysis.

Impact Champions

Building a culture of impact requires expertise to be distributed throughout the organisation. A new role of impact champion (at an appropriate disciplinary level) should provide researchers with access to peers fluent in the language of impact and aware of the relevant issues and priorities [7]. These champions could share knowledge of the necessary skills and approaches to facilitate impact relevant to the discipline (e.g. policy consultation, commercialisation, community engagement) and the knowledge of how to translate and communicate research impact within the discipline (e.g. appropriate language, relevant peer examples). At the institutional-level impact champions could share best practice with peers in other disciplines and identify common requirements for university-wide training and support (to better utilise economies of scale and shared expertise).

Recommendation 3 – *The working group recommends that impact and engagement become embedded in a broader researcher development framework.*

In addition, roles should be defined at the discipline level to facilitate and support the rollout of training for researchers emphasising impact and engagement and ensuring local incentives and approaches are appropriate and equitable.

Overseeing Impact

University-wide Approach

Identifying institutional priorities for impact and engagement will remain an ongoing priority. Research impact is neither predictable nor identical in every case and therefore must be allowed to emerge naturally within disciplines. It is equally important that the university have an overarching strategy to support, reward and encourage impact and a common approach across faculties so that opportunities for impact are maximised and resources used efficiently [13]. A funding scheme to support evidence gathering, impact evaluation and impact-extending activities could ensure that the university maintains a rich repository of impact case studies and best practice exemplars.

Committee Oversight

Evaluating impact and engagement is a strategic priority for ensuring the institution's success in external assessments, external funding and demonstrating return on investment for our research. An impact and engagement steering committee (reporting to the University Research Committee) could ensure coordination across the university. This committee would be responsible for evaluating potential case studies for future rounds of the ARC EI assessment, but would also be able to share best practice for achieving impact, support the evaluation of impact for internal and external competitive grants, oversee the provision of training, and provide a forum for addressing strategic priorities related to impact, engagement and researcher development. Membership may comprise senior research staff, relevant support staff and impact champions.

Recommendation 4 – *The working group recommends that impact, engagement and researcher development be overseen at the institutional level by a sub-committee of the University Research Committee.*

ENABLERS OF IMPACT

Training

The recommendations below recognise that training is a fundamental enabler of research engagement and impact.

The core priorities under the theme of training are to adapt existing training programs and establish new training programs in researcher development under the themes of engaging with external stakeholders, conceptualising research projects, evidence gathering and impact evaluation.

At present there is minimal internal training available to UOW researchers for these purposes.

Engaging with External Stakeholders

While a significant number of UOW researchers are engaging with industry, government and community partners to create meaningful partnerships, there is a need for specialised training to increase the impact resulting from these. In this context, impact training for researchers should also include modules for HDR students, who are deeply involved in research projects and represent the next generation of academic staff.

There is currently a gap in researcher training and development on how to create and pursue appropriate engagement opportunities and in how researchers identify knowledge gaps *together* with their partners. There is a need for the development of researcher co-production skills, to foster an attitude of *researching with* the community rather than *researching on* them. Researchers should be encouraged where appropriate to engage in strategic relationships with industry and other potential beneficiaries prior to the commencement of the research program. *Researching with* external stakeholders should involve end users being involved and updated throughout the research program, from planning through to implementation, to promote impact-oriented decision making. Embedding this mindset in UOW's researchers through appropriate training can achieve more impactful partnerships. In addition, researchers should be guided by a best practice approach to communication and be made aware of the ethics of communication.

For UOW to offer relevant training, in the form of face to face workshops and online modules, would assist researchers in generating high impact outputs of direct benefit to their partners. ICR leads initial industry engagement through initiative such as Advantage SME and Generator Lab and relies on researchers to develop the relations into valuable partnerships. ICR will work with faculties to identify and support researchers who have the willingness and ability to engage with industry.

Recommendation 5 – *The working group recommends that UOW assess requirements for stakeholder engagement training for researchers with blended learning modules and discipline-specific workshops.*

Training should include how to create appropriate engagement opportunities to understand community need, skills for co-production of research, how to identify industry and policy knowledge gaps, best practice for engagement and appropriate communication styles and ethics for communication.

Conceptualising Research Projects

Due to the growing impetus for research to be impact oriented, researchers will also need to learn to re-think their research through the prism of impact.

It will need to become the norm for researchers to plan their research impact pathway – from the inputs and research activities required to the outputs, outcomes and benefits to be derived from their research. Undertaking training to conceptualise the impact pathway will allow researchers to ensure that a challenge or needs-based approach to research can be adopted, maximising potential for impact.

The emphasis on research impact in the application process for Australia's competitive grant schemes (and equivalent international schemes) also means that researchers are increasingly required to develop impact statements as part of the application process. UOW's efforts in the recent ARC Engagement and Impact Assessment process highlighted a gap in the way researchers explain their research with impact at the forefront. The importance of such an approach has only recently been recognised, however it is now imperative for the modern academic to consider how to achieve impact from the very start of the research project through to its completion, and be able to adequately describe their impact or the benefits of investing in discovery-based research.

Understanding how to develop an impact statement and develop project impact plans will assist UOW researchers applying for competitive grants and increase the competitiveness of UOW applications in such schemes.

Recommendation 6 – *The working group recommends that UOW assess requirements for discipline-relevant impact pathway training for researchers as part of a broader research development framework.*

Training should include conceptualising impact pathways, writing impact statements for grants and best practice for planning research projects. This training could build upon impact workshops piloted to support the NHMRC Investigator Grant scheme in spring 2018.

Evidence Gathering and Impact Evaluation

The current research landscape requires academics to be trained in new habits, including evidence gathering and impact evaluation.

Researchers must understand and recognise relevant forms of evidence (including those outside traditional forms valued solely by academics), devise ways to gather evidence and evaluate impact, whilst minimising the additional workload. The scope of evidence to support impact, in both quantitative and qualitative forms, is broad and non-traditional forms of evidence are of far greater value than ever before.

In order to habituate evidence gathering and impact evaluation, training is required. Training should capture how to identify relevant and worthwhile evidence, best practice for evidence gathering and training on how to properly evaluate impact.

Initiatives such as the *Impact Support Scheme*, offered by the Faculty of Social Sciences, should exist alongside training to provide support and flexibility in how evidence is collected. The *Impact Support Scheme* (run in 2017) provided small grants to assist researchers in collecting data and qualitative impact testimonies to be used to develop impact statements or case studies.

Monitoring publications and citations and tracking media and social media interaction, is also crucial given their influence on the dissemination and discussion of research, and can provide solid evidence of impact. The UOW Library already offers strategic support to track impact evidence. The Vertigo Ventures Impact Tracker is also in use by some researchers and research groups to plan and monitor ongoing impact. The UOW Scholars Impact Module has also been used to encourage researchers to gather evidence of and evaluate their impact to include in impact stories for their profile.

While these activities are occurring, it is important that evidence gathering and impact evaluation are formalised and encouraged for all active researchers. Training and support should be available for this purpose, in order to develop and resource these new habits for the modern academic and contribute to the emergent impact-driven research culture at UOW.

Recommendation 7 – *The working group recommends that UOW assess requirements for training and resources to enable researchers to develop new habits for evidence gathering and monitoring of impact.*

This initiative could be supported by a grant scheme similar to the Impact Support Scheme offered by the Faculty of Social Sciences. This initiative could build upon services provided by the Library Faculty Liaisons in supporting evidence gathering strategies, search strategies, citation monitoring and analysis of altmetrics. This initiative could reintroduce media tracking reports previously offered by the Strategic Marketing and Communications Unit.

Recommendation 8 – *The working group recommends that UOW assess requirements for training and support for impact evaluation for researchers.*

Training should include best practice approaches for monitoring and evaluating impact and support may take the form of small grants for qualitative evidence gathering (e.g. surveys, interviews, analysis) and assistance in the conduct of evaluation by relevant experts.

Needs-mapping

The recommendations below recognise that needs-mapping is an essential strategy at the institution and individual research project level to prioritise research activities and maximise the potential for impact.

The core priorities under the theme of needs-mapping are to integrate research needs mapping into institutional strategies and researcher development training, establish mechanisms for external stakeholder engagement and establish the needs of our external stakeholders, as well as facilitate cross-disciplinary links within the university to address common needs.

Needs-mapping at Individual Research Project Level

Research will be most impactful where a challenge or needs-based approach is adopted. A challenge or need can be identified by a researcher or by an external stakeholder, from industry, government, community or academia. Serendipitous impact is a possibility for any research project. However, needs-mapping provides an opportunity to tailor research to achieve optimal outcomes or to identify a broader range of stakeholders who may benefit from the research.

Embedding needs-mapping into researcher development training, and subsequently into the research process, will shape the way research at UOW is conducted.

Incorporating needs-mapping into discipline strategies will also ensure it is adopted as a University-wide approach and is kept at the front of mind of researchers and faculty staff alike.

The engagement of external stakeholders in the needs-mapping process is also prudent, as researchers may find an added use for existing research or be able to identify new research priorities. At the core needs-mapping is the idea that research comes from working with beneficiaries to respond to need, shape the research agenda and develop innovative ideas that will result in context-appropriate and feasible impact. ICR is undertaking an internal project to develop a process to keep track of and communicate new industry requirements on a sectoral basis as they apply to UOW research.

Formalising the needs-mapping process through researcher development training and institutional strategies and actively seeking out compatible needs or challenges will shape the research culture at the University, embedding impact generation into the institution's core activities.

Recommendation 9 – *The working group recommends that UOW embed research needs-mapping into researcher development training and Faculty and School strategies.*

This could include training and sharing of best practice for conceiving research projects and initiatives.

Recommendation 10 – *The working group recommends that UOW provide mechanisms to engage relevant stakeholder communities in the development of new research priorities.*

This could take the form of public events, workshops or researcher networking events. Such events could be facilitated by the Impact Champions and/or the Innovation and Commercial Research unit.

Needs-mapping at an Institutional Level

Needs-mapping is relevant across all levels of the University and is arguably most important at an institutional level.

Mapping of University research projects would allow the University to conduct a market assessment of research opportunities, capability gaps and externally-driven priorities, for example, where there is wide user interest in the outcomes, to be conducted by UOW researchers.

Such an exercise would also allow the University to establish cross-disciplinary links and research teams to address strategically identified research challenges. In addition, research needs can be mapped to the University's research strengths to give research projects the greatest chance of success, whatever that may look like.

For a key group to be aware of the research being conducted at UOW would be beneficial to identify overlap or links between ongoing research and result in robust, collaborative efforts to produce impactful outcomes.

Recommendation 11 – *The working group recommends that UOW provide a forum for establishing cross-disciplinary links and sharing best practice in research excellence and impact.*

This could take the form of an Impact Champions' workshop with representation from all disciplines at UOW.

Communication

The recommendations below recognise that communication is a necessary first step to promote a culture of engagement with subsequent impact at all stages of research, both internally and externally to UOW. A lasting culture of impact will emerge as researchers become aware of its importance. In addition to promoting a culture that encourages collaboration (e.g. with our stakeholders where our research may have impact), communication is required to disseminate our results and expand the scope of impact.

The core priorities under the theme of communication are to establish and clarify incentives for communication, facilitate internal strategies for communication, and provide training specifically to support communication activities.

Incentives for Impact Evaluation and Reporting

Meaningful communication of research impact is achieved by detailed impact evaluation and reporting. This is the process of monitoring, assessing and reflecting on the impact of a research program or project. Evaluation extends beyond formal assessment to include the process of learning from and adapting research processes based on evidence of impact.

Without following adequate evaluation and reporting processes, research impact stories may lack gravitas and the true importance of the research conducted is lost.

Training that covers evaluation and reporting processes was recommended above, however it is the uptake of these processes post-training that then becomes important. Providing incentives for impact

evaluation and reporting will undoubtedly encourage researchers to develop the way they communicate the impact of their research project. For example, the University could offer a competitive Media (Impact) Fellowship with funding and professional development opportunities attached.

Evaluating the communication of research impact as part of an Academic Career Development Review and including it as an element of the Academic Performance Framework, formalises this incentive process. Reporting mechanisms, such as the new Times Higher Education Impact Rankings linked to the UN Sustainability Goals, further highlight the importance of evaluating and reporting on research impact in the current research climate.

The purpose of this recommendation is to work towards embedding a culture where research impact evaluation and reporting is second nature.

Recommendation 12 – *The working group recommends that UOW enhance existing processes and introduce new incentives for impact evaluation and reporting.*

Processes and incentives should include a framework for evaluating impact, making greater use of academic career development reviews to monitor research impact, setting clearer expectations by academic level for the Academic Performance Framework and establishing criteria for Impact Champions to provide advice. This could include competitive impact fellowships with training and additional research support included.

Internal Research Communication Strategies

Developing internal research impact communication strategies at either a Faculty or School level would work towards embedding a University-wide impact culture and encourage academics to participate in impact initiatives.

Under such strategies it would be possible to facilitate impact forums to showcase research engagement and impact case studies, ARC/NHMRC grant workshops, early career and mid-career researchers development programs and incorporate a research impact session into academic induction.

Internal research communications strategies could also detail how impact case studies are publicised and on what platforms. They could appoint Impact Champions (either one per school or per 2 digit FOR code) and outline their role as experts in impact, mentors and advocates for a dynamic research impact culture and researcher development.

Having localised strategies ensures that research impact initiatives and processes are formalised, and discipline specific activities, training or information can be run or disseminated as necessary.

Recommendation 13 – *The working group recommends that faculties and appropriate disciplines establish impact communication strategies. These strategies may include appointing Impact Champions, showcasing exemplary impact case studies via impact forums, grant workshops, PODS career development and academic induction programs and include mechanisms for communicating outcomes and best practice across institutional boundaries within each field of research.*

Training to Support Communication Activities

External communications and/or media training are important for those at the forefront of impactful research. To be able to appropriately communicate research impact to various audiences and write for non-academic audiences is a true skill and of utmost importance in an age where the community and potential stakeholders get most of their information via the media or online platforms.

Offering tiered media training to researchers at different levels would ensure that the UOW voice is heard and appropriately conveys often complex and highly involved research. Basic training (Tier 1) could be offered to or compulsory for all successful competitive grant applicants; Advanced training

(Tier 2) could be offered to research centre or research group leaders and named fellows; and Media Coaching (Tier 3) would be offered to senior research leaders.

Such an approach would increase the training workload with the media unit at UOW and resourcing and support would need to be reviewed.

Implementing communications and media training would also enable the identification of UOW experts well-equipped with the skills necessary to engage with the media.

Recommendation 14 – *The working group recommends that UOW offer tiered communications and media training to key constituencies within the research community.*

Training sophistication would vary by level: Tier 1 would cater for successful grant recipients, Tier 2 for research centre and group leaders and Tier 3 for senior leadership (e.g. ARC Australian Laureate Fellows and Centre of Excellence Directors).

Case Studies as Collateral

UOW should encourage researchers to document and promote their prior or potential impact via an individual impact case study, or within UOW Scholars. These would form the basis for a number of valuable purposes including competitive grant applications, promotions, advocacy, fund-raising and accountability to funding bodies.

Supporting researchers to compile an impact case study is also a way for them to implement what they learn over the course of the aforementioned training, and practice their research impact evaluation skills. It would provide every researcher with some experience in research impact communication which would be of benefit for future grant applications, for promotions purposes and in attracting and engaging new research partners.

This recommendation builds on the UOW Scholars case study initiative and prioritises the communication of research impact as part of the modern academic agenda.

Recommendation 15 – *The working group recommends that UOW provide infrastructure and support for researchers to document and promote their prior or potential impact for use in grants, assessments and advocacy.*

This may include production of exemplar case studies in each discipline, digital content, videos, infographics or visual abstracts and can build on the existing UOW Scholars impact module platform.

Tracking

The recommendations below recognise the importance of tracking evidence of research impact both for ongoing monitoring and assessment purposes spanning short, medium and long-term effects.

The core priorities under the theme of tracking are to establish processes and systems for collating impact and benefit sections in electronic grant applications, collecting and storing evidence of outcomes related to key projects, monitoring traditional and social media related to projects, and monitoring citations and usage of research outputs.

Support for Impact Evaluation and Evidence Gathering

The importance of evidence gathering and impact evaluation was set out above, however without appropriate support mechanisms in place, researchers will be unable to adequately capture or quantify impact. Some of this could be achieved through evidence gathering support from research assistants or professional staff, but in some cases specific expertise (e.g. interviews or surveys) or analytics support (e.g. website demographic analysis) may be required.

Recommendation 16 – *The working group recommends that UOW Faculties provide support for impact evaluation and evidence gathering for researchers.*

This initiative could include small grants for impact evaluation (e.g. the Faculty of Social Sciences Impact Support Scheme) and targeted assistance from research support staff with expertise in evidence gathering and impact evaluation.

Collating Impact and Benefits Sections from Electronic Grant Applications

The impact and benefits sections from electronic grant applications are data that are presently available to the institution and can be collated in a short period of time. Developing a database for this information would allow the University to evaluate grant application outcomes and assess the translation of these sections into successful and unsuccessful research proposals.

Evaluating this data would allow the University to identify and share best practice on how to formulate the relevant sections, which would inform best practice on how to identify and explain research impact.

Recommendation 17 – *The working group recommends that UOW introduce processes to support collation of impact and benefit sections from electronic grant applications where permission has been given to share best practice and evaluate outcomes.*

Storing Research Impact Evidence

The storing of research impact evidence is beneficial for a number of reasons. Having a central database or software package that stores research impact data and evidence ensures that evidence gathering, and impact evaluation remains front of mind for researchers and is integrated into the research process.

In addition, storing research impact evidence establishes a reserve of impact case studies that can be drawn on for future rounds of the ARC EI Assessment. With all evidence in one place, the strongest and most impactful case studies can be easily selected, and stored evidence can be imported into the case study template, streamlining the assessment process.

This is similarly applicable to other rankings or assessments that have a research impact component.

Recommendation 18 – *The working group recommends that UOW review support for storing research impact evidence and outcomes related to key projects.*

This initiative can build on the existing software support through the Vertigo Ventures Impact Tracker and UOW Scholars impact module to expand uptake and use of the tools for impact monitoring and evaluation.

Monitoring Media, Citations and Usage of Research Outputs

Impact evaluation necessarily requires providing evidence of how the specific research was translated into impact outcomes, which requires supporting evidence of how research was disseminated, received and used by other stakeholders. Therefore support for monitoring academic and non-academic citations, altmetrics (including policy citations, downloads and social media mentions) and dissemination through mainstream media is important for establishing an evidence base for impact evaluation and providing starting points for the assessment of how research is being used beyond the university.

Recommendation 19 – *The working group recommends that UOW review support for monitoring media, citations and usage of research outputs relating to research impact.*

This initiative could build upon services provided by the Library Faculty Liaisons in supporting evidence gathering strategies, search strategies, citation monitoring and analysis of altmetrics. This initiative could include services offered by faculty and research group marketing teams and reintroduce media tracking reports previously offered by the Strategic Marketing and Communications Unit.

PRIORITISATION OF RECOMMENDATIONS

The above recommendations have been classified according to the following prioritisation scale:

SHORT TERM	Implementation within the next 12 months
MEDIUM TERM	Implementation within the next 2 years
LONG TERM	Implementation within the next 3-5 years

RECOMMENDATION

PRIORITY

Training

Recommendation 1 – *The adoption of the UOW Definition of Research Impact for use at the University of Wollongong.*

SHORT TERM

Recommendation 2 – *That the Academic Performance Framework be reviewed to more explicitly recognise contributions to impact and knowledge exchange, provide viable career pathways based on these and provide support to facilitate and enhance these outcomes.*

MEDIUM TERM

Recommendation 3 – *That impact and engagement become embedded in a broader researcher development framework and that roles are defined at the discipline level to facilitate and support the rollout of training for researchers emphasising impact and engagement and ensuring local incentives and approaches are appropriate and equitable.*

SHORT TERM

Recommendation 4 – *That impact, engagement and researcher development be overseen at the institutional level by a sub-committee of the University Research Committee.*

SHORT TERM

Recommendation 5 – *That UOW assess requirements for stakeholder engagement training for researchers with blended learning modules and discipline-specific workshops.*

MEDIUM TERM

Recommendation 6 – *That UOW assess requirements for discipline-relevant impact pathway training for researchers as part of a broader research development framework.*

MEDIUM TERM

Recommendation 7 – *That UOW assess requirements for training and resources to enable researchers to develop new habits for evidence gathering and monitoring of impact.*

LONG TERM

Recommendation 8 – *That UOW assess requirements for training and support for impact evaluation for researchers.*

LONG TERM

Needs-mapping

Recommendation 9 – *That UOW embed research needs-mapping into researcher development training and faculty and school strategies.*

MEDIUM TERM

Recommendation 10 – *That UOW provide mechanisms to engage relevant stakeholder communities in the development of new research priorities.*

MEDIUM TERM

Recommendation 11 – *That UOW provide a forum for establishing cross-disciplinary links and sharing best practice in research excellence and impact.*

SHORT TERM

Communication

Recommendation 12 – *That UOW enhance existing processes and introduce new incentives for impact evaluation and reporting.*

LONG TERM

Recommendation 13 – <i>That faculties and appropriate disciplines establish impact communication strategies.</i>	MEDIUM TERM
Recommendation 14 – <i>That UOW offer tiered communications and media training to key constituencies within the research community.</i>	LONG TERM
Recommendation 15 – <i>That UOW provide infrastructure and support for researchers to document and promote their prior or potential impact for use in grants, assessments and advocacy.</i>	MEDIUM TERM
Tracking	
Recommendation 16 – <i>That UOW Faculties provide support for impact evaluation and evidence gathering for researchers.</i>	MEDIUM TERM
Recommendation 17 – <i>That UOW introduce processes to support collation of impact and benefit sections from electronic grant applications where permission has been given to share best practice and evaluate outcomes.</i>	MEDIUM TERM
Recommendation 18 – <i>That UOW review support for storing research impact evidence and outcomes related to key projects.</i>	LONG TERM
Recommendation 19 – <i>That UOW review support for monitoring media, citations and usage of research outputs relating to research impact.</i>	MEDIUM TERM

PROPOSED IMPLEMENTATION

This White Paper will now serve as the basis for further consultation on how to support and implement the final recommendations and will serve as an input into the development of the University Strategic Plan.

APPENDIX 1 – UOW PERFORMANCE IN IMPACT ASSESSMENTS

ARC ENGAGEMENT AND IMPACT ASSESSMENT 2018

The results of the inaugural ARC Engagement and Impact (EI) assessment were announced on Friday 29th March 2019. The ARC launched the assessment as part of the government’s National Innovation and Science Agenda (NISA) to evaluate and incentivise the impact of university research on non-academic stakeholders including industry, government and community.

Submissions were assessed by broad disciplinary panels as follows:

- Three independent ratings per field of research (for impact, institutional approach to impact and engagement)
- Rating scale of High, Medium, and Low
- Engagement indicators based on income

Key Highlights in UOW’s EI assessment outcomes include:

- 95% of UOW’s disciplines were deemed to have made significant or highly significant impacts beyond academia (rated as “High” or “Medium” for research impact).
- 77% of UOW’s disciplines were deemed to have effective or highly effective translation mechanisms (rated as “High” or “Medium” for their approach to impact).
- 70% of UOW’s disciplines were rated as “High” or “Medium” for engagement.

Impact

Impact was assessed based on case studies that were required to provide evidence that research within the discipline made a significant contribution beyond academia.

UOW ranked joint 7th out of 40 universities by number of ‘High’ and ‘Medium’ rated impact case studies and ranked joint 16th out of 40 universities by number of ‘High’ rated impact case studies.

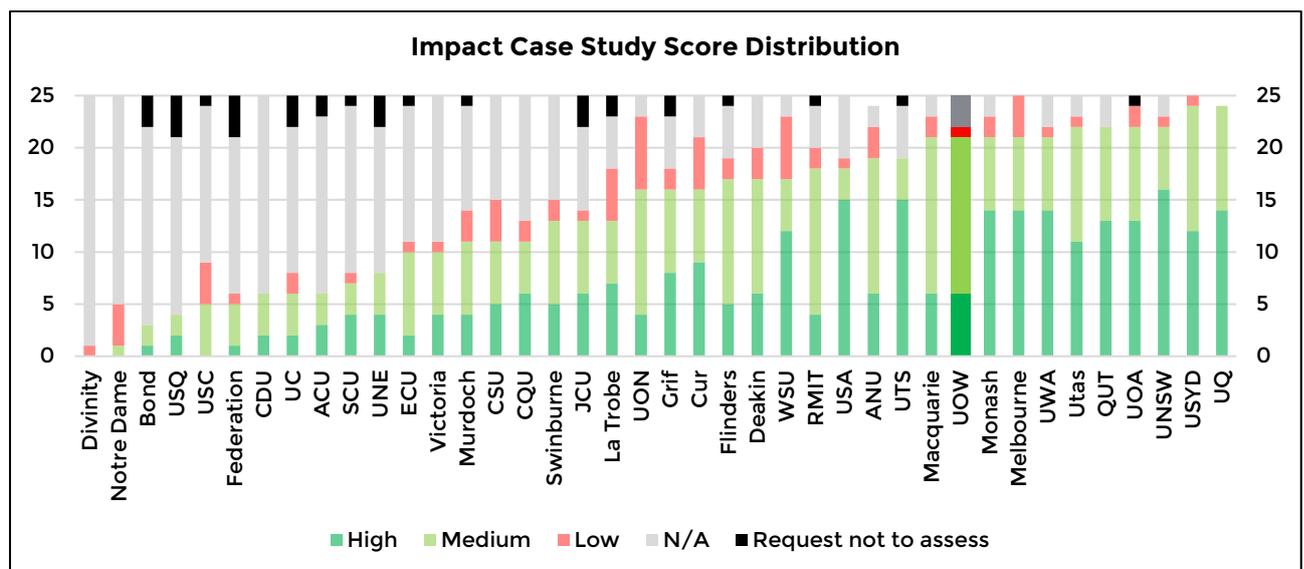


Figure 2: 2018 National Impact Case Study results distribution

Approach to impact

Approach to impact was assessed based on narratives provided with each case study that were required to describe the institutional strategies and support mechanisms in place at the discipline level that facilitated the impact described in the case study.

UOW ranked joint 11th out of 40 universities by number of ‘High’ and ‘Medium’ rated approach to impact statements and ranked joint 23rd by number of ‘High’ rated approach to impact statements.

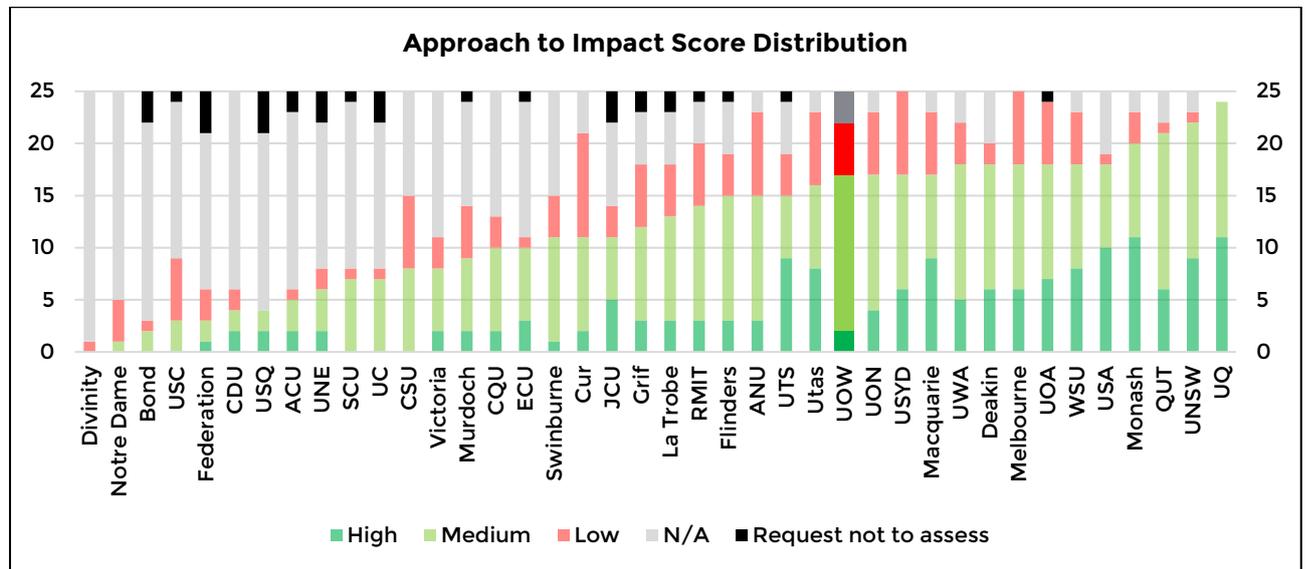


Figure 3: 2018 National Approach to Impact results distribution

Engagement

Engagement was assessed based on a small number of indicators based on research income from industry and narratives that were required to describe the engagement activities with research end-users within the discipline. The income data was based on the ERA submission.

UOW ranked joint 21st out of 40 universities by number of ‘High’ and ‘Medium’ rated engagement submissions and ranked joint 21st by number of ‘High’ rated engagement submissions.

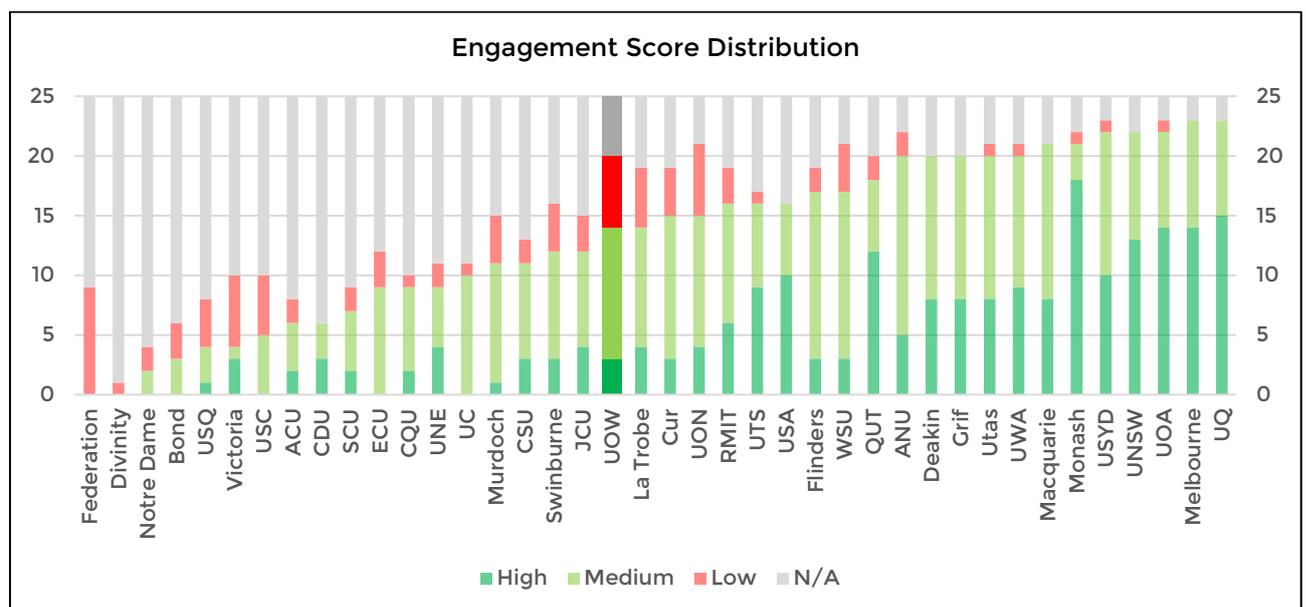


Figure 4: 2018 National Engagement Score distribution

TIMES HIGHER EDUCATION GLOBAL IMPACT RANKING 2019

The results of the inaugural Times Higher Education Impact Ranking placed UOW joint 13th in the world for impact and 2nd in Australia.



Figure 5: UOW global ranking in each UN Sustainable Development Goal (THE Impact Ranking 2019)

The global university ranking assessed universities using criteria adapted from the United Nations Sustainable Development Goals (SDGs) and universities were ranked based on the compulsory indicator (SDG 17 – Partnerships for the Goals) and the 3 best performing indicators for each university.

UOW's ranking was based on the compulsory indicator (SDG 17) and its performance in:

- SDG 10 – Reduced Inequalities (ranked 6th globally and 4th nationally)
- SDG 11 – Sustainable Cities and Communities (ranked 13th globally and 2nd nationally)
- SDG 4 – Quality Education (ranked 18th globally and 5th nationally)

Each indicator used continuous indicators based on measures of research relevant to the SDG and a number of discrete indicators based on operational policies, student and staff statistics and evidence of engagement activities with government, community and industry. A summary of the indicators is presented in Figure 6.

UOW's high performance in this ranking was driven by strong publication profiles in research areas relevant to the UN SDGs, clear public policies around equity, diversity and admissions, fully established student access and work integrated learning programs, strong evidence of engagement with government, community and industry (bolstered by pre-existing mapping of Global Challenges projects to SDG goals, in-house research expertise related to embedding SDGs within local organisations and evidence gathered during the ARC Engagement and Impact assessment). The assessment also more effectively captured the breadth of activities and stakeholders involved in engagement and impact activities at UOW, whereas the ARC assessment focused on scale and income. The only indicator in which UOW dropped below the top 100 globally was SDG 9 – Industry, Innovation and Infrastructure, where income and commercialisation activities formed a large proportion of the assessment. UOW also performed exceptionally in SDG 16 – Peace, Justice and Strong Institutions (ranked 11th globally and 1st nationally).

Weightings for THE UN SDG indicators

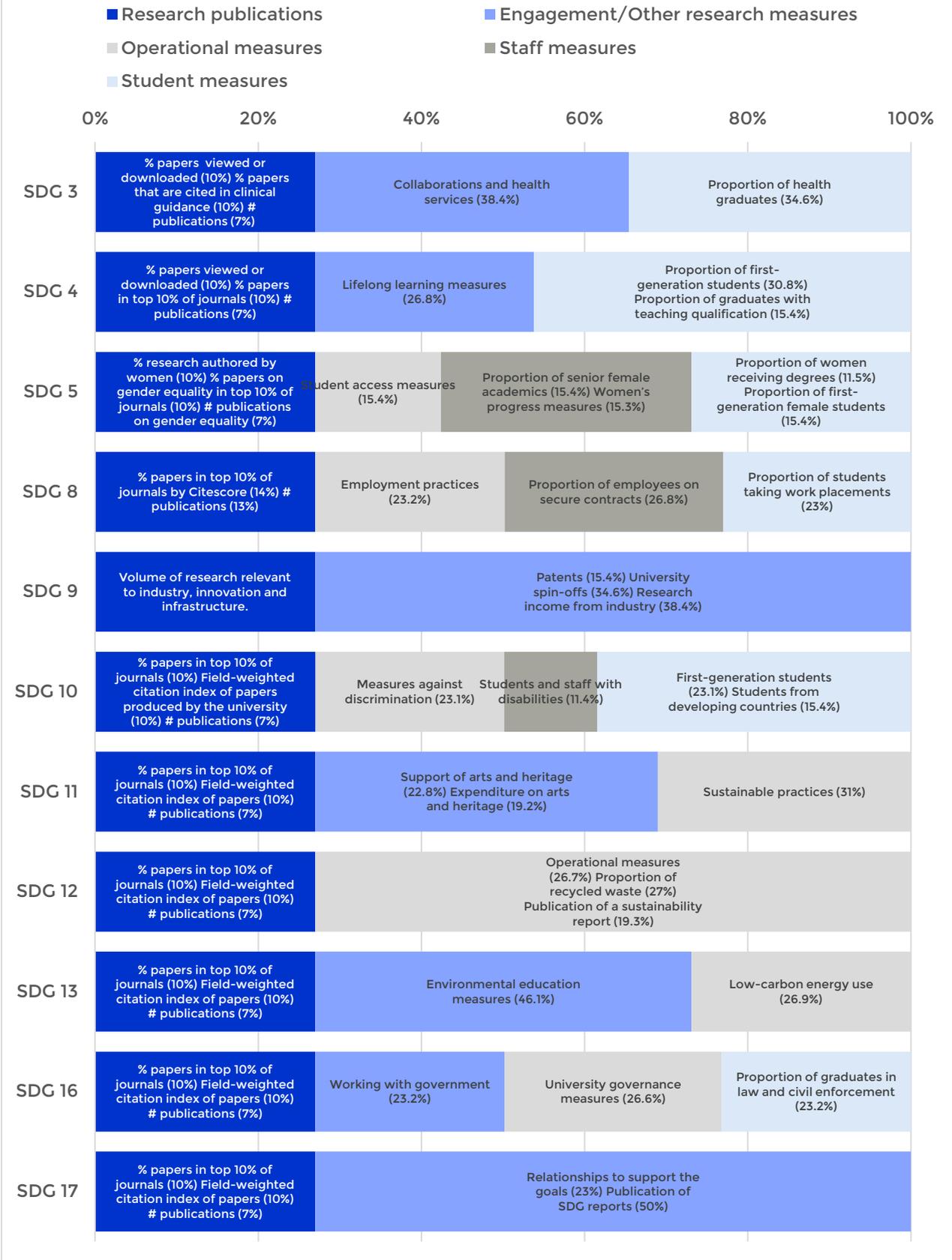


Figure 6: Indicator weightings for each UN SDG in the THE Impact Rankings 2019

APPENDIX 2 – TERMS OF REFERENCE

Research Engagement and Impact Strategy Working Group (REI-SWG)

TERMS OF REFERENCE

The University Research Committee will establish a Research Engagement and Impact Strategy Working Group (the REI-SWG) to facilitate research engagement and impact at the university. The REI-SWG shall:

- Oversee the development of the UOW Research Engagement and Impact Strategy White Paper to align with the University's upcoming Strategic Plan and 2030 Vision.
- Identify and recommend best practice in research impact from internal and external review.
- Review engagement and impact criteria in research-related policies and procedures, for example in the Academic Performance Framework and HDR Annual Progress Reports.
- Develop, disseminate and promote a university-wide Research Engagement and Impact Strategy.
- Make recommendations to facilitate the establishment and implementation of internal mechanisms for the support, funding, reporting and recognition of research engagement and impact.
- Recommend appropriate steps to ensure disciplinary excellence continues to be recognised alongside research engagement and impact.

REI-SWG members are encouraged to expand their promotion of research engagement and impact within their faculty/unit.

MEMBERSHIP

The REI-SWG will comprise the following members:

- Chair – appointed by the DVC(R&I)
- Up to three Research Institute Director(s), Global Challenge Academic Leader(s) and/or Research Unit Leader(s) (or delegates)
- Up to three Heads of Schools/Departments (or delegates)
- At least one ARC EI Discipline Leader(s)
- At least one Aboriginal and Torres Strait Islander research representative(s)
- Research Impact Manager (RSO)
- Up to two additional members

All members shall be appointed by the DVC(R&I). Key members of RAID and other relevant units may be invited to attend to discuss or clarify specific issues. Membership will reflect the scope of research impact and engagement activities within the faculty, including representation of research institutes, as well as strategic research areas.

MEETINGS

The Working will meet approximately every six weeks until completion of the White Paper.

QUORUM

The Committee shall have a quorum which is equal to one half or, where one half is not a whole number, the whole number next higher to one half of the total number of members of the Committee.

MEMBERSHIP LIST

Prof Will Price (Chair)	Executive Director, AIIM
Prof Eleanor Beck	Professor, School of Medicine
Prof Sue Bennett	Head of School, School of Education
A/Prof Phillip Byrne	Senior Lecturer, School of Biological Sciences
Prof Kathleen Clapham	Professor, Indigenous Health, AHSRI
Dr Richard Cook	Manager, Research Impact, RSO
Andrew Herring	Media and Public Relations Manager, SMCU
Dr Lucas Ihlein	DECRA Research Fellow, Faculty of LHA
Sharon Martin	Director, Research Services Office
Prof Pauline McGuirk	Director, ACCESS
Prof Pascal Perez	Director, SMART Infrastructure Facility
Prof Melanie Randle	Associate Dean (Research), Faculty of BUS
Prof Sharon Robinson	Global Challenges Leader, Sustaining Coastal and Marine Zones
Prof Aidan Sims	Head of School, School of Mathematics and Applied Statistics
Prof Geoff Spinks	Director, Global Challenges Program
Prof Simon Ville	Associate Dean (Research), Faculty of LHA

BIBLIOGRAPHY

- [1] Department of Innovation, Industry, Science and Research, “Focusing Australia's Publicly Funded Research Review,” Australian Government, Canberra, 2011.
- [2] Research Councils UK, “Impact through knowledge exchange: RCUK position and expectations,” RCUK, London, 2014.
- [3] Research Councils UK; Higher Education Funding Council for England; Universities UK, “Joint Statement on Impact by HEFCE, RCUK and Universities UK,” RCUK, London, 2014.
- [4] Research Services Office, “Research Engagement and Impact: Analysis for UOW Research Engagement and Impact Strategy Working Group,” University of Wollongong, Wollongong, Australia, 2018.
- [5] Research Services Office, “Advancement Research Impact Event: Research Engagement and Impact Strategy Working Group Report,” University of Wollongong, Wollongong, 2018.
- [6] S. Bastow, P. Dunleavy and J. Tinkler, *The Impact of the Social Sciences : How Academics and their Research Make a Difference*, London, United Kingdom: SAGE, 2014.
- [7] J. Chubb and M. Reed, “Epistemic responsibility as an edifying force in academic research: investigating the moral challenges and opportunities of an impact agenda in the UK and Australia,” *Palgrave Communications*, vol. 3, no. 20, 2017.
- [8] G. Reid, “Equality Impact Assessment for the Research Excellence Framework 2021,” HEFCE, London, United Kingdom, 2018.
- [9] K. Sawczak, “The hidden costs of research assessment exercises: the curious case of Australia,” 13 03 2018. [Online]. Available: <http://eprints.lse.ac.uk/89043/>. [Accessed 7 01 2019].
- [10] S. Taylor, “When measuring research, we must remember that ‘engagement’ and ‘impact’ are not the same thing,” *The Conversation*, Sydney, Australia, 2016.
- [11] M. Cuthill, E. O’Shea and B. a. V. P. Wilson, “Universities and the public good: A review of knowledge exchange policy and related university practice in Australia,” *The Australian Universities' Review*, vol. 56, no. 2, pp. 36-46, 2014.
- [12] A. Vargiu, “Indicators for the Evaluation of Public Engagement of Higher Education Institutions,” *Journal of the Knowledge Economy*, vol. 5, no. 3, pp. 562-584, 2014.
- [13] J. Goddard, “Re-inventing the Civic University,” National Endowment for Science, Technology and the Arts (NESTA), London, 2009.
- [14] T. Basi and M. Sloane, “Impact is crippling higher education. But it is still part of the solution,” 23 04 2018. [Online]. Available: <http://eprints.lse.ac.uk/89558/>. [Accessed 07 01 2019].
- [15] R. Watermeyer, “Impact in the REF: issues and obstacles,” *Studies in Higher Education*, vol. 41, no. 2, pp. 199-214, 2016.
- [16] L. Lessig, “How Academic Corruption Works,” *The Chronicle of Higher Education*, Chicago, 2018.
- [17] E. Terämä, M. Smallman, S. Lock, C. Johnson and M. Austwick, “Beyond Academia – Interrogating Research Impact in the Research Excellence Framework,” *PLOS ONE*, vol. 11, no. 12, p. e0168533, 2016.