

# UNIVERSITIES AUSTRALIA'S RESPONSE TO THE POLICY REVIEW OF THE NATIONAL COMPETITIVE GRANTS PROGRAM (NCGP)

Universities Australia (UA) welcomes the opportunity to respond to the Australian Research Council (ARC) and the Department of Education's Policy Review of NCGP. Our members, Australia's 39 comprehensive universities, undertake research that adds to Australia's stock of knowledge, and to Australia's economic and social wellbeing. To remain at the forefront of global advances, Australia needs a competitive research grants system that is fit for purpose. UA acknowledges the ARC's efforts to ensure we have a rigorous and robust program which supports excellence and delivers benefit to the nation.

UA believes we have a system which has served us well for its intended purpose but recommends the ARC to focus more on the following areas:

- Prioritising basic research (section 1),
- Streamlining the NCGP schemes (section 2),
- Supporting early career researchers (section 3) and greater diversity among grant recipients (section 4),
- Reducing administrative burden on researchers and research offices pre and post award (section 5), and
- Looking at better models for promoting research impact (section 6).

## 1 PROTECTING BLUE-SKY RESEARCH

There is limited funding available in Australia for basic research. According to the latest ABS data, the university sector spent almost \$14 billion on research and development in 2022, representing overall growth of 10 per cent (or \$1.3 billion) over 2020. However, almost all of this growth (90 per cent) was in funding for applied research or experimental development, with funding for "pure basic" research actually contracting<sup>1</sup>.

The sector has been sounding the warning bells about the shift away from basic research funding for many years, with Government focus shifting to research further up the TRL scale where the connection to potential social/commercial outcomes are more apparent. This evolving trend fails to acknowledge two critical facts; firstly, that the pipeline between discovery and product may be long and unpredictable<sup>2</sup> and secondly, that basic research is the prerequisite for developing practical applications and commercial ideas – it is the well that feeds that pipeline.

Recent research conducted by the University of Queensland and CSIRO found that funding deficiencies, particularly for basic research, may be contributing to Australia's decline in global innovation ranking, noting that between 1996 and 2019 the proportion of research funding in Australia dedicated to basic research

---

<sup>1</sup> Australian Bureau of Statistics, Research and Experimental Development, Higher Education Organisations, Australia, 2022. <https://www.abs.gov.au/statistics/industry/technology-and-innovation/research-and-experimental-development-higher-education-organisations-australia/latest-release>

<sup>2</sup> Matchett, S.. (2018). Sheil calls for more resources for basic research. Campus Morning Mail. <https://campusmorningmail.com.au/news/sheil-calls-for-more-resources-for-basic-research/>

dropped from nearly 60% to a mere 40%<sup>3</sup> - a significant turning of the tables. ABS data show that this has trend is ongoing with funding for basic research dropping to 37 per cent in 2020 and 35 per cent in 2022.

The paper also outlines similar trends in the US and others.

In Australia, this shift is only becoming more pronounced with initiatives such as Australia's Economic Accelerator (TRL 3-7), the Industry Growth Program (TRL 3-9) and the National Reconstruction Fund (likely focused at TRL 6-9) coming online since 2019 and all yet to reach peak funding levels.

It is not only the sector echoing concerns of public funding shifting to applied science and innovation. The Productivity Commission found in 2007 that "there are risks associated with the continuing diversion of public funding to applied science and innovation activity at the expense of basic and strategic science and innovation".<sup>4</sup>

Basic research can be seen as a risky endeavour with low return on investment in the short run, making business less likely to invest in it<sup>5</sup> - this makes the Government's role critical. Appropriate and efficient investment in basic research is simply fundamental to our research pipeline, and to supporting Australia's long-term productivity and sovereign research capability.

In its submission to the Australian Research Council Amendment (Review Response) Bill 2023 (the Bill), UA called for including the role that the ARC plays in supporting investigator-led research in legislation.<sup>6</sup> However, the Bill did not provide an explicit statement highlighting the particular importance of basic research. Therefore, it is critical that one of the outcomes of this review is to ensure that the NCGP is positioned to continue to fund basic research moving forward.

## 2 FEWER PROGRAMS AS PART OF THE NCGP

Noting that the quantum of NCGP funding is not in scope for this review, optimising the NCGP schemes should be a core focus.

The ARC administers 17 schemes under Discovery and Linkage Programs. UA believes that the ARC could continue to deliver critical funding, while operating fewer rigidly defined schemes, and recommends that the ARC explores opportunities for grouping current programs into a smaller number of larger schemes – reducing administrative burden on both the ARC and the sector.

UA suggests that the NCGP could be reorganised around a small set of core outcomes focused on supporting basic research, supporting our research workforce and promoting university-end user partnerships. Such a model would involve rolling together funding currently allocated to the various programs into more flexible funding pools with appropriate equity and diversity targets.

In broad terms such a structure would allow the ARC to be more responsive to emerging priorities with respect to these core outcomes, while also supporting the streamlining of administrative functions and application processes.

The Discovery Program and Linkage Programs could largely continue in their current form if proper mechanisms can be built into the grant system, for example, allowing applicants to identify as Indigenous, reducing the need for separately coordinated application processes. A single large

---

<sup>3</sup> Harrison, R., Barnard, R. and Pregelj, L. (2023). Restoring Australia's long-term innovation requires investment in basic research. CSIRO Publishing.

<sup>4</sup> Productivity Commission (2007). Public Support for Science and Innovation, Research Report. <https://www.pc.gov.au/inquiries/completed/science/report/science.pdf>

<sup>5</sup> Universities Australia (2022). 2022 Higher Education Facts and Figures. [https://universitiesaustralia.edu.au/wp-content/uploads/2022/09/220207-HE-Facts-and-Figures-2022\\_2.0.pdf](https://universitiesaustralia.edu.au/wp-content/uploads/2022/09/220207-HE-Facts-and-Figures-2022_2.0.pdf)

<sup>6</sup> Universities Australia (2024). Submission to the Senate Inquiry into the Australian Research Council Amendment (Review Response) Bill 2023. <https://universitiesaustralia.edu.au/wp-content/uploads/2024/01/240116-Submission-to-ARC-Bill-inquiry-Final.pdf>

fellowship funding pool would also allow flexibility in the allocation of funding across career stages to accommodate the spread/quality of applications and shifting priorities over time.



Figure 1: A possible new structure for NCGP

### 3 MORE SUPPORT FOR EARLY CAREER RESEARCHERS

Our early-career researchers (ECRs) are facing serious challenges, and the ARC can play a critical role in helping to turn this trend around. In 2021, a survey of over 658 ECRs working in Australia showed that despite their love for science, they intended to leave their research position due to job insecurity, poor workplace culture, lack of mentorship and increasing incidents of questionable research practices.<sup>7</sup> In the health sector, a recent report surveying a 660 EMCRs found that 80 per cent of respondents would not recommend pursuing an academic career and 46.4 per cent are thinking of leaving their professions. The majority of respondents were on fixed contracts (58.2 per cent), experienced burnout (66.9 per cent) and witnessed research misconduct (52.7 per cent).<sup>8</sup> Providing ECRs with the right environment to flourish in their careers will secure Australia's future research workforce.

<sup>7</sup> Christian, K. et al. (2021). Research Culture: A survey of early-career researchers in Australia. eLife. <https://elifesciences.org/articles/60613#s3>

<sup>8</sup> Taiaroa, G. et al. (2023). The Landscape - For emerging health and medical academic leaders in Australia. <https://mdhs.unimelb.edu.au/early-career-academic-network/resources/mdhs-eca-network-resources/landscape-for-emerging-academic-leaders>

UA recommends that the ARC explores ways to support our ECRs, including different models for application and assessment used overseas.<sup>9</sup> Traditionally, the ARC has supported researchers across all levels. Given the current environment with more ECRs wanting to leave the profession before they even start, it may be the appropriate time to discuss if the ARC should continue to fund the senior academic workforce through its programs, or skew funding towards ECRs to continue a pipeline of researchers. The ARC should also focus on strengthening the pipeline of emerging researchers through targeted support, mentorship and training programs. This is especially critical for Indigenous researchers, where programs that promote Indigenous networking and research collaboration contribute to greater success. Currently, schemes do not provide long-term support for researchers, and in order to retain researchers, ECRs need to see there is a runway for continued research. As part of redesigning the 'Researchers and Workforce' stream, UA urges the ARC to consider its role in nurturing research talent.

## 4 ENSURING DIVERSITY IN THE RESEARCH SECTOR

The NCGP schemes need to ensure that early career researchers, women, Indigenous and underrepresented groups have a fair access to research grants in order to build a diverse research system. As part of this, it may be worth exploring how other agencies managed this. For example, in 2022 the National Health and Medical Research Council's (NHMRC) implemented targeted measures to ensure gender equity, especially across the senior leadership levels of the Investigator Grant scheme.

Changes to the NCGP can be made to better support Indigenous research and researchers. The current 3-5 year timeframes of grant assume sufficient time to for researchers to build strong research relationships with Indigenous communities. Extending timeframes would allow for the time required to build respectful and reciprocal sustainable relationships as well as appropriate co-design.

## 5 REDUCING ADMINISTRATIVE BURDEN PRE AND POST AWARD

Administrative burden of the grant applications is still an issue researchers face when applying for the NCGP. The introduction of the two-stages grant application process for the Discovery Projects Scheme 2025 round is a welcomed step. It is anticipated that this approach will help applicants save time as only shortlisted applicants will be invited to submit a full application based on their Expression of Interest (EOI). UA is looking forward to the results of the two-stages process review and exploring ways to expand this approach to other NCGP schemes.

UA also recommend that the ARC continues to ensure that the review process is of the highest quality and integrity. For example, the ARC may explore investing in more in-depth, compulsory Reviewer Training to ensure that all reviewers understand key assessment criteria and the professional standards required.

There are also measures that could be implemented to streamline post award processes, and UA recommends the ARC consult with research offices across the sector on how the ARC can help reduce the administrative burden on research offices post award. This includes looking at improving how documents for grant variations are submitted to RMS, how end of year reports are compiled, improving access to RMS for awardees throughout all stages and exploring flexibility in agreements with partners under the broader linkage portfolio.

---

<sup>9</sup> Funding agencies in the US and UK are exploring allocating grants to ECRs based on potential rather than track record. Further information can be found here: US: <https://grants.nih.gov/policy/peer/improving-nrsa-fellowship/reviewer-instructions.htm>

## 6 BETTER MODELS FOR PROMOTING RESEARCH IMPACT

The Discussion Paper acknowledges the importance of demonstrating the impact and value of NCGP-funded research to the public and economy. It is also aware of the difficulty of measuring impact, especially for basic research where the full impact is often not realised until many years later.

There are, however, international examples that offer a new, practical approach which could be adapted to an Australian context. For instance, the Center for Advancing Research Impact in Society (ARIS) in the US built a community of practice made up of domestic and international researchers and practitioners who collaborate with researchers and community stakeholders.<sup>10</sup> ARIS focuses on sharing best practices and resources around broader research impact and knowledge mobilisation. It also provides researchers with tools, training and professional development opportunities to better demonstrate the societal benefits of their research. A similar network is created by Research Impact Canada, which helps universities maximise the impact of academic research through sharing best practices, co-developing resources and training in knowledge mobilisation skills.<sup>11</sup>

The ARC would benefit from demonstrating the impact overall of the range of research it supports, rather than the individual impact of every single project or fellowship it supports within the schemes. The ARC and the sector could collaborate on a case study-based approach that addresses the very reasonable public interest in what the nation gets for its investment in research, without applying onerous, bureaucratic and sometimes inappropriate and ineffective measures to every one of the relatively modest individual grants.

## 7 CONCLUSION

Now more than ever it is critical that the purpose of the NCGP is clear. In an environment of economic constraints with funding continuing to shift towards the higher end of the TRL scale the NCGP must be utilised to dig the well of basic research and providing the critical early-stage connections between that basic research and industry application.

In doing so, there is a significant opportunity to also support a critical cohort of our research workforce – early career researchers, without whom we cannot enhance long-term productivity and future as a knowledge generating nation. All of this must be underpinned by embedded research impact measures based on international best practice to ensure that the Australian community understands and values our vibrant and diverse research sector.

---

<sup>10</sup> About ARIS. <https://researchinsociety.org/about/>

<sup>11</sup> About Research Impact Canada. <https://researchimpact.ca/about-us/>