

The University of Sydney, response to the Policy Review of the National Competitive Grants Program (NCGP), April 2025

1. Does the proposed model provide a strong and clear basis for the NCGP over the next 20 years?

The University of Sydney welcomes efforts to simplify funding schemes and reduce the administrative burden of the NCGP. The intent is sound, and getting the implementation details right will determine whether the model will deliver on its ambition. We strongly recommend that the ARC consults the sector as it develops funding guidelines for the new schemes. Notwithstanding this, there are several inherent risks to the sustainability of the proposed NCGP:

Protecting basic research: “Supporting bold thinking and the best early-stage research, regardless of whether it is theoretical, methodological or aimed at addressing recognised problems”, is a key design principle. As the only major government funder of non-health and medical research, the NCGP’s role in supporting basic research conducted in universities is unique. This must be protected, because this research is the bedrock of the Australian R&D system and without it, the system’s long-term sustainability, as well as the ability to improve it, are at risk. The new structure also removes “the subdivision into Discovery and Linkage, because this is based on an artificial division between basic and applied research and a linear model of innovation”. All schemes apart from *Lead and Mentor* provide the opportunity for targeted collaboration with external partners or end-users. What is not clear, is how a merit-based assessment can compare research that is pure basic with applied research, or research that is a combination of basic and applied, in a way that does not disadvantage basic research. We confirm our support for industry and end-user engaged research, however we recommend quarantining some funding for pure basic research to secure our R&D pipeline. Relatedly, we note the diagram on page 16 (Figure 1) indicates that NCGP funding mechanisms will all sit within TRL 1. In our experience, much of the research currently supported by Discovery and Linkage programs comfortably sits in TRL 2-3, enabling researchers to iterate between theory and experiment, build capability, and form early partnerships with end-users, industry, or policy stakeholders. Artificially constraining the NCGP to TRL 1 would stifle the translation pipeline at its earliest stages and potentially reduce incentive for industry participation, particularly in the larger programs that are more centre-like and programmatic.

Attracting top level talent: The ARC Laureate Fellowship scheme has been, and continues to be, a cornerstone of Australia’s research excellence agenda. For many researchers, it is an aspirational and motivational target. With the proposed NCGP program emphasising embedded fellowships, and not even the *Lead and Mentor* scheme providing salary for the lead researcher, it is unclear what will replace schemes such as the Laureate Fellowship in recruiting and retaining top international and Australian research talent.

Guaranteeing career paths for EMCRs: This is a challenging task and there do seem to be some risks in the mechanisms proposed under the new structure. Embedded fellowships of two-year’s duration will make it harder for ECRs to start a career and support mobility. It is also uncertain whether the *Lead and Mentor* program will provide postdoctoral researchers and PhD students with the track record to be competitive in Australia and internationally.

The Policy Review of the NCGP is occurring concurrently with the Federal Government’s Strategic Examination of Research and Development (SERD). These two initiatives will play a critical role in shaping the future of Australia’s research and innovation landscape, and it is essential that they are aligned and mutually reinforcing. The University of Sydney suggests that the NCGP review be paused or extended until the SERD process is finalised, to ensure a coherent and coordinated approach.

2. Does the proposed model adequately address your concerns or those expressed in the initial consultations?

The initial consultations did not propose a fundamental overhaul of the ARC’s funding programs, nor did they suggest the removal of schemes that have demonstrated considerable effectiveness. In this context, the proposed model appears to extend beyond the scope of changes originally indicated by the sector during the consultation process. Previous sector recommendations promoted longer (not shorter) grants, especially to better support multidisciplinary projects which are inherently longer-term. They also highlighted the value of the Laureate Fellowship as an elite scheme supporting the best of the best. Sector recommendations around embedded fellowships were more aligned with previous mechanisms—such as APDs and APDIs—which provided salary support for the full duration of the project. The two years of salary funding currently proposed raises significant concerns, expanded on below. Previous consultations expressed strong support for moving towards a more integrated research and innovation ecosystem, and it is possible that a model focused on TRL 1 only will further disconnect the NCGP from the rest of the innovation ecosystem, rather than achieving this aim.

Furthermore, initial consultations highlighted the importance of retaining the ARC’s rejoinder process across all funding schemes. The rejoinder is a vital element of the peer review system, contributing significantly to the integrity and

quality of decision-making. It ensures fairness and balance, promotes transparency and accountability, supports informed evaluation, facilitates constructive engagement, and enables researchers to strengthen their proposals.

Commendably the Review proposes to speed up the move to community collaborative research by providing additional funding for 'eligible research projects across all NCGP schemes to engage with Indigenous communities and entities in the first year' (p12). This thinking authentically derives from consultations with the ARC Indigenous Forum where it was made clear that researchers need time in their first year of any research project to engage respectfully with communities about the project so that it can be a genuine collaboration. However, the proposed *Realise Indigenous Capability* scheme is a retrograde step and very much at odds with the recommendations from consultations with the ARC Indigenous Forum. It is a significantly reduced scheme in comparison with the existing Discovery Indigenous, plus DAATSIA scheme. We believe it is a mistake to remove the potential for a salary component that can allow EMCR Indigenous researchers to be supported to focus solely on research for an extended period.

3. Do you foresee any unintended consequences or significant risks which have not been accounted for in the proposed model?

There are several proposals in the model which would benefit from further thought to ensure the new NCGP structure achieves the aims identified in the Policy Review.

Fellowships. Traditional fellowships have served as critical platforms for cultivating leadership skills, establishing research independence, building research teams and attracting top talent. Embedding fellowships within broader projects may dilute these opportunities, weakening established career development pathways that have proven to be effective. Without adequate support, clear progression pathways, or a strong framework for fostering autonomy, a two-year appointment is unlikely to provide embedded fellows, particularly ECRs, with the opportunity to develop their own research identity and long-term trajectory. As currently outlined, the scheme does not compare favourably with leading international programs such as the Humboldt Fellowships, Marie Curie Fellowships, Sloan Fellows and NSF Postdocs. Under previous fellowship schemes, researchers could apply for positions at different institutions, allowing them to broaden their professional networks and gain experience in diverse world-class research environments. Researchers are less inclined to relocate for short-term fellowships, and in the absence of clear funding guidelines, it is uncertain whether a scenario could arise where the project is funded but the fellowship is not—potentially jeopardising the viability of the entire project. The absence of standalone fellowships will reduce Australia's competitiveness in attracting and retaining top research talent. Short-term embedded fellowships will be less attractive to high-calibre international researchers, and leading Australian researchers may seek opportunities in countries that continue to offer individual fellowships to advance their research careers. Additionally, the discontinuation of Industry Fellowships—previously a key mechanism for fostering academia-industry collaboration—could jeopardise the strength and sustainability of such partnerships if these are instead subsumed within broader projects not initiated or led by the fellow themselves.

Two-year projects. This approach seems inconsistent with the NCGP's emphasis on basic and early-stage applied research that is inherently longer-term, as well as the drive to decrease its administrative burden on researchers, universities and the ARC. Researchers already spend a great deal of time developing lengthy funding applications (typically ~100 pages), which takes away from their ability to execute existing projects. Moving to two-year funding cycles will mean that researchers will need to invest more time and effort in securing additional funding throughout their career. It can take up to a year to establish a research project, hiring and training staff in specialist skills, and establishing experimental protocols. In many cases, under a two-year funding cycle it will be time to apply for a new project before an existing project is even fully underway. Staff working on these projects will be subject to even greater employment uncertainty – a known issue that is already a major concern for early career researchers, and drives talent, and especially women, away from the sector. Two-year projects will also limit the ability for PhD students to undertake research training that is aligned with projects funded by the NCGP, limiting their experience, and preventing the projects from benefiting from the work of PhD students as they train.

Support for ECRs. The proposed changes to the NCGP have a clear remit to "reset how public investment in research supports and develops ECRs" and seem to provide multiple routes for incorporating ECRs into different grants. Implementation of the *Initiate* scheme, which targets both early and mid-career researchers, will need to ensure ECRs are not disadvantaged: despite any attempted administrative checks, they simply cannot compete with the 'best' MCRs. We recommend setting a quota or allocating a portion of *Initiate* funding towards ECR projects, or alternatively, taking a tiered approach similar to the current Future Fellowship scheme to address this risk. As discussed above, the recruitment of PhD students (3 years) will be unviable within a 2-year project timeframe and this will also adversely affect ECR (and MCR) career progression, diminishing the NCGP's ability to build the future workforce in some disciplines.

Research pathways for MCRs. The removal of fellowship pathways specifically targeted at MCRs (Future Fellowships) is a concern. The mid-career stage is a pivotal point in academic progression and many MCRs also balance substantial family and caregiving responsibilities. The absence of dedicated funding mechanisms for this cohort may drive more MCRs to exit the research sector. This represents a significant risk to the sustainability of Australia's research talent pipeline.

Blurring boundaries between fundamental and applied research. We understand, and generally support, the rationale for moving the NCGP beyond the perceived fundamental and applied research dichotomy. However, the integration of fundamental research within the new program remains uncertain. Our key concern rests in how projects will be judged in a fair and transparent way: simply stating that all types of research have a place in the grant schemes is insufficient. Grant guidelines, assessor instructions and panel processes will need to be carefully designed to ensure fairness. Without this, there is a risk of implicit bias—particularly towards projects demonstrating immediate national benefit or involving identifiable end-users such as government agencies—especially when assessment panels include substantial end-user representation. Such bias could inadvertently raise the threshold for funding fundamental research, undermining the NCGP’s core mission to support breakthrough discovery-led research. To promote transparency and enable ongoing evaluation, we recommend that the ARC publish statistics on the proportion of pure basic, strategic basic, and applied research funded in each scheme round. Furthermore, a plan for adaptive management should be established to address any unintended negative impact on fundamental research as the new model is implemented.

4. What issues would need to be addressed in the transition from the current NCGP schemes to the new model?

Issues that will need to be addressed in the transition to the new model include:

- a) The number of projects that researchers can be involved in will need to be reset between the new structure and old structure.
- b) The Discussion Paper does not outline how the ARC plans to ensure diversity in funding outcomes, particularly with respect to female researchers, as has been implemented by the NHMRC. This issue must be addressed explicitly.
- c) Clearer specifications for eligibility for each scheme (and especially *Initiate*) would be helpful, including explicit guidance on the eligibility of ECRs who do not yet have a fixed term contract or continuing position.
- d) There needs to be more explicit information about how many embedded fellowships will be made available so that researchers can make informed career decisions during the transition period.
- e) Further clarification is needed regarding the expectations for end-user collaboration across various grant schemes, again to enable researchers to forward plan during the transition period.
- f) Clear support for fundamental research is required, backed up by an assessment process that does not disfavour this compared to projects at the more applied end of the spectrum.

5. Are there any features that you would add to, or remove from, the model?

We recommend retaining some standalone fellowships for a longer time period (minimum of 3 years). This offers a stronger pathway for exceptional researchers to contribute to Australia’s reputation for research excellence and innovation. Individual fellowships serve as a valuable recruitment tool, encouraging external applicants both nationally and internationally, and providing an avenue to facilitate the return of Australian talent.

The LIEF scheme plays a pivotal role in strengthening Australia’s research capabilities, enabling researchers to access cutting-edge equipment and infrastructure crucial for advancing scientific and technological discovery. We do not agree with the abolishment of a standalone infrastructure scheme. While the Paper signals that LIEF type activity will be maintained, the proposed mechanism is vague and weak. Incorporating equipment funding into individual collaborative research proposals shifts the NCGP’s focus towards supporting specific research groups rather than contributing to open-access, shared infrastructure facilities, undermining the stated objective of fostering inter-institutional and nationwide collaboration. Open-access research infrastructure plays a critical role in promoting cross-institutional engagement and advancing large-scale, transformative research initiatives, and limiting its availability could hinder the development of a cohesive, collaborative national research ecosystem. However, if infrastructure funding is to be centralised or consolidated in the absence of the LIEF scheme, adjustments to the National Collaborative Research Infrastructure Strategy (NCRIS) will be necessary to ensure it can support infrastructure beyond its current programs. It is crucial that the ARC advocates for reforms to guarantee that NCRIS funding remains accessible to new participants and that funding decisions are subject to independent evaluation and rigorous peer review.

We query whether the proposal for an ‘idea-first’ blind peer review of the ‘quality of the research idea’ provides adequate opportunity for (a) assessing the fit of the research team to the research idea, and (b) whether it is properly embedded within a supporting environment. To examine this, assessors need to know who the researchers are, whether they have the necessary specialist skills and experience, and where they are working. This is especially pertinent in Indigenous research, where cultural knowledge and authority is specific to identified individuals, as well as in fields that require technical or artistic skills. The details of how this will occur in these schemes could be made clearer.

6. Do you have any feedback on the proposed grant schemes and their likely effectiveness?

Initiate

The *Initiate* scheme's maximum duration of two years seems inconsistent with basic research, which is long-term, and will not be sufficient for many high-risk, inter- and multidisciplinary projects. We suggest that a three or more year timeframe would result in better outcomes for the ARC's investment and support the NCGP to fund 'bold thinking and the best early stage research'. As discussed above, two-years is too short a timeframe to include PhD students on a project, both limiting their experience and preventing projects from benefiting from their work as they train. In addition, a two-year project window does not adequately allow for applying and receiving ethics approvals for research, or for publishing. The proposed size and duration of these grants may make sense for certain discipline areas, such as Maths and HASS where researchers often work as individuals. For other disciplines, such as Chemistry and Engineering where teams of researchers are needed for any research to be competitive internationally, the proposed grant size and timeline will significantly limit outcomes. The stated aim of the scheme to provide flexible postdoctoral salary options is welcome, but clarification is needed on whether the *Initiate* grant includes salary allocations from the ARC or whether top-up funding is expected from universities.

Realise Indigenous Capability

The proposed scheme will not provide sufficient long-term support if it is limited to being awarded only twice in a researcher's lifetime. This restriction will limit Indigenous researchers' opportunities for career progression and sustained research impact. Researchers at various stages of their careers often require continued access to funding and resources to reach their full potential. Limiting the number of awards could result in a lack of flexibility for Indigenous researchers to build and expand their research capabilities over time, potentially undermining the scheme's intended goals of fostering a sustainable, thriving Indigenous research workforce. A more supportive approach would offer opportunities for continued engagement and funding throughout a researcher's career.

Asking an Indigenous person for proof of their Indigenous status is a sensitive issue because it can undermine their cultural identity and perpetuate harmful stereotypes. For many Indigenous people, their heritage and identity are deeply personal and rooted in community and familial connections, making such requests feel intrusive and disrespectful. We recommend including a certification from Indigenous applicants in the application that states they will provide proof of status if required by the ARC.

Breakthrough

If *Initiate* grants are predominantly to be directed to EMCRs, then the quantity of those grants seems to be disproportionate to the quantity of *Breakthrough* grants. Supporting EMCRs to get started in an independent career is important, but if after two years the funding dries up because there are less than three times the number of *Breakthrough* grants available, then the system is effectively setting EMCRs up for failure.

Lead and Mentor

If this scheme is to achieve its stated aim of developing teams of researchers with a senior mentor for EMCRs, then the quantum of funding and the duration of the grant need to be increased. The proposed \$250K p/a is not sufficient to cover two postdoctoral salaries plus oncosts. We also recommend that the duration of the grants is extended to four or five years to accommodate the time needed for recruitment and achieving outcomes. As it stands, this scheme risks being the equivalent of a current Discovery Project – but with far fewer grants available.

Collaborate and Prioritise schemes

While the *Collaborate* and *Prioritise* schemes aim to drive impactful research, they risk narrowing the focus of funding, limiting opportunities for certain types of research, and favouring established researchers or industry collaborations over more diverse, long-term, or fundamental research. Both schemes may introduce rigidity by imposing specific frameworks for collaboration or alignment with national priorities, which could reduce the flexibility researchers have in pursuing diverse or novel research directions. If national priorities are going to either inform or drive these schemes, they must capture the full spectrum of economic, political, social and cultural benefits. For greater effectiveness, projects focussed on producing public good should have a lower threshold for matching funding (or purely in-kind support) from partners as compared to larger industry partners who benefit/profit from research and new inventions.

Overall scheme structure

More generally, the proposed scheme structure raises questions about how well the new NCGP will accommodate the diversity of research cultures and practices across different fields. Disciplines in the humanities, for example, often rely on individual authorship, open-ended research timelines, and intellectual work that is not easily captured by project milestones or team-based models. These forms of scholarship may not align well with a framework that places increasing emphasis on collaboration, industry engagement, or large-scale national priorities. It is essential that the ARC explicitly addresses how such disciplines will be supported within the new structure and ensures that funding remains accessible to a wide range of epistemic traditions and methodological approaches.