

ARC Centre of Excellence for the Weather of the 21st Century

School of Earth, Atmosphere, and Environment Monash University, Level 2, 9 Rainforest Walk, Clayton Campus Wellington Road, Clayton VIC 3800, Australia

Monash, Friday 11 of April 2025

Subject: Policy Review of the National Competitive Grants Program

National Competitive Grants Program Australian Research Council

Dear Australian Research Council,

The ARC Centre of Excellence for the Weather of the 21st Century welcomes the opportunity to contribute to the National Competitive Grants Program Policy Review.

Our Centre has 14 past and present holders of prestigious ARC fellowships (4 DECRAS, 1 QEII Fellowship, 8 Future Fellowships and 1 Laureate), and our emerging leaders have received seven early- and mid-career awards from the Australian Academy of Sciences. The professional and personal development of our Centre students and staff is central to achieving all our centre objectives.

We support the scope of the changes and the overall proposed schemes, with some caveats detailed in our submission, including the embedded fellowships. We wholeheartedly recommend that you conduct further consultation with the sector to refine the proposed schemes.

We support, in principle, the removal of the basic-applied research siloing of schemes and favour segmenting them by scale. However, this may present challenges for bidders and assessors stemming from the unclear criteria for competitive grant scales.

We support the Collaborate and Prioritise schemes, particularly the potential for collaborative basic research funding under Collaborate. However, we are concerned about how government priorities might influence Prioritise rounds and whether consortia will have enough lead time to develop comprehensive centre proposals after priorities are announced.

We also recommend strengthening the ARC's post-award support for these large schemes.

We look forward to contributing to further consultation stages in the review process and are happy to answer any additional questions you may have about our submission. Please feel free to reach out for further clarification or information.

Professor Christian Jakob Director, ARC Centre of Excellence for the Weather of the 21st Century

The ARC Centre of Excellence for the Weather of the 21st Century is a consortium of world-leading climate and weather researchers based across five Australian universities, together with major domestic and international partner organisations, including the Bureau of Meteorology and CSIRO

21st Century Weather aims to address these challenges by answering a vital question: **How will Australia's weather transform as our climate changes?**

We will advance our understanding of atmospheric circulation and weather systems, and develop ultra-high-resolution climate models to enhance our understanding of Australia's weather and climate.

The foundational knowledge we create will enable policymakers, industry and communities to make better decisions, harness weather resources and help us prepare for high-impact weather.

About the proposed model for the NCGP

We welcome the ambition of the review's scope and the proposed changes, with certain caveats. Moving away from the artificial dichotomy of pure versus applied research in defining schemes within the NCGP is positive. However, each scheme needs clear guidelines for applicants and assessors to determine the relative competitiveness of bids along the spectrum from basic to commercial.

We lend support for the proposed program structure in principle. The scale of investment mapping onto the stage of research maturity, in theory, allows for more investment in innovative or novel topics and methods at the *Initiate* scheme, while retaining the current scale of major investment at the *Collaborate* and *Prioritise* schemes.

We support the inclusion and resourcing of the *Collaborate* and *Prioritise* schemes. It is positive that these schemes focus on collaborative research without being prescriptive as to whether they fall into old definitions of basic or applied research.

We welcome the predictability of the timelines. This includes the predictability of timelines proposed for the schemes, the indicative number of grants to be awarded in each round, and their corresponding value.

Unintended consequences and significant risks in the proposal model We have reservations about the proposal for embedded fellowships and abolishing *DECRAs*. Embedded fellowships for Early Career Researchers (ECRs) within approved grants and the proposed abolition of *DECRAs* and *Future Fellowships* raise the following concerns:

- The career advantages of an embedded fellowship compared to a typical three-year postdoctoral research appointment within a Discovery or Linkage Project are unclear.
- 2. Two-year grants in the *Initiate* scheme are too short. This duration is inadequate to provide job security to ECRs; it is unlikely to attract strong overseas or interstate applicants because the typical postdoctoral role is three years or longer for fellowships, and it may prohibit PhD students with a three-year timeline from potentially getting involved.

We are concerned that embedding research infrastructure bids in other schemes may promote short-term thinking about major research infrastructure planning and double the uncertainty of grant success. An unintended outcome could be that infrastructure acquired through a

Collaborate project may be accessible only to a narrower user base compared to similar investments made under the existing LIEF scheme.

Issues to address in the transition from the current NCGP schemes to the new model

We welcome the efficient program management and red-tape reduction, particularly in pre-award space for major investments, where current *Centre of Excellence (CoE)* applications run close to 1000 pages.

We recommend that any savings and efficiencies gained in the pre-award space be re-invested in post-award support. It may be beneficial for each scheme to have dedicated subject matter experts in addition to general post-award clerical administration, with increased depth of knowledge and sector accessibility for post-award managers of the *Collaborate* and *Prioritise* schemes. A key reason for the success and adoption of best practices in research leadership within the existing *CoE* scheme was the dedicated support provided by the former ARC Major Investments Post-Award Team. The dissolution of this team and the associated loss of corporate knowledge from the ARC has had a marked, detrimental impact on *Centres of Excellence* in current rounds.

We encourage the ARC to play a role not only in distributing research funding but in stewarding it to ensure maximum benefit to taxpayers and society. We echo the University of Melbourne's words that "The ARC holds significant influence in the Australian research sector with the positioning and authority to demonstrate best practice. Through its programs and funding models, it can shape sectoral standards, norms, and expectations."

Changes to model features

We recommend ARC carry out further consultation with the sector to define how fellowships could best be implemented. The current *DECRA* and *Future Fellowship* schemes have been very valuable and career-defining for many recipients in our field. Many *DECRA* holders went on to secure permanent faculty positions. *Future Fellowships* have enabled Mid-Career Researchers to accelerate their research outputs, profile and leadership capabilities.

We acknowledge these schemes are expensive and lead to the concentration of a relatively small number of generously funded individuals. However, the embedded fellowships proposed in the discussion paper are inadequate to address this issue. They dilute the benefits of fellowships to individual recipients and add a layer of complexity and uncertainty to the proposed six-scheme structure. On the other hand,

removing the two-applications quota makes the scheme more approachable for ECRs. While currently DECRAs are great when obtained, researchers can be left out of the system until they reach the Future Fellowship eligibility window. The proposed scheme seems to overcome this by allowing ECRs to be on grants through embedded fellowships without having a quota on how many times they can apply.

We request further details on the Research Infrastructure Fund and Research Infrastructure Supplement schemes. The rationale for embedding these schemes within the *Collaborate* scheme instead of the current *Linkage Infrastructure Equipment and Facilities (LIEF)* scheme is unclear.

Likely effectiveness of proposed grant schemes

We welcome the Collaborate and Prioritise schemes. Current Industrial Transformation Research Hubs (ITRP) grants are essentially restricted to research that has direct commercial relevance to industry. This restriction misses the opportunity to boost the early co-design and collaboration stages of innovative research that has yet identified a path to commercialisation. The Collaborate scheme solves this problem and provides a scalable opportunity to build on success towards a Prioritise or Centre of Excellence entity.

We seek clarification on the selection process for government priorities **influencing the** *Prioritise* **scheme and its proposed timelines.** Our concern is that the electoral cycle may unduly shape these timelines. The current CoE scheme, which closely resembles *Prioritise*, typically requires three to four years for a team to develop a competitive proposal for a centre that is ready to operate after securing funding. While drafting the proposal takes time, significant efforts are dedicated to scoping, strategising and cultivating relationships with potential partners and participants. If the scheme is driven by government priorities announced just before funding rounds, it risks hasty proposals that lack depth and alignment, ultimately compromising quality. This haste could hinder the necessary organisational maturity needed to function effectively as a CoE from the outset. Further, large-scale collaborative research must stem from genuine scientific and societal needs, rather than merely reflecting the priorities of the government of the day. The recent removal of climate change from the U.S. scientific agen<mark>da starkly illustrates</mark> this crucial point.