



Professor Sue Thomas  
Chief Executive Officer  
Australian Research Council

16 May 2019

Dear Professor Thomas,

The Australian Academy of Technology and Engineering (the Academy) welcomes the opportunity to provide input into the Australian Research Council's review of the implementation of the National Science and Research Priorities (the Priorities) under the National Competitive Grants Program.

The Academy identified the following issues in our submission to the 2014 *Boosting the Commercial Returns from Research* issues paper:

*Setting national research priorities is a worthy idea in principle, and the Chief Scientist has spoken extensively on the need for a national research strategy. However, Australia has a poor history of using research priorities effectively to improve our research translation. For industry and other end users of research, national priorities are almost irrelevant. Their criteria will always be dominated by their perceived need for the outcomes of research, and their commitment to invest time and money in commercialising and adopting these outcomes. Care should be taken when emphasising the importance of a set of national research priorities. There are a range of issues requiring attention to improve Australia's research commercialisation, and much effort may be expended on developing research priorities and the surrounding framework with little return on investment.*

Many of these issues remain valid today. Whilst recognising the utility of the Priorities to the NCGP in the contexts outlined above, the Academy strongly suggests that the ARC continue to increase focus on translating research supported by the NCGP into economic, social and environmental benefit.

The Academy acknowledges the importance of setting national priorities for our research and development efforts. We strongly support efforts to review the Priorities themselves, but recognise that this is the responsibility of the Department of Industry, Innovation and Science and beyond the scope of the ARC's current review. The Academy looks forward to engaging with the broader review of the Priorities themselves.

Australia has a well-identified problem in translating our excellent research into beneficial uses. Further expanding translation and application of knowledge is a challenge area that requires greater focus in the National Competitive Grants Program (NCGP). Australia must also recognise that as a mid-sized economy we cannot fund every type of research, and we need to focus our efforts in areas of comparative advantage. The Learned Academies, via ACOLA, have identified a number of these



areas of advantage in the *Securing Australia's Future* project first report – *Australia's comparative advantage*. In addition, the Academy works via our National Technology Challenges (energy, agriculture, water, mineral resources, health technology, infrastructure, STEM education, industry & innovation, and digital futures) to identify areas of national advantage.

Given this, it's pleasing to see the results from your research on the Linkage Program (LP). The LP reflects industry-led research and development activities, and the fact that 94 per cent of linkage grants align with the Priorities indicates that they align well with industry R&D needs and business innovation. With Australia seeing a drop in BERD (Business Expenditure on R&D), the LP will play a greater role in encouraging more industries to engage with research translation and innovation.

The Academy's current research project on Industry Technology Readiness in Australia has identified the need for much more industry led research, such as that occurring in the LP programs, as well as the importance of impact and engagement metrics in promoting academia-industry collaboration. Clearly, setting the Priorities has been effective where research and industry collaborate. The fact that 40 per cent of the total funding to research under the Discovery Program is not aligned with the Priorities raises some concern for the future impact of that research.

The Academy and its Fellows would be pleased to further assist the ARC in this review as appropriate. The contact at the Academy is Ms Riajeet Kaur, Policy Analyst ([riajeet.kaur@applied.org.au](mailto:riajeet.kaur@applied.org.au) or 03 9864 0942).

Yours sincerely,

**Dr Margaret Hartley FTSE**  
Chief Executive Officer