

Submission for the House Standing Committee on Education, Employment and Training Inquiry into Australian Government's Funding for Research

Terms of Reference

1. The diversity, fragmentation and efficiency of research investment across the Australian Government, including the range of programs, guidelines and methods of assessment of grants.

Response

Systemic problems with funding assessments

Although the range of funding is extensive, it is not very targeted in terms of guidelines for what kind of projects will be funded. The funding is more dependent on what the detailed assessors (ARC funding as an example) think of the project benefits and alignments rather than any concrete guidelines from the funding bodies.

The methods of assessment must be made more transparent. The funding assessments especially for the ARC schemes must be significantly improved. It is basically a broken system. If one can seep through the cracks, they get funded. The first step towards establishing some sort of transparency is displaying the scores along with the detailed assessor comments for the various ARC funding schemes. It is a complex problem to solve and at present the chances of success depend significantly on whether the applicant belongs to a certain cohort or not. It is not a professional assessment exercise that should ideally take place.

Barriers to diverse career pathways

The system penalises people who pursue diverse pathways and then return to research. There is no incentive for industry based work and most things revolve around scholarly publications and citations. Although the ROPE is enabled to take all of this into account, it seldom is the case and most of the people who have had prolonged industry stints or some other diverse experience, struggle to get back into academia as they are not assessed as competent for the key national funding schemes which is heavily reliant on the opinions of the detailed assessors which can often be biased as the assessors themselves are competing for funding from the same pool of money.

Barriers to collaboration

As mentioned in the previous paragraph, there should be incentives for every career pathway that arises out of a research-oriented career. Once that happens, the issues around diversity of work and collaborations with industry will be sorted. Another barrier to industry is the huge amount of university level red tape that discourages people from spinning off start-ups. It is an extremely complicated process which academics struggle to navigate through and therefore a lot of ideas are buried before realising their true commercial potential.

Current partnerships between universities and industry are driven to secure more funding. This is counterintuitive to what the partnership should be about. It should be about how new knowledge can be created based on genuine problems that can be addressed through research in industry. Pursuing high-risk research is highly discouraged by the current metrics based system such as the ERA. Research Impact should be evaluated rather than pure scholarly metrics.

2. The process and administrative role undertaken by research institutions, in particular universities, in developing and managing applications for research funding;

Response

At present, the universities are responsible for submitting funding applications on behalf of researchers. While this is a good system to vet the quality of applications that are eventually submitted, there is seldom a criterion that the university applies. However, in general the problems in this area are much less and minimal compared to the issues with the actual assessment processes.

3. The effectiveness and efficiency of operating a dual funding system for university research, namely competitive grants and performance-based block grants to cover systemic costs of research;

Response

In principle, a dual funding system is a good idea. But on the other hand it will also work to increase the already high workload of the researchers and organisations to draft grant applications. Performance-based block grants to cover systemic costs of research would resolve some issues, however the performance criteria and the review process for such grants must be transparent and carefully thought out to avoid monopoly clusters to attract all the funding simply based on their networks with peer-reviewers.

4. Opportunities to maximise the impact of funding by ensuring optimal simplicity and efficiency for researchers and research institutions while prioritising delivery of national priorities and public benefit.

Response

At present, researchers spend a lot of their time simply writing grant proposals. This takes away a significant amount of time off their actual research which kind of defeats the entire purpose of allotting funding to that particular researcher for a project that can be of significant national benefit. This has grown into a vicious cycle and hampering productivity and does not allow the most value for money for the taxpayer funded research. The best case scenario would be to see future scientists be scientists, not fund raisers

The workload requirements on preparing grant proposals has to be alleviated to allow the researchers to do actual work that will put Australia at the forefront of new technologies currently being developed.

Another part of the puzzle is that a large chunk of government funds is channelled into the Go8 universities even though the proposal quality from other institutions could be leagues ahead. This not only creates an unfair advantage for these institutions but in my opinion is a regressive model that does not fund the best project/researcher but the best institution. Of course, this has to be balanced with feasibility of conducting the research, but the present model is simply a stick-in-hand approach where the institution being part of the Go8 matters a lot more than the rest of the merits and metrics. Award the project/researcher and not the institution.

Competitive funding is aimed to draw out the highest quality ideas, increase collaboration, and internationalisation, but combined with tight budgets and growing demand it also introduces consequences. One of these is the tendency to fund safe-research. Risky ideas have become a lot harder to attract funding for even though these are the ideas that will result in game-changing technologies.

As such, new models should be implemented on a small-scale and tested in controlled experiments. There is no single solution to the funding problems and it has to be a gradual progression in making the system more transparent, effective and efficient. A very interesting article with potential solutions can be accessed at <http://www.sciencemag.org/careers/2014/01/new-funding-model-scientists>