

DRAFT 2016 NATIONAL RESEARCH INFRASTRUCTURE ROADMAP

Response to the Consultation

January 2017

ABOUT RESEARCH AUSTRALIA

Research Australia is an alliance of 160 members and supporters advocating for health and medical research in Australia. Research Australia's activities are funded by its members, donors and supporters from leading research organisations, academic institutions, philanthropy, community special interest groups, peak industry bodies, biotechnology and pharmaceutical companies, small businesses and corporate Australia. It reflects the views of its diverse membership and represents the interests of the broader community.

Research Australia's mission is to make health and medical research a higher priority for the nation. We have four goals that support this mission:

- A society that is well informed and values the benefits of health and medical research.
- Greater investment in health and medical research from all sources.
- Ensure Australia captures the benefits of health and medical research.
- Promote Australia's global position in health and medical research.

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RESPONSE TO THE CONSULTATION

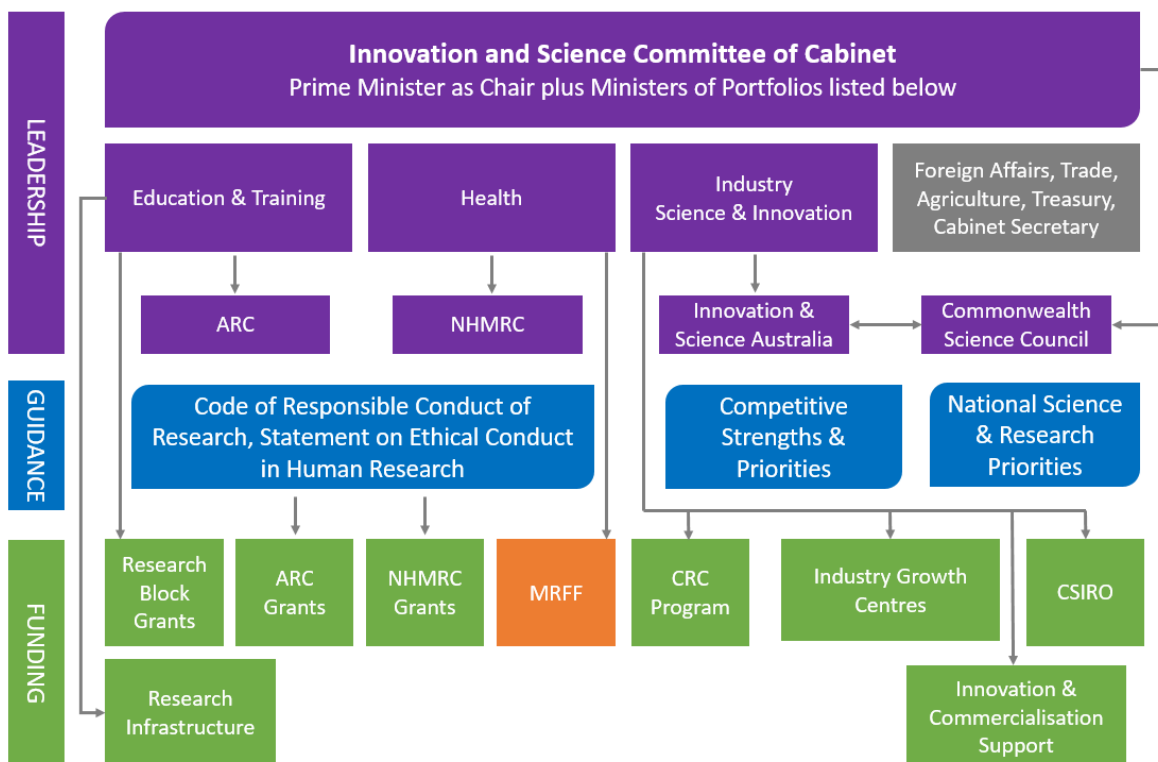
Introduction

Research Australia welcomes the opportunity to make this submission. As requested, Research Australia used the template provided for this purpose. We have restricted our comments to some specific aspects of the Draft Roadmap.

Recommendation 2: Establish a Research Infrastructure National Advisory Group

While Research Australia agrees that the functions outlined for the National Advisory Group need to be performed, we question whether it is necessary to create a new body expressly for this purpose. Commonwealth Government support for Australian research and research infrastructure is already subject to input from and overview by several bodies, at various levels from within Departments to individual ministers and Cabinet (see Figure 1 below).

Research Australia submits that an Interdepartmental Committee of the relevant Department Secretaries could be responsible for liaising with their stakeholders, with support from the office of the Chief Scientist. Sufficient oversight and governance should be available through the Commonwealth Science Committee and/or Innovation and Science Australia and ultimately through the Innovation and Science Committee of Cabinet. This approach would have the benefit of integrating consideration of research infrastructure into the work plans of these groups so that infrastructure needs and priorities are considered in conjunction with, for example, Australia's National Research Priorities, the Industry Innovation and Competitiveness Agenda, and the National Innovation and Science Agenda.

Figure 1. The Australian Government framework for science and innovation

Recommendation 3: Develop a Roadmap Investment Plan

Research Australia is supportive of the proposal to develop a Roadmap Investment Plan which seeks to engage with state and territory governments, universities, industry, philanthropy, research institutions and research organisations.

Engagement with State and Territory governments is important if we are to optimise the investments made by each level of government. Engaging State and Territory Governments is particularly relevant in the case of health and medical research, as they carry primary responsibility for the delivery of healthcare, provide significant funding for health and medical research, and many research facilities are located or affiliated with medical facilities.

The Draft Roadmap cites the Melbourne Biomedical Precinct as evidence of the benefits of clustering research and industry activities. This co-location provides an opportunity not only to improve research and better integrate research with the delivery of healthcare but for Commonwealth, state and territory governments to work together to meet the costs associated with the provision of research infrastructure. Several state governments (e.g. South Australia, Victoria) have recently made investments together with the Commonwealth in precincts to provide healthcare, training and research.

With many of the nine focus areas identified by the Roadmap relevant to health and medical research and with the precincts located close to universities, these precincts can provide a favourable location for many types of new national research infrastructure, and an opportunity for the Commonwealth to leverage State Governments' existing commitments to these precincts into co-investment in research infrastructure.

Greater engagement with universities on the planning and development of new research infrastructure also provides the opportunity to improve efficiency and scale and drive additional benefits. This is particularly the case in relation to computing facilities. The Plan has identified the need to upgrade the essential infrastructure which enables the transfer of data between universities and makes shared computing facilities more viable. This investment can be used to leverage opportunities to create syndicates, which pool and augment investments that would otherwise be made in institutional infrastructure to instead create national, shared research infrastructure that provides greater economies of scale and efficiencies. The same approach can also be taken to other research infrastructure. It is key to engage with universities about their future plans for research infrastructure and look for the opportunities to collaborate on shared, national facilities as an alternative.

In many cases, industry is attracted by the opportunity to work with world class researchers at Australia's universities. The partnership between the University of Melbourne and the Victorian and Commonwealth Governments which secured the creation of an IBM Global lab in Melbourne in 2010, has seen IBM's relationship with Australian researchers and industry continue to grow and expand, most recently with the establishment of the IBM Watson client experience centre in Melbourne. The investment by both levels of government and the university has been key to attracting this additional and ongoing private sector investment.

Recommendation 5: Recognise that a Skilled Workforce is critical to national research infrastructure.

Research Australia agrees with the Roadmap's observation that skilled technical and management staff are essential to maintaining the highest quality, most advanced research infrastructure capabilities. We also support the Roadmap's conclusion that *'(O)ngoing commitment to training and career progression, not only by the facilities and projects but also by the universities and research institutions that harness them, is essential.'* What is needed is not a solution that only addresses the specific needs of national research infrastructure but a broader approach that recognises the importance these individuals to research facilities of all sizes and types nationally.

Such a broad approach recognises that staff at national and landmark research infrastructure facilities are drawn from a broader pool of technical staff working at a range of public, private, academic and not for profit facilities. Better supporting all these staff will improve the efficiency and effectiveness of all research facilities and of Australian research more generally.

Recommendation 6: Existing Landmark Facilities require ongoing investment

Research Australia accepts that there is a need for ongoing investment but is concerned that in the past, expenditure on landmark (and other) infrastructure has been less than transparent. Future investment should be subject to transparent and open assessments of the need for the investment and the returns (financial and otherwise) it will deliver.

Before a commitment is made to any new or ongoing investment there should also be an assessment of whether participation in international infrastructure as an alternative, could provide the same or greater

benefits at a lower cost. This transparent approach allows for a prioritised national infrastructure ‘needs’ list over the mid and longer term. It also has the advantage of planning for a trained workforce for such infrastructure, from a global participation and domestic use perspective.

Recommendation 8: Raise awareness of national research infrastructure

Research Australia supports this recommendation and proposes that we use the existing networks to promote Australian facilities. They would include Department of Foreign Affairs and Trade (including Austrade), the Department of Industry, Innovation and Science, and the Department of Education and Training. They already have extensive networks of connections with overseas governments, businesses and research organisations and could build on their existing promotion of Australian research capability with a greater emphasis on the opportunities for collaboration with Australian researchers and the use of Australian research infrastructure. Again, a formalised Interdepartmental Committee or similar working group could strategically coordinate these efforts and activities, with oversight resting formally within the already existing national framework. (Refer Figure 1)

The role of the National Interest

The Draft Roadmap makes several references to the national interest, particularly as an extra criterion for making decisions, but there is no attempt to define what this means or to specify the underlying criteria. Research Australia is concerned that national interest can become a ‘catch all’ that could exempt a proposal from transparent assessment. While Research Australia acknowledges that the national interest is a legitimate consideration, particularly in the case of national security, we recommend that the Roadmap provide more guidance about what considerations would normally fall under national interest, how the national interest should be evaluated, and how this should interact with, relate to, and be prioritised against other criteria for assessing research infrastructure outside of national security.

Accountability and Measurability

The business case for investment in new research infrastructure needs to include a clear rationale for the investment, including demonstrating relevance to the Australian community and whether the opportunity cost is worth the intended outcome.

Where relevant this should include showing how the facility will support the pathways to the application and commercialisation of research and engagement with end users. Importantly, these can be used to establish KPIs with which to evaluate a facility’s ongoing scientific, social and economic contribution. This will help address the question of whether ongoing investment is justified. Given the significant funding required to both establish and maintain large scale infrastructure facilities, whole of life costs should be considered to ensure the longest possible view as part of the prioritisation and evaluation process to ensure today’s decision can be sustainably funded long into the future.

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