



Australian Academy of Science

Submission on the draft National Research Infrastructure Roadmap

The Australian Academy of Science (the Academy) welcomes the opportunity to provide comment on the draft 2016 National Research Infrastructure Roadmap. The Academy strongly supports the recommendations in the draft Roadmap. It is broad in scope and provides a clear sense of the central role of research infrastructure in supporting Australia's national research and development effort, and its place in the science policy landscape. This integrated, comprehensive approach to science policy is welcomed and commended.

The Academy would like to comment particularly on the following recommendations:

- **Recommendation 2: Establish a Research Infrastructure National Advisory Group.** It is appropriate that public investment on the scale envisaged by the draft Roadmap be guided by the best and most relevant expertise and knowledge, provided by independent and respected individuals. **The Academy recommends that such a group be supported by a research-capable secretariat, which is able to marshal the best available evidence on relevant economic and scientific models for consideration by members of the Advisory Group.**
- **Recommendation 3: Develop a Roadmap Investment Plan.** Recognising that the mechanisms for funding of national research infrastructure lie outside the scope of the National Research Infrastructure Roadmap, the Academy is pleased to see the priority focus on development of a Roadmap Investment Plan. In contemplating a Roadmap Investment Plan, the Academy wishes to reiterate its recommendation that infrastructure funding be long-term, strategic, and insulated from annual budgetary fluctuations, consistent with the long-term nature and nation-building capacity of research infrastructure investment. Consistency, confidence and predictability in the research infrastructure environment will allow considered investment by research institutions, industry and other stakeholders, and avoid costly disruptions to research programs. **The Academy's recommends that the Roadmap Infrastructure Investment Plan should focus on mechanisms to establish a sovereign wealth fund modelled on the Medical Research Future Fund or on earlier sovereign investment funds such as the Education Investment Fund.**
- **Recommendation 5: Recognise that a skilled workforce is critical to operating and successfully exploiting national research infrastructure.** The Academy considers the development of necessary capability to operate, access and maximise the research potential of national research infrastructure as essential. **The Academy recommends that the governance plans for all national infrastructure should include skills development plans and programs, as well as use of infrastructure in scientific training. These plans should recognise the importance of equitable access to training and use of infrastructure facilities.**
- **Recommendation 9: Urgently Address National High Performance Computing (HPC).** HPC and broader eResearch platforms cross all research disciplines and facilitate the work of many Australian researchers and research-intensive businesses. For this reason, the Academy is pleased to see the prominent placement of this infrastructure in the Roadmap; the commitment to existing HPC facilities and to developing an Australian Research Data Cloud are particularly welcomed. The platforms envisaged – as well as the platforms in the Humanities and Social Sciences theme – will greatly enhance Australia's capacity to conduct diverse, interesting and cross-disciplinary research.

Thank you once again for the opportunity to comment on this important national policy framework.