

Australian Academy of Science

A response by the Australian Academy of Science to the Strategic Roadmap Exposure Draft for the National Collaborative Research Infrastructure Strategy

9 December 2005

The Academy of Science welcomes the latest milestone in the development of a national research infrastructure strategy and commends the NCRIS Committee on its work in scoping national capabilities.

The Academy is pleased that its earlier recommendations to establish an on-going commitment to maintaining the national research infrastructure has been given effect, with an ongoing commitment of around \$100 million per year, effectively replacing the previous level of funding for the Major National Research Facilities (MNRF) program and the Systemic Infrastructure Initiative. The certainty of longer-term funding provides a sound basis for NCRIS's work.

Clearly, this strategy requires a different approach from the MNRF program. The Academy has provided a comprehensive submission¹ to the Advisory Committee that included a scoping study of the infrastructure and personnel needs of the research areas covered by the Academy's National Committees for Science.

The current five-year commitment of funding, together with a well crafted implementation strategy should remove much of the uncertainty created by the *ad hoc* nature of the former MNRF program, that was characterised by tight time frames for the preparation of proposals, and the limited potential to properly engage the states and territories, or overseas organisations, in the process.

The Exposure Draft has identified key strategic infrastructure and support requirements that have much value and warrant full support; the Academy would find it difficult to choose among these priorities. The Academy of Science is concerned that the available funding falls short of supporting even half the priorities identified by the NCRIS Committee, let alone the operating costs of research facilities that include the employ of first-rate technical and professional staff.

The Academy acknowledges that the strategic, managed process of NCRIS will serve the country well, but in order to enhance the total resources available and to ensure that the facilities are operated by leading researchers of international standing, it may well be necessary from time to time to invite competitive tenders. That is, at times contestability has a place and indeed, contestability may attract additional resources, from State governments, international partners and Australian research institutions, than might otherwise be unavailable under the managed process. Tenders should be subject to international peer review.

The Academy believes that there are two models for operating major research facilities, and that the NCRIS should adopt a dual approach to the method of funding these facilities.

¹ Australia's Major National Research Facilities: A submission to the National Collaborative Research Infrastructure Strategy Advisory Committee (NCRIS), Australian Academy of Science, February 2005.

In one model, in which it is feasible to attract international funding partners, then a facility should be fully funded by those partners, with access granted free of charge based on the scientific merit of proposals to use the facility. A standard protocol could be developed to cover these arrangements, based on a contractual relationship between the partners that establishes a relationship between the proportion of the cost of the facility provided by the partner, and the proportion of facility capacity used by that partner. There are existing international models of this type, including, for instance, the Anglo-Australia Telescope.

The other model is similar to the existing MNRFs, for which the users are required to meet at least part of the operating costs. In this model it is critical that ARC or NHMRC research grants that require access to a particular facility include a line item to cover the cost of that access.

The Academy cautions that the NCRIS Committee may be unduly optimistic about the willingness of Australian researchers and institutions to pool their resources and research efforts in collaborative research enterprises that would optimise the investment in research infrastructure and support. The first round of NCRIS funding might comprise a mix of negotiated, managed investments for some facilities and competitive tenders for some others. It would be most interesting to compare the short and long-term outcomes of the processes with respect to funding arrangements, numbers of users and the quality of the research.

In the longer term, it is important to note that, in order to maintain research facilities as world class, the cost of infrastructure rises faster than the CPI, and it is important that the level of funding of infrastructure support remain under review, to ensure that the overall infrastructure inventory remains world class, and able to leverage international collaboration, both in terms of overseas participation in Australian facilities, and Australian access to international facilities.

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