Dear John

Re: NRIC Strategic Framework for Infrastructure Investment Discussion Paper

The University of Sydney is pleased to provide input to the NRIC consultation process for the proposal to establish a strategic framework for research infrastructure (RI) investment.

This University broadly supports the principles put forward in the Discussion Paper and the role of NRIC itself in advising the government. We would certainly support NRIC to push for ongoing, long-term funding of research infrastructure as the NCRIS program concludes. Thus we strongly support the underlying position of the paper which is that it is vital for Australia to invest proactively in world class research infrastructure to maintain its standing, and in some cases leadership, in research and innovation. There is no question that the best researchers should have access to the best equipment in order to do the best quality research – and this includes support for researchers to travel to use infrastructure at other institutions.

Further, we support the key principle that funding for world class research infrastructure must also underpin the training and provision of skilled technical, managerial and scientific staff to support and use the infrastructure to maximum effect.

We recognise the distinctions made between the different types and scales of research infrastructure - local, national or landmark. It is this diversity that makes a uniform approach to research infrastructure inappropriate, and this reality is reflected in the response to the first question.

Response to Questions

Question 1: The proposition is to undertake a roadmapping exercise every three years. Are there reasons why it should be more or less frequent?

The answer to this question depends on the scope of the exercise and also on the availability of funding to be invested in the priorities identified in such a roadmap. Five years may be more appropriate given the time required for the development of a concept or proposal for a major piece of infrastructure. A longer timeframe is also more cost-
effective and permits adequate evaluation of implemented projects. There must, however, be flexible and rapid mechanisms for identifying and supporting the requirements of new discoveries or quick access to international projects. Such flexibility allows us to be proactive rather than reactive and overcomes the inherent tension between the idea of timely funding as well as funding according to well considered priorities.

**Question 2: Are there other prioritisation processes that should be included in the Strategic Framework?**

The principles for prioritisation are appropriate, particularly given that they cover the delivery of world-leading research and the identification of current and emerging strengths. However, we suggest that prioritisation according to strength and quality take precedence over the national research priority areas as these are too broad to be genuinely useful. We also emphasise the importance of the international dimensions of RI – for example;

- the impact of international investment decisions (both off-shore and in Australia) on Australian National and Landmark RI investments; and
- the value of investment in off-shore infrastructure where Australia has limited expertise but capacity for major research advances – e.g. synchrotron science, where investment into international facilities and associated travel grants enabled the growth of Australian expertise to such a level that we now punch above our weight.

As above, we again encourage a system that has inbuilt flexibility to evaluate and capitalise upon emerging opportunities, and opportunities outside the current National Research and Innovation Priorities.

**Question 3: Should Australian Government investment in research infrastructure at the national and landmark scale favour collaboration in establishment and operation of infrastructure or research collaboration, or both?**

Certainly both can be important, but collaboration is not an end in itself and is only worthwhile when it enables something that otherwise is not possible. Collaboration may be appropriate in the development and implementation of RI, but funding priorities should be based on the quality and impact of the research being or to be performed independently of whether this is achieved at the individual, program, institution or multinational level. We have serious concerns about requirements for collaborative leveraging of funding as such a requirement can distort the evaluation process and lead to perverse outcomes.

**Question 4: Where in the system should the costs of access to research infrastructure for public researchers be met? How should this be implemented?**

It is important to emphasise that the cost of access to infrastructure includes travel, data transfer and communication; and these costs of course are greater in the case of international infrastructure. Partnership in a large international facility without the means to travel to that facility or access its data stream is not useful. Costs for such access need to be a component of government infrastructure investment.

We suggest that publicly funded researchers have free access initially (and based on merit), and where practical with a gradual increase in costs to cover direct costs, which would ideally be funded by research grants, unless the quality of the science justifies the continued support at the full or partial level; i.e. the continued investment is clearly
justified. In any case, such decisions should be made at the level of individual RI governance and management, based on the revenue required to maintain a leading facility. There is some RI where the core facility is of a scale that its operations can only be supported centrally (e.g. synchrotrons, reactors).

**Question 5:** How should the pricing regime for research infrastructure be structured? Should there be different models for financial contributors to the facility, merit-based researchers and industry?

Pricing regimes should be determined by the governance of individual RIs. Pricing will need to consider the nature of the activity being done, whether it is genuine research or simply a service to industry for example, as well as the degree of use and capacity. Pricing might also reflect the level of partner institution investments with those making contributions receiving special treatment. Access to merit-based researchers should be free or at a level that simply covers direct costs. Access to industry should be at full cost recovery.

**Question 6:** How should the cost of access by publicly funded researchers be funded?

As mentioned at question 4, costs should be shared between core funding from the RI and individual research grants. However, as individual research grants are diminishing in size, there is an increased need for core funding.

Yours sincerely

(Signature removed for electronic distribution)

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