

# STRATEGIC FRAMEWORK FOR RESEARCH INFRASTRUCTURE INVESTMENT

*Powering Ideas*, the Australian Government's innovation agenda, aims to build a stronger national innovation system to assist in creating a better Australia – one that can meet the challenges and grasp the opportunities of the twenty-first century.

*Powering Ideas* included the creation of the [National Research Infrastructure Council](#) (NRIC) to provide strategic advice on future research infrastructure investments.

The *Strategic Framework for Research Infrastructure Investment* has been developed by NRIC in consultation with the research sector to guide the development of policy advice and the design of programs related to the funding of research infrastructure. The Council will undertake stewardship, promotion and championing of the Framework across the Australian Government and the States and Territories.

Investment in innovation and research drives productivity. Excellent research infrastructure, addressing national priority areas, is necessary to deliver high-quality research and innovation outcomes, to enable Australia to be globally competitive. The principles identified in this Strategic Framework will ensure that the approaches used to plan, fund and develop research infrastructure deliver the maximum contribution to economic development, social wellbeing, environmental sustainability and national prosperity.



**Australian Government**  
**Department of Innovation  
Industry, Science and Research**



## Purpose of the Strategic Framework

The purpose of the Strategic Framework is to:

- identify principles to guide the development of policy advice and design of future programs related to the funding of research infrastructure;
- ensure that research infrastructure delivers the maximum outcome for the nation for the money invested; and
- improve consistency and coordination of Australian Government and State and Territory programs that support research infrastructure.

The applicability of the Strategic Framework principles will vary depending on the scale of the research infrastructure investment.

For the purpose of this Framework, investment in research infrastructure has been divided into three broad categories:

- Local – research infrastructure which could be expected to be owned and operated within a single institution.
- National – research infrastructure on a scale generally not appropriate to be owned or operated by a single institution and which often supports collaborative research and is generally regarded as part of the national research capability.
- Landmark – large-scale facilities (which may be single-site or distributed) that serve large and diverse user communities, are generally regarded as part of the global research capability, and engage national and international collaborators in investment and access protocols.

## Definition of Research Infrastructure

Research infrastructure comprises the assets, facilities and services which support research across the innovation system and which maintain the capacity of researchers to undertake excellent research and deliver innovation outcomes.

## Principles for Research Infrastructure Investment

### Continuity of Funding

- Research infrastructure funding programs should be ongoing and predictable, to achieve optimal use of funds.
- Infrastructure that continues to be a priority should be able to access funding for ongoing operations.

#### *Guiding considerations*

- *Ongoing and predictable funding programs support a more strategic, collaborative and planned approach to research infrastructure investment.*
- *Ongoing operational funding for priority national and landmark research infrastructure assists in maximising the benefit from the original investment.*

### Holistic Funding

- Funding required to support research infrastructure will vary between elements, including capital costs, governance, skilled technical support staff and operations and maintenance. Support should be available to cover these key elements.
- Funding programs should allow some funding for project development costs, either for a facilitation-based process or for project development and scoping activities.

- In the context where not all national and landmark infrastructure would necessarily be replaced, depreciation for these facilities should not be funded by Australian Government funding programs.

#### *Guiding considerations*

- *The ability to invest in human capital and operating costs results in superior service delivery and more efficient, productive and viable research infrastructure facilities.*
- *Funding for specialist staff assists in developing and maintaining the highly-skilled work-force required for the efficient operation of sophisticated facilities.*
- *Rigorous, consultative project planning is a key input to developing excellent research infrastructure facilities, particularly at the national and landmark scale*

### Prioritisation

- Any proposed research infrastructure investment should align with and support Australia's research, innovation and infrastructure priorities.
- Funding for Australia's research infrastructure should focus on areas where Australia:
  - undertakes world-leading research or innovation;
  - has demonstrated a particular strength in international terms; or
  - has reasons to seek to strengthen capacity in an area of research or innovation.
- Prioritisation of investment in research infrastructure is necessary to ensure appropriate, effective and efficient investment; to support strategic decision-making with regard to national and landmark infrastructure; and to ensure Australia achieves the maximum outcome for the money invested.

- Processes for funding research infrastructure should be transparent, provide effective use of funds and clearly target intended outcomes.

#### *Guiding considerations*

- *With finite resources, Australia needs to choose where to target its investments in research infrastructure.*
- *Australia needs to consider its priorities in both a national and an international context.*
- *Transparent processes to determine priorities will lead to better informed and more widely supported outcomes.*
- *The strategic identification of capabilities and priorities should be through a consultative roadmapping process every three years.*

#### **Excellence in research infrastructure**

- Proposals for investment in all scales of research infrastructure should be evaluated on the basis of their ability to create excellent infrastructure.
- Governance structures should be robust and fit for purpose to ensure the delivery of excellence in research infrastructure.

#### *Guiding considerations*

- *Excellence in research infrastructure is essential to ensuring Australia is able to continue to compete internationally and contributes to a strong innovation system.*

#### **Collaboration**

- Funding should favour investments that demonstrate collaborative approaches for the creation and development of research infrastructure and that foster and facilitate a collaborative research culture.

#### *Guiding considerations*

- *Collaboration is a key driver of innovation and is critical to ensuring the research community can deliver the outcomes Australia needs.*
- *There are often economic and efficiency benefits from taking a collaborative approach to establishing and operating research infrastructure.*

#### **Co-investment**

- Co-investment in research infrastructure is desirable as it demonstrates a commitment by the investing party/ies to the project. Any program requirements for co-investment should be flexible to leverage maximum support.

#### *Guiding considerations*

- *Flexibility and transparency in co-investment requirements can lead to greater overall leverage and improves the ability of States and Territories to coordinate support for research infrastructure with the Australian Government.*
- *Opportunities for industry co-investment in research infrastructure facilities should be clear and encouraged as a basis for closer research collaboration.*

#### **Access and Pricing for Australian-based infrastructure**

- Research infrastructure at the national and landmark scale should be made widely accessible to publicly funded researchers.
- Research infrastructure at the local scale should be made accessible to the extent possible in order to maximise use and support collaboration between institutions.
- Pricing policies for research infrastructure should be clear and transparent and allow for flexibility in the charging model, while still maximising the public benefit.

- Access to and pricing of finite research infrastructure resources should be based on a combination of factors including merit, co-investment, the role of the host institution, opportunities for early career researchers, and supporting collaborative research.

#### *Guiding considerations*

- *An effective access regime ensures that research infrastructure is put to optimum use and fosters collaboration both nationally and internationally.*
- *An effective pricing policy for publicly funded research infrastructure ensures that meritorious research is not priced out of the market.*
- *Clear and transparent pricing policies allow for access costs to be built into research funding proposals.*

#### **Access to overseas-based infrastructure**

- Research infrastructure funding programs should consider Australian membership of, or contribution to the construction of, overseas facilities as the development of infrastructure in Australia is not always the most cost-effective solution to providing research infrastructure.
- Research funding programs should consider requests for funding Australian researcher access to overseas facilities.
- Where possible Australian research infrastructure facilities should be encouraged to provide access to International researchers to foster international links and collaborations and build local skills.

#### *Guiding considerations*

- *Funding access to overseas-based research infrastructure ensures Australian researchers can utilise the best infrastructure available and furthers Australia's engagement with the global research community.*

#### **Evaluation and Monitoring**

- Research infrastructure funding programs should incorporate procedures for regular and rigorous monitoring and evaluation to ensure the effective use of public funds.

#### *Guiding considerations*

- *Evaluation and monitoring is essential to determine whether the research infrastructure has delivered its desired outcomes and achieved its objectives over the short and medium term, as well as over its whole life-cycle.*
- *Consideration of whether the research infrastructure continues to be a national priority is assisted through rigorous evaluation.*