National Collaborative Research Infrastructure Strategy

# EVALUATION REPORT EXECUTIVE SUMMARY



The National Collaborative Research Infrastructure Strategy (NCRIS) is an Australian Government program for the development of national research infrastructure that has provided \$542 million from 2005-06 through to 2010-11. The aim of the program is to provide researchers with access to major research facilities and the supporting infrastructure and networks necessary to undertake world-class research.

Key features of NCRIS — namely the emphasis on collaboration from the outset, the strategic identification of capabilities through the consultative roadmapping process, the facilitation process to develop capability plans and the provision of funding for skilled staff and operating costs — contribute to the NCRIS model being an appropriate, effective and efficient mechanism for establishing critical research infrastructure for Australia. Incorporation of these key features should be considered in the development of policy for future research infrastructure programs.

There are some key learnings arising from this evaluation with respect to facilitation, governance, interactions with state and territory governments and the source of funding within the system for infrastructure access. These are elements requiring further consideration in the design of programs for research infrastructure provision going forward.

Current uncertainty about future funding for research infrastructure, particularly the provision of funding for operating costs and specialist staff, creates management difficulties for current NCRIS capabilities and places Australia at risk of losing the highly-skilled work-force required for efficient operation of sophisticated facilities. This issue should also be considered for future funding programs.

In the preparation of this NCRIS Evaluation Report the Evaluation Team, convened by the Department of Innovation, Industry, Science and Research, drew on the work of a Science Panel and an Economic Consultant. The teams developed their assessment of the NCRIS program using evidence gained from a stakeholder survey and from consultations with NCRIS capability providers, users and key stakeholders including state and territory governments, universities and publicly funded research agencies. Key findings relating to the terms of reference are summarised as follows.

# **APPROPRIATENESS**

There is a clear, ongoing need for government funding of research infrastructure. It is appropriate, and consistent with current government policy, that government provide funding to create research infrastructure to enhance the national innovation system and to foster collaboration.

The roadmapping process that underpinned decision-making in the implementation of the NCRIS program provided a firm foundation for the allocation of funding. The systematic and consultative approach to resource allocation ensured that the highest national priority capabilities were addressed. With appropriate, regular updates, this process is recommended for future research infrastructure funding programs.

Facilitation achieved effective resource allocation within capabilities and is an appropriate mechanism for developing national capabilities.

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The choice of facilitator is critical to the success of a facilitation process. The balance between the need for an independent facilitator and the need for the facilitator to have standing in, and knowledge of, the relevant community requires careful consideration.

Collaboration naturally drives a broader perspective and is good for resource allocation within a capability.

The NCRIS model is appropriate for funding medium- to large-scale, capability-based research infrastructure and, for this type of infrastructure, is superior to previous models. The analysis shows that it has substantially improved the allocation of resources.

## **EFFECTIVENESS**

The NCRIS approach has been successful in achieving the creation of improved national research capability by embracing a broad definition of infrastructure to develop new facilities and leverage existing capacity.

The NCRIS program has broad community support and has engendered a trend towards a more strategic and collaborative approach to the funding and development of research infrastructure.

NCRIS capabilities are supporting novel, collaborative research activities that are already, or have the potential to be, world-class.

The NCRIS program is cost-effective. Particular outcomes that contribute to its cost-effectiveness are:

- » a willingness to invest in human capital and operating costs, resulting in superior service delivery and viability of facilities;
- » combined bargaining power resulting in improved pricing; and
- » leveraging of existing infrastructure and co-investment, resulting in investments of increased value.

There is clear evidence the NCRIS program has been effective in meeting research infrastructure needs within the defined funding envelope. Whether this effect continues to be achieved will depend on whether the momentum gained by NCRIS can be maintained.

## **EFFICIENCY**

Taking into account government reporting requirements, administration of the NCRIS program by the department has been efficient, with all funds contracted on schedule and with appropriate administrative costs for a complex program.

Future programs for funding research infrastructure should consider providing more advice and guidance regarding suitable governance models.

Greater transparency is needed around how access fees for infrastructure are charged, including improved rigour and documentation regarding the calculation and degree to which access fees reflect true marginal costs.

Access to research infrastructure needs to be paid for somewhere in the innovation system. Currently it is unclear where this responsibility lies. This issue should be addressed.

# **INTEGRATION**

NCRIS appears to have been successful in engaging Australian Government, state and territory governments and government agencies on priority areas without compromising a national approach to funding research infrastructure.

## PERFORMANCE ASSESSMENT

Performance assessment for NCRIS capabilities is adequate, but could be improved by more consistent and benchmarked performance indicators across capabilities, and aggregation of performance data online.

### STRATEGIC POLICY ALIGNMENT

NCRIS is aligned with the Australian Government's broader policy objectives and with its programs. Future research infrastructure funding programs would need to ensure that this alignment is retained for existing and new programs.