

Australia Data Strategy Consultation  
Department of the Prime Minister and Cabinet  
PO Box 6500  
Canberra ACT 2600



30 June 2022

## **Australian Academy of Science submission to the Department of the Prime Minister and Cabinet on the Australian Data Strategy**

The Australian Academy of Science (the Academy) welcomes the opportunity to provide a submission to the Department of the Prime Minister and Cabinet on the *Australian Data Strategy*.

A national, whole-of-government data strategy to drive coordination and investment in data infrastructure, skills and capabilities and fit-for-purpose legislation and regulation is essential if Australia is to make the most of the opportunities that contemporary data acquisition and management can provide.

The pandemic and recent natural disasters have amply demonstrated the importance of rapid access to data to inform timely decision making and enable the research that improves our understanding of complex issues.

The national strategy should therefore view data as a public good and must enable effective access by Australia's research sector, which is both a significant source and user of data.

Nationally coordinated and integrated data and relevant infrastructure is vital to making data available when it's needed, and to enable research that leads to new knowledge and technological innovation for the benefit of Australians.

Two recent Academy reports present key strategic data issues for research and provide important recommendations for national data coordination, [Advancing data-intensive research in Australia](#) and [Australia's data-enabled research future: Science](#). We direct your attention to these reports to inform the *Australian Data Strategy*. In particular:

- A national data strategy should seek to **unify Australia's data ecosystem** through consistent data policies and modern data standards. These policies and standards are essential to support data integration and interoperability across public, private, research and non-government sectors.
- The Academy recommends that the Australian Government facilitate **adoption of the [FAIR](#) (findable, accessible, interoperable and reusable) principles and [CARE](#) (collective benefit, authority to control, responsibility and ethics) principles for Indigenous data governance**. These principles allow feasibility, purpose, cost (financial and environmental), and the data life cycle to be considered, and respect Indigenous peoples rights and interests in their data.
- The current strategy does not clearly address data arising from government-funded research. The Academy recommends **that FAIR and CARE be mandated for all research data** resulting from government funding schemes and ensure that the costs of managing research data are recognised in funding policies.

- A major priority of the data strategy should be to **improve access to government data for research**. Difficulty accessing government data, with individual researchers spending much time negotiating access to data, is a major barrier to research. Inability to access data prevents fast, coordinated responses to situations requiring timely information, prevents data linkage and leads to missed opportunities for impact. Streamlined access to government data and coordinated access and sharing arrangements between state and federal jurisdictions, research and industry are needed to facilitate data movement out of institutional silos and integration of valuable datasets for research and decision making.
- Non-sensitive **government data should be made available in its raw format, with minimal manipulation or conversion and its supporting material (e.g., metadata and linked datasets) also made available**. Government data should be available in open, non-proprietary standards and formats with a clear definition of licensing and access constraints to promote accessibility, interoperability and reusability for research. The data collected and stored must also be machine-readable to enhance discoverability and ensure that data assets remain fit-for-purpose and useable in the future.
- As research becomes more data-intensive, **building data skills in the research workforce is an urgent priority** to enable Australia to maximise the value of data for research and innovation. Developing a research workforce equipped with the skills to engage with data and new technologies, use and manage data effectively, requires strategic planning and coordinated investment.
- Identifying and **mapping critical datasets and data infrastructures for future research** would be a valuable first step towards creating a coordinated and integrated data ecosystem. The 'data inventories pilot program' highlighted in the strategy could be a starting point to identify and map important government-managed data assets for research.

To discuss or clarify any aspects of this submission, or to arrange further consultations with the Academy, its Fellowship or National Committees for Science, please contact Chris Anderson, Director Science Policy, [chris.anderson@science.org.au](mailto:chris.anderson@science.org.au).

Yours sincerely



Professor Chennupati Jagadish AC PresAA FTSE  
President  
Australian Academy of Science

Enc (2) *Advancing data-intensive research in Australia* report and *Australia's data-enabled research future: Science* report.