

Accessing Australia's Research Collections stakeholder brief

Background

The Department of Education (the department) has engaged the Australian Academy of Science (the AAS) to conduct scoping work to help understand the potential opportunities that a national approach to collections could deliver for Australian researchers. This scoping work is in response to the 2021 National Research Infrastructure (NRI) Roadmap recommendations.

The project is in two phases:

1. initial paper to combine desktop analysis and initial stakeholder conversations (landscape analysis, mapping collections maturity, domestic and international models of collections as NRI)
2. a consultation paper for broader comment and consultation across the sector. A final paper will then be provided to the department.

It is anticipated that the AAS activity for the department will be completed by November 2023.

Australia has many unique and valuable collections that are critical for advancing research discovery, developing new industries, enriching education, connecting communities to nature and science, preserving biological and cultural heritage, as well as managing biosecurity and other risks for Australia.

These collections include biobanks, natural science collections, cultural collections, living collections, museums, botanical gardens, herbaria, research samples and longitudinal records. Researchers use collections to investigate our natural world, society and history and increasingly offer powerful insights into threats such as climate change and natural disasters. These collections are uncoordinated at the national scale, and their research potential is unrealised.

Advances in new technologies such as artificial intelligence and machine learning, digitisation, sample analysis, genomics and transcriptomics are transforming the way these collections can, and are, being used to unlock new research possibilities. Possibilities include bioprospecting for new sources of food, fibre and pharmaceuticals, early detection of invasive pests and pathogens, informing public health decisions, aiding the discovery of genetic disease causes and advancing personalised medicine.

Given the size, complexity, and diversity of Australia's collection ecosystem and the breadth of stakeholders across it, further investigation is necessary to identify how a national approach to collections could support the Australian research sector. The study will help understand the potential opportunities arising from a national approach to collections. This includes networking and leveraging existing investments, and assessing the emerging capability needs and technology platforms.

Outputs from this exploratory work conducted by the Australian Academy of Science (the AAS) will inform decision-making by the Department and the NRI Advisory Group about potential next steps.

These stakeholder consultations aim to collect information to feed into phase-one of the project. This will assist the Department to develop a better understanding of the existing collections ecosystem and stakeholder landscape including the existing relationships between different collections communities and the maturity of different collections in ability to support research.





Key discussion questions

- How would you describe the maturity of your collections in terms of researcher accessibility, interoperability and co-operation with other collections? How do you define maturity in this context?
- What are the barriers to making your collections more accessible to researchers and more interoperable and coordinated with other collections?
- What models have you seen of effective approaches that enable better utilisation of collections for research either in Australia or internationally, if any?
- What models have you seen of effective approaches that enable better collaboration between collections to support researchers, either in Australia or internationally (if any)?
- What are the benefits of these models and what do they deliver for research?
- What would be critical to the success of applying this model to Australia's national collections to support researchers?

Contact details

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