



Australian Government
Department of Education

National Digital Research Infrastructure (NDRI) Working Group

Terms of Reference

Last Update: August 2024



Purpose

These Terms of Reference (ToR) describe the role of the Working Group (WG) responsible for developing a NDRI Investment Plan (NDRI IP), to be finalised by early 2025.

Context

As in the 2021 National Research Infrastructure (NRI) Roadmap, NDRI is defined as: digital research infrastructure components that are collectively managed and operated as coordinated facilities and services for research institutions and users across the country because they are so nationally significant, or large in scale, complexity or cost that they cannot be offered by a single institution or facility.

The NDRI IP will advance the 6 outcomes of the NDRI Strategy endorsed by the NRI Advisory Group (NRIAG) on 12 July 2024.

- Outcome 1: Underpinned by training frameworks for researchers and NRI workforce.
- Outcome 2: Responsive to technological and societal shifts.
- Outcome 3: Consistent in its standards for data collection, including attribution, curation, and access.
- Outcome 4: Integrated computing and data infrastructure.
- Outcome 5: Cybersecure, particularly for national-scale data and computing.
- Outcome 6: Maximised by openly available research software tools.

The NDRI IP will be guided by the current NRI Principles and NRI Investment Principles and should position Australia's researchers to undertake and apply world-class research. It is anticipated that the NDRI IP will be completed by the NDRI WG, endorsed by the NRIAG, and submitted to the Department of Education (the Department) in early 2025. The Department will then progress it to the Minister for Education for decision, in consultation with the Minister for Industry and Science.

Objectives

The WG will provide expert advice to the Australian Government and the NRIAG on the highest priority investments required, ensuring Australia has a strong NDRI capacity to support world class research. The WG will be informed by strong engagement with research and user needs, and the NDRI IP should be forward looking and set out the expected research and user needs up to 10 years from now. The NDRI IP will encompass the full life cycle of relevant NDRI. It should consider longer term investment.

The investments identified should:

- position Australia and its research communities as a world leader in research that relies on NDRI.
- consider whether Australia should make investments that explicitly focus on developing world leading NDRI capabilities, including but not limited to:
 - the utility of an expanded and integrated national computing capacity
 - the benefits to Australian research and industry from high performance computing capacity
 - options for international partnerships and collaborations.



- set out how future investment will prioritise the maintenance and/or development of:
 - key skills, such as research software engineering data analytics, and emerging capabilities.
- set out the potential impact on Australia’s research capacity and outcomes of differing levels of additional National Collaborative Research Infrastructure Strategy (NCRIS) investment, against various potential levels of funding:
 - a high level of investment from NCRIS, plus co-investments
 - a medium level of investment from NCRIS, plus co-investments, which represents a lower investment but is beyond the urgent minimum
 - a low level of investment from NCRIS, plus co-investments, which represents an urgent minimum investment.

The WG should not assume all current arrangements continue, therefore the NDRI IP should:

- consider options for reorganising or enhancing governance, with regard to:
 - the speed of decision making within and across integrated NDRI investments
 - the speed and efficiency of support provided to research communities and other NDRI users.
- consider the need to create new NDRI or build on existing NDRI.
- consider the benefits to the translation and commercialisation of Australian research.

Membership and Responsibilities

The WG is an advisory body. The Minister for Education, in consultation with the Minister for Industry and Science, will make decisions on funding from NCRIS to implement the NDRI IP.

The WG will consist of at least 6 members, including a Chair. The Chair will have primary responsibility for maintaining communication with the Department and for coordinating the work of the WG. Combined, the WG members will have:

- knowledge and expertise in relation to planning and conducting leading edge research, and how NDRI support for research can be maximised.
- knowledge of Australia’s NDRI system.
- deep knowledge and expertise in relation to the individual components of Australia’s NDRI system and ability to apply that knowledge to improve the system.
- deep knowledge of emerging technologies that will improve NDRI components.
- deep knowledge of workforce and skills issues relevant to NDRI.
- knowledge of potential co-investing organisations.

The term of membership is from inception of the WG until the final NDRI IP is submitted to the Department.

Members are obliged to declare conflicts of interest. The WG will maintain a register of material interests, update that register at each meeting and manage conflicts through standard protocols.



The WG will ensure broad cultural perspectives are presented for significant decisions and issues. The WG will particularly ensure that the IP is respectful to First Nations cultures and knowledges, and promotes and sustains ethical and responsible First Nations research across disciplines and methodologies (AIATSIS Code of Ethics for Aboriginal and Torres Strait Islander Research, CARE Principles for Indigenous Data Governance) as well as working towards commitments to improve the outcomes of First Nations peoples (Closing the Gap, Priority Reform 4).

Meetings

The WG will meet as needed and should use a consensus-driven approach to decision making. A quorum will consist of the Chair, and two other members.

Deliverables and process

The WG will produce the NDRI IP in line with the following process:

- *Initial consultation* – a blend of open and targeted consultation on advancing the objectives of the IP.
- *Call for potential investments* – potential NDRI providers, identified through the initial consultation, will be invited to submit costed outlines of how they could provide research infrastructure that would advance the objectives of the NDRI Strategy.
- *Drafting and testing* – gathering and incorporating feedback on the initial draft NDRI IP from the NRIAG and through other consultations.
- *Consultations on the draft final NDRI IP* – a blend of open and targeted consultation on how well the draft final IP will advance the objectives of the NDRI Strategy.
- *Submit* - Finalise the NDRI IP, including recommended funding level, seek endorsement from the NRIAG, and submit to the Department.

