

Response to the Consultation on the National Draft Research Infrastructure Strategy

November 2023

Introduction

The Australian Government's Department of Education (the department) is coordinating the development of a Strategy for Australia's National Digital Research Infrastructure (NDRI) in accordance with recommendation seven of the [2021 National Research Infrastructure Roadmap](#).

The department released a [Draft NDRI Strategy](#) for public consultation, via an electronic Research Australia's response to the questions is provided below.

NDRI Strategy Section-specific Responses

Please provide your view on the following statements.

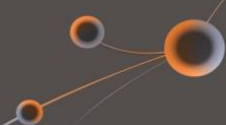
Vision for future NDRI ecosystem A user-centric design (outlined in the "Vision for future NDRI ecosystem" section) is an appropriate foundation for Australia's NDRI ecosystem over the next 10-15 years.

- Strongly agree
- Agree
- Neutral
- Disagree
- **Strongly disagree**

Do you have any additional comments relating to the "Vision for future NDRI ecosystem" section of the Draft NDRI Strategy? Max 1000 characters.

Response: The Vision for the Strategy should reflect the future state that will be achieved if the Strategy is successful in delivering the outcomes it describes. The draft Vision, 'User-centric design must lie at the heart of Australia's NDRI system', does not do this. The following proposed draft would better capture the sentiment and objectives:

'Australia has NDRI developed through user centric design that is meeting the evolving needs of Australian researchers in universities, research institutes, government and industry.'



We further suggest the Objective of the Strategy should be to deliver the Strategy's six outcomes as the means for realising the vision:

By 2030, Australia's NDRI will be characterised by the features described in the Outcomes section of the Australian Government Department of Education NDRI Strategy, 2023.

Outcomes

The six Outcomes (identified in the "Outcomes" section) adequately capture the priority features of an Australian NDRI ecosystem that will meet the Vision (described in the "Vision for future NDRI ecosystem" section).

- **Strongly agree**
- Agree
- Neutral
- Disagree
- Strongly disagree

Do you have any additional comments relating to the "Outcomes" section of the Draft NDRI Strategy? Max 1000 characters.

Response: Refer to the comments made on Outcomes 1, 3 and 4 under the individual response areas.

Challenges

The identified Challenges (outlined under the headings for Outcome 1 to 6) adequately describe the major issues facing the Australian NDRI ecosystem over the next 10-15 years.

- Strongly agree
- **Agree**
- Neutral
- Disagree
- Strongly disagree

Do you have any additional comments relating to the identified Challenges? Max 1000 characters.

Outcome 1. Underpinned by training frameworks for researchers and NRI workforce

The content in the "Underpinned by training frameworks for researchers and NRI workforce" section adequately presents the high-level information expected for this section of the NDRI Strategy.

- **Strongly agree**
- Agree
- Neutral
- Disagree
- Strongly disagree

Do you have any additional comments relating to the "Underpinned by training frameworks for researchers and NRI workforce" section? Max 1000 characters.

Response: Research Australia welcomes the recognition in this Outcome of the importance of training and supporting researchers, and of training and providing a skilled NRI workforce. The training and support of researchers and the provision of an NRI workforce must be more explicitly recognised as elements of National Digital Research Infrastructure. (See our response to the last question, on defining digital research infrastructure.)

Outcome 2. Responsive to disruptive technological and societal shifts

The content in the "Responsive to disruptive technological and societal shifts" section adequately presents the high-level information expected for this section of the NDRI Strategy.

- **Strongly agree**
- Agree
- Neutral
- Disagree
- Strongly disagree

Do you have any additional comments relating to the "Responsive to disruptive technological and societal shifts" section? Max 1000 characters.

Outcome 3. Consistent in its standards for data collection, curation and access

The content in the "Consistent in its standards for data collection, curation and access" section adequately presents the high-level information expected for this section of the NDRI Strategy.

- Strongly agree
- Agree
- Neutral
- **Disagree**
- Strongly disagree

Do you have any additional comments relating to the "Consistent in its standards for data collection, curation and access" section? Max 1000 characters.

Response: Outcome 3 identifies the challenge as rapidly increasing rates and volumes of data. What it fails to recognise is that the arguably greater challenge is the increasing complexity of data. The solution identified in outcome 3 is expressed largely as improved data management practices. While no doubt important, Outcome 3 should recognise there will also be a need for greater data storage and analysis capabilities. Addressing the increasing complexity of data will also require better non- technical governance, in areas such as consent and ethics frameworks. The outcome also talks about national data governance. Research Australia believes there is the opportunity for a forum of NRDl providers to promote greater uniformity in approaches and sharing of ideas and expertise in data governance. The Strategy should propose the creation and operation of this forum. Consideration should also be given to including data intensive NCRIS facilities which are not included in the definition of NDRI.

Outcome 4. Integrated across levels of computing and data

The content in the "Integrated across levels of computing and data" section adequately presents the high-level information expected for this section of the NDRI Strategy.

- Strongly agree
- Agree
- Neutral
- **Disagree**

- Strongly disagree

Do you have any additional comments relating to the "Integrated across levels of computing and data" section? Max 1000 characters.

Response: Outcome 4 identifies the need to better integrate levels of computing. It also needs to respond to the need to integrate **data** and to provide infrastructure which is able to link and integrate different datasets and across different systems, for example across different sources of data in the health system. Achieving this as part of this outcome will be crucial to the success of the overall strategy. This is not only a technical computing challenge, but requires infrastructure to support governance processes, development of data sharing standards etc. It also requires integration with systems outside the Research Infrastructure system, for example with health system data infrastructure across jurisdictions as well as operating systems.

Outcome 5. Cybersecure, particularly for national-scale data and computing

The content in the "Cybersecure, particularly for national-scale data and computing" section adequately presents the high-level information expected for this section of the NDRI Strategy.

- **Strongly agree**
- Agree
- Neutral
- Disagree
- Strongly disagree

Do you have any additional comments relating to the "Cybersecure, particularly for national-scale data and computing" section? Max 1000 characters.

Outcome 6. Maximised by openly available research software tools

The content in the "Maximised by openly available research software tools" section adequately presents the high-level information expected for this section of the NDRI Strategy.

- **Strongly agree**
- Agree
- Neutral
- Disagree
- Strongly disagree

Do you have any additional comments relating to the "Maximised by openly available research software tools" section? Max 1000 characters.

NDRI Strategy Overall Response

Overall, the presented NDRI Strategy will help shape a future Australian NDRI ecosystem that meets the rapidly growing demands of researchers and other users for increasingly complex digital tools and services.

- Strongly agree
- **Agree**
- Neutral
- Disagree

- Strongly disagree

Please write any additional comments or feedback that you may have relating to NDRI Strategy overall. Max 1000 characters.

Response: While the 'National' in NDRI is defined, there is no definition of Digital Research Infrastructure in the draft Strategy, (although there are examples of DRI provided on page 4). Research Australia submits the Strategy must include a definition of Research Data Infrastructure and that it is critical this definition goes beyond software and hardware to include the systems, frameworks governance and expertise (workforce) required to enable researchers to make the most effective use of data. The following wording is suggested:

Digital Research Infrastructure is the electronic technology used to generate, store, process, interrogate and manage data for research and related purposes. It includes hardware, software, platforms and tools, as well as the structures, processes and people needed to operate, use and further develop the infrastructure.

END