Please note: the substantive content of the 2026 NRI Roadmap Survey begins at Question 20 (with prior questions dealing with administrative and other information).

As such all submissions that are published include the responses submitted from Question 20 onwards only.

Q20.

Part 2: Research themes

2.1 NRI comprises the assets, facilities and associated expertise to support leading-edge research and innovation in Australia and is accessible to publicly and privately funded users across Australia and internationally. We are seeking your input on possible directions for future national-level investment - i.e., where the requirements are of such scale and importance that national-level collaboration and coordination are essential.

The 2021 Roadmap used a challenge framework to support NRI planning and investment. With this in mind, consider likely future research trends in the next 5 - 10 years, and with respect to one or more of the 8 challenge areas identified in the 2021 Roadmap as listed below:

- describe emerging research directions and the associated critical research infrastructure requirements that are either not currently available at all, or not at sufficient scale and
- describe current national infrastructure requirements that you anticipate will no longer fit the definition of NRI in 5-10 years.

Do not limit your commentary to NCRIS funded capabilities.

Q21.

Resources Technology and Critical Minerals Processing

Q22.
Food and Beverage

Q23.
Medical Products

Q24.
Defence

Q25.
Recycling and Clean Energy

Q26.
Space

Q27.
Environment and Climate

Q28.

Frontier Technologies and Modern Manufacturing

Q29.

2.2 The 2024 statement of National Science and Research Priorities (NSRPs) includes outcomes linked to each priority to assist in identifying critical research needed in the next 5 to 10 years.
Consider the priority statements and, with respect to one or more of the 5 priority areas as listed below:

- describe emerging research directions and the associated critical research infrastructure requirements that are either not currently available at all, or
- not at sufficient scale and describe current national infrastructure requirements that you anticipate will no longer fit the definition of NRI in 5-10 years.

Do not limit your commentary to NCRIS funded capabilities, and where relevant, refer to the underpinning outcomes and research identified in the NSRPs document.

Q30.

Transitioning to a net zero future

Q31.

Supporting healthy and thriving communities

Q32.

Elevating Aboriginal and Torres Strait Islanders knowledge systems

Q33.

Protecting and restoring Australia's environment

Q34.

Building a secure and resilient nation

Q35.

2.3 The case for a new NRI capability, or enhancements to existing capabilities, typically emerges through advocacy from research communities clustering around rigorously identified needs and goals. Such a concept could respond to a requirement for novel or expanded capacity within a domain, or across domains, and must be such that it could only be made available with national-level investment.
If you have identified such a requirement, briefly describe the need, the proposed infrastructure capability, the medium-term goals, impacted research communities, and the timeframe over which you advocate its establishment. Your response can include links to relevant existing reports.

URGENT NEED TO IMPROVE OPEN SCIENCE INFRASTRUCTURE Australia has considerable expertise in Open Science and investments in infrastructure including NCRIS, funded by the Australian government. NCRIS (and organisations supported by NCRIS) do not have a specific mandate that enables Open Science. Facilities can be and are used to support research investigations, however, the products are not necessarily open. This situation could be significantly improved if NCRIS, and Australia as a whole, implemented a National Open Science Action Plan that guides the investment of resources to improve the openness of the knowledge infrastructure in line with international best practice. THE ENCROACHMENT OF BIG PUBLISHING INTO THE UNIVERSITY SECTOR There is an urgent need for Australia to regain control over its research outputs and information about its research, both of which are increasingly being captured into a small number of very powerful companies. The largest of these are Clarivate and RELX. RELX is the parent company of Elsevier and 40% of revenue comes from databases and tools according to the 2022 RELX annual report. The encroachment of big publishing into the university research infrastructure includes offering publication and data 'repositories' as part of the research management suite that do not provide capabilities and features necessary for open access services, resulting in institutions migrating community/open-source repositories into sub-optimal commercially owned ones. Australian dependency on multi-national publishers is not reducing, this market is fast consolidating with the top 20 largest publishers controlling 83% of the corpus in 2022. The former Chief Scientist of Australia, Dr Foley, argued that publisher paywalls have a negative impact on innovation and on SME enterprises - in particular (Chief Scientist's Advice on Open Science, 2023, 8). In 2024, 56% of Australian publications remained closed access (COKI, 2025). Models identified for redressing this include a consideration of rights retention (Addendum to advice on open access models: unlocking knowledge for national benefit (2023, 2). Additionally, NCRIS should support rights retention to help shift institutional practice, which, combined with investment in a national repository, would reduce the risk of multinational publishers setting the terms of engagement with our publicly funded research outputs. DEVELOPING A MIGRATION ROAD MAP TO A NATIONAL REPOSITORY Currently Australia has repository infrastructure at institutional level, rather than at a national level. There have been several attempts to identify the nature of our repository network. The ARDC has compiled a list of data repository software and DMP tools. CAUL undertook a review of Repository Infrastructure in 2018. A list of open repositories on OA Australasia's website doesn't list the platforms on which they are based. Repository and research reporting software is often commercial and owned by a few companies – Clarivate, Elsevier/RELX and Digital Science (whose parent company is Springer Nature). It is clear that essential research infrastructure for our publicly funded research is being pulled into a very small number of commercial hands. There is an urgent need for a clear understanding of the extent of the commercial take-over of our national publicly funded research outputs and scholarly infrastructure. THE PROPOSED INFRASTRUCTURE CAPABILITY 1. NCRIS, and Australia as a whole, implement a National Open Science Action Plan. 2. A central repository based on an open-source platform (such as DSpace) 3. A cross-walk capability to link existing functional repositories in institutions and academic organisations into the central repository 1. A National Open Science Action Plan National reporting on the UNESCO Recommendation on Open Science is significantly impeded by lack of relevant sector knowledge and co-ordination. This reduces the utility of reporting as a mechanism to improve national performance. NCRIS should review organisations that have used an NCRIS capability, assessed in line with the UNESCO Recommendations. 2. A central repository based on an open-source platform (such as DSpace) that can be used by researchers without access to an appropriate institutional or subject based repository to make their research openly available. 3. A cross-walk capability to link metadata from existing functional repositories in institutions and academic organisations into the central repository The purpose of the central repository is to develop an openly collection of all research outputs generated by Australian researchers. This repository provides a location for those researchers and institutions without access to a functional open access repository. It prevents the unnecessary duplication of resourcing at individual institutions to develop repositories. IMPACTED RESEARCH COMMUNITIES All Australian researchers and their institutions would benefit from the above proposals. THE TIMEFRAME OVER WHICH YOU ADVOCATE ITS ESTABLISHMENT Australia is an outlier in co-ordinating our national engagement with Open Science, with the heavy lifting done by voluntary organisations and committed individuals. This situation is sub-optimal. Immediate attention to this problem is required. It is anticipated that the development of a central repository and the associated cross walks could be at proof-of-concept stage within 18 months to two years. The subsequent roll out including policy development and advocacy work would take a further three years to be fully operational and adopted nationally. NOST members would welcome a meeting with NCRIS to discuss these issues further.

Q36.

Part 3: Industry perspectives

This section is seeking input specifically from industry-based respondents. Other respondents can skip this section.

Recommendation 6 of the 2021 Roadmap related to improvements in industry engagement with NRI. To complement work on this topic that has occurred since then, we are seeking additional advice on NRI requirements as perceived by current or potential industry-based users.

Q37.

3.1 Have you (or your organisation) interreacted with or used Australia's NRI?

- ○ Yes
- ◉ No

Q38.

3.2 If so, please briefly outline the NRI capabilities you (or your organisation) have interacted with or used. Do not limit your response to NCRIS capabilities.

This question was not displayed to the respondent.

Q39.

3.3 Please indicate your (one or more) primary reasons for interacting with NRI:

This question was not displayed to the respondent.

Q40.

3.4 If you answered no, please indicate your (one or more) primary reasons:

- ☐ I did not know about it
- ☐ Other facilities suit my needs better
- ☐ I would like to, but cannot get access due to geographical location
- ☐ I would like to, but believed that access was only available to academic researchers
- ☐ I am not aware of any capability that meets my needs
- ☑ Other (please specify) NOST has a different remit

Q41.

Part 4: Other comments

4.1 Please elaborate on any of your above responses or add any other comments relevant to the development of the 2026 Roadmap. Your response can include reference or links to existing reports that you recommend be considered during the 2026 Roadmap development process.

See references in attachment

Q49.
4.2 Optional Document Attachment.
Note: Our strong preference is that answers are provided against the relevant questions in the survey. However, this file upload option is available for submissions in file format, where needed. Please ensure the document includes your name or organisation.

NOST SUBMISSION. Other Comments.FINAL.pdf
274.4KB
application/pdf