

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

Co-ordinated and quality assured biobanking processes are needed to address the development of medical products and treatments for emerging and other infectious diseases. Biobanking capabilities are currently fragmented and lacking harmonised processes across the country. For pandemic preparedness, systems for sample collection, storage and sharing should be established well in advance of any emergency. This type of collection could underpin the development of treatments, vaccines and other research insights into emerging pathogens.

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

Co-ordinated approaches to biobanking would support the quicker understanding of emerging infectious diseases.

Q32.

Elevating Aboriginal and Torres Strait Islanders knowledge systems

A co-ordinated approach to biobanking across the country could be integrated with discussions with Aboriginal and Torres Strait Islander community and health organisations to explore acceptable ways for samples to be collected, used and stored in keeping with community preferences.

Q33.

Protecting and restoring Australia's environment

Q34.

Building a secure and resilient nation

Co-ordinated biospecimen collection, storage and distribution would contribute to Australian self-sufficiency in pandemic response, enabling tailored research within Australia and the development of treatments and vaccines.

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.

The advantage of (and need for) a more co-ordinated approach to national biobanking, particularly for infectious diseases, was demonstrated during the COVID-19 pandemic where swift access to biospecimens enabled significant early findings (<https://doi.org/10.1038/s41591-020-0819-2>). Initial efforts to join existing biospecimen collections together has demonstrated the willingness to participate in and acceptability of collective efforts towards more transparent specimen access in Australia (<https://doi.org/10.33321/cdi.2023.47.66>), but this is small scale and does not account for any changes to the ethics and governance arrangements required for more general shareability. It also doesn't address the quality control issues that would add value to a national collection. A joint national biobanking infrastructure for infectious diseases would enable swift and quality-controlled sample collection and sharing around the country, with participating locations in all major cities and capacity to recruit also from regional centres and some more remote areas. It would enable storage and distribution of these collected specimens in a scientifically rigorous and community acceptable manner. This would support a huge variety of research types, including virological, immunological, transcriptomic, genomic, proteomic, metabolomic etc. These efforts could be linked to clinical research and clinical trials, with additional data supporting epidemiological research, modelling, health economic and other investigations.

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) interacted 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)

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.