

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

Ramping up extraction and processing of critical minerals on a time line which meets projected needs while ensuring positive social and environmental outcomes requires a step change in every aspect of the critical minerals development cycle from exploration and approvals, through operations to closure and rehabilitation. Integrated, strategic, landscape scale approaches require secure integration of environmental, socio-economic, production and supply chain data across industry, government, research and the community; research infrastructure must enable research outcomes to be delivered in the end-users' domain and at implementable scale rather than through bespoke research architectures.

Q22.

Food and Beverage

Q23.

Medical Products

Q24.

Defence

Nature based risk is an emerging area of strategic vulnerability. With projected increasing demands placed on the defence force through participation in natural disaster responses there is an impact operational readiness. Understanding nature-based risks and developing tools to forecast and mitigate these risks should be seen as an area of strategic research importance and not simply confined to research in the earth and environmental sciences.

Q25.

Recycling and Clean Energy

Ramping up development of renewable energy infrastructure on a timeline which meets projected demand while ensuring positive social and environmental outcomes requires a step change in the planning and approvals process and increased understanding of cumulative/landscape scale impacts on environmental outcomes. Integrated, strategic, landscape scale approaches require secure integration of environmental, socio-economic, production and supply chain data across industry, government, research and the community; research infrastructure must enable research outcomes to be delivered in the end-users' domain and at implementable scale rather than through bespoke research architectures.

Q26.

Space

Q27.

Environment and Climate

Ramping up critical minerals extraction and processing, and the development of renewable energy infrastructure on a timelines which meets projected demand while ensuring positive social and environmental outcomes requires a step change in the planning and approvals process and increased understanding of cumulative/landscape scale impacts on environmental outcomes. Integrated, strategic, landscape scale approaches require secure integration of environmental, socio-economic, production and supply chain data across industry, government, research and the community; research infrastructure must enable research outcomes to be delivered in the end-users' domain and at implementable scale rather than through bespoke research architectures. National environmental data supply chains must make possible integration of research and privately held (industry generated) data to enable improved research outcomes and enable regional scale planning, management and reporting.

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

Effective protection and restoration of Australia's environment requires integrated, strategic, landscape scale approaches. These should be enabled by secure integration of environmental, socio-economic, production and supply chain data across industry, government, research and the community; research infrastructure must enable research outcomes to be delivered in the end-users' domain and at implementable scale rather than through bespoke research architectures. National environmental data supply chains must make possible integration of research and privately held (industry generated) data to enable improved research outcomes and enable regional scale planning, management and reporting.

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.

National environmental data supply chains must make possible integration of research and privately held (industry generated) data to enable improved research outcomes and enable regional scale planning, management and reporting.

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.

Q39.

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

- ☒ For expertise or advice
- ☒ Access to research resources or products
- ☐ Access to equipment for research
- ☐ Access to equipment for operational reasons
- ☐ Help in translating research
- ☐ Access to data
- ☐ Support for clinical trials
- ☐ Other (please specify)

Q40.

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

This question was not displayed to the respondent.

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.