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

Seafood value adding technology/machinery is required for on board processing of seafood in the wild caught sector. Seaweed research/infrastructure is a relatively new field that has huge potential to provide future foods (and offset greenhouse emmisions)

Q23.
Medical Products

Marine biomedical research is currently a small field of research with small infrastructure capability. This field has as large potential to assist modern medicine

Q24.
Defence

Q25.
Recycling and Clean Energy

Infrastructure to enable recycling of plastics and production of alternative packaging products must be scaled up

Q26.
Space

Q27.
Environment and Climate

IMOS is expending it's marine monitoring footprint. However, many more regions are not monitored well and lack marine monitoring infrastructure to monitor the marine environment over longer time scales e.g. Great Australian Bight. Monitoring of such remote locations will be critical in the future to have a good understanding of the changes in marine environmental conditions and resulting impacts occurring from climate change

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

Transport emissions in marine industry require addressing. Investment in technology that can reduce the emissions of marine vessels is required

Q31.

Supporting healthy and thriving communities

A more integrated system of reporting is required for state and condition reporting for natural resources (e.g. Accounting for Nature - Wentworth Group of Scientists). Currently, reporting is done for specific components of ecosystems e.g fisheries, forests etc and at different jurisdictional levels (LGA, State, federal). More integration is required to value add, reduce duplication and take a more whole of system approach. A framework of reporting that enables integration is required

Q32.

Elevating Aboriginal and Torres Strait Islanders knowledge systems

First Nations knowledge systems could be incorporated into marine and terrestrial state and condition reporting of natural resources.

Q33.

Protecting and restoring Australia’s environment

More investment is needed in reducing biodiversity/species impacts/loss - particularly on private terrestrial lands and in marine waters targeted for development

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.

State of Environment reporting is currently weakened by the lack of a reporting system that can integrate data at the appropriate temporal and spatial scales Currently, reporting is done for specific components of ecosystems e.g fisheries, forests, soils etc and at different jurisdictional levels (LGA, State, federal). More integration is required to value add, reduce duplication and take a more whole of system approach. Investment in a more integrated system for state and condition reporting for natural resources is required (e.g. see Accounting for Nature - Wentworth Group of Scientists). Such a framework would help to put a financial value on the ecosystem services provided at the appropriate spatial scales and enable a transparent method for assessing impacts of development applications

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:

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.