

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

While Australia may seek to increase its involvement in the space sector over the next 5-10 years, it is perhaps unlikely that it will reach a critical mass of funding to invest significantly in a broad range of Earth observation missions. To this end, Australia remains reliant on international mission agencies (for example, NASA, CNES, EUMETSAT, ESA etc) who provide open data. It is critical that Australia provide meaningful contribution to these agencies via other means - IMOS for example continue to support contributions to sustained calibration and validation of different satellite missions including ocean colour and altimetry. These activities are well recognised and hugely valuable - in number however, they do not have sufficient scale. Broader support and coordination of such activities across different mission types (visible imagery, hyperspectral, altimetry, gravity etc) would help to ensure a) Australia provides a substantive contribution for the data it otherwise routinely digests and important b) provides scientists opportunity to get a seat at the table on mission-level science teams.

Q27.
Environment and Climate

A critical gap in the current NRI is found throughout the coastal domain. The initiative with CoastRI is attempting to deal with this gap however funding is uncertain at the time of writing. It is absolutely critical that the gap between blue water (IMOS) and inland (AuScope/TERN) is filled. The coast is where many of the impacts of our changing climate will be felt - yet we are lacking the infrastructure to answer questions of fundamental societal importance. Sea level is one such gap - Australia lacks a coordinated approach in this space which is evidenced but a multitude of local, state, national actors/stakeholders yet a fundamental inability to access basic data and data products in a seamless / coherent way at desired locations. CoastRI may partly address this issue if fully supported - I would suggest it will remain a clear issue over the 5-10 time horizon. A further important consideration is the definition of "N" in NRI. Does "N" include Antarctic territories? There is a distinct need for sustain observation of many critical climate variables on sub-Antarctic islands and continental Antarctica. The Australian Antarctic Division lacks resources to achieve these observations hence there is perhaps scope for a truly NRI to include a greater geographical extent. Sea level would be one example I would return to. Despite the importance of a sea level climate data record, we do not have the capability to accurately determine rates of sea level change at any Australian Antarctic station. NRI investment in such a capability may provide the stimulus required to ensure relevant agencies place operational/logistics support behind realising these critical data infrastructures.

Q28.

Frontier Technologies and Modern Manufacturing

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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

Here I refer back to my response regarding environment and climate, specifically regarding the gap in the coastal domain with respect to environmental monitoring. Given my response is primarily focused in the climate domain, I won't elaborate further here.

Q34.

Building a secure and resilient nation

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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.

Here I would refer the panel to the application submitted for the CoastRI capability given it is uncertain if this will obtain support in the short term future. There is support from diverse research communities around the need for this capability - if it doesn't get federal support in the coming budget, I would advocate strongly for reconsideration in future NRI deliberations.

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.

Thankyou for your effort in undertaking this survey. No further comment.

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.