

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

Food security will continue to be a major challenge, particularly in the context of the challenges of climate change and extreme weather events. Supporting infrastructure in a continuing and seamless way to accelerate our capability to breed the best possible food crops for local and export consumption is vital to Australia. We need to invest further in people and kit to support this aim via APPN.

Q23.

Medical Products

Q24.

Defence

Q25.

Recycling and Clean Energy

Q26.

Space

There is an emerging opportunity in space technology for Agricultural earth observations offered by new satellites with high spatial resolution and new sensor modalities. Increasing our capability to capture this data for agricultural researchers and industry is a growing area. Currently access to space tech is not available to researchers via APPN and requires new investment.

Q27.

Environment and Climate

Climate change and environment are the key challenges facing our society over the next 25 years. Given our current inability to reduce emissions enough to stay below 1.5C rise in temp by 2050, this is an absolute priority for Australia and if temperatures are predicted to rise by 3-4c our continued existence in Australia will be contingent on not only CO2 emission reduction but climate change adaptation through technological solutions. We can address the issues of climate proofing food production via BPA Plant Synthetic Biology integration with APPN goals and better connecting ag industry to these facilities.

Q28.

Frontier Technologies and Modern Manufacturing

For plant sciences and agriculture, there is currently no one stop shop for support to researchers in AI and deep learning enabled research and development. This could be offered via APPN and potentially delivered with AIML.

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.

I believe inclusion of a space science component in APPN field facilities and a data warehousing and training facility for helping researchers utilise satellite based remote sensing products could be a game changer if combined with AI tools.

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.

I was involved in development of the original NCRIS investment in APPF in 2008 as a foundational director. A major flaw in the roll out was lack of funding for skilled staff to advise and develop new tools and infrastructure rather than fund monolithic infrastructure. This has improved greatly in subsequent investments but is still a limiting factor in deployment of fit for purpose solutions via NCRIS infrastructure.

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.