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

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

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.

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.

SIH's collaborations with NCRIS partners align closely with the evolving priorities of the National Research Infrastructure (NRI) strategy, particularly in advancing computational and data-driven research capabilities. Our engagement with key initiatives such as the Australian Biocommons and ARDC Humanities, Social Science and Indigenous Research Data Commons directly supports national priorities outlined in the 2021 NRI Roadmap and reaffirmed in the 2024 National Digital Research Infrastructure Strategy. In section 4.4 Software Analysis Tools and Platforms, the 2021 NRI Roadmap highlights Australian Biocommons as a critical infrastructure partner. Our active contributions to the Platforms stream (BioCLI and Workflow Commons) and BioCloud (Australian Alphafold service, Galaxy Australia, and the Australian Cardiovascular Disease Commons) ensure that researchers can access specialized, scalable computational resources tailored to life sciences research. Furthermore, SIH's engagement in National GenAI researcher training through the Biocommons Training and Communications stream is particularly relevant given the increasing integration of AI into biomedical and life sciences research. The emphasis in the 2024 Strategy's Outcome 6 on openly available research software tools aligns with these efforts, reinforcing the importance of national-scale, accessible research infrastructure. Similarly, in section 3.2 Food and Beverage, the 2024 Strategy underscores the critical role of agricultural productivity and infrastructure. SIH's support for the Australian Plant Phenomics Network (APPN), particularly through the University of Sydney's Narrabri campus and main campus facilities, strengthens national capabilities in agricultural data collection and analysis. Ensuring sustained investment in digital infrastructure for agricultural research will be vital for long-term productivity and innovation. Looking ahead to the 2026 Roadmap, we recommend continued prioritization of: National-scale AI-enabled research infrastructure – Expanding initiatives like Australian Biocommons' applied AI programs to support interdisciplinary research in biomedical, agricultural, and environmental sciences. Training and workforce development – Scaling the National GenAI researcher training framework to bridge gaps in AI and computational literacy across research disciplines (Outcome 1). Interoperability and integration across national digital infrastructure – Strengthening alignment between domain-specific platforms and national compute resources, ensuring that research tools (e.g., BioCloud, APPN, Australian Text Analytics Platform) remain seamlessly connected (Outcome 4). Cybersecure and scalable research infrastructure – Enhancing national cybersecurity and compliance frameworks for research platforms that manage sensitive data, in line with Outcome 5 of the 2024 Strategy. We encourage the 2026 Roadmap development process to consider these strategic priorities

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.