| <b>Please note</b> : the substantive content of the 2026 NRI Roadmap Survey begins at Question 20 (with prior questions dealing with administrative and other information).  |
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| As such all submissions that are published include the responses submitted from Question 20 onwards only.  |
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| 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.  |
| <ul> <li>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:</li> <li>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</li> <li>describe current national infrastructure requirements that you anticipate will no longer fit the definition of NRI in 5-10 years.</li> <li>Do not limit your commentary to NCRIS funded capabilities.</li> </ul> |
| Q21. Resources Technology and Critical Minerals Processing   |
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| Food and Beverage       |              |  |  |  |
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| Q23.<br>Medical Product | ts           |  |  |  |
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| Q24.                    |              |  |  |  |
| Defence                 |              |  |  |  |
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| Q25.<br>Recycling and C | Clean Energy |  |  |  |
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|                         |              |  |  |  |
| Q26.<br>Space           |              |  |  |  |
|                         |              |  |  |  |
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| Q27.<br>Environment an  | d Climate    |  |  |  |
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| 2.<br>ea<br>C | 27. The 2024 statement of National Science and Research Priorities (NSRPs) includes outcomes linked to ach priority to assist in identifying critical research needed in the next 5 to 10 years.  Insider the priority statements and, with respect to one or more of the 5 priority areas as listed below:  Insider the priority statements and, with respect to one or more of the 5 priority areas as listed below:  Insider the priority statements and, with respect to one or more of the 5 priority areas as listed below:  Insider the priority statements and, with respect to one or more of the 5 priority areas as listed below:  Insider the priority statements and, with respect to one or more of the 5 priority areas as listed below:  Insider the priority statements and, with respect to one or more of the 5 priority areas as listed below:  Insider the priority statements and, with respect to one or more of the 5 priority areas as listed below:  Insider the priority statements and, with respect to one or more of the 5 priority areas as listed below:  Insider the priority statements and, with respect to one or more of the 5 priority areas as listed below:  Insider the priority statements and, with respect to one or more of the 5 priority areas as listed below:  Insider the priority statements and, with respect to one or more of the 5 priority areas as listed below:  Insider the priority statements and, with respect to one or more of the 5 priority areas as listed below:  Insider the priority statements and, with respect to one or more of the 5 priority areas as listed below:  Insider the priority statements and, with respect to one or more of the 5 priority areas as listed below:  Insider the priority statements and, with respect to one or more of the 5 priority areas as listed below:  Insider the priority statements and, with respect to one or more of the 5 priority areas as listed below:  Insider the priority statements and |
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| •             | 30.<br>ransitioning to a net zero future   |
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| •             | 31.  |
| 3             | upporting healthy and thriving communities   |
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| Q E Q         | upporting healthy and thriving communities  32. levating Aboriginal and Torres Strait Islanders knowledge systems  33.   |
| Q E Q         | upporting healthy and thriving communities  32. levating Aboriginal and Torres Strait Islanders knowledge systems  |
| Q E Q         | upporting healthy and thriving communities  32. levating Aboriginal and Torres Strait Islanders knowledge systems  33.   |

| 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.  |
| The mathematical sciences are currently under-served by research infrastructure in Australia, and indeed have received no funding under NCRIS. Currently, there is no national support mechanism for a sustainable mathematical sciences research institute. The Mathematical Research Institute MATRIX (matrix-inst.org.au) has been in operation for about ten years, supported on a shoestring budget by major Australian universities and the US-based Simons Foundation. The only government support MATRIX has received is one ARC LIEF grant. Since its inception, MATRIX has done remarkably well, and is fully booked for 2025. MATRIX is an incubator for many emerging disciplines that utilise mathematical sciences, including AI, space and quantum sciences, optimisation, cyber security and forecasting (weather, finance, epidemics, natural disasters,etc.). MATRIX is now internationally recognised alongside other leading mathematical research institutes (SLMath Berkeley, Newton Institute Cambridge, Banff Institute Canada, etc) with one big difference: all these other institutes receive major funding support from their national governments. Australia is falling behind the result of the world by not funding this key piece of mathematical sciences research infrastructure. Australia needs a multi-million dollar investment in long-term funding for MATRIX. |
| 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?  |
| <ul><li>Yes</li><li>● No</li></ul>   |
| 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.   |
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This question was not displayed to the respondent.

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

| Q40.  |
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| 3.4 If you answered no, please indicate your (one or more) primary reasons:   |
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| ☐ I did not know about it   |
| Other facilities suit my needs better   |
| ☐ I would like to, but cannot get access due to geographical location   |
| ☐ I would like to, but believed that access was only available to academic researchers  |
| ✓ I am not aware of any capability that meets my needs  |
| Other (please specify)  |
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| 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. |
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