

Australasian Council of Deans of Arts, Social Sciences and Humanities

SUBMISSION: National Research Infrastructure Roadmap Exposure Draft

December 21, 2021

Are the recommendations appropriate to the current NRI environment?

The recommendations are appropriate in recognising the need for **multi-disciplinary solutions** to the **complex problems** confronting Australia in the twenty-first century.

Whilst a “challenge framework” focused on eight issues provides a focus for investment, it risks an overly narrow and instrumental approach to research, one that is ill-equipped to respond to ‘black swan’ events like the global COVID pandemic of 2019.

Moreover, the roadmap assumes that a series of technical advances will be sufficient to solve each of these problems and future-proof Australia. This is a misguided assumption. The eight challenges also require deep understanding about society and culture, beliefs and attitudes, history and politics which humanities, arts and social sciences (HASS) disciplines provide.

The roadmap must be bolder. What is needed is a partnership of equals between STEM and HASS disciplines. The draft radically underestimates the role of HASS research in responding to these challenges.

There is an urgent need for a HASS expert on the NRI Advisory Group. The NRI roadmap must create capacity for both HASS-led and truly interdisciplinary research.

Do the principles articulate the vision and key elements required of NRI, including investment?

If the scientific solutions embedded in the roadmap are to “deliver impact”, significant investment is required in areas of research translation and inter-disciplinary knowledge creation.

The roadmap radically underestimates the role of HASS research in solving the complex problems confronting modern Australia.

It reduces HASS research to a form of second tier knowledge, in which HASS’s role is to help communicate discoveries in STEM fields, rather than determine and evaluate the kind of problems that a NRI strategy ought to address.

The roadmap claims “play an important role in ensuring social acceptance and uptake of research outcomes, adoption of new technologies and ensuring ethical and responsible development and application of emerging technology” (6).

The roadmap must be bolder, recognising the fundamental role of HASS in both the translation of research findings *and* in determining which research questions Australia ought to be asking itself.

The NRI Roadmap has a clear focus on identifying the NRI investments required to support Australian research over the next 5 to 10 years. Are there any national research infrastructure needs missing in the draft Roadmap?

If the scientific solutions embedded in the roadmap are to “deliver impact”, significant investment is required in areas of research translation and inter-disciplinary thinking.

HASS research has a fundamental role to play in both the translation of research findings *and* in determining which research questions Australia ought to be asking itself. The draft roadmap does not address a range of issues that are crucial to Australia’s future. These include –

- The future of democracy – voting, civic participation, altruism
- Technology and morality – ethics, AI & machine learning
- Marginalisation and multiculturalism – towards a post-discrimination Australia
- A Big Australia? – population, economic growth, sustainability
- Wellbeing – decaying mental health, declining attention spans
- The future of work – the risks and rewards of online, remote and precarious employment
- Developing better futures for rural communities
- Bridging the Gap - Indigenous Australia in 2050

A key priority for Australia is to enhance research translation. The 2021 NRI Roadmap identifies some reforms and investments to achieve this. What other reforms would help deliver this priority?

The roadmap is right to focus on the growing significance of data within Australia’s future research landscape. This is to be welcomed. However, the roadmap needs to be bolder and more expansive on issues pertaining to the understanding, analysis, preservation and sovereignty of data.

The roadmap must invest in support for the large archival, archaeological, bibliographic, historical and socio-cultural data sets. This includes linguistic corpus creation and training in software tools and platforms to enable, for example, social network analysis.

The roadmap should include new digital infrastructures capable of addressing and supporting the cultural and social aspects of the challenges within environment and climate change, food and beverage, space and technology.

The Roadmap proposes that Australia could make landmark investments to drive step changes in research and innovation over the next 10 to 15 years. Do you agree with the assessment of potential areas for investment in the report? What other areas do you consider might fit the definition of landmark investment?

A series of National Institutes devoted to interdisciplinary research that would break down the false dichotomy between HASS and STEM research. This would include –

- National Institute for Research Translation
- National Institute for Digital Culture
- National Institute for the History of Science
- National Institute for Indigenous Research
- National Institute for Data Science

Please add any other comments you would like to provide to the Expert Working Group.

The roadmap is blind to two of the most defining features of modern Australia –

- 1) it is home to the oldest, continuous surviving culture on the planet.
- 2) it is home to one of the most successful and integrated multi-cultural societies on the planet.

Australian culture and society constitute a powerful and untapped resource within in the current draft of the roadmap. Amplifying the role of HASS orientated knowledge systems will make the roadmap fit for purpose and enable twenty-first century Australian research to reach its true potential.