SUBMISSION TO THE NATIONAL RESEARCH INFRASTRUCTURE ROADMAP 2021 EXPOSURE DRAFT

22 December 2021

Universities Australia (UA) welcomes the opportunity to comment on the National Research Infrastructure Roadmap 2021 exposure draft.

UA is the peak body for Australia's 39 comprehensive universities. Our member universities are spread across Australia in both regional and metropolitan areas. They educate more than a million students each year, undertake all Australian university research and engage globally to add to the nation's stock of knowledge, economic prosperity and social wellbeing.

Universities Australia recommends that:

- The National Research Infrastructure (NRI) priorities and their implementation carefully consider the balance between basic and translational research, and reaffirm the pivotal role NRI serves as part of Australia's sovereign basic research capability.
- The roadmap's acknowledgement of the importance of creative arts, humanities and social sciences be translated into tangible outcomes, defined in the roadmap itself.
- Major commercial research infrastructure used for experimental development and research translation should not be funded at the expense of major basic and applied research infrastructure.
- The NRI Expert Advisory Group proposed in Recommendation 4 comprise a mix of skills and representation - including Indigenous representation
- The NRI Expert Advisory Group be charged with ensuring an optimal balance between basic and applied research.
- All members of the NRI Expert Advisory Group be appointed through a transparent, inclusive nominations and appointments process.

In addition, Universities Australia supports:

- The proposed scoping study to understand what research translation infrastructure may be required and how it should be funded between Government, research organisations and industry.
- Recommendation 2 - that Government provide continuity and long-term funding to NRI.

THE ROLE OF RESEARCH INFRASTRUCTURE

Major research infrastructure enables Australian researchers and universities to explore problems that they would otherwise be unable to, due to the level of investment required.

The era of breakthroughs in basic research being made by inspired individuals using relatively low-cost equipment has well and truly passed. The 21st century is the domain of large-scale, systematic science and research, where multiple research groups co-operate and utilise national – or even international – investments in research infrastructure.

Funding stability and systematic Commonwealth investment under the National Collaborative Research Infrastructure Strategy (NCRIS) is a significant national asset. NCRIS has kept Australia in the global research game, conducting world-class research in the national interest.

Recommendation 1 and the NRI principles put forward sovereign capability, research translation and co-investment with industry partners as key objectives. UA supports the enhancement of research translation but cautions against any significant reprioritisation of NCRIS to this end.

The NCRIS facilities have supported significant research which otherwise would not have been funded or undertaken. To our knowledge, NCRIS is the only program to provide the 'patient capital' for major infrastructure for basic research in Australia. This role of Government was highlighted as the very first recommendation of the Research Infrastructure Review Final Report September 2015, provided to the then Minister for Education and Training.

In fact, Australia's sovereign capability in basic research is underpinned by NCRIS investments. Given the Government's role of investment in capability, UA strongly supports Recommendation 2 - providing continuity and long-term funding to NRI.

Large-scale investments in experimental development and research translation have the capacity to absorb NCRIS funding for basic research. It would be unwise to allow this to happen. Basic research is the precursor to the realisation of research benefits, including applied research and experimental development. The balance of basic and applied research priorities for NCRIS should be carefully considered.

Translational research should be pursued as a priority in its own right, but as a priority for new investment rather than moving funding out of basic research. UA therefore supports the scoping study to understand what research translation infrastructure may be required and how it should be funded.

UA believes that, given the arguments above, it is essential that the NRI Expert Advisory Group (proposed in Recommendation 4) comprise an appropriate mix of skills and representation - including Indigenous representation. The Expert Advisory Group should be charged with ensuring an optimal balance between basic and applied research, and across STEM and HASS research. To give confidence to all those concerned with NRI and investment recommendations, the Expert Advisory Group members need to be appointed through a transparent, inclusive nominations and appointment process.

UA supports a focus on workforce and human capital, and the development of a NRI workforce strategy. To maximise the return on investment in NRI, Australia's research system needs to attract, develop and retain the best talent in both academic and professional roles. It takes time and support to develop the expertise that ensures facilities are used to their full potential.

In relation to the co-investment model, UA notes that social-good NRI may need different parameters than facilities that are more involved with the 'applied' end of the research spectrum.

UA welcomes the acknowledgement of the role of creative arts, humanities and social sciences, and the importance of supporting all fields of research. It is important, however, to see this acknowledgement translated into tangible outcomes, defined in the roadmap itself.

CONCLUSION

UA supports funding certainty and stability with a view to long-term funding for NRI. The NRI underpins Australia's basic research capability: the capability that creates new knowledge.

Getting the membership of the Expert Advisory Group right is critical in ensuring that the appropriate balance between basic and applied research is achieved.

UA member universities play a very significant role hosting, supporting and using national research infrastructure. Therefore, UA looks forward to working with Government, particularly on an appropriate, useful process for the appointment of Expert Advisory Group members.