AOASG Submission
2016 National Research Infrastructure Roadmap
Capability Issues Paper

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The Australasian Open Access Strategy Group (https://aoasg.org.au/AOASG) exists to advocate, collaborate, raise awareness and lead and build capacity for open access in Australia and New Zealand. The AOASG is supported by ten Australian and eight New Zealand Institutions. Our comments here are primarily limited to issues related to the dissemination of research outputs as relevant to research infrastructure.

Question 1:   Are there other capability areas that should be considered?

Within the capability areas listed we would highlight the need to include policies and practices on maximising dissemination within the heading of "Underpinning research infrastructure", if not as a separate heading.

Specifically, we note the need to have in place policies, standards and practices that ensure the research outputs from these large nationally funded infrastructure projects are FAIR- findable, accessible, interoperable and reusable and that data and other research outputs such as publications are linked to each other.

This concept of FAIR is already well accepted for data, as depicted in the diagram on p48 of the Issues Paper.

Question 2:   Are these governance characteristics appropriate and are there other factors that should be considered for optimal governance for national research infrastructure.

Clarity of expectations and practices for Intellectual property and moral rights are key to maximising the benefits from the use of research infrastructure. However, currently for research publications the norm is that researchers sign away these rights, especially publishing rights. There is an opportunity to put in place now polices and practices that could substantially enhance the useability of information derived from National Infrastructure projects. Policies and practices could include

a. make research publications conducted using research infrastructure projects immediately free to read at the time of publication
b. make research data directly related to research publications as open as possible and as closed as necessary, in accord with the Australian Government Public Data Policy Statement
c. apply appropriate AusGOAL licenses and international metadata standards to research outputs to ensure accessibility, interoperability and reusability
d. ensure that authors/creators retain all necessary rights to enable the authorisation of publication and re-use in any format at any time

e. support the development of incentives for researchers to make research outputs available in accord with the above principles

Question 5:   Should research workforce skills be considered a research infrastructure issue?

There is currently a substantial and, as mechanisms of dissemination evolve, growing gap in researchers' knowledge of the scholarly dissemination landscape. This lack of knowledge ranges from lack of familiarity with new publishing models through to profound misunderstanding of the issues relating to intellectual property as they relate to research outputs. We think that skills in this and other areas are essential to maximise the benefit from research infrastructure projects. A growing movement in this area, in which academics teach other academics skills in handling data and software, is the Data Carpentry and Software Carpentry model and this may be a good model to emulate (http://www.datacarpentry.org/ and http://software-carpentry.org)

Question 32:   Is there anything else that needs to be included or considered in the 2016 Roadmap for the Underpinning Research Infrastructure capability area?

As noted above, we would suggest that there is a need to include policies and practices around the dissemination of research as part of the Underpinning Research Infrastructure capability area. Currently, methods of dissemination are largely driven by decisions from individual researchers, groups and institutions. The wishes of researchers about choice of publishing in specific journals should be respected. However, while respecting these wishes, there is an opportunity to ensure the maximum use, dissemination and reusability of research outputs arising from National infrastructure projects. As noted above, opportunities include principles, policies and practices for the storage and dissemination of data, publications and other research outputs, such as:

- appropriate licensing of research outputs with the relevant AusGOAL licenses
- support for dissemination via a wide range of mechanisms, not only research articles or traditional journals but via preprints, datasets etc
- support and reward for policies and practices that maximise reliability and reproducibility of results (as noted on p 47 paragraph 3, but not limited to research data alone)

Question 34:   Are there any international research infrastructure collaborations or emerging projects that Australia should engage in over the next ten years and beyond?

There are several international collaborative groups working on the policies and practices around research data and other new directions in dissemination of information. The most relevant groups are Force 11 https://www.force11.org/ (which developed the FAIR principles for data, noted on the diagram on p48 of the issues paper), and the Research Data Alliance https://rd-alliance.org/.