

Submission

2016 National Research Infrastructure Roadmap

Capability Issues Paper

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

Roadmap: Modern astronomy research facilities require substantial capital investment, often beyond the means of any single country. Australia currently funds access internationally based telescopes including GEMINI, Magellan and KECK. For other international research facilities, there may be opportunities to be a founding partner or co-invest once established. There is a need for a formal mechanism to determine if Australia should join international research facilities, such as the European Southern Observatory (ESO), Laser Interferometer Gravitational Wave Observatory (LIGO) or the Virgo interferometer experiment.

Comment: The 1995 Academy decadal survey of astronomy gave first priority in research infrastructure to Australian membership of ESO to gain access to its four 8m optical/infrared telescopes.

An MNRF proposal to do this was ranked second to synchrotron access but was vetoed in the Keating cabinet by the minister of the day. The Howard govt subsequently supported Australian membership of Gemini with access to two 8m telescopes. However when this agreement was due for renewal, no one in Canberra was prepared to underwrite it , and membership in this NSF led partnership lapsed recently.

The 2005 and 2015 decadal surveys of astronomy continued to prioritise 8m facilities. Access to 8m telescopes is currently funded by purchasing time piecemeal from 3 providers through NCRIS . It is high time some leadership developed in government to remedy a situation which has driven top researchers to migrate into administration instead of vying for the gold medals in optical and infrared astronomy which we know Australians would win if they were supported as in our comparator nations.