

## Astronomy: Midterm Review 2020

### **Social/Cultural: Capabilities and Opportunities.**

The 2016-2025 Decadal Plan did not include many comments on the social and cultural issues related to the Australian Astronomical community. However, these are significant areas of concern and activity within the community. There are opportunities for the MTR to both highlight the astronomical community's activities in this area, and also perhaps to establish some new directions during the latter half of the decade. Some possibilities are listed.

It is noted that there may be some overlap with the Education portfolio for this exercise.

**Pleiades Awards:** These are administered by the ASA and have existed since about 2010.

Currently there is one Gold Pleiades award, for a Centre of Excellence that has concluded; 4 silver awards (one organisation no longer exists); 9 bronze awards. An aim could be to have all astronomy groups – currently ~16 plus 3 centres- participate.

Since the inception of the Pleiades Awards, the Australian Academy of Science has initiated the SAGE Pilot. Over the next 5 years as SAGE becomes an active part of the Australian landscape, there is an opportunity for the astronomical community to re-align its aspirations with the SAGE program.

*Possible Action:* Consider revising the Pleiades awards to further develop equity initiatives across not only gender issues, but more broadly. This would be prosecuted through the ASA.

**PhD Destinations:** A major interaction between the astronomical community and the wider community is the PhD astronomers who take their training in big data, and science generally, into the wider workforce. Usually at the time of the decadal review we perform an analysis of the demographics of the community. During the MTR we will undertake a rigorous analysis of destinations of astronomy PhD graduates, with particular emphases on factors affecting destinations, and skills that are useful in both non-astronomical and astronomical positions.

*Possible Action:* Research the destinations of PhD students and publish a paper similar to the van Dishnoeck paper on Dutch destinations.

**Post-doc Destinations:** Over the past decade there has been an expansion in ongoing astronomical positions, and also in the postdoctoral opportunities associated with them those positions. We will perform a similar analysis (to the above) of postdoctoral destinations, with a particular emphasis on understanding the likely future of the discipline. This should particularly consider relationships with other disciplines.

*Possible Action:* Develop a paper on potential futures for the discipline to explicitly understand the likely job opportunities in the discipline.

**International Linkages:** Astronomy and astrophysics are strongly international endeavours, both due to the international ownership and use of facilities, and also the nature of scientific research. Australia maintains a strong presence in the international arena, including the IAU. Such linkages have grown largely organically. Does Australia have a unique role to assist the development astronomy, and science more generally, in its geographical region?

*Possible Action:* A short paper outlining the activities Australian astronomers are currently involved in, with potential initiatives explored, particularly in the local region.

**Indigenous Astronomy:** Recently a few champions of indigenous astronomy have emerged, providing an opportunity to better understand Australia's heritage in the area. Is there a role for the astronomical community to embrace these developments?

*Possible Action:* Investigate the opportunities to support the ongoing recording and understanding of indigenous science.