**Establishment of Working Groups to support access to large optical telescopes**

**Purpose:** To outline the formation of working groups on options for access to large optical telescopes.

**Context:** Australia’s Strategic Partnership with ESO is due to conclude on 1 Jan 2028. This partnership was underpinned by Australian Government funding of $129.2 million over 10 years.

Government has not yet made a decision on whether to pursue ESO membership beyond this period. However the Department of Industry, Science and Resources (DISR) - the lead department responsible for managing astronomy policy and the strategic partnership with ESO - is having exploratory discussions directly with ESO about what future options could look like after the Strategic Partnership ends, to inform the Government’s deliberations.

The exposure draft of the 2026-35 Astronomy Decadal Plan proposes cost effective access to large optical telescopes as its top priority, with membership of ESO highlighted as the preferred option.

**Approach:** In the lead-up to the conclusion of the partnership, AAL has started pulling together information in two areas which it hopes will help inform the department’s analysis and advice to Government.

It is envisaged that the Government will need supporting information about the value proposition of investment in ESO both to astronomy and to the Australian community in general, and the implications of a decision not to invest in ESO which could either include making investments in other facilities or not providing any further investment into optical astronomy in Australia.

To assist with this, AAL has commenced a series of tracks of work, including:

* identifying opportunities for **in-kind contributions** by Australian organisations that could deliver on broader Australian Government policy priorities and ensure that maximum funding stays 'on shore' and has the potential to deliver spillover benefits to the Australian economy and science efforts. A small working group, chaired by AAL, will oversee this process (additional detail on the ToRs are in **Attachment A**)
* gathering information and data about **alternative options** for supporting access to large optical telescopes, including options for making investments in other facilities or not providing any further investment into optical astronomy in Australia. AAL is being assisted in this work by A/Prof. Emily Wisnioski (ANU), co-chair of the Decadal Plan Working Group 2.1 for International and Space Facilities, informed by their [White Paper](https://www.science.org.au/files/userfiles/support/reports-and-plans/in-progress-decadal-plans/astronomy-26-35/working-group-2_1-international-and-space-facilites_new.pdf)
* **synergies** between access to optical facilities and other astronomical facilities (including radio, gravitational wave astronomy and high energy physics) through the AAL [Astronomy Science Advisory Committee](https://astronomyaustralia.org.au/committees-astronomy-australia-ltd/asac/) chaired by Andy Casey
* assessing opportunities for **industry engagement** and **activation** through the AAL [Industry Engagement Advisory Committee](https://astronomyaustralia.org.au/industry-engagement-advisory-committee/) – chaired by Simon Ellingsen

The Department has indicated it would welcome a submission from AAL by August to inform its broader advice and analysis to Ministers and Government about the costs and benefits of membership to ESO and alternative options.

**In Kind Opportunities Working Group Terms of Reference**

The In-Kind Opportunities Working Group will produce an updated in-kind list of national opportunities that would be acknowledged by ESO as part of reducing the total ‘accession fee’. This list will be developed informally in the first instance on a no-commitments and exploratory basis, noting that formal discussions will need to take place officially between nominated representatives of ESO and the Australian Government.

Such opportunities can be classified under the following broad categories:

1. Instrumentation

2. Software

3. Industry

4. Services/technology

5. Exchange of data/observing time allocations

These opportunities will encompass both

1. in-kind opportunities that will be valued by ESO and formally counted towards the calculation of the total cost of Australia’s contribution to membership, and
2. other in-kind opportunities that, could facilitate Australian Government agreement by using the ESO investment to deliver on other policy priorities. This could include support for domestic astronomy capability and support for the Government’s ambitions for science and advanced manufacturing and its Future Made in Australia agenda.

The working group will:

* Consult with and represent views across the Australian astronomy community and associated organisations with interests under the five broad categories above
* Liaise closely with Australia’s astronomy representative on the ESO Council
* Develop the potential scope for in-kind opportunities, provide an estimated cost and value of each opportunity
* Assess feasibility and comment on capabilities required by the Australian astronomy community

The Working Group will provide an indicative list which will be non-binding and developed agnostic of which specific Australian institutions can deliver on these opportunities, noting that future funding opportunities will need to be allocated on a competitive basis.

Working Group members will be appointed based on their expertise in understanding the opportunities against the broad categories listed above. They will be expected to work collaboratively with other stakeholders across Australia to ensure all relevant institutions have the opportunity to provide input.

**Membership**

AAL has drawn on its collective knowledge of the Australian astronomy community to identify candidate working group members with expertise in instrumentation, software and big data, and/or experience of engagement with industry. In seeking a balance between diversity of membership and optimal number of members, AAL suggests the following membership for the working group:

* Dr Alexander Cooke (AAL), Chair
* Prof. Mark Casali (Astralis-AAO and former Head of ESO’s Technology Development Program): optical instrumentation, industry engagement
* Prof. Céline d’Orgeville (CSIRO Space & Astronomy): radio and optical instrumentation
* Dr Nuria Lorente (Astralis-AAO): software, big data
* Prof Matthew Colless (ANU and former representative on ESO Council): optical astronomy, instrumentation
* Prof. Simon Ellingsen (ICRAR): radio astronomy, industry engagement

Members will be expected to consult with the broader community for further information on potential in-kind contributions and seek to ensure an institutional agnostic approach to gathering these opportunities.