

The Strategic Partnership between ESO and Australia

Laura Comendador Frutos¹
 Tim de Zeeuw¹
 Patrick Geeraert¹

¹ ESO

On 11 July 2017, ESO and the Australian government signed a ten-year Strategic Partnership arrangement giving Australian astronomers access to the La Silla Paranal facilities. The path towards this arrangement is briefly outlined and the details of the Partnership and its implications for both the Australian and ESO astronomical communities are summarised.

Informal discussions between the Australian astronomical community, Australian government representatives, and ESO concerning Australian membership of ESO have taken place several times since the 1990s. In March 2014 the ESO Director General was invited to present colloquia in Sydney, Melbourne, Canberra and Perth, and had the opportunity to meet senior government officials. Following this visit, an informal Working Group was created consisting of members of the Australian astronomical community and representatives of the Australian government and ESO Management.

Following further meetings with senior Australian astronomers, it was agreed to formally approach the Australian government, given that the timing coincided with a government review of the funding and organisation of astronomy. Australia had informally expressed its desire to participate in the currently existing optical and infrared telescopes at the La Silla Paranal Observatory (LPO) in Chile through a Strategic Partnership, with the intention of becoming an ESO Member State in the future.

The Director General wrote to Sue Weston, Deputy Secretary of the Australian Department for Industry, Innovation and Science (DIIS), to formally open negotiations. Follow-up discussions revealed that the informally discussed Strategic Partnership was of significant interest to the new Australian government and was seen as an excellent candidate for inclusion in the

roadmap for new investments in research infrastructures. In addition, the Australian representatives confirmed that full membership of ESO was the goal and that for financial and other reasons the proposed ten-year partnership would be the ideal first step.

On 9 May 2017 the Australian Minister for Industry, Innovation and Science, Arthur Sinodinos, announced, as part of the presentation of the Australian national budget for 2018, that the Australian government was opening formal negotiations on a ten-year Strategic Partnership arrangement with ESO for access to LPO.

Following formal discussions between the Australian government and ESO-Management, the arrangement was signed on 11 July 2017 to begin the ten-year Strategic Partnership between ESO and Australia. The signature ceremony was held at the Australian National University (ANU) in Canberra, during the annual meeting of the Astronomical Society of Australia. Introductions were made by Nobel Laureate and ANU Vice-Chancellor Brian Schmidt and were followed by speeches from Tim de Zeeuw and Arthur Sinodinos, who then together signed the arrangement. Figure 1 shows the participants at the signing ceremony.

The timing of the signature of the arrangement has enabled astronomers in Australia to apply for observing time under the next Call for Proposals, issued in late August, for observations in Period 101 starting on 1 April 2018.

Scope of the Strategic Partnership

The arrangement stipulates that Australia will benefit from participation in activities relating to LPO facilities in the same way and to the same extent as the ESO Member States. In particular:

1. Astronomers based in Australia have access to LPO facilities, specifically the Very Large Telescope (VLT), the Very Large Telescope Interferometer (VLTI), the Visible and Infrared Survey Telescope for Astronomy (VISTA), the VLT Survey Telescope (VST), the ESO 3.6-metre telescope, and the New Technology Telescope (NTT) under the same

scientific conditions as those applying to the ESO Member States and through the same procedure, i.e., the Observing Programmes Committee process.

2. Australian companies are placed on the same footing as companies in ESO Member States with regard to participation in ESO procurements relating to LPO facilities. Similarly, Australian institutions are placed on the same footing as institutions in the ESO Member States in respect of involvement in instrumentation for LPO. Under the arrangement, Australian industry and Australian institutions do not have access to contracts and involvement in instrumentation for the ELT. This latter condition would change if Australia became an ESO Member State.

3. In order to facilitate its transition to full membership, Australia is entitled to be represented as an observer at meetings of the ESO Council, Finance Committee (FC), Scientific and Technical Committee (STC) and the Users Committee (UC) in matters dealing with LPO facilities. Australia has no voting rights in the ESO Council because the ESO Convention, which is the founding treaty of the Organisation, only foresees voting options in the ESO Council for Member States. At meetings of the FC, Australia has voting options exclusively for the award of contracts relating to LPO facilities. At meetings of the STC and the UC, Australia has voting options exclusively for matters relating to LPO facilities.

4. Australia is now included along with the Member States in the list of preferred nationalities for all job vacancies at ESO. This applies even if the vacancy is not related to LPO.

In return, Australia:

1. Contributes to the annual total (direct and indirect) costs of the operation of the LPO facilities and the LPO instrumentation programme with payment in cash of an amount corresponding to the Australian Net National Income (NNI) share of the total cost.
2. Annually contributes to the amortised costs of the net assets of the LPO



Figure 1. The participants from the Australian government and ESO at the signing of the Strategic Partnership in Canberra in July 2017¹. From left to right: Virginia Kilborn, President of the Astronomical Society of Australia; Warrick Couch, Director of the Australian Astronomical Observatory; Sue Weston, Deputy Secretary, Department of Industry, Innovation and Science; Arthur Sinodinos, Minister for Industry, Innovation and Science; Tim de Zeeuw, ESO Director General; Brian Schmidt, Vice Chancellor of the Australian National University; Laura Comendador Frutos, Head of the ESO Cabinet; and Patrick Geeraert, ESO Director of Administration.

facilities with payment in cash of an amount corresponding to the Australian NNI share.

In practical terms, this means that Australia will pay annually about 7.8 million euros (2018 economic conditions) over the ten-year period, which, through the financial contribution will help to bring the ELT Phase II forward. In particular, it will allow to ensure that the entire ELT primary mirror, including the five inner rings of segments and the seventh sector, which are important for adaptive optics operation of the ELT, will be in place at first light. The annual amount of Australia's contribution to the LPO operational costs in each calendar year can vary slightly, and will be set relative to Australia's national share of the projected LPO operational budget, including instrumentation and overheads. This national share is calculated by a standard formula using Organisation of Economic and Community Development (OECD) economic data.

Should Australia accede to ESO during the ten years of the Strategic Partnership or shortly thereafter, the payments related to the La Silla Paranal net assets will be deducted from the special contribution (the "entrance fee"). If Australia does not apply for membership after the expiry of the Strategic Partnership, it will have no claim on this amount.

Implications of the Partnership for the Australian and ESO astronomical communities

From the point of view of Australia, its astronomy community has gained immediate access to many of the best telescopes in the southern hemisphere for a long period, fulfilling a key recommendation of the Australian Decadal Plan for Astronomy. The partnership offers the possibility of a return on investment for Australian industry through participation in instrumentation consortia. Investment in ESO infrastructure is an important element of the support provided by the Australian government. Most significantly, Australia views the partnership as a clear strategy towards achieving full ESO membership in the future.

From the point of view of ESO, the Strategic Partnership represents a vital strategic expansion of the Organisation that will secure ESO's status as the world leader in optical and infrared astronomy. Australia has a long and rich history of internationally acclaimed astronomical research. Its already very active and successful astronomical community will undoubtedly thrive given long-term access to ESO's cutting-edge facilities. Australia's scientific community is very mature, not only in terms of research but also in the development of front-line

ground-based instrumentation, and both will be extremely beneficial to ESO. The partnership will further strengthen ESO's programme, both scientifically and technically. The results of such collaborations are eagerly anticipated by the ESO community. This ESO–Australia collaboration will undoubtedly lead to fundamental new advances in science and technology that neither could hope to achieve alone.

With regard to the Strategic Partnership's being a first step towards Australia becoming an ESO Member State, given the relatively large size of the Australian economy and the increasing growth of ESO's assets, the Strategic Partnership will serve to reduce future barriers to Australia's accession to ESO by offering a substantial down-payment on the special contribution. Thus, the decade-long partnership will strengthen the technical, scientific and political cooperation between Australia and ESO, offering fertile ground for future membership discussions, as the Portuguese and Spanish precedents successfully demonstrated.

Links

¹ ESO Release: <http://www.eso.org/public/news/eso1721/>