Strategic Partnership with Australia

Tim de Zeeuw 11 July 2017

Dear Minister Sinodinos, Ms Weston and Kelly, Professor Schmidt, Professor Kilborn, members of the Department of Industry, Innovation and Science, distinguished guests, colleagues and friends,

It is a great pleasure to be here today, for a ceremony which bodes well for the future of astronomy and science world-wide.

Australian astronomy has a distinguished history, and is strong in both optical and radio astronomy. In the late 19th century the legendary Great Melbourne Telescope (the first GMT) was briefly the largest steerable telescope in the world (in size only surpassed by Lord Rosse's Leviathan of Parsonstown). In the middle of the 20th century Australia was amongst the pioneers of radio astronomy, and it retains a world-leading position in this area to this day.

Australia's geographical location allows the best viewing of the center of the Milky Way, detailed study of the two Magellanic Clouds, and of many other fascinating objects. This is of course also the reason why ESO built all its telescopes in the South.

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Australian astronomers have a long tradition of working together, as is clear from the series of comprehensive strategic plans that have been produced at regular intervals, and from very successful initiatives such as CAASTRO and ASTRO-3D, supported by the Australian Research Council. Access to state-of-the-art radio facilities is assured, including the Murchison Wide-field Array and ASKAP, the pathfinder for the Square Kilometre Array. The optical community continues to use the Anglo-Australian Telescope (AAT) and looks forward to the (second) Giant Magellan Telescope in the next decade, but has no structural access to the key 8-10-metreclass telescopes.

As the world population grows, optical observatories have moved to more and more remote places. Dry and high locations are best. While Australia has the former in plenty, finding sufficiently high mountains is harder. The 3.9-metre AAT on 1135-metre high Siding Springs was amongst the most successful telescopes of its class in the world, from which Australian astronomy benefited greatly. As technology has advanced, it has become possible to build fully steerable 8-10-metre class telescopes, but they are located at much higher sites, notably on Mauna Kea or in the Atacama desert of Chile, in order to maximize the scientific benefit of the investment.

Discussions about Australian membership of ESO took place now nearly 25 years ago, and progressed substantially but in the end did not come to full fruition. It was clear already then, some years before the start of operations of the Very Large Telescope on

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Paranal, that there is a natural match between the Australian astronomy community and that of the ESO Member States. In fact, one of the instruments on the VLT, called FLAMES, has a kangaroo painted on it to alert everyone that the fiber positioner, OzPoz, was built in Australia. This natural match in interests holds today, and should surprise no one, as the ESO logo is already enshrined in the Australian flag.

Today we sign a strategic arrangement which will give Australian astronomers as well as technical institutes and industries access to the La Silla Paranal Observatory, which includes the four 8metre telescopes and its uniquely powerful arsenal of instruments that together comprise the Very Large Telescope and its Interferometer, the survey telescopes VST and VISTA, and the venerable 3.5-metre-class telescopes on La Silla, together with a thriving instrumentation programme which is carried out in close collaboration with technical institutes in the Member States, which are keen to work with their Australian counterparts for the benefit of all. ESO considers Australia as a Member State for all matters relating to the La Silla Paranal Observatory. Even the distance to the Observatory is similar!

An association between Australia and ESO has been a goal for me for more than 20 years, and I am very pleased that today this becomes a reality. Working visits in both direction were helpful in preparing the way forward. This happened initially through discussions with the leading astronomers including Jeremy Mould who had spearheaded the activities in the mid-nineties, a very

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memorable one with Brian Schmidt in the Sossusvlei in Namibia in 2010, through membership in ESO's Scientific and Technical Committee of Elaine Sadler followed by Warrick Couch, membership of Matthew Colless in the ESO Visiting Committee, and also involved the AAL and the Department. I remember well an early visit by Patricia Kelly to ESO HQ, when we proudly raised the Australian flag.

The relationship with the Department of Industry, Innovation and Science was intensified in 2014, and about a year ago the outline of the Strategic Partnership became clear, with both sides working very constructively together. It is a pleasure to thank all involved for their vision, strategic view, commitment and perseverance, in particular Minister Sinodinos, Sue Weston, Patricia Kelly, Jane Urquhart, Clare McLaughlin and Andrew Stevenson representing the Australian Government, as well as Brian Schmidt, Warrick Couch, Lisa Kewley and the entire leadership of the AAL.

Finally, Australia's contributions to the Partnership will strengthen ESO, and ESO's facilities will allow Australian astronomers to make many discoveries and develop the next generation of high tech instrumentation to the benefit of science and technology world-wide. I believe that this is also a key step towards full membership of ESO in due course.