



## **50 years of existence of the European Southern Observatory (ESO) 30 years of Swiss membership with the ESO**

**The European Southern Observatory (ESO) was founded in Paris on 5 October 1962. Exactly half a century later, on 5 October 2012, Switzerland organised a commemoration ceremony at the University of Bern to mark ESO's 50 years of existence and 30 years of Swiss membership with the ESO.**

**This article provides a brief summary of the history and milestones of Swiss membership with the ESO as well as an overview of the most important achievements and challenges.**

### **Switzerland's route to ESO membership**

Nearly twenty years after the ESO was founded, the time was ripe for Switzerland to apply for membership with the ESO. The driving forces on the academic side included the University of Geneva and the University of Basel, which wanted to gain access to the most advanced astronomical research available.

In 1980, the Federal Council submitted its Dispatch on Swiss membership with the ESO to the Federal Assembly. In 1981, the Federal Assembly adopted a federal decree endorsing Swiss membership with the ESO.

In 1982, the Swiss Confederation filed the official documents for ESO membership in Paris. In 1982, Switzerland paid the initial membership fee and, in 1983, the first year's membership contributions.

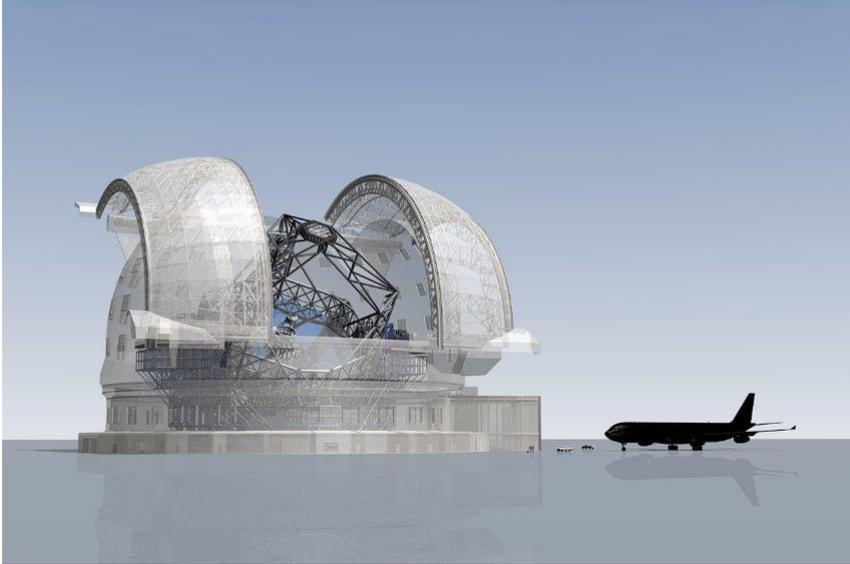
### **High points of Swiss participation**

In 1987, the Federal Council issued a federal decree on Swiss participation in the ESO's Very Large Telescope (VLT) to be built at the Paranal Observatory in the Chilean Atacama Desert. After ten years of construction, an inauguration ceremony was held to mark the "first light in the first VLT". With its four 8-metre diameter Unit Telescopes, the VLT is the ESO's most important – and the world's most productive – facility.

In 1998, the first evaluation of Switzerland's participation in the ESO was conducted by an external expert, former ESO Director General, Prof. L. Woltjer, NL. The evaluation was positive. Only the transfer of research to industry was viewed as in need of improvement. In recent years, this shortcoming has been addressed.

In 2002, the Federal Council issued a federal decree on Swiss participation in the Atacama Large Millimeter/submillimeter Array (ALMA) to be built on the 5,000-metre high Chajnantor Plateau in the northern part of Chile. ALMA is a radio astronomy project conducted by the ESO, North America and Southeast Asia. After about a decade of construction, the facility was officially inaugurated in March 2013. The ALMA facility is comprised of more than 60 parabolic antennas between 7 and 12 metres in diameter.

In 2012, the Federal Council gave its approval for Swiss participation in the construction and funding of the European Extremely Large Telescope (E-ELT). This next-generation facility will be built on the Cerro Armazones site, 35 km to the east of the Paranal Observatory. The E-ELT will take around ten years to build. Once construction is complete, it will be the world's largest optical telescope (diameter: 39.3 metres): "the world's biggest eye on the sky!"



The ESO's E-ELT telescope, currently under construction, shown next to an Airbus A340, Image © ESO