

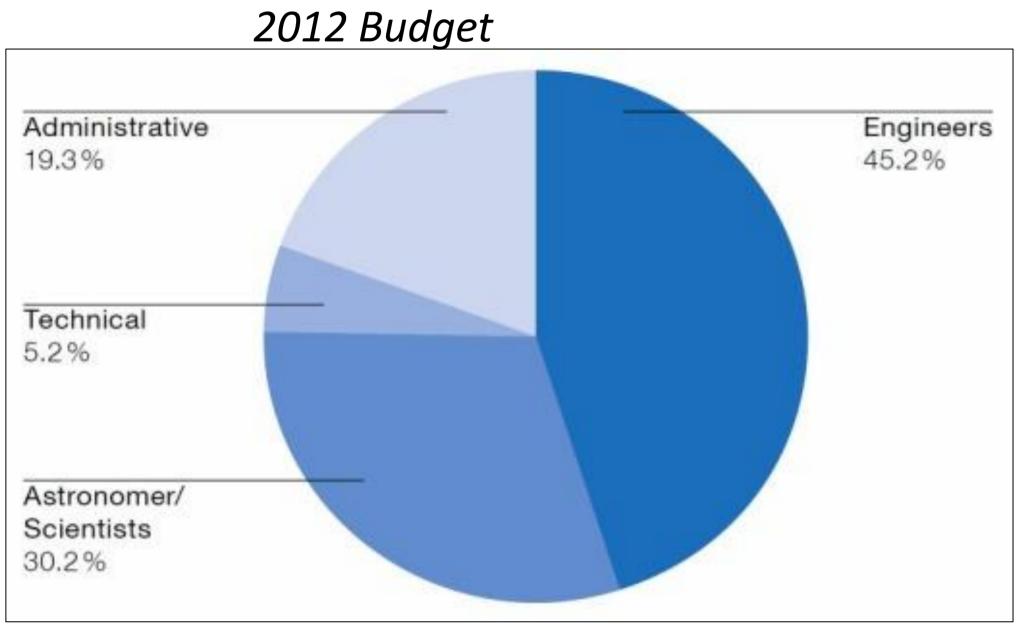
# European Southern Observatory

#### **General information**

ESO, the European Southern Observatory, is the foremost intergovernmental astronomy organisation in Europe and the world's most productive astronomical observatory. It is supported by 15 countries: Austria, Belgium, Brazil, the Czech Republic, Denmark, France, Finland, Germany, Italy, the Netherlands, Portugal, Spain, Sweden, Switzerland and the United Kingdom. ESO carries out an ambitious programme focused on the design, construction and operation of powerful ground-based observing facilities enabling astronomers to make important scientific discoveries. ESO also plays a leading role in promoting and organising cooperation in astronomical research. ESO operates three unique world-class observing sites in Chile: La Silla, Paranal and Chajnantor. At Paranal, ESO operates the Very Large Telescope, the world's most advanced visible-light astronomical observatory and two survey telescopes. VISTA works in the infrared and is the world's largest survey telescope and the VLT Survey Telescope is the largest telescope designed to exclusively survey the skies in visible light. ESO is the European partner of a revolutionary astronomical telescope ALMA, the largest astronomical project in existence. ESO is currently planning a 40-metre-class European Extremely Large optical/near-infrared Telescope, the E-ELT, which will become "the world's biggest eye on the sky".

## Facts and figures

Income Budget	2012
Cantributions from Mambar Ctates	151 50 4
Contributions from Member States	151 534
Income from third parties	20945
Other income	1565
Astronomy & Astrophysics (A&A) Journal	468
Total Income Budget	174 512
Payment Budget	
Programme	93 958
Operations	62 526
Science support	8445
Cross-directorate functions	37888
Astronomy & Astrophysics (A&A) Journal	468
Total Payment Budget	203 285



#### 2012 Staff: 740

#### HSE

ESO is an intergovernmental research organisation, incorporated by an international convention. It has therefore developed its particular legal framework for prevention and safety, and its specific process for conformity assessment of scientific equipment and infrastructure. HQs, observatories and co-operations carry each their independent HSE service, which – grouped in the ESO Safety Commission- reports to the Director General. ESO, including its co-operations such as ALMA, employs eight Safety Engineers.

## History

- **26 January 1954** ESO declaration by leading astronomers from six European countries expressing the wish that a joint European observatory be established in the southern hemisphere.
- **5 October 1962** Founding Members Belgium, France, Germany, the Netherlands and Sweden sign the ESO Convention.
- **6 November 1963** Chile is chosen as the site for the ESO observatory and the Convenio, the agreement between Chile and ESO, is signed.
- **30 October 1964** Acquisition of La Silla Mountain and land for the Chile headquarters in Vitacura.
- **November 1966** First light of the mid-infrared Kapteyn photometer on the ESO 1-metre Telescope.
- **16 September 1970** ESO signs an agreement with CERN to collaborate in the realisation of the ESO 3.6-metre Telescope.
- **7 November 1976** First light for the ESO 3.6-metre Telescope.
- **31 January 1979** Agreement between ESO and the German government for the new ESO Headquarters.
- **4 December 1990** Paranal is selected by ESO as the site for the VLT.
- **25 May 1998** First light for the VLT's first Unit Telescope (UT1), Antu.
- **14 September 2004** Agreement between ESO, the US National Science Foundation and the National Institutes of Natural Sciences, Japan, for the joint construction of ALMA.
- **17 Sep 2009** First ALMA antenna arrives at 5000-metrealtitude Chajnantor site.
- **26 April 2010** Cerro Armazones is chosen as site for the E-ELT.
- **11 June 2012** E-ELT Programme approved by ESO Council.

#### Safety hazards

Because of, amongst others, the light pollution and the better atmospheric seeing, astronomical research is conducted in very remote places, at very high altitudes, often in areas with seismic activity, and involves very large opto-mechanical moving equipment, advanced cryogenics—, vacuum- and laser-techniques.

ESO's observatories are situated at very high altitudes (2500-5000m) in the Atacama Region of northern Chile, one of the most active seismic regions world-wide.

# E-ELT:

Extremely Large Telescopes are considered worldwide as one of the highest priorities in ground-based astronomy. Since the end of 2005 ESO has been working together with its user community of European astronomers and astrophysicists to define the new giant telescope needed by the middle of the next decade.

E-ELT is expected to vastly advance astrophysical knowledge, allowing detailed studies of subjects including planets around other stars, the first objects in the Universe, super-massive black holes, and the nature and distribution of the dark matter and dark energy which dominate the Universe.

Dubbed E-ELT for European Extremely Large Telescope, this revolutionary new ground-based telescope concept will have a 39-metre main mirror and will be the largest optical/near-infrared telescope in the world: "the world's biggest eye on the sky".



