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Head of External Relations
ESO

Who are we?

- European Organisation for Astronomical Research in the Southern Hemisphere
- The foremost intergovernmental astronomy organisation in Europe
- The world's most productive astronomical observatory
- Intergovernmental treaty-level organization, founded in 1962, by five countries
Currently 15 member states (Brazil in the process of ratification) May increase further
1962 Belgium, France, Germany, The Netherlands, Sweden
1967 Denmark
1982 Switzerland, Italy
2001 Portugal
2002 United Kingdom
2004 Finland
2006 Spain
2007 Czech Republic
2008 Austria
2010 Brazil

Annual Income

- Annual contributions to the Organisation’s budget based on the countries’ net national income
- 2010 Scale of Contributions: 131 million EUR
  - Germany 22%
  - France 17%
  - United Kingdom 16%
  - Italy 13%
  - Spain 9%
  - other Member States between 1% and 5% each
- In steady state, Brazil will be approximately 13% on current estimates
Purpose

Mission – set for ESO in the Convention:

- Develop and operate world-class observing facilities for astronomical research
- Organise collaborations in astronomy

What do we do?

- Design, construct and operate a suite of the world's most powerful ground-based astronomical telescopes
- Design, construct and operate instruments
- Develop technology to support the programme
- Train scientists and engineers
- Leading to:
  - numerous possibilities for technology spin-off and transfer
  - high technology contract opportunities
  - skilled personnel
Facilities

- 4 operating units, spread over 5 sites: Garching HQ; Vitacura Office (Santiago), La Silla Paranal Observatory (split over 3 sites – La Silla, Paranal, and Sequitor), and ALMA

- Observatories
  - Optical/infrared: La Silla and Paranal
  - Submm: APEX and ALMA partnerships on Chajnantor

- HQ in Garching and Vitacura Office in Santiago

Personnel

- ~750 staff, split:
  - Garching HQ: ~ 450
  - Chile: 250+, spread over:
    - Vitacura
    - La Silla Paranal Observatory
      - La Silla
      - Paranal
      - Sequitor (near San Pedro de Atacama)
    - ALMA

- Staff comprise astronomers, engineers, technicians, administrators
La Silla, Paranal & Chajnantor

Part of La Silla-Paranal Observatory

Medium-size telescopes
- 3.6m: focused on exo-planet searches
- 3.5m NTT: room for visitor instruments
- 2.2m in partnership with MPG and Brazil
Paranal

- The VLT: 4 x 8.2m diameter optical/infrared telescopes
- The ATs: 4 x 1.8m diameter auxiliary telescopes

The VLT and the ATs, working together, make up the VLT Interferometer (VLTI)

- 2.6m diameter VLT Survey Telescope (VST; optical)
- 4m diameter VISTA Survey Telescope (infrared)

Paranal: View from Space
Chajnantor

**APEX**
- 12m sub-millimeter antenna, operated by ESO @ Sequitor
- MPG (50%), Sweden (23%) and ESO (27%)

**ALMA**
- Transformational science
- 66 antennas at 5050m
- Operations support at 2950m
- Global partnership with North America & East Asia
## Current ESO programme

- Exploit La Silla-Paranal Observatory to obtain best science:
  - Second generation instruments (VLT/VLTI)
  - Key surveys with VST and VISTA
  - Long-term programmes for unique science on La Silla
  - Prepare for ALMA science with APEX

- Complete construction of ALMA and start operations

- Design world-leading ELT, and secure funding for construction and operations
  - Timed to exploit synergy with JWST