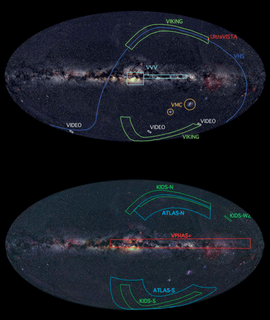
The ESO Survey Telescopes
— Mapping the Sky in the Finest Detail

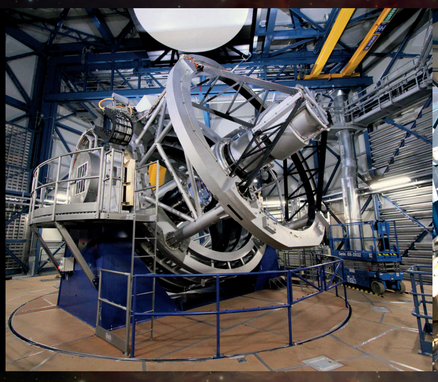
Two of the world's most powerful imaging survey telescopes — the Visible and Infrared Survey Telescope for Astronomy (VISTA) and the VLT Survey Telescope (VST) — form a vital part of ESO's Paranal Observatory in northern Chile. **Designed to image large areas quickly and deeply**, VISTA and the VST are performing a total of nine carefully designed surveys, creating vast archives of images and catalogues of objects that will be used by astronomers for decades to come.

The scientific goals of the surveys include many of the most exciting problems in astrophysics today, ranging from the nature of dark energy to the threat of near-Earth asteroids. Sky surveys allow astronomers to collect a large amount of data from a wide area in a short period of time. The survey data is then used to identify target objects for more detailed future research. With VISTA surveying the sky at infrared wavelengths and the VST collecting data in visible light, the two telescopes complement each other well.

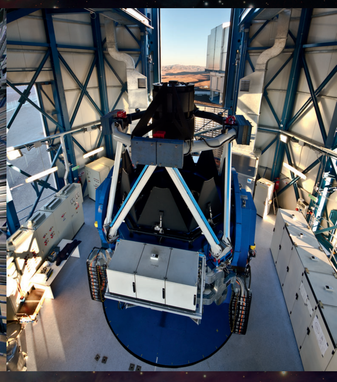
VISTA was conceived and developed in the United Kingdom and the VST is the result of a joint venture between ESO, INAF and the Capodimonte Astronomical Observatory (OAC) of Naples. VISTA's main mirror is 4.1 metres across and is the most strongly curved primary mirror of any large telescope. The VST is a state-of-the art 2.6-metre telescope equipped with OmegaCAM, a camera with a field of view four times the area of the full Moon. **The two survey telescopes will produce far more data every night than all the other instruments on the VLT put together.**



VISTA sky survey map (top) and VST sky survey map (bottom). Credit (top): VISTA/ESO



The VISTA telescope.



The VST telescope.
Credit: ESO/G. Lombardi

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Background image: VISTA's infrared view of the Orion Nebula.
Credit: ESO/J. Emerson/VISTA | Acknowledgement: Cambridge Astronomical Survey Unit