

The European Extremely Large Telescope

— The Dome

The European Extremely Large Telescope (E-ELT) telescope dome is designed to provide protection against adverse weather conditions. It must allow natural ventilation, minimise turbulence and control the temperature throughout the day. The dome must also allow access for handling and maintenance equipment such as cranes and heavy-lifting platforms.

The E-ELT dome will be huge — about half the size of a football stadium.

The dome will be a rotating hemispherical steel structure with insulating cladding. It will be about 73 metres high and have a diameter of about 86 metres. The reinforced concrete foundations will provide protection from earthquakes. There will be cranes and a lifting platform for loads of up to 30 tonnes.

The entire dome will weigh around 2700 tonnes.

There will be two large horizontal sliding doors, along with wind screens and louvres to control air flow.



Artist's impression of the main phases in the early stages of construction of the E-ELT.
Credit: ESO/L. Calçada.

