



# Business opportunities

## Developing the European Extremely Large Telescope

The European Extremely Large Telescope (E-ELT) will be the biggest optical and infrared telescope in the world and there are many opportunities for businesses of all sizes to play a key role in developing and building it.

### Why get involved?

With more than £8m of business already won, and with a projection of tenfold this amount expected to be awarded to UK companies and consortia over the lifetime of the project, there are plenty of opportunities for you to secure significant contracts to help deliver this facility.

Projects of this scale are a challenging mix of innovative developments which push the boundaries of engineering, including the creation of new cutting-edge processes and realising the challenge of mass producing high-specification components – the primary mirror alone will be made of 798 segment pieces. The innovation arising from this work to develop the E-ELT will present business with prospects to market these new emerging technologies or adapt them for sale in other applications. There are also opportunities for companies with established products to provide much needed equipment or systems as part of the telescope's infrastructure.

#### Relevant sectors and industries:

- Civil engineering
- Engineering
- Large optics
- Cryogenics and HVAC systems
- Electronics and IT
- Infrastructure

### Our involvement with the E-ELT

The UK is a member state of ESO (European Southern Observatory), with its subscription managed by the Science and Technology Facilities Council (STFC). ESO is an intergovernmental astronomical research organisation which operates a suite of telescopes on behalf of the international community. At STFC, we encourage the participation of UK industry through 'meet the buyer' type events in association with UK Trade and Industry (UKTI), by introducing companies to ESO, and by helping identify potential partners and providing some support during the tendering process.

Credit: ESO



## How you can benefit from involvement with the E-ELT project

There are many opportunities for businesses of all sizes to be involved in making this significant project a reality.

The E-ELT is a high technology project that will incorporate many innovative developments and offer numerous possibilities for technology and engineering spin-outs, technology transfer and technology contracting.

Collaboration opportunities for companies engaged with the E-ELT project will push boundaries, help secure partnerships with other companies, and create strong opportunities for product innovation given the high-specification technical functionality that the E-ELT facilities will require.

For larger companies and consortia there is the prospect of securing multi-million euro contracts - the dome and telescope main structure work package alone is estimated to have a value of around €300m. Whilst for smaller companies there are many opportunities to be part of the supply chain.

## Work packages with contract opportunities

The project will soon release industrial tenders for some major packages of work:

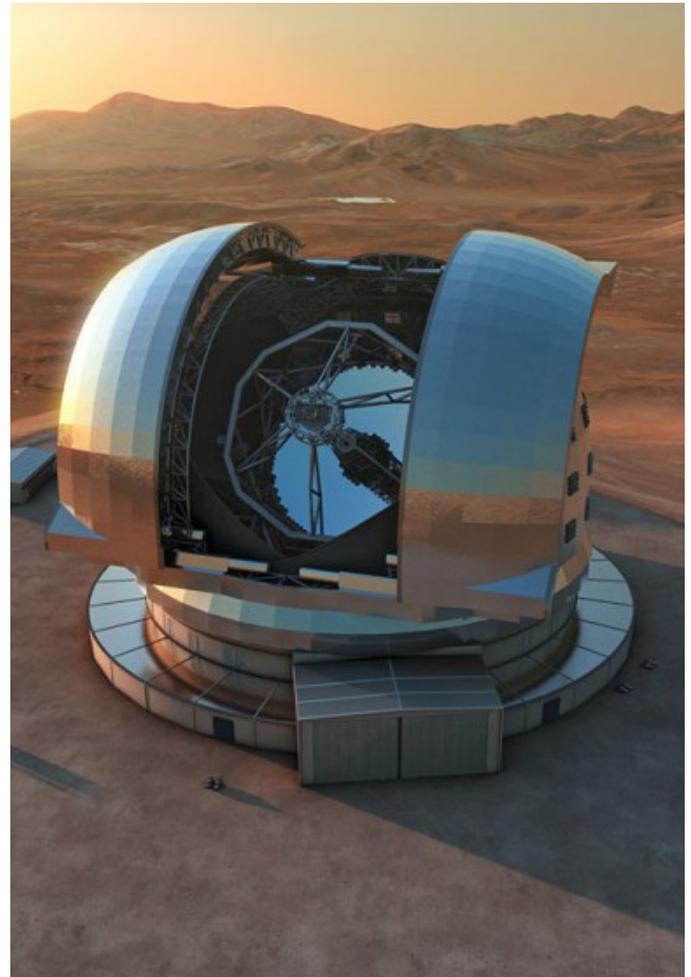
- Telescope main structure - the telescope (39.3m in diameter) is of a revolutionary optical design based on a novel five-mirror scheme that results in an exceptional image quality
- Dome – the dome (telescope enclosure building) allows complete freedom for the telescope to position itself within the dome, whether it be opened or closed
- Primary mirror optics and support opto-mechanics – 798 discrete hexagonal segments make up the primary mirror, each 1.4m wide and 50mm thick
- Adaptive optics - adaptive mirrors are incorporated into the optics of the telescope to compensate for the fuzziness in the stellar images introduced by atmospheric turbulence

More detailed information regarding the systems and instruments is available online at [www.eso.org/public/products/books/e-elt\\_constrproposal](http://www.eso.org/public/products/books/e-elt_constrproposal)

You can register through our website (details below) to receive notice of tender opportunities larger than €150,000. For contracts below this amount companies need to contact ESO's contracts and procurement department directly.

### Companies already benefitting from E-ELT contracts:

- Arup
- OpTIC Glyndwr
- SciSys
- Observatory Sciences Limited
- e2v
- URS Scott Wilson
- Mott MacDonald



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For more information, please contact:

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Tender opportunities: [www.stfc.ac.uk/1451](http://www.stfc.ac.uk/1451) E-ELT: [www.eelt.org.uk](http://www.eelt.org.uk)

