

# The E-ELT has Successfully Passed the Phase B Final Design Review

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The European Extremely Large Telescope (E-ELT) recently achieved a critical milestone by passing its Phase B final design review. The top-level question posed to the Review Board was whether the technical maturity of the design of the E-ELT is sufficient to warrant the programme entering the construction phase. It was the unanimous conclusion of the Review Board that the answer to this question is "Yes".

This comprehensive design review of the E-ELT project was held at ESO Headquarters in Garching on 21–24 September 2010. The Review Board consisted of 11 distinguished members: Steve Szechtman (Carnegie/GMT, chair), Chuck Claver (NOAO/LSST), Matt Johns (GMT), Doug

MacMynowski (Caltech/TMT), Buddy Martin (Steward Observatory Mirror Lab), Harald Nicklas (University of Gottingen), Roberto Ragazzoni (INAF), Francois Rigaut (Gemini), Luc Simard (HIA/TMT), Doug Simons (Gemini) and Larry Stepp (TMT). Six weeks before the review, the Telescope Construction Proposal with over 300 ancillary documents was made available to the Board, to which it responded with over 300 written questions and comments. The review ran over four days during which the design was probed in great depth. The outcome was praise, constructive feedback and the unanimous agreement that the E-ELT is ready to enter the construction phase.

The Review Board not only addressed technical issues but also commented on cost/contingency and the schedule (the executive summary of the board report can be downloaded<sup>1</sup>). The project saw it as due diligence to address in more depth some of these points in a Delta Phase B study, which is now underway.

In the meantime, Brazil has signed the formal accession agreement becoming ESO's 15th Member State (see the announcement by Tim de Zeeuw on p. 5 and the ESO press release 1050<sup>2</sup>), bringing new resources and skills to the organisation at the right time for them to make a major contribution to this exciting project.

All the pieces are now in place to go for Council approval this year and to break ground on Cerro Armazones in 2012, then head for first light of the biggest eye on the sky at the end of this decade.

## Links

<sup>1</sup> Executive summary of E-ELT Board report:  
<http://www.eso.org/sci/facilities/eelt/docs>

<sup>2</sup> Press release on Brazil joining ESO:  
<http://www.eso.org/public/news/eso1050/>



Figure 1. The members of the E-ELT Phase B Final Review Board, together with the ESO team, share the picture with some of the prototypes of the E-ELT components.