

E-ELT Dome & Main Structure



EMPRESARIOS AGRUPADOS PARTICIPATION IN E-ELT PROJECT

ESO Industry Event 16-17/10/2012

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SCOPE: E-ELT Main Structure



- Study related to the design, industrialization, budget, schedule, management, manufacturing process, AIV process, maintenance and procurement of the E-ELT telescope Main Structure (MS)
- Design & Analysis of the Main Structure Steel Structure, Azimuth Tracks and Main Axes Systems; drives, hydrostatic bearings, encoders, cable wraps, etc.
- Development of the basic engineering of the whole MS
- Specify all Main Structure components and systems
- Issue all the documentation (reports, trade-offs, calculations, drawings, etc.) that support the proposed design
- Prepare the needed documentation for the RFQ phase
- Issue a Project Schedule from engineering to commissioning
- Issue a Project Cost Estimate from engineering to commissioning
- Release a Firm Fixed and Binding price for the EPC project

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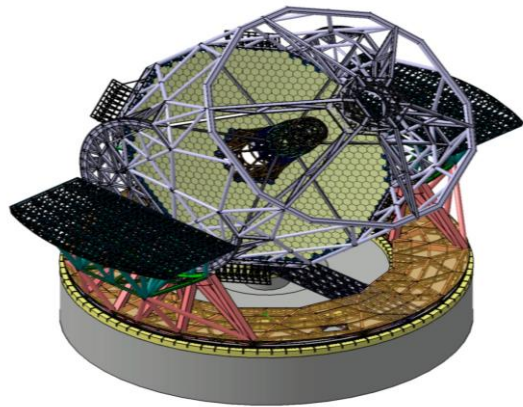


SCOPE: E-ELT Main Structure



Main Structure comprises,

- Telescope Structure
 - Azimuth Rings
 - Azimuth Structure
 - Altitude Structure
- Main Drives System
- Hydrostatic Bearings System
- Oil Supply System
- Encoder Systems
- On-Board Cranes
- Main Structure Local Control System
- Cable Wraps, accessibility means, etc.
- Auxiliary devices
- Specification of the interfaces with civil works



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PROJECT MAIN DRIVERS: E-ELT Main Structure



- Main Structure Design: The proposed design must be validated by industry and be feasible
- Cost Estimate: Its price shall be adjusted and true based on the design presented
- Project Schedule: Including engineering, purchasing/procurement, fabrication, transportation, AIV based on the design presented and on the site selected
- FEED Study shall end with a design that fits the requirements (Verification Matrix) and a collection of specifications and SOWs for a request for proposals
- Get a firm, fixed and binding price for EPC

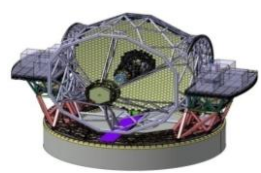
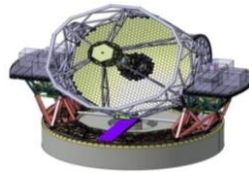
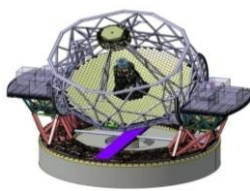
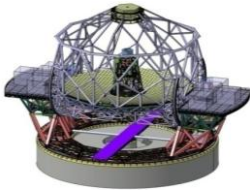
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PROJECT MAIN DRIVERS: E-ELT Main Structure

- Two versions of the FEED Study have been prepared, for ELT42m (July 2010) and for ELT37m (July 2011)
- These contracts have been awarded to the Empresarios Agrupados group by ESO after a request for proposal phase



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