

[ET-PP: Preparatory Phase for the Einstein Telescope Gravitational Wave Observatory](#)

Description

Einstein Telescope (ET) will be the European Third-Generation (3G) Gravitational Wave (GW) Observatory, designed to observe the universe by covering the whole spectrum observable from Earth with interferometric GW detectors. ET will put Europe at the forefront of GW research, being the first and most advanced 3G GW observatory.

Europe will take the lead in the newborn multimessenger astronomy by combining information delivered by ET with optical, IR, UV, gamma, cosmic ray and neutrino telescope observations. ET will impact our fundamental physics knowledge and our understanding of the fundamental interactions governing the evolution of black holes and neutron stars. The ET preparatory phase (ET-PP) will address several fundamental prerequisites for the approval, construction and operation of the enlargement of the ET consortium:

- the legal framework, governance schemes, and financial regulations under which ET will be constructed and operated;
- the detailed technical design and cost of the ET observatory; the preparation of the ET site selection;
- detailing and cost-estimation of the required site infrastructure and its socioeconomic and environmental impacts;
- the schemes for technology transfer, procurement and industry involvement in the technical design and construction of ET;
- the required linking with relevant science communities regarding the detailed definition of the science program;
- and the user services and data access model.

For ET-PP, support is sought for work on the legal, governance and financial issues, for the installation of a project office coordinating and supporting the management of ET-PP as well as the design of ET and the planning of the implementation, and for site-related work, for studies regarding the optimization and production of ET components by industry, for linking with science communities and for increasing social awareness. Hence, ET-PP will deliver a detailed implementation plan for the ET infrastructure.

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