

Euroquake

- **Objective of the project:** a distributed research infrastructure combining a network of a dozen seismic measurement stations equipped with innovative technologies and a dedicated state-of-the-art powerful computing centre running innovative calculation models. The RI is expected to serve the community of seismologists by giving access to data allowing an improvement in the capacities of investigation of the determinants of earthquakes and the development of predictive models. The location of the detection stations has already been identified and agreed on. They should be established in Spain, Italy, Greece, Turkey and Germany.
- **Needs of the project:** the computing technologies required by the research infrastructure are already available on the market. The computational models are at the conceptual stage and will require at least two years of development and then permanent adaptation and improvement during the operational phase of the infrastructure. The measurement stations should be based on innovative detection technologies, which are still under development, but at a mature stage; there are three competing companies working on the development of comparable technologies, based in Germany, the UK and Italy.
- **Lifecycle of the project:** the development of the model and of the equipment, the construction of the computing centre and of the detection centres should last 4 years overall. Operation should last at least 15 years.
- **Costs:** a first estimation of the investment costs has been carried out. The overall investment cost is €110 million.
 - The computing centre represents 45% of the overall “investment costs”
 - The construction and equipment of the measurement stations represents 35% of the “investment costs”
 - Personnel and other costs during preparation and implementation represent 20% of the “investment costs”
 - A rough estimation of the operational costs has identified that the main cost items will relate to the maintenance and regular upgrade of the computing centre, to the maintenance of the detection stations. Personnel costs should remain limited (2 FTEs per station and 12 persons for administration and operation of the computing centre).
- **Current organisation:** a Preparatory Phase Consortium has been formed between 12 research and academic institutes located in Portugal, Spain, Italy, Greece, Bulgaria, Turkey, Romania, Germany and France. The coordinating institute is based in Italy and is strongly supported by the Italian authorities.
- **Funding:** the stations to be based in Spain, Italy, and Greece are located in Convergence regions. In the three countries, there are Operational Programmes including axes for the development of R&D activities. No other firm funding commitment has been secured.

Questions

- What legal entity should be considered for the construction and operation of this research infrastructure? Consider in your suggestions the potential use of structural funds in some participating countries and the impossibility of transferring directly structural funds into a “common pot”.
- What should be the main internal bodies of the implementation and operational entity? How would you organise the governance during the implementation phase knowing that the use of structural funds requires a local beneficiary as the entity legally responsible for spending the funds?
- How would you organise the negotiations for the establishment of the entity in charge of operation (what leadership and organisation of negotiations)? What, in your opinion, will be the main bones of contention during negotiations?
- What timespan and scope would you consider for the negotiations on the contributions?
- What types of contributions should be accepted? What limitations and requirements would you apply to in-kind contributions (in case you decide to accept them)?
- Describe what are the main stakeholders to be considered in the case of this research infrastructure and what interests they will try to (directly or indirectly) fight for during