



DIESIS

(Design of an Interoperable European federated Simulation network for critical Infrastructures)

and the role of standards

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Consortium members

Beneficiary name	Beneficiary short name	Country
Fraunhofer-Institute for Intelligent Analysis and Information Systems	IAIS	Germany
Consorzio Campano di Ricerca per l'Informatica e l'Automazione Industriale	CRIAI	Italy
Ente per le Nuove Tecnologie, l'Energia e l'Ambiente	ENEA	Italy
Imperial College London	ICL	United Kingdom
De Nederlandse organisatie voor toegepast natuurwetenschappelijk onderzoek	TNO	The Netherlands

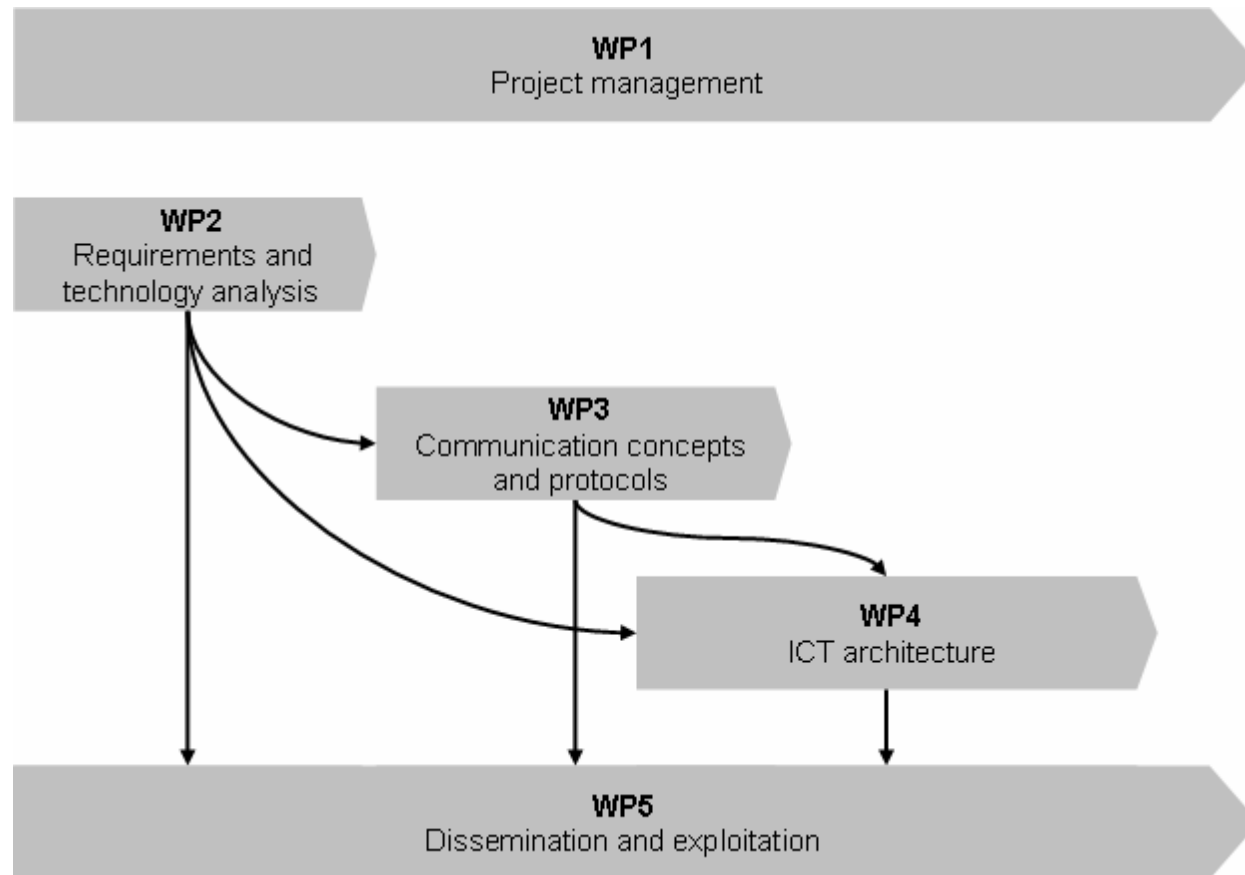


Project objectives

- ▶ Analyse requirements from researchers, stakeholders, decision makers and governmental organisations
- ▶ Develop an extensible ontology and communication protocols for Critical Infrastructures (CI) federated simulation
- ▶ Design an IT-architecture supporting federated, interoperable simulations
- ▶ Implement a prototype. Challenge:
 - ▶ To generate a virtual layered Modelling and Simulation framework at run time in order to describe systems, their statuses, their behaviour, and their mutual interactions via specific domain's simulators (heterogeneous simulators);
- ▶ Assess the financial, technical and scientific feasibility and the potential impact of the e-Infrastructure
- ▶ Develop a strategy and roadmap for the development of the e-Infrastructure



Work plan outline



Standards related work

Existing related standards:

- ▶ High Level Architecture (HLA) by IEEE
- ▶ Distributed Interactive Simulations set of standards (DIS) by IEEE

To be developed standards:

- ▶ generic topics of distributed simulation, such as time and event synchronisation, data exchange, federate and federation management
- ▶ specific topics of critical infrastructure simulation (e.g. ontologies)
- ▶ network and data security, including data anonymity