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EPOS e-infrastructure and EUDAT: the development of a Collaborative Data Infrastructure

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The EUDAT project aims to contribute to the development of a Collaborative Data Infrastructure (CDI). The project's target is to provide a pan-European solution to the challenge of data proliferation in Europe's scientific and research communities. EUDAT addresses the development of basic core services also of great need to the EPOS community. EPOS is represented by INGV partnering primarily with CINECA for the design and implementation of its e-infrastructure.

In its initial stage, EUDAT has been focusing on these service cases: i.) safe replication of data among different sites, ii.) staging of data to compute facilities, iii.) the introduction and use of common AAI services, iv.) the adoption of an effective PID system that can be used within and among the communities to uniquely identify data, and v.) the development of a joint metadata domain for all data which are stored by EUDAT data nodes. The latter is fundamental toward harvesting metadata records for all data objects of the communities.

The talk will describe the EUDAT project as a whole while focusing on technological details and the solutions which are currently under testing and implementation. Examples will be drawn from the initial prototyping of these services within the development of the EPOS e-infrastructure.