



## **EPOS Data and Service Provision**

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EPOS is now in IP (implementation phase) after a successful PP (preparatory phase). EPOS consists of essentially two components, one ICS (Integrated Core Services) representing the integrating ICT (Information and Communication Technology) and many TCS (Thematic Core Services) representing the scientific domains. The architecture developed, demonstrated and agreed within the project during the PP is now being developed utilising co-design with the TCS teams and agile, spiral methods within the ICS team.

The ‘heart’ of EPOS is the metadata catalog. This provides for the ICS a digital representation of the TCS assets (services, data, software, equipment, expertise...) thus facilitating access, interoperation and (re-)use. A major part of the work has been interactions with the TCS. The original intention to harvest information from the TCS required (and still requires) discussions to understand fully the TCS organisational structures linked with rights, security and privacy; their (meta)data syntax (structure) and semantics (meaning); their workflows and methods of working and the services offered. To complicate matters further the TCS are each at varying stages of development and the ICS design has to accommodate pre-existing, developing and expected future standards for metadata, data, software and processes.

Through information documents, questionnaires and interviews/meetings the EPOS ICS team has collected DDSS (Data, Data Products, Software and Services) information from the TCS. The ICS team developed a simplified metadata model for presentation to the TCS and the ICS team will perform the mapping and conversion from this model to the internal detailed technical metadata model using (CERIF: a EU recommendation to Member States maintained, developed and promoted by euroCRIS [www.eurocris.org](http://www.eurocris.org)). At the time of writing the final modifications of the EPOS metadata model are being made, and the mappings to CERIF designed, prior to the main phase of (meta)data collection into the EPOS metadata catalog.

In parallel work proceeds on the user interface software, the APIs (Application Programming Interfaces) to the TCS services, the harvesting method and software, the AAAI (Authentication, Authorisation, Accounting Infrastructure) and the system manager. The next steps will involve interfaces to ICS-D (Distributed ICS i.e. facilities and services for computing, data storage, detectors and instruments for data collection etc.) to which requests, software and data will be deployed and from which data will be generated. Associated with this will be the development of the workflow system which will assist the end-user in building a workflow to achieve the scientific objectives.