

# A Big Data approach for ocean observations: the EMSODEV data management platform experience on top of the EGI FedCloud

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Continuous monitoring of the ocean status is highly challenging. At this aim a multitude of scientific objectives has to be accommodated through a single infrastructure which needs to address a very large and diverse user community including biologists, geoscientists, chemists, and engineers. In this context, one of the objectives of the EMSODEV project is to design and develop a data management platform for a long-term, high-resolution, (near) real-time monitoring of different ocean parameters; it will provide a coordinated approach for data capture, archiving, management and delivery. In this session, the big data approach of the EMSODEV data management platform is presented. The use of the EGI FedCloud is going to be explained and a set of big data tools that implement the Data Acquisition and Transformation, Data Curation, Data Processing and Data Access phases (ENVRI Reference Model) within the platform itself will be presented.

<p><b>Speaker's biography</b></p>

Leandro Lombardo: He is part of Engineering Ingegneria Informatica S.p.A. since 2001. In last years he has been involved in Future Internet Public-Private Partnership projects as FINESCE and FIWARE. He is now involved in the EMSODEV project where his is committed to the design, set-up and implementation of the data management platform, which is based on a big data paradigm and on existing cutting-edge open source technologies. He is mainly focused in Data Management, Data Processing Architectures and Data Analytics.

<p>Pasquale Andriani: He is part of Engineering Ingegneria Informatica S.p.A since 2005 and he participated in several EU co-funded projects as CASPAR, SCIDIP-ES, BeAware. In last years he has been involved in the Future Internet Public-Private Partnership programme, participating in FINSSEN, FINESCE and FIWARE projects. He is currently leading the design and the development of the data management platform of the EMSODEV project. Since June 2015, he has been involved in the Big Data Value Association with a specific interest in Data Management and Data Processing Architecture priorities and sub-groups.

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