

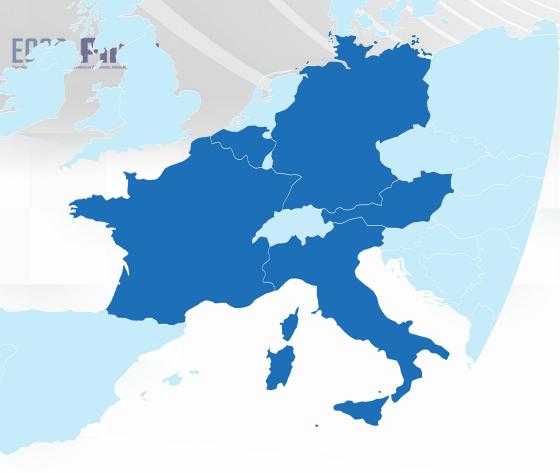
EOSC-Pillar in action: social and technical innovations

Yann Le Franc, PhD - CINES

lefranc@cines.fr

Project Technical Manager







Coordination and Harmonisation of National Initiatives, Infrastructures and Data services in Central and Western Europe

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Coordinator

Partners

IMPACTS

- Harmonised procedures for research data services delivery across countries
- ★ Coordination with other initiatives to achieve harmonisation for an inclusive EOSC
- ★ Full understanding of the state of national initiatives and compute and data services, supporting consolidation
- ★ Increased FAIR data uptake at national levels and across scientific communities and borders
- ★ Launch of new non-commercial transpational services in the EOSC Portal
- ★ Active stakeholder community of EOSC supporters in each country
- ★ New viable business models for the sustainable provision of transnational services

EOSC-PILLAR CONSORTIUM







































Our vision

EUROPEAN OPEN SCIENCE CLOUD

Social aspects (governance, policies, ...)



Technical aspects
(connect existing
national services
and resources)

Scientific communities, National Initiatives and Member States



EOSC-Pillar in action: Social and Technical Innovation

* Social Innovation:

- * National Initiatives Survey: a mapping & analysis of the Regional research infrastructure landscape
- * Design a Lean framework for national initiatives to integrate EOSC

* Technical Innovation

- * A Federated FAIR Data Space to support scientific communities involved in the project (9 use-cases)
- * Detailed catalogs of national infrastructure services
- * Link infrastructure services to the Federated FAIR Data Space



Social Innovations



National Initiatives Survey: A mapping & analysis of the Regional research infrastructure landscape

- * A comprehensive picture of the status quo of research data infrastructure on organisational, technical and legal aspects of data management
- * Method: a representative online survey
- * Regional, National and European stakeholder involvement
- * Reused by other 5b-projects



Targets and topics



Targets

- * Inclusion of various target groups: einfrastructures, RI, universities, funding bodies
- * More than 2,200 organisations addressed
- * Involvement of key stakeholder groups and many small/regional initiatives

Topics

Broad range of topics with significance for the implementation of EOSC:

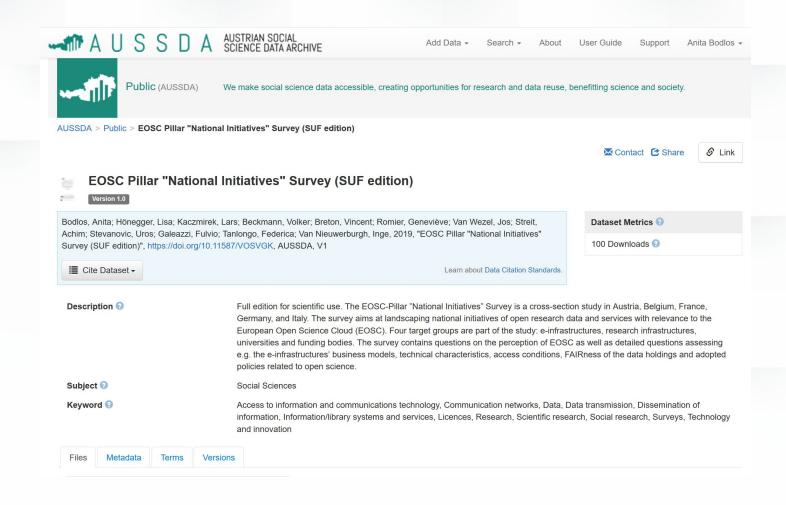
- * Business models, SLAs and user support
- * Access policies, AAI and licensing
- * Data management and FAIRness
- * User communities and services



A FAIR Survey

* Survey data set and additional documentation will be curated and available for reuse in the AUSSDA Repository

* https://doi.org/10.1158 7/VOSVGK



EOSC-Pillar in action 8



Bridging the gaps between National Initiatives

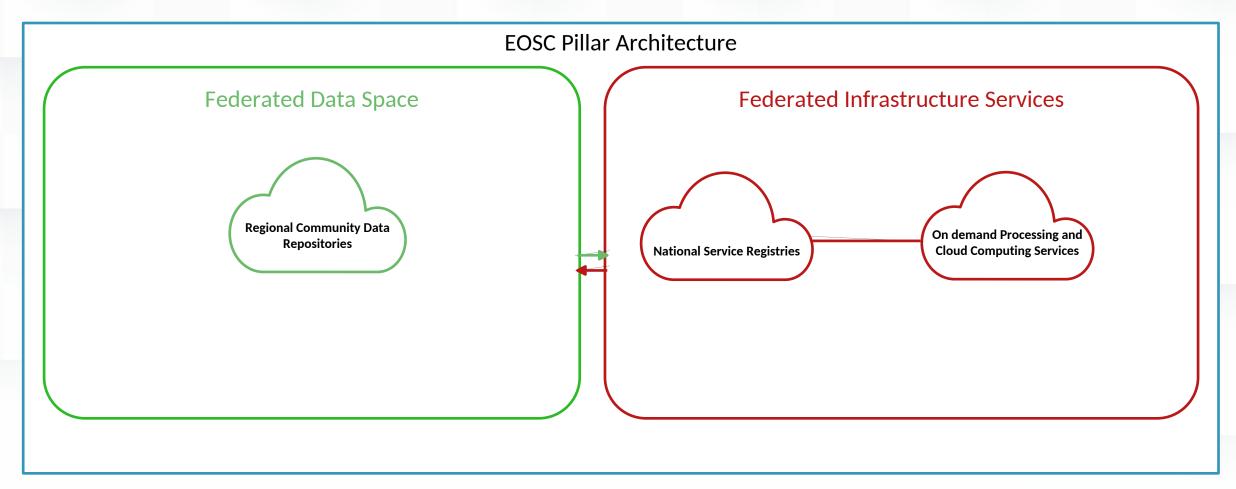
- * Lean framework for national initiatives
 - * Focus on constraints/opportunities
 - * Cost analysis and business model(s) building on real use cases
 - * Legal/licensing aspects
- * EOSC-readiness indicators for MS/National Initiatives
 - * from landscape to living process (building on the survey work)
 - * to monitor the progresses of EOSC at the national level to
 - * Identify success stories that can be replicated in other countries
 - * Pinpoint areas of improvement where recommendations can be made/actions can be taken



Technical Innovations

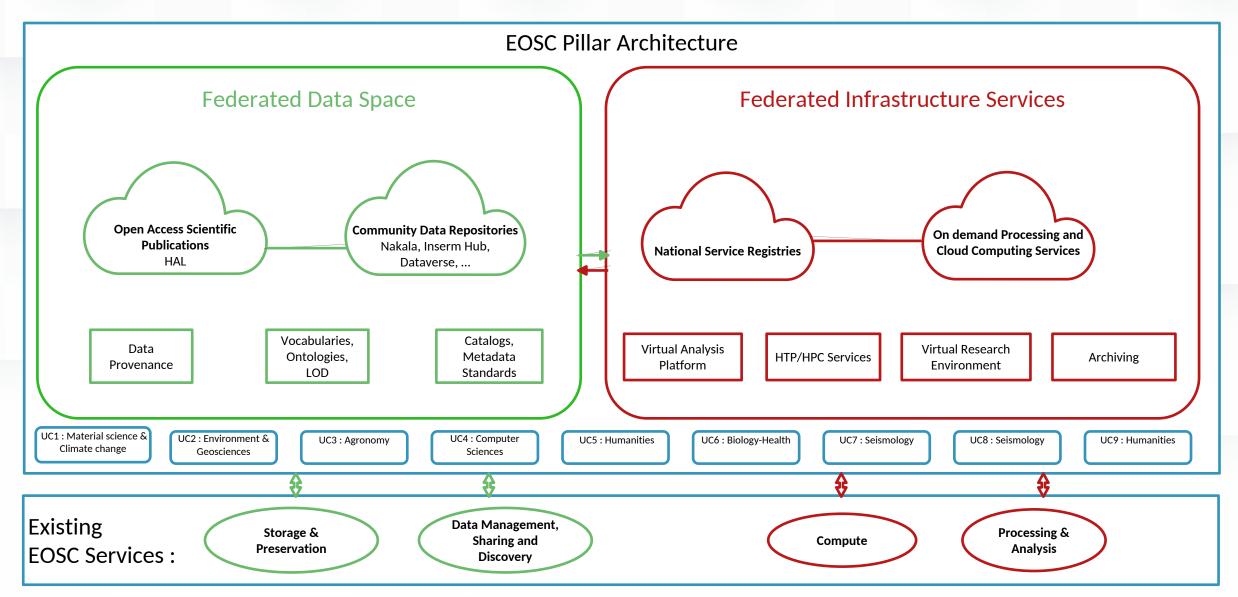


EOSC-Pillar technical building blocks





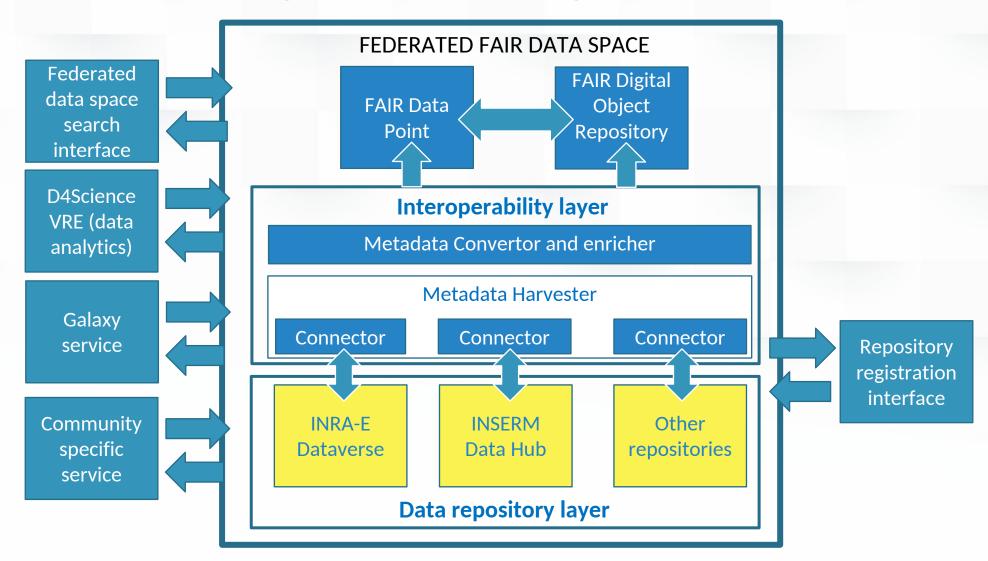
Use case and Community driven development





Federating and FAIRifying Data Repositories

Users

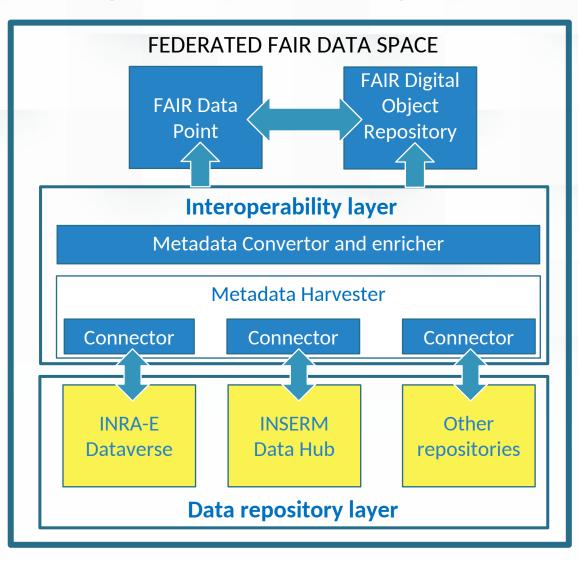


Repository owners



Federating and FAIRifying Data Repositories

Aligning repositories to the FAIR principles through the integration of the FAIR Digital Object (FDO) and FAIR Data Point specifications.



Practical approach relying on existing tools:

- FDO repository:
 Cordra
- FAIR Data Point service (GoFAIR)
- FAIRifier service (LUMC)
- smartHarvester PoC (EUDAT)
- D4Science VRE (CNR)



Linking datasets with Open Access publications

- * Nakala is Social Science data repository
- * HAL is a French Open Access publication repository which proposes a dedicated view for Social Science publication
- * The objective is to link the datasets stored in Nakala together with the publications stored in HAL and allow users to go from to another and vice versa
- * Current PoC: Use B2NOTE as a service to build LOD compliant links between datasets and publications

EOSC-Pillar in action



Secure Galaxy environment for sensitive data

- * Provide an easily deployable Galaxy service that can:
 - * run on highly secured/closed environments hosting personal health data
 - * access a wide range of reference data repositories through the EOSC-Pillar Federated FAIR Data Space
- * Build on top of existing regional services
 - * Laniakea service in Italy
 - * IFB services in France
- * What is innovative?
 - * Close-to-the-data computing in secured health data environment
 - * Allows cross-domain studies through the access to the Federated FAIR Data Space

EOSC-Pillar in action



Thank you!

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WP7: The infrastructure layer

Activities: test services of European-wide interest

- use of accelerator resources (GPU, FPGA) in cloud computing
- Galaxy-as-a-service platform, run complex analyses over large datasets (WP6 use cases)
- Providing Virtual Laboratories/Virtual Research Environments
- Virtual Research Environment-based service for research data publishing (OAI-PMH, DCAT)
- Deployment on different infras (HPC, HTC, ...), containers (repositories), tools
- For example, how to run Covid-19 drug screening on various computing infrastructures
- integrate the FORCE/BDSS (business decision support systems) and Marketplace system in the EOSC framework