EMSO ERIC

A pan-European Distributed Research Infrastructure

OBSERVING THE OCEAN TO SAVE THE EARTH

EMSO ERIC Data Services

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EOSC-Hub EAP, 7 Oct 2020

EMSO ERIC

DISTRIBUTED RESEARCH INFRASTRUCTURE

EMSO ERIC was constituted on September 29, 2016 (EU Official Journal L268/59 October 1st, 2016)

1 **CENTRAL HUB** AND **11** INTERLINKED **FIXED POINT MUTI-SENSORS PLATFORMS**

EXCELLENCES

Delivering standardised: services, data process, scientific results.

High level of **INTEGRATION** among 11 multi-sensor platforms and 17 European institutions

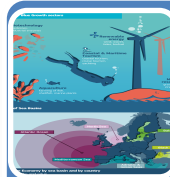**Common access policy** and a single point of access for all users

User programme designed to absorb capacity of the RI

ADDED VALUE compared to the value of a single research cooperation network

JOINT INVESTMENT STRATEGY to strengthening EMSO ERIC through its regional facilities/test sites and common and shared services
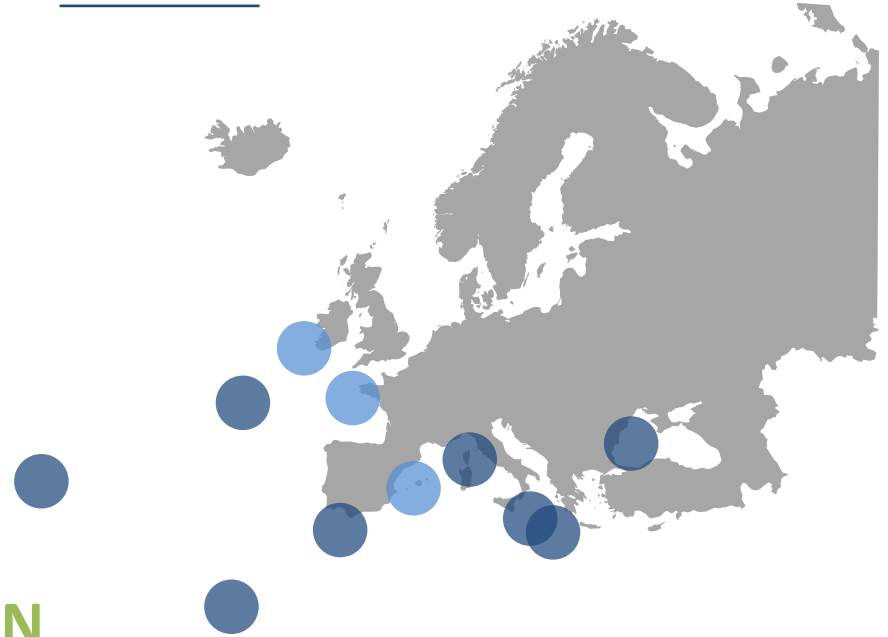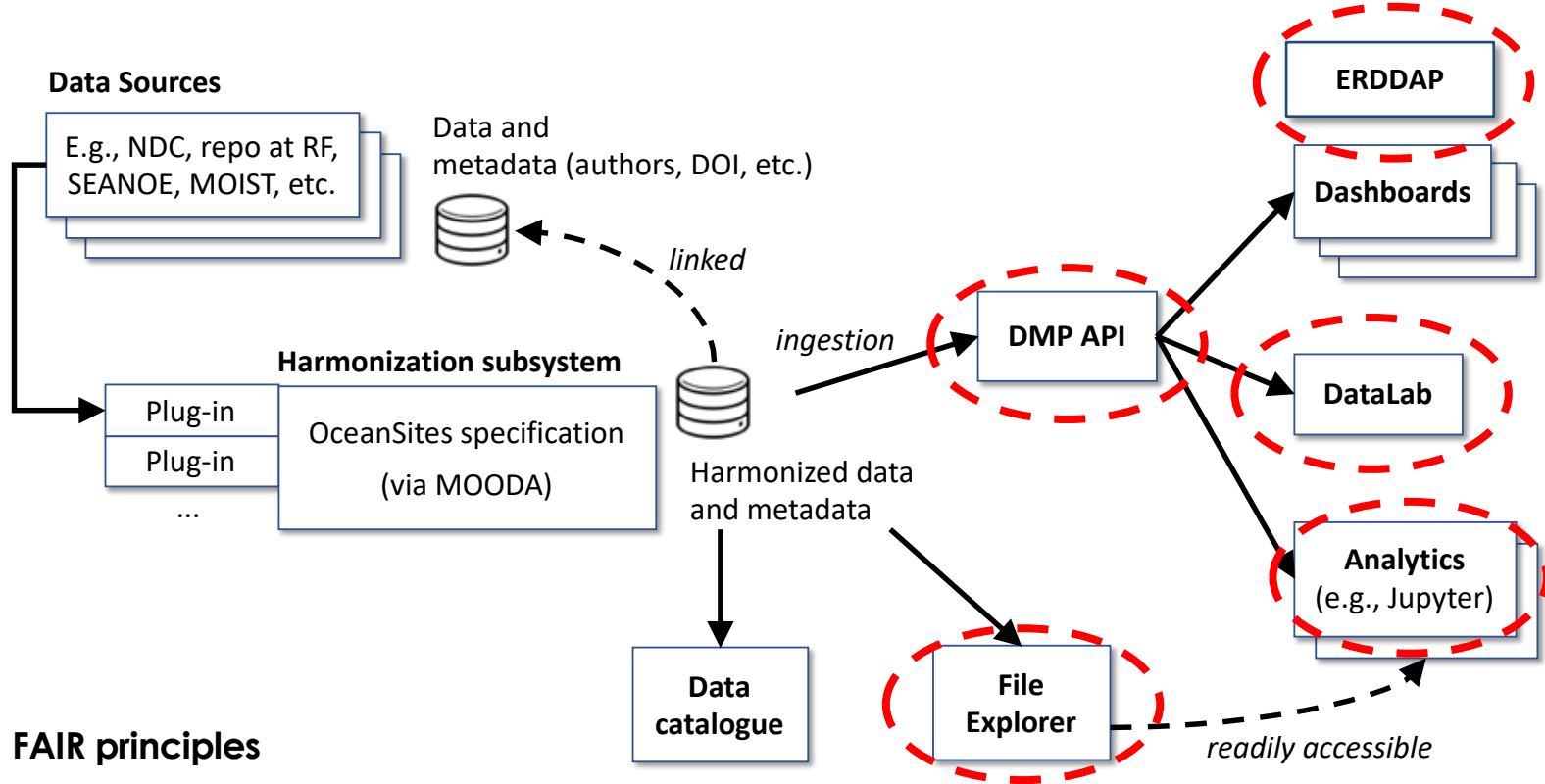
MISSION

To establish a comprehensive and smart sensor system in water column, seafloor, and sub-seafloor environments as part of the integrated and sustainable organization EMSO ERIC

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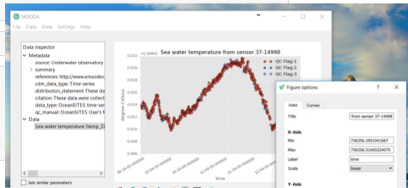# Baseline Implementation of EMSO ERIC Data Services

- **FAIR principles**
- **EOSC guidelines (EOSC-Hub EAP)**

Harmonization and Cyberinfrastructure Deployment

MOODA (Module of Ocean Observatory Data Analysis)

- Data harmonization (OceanSites standard), data management and transport

MOODA as a library or with the Graphical User Interface (GUI)

EOSC-Hub Early Adopter Programme

- EGI Cloud Compute service (Openstack services at CESGA and RECAS-BARI)
- EGI Online Storage
- Technical plan (targeting registration in the EOSC Portal Marketplace)

Work Plan Status

Quarter (2020)	Work Planned	Status and notes
Q1	• Identify the adequate capacity for implementing the project. • Engage with the EOSC providers interested to support the project activities. • Scale-up the compute and storage resources to move the DMP to preproduction. The platform will be replicated in two cloud providers for redundancy.	• Defined resource requirements and basic services. • Obtained resources from RECAS-BARI and CESGA • Deployed core data services at RECAS-BARI • Migration of services from OpenNebula to OpenStack • Short training-oriented session on data services delivered using EGI resources at EMSO Conference (Athens, Feb 12)
Q2	• Enable/integrate federated identity management in the EMSO-ERIC Data Management Platform using one of the available AAI solutions provided by EOSC-hub. • Perform initial scalability tests of the EMSO-ERIC DMP in EOSC.	• Prioritized data services: ERDDAP deployment • Prioritized data services: DataLab • Prioritized capabilities: Engagement with DOI provider • Ongoing deployment of mirrored/distributed services in CESGA
Q3	• Enabling the EOSC-hub monitoring in the DMP. • Enabling the EOSC-hub accounting in the DMP. • Increase the scale of the tests of the platform in EOSC.	• Working on AAI integration (EGI Check-in service) • Enhancements in the DMP monitoring system to enable scalability/stress tests • Potential OLAs through INFRAEOSC-07 proposal
Q4	• Agreed OLAs with the EOSC providers. • Registration of the EMSO-ERIC Data Management Platform in the EOSC Portal.	• Extension agreed with resources providers through Mar 2021 • INFRAEOSC-07 proposal accepted (sustaining resources through EGI) • Working on AAI integration (EGI Check-in service) • AAI solution (EGI Check-in service) completed. Transitioning to production. • Registration in the EOSC Portal by early 2021

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EMSO ERIC Data Services @EGI (RECAS-BARI)

Production (Internal/External Access)	Testing/Staging (Internal/External Access)	Development (Internal/External Access)
DMP Back-end (E)	DMP Back-end Test (I)	DMP Back-end Dev (I)
Data Portal Front-End (E)	Data Portal Front-End Test (I)	Data Poral Front-End Dev (I)
EMSO ERIC API (E)	EMSO ERIC API Test (I)	
DataLab (E)	DataLab Test (E)	DataLab Dev (I)
Virtual Research Environment – VRE (E)	*Training VRE (E) – on demand only*	
	EMSO ERIC ERDDAP Test (E)	
ERDDAP-OBSEA (E)		
GitLab (E)		

Publicly accessible services (since Q1 2020):

- ~100% uptime
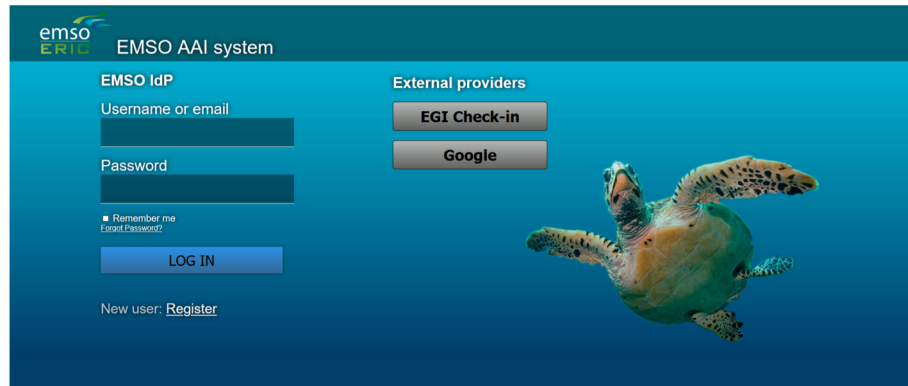- 2 incidents (networking issues) - no incidents since last meeting

Current Steps (1)

Federated identity management implementation

- Engaged with EGI on the implementation of AAI based on the EGI Check-in service.

  EGI Check-in is a proxy service that operates as a central hub to connect federated Identity Providers (IdPs) with EGI service providers.

  Check-in allows users to select their preferred IdP so that they can access and use EGI services in a uniform and easy way.

- Developed an AAI solution (SSO, EMSO ERIC IdP, EGI-Check-in)

Current Steps (1)

Integration of federated identity management capabilities
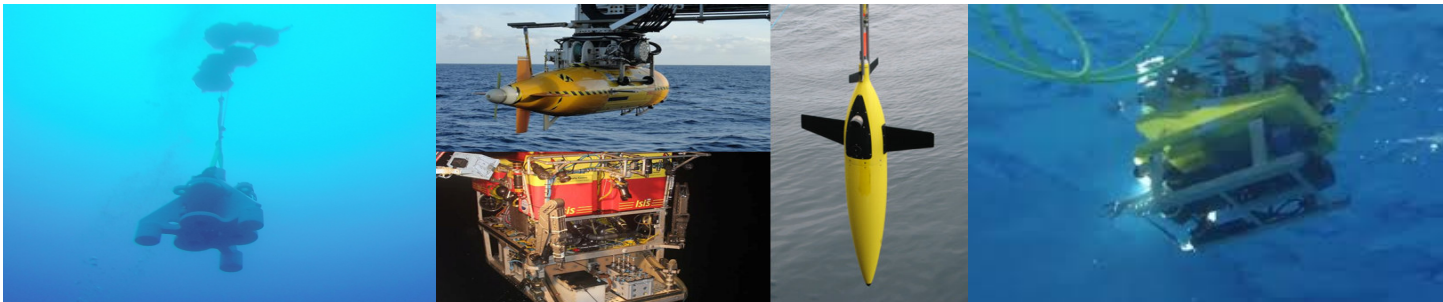
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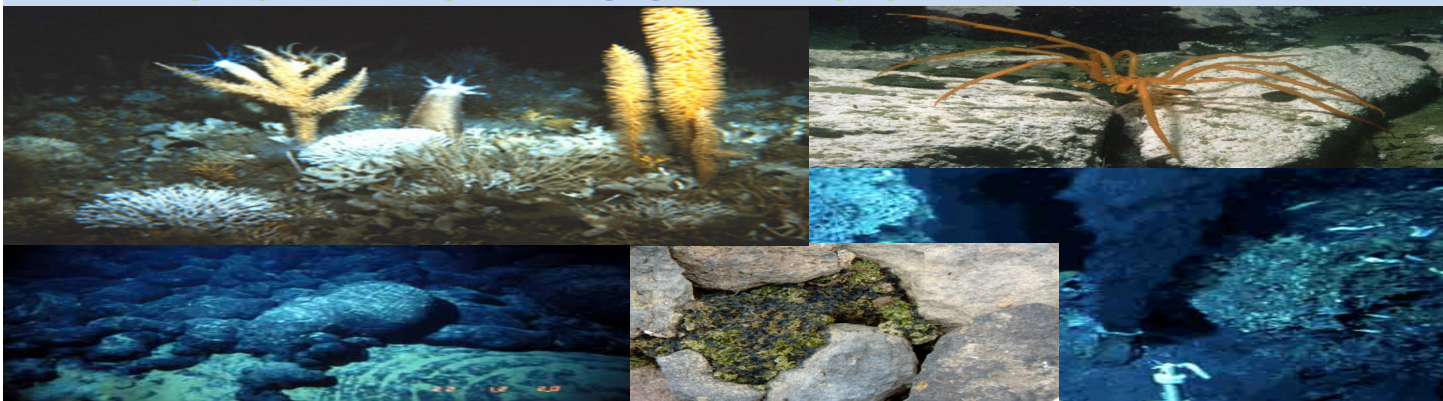
Thank you for your attention

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