



EPOS Data Portal Opening

Daniele Bailo

EPOS Annual Meeting - 22 June 2022

Outline

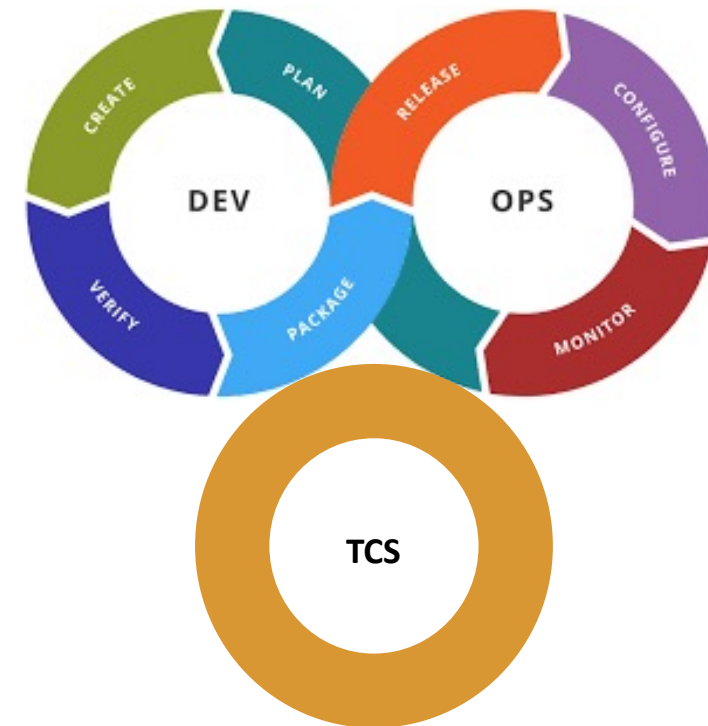
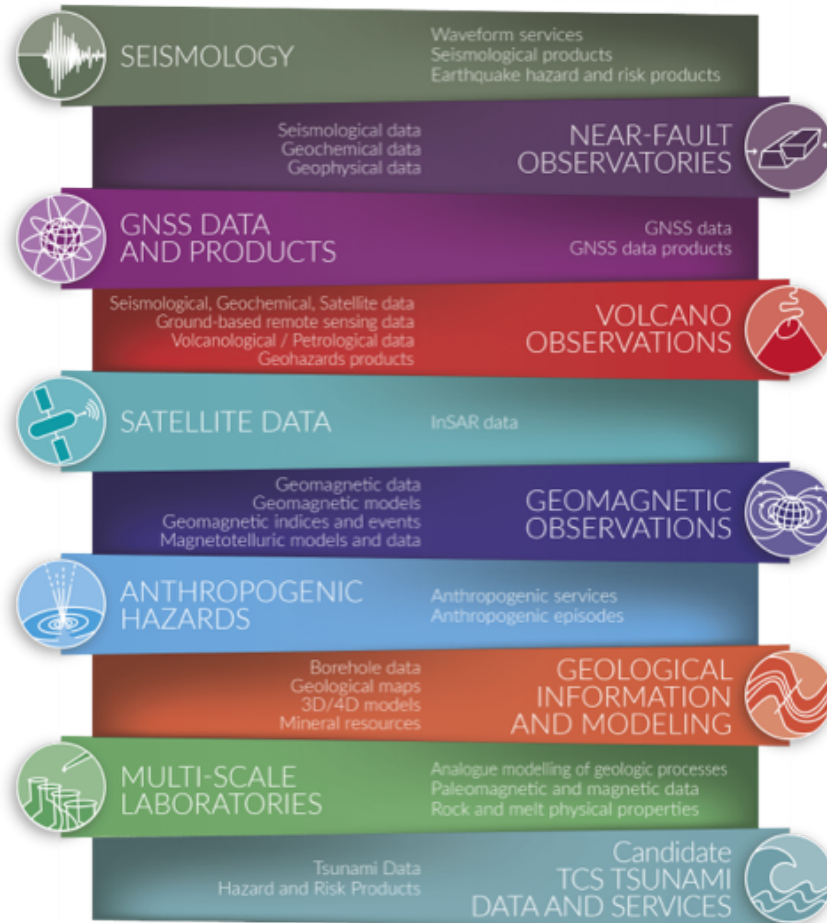
- Activating the Community for DDSS technical integration
- Technical Architecture
- Story of the portal
- We GO LIVE!

Activating the Community for DDSS technical integration

EPOS community

TCS communities ~ 600

IT Team ~ 100



DDSS Integration – Key Actors

TCS-ICS interaction

In charge of managing the interactions between ICS and TCS

ICS-C Hosting & Operation

In charge of hosting the Data Portal



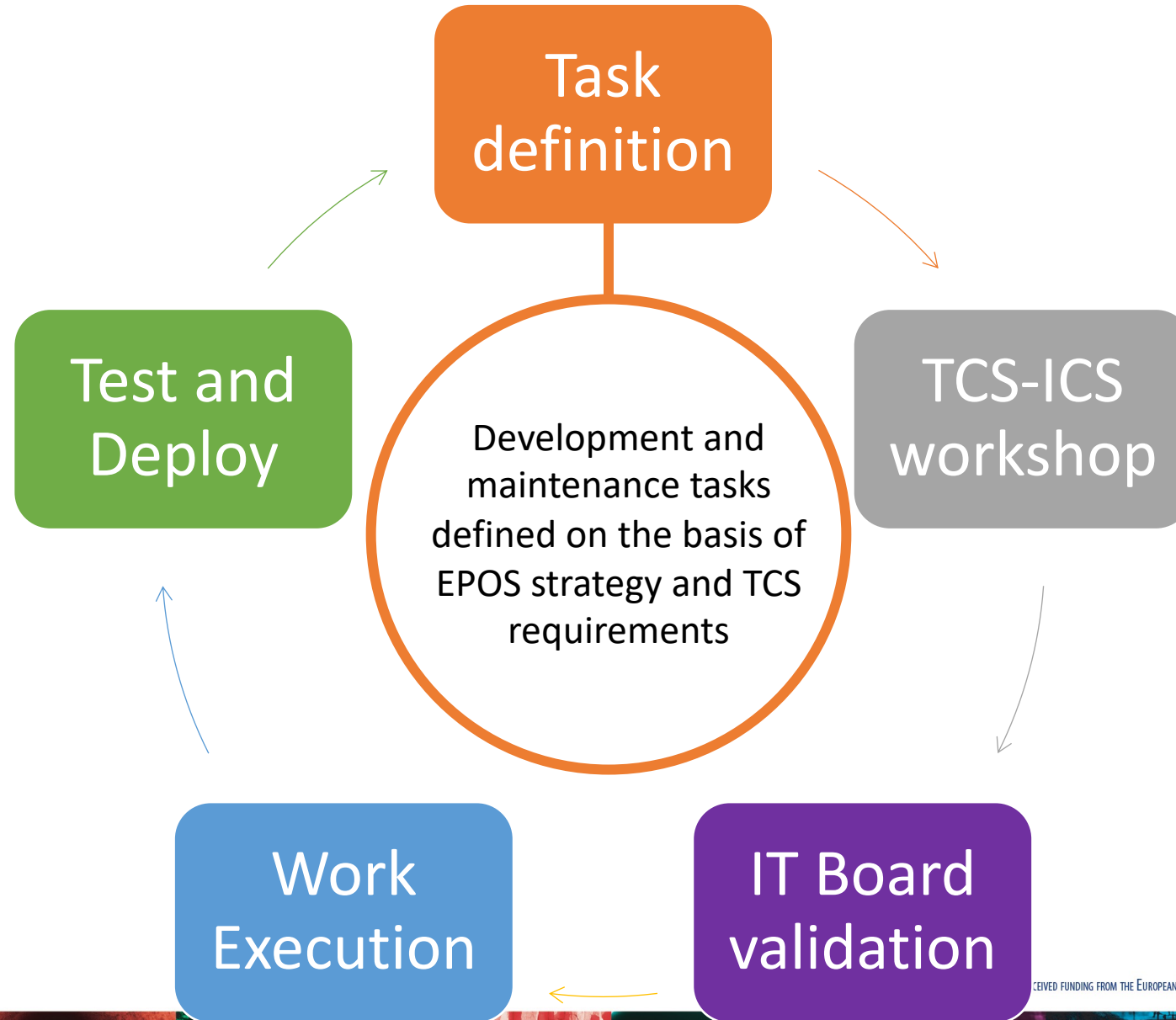
ICS-C Data Portal Development

In charge of developing the Data Portal software

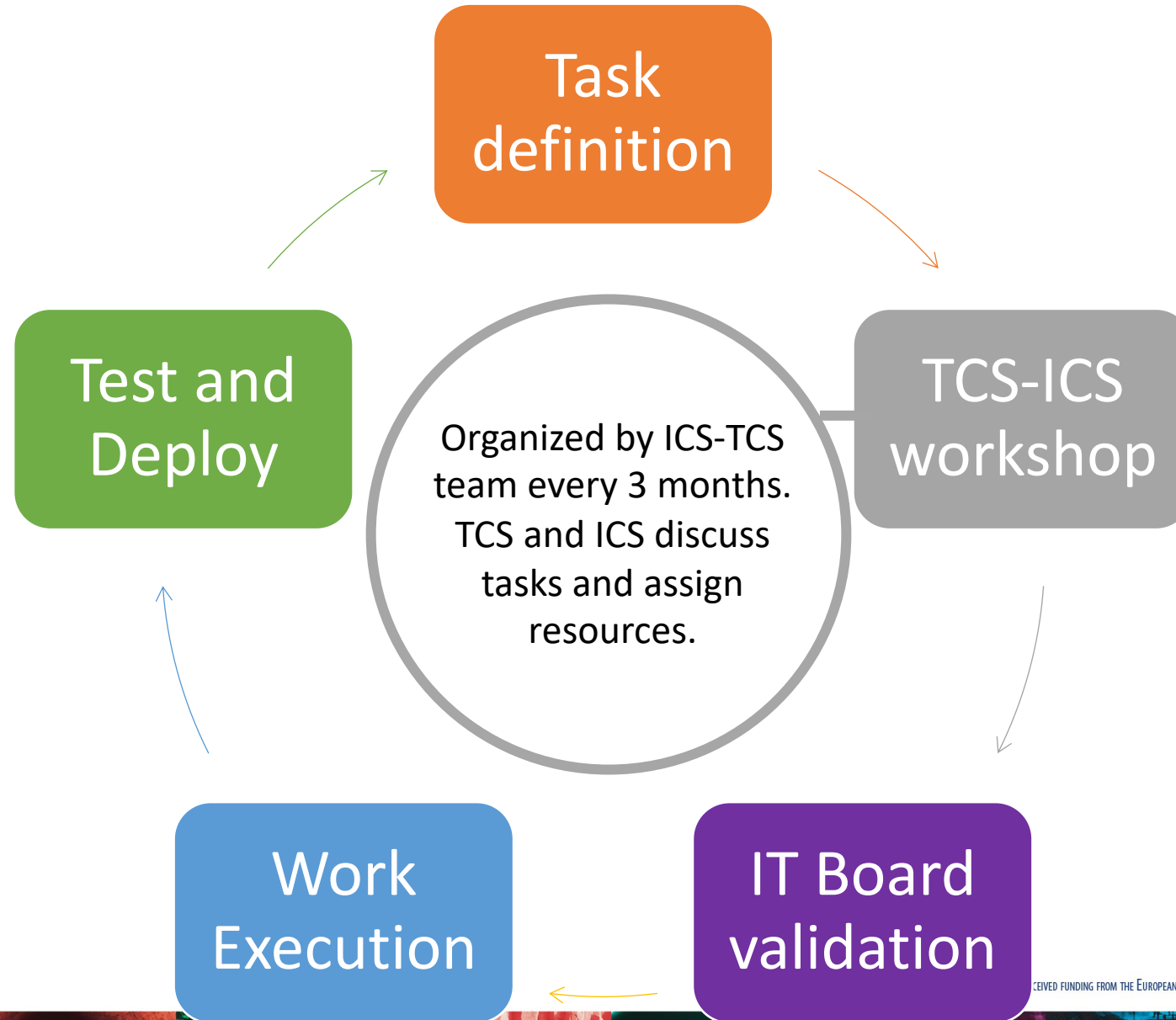
TCS DDSS Provision

TCS provide the assets integrated into the Data Portal

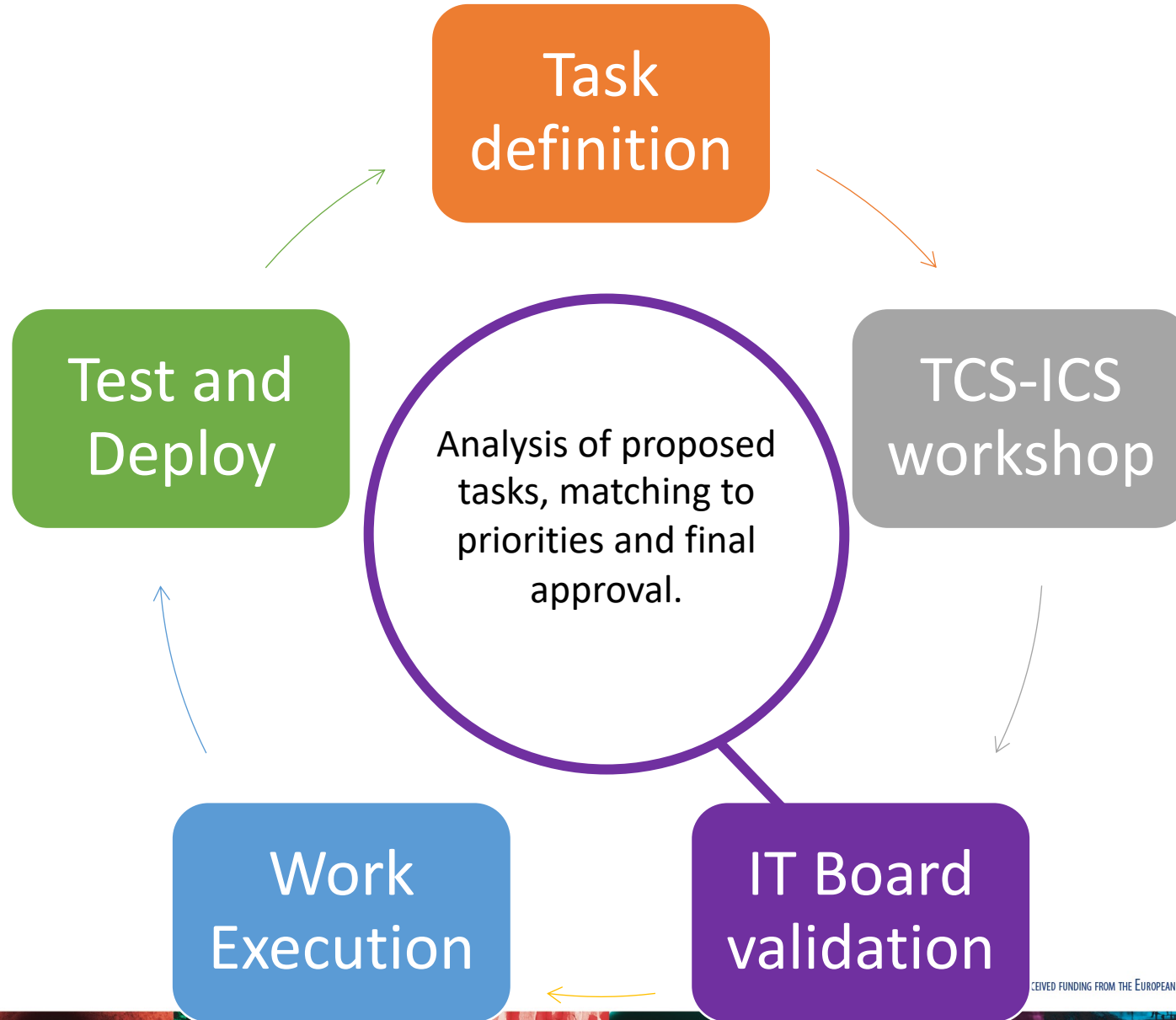
How Key Actors work together



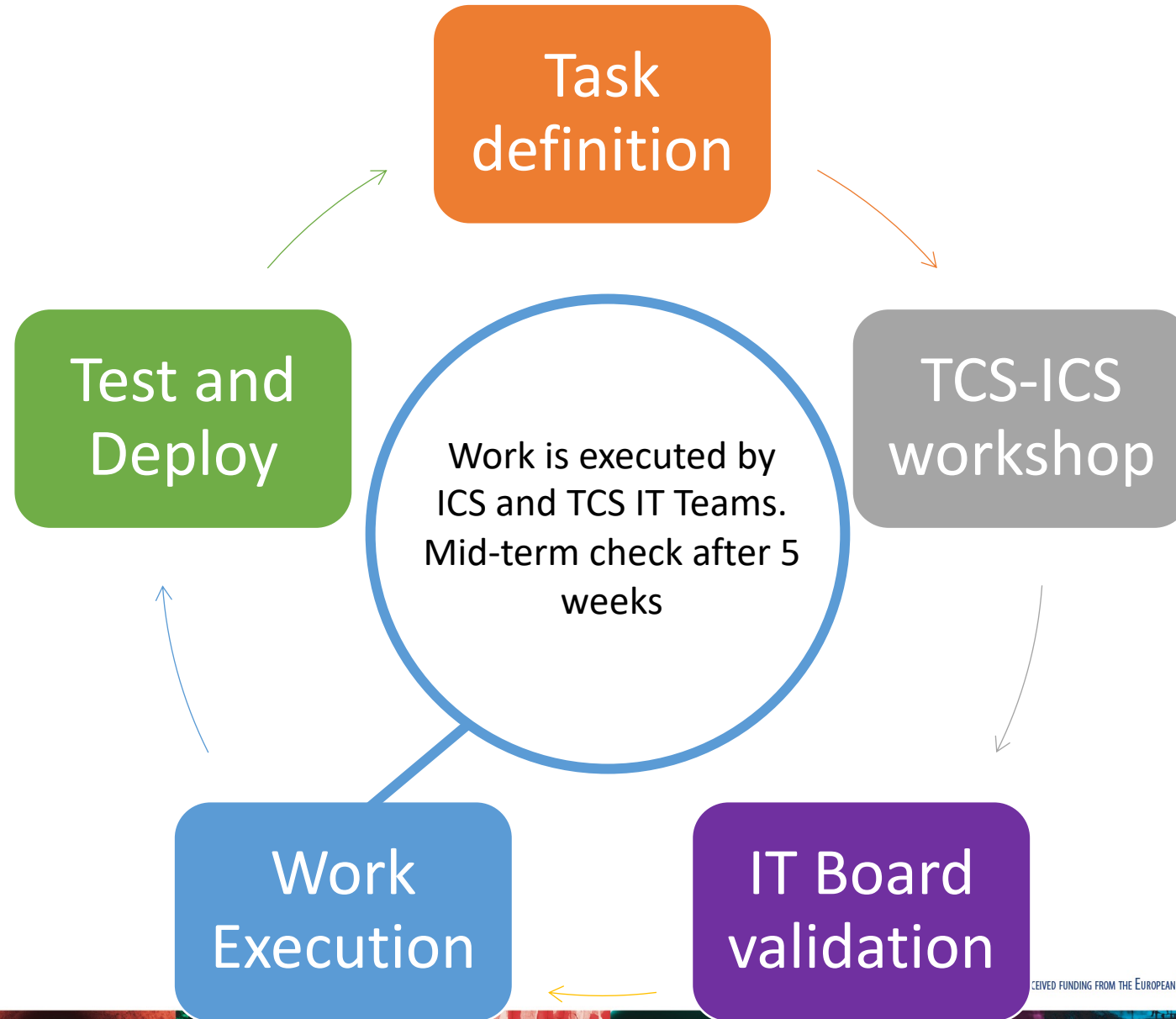
How Key Actors work together



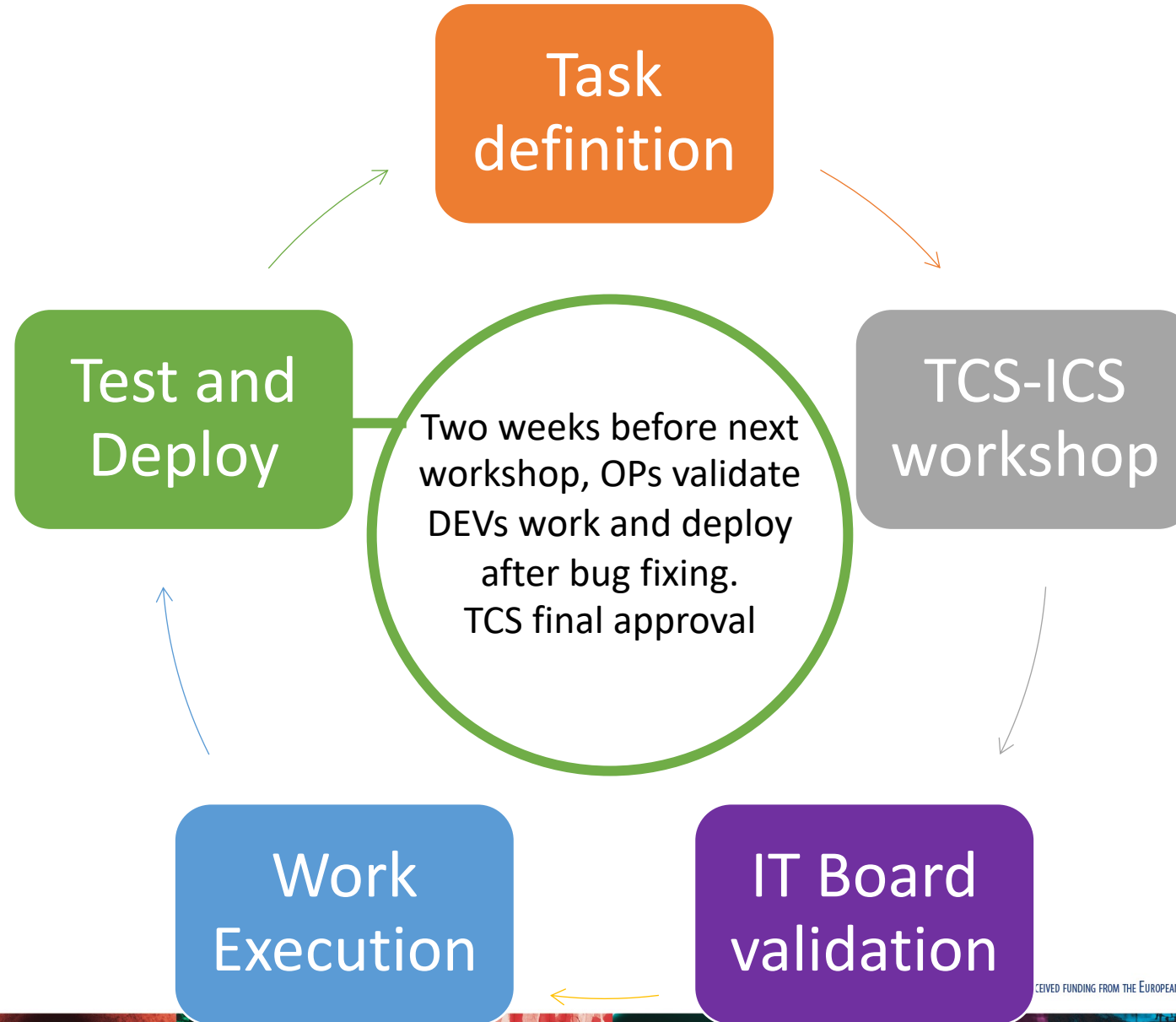
How Key Actors work together



How Key Actors work together



How Key Actors work together



EPOS Structured collaboration

Collaboration Activities	Who	Purpose	When
TCS-ICS Workshops	TCS IT team, ICS team, TCS leaders, ICS-TCS Team	Manage development and maintenance of the DDSS integration into the Data Portal	<i>4 times a Year</i>
SCC Ordinary meetings	TCS representatives, ICS representatives, ECO	Discuss and advise ED on all matters relevant for the EPOS Delivery Framework.	<i>4-6 times a Year</i>
SCC special meetings (e.g., ICS-D, PIDs, Ethics)	SCC + invited (e.g., IT teams)	Present and discuss specific topics relevant for the data portal, and beyond	<i>«On demand»</i>
Training & Workshop meetings (e.g., metadata, UX)	Invited	Train communities on specific technical topics	<i>«On demand»</i>
User Feedback Group	Invited	Collect feedback from experts within and outside the EPOS community	<i>Min 2 times a Year</i>
Hackathons meeting	ICS Teams	Accelerate knowledge sharing and devs activities on specific technical topics	<i>3 times a Year</i>
DevOps meetings	DevOps Team	Continuous monitoring and maintenance of Data Portal	<i>Every week</i>
IT Board meetings	Representatives from ICS, TCS, SCC, Ops, Devs,	Coordinate and organize ICS implementation and EPOS IT, as defined in the EPOS Delivery Framework	<i>Every 2 weeks</i>

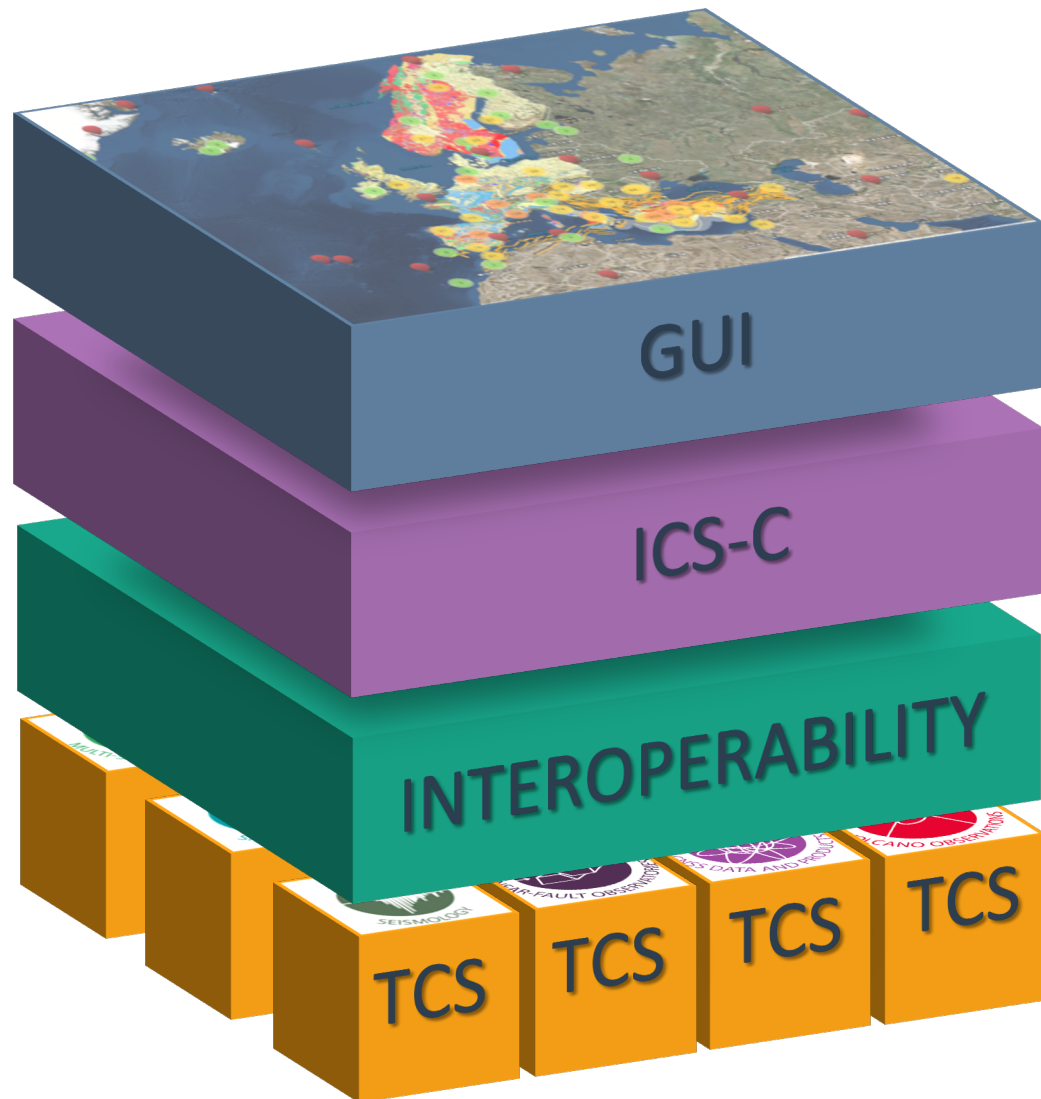
What is the Community work delivering?



What is the Community work delivering?



EPOS Data Portal: behind the scenes



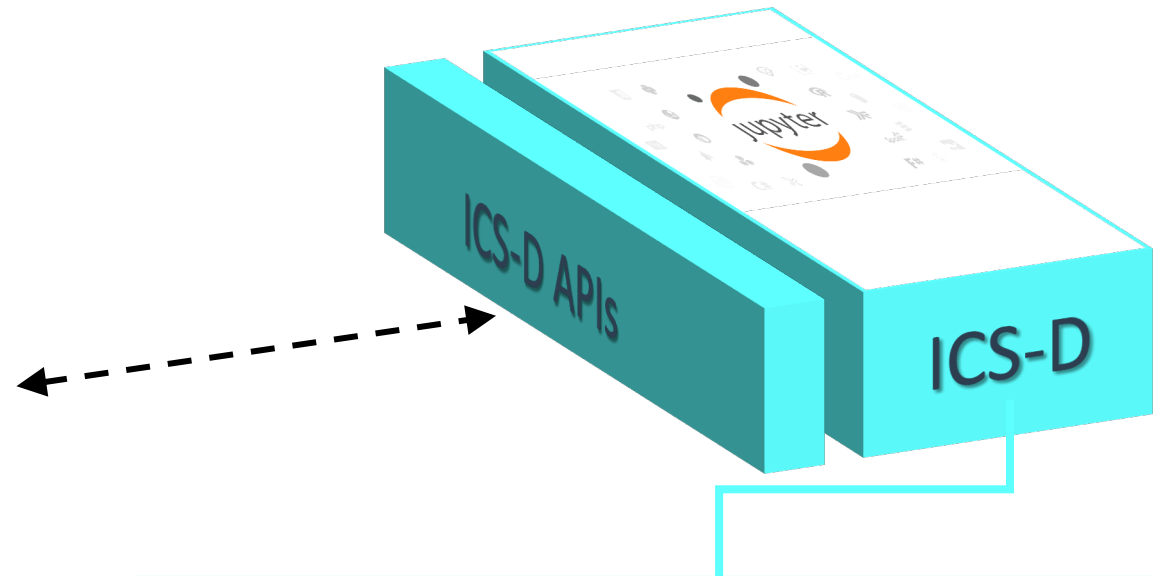
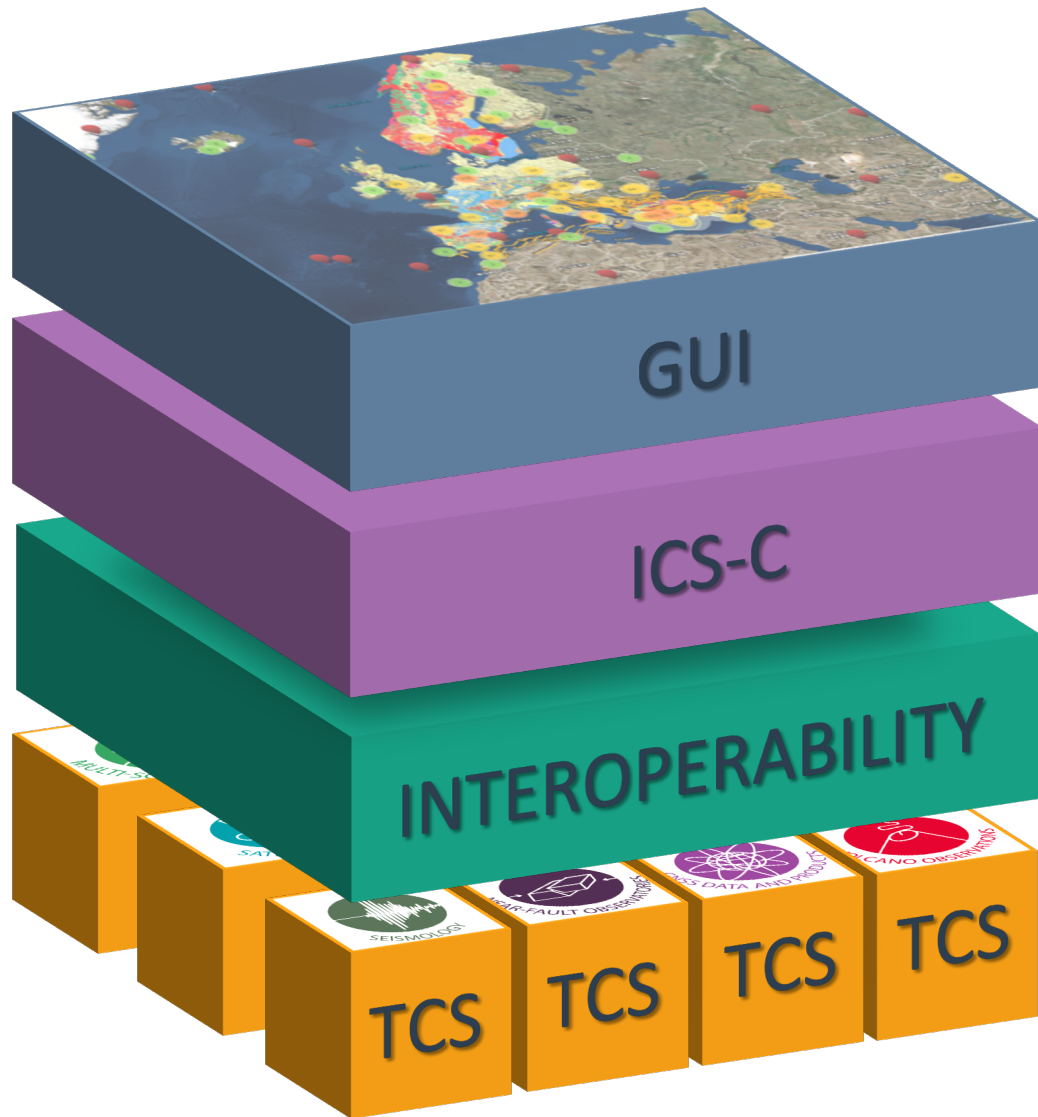
Graphical User Interface (GUI) provides access to data, data products, software and services in a uniform way.

Integrated Core Services Central Hub (ICS-C) aggregate and harmonise descriptions of datasets, data products, software and services provided by TCS.

The common layer guarantees communication and interoperability between TCS and ICS-C.

Thematic Core Services (TCS) adopt heterogeneous formats, vocabularies, protocols and standards to represent and make their resources available.

EPOS Data Portal: behind the scenes

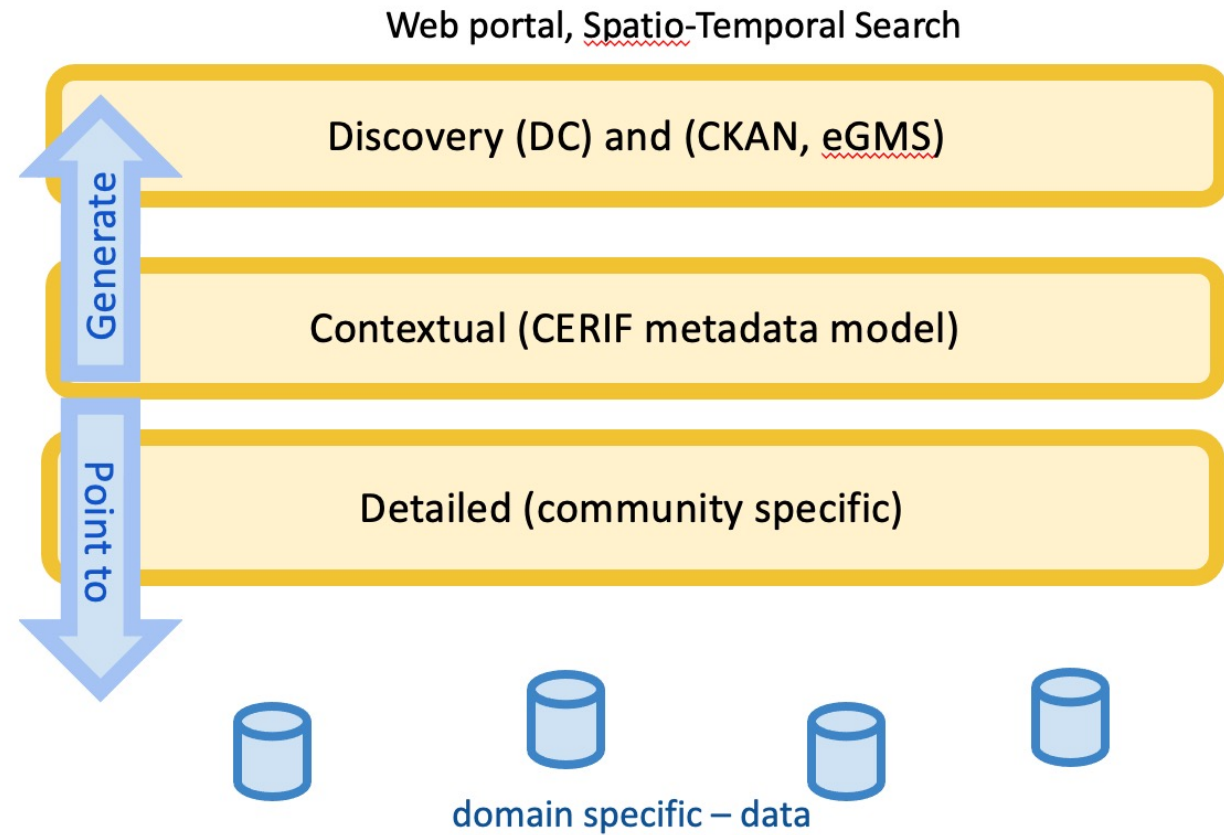


Integrated Core Services Distributed (ICS-D) implement added value operations like processing, analysis and modelling. The concept will further refined through the implementation of prototypes.




EPOS Data portal
wasn't built in a day
(actually in more than 10 years)

2012 Three layers model



2013 RIDE Database



What's RIDE? What's EPOS? Contacts Help Login

EPOS is: 21 Countries

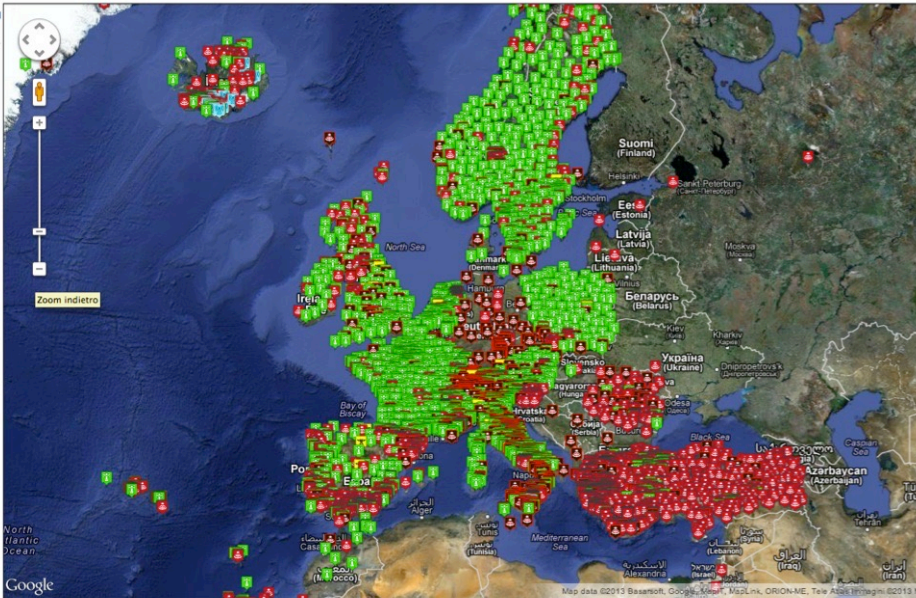
Filter Ris List

Order by: name

232 Research Infrastructures listed

click on a row to show info

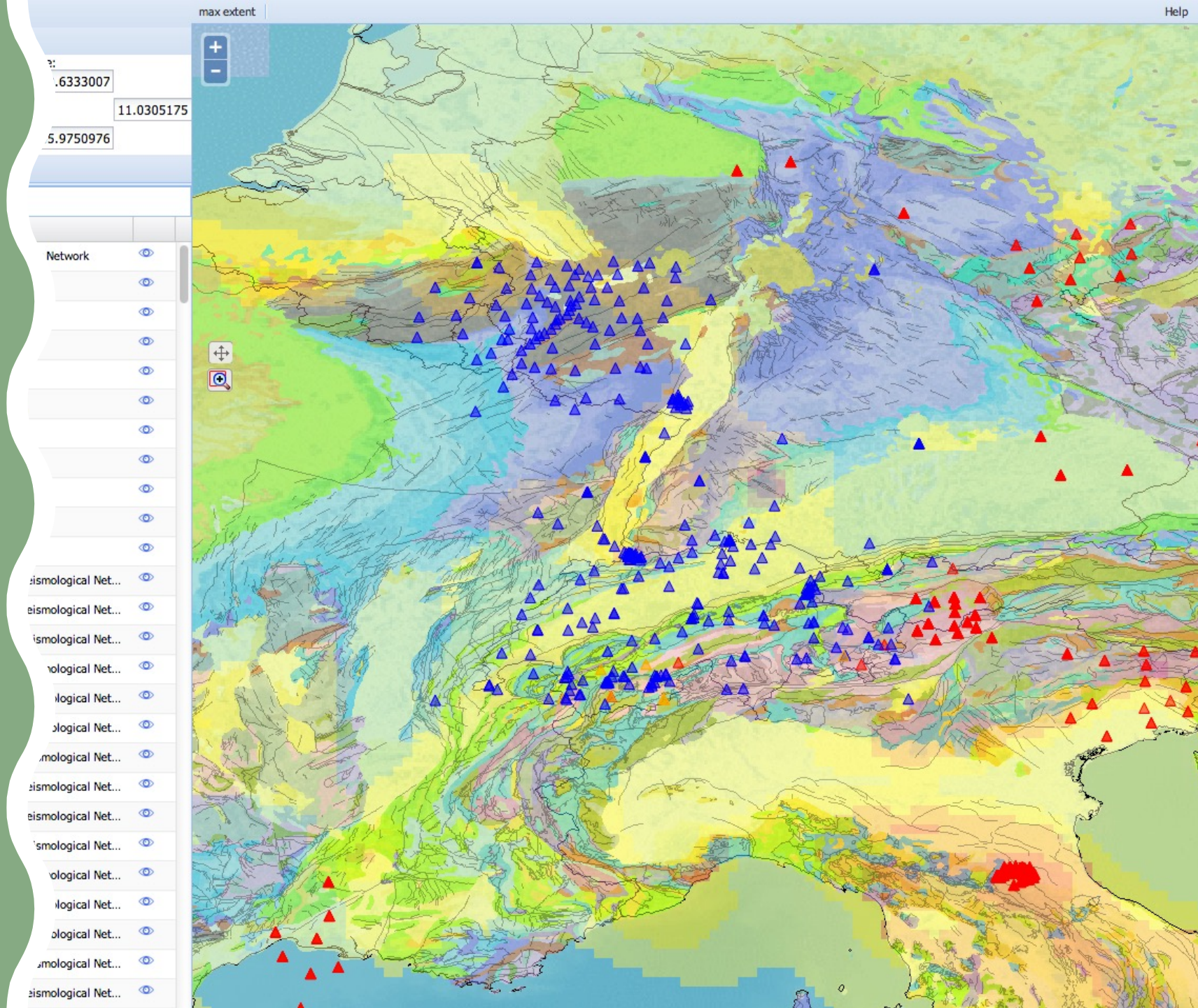
- 1 ZAMG-ASN - WG 1
- 2 Wire line diamond core drilling rig - WG 3
- 3 WG9 fake Ri to test - WG 9
- 4 VUA - Mineral separation laboratory - WG 6
- 5 VUA - Isotope Geochemistry Laboratory - WG 6
- 6 VUA - Experimental and Analytical Laboratories - WG 6
- 7 Utrecht University - TecLab, Tectonic Laboratory - WG 6
- 8 UPSL - Seismological Laboratory - WG 1
- 9 Uppsala University - Experimental and Analytical Laboratories - WG 6
- 10 UPorto - Laboratory of Electromagnetic Emission by Fractured Rocks - WG 6
- 11 University Twente - WG 8
- 12 University of Oviedo - Applied Geophysics and Analytical Laboratories - WG 5,6
- 13 University of Manchester - Experimental and Analytical Laboratories - WG 6
- 14 University of Liverpool - Experimental and Analytical Laboratories - WG 6
- 15 University of Lancaster - Volcano Observations and experimental facilities - WG
- 16 University of Jaen - Geodesy equipment - WG 4
- 17 University of Granada - Analytical Laboratories - WG 6
- 18 University of Edinburgh - Experimental and Analytical Laboratories - WG 6
- 19 University of Cadiz - Geochronological Laboratory - WG 6
- 20 University of Bucharest - Paleomagnetic Laboratory - WG 6
- 21 University of Basque Country - Analytical Laboratories - WG 6
- 22 University of Barcelona - WG 5
- 23 University of Almeria - portable network - WG 1
- 24 University of Alicante - Spatial Geodesy Laboratory - WG 4,8
- 25 Universitat Complutense de Madrid - Seismic Network - WG 1



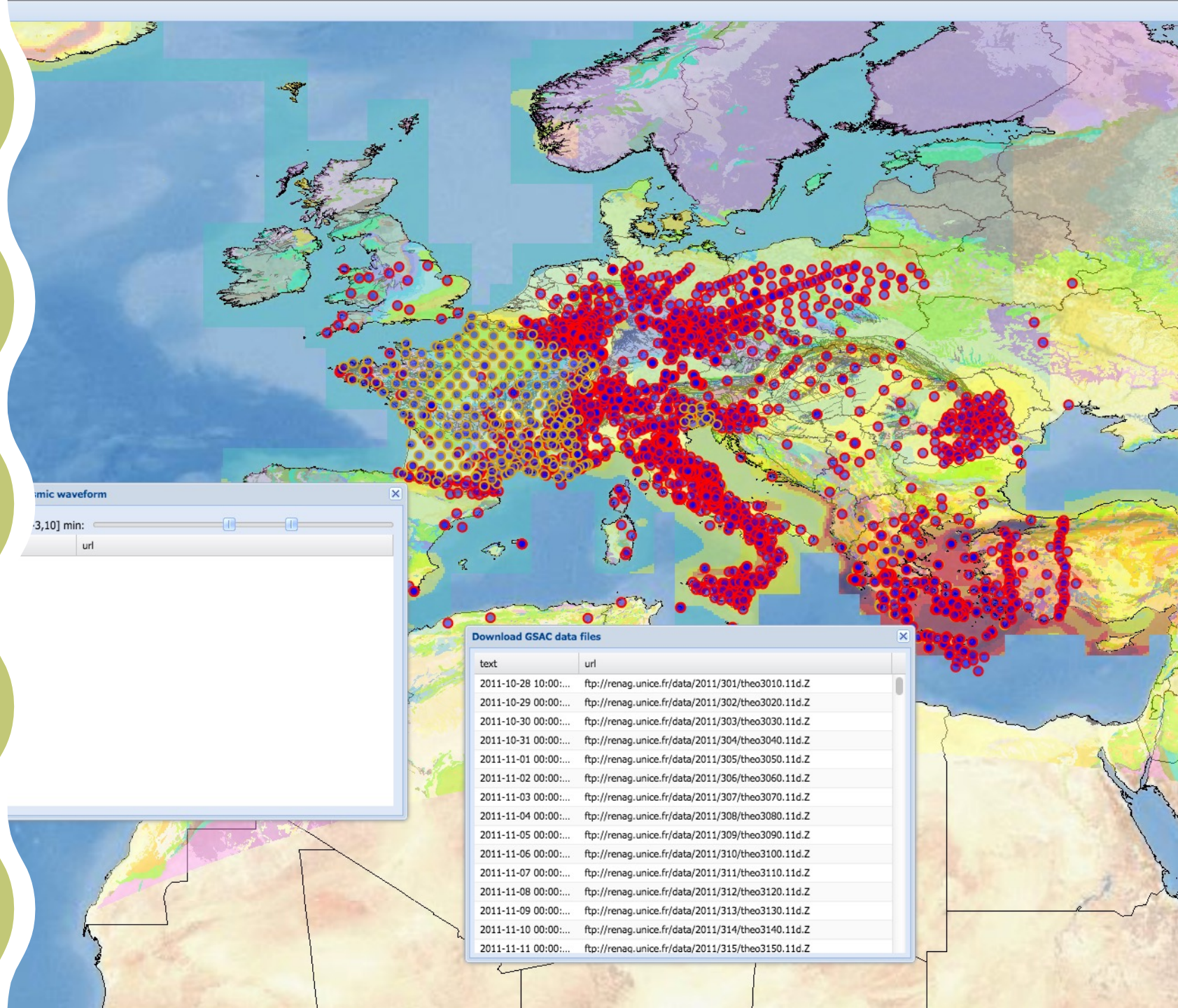
full screen ON/OFF Legend --- Laboratory - Seismic Station (Orfeus) - GPS Station - Other station

2014

Demonstrator alpha version

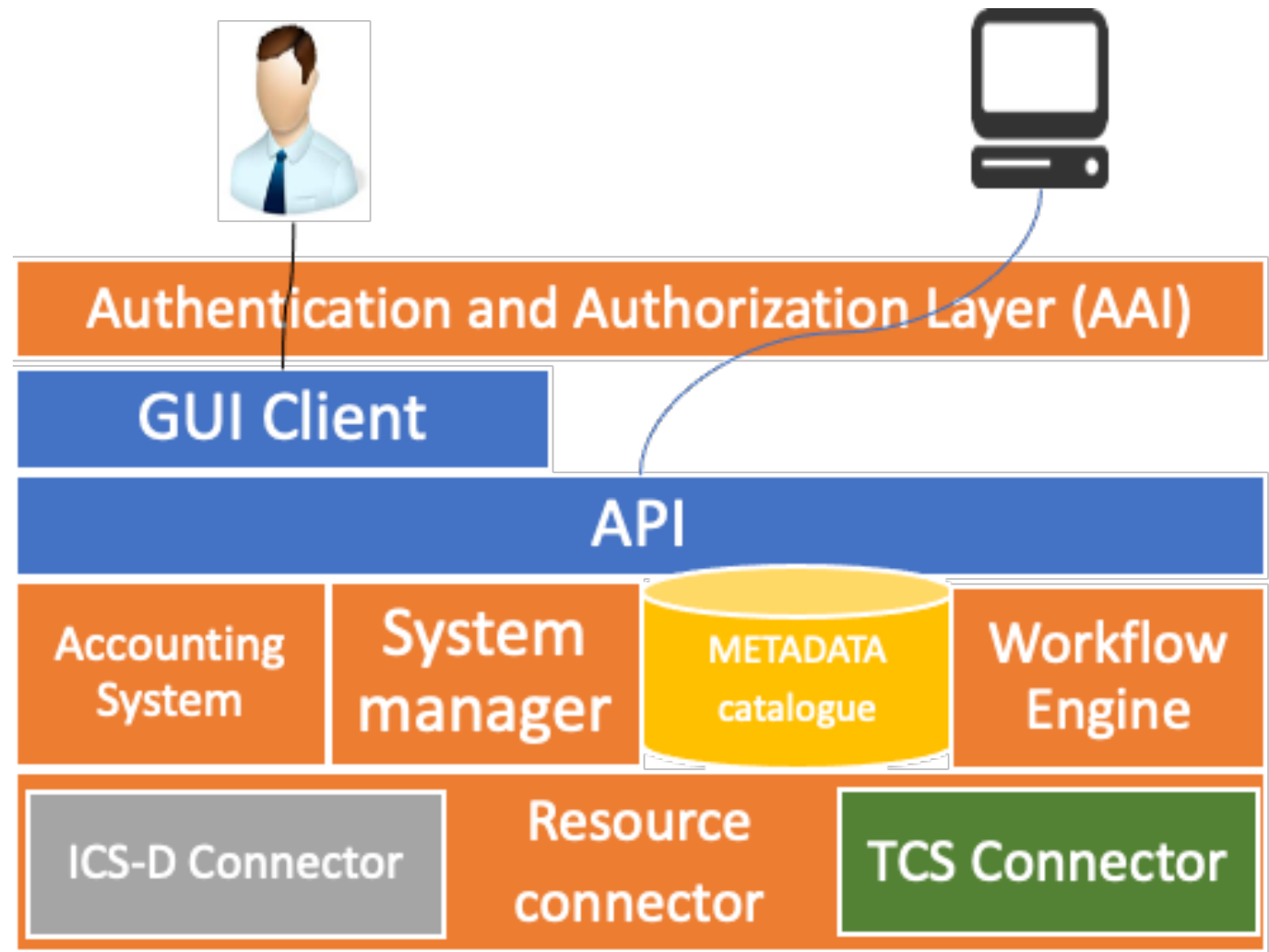


2015 First Prototype

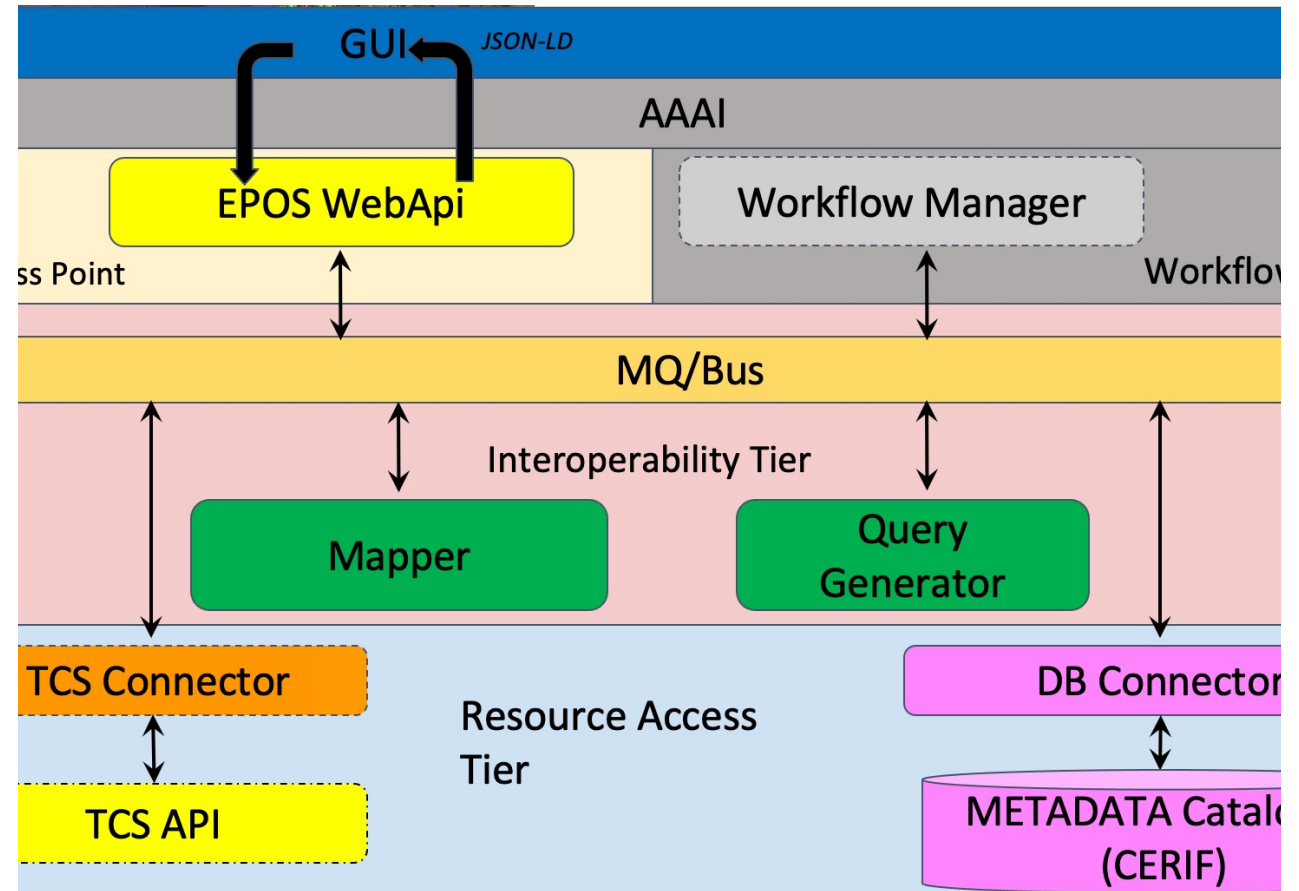


2016

First technical architecture

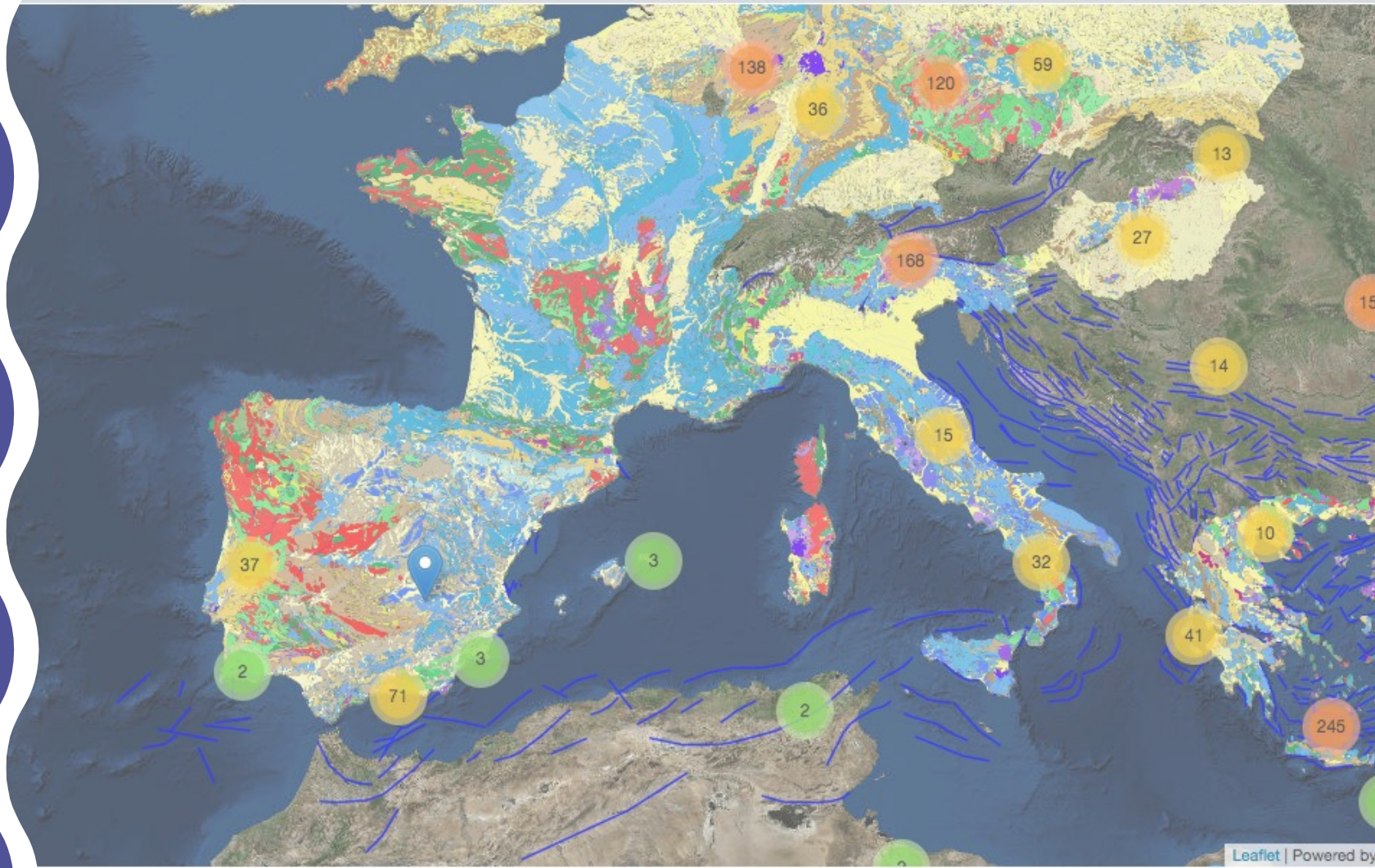


2017 Mature Architecture

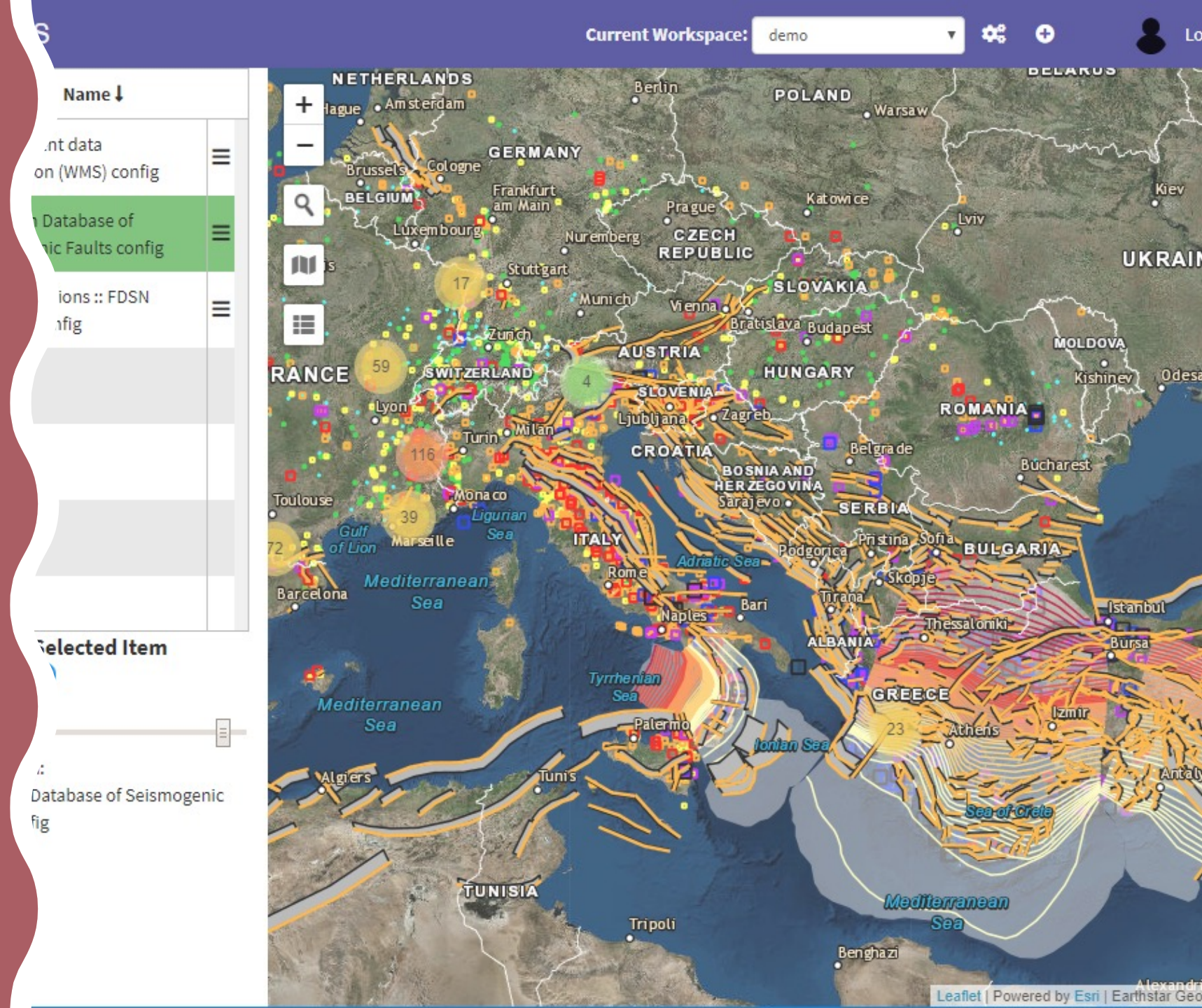


2018

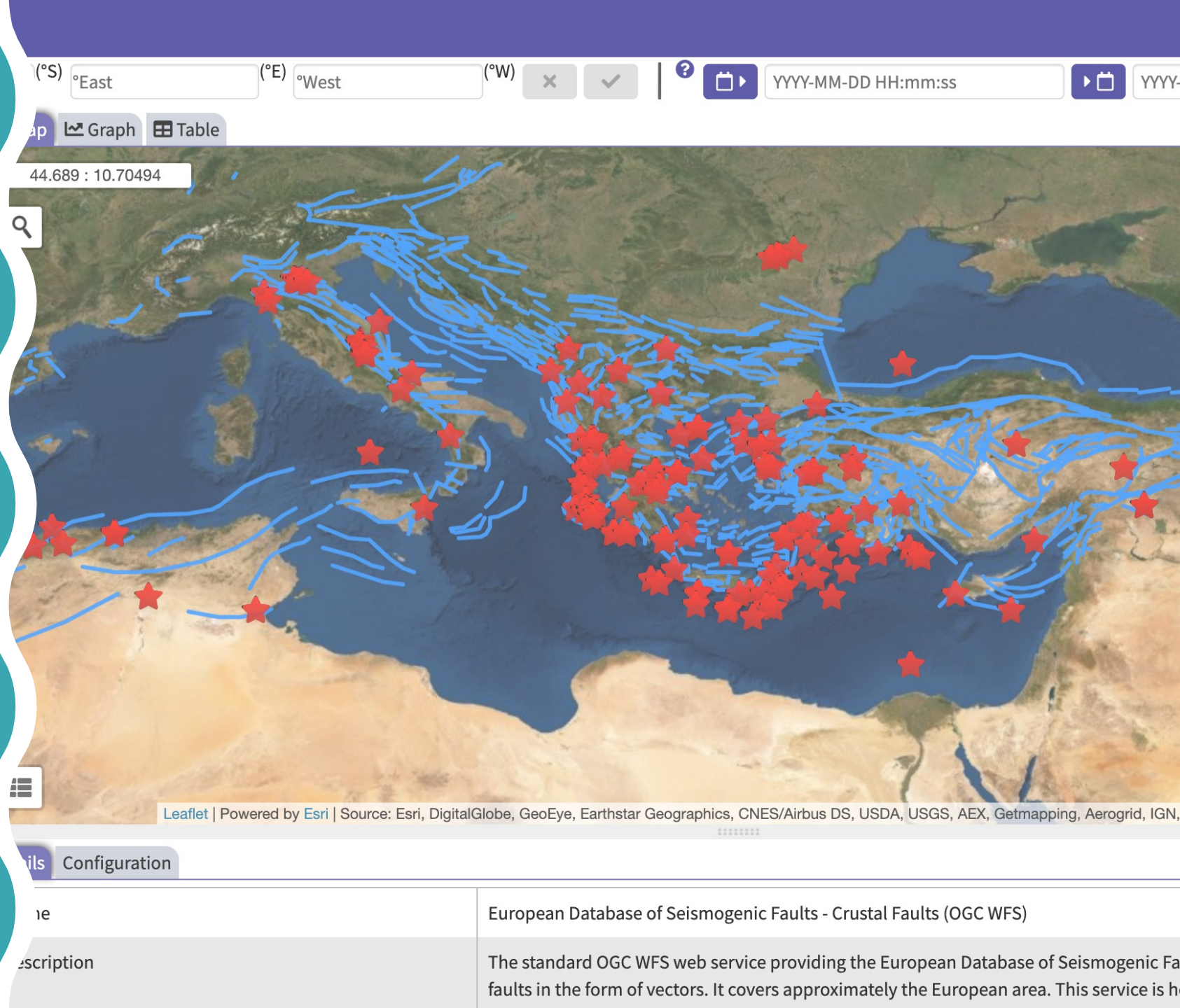
First portal implementation



2019 Portal with workspace

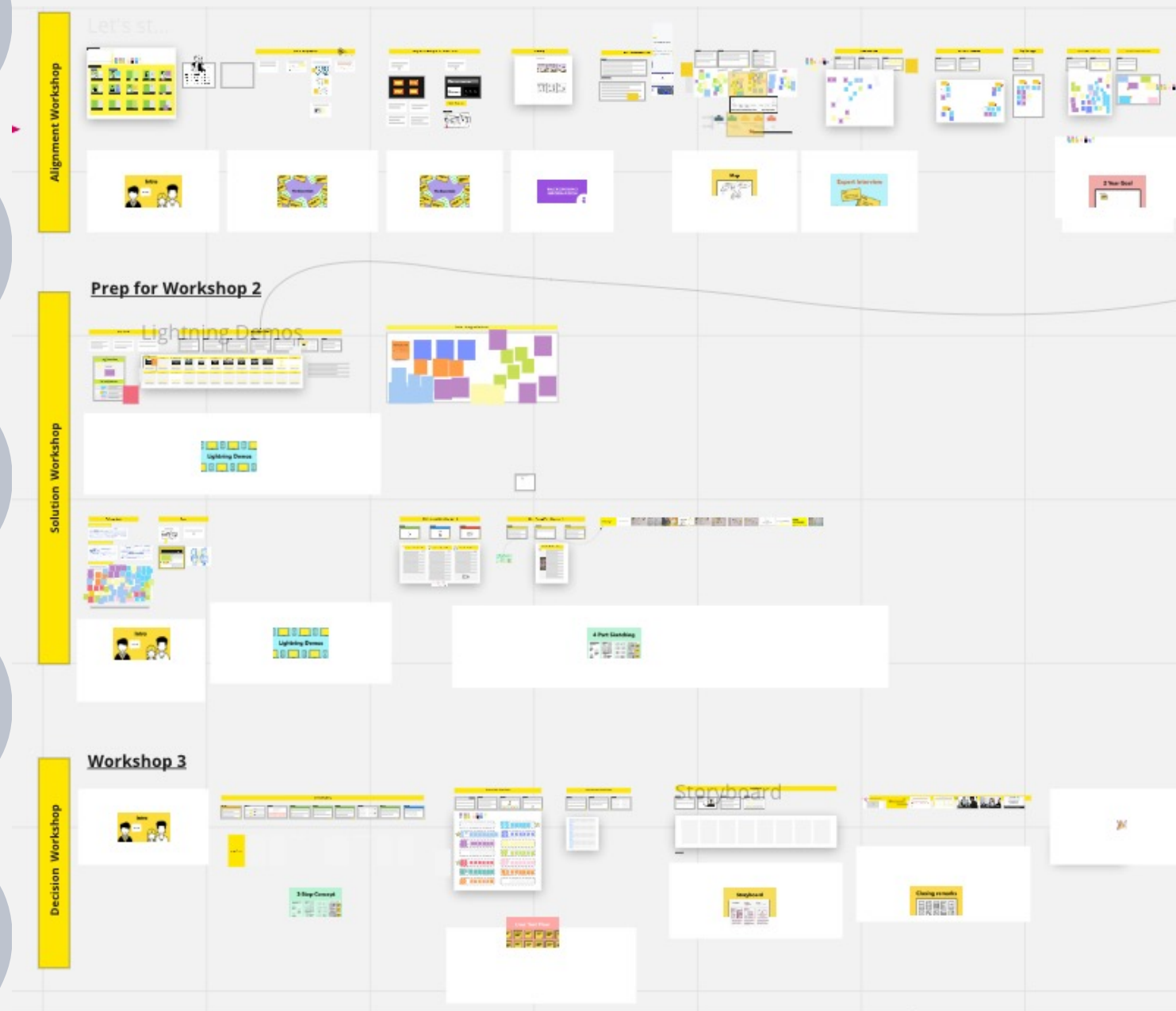


2020 Stable Portal



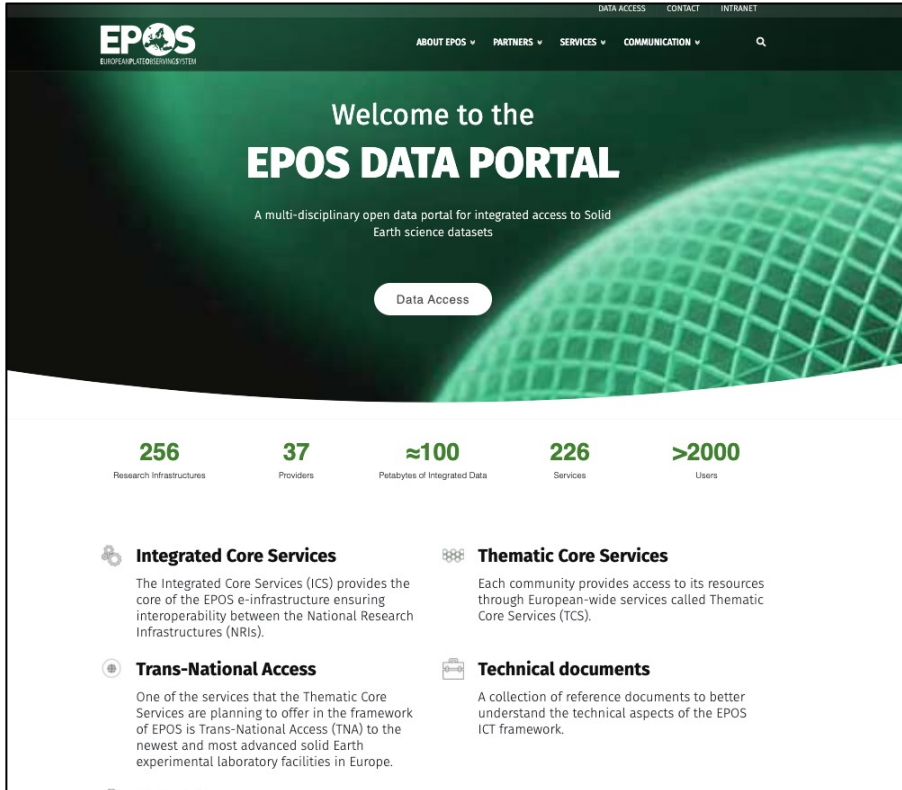
2021

UX Refactoring Workshop



June 2022

EPOS Data Portal goes Live



The screenshot shows the homepage of the EPOS Data Portal. The header features the EPOS logo and navigation links: ABOUT EPOS, PARTNERS, SERVICES, COMMUNICATION, and a search icon. The main banner reads "Welcome to the EPOS DATA PORTAL" and describes it as a multi-disciplinary open data portal for integrated access to Solid Earth science datasets. A "Data Access" button is prominently displayed. Below the banner, statistics are shown: 256 Research Infrastructures, 37 Providers, approximately 100 Petabytes of Integrated Data, 226 Services, and over 2000 Users. The page is divided into four sections: Integrated Core Services, Thematic Core Services, Trans-National Access, and Technical documents.

Welcome to the EPOS DATA PORTAL

A multi-disciplinary open data portal for integrated access to Solid Earth science datasets

Data Access

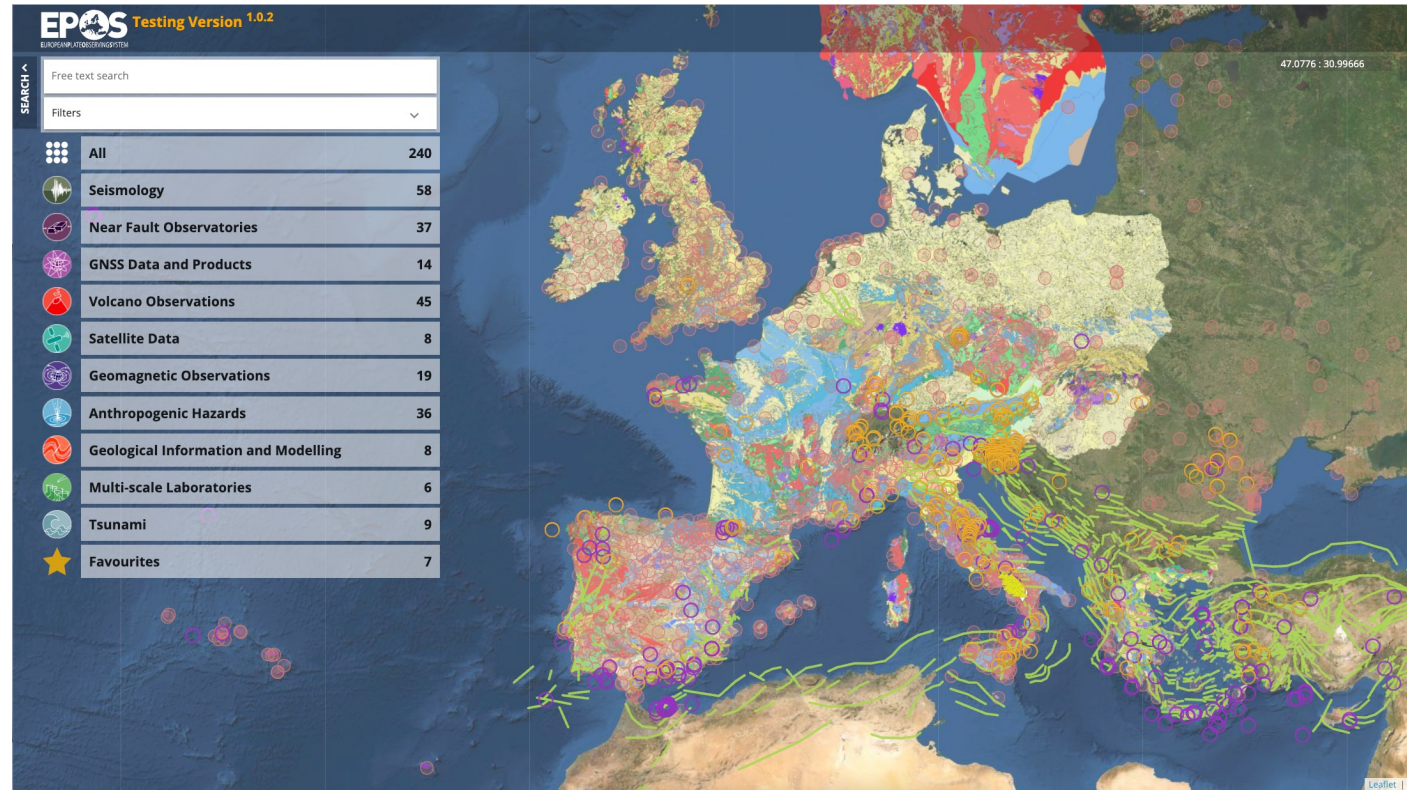
256 Research Infrastructures
37 Providers
≈100 Petabytes of Integrated Data
226 Services
>2000 Users

Integrated Core Services
The Integrated Core Services (ICS) provides the core of the EPOS e-infrastructure ensuring interoperability between the National Research Infrastructures (NRIs).

Thematic Core Services
Each community provides access to its resources through European-wide services called Thematic Core Services (TCS).

Trans-National Access
One of the services that the Thematic Core Services are planning to offer in the framework of EPOS is Trans-National Access (TNA) to the newest and most advanced solid Earth experimental laboratory facilities in Europe.

Technical documents
A collection of reference documents to better understand the technical aspects of the EPOS ICT framework.



The screenshot shows the search interface of the EPOS Data Portal. The header includes the EPOS logo and "Testing Version 1.0.2". The search bar has a "Free text search" input and a "Filters" dropdown. A table on the left lists various data categories and their counts. The background features a map of Europe with numerous colored circles representing data locations.

EPOS Testing Version 1.0.2

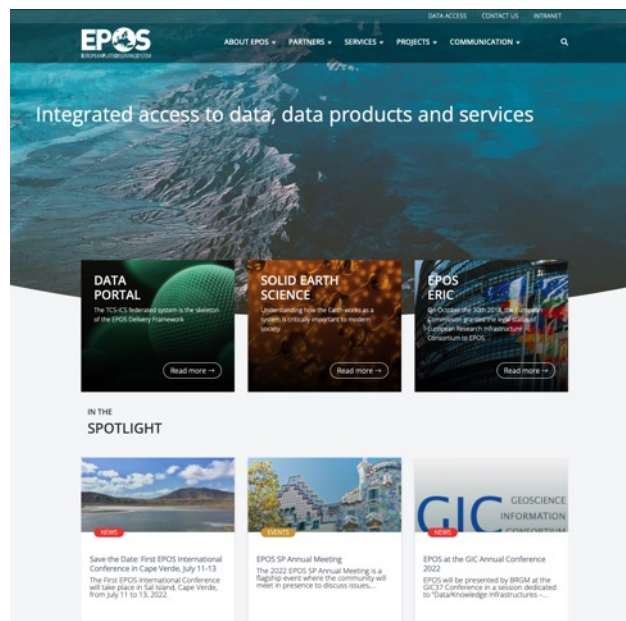
Free text search
Filters

All	240
Seismology	58
Near Fault Observatories	37
GNSS Data and Products	14
Volcano Observations	45
Satellite Data	8
Geomagnetic Observations	19
Anthropogenic Hazards	36
Geological Information and Modelling	8
Multi-scale Laboratories	6
Tsunami	9
Favourites	7

<https://www.epos-eu.org/dataportal>

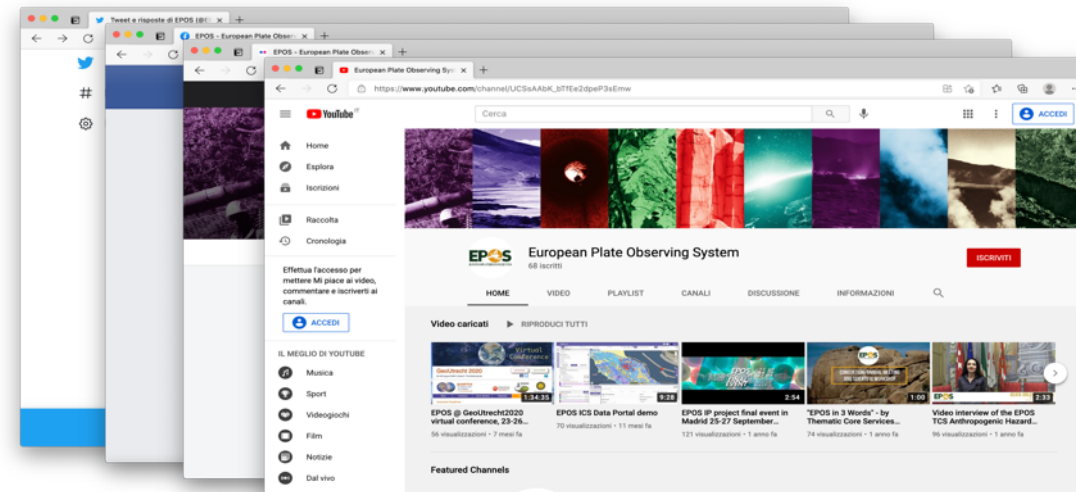
Thank You!

Web site



www.epos-eu.org

Social media



To establish a **sustainable and long-term access** to solid Earth science data and services integrating diverse European Research Infrastructures under a **common federated framework**

