

The Everest logo features the word "everest" in a white, lowercase, sans-serif font. The text is centered within a solid red square. To the left of this square is a vertical red bar of the same color and height.

everest

The EVER-EST platform in a nutshell



# EUROPEAN VIRTUAL ENVIRONMENT FOR RESEARCH - EARTH SCIENCE THEMES – EVER-EST



- **Project ID:** 674907;
- **Project Type:** RIA
- **Start Date:** 01.10.2015; **Duration:** 36 Months
- **Funding:** 6.5 MEuro;
- **12 partners:** Lead by European Space Agency
- **Web-site:** [www.ever-est.eu](http://www.ever-est.eu)



# WHAT IS EVER-EST?



EVER-EST is a user-centric platform for research lifecycle management



It assists its users in their daily activities with all means needed to logically and coherently structure - and preserve - all research related data, processes and results.

# WHAT IS EVER-EST?



A mechanism allowing to:

**PRESERVE** (Tacit and Explicit Knowledge at generation and during Research and Information life cycle),  
**SEARCH & DISCOVER** (Web Semantic, Geo-Data, Federation of Catalogue), **ACCESS** (Different  
modus operandi from working isolated mode to collaborative intelligence worldwide), **EXPLOIT**  
(Computing Infrastructure Sharing and Interoperability) **DISSEMINATE** (Open Data), **SHARE** (Peer-  
Review, Cross-Fertilization) **RE-USE** (Citation and Attribution through DOI), **FEDERATE** (Open Linked Data,  
EU Network of Resources e- infrastructures & Services)

The screenshot shows the Everest web application interface. At the top, there's a browser window with a search bar and navigation links. The main area features a dark map of Europe with three large circular icons: 'Log-In' (person with arrow), 'Register' (person with plus), and 'Take A Tour' (bus). Below the map, there's a table with columns: TITLE, CREATED, VRC, and DESCRIPTION. The table lists several records, including 'Test WF NHP', 'test kml', 'IPWV map generation', and 'Deep Sea Habitat Suitability Model'.

TITLE	CREATED	VRC	DESCRIPTION
Test WF NHP	01/12/2017 10:34	INGV	
test kml	18/07/2017 17:38	SatCen	
IPWV map generation	05/05/2017 14:09		This RO contains the workflow which allo...
Deep Sea Habitat Suitability Model	05/04/2016 13:16		In this RO we derive the MSFD indicator 1...

# WHAT IS EVER-EST?



The platform has been designed to manage all the social and management aspects of a research context:

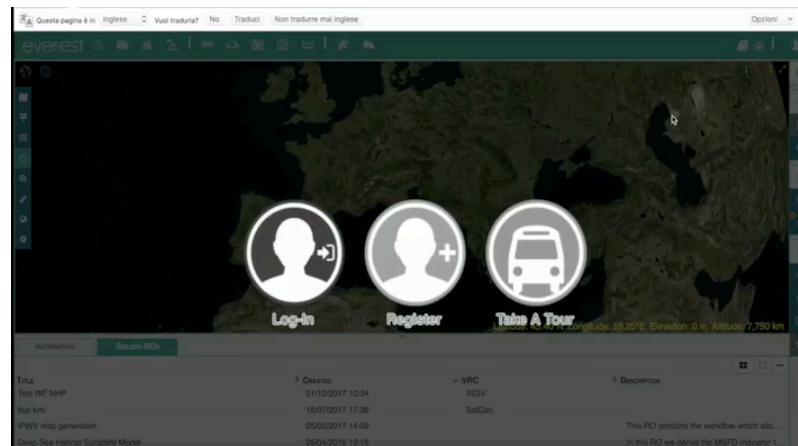
**Messaging systems**

**Dedicated storage area**

**Profile, access and groups**

ES data search on  
multi-catalogues

Data caching



Data access

**Re-use of data/ workflows**

New research

Data visualisation

**Bibliographic search**

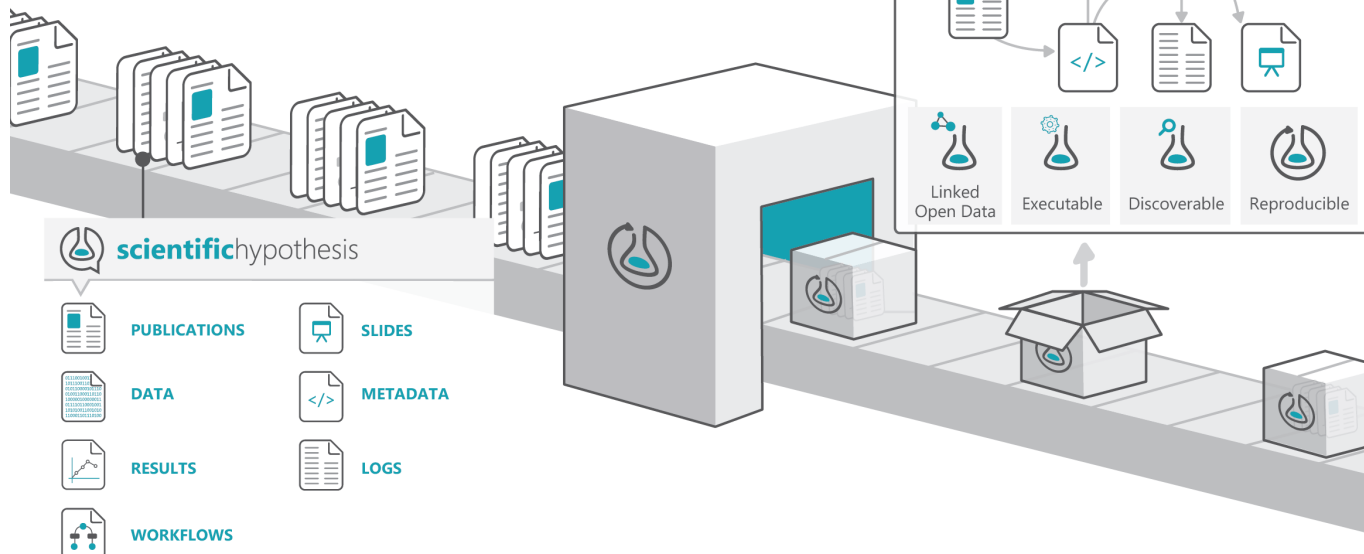
# WHAT IS EVER-EST?

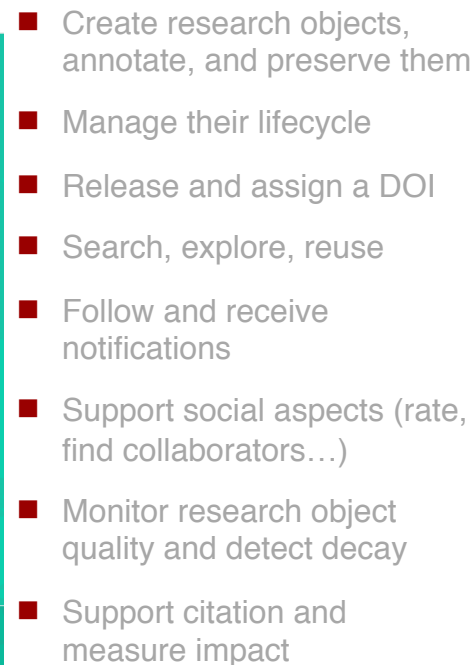
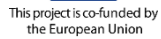


The solution is based on the integration of Earth Science e-infrastructures technologies - developed over 15 years - with the innovative concept of Research Object



Enabling **reproducible**, transparent research.

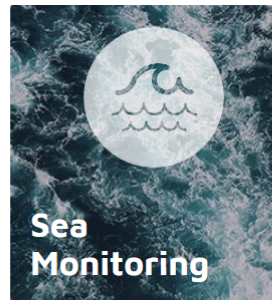
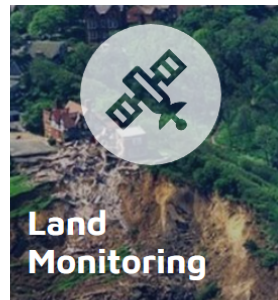
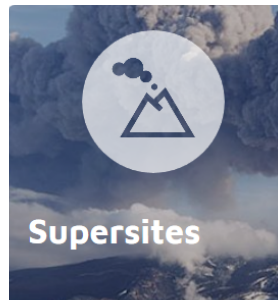




# WHAT IS EVER-EST?



Scientists can create new research activities - both personal or in team: creating organisational workflows between or across scientific institutions.

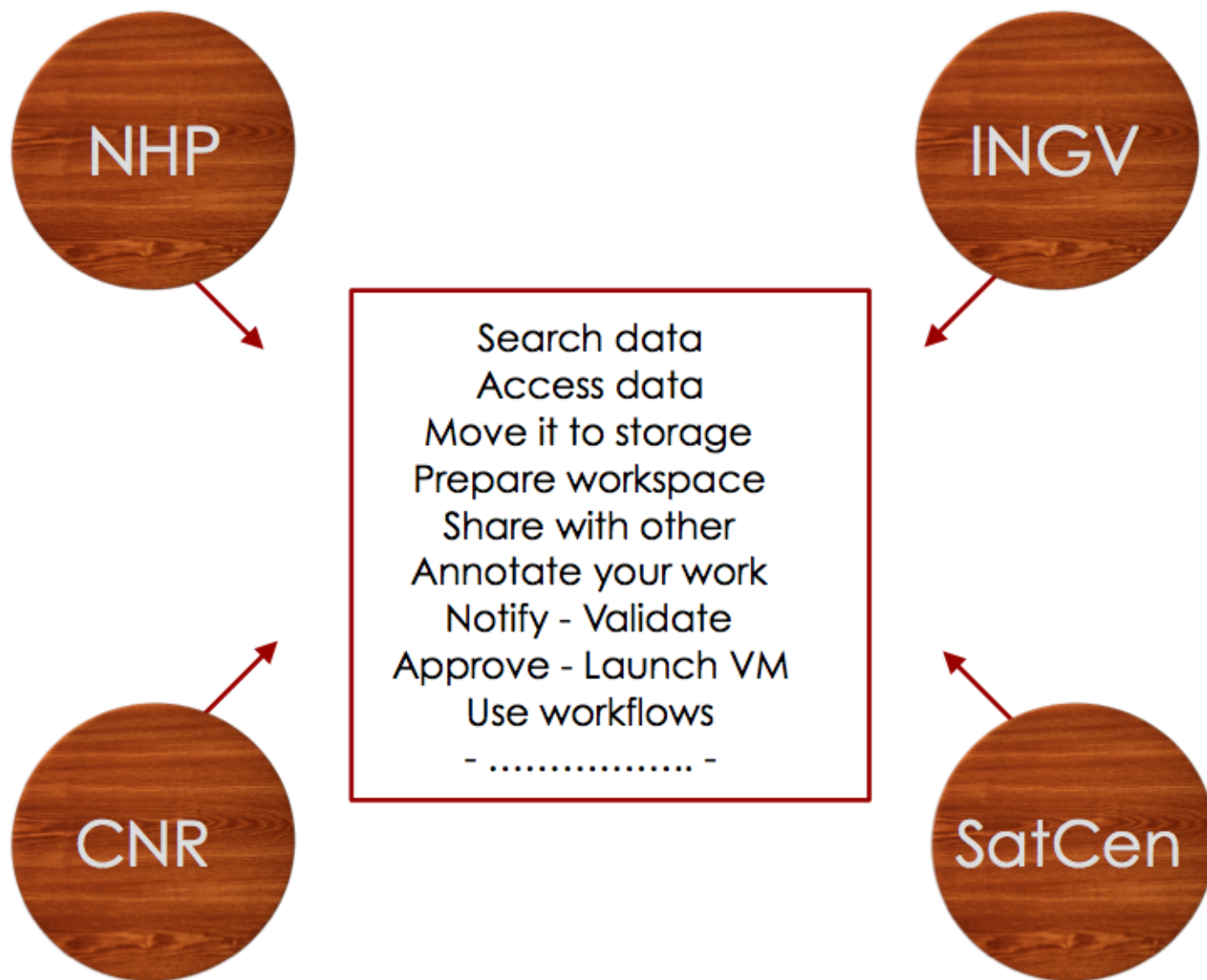


EVER-EST is already used by four Earth Science Virtual Research Communities with different requirements in terms of data, group, security, workflows, etc.



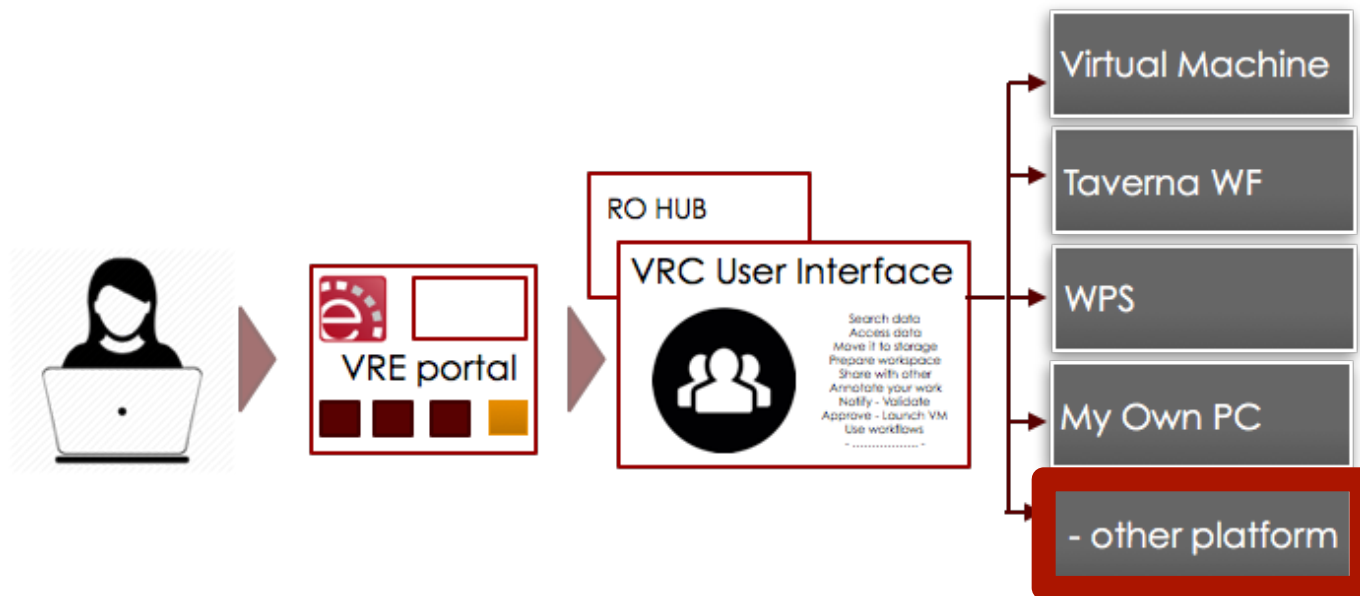


# Identifying Commonalities





The system can be easily integrated with different mechanisms to process Earth Science data





This project is co-funded by the European Union



# User Interface Design: VRC portal

## Headerbar

- Profile/ Authentication
- Link to External services
- E-Collaboration services

## EVER-EST Toolbar / Interaction panel

- All RO related services
- Discovery services (RO and ES data)
- Processing services (VM, WPS, WF)

The screenshot displays the EVER-EST VRC portal interface. At the top is a teal headerbar with the 'everest' logo and various navigation icons. Below the headerbar is a large map of Europe with two red rectangular bounding boxes over the Atlantic and Mediterranean regions. The map shows coordinates: Latitude: 48.70°N Longitude: 24.97°E Elevation: 758 m Altitude: 6.900 km. To the right of the map is a 'DATA DISCOVERY' panel with a search bar and various filters. Below the map is a table of search results.

Identifier	Start	End	Orbit	Track	Product Type
S1A_EW_RAW_OSDV_20170830T191602_20170830T191710_018157_01E815_4C0C	2017-08-30 9:16:02 PM	2017-08-30 9:17:10 PM	18157 ASCENDI NG	60	RAW
S1A_EW_GRDM_1SDV_20170830T191606_20170830T191706_018157_01E815_12A5	2017-08-30 9:16:06 PM	2017-08-30 9:17:06 PM	18157 ASCENDI NG	60	GRD
S1A_EW_RAW_OSDV_20170830T191502_20170830T191610_018157_01E815_F883	2017-08-30 9:15:02 PM	2017-08-30 9:16:10 PM	18157 ASCENDI NG	60	RAW

## Virtual globe

- Select, interact with and visualize Earth science resources

## Information panel

- Show all information
- Results from EVER-EST Toolbar

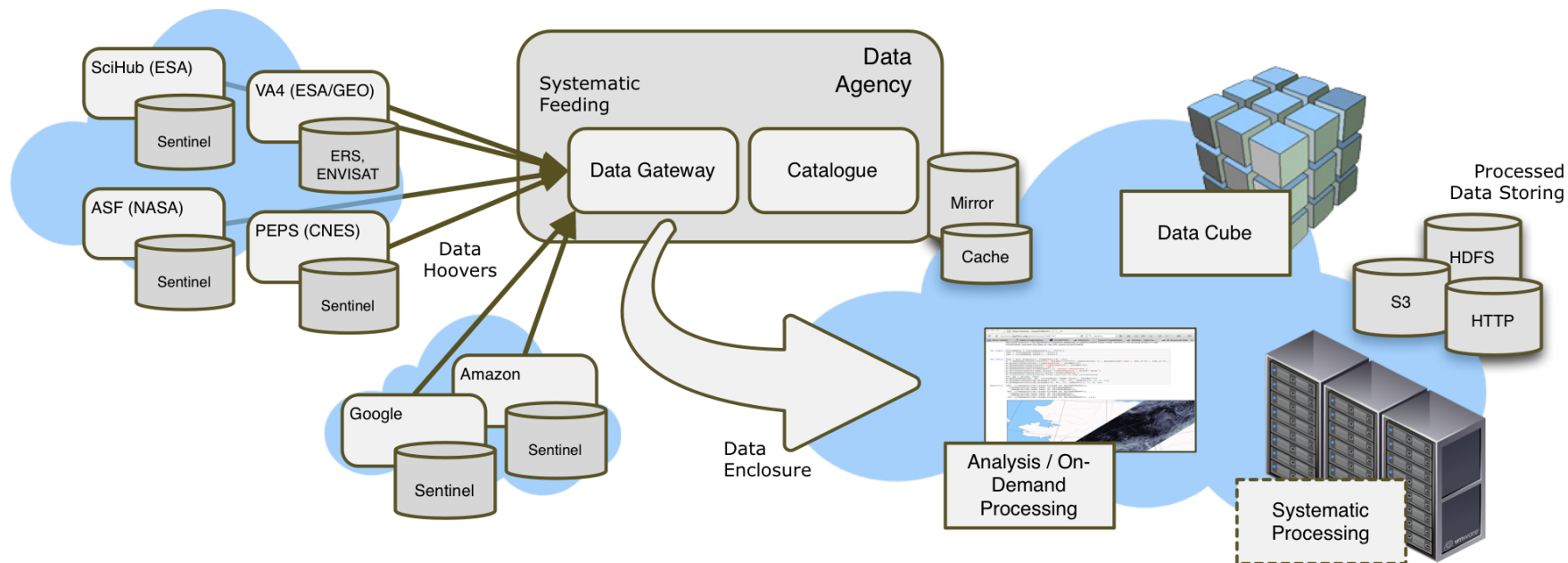


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# Earth Observation Data Catalogue

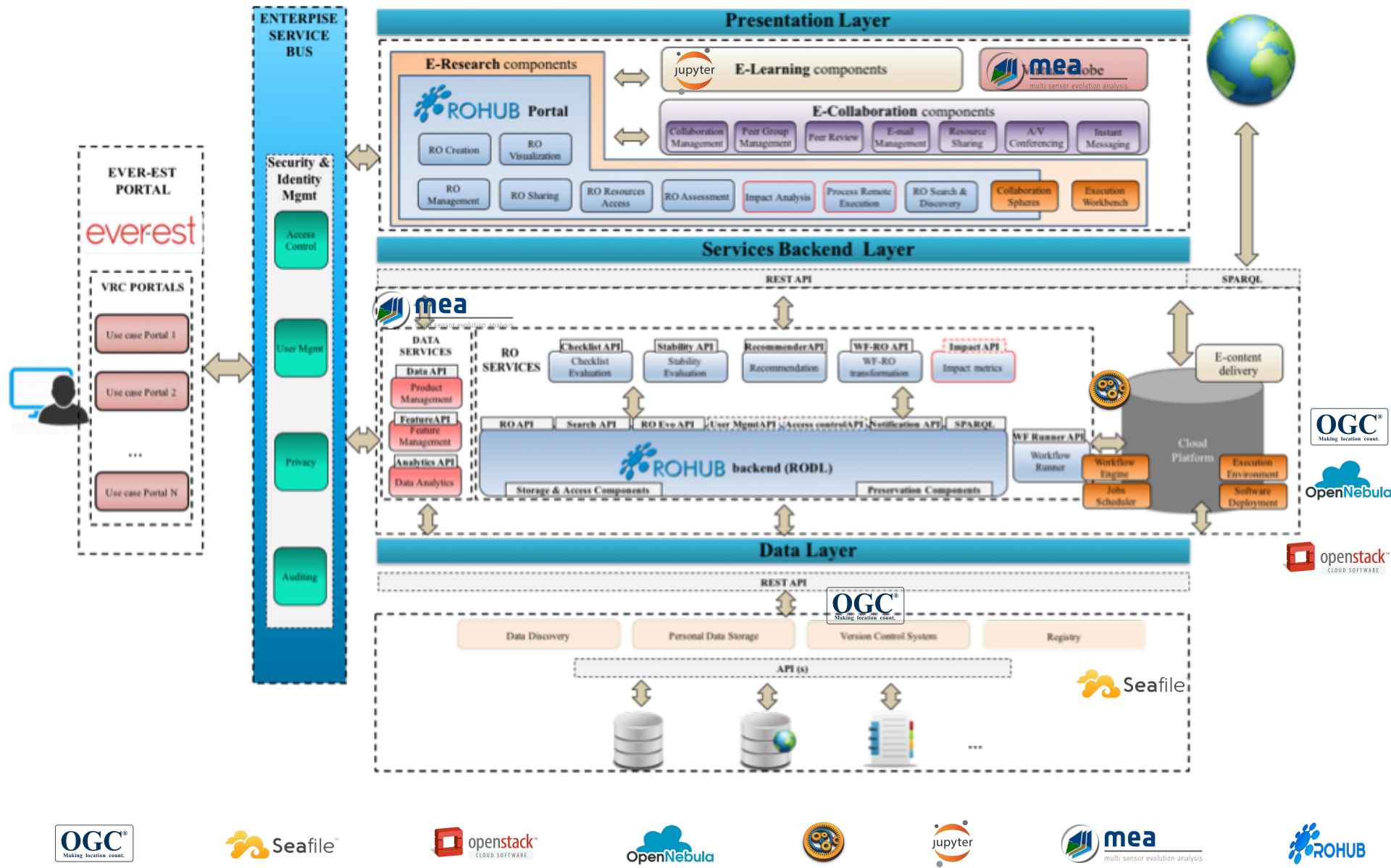
- Multiple Sources w/ Catalogue API in OpenSearch +GEO+EO
- Use of PSNC resources for EO data storage
- Access to the object storage by POSIX (Ceph)





This project is co-funded by the European Union

# The Architecture



# WHAT IS EVER-EST?



EVER-EST has been designed to support any kind of research activity:

- Pure research - both personal or in group
- Shared research/ results
- Re-use of previous work/ workflows
- Shared workflows
- Report creation
- Operational scenarios
- Sharing of knowledge and methodologies
- Cross-disciplinary approach