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EVIOR portal with full functionality

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1 Introduction

Eurofleets+ facilitates open free of charge access to a unique fleet of state-of-the-art research vessels, AUVs and ROVs from European and international partners. This is arranged by competitive transnational access (TA) calls. A Data Policy has been adopted which aims at making Eurofleets+ research data to be findable, accessible, interoperable and reusable (FAIR). Therefore, marine data management is an integral part of the Eurofleets+ approach and is implemented in synergy with SeaDataNet, a leading Pan-European infrastructure for marine data management, involving NODCs as core partners.

One of the elements of the Eurofleets+ data management approach has been to review, update and further develop the EVIOR platform which was initiated in the earlier Eurofleets projects. EVIOR stands for 'European Virtual Infrastructure in Ocean Research' and should be part of the EF+ website.

This activity has been undertaken within WP3 – JRA3.1 as Task 3.1.1 - Reviewing and upgrading the design and functionality of the EVIOR portal. One objective has been to gather and publish at the EVIOR platform up-to-date information about research vessels (RV), cruise programmes, completed cruises, and tracks of cruises. The ultimate goal during the Eurofleets+ project is to give users e-access to underway and operational information and data from sailing research vessels by means of the EVIOR platform. Moreover, to give discovery and public access to research data sets as collected and processed by research teams during the TA funded cruises.

This Deliverable D3.27 describes the upgraded EVIOR platform which is the result of the T3.1.1 activities and which has been integrated in the Eurofleets+ website. This Deliverable is a 'Demonstrator' and this report provides a brief overview of the EVIOR portal with full functionality.

2 EVIOR platform and its components

The upgraded EVIOR platform has been integrated in the navigation menu of the Eurofleets+ website and can be found at: https://evior.eurofleets.eu/

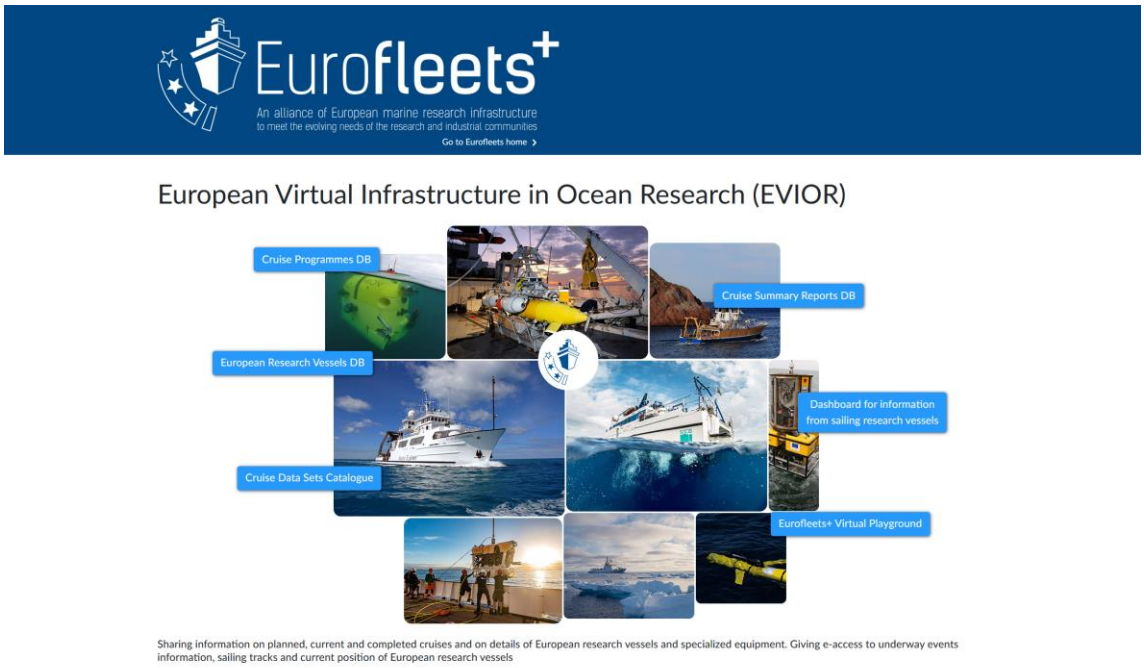

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Image: landing page of EVIOR platform, giving access to each of the components

It now consists of the following components:

- **Cruise Programme database**, containing planned cruises per research vessel and owner / operator;
- **Research Vessel database**, containing characteristics of each research vessel, owner / operator details and, if available, a link to the ship's web page;
- **Cruise Summary Reports (CSR) database**, containing details of completed cruises and providing a first level inventory of oceanographic measurements made and samples taken during the cruises;
- **Dashboard for information from sailing research vessels**, giving sailing tracks of selected RVs with position, speed, and bearing, and underway metadata and data;
- **Cruise Data Sets Catalogue**, providing an overview of Eurofleets+ TA funded cruises and links to relevant information for each of the cruises, such as cruise plan, cruise summary report, sailing tracks, and research data acquired during the TA funded cruises and processed by the cruise research teams.
- **Virtual Playground,** providing a web-based space and platform of data, information and knowledge in which researchers can perform collaborative research. It offers prototype tools to work together interacting with the data (viewing, analysing, annotating) and communicating and discussing (messaging, forums, posting) with other members of teams and communities.

Each of these components are regularly maintained, and also reflect the progress of the data management approach as an integrated activity in Eurofleets+.

The Eurofleets+ beneficiaries manage a selection of European research vessels and equipment. However, for several of the EVIOR databases, the focus is on a full European coverage, encouraging also non-Eurofleets+ RV operators and researchers to contribute. This is stimulated via various existing networking relations, such as SeaDataNet, EurOcean, POGO, JCOMMOPS, ERVO (European Research Vessel Operators) and IRSO (International Research Vessel Operators Meeting).

The following paragraphs give illustrations of each of the EVIOR components.

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2.1 Cruise Programme Database

Image: Research Vessel Cruise Programme database – home page for searching

Image: Research Vessel Cruise Programme database – detail page

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2.2 Research Vessel Database

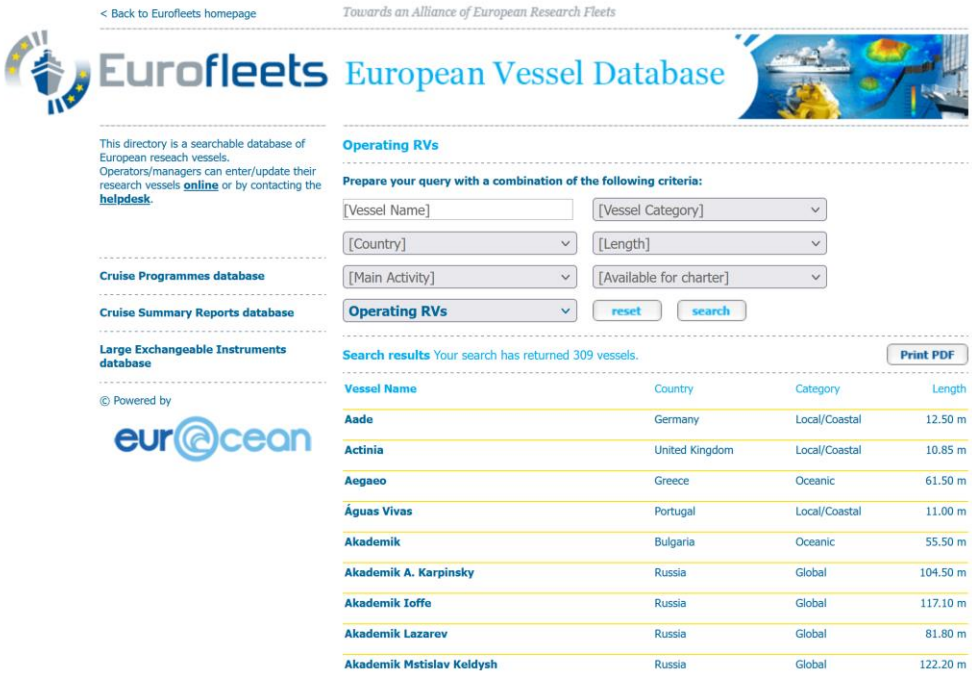

Image: Research Vessel database –search page

Image: Research Vessel database –detail page

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2.3 Cruise Summary Reports (CSR) Database

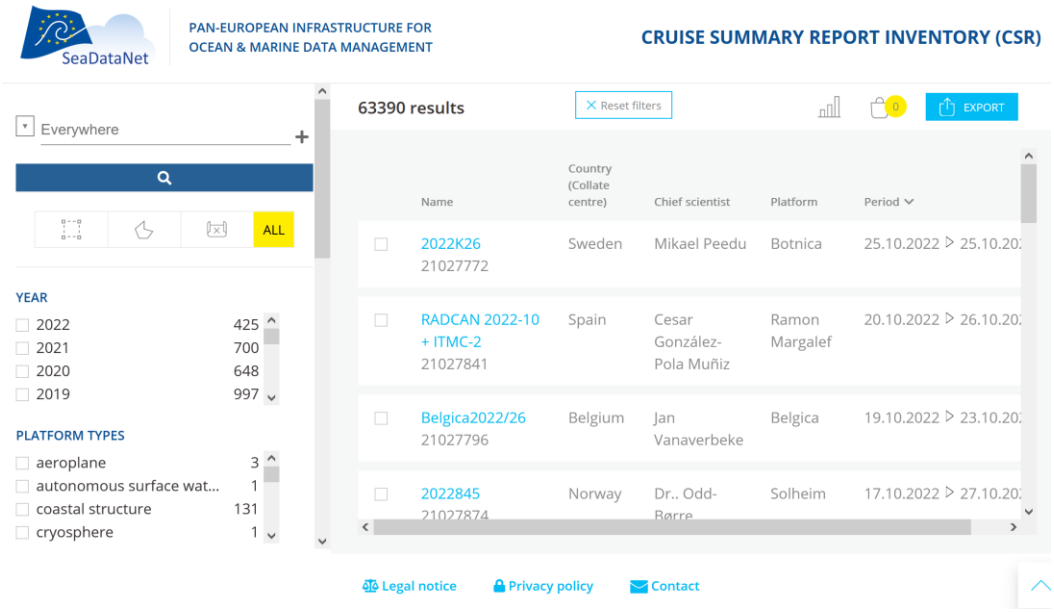

Image: Cruise Summary Reports (CSR) database – search page

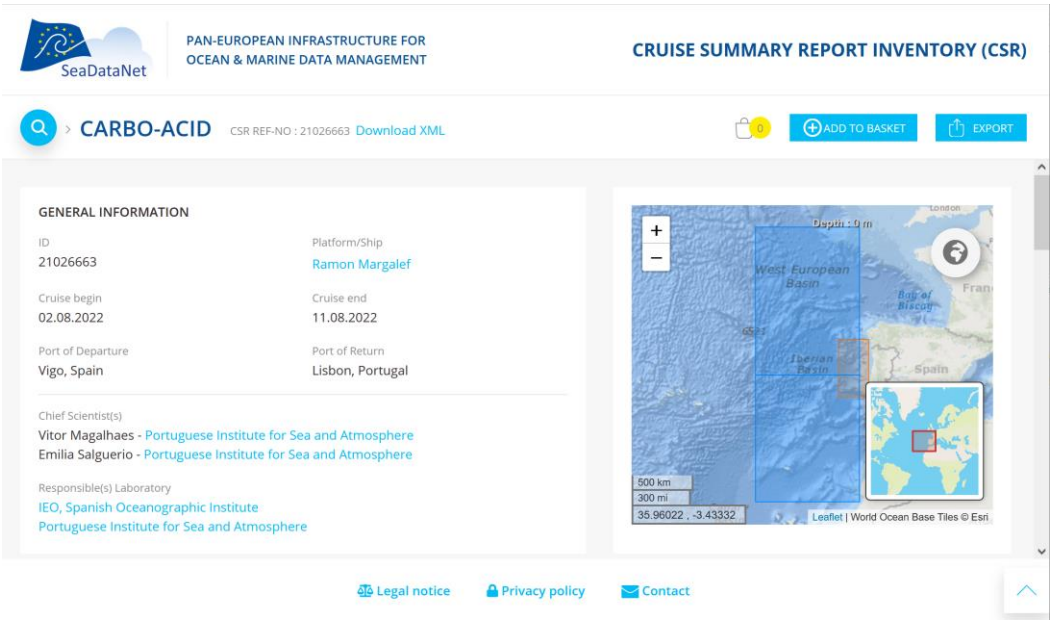

Image: Cruise Summary Reports (CSR) database – detail page

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2.4 Dashboard for information from sailing research vessels

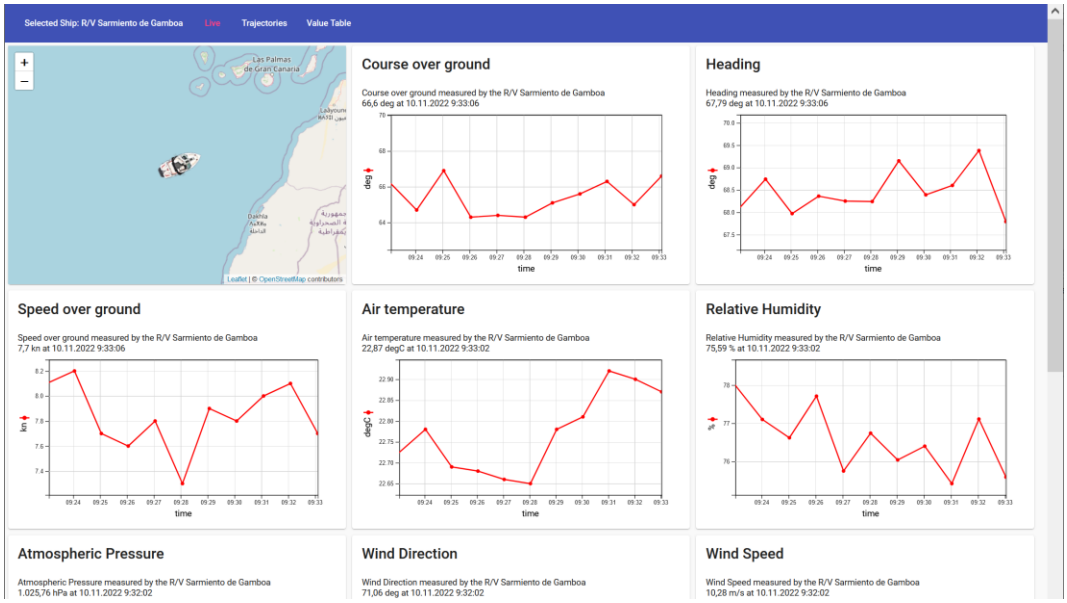

Image: Dashboard of sailing vessels – Live dashboard with en-route data

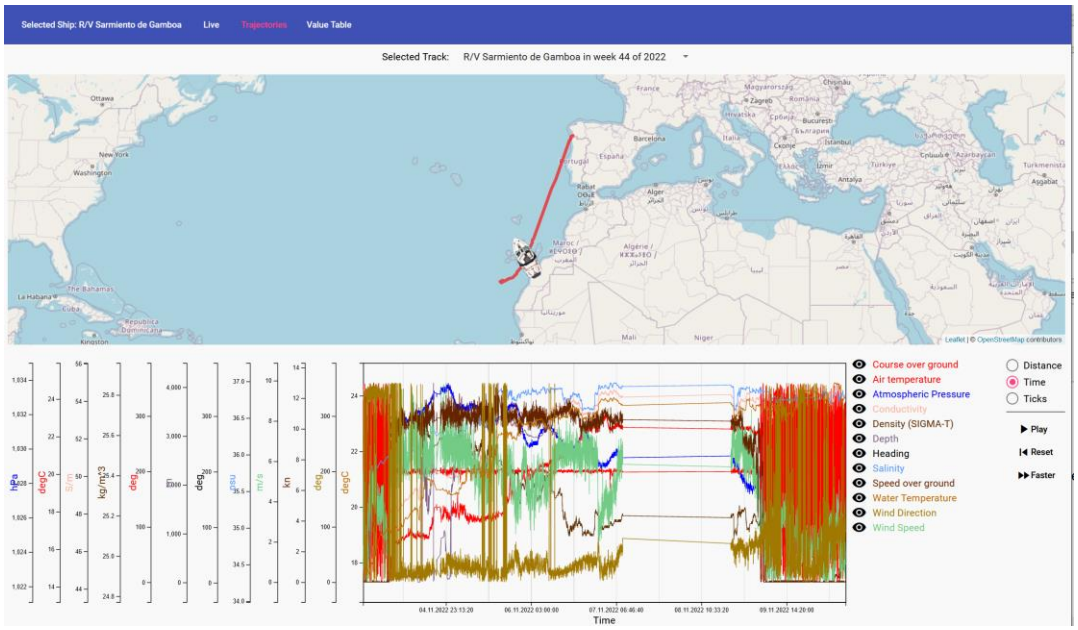

Image: Dashboard of sailing vessels – Trajectory look-up including en-route data

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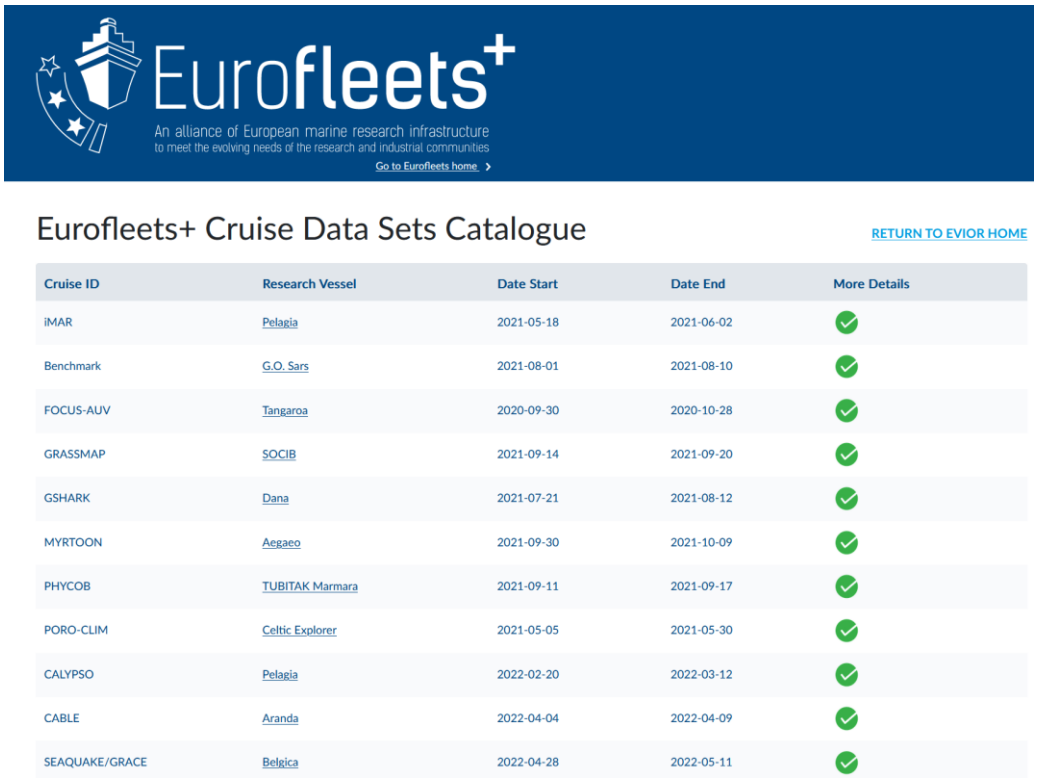
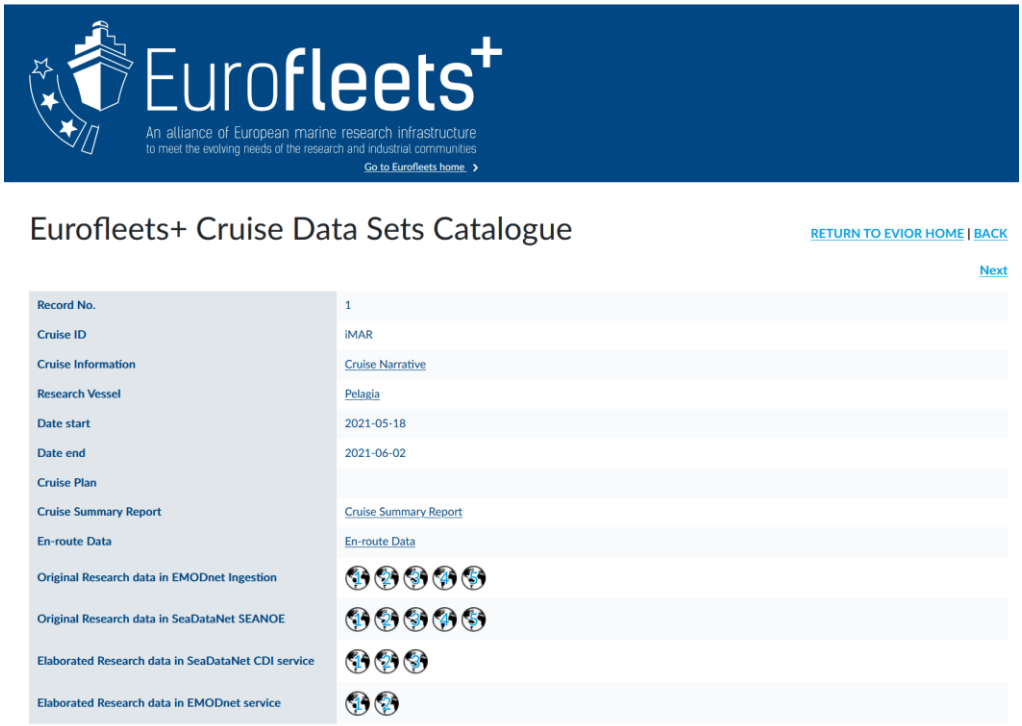
2.5 Cruise Data Sets Catalogue



Cruise ID	Research Vessel	Date Start	Date End	More Details
iMAR	Pelagia	2021-05-18	2021-06-02	
Benchmark	G.O. Sars	2021-08-01	2021-08-10	
FOCUS-AUV	Tangaroa	2020-09-30	2020-10-28	
GRASSMAP	SOCIB	2021-09-14	2021-09-20	
GSHARK	Dana	2021-07-21	2021-08-12	
MYRTOON	Aegaeo	2021-09-30	2021-10-09	
PHYCOB	TUBITAK Marmara	2021-09-11	2021-09-17	
PORO-CLIM	Celtic Explorer	2021-05-05	2021-05-30	
CALYPSO	Pelagia	2022-02-20	2022-03-12	
CABLE	Aranda	2022-04-04	2022-04-09	
SEAQUAKE/GRACE	Belgica	2022-04-28	2022-05-11	

Image: Cruise Data Sets Catalogue – overview of Eurofleets+ TA Cruises



Record No.	1
Cruise ID	iMAR
Cruise Information	Cruise Narrative
Research Vessel	Pelagia
Date start	2021-05-18
Date end	2021-06-02
Cruise Plan	
Cruise Summary Report	Cruise Summary Report
En-route Data	En-route Data
Original Research data in EMODnet Ingestion	
Original Research data in SeaDataNet SEANOE	
Elaborated Research data in SeaDataNet CDI service	
Elaborated Research data in EMODnet service	

Image: Cruise Data Sets Catalogue – detail page of selected Eurofleets+ TA Cruise

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2.6 Virtual Playground

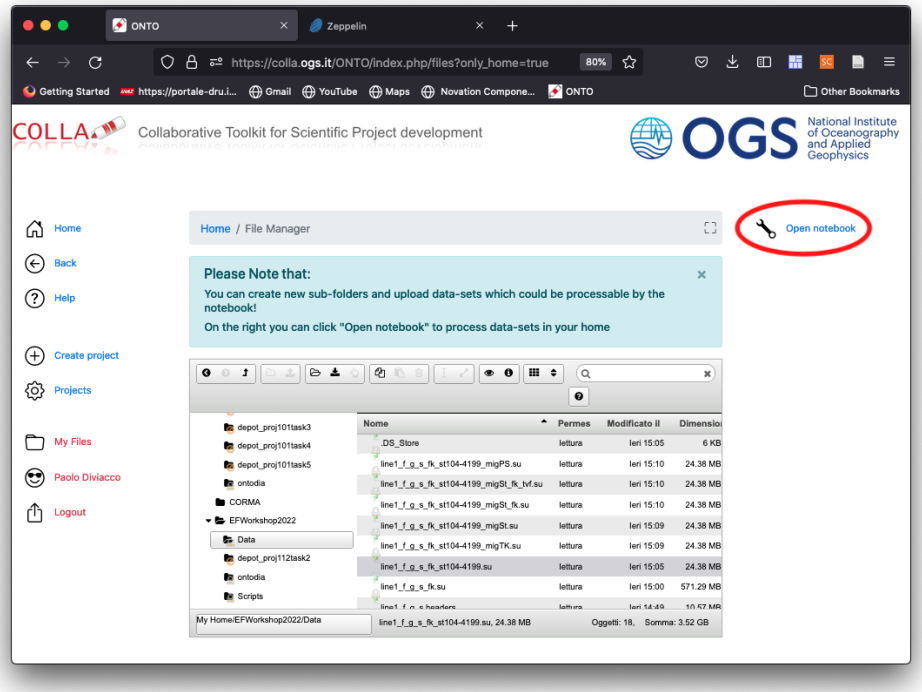

Image: Virtual Playground – Access to the VRE

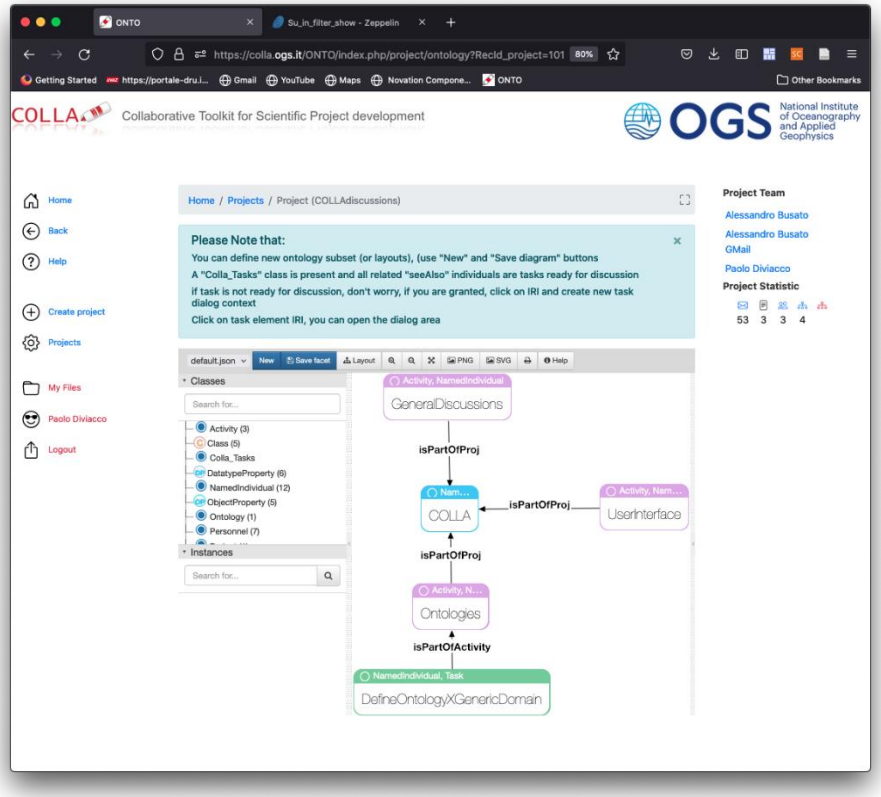

Image: Virtual Playground – Visualisation of Ontology

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