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VLab4
Marine Environmental Indicators – T4.5

CMCC, KNMI, INGV, OGS

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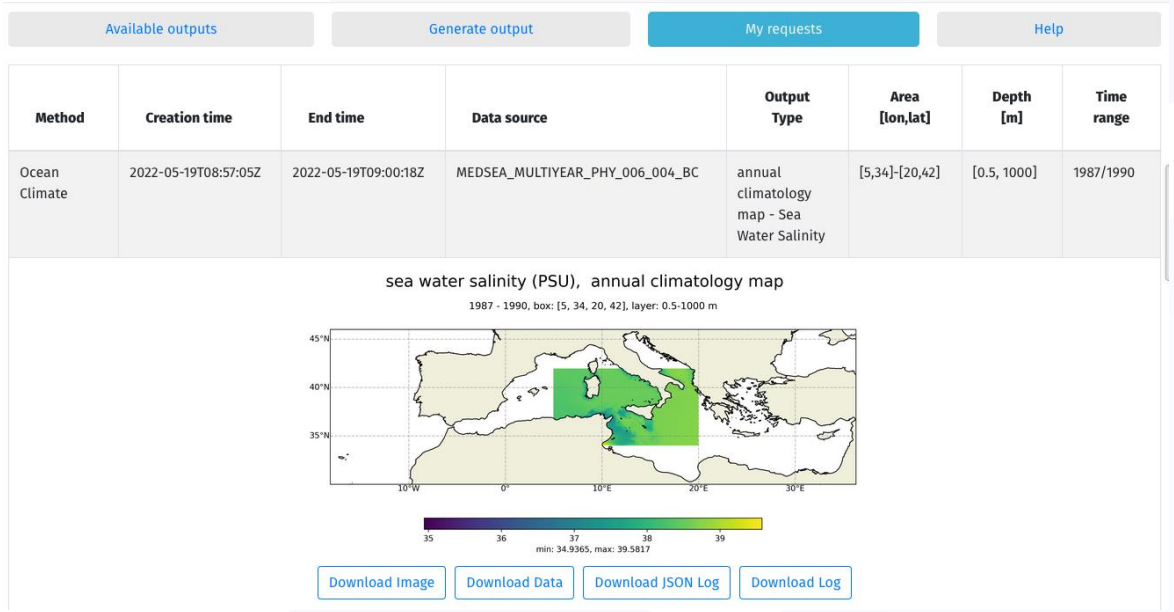
Blue-Cloud 2026 Kick-Off Meeting

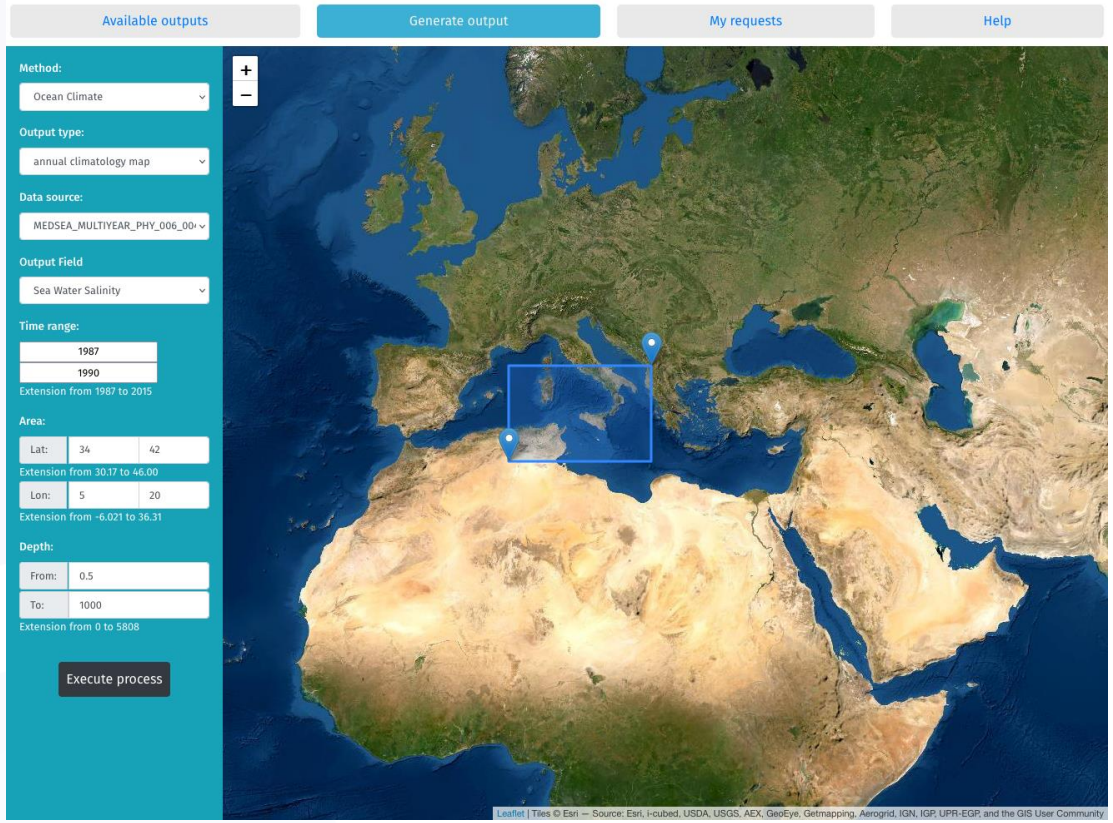
Pisa, 13-15 February 2023

Funded by the European Union

Demonstrator's Status at the end of Blue-Cloud Pilot phase

- "Marine Environmental Indicators" – MEI
  - DM analytics
  - Webapp
  - OGC WPS
  - Copernicus Marine GLO & MED Data sources





Vlab aim & methodology

- Expansion of the Blue Cloud VLab “Marine Environmental Indicators”
- Allow users to monitor and assess the environmental status of marine areas and support the decision-making process for the ocean management
- Exploitation of research infrastructures for the data access and analytics

Vlab aim & methodology

- a set of metocean environmental indicators will be defined according to available datasets from BDIs
- for each indicator, an analysis and production workflow will be implemented, or further developed and tested, applying big data analysis methods on the multi-disciplinary data sets
- multiple data sources will be exploited in a unique data analysis service, which will allow the online computation of indicators

Data sources

- A better definition will be consolidated in M01-M03

- Data Infrastructures
  - Copernicus Marine Service (Model, Obs)
  - Copernicus Climate Service
  - SeaDataNet, WOD, EMODnet
  - …

- Input Products
  - Global and Regional
  - Observational and model products

Technical requirements

- A better definition will be consolidated in M01-M03
- Output from Blue-Cloud project
  - Achievements of VLab Marine Environmental Indicators
  - D4Science Services, VRE, DataMiner (WPS services)
- Python, Jupyter Notebooks, Docker → already available in D4Science
- Performing access to Copernicus big datasets: model reanalysis of ocean and atmosphere

IMP: Beta version of your VLab must be ready in M25

Additional info? Foreseen issues?

- Synergy with WP3 for the exploitation workbench products in this application
- Climatology fields are needed in WP3

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