









# 3. NFP Reports

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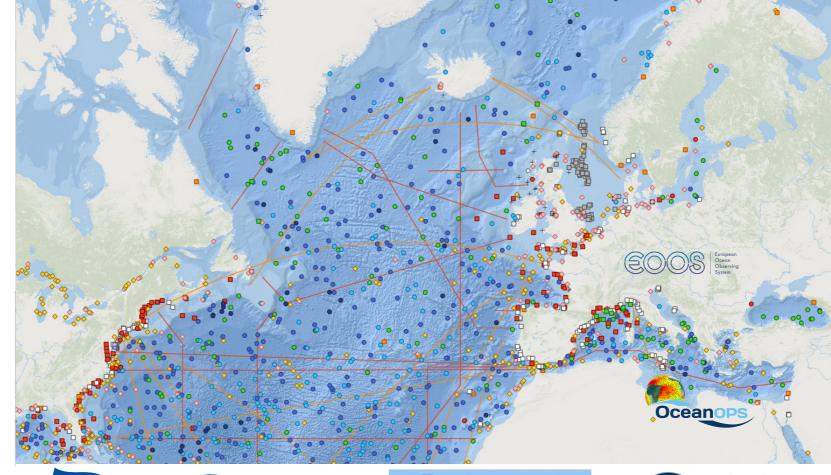




## **Ocean Observations in Spain**

#### Ocean Observing Systems

- Mobile systems
- Core floats Argo
- Deep floats Argo
- Biogeochemistry floats
- Underwater gliders OceanGliders
- Drifting buoys DBCP
- O Polar buoys
- Animal borne sensors
- Sail drones
- - Fixed systems
  - Offshore platforms DBCP
  - Moored buoys DBCP
  - ▲ Tsunameters DBCP
  - Ocean reference stations OceanSITES
  - Sea level gauges GLOSS
- ☐ HF Radars
- · · Ship based measurements
  - Automated weather stations - SOT/VOS
- ♦ Manned weather stations -SOT/VOS
- Radiosondes SOT/ASAP
- eXpendable
   BathyThermographs -SOT/SOOP
- Fishing vessel probes -SOT/SOOP
- + Other











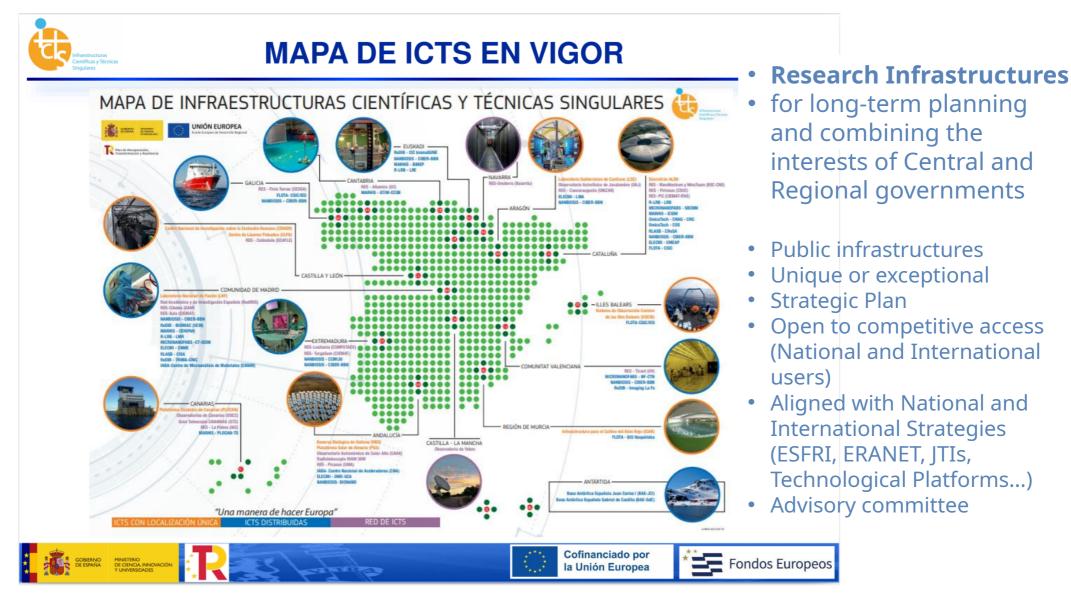








### **Research Infrastrucutures ICTS**





## **ICTS Fleet**

























## **ICTS Fleet + Fisheries Secretariat (SGP) Vessels**











Cooperation with Portugal sharing research vessels for fisheries cruises to support EU Common Fisheries Policy (CFP)



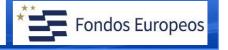






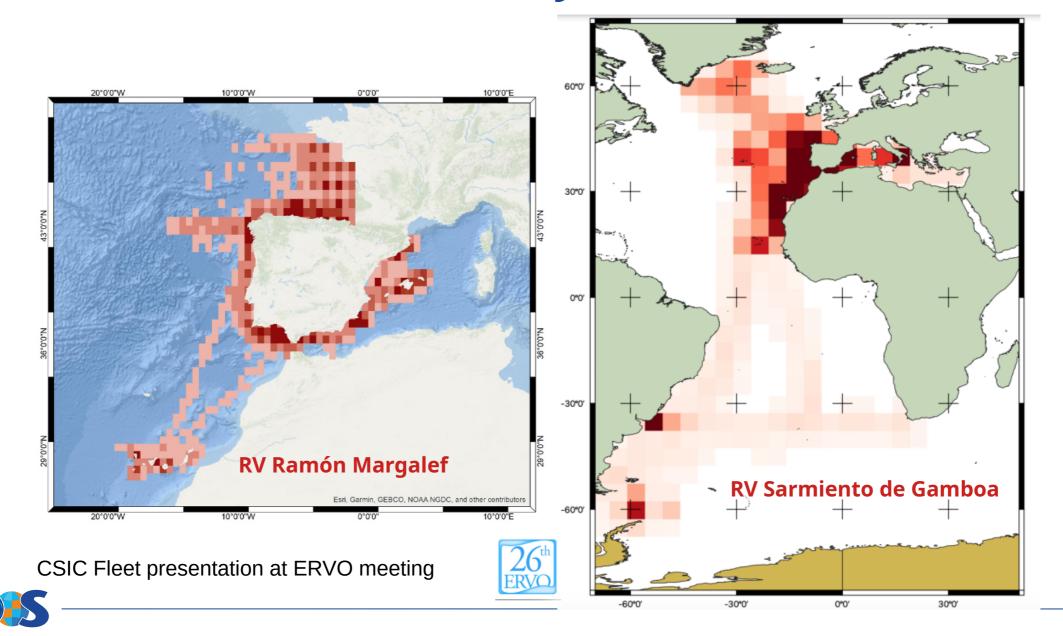




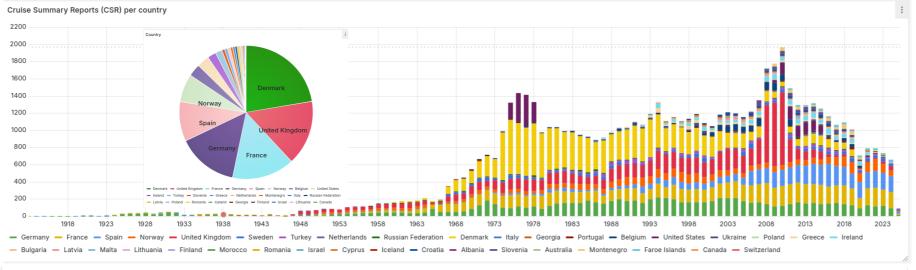


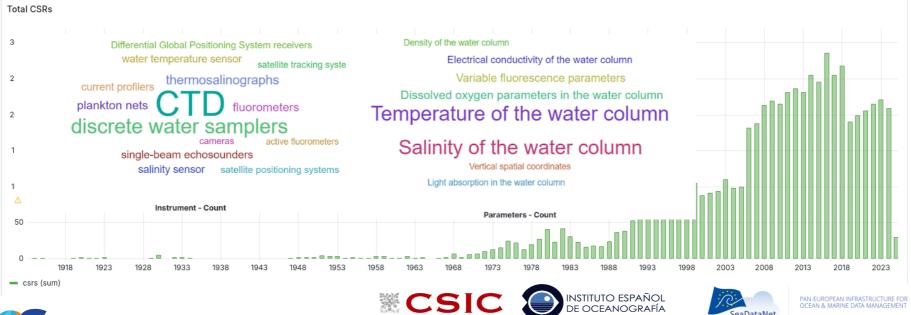


## **ICTS Fleet: RV Survey zones 2014-2023**



## **Spanish cruises: data portals**









## Spanish cruises: data portals





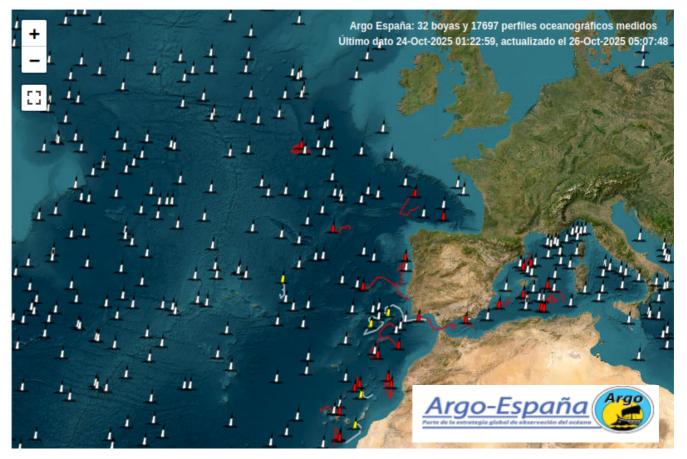
## **Spain contributes to ARGO (EuroArgo ERIC)**

**Active fleet:** 21 active profilers, 19 deployed in the period 2022-2024

2.6% of the contribution in Euro-Argo ERIC, 0.4% of the international contribution, and 14% in the Mediterranean

Spain's role in the global GDP is 1.37%, which would be equivalent to an active fleet of 55 buoys.

118 profilers deployed since the beginning of the contribution, representing 16,659 profiles (more than 4 years of vessel time).



https://www.argoespana.es



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Y UNIVERSIDADES

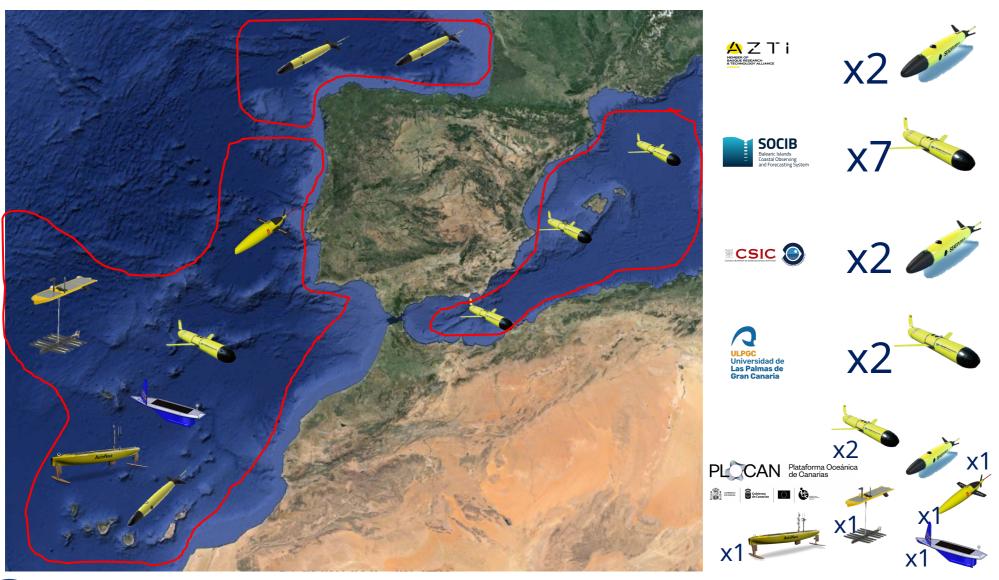
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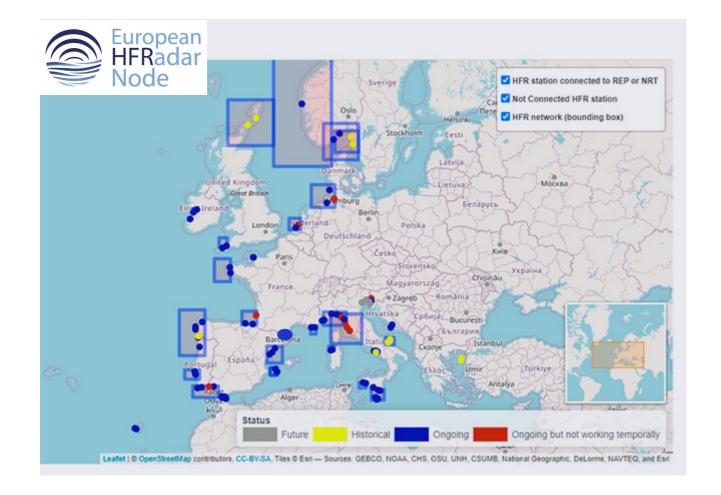


## **Spanish Group Glider Coordination (Red CEOG)**





#### **Coordination of Radar HF networks**









## Thredds catalogue

#### Dataset

- Near Real Time surface current data
  - Canary Islands/
- Portugal Southern Coast/
- Portugal Lisboa/
- Iberian Peninsula Galicia North Portugal/
- Bay of Biscay/
- Strait of Gibraltar/
- Ibiza Channel/
- Iberian Peninsula Ebro River Delta/
- Iberian Peninsula Catalan Coast/
- North Cornwall Coast/
- Rotterdam Harbour/
- Western Norwegian Coast/
- German\_Bight/
- Skagerrak Strait/
- Finnmark Coast/
- Tyrrhenian Ligurian Sea/
- Sardinia/
- Tuscany Archipelago/
- Western Italian Coast/
- Sicilian\_Channel/
- Malta Channel/
- Northern Adriatic Sea Gulf of Trieste/
- Southern Adriatic Sea Gulf of Manfredonia/



#### 1. National Updates on Ocean Observations: Summary

Coordination among operators of ocean observing systems in Spain: there are instruments for common strategies and planning in research infrastructures, including oceanographic fleet. Established groups for coordination of Argo, gliders, radar HF... Need for enhanced coordination in biological observations.

Coordination with neighboring and European countries (Common Fisheries Policy, Interreg, EU projects...) in planning and sharing of best practices and knowledge

Metadata (CSR) and data sharing to national data centers and international data hubs (EMODNET, SeaDataNet, Copernicus Marine, ICES...) There is some financing for national coordination in data portals



#### 2. Reflection on the NFP's role

The role of the GOOS NFP is to promote and support GOOS activities at the national level and to foster national-level connections towards achieving GOOS strategic goals.

GOOS and COI recommendations to increase national coordination and support to stakeholders including public administrations responsible of ocean, fisheries, environment, transport, harbours, tourism, health... have led to efforts in re-impulsing the **Spanish Committee for Ocean Observation (CEOO)** 

CEOO was constituted by the operators of ocean observations in 2018 with the objective of serving as a national interlocutor to enhance synergies, optimize resources, identify needs and promote the sustainability of the marine observation system in Spain.

The main challenges of CEOO are to offer an accurate image of the Spanish real capacity in Ocean Science and promote Spanish leadership in Ocean Science.



Ocean observation is a national priority in Spain and supports marine related policies and marine stakeholders, in fields like fisheries, aquaculture, environment, transport, harbours, tourism, health... Strong effort in ocean observing and coordination among operators of ocean observing systems in Spain

Need for improvements have been detected in:

- strategies and governance
- sustainable financing (national, regional and international coordination)
- national and international visibility
- technology development
- data sharing technologies
- enhanced coordination in biological observations



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**Potential GOOS Support** 

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#### **Potential GOOS Support**

Shared experiences NFP



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Shared experiences NFP

Best practices, "success" stories



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Shared experiences NFP

Best practices, "success" stories

Value of being part of a global system



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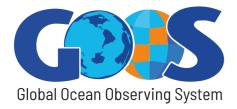
Best practices, "success" stories

Value of being part of a global system

Communication support

EOVs, Ocean Best Practices, BioEco





# **Gracias Thank**

**you** goosocean.org







