

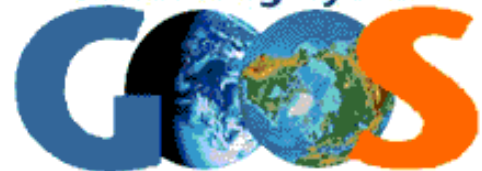
# First DBCP Mediterranean Training Workshop on Ocean Observations and Data Applications 9-11 November 2022



## Getting to know DBCP & OceanOPS



The Global Ocean  
Observing System



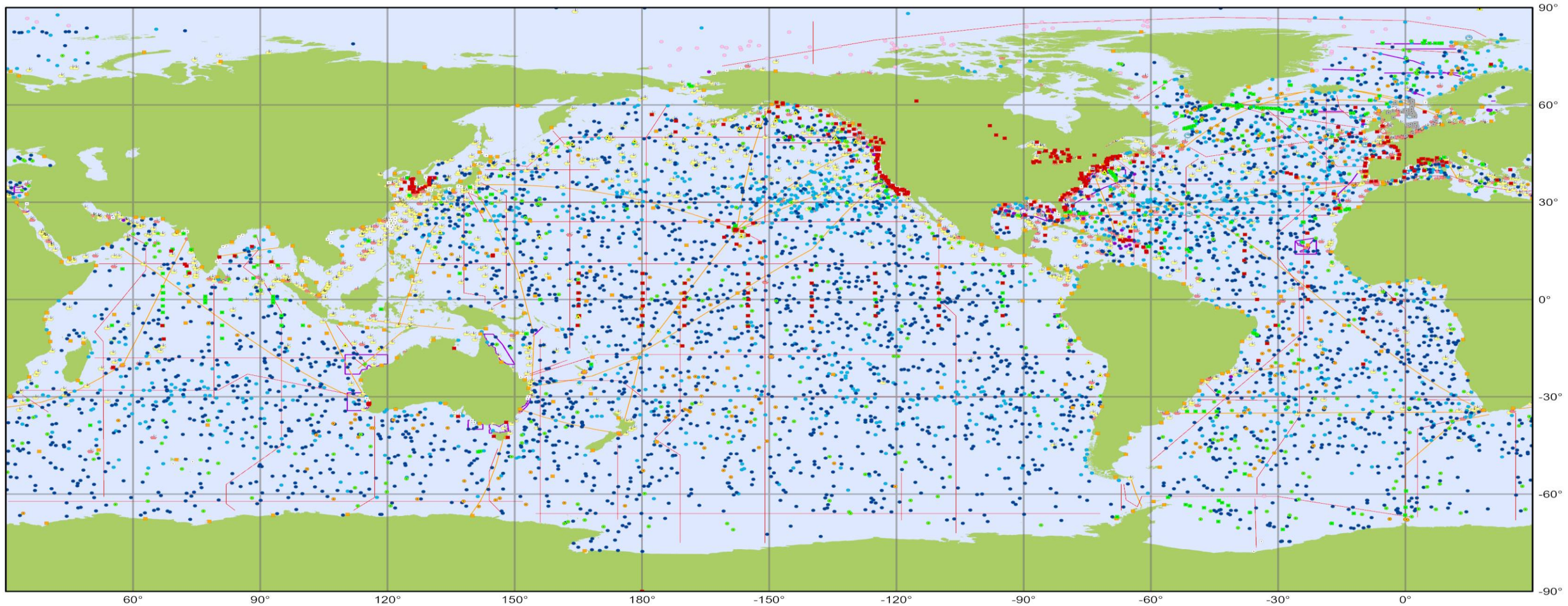
## 4 Decades



**unesco**

Intergovernmental  
Oceanographic  
Commission

# The global ocean observing networks



## Global ocean observing system

In situ operational platforms monitored by OceanOPS

September 2022

### Mobile systems

- Core floats - Argo
- Deep floats - Argo
- Biogeochemistry floats - Argo
- Underwater gliders - OceanGliders
- Drifting buoys - DBCP

### Fixed systems

- Polar buoys - DBCP
- Animal borne sensors
- ▲ Tsunameters - DBCP
- Offshore platforms - DBCP
- Moored buoys - DBCP

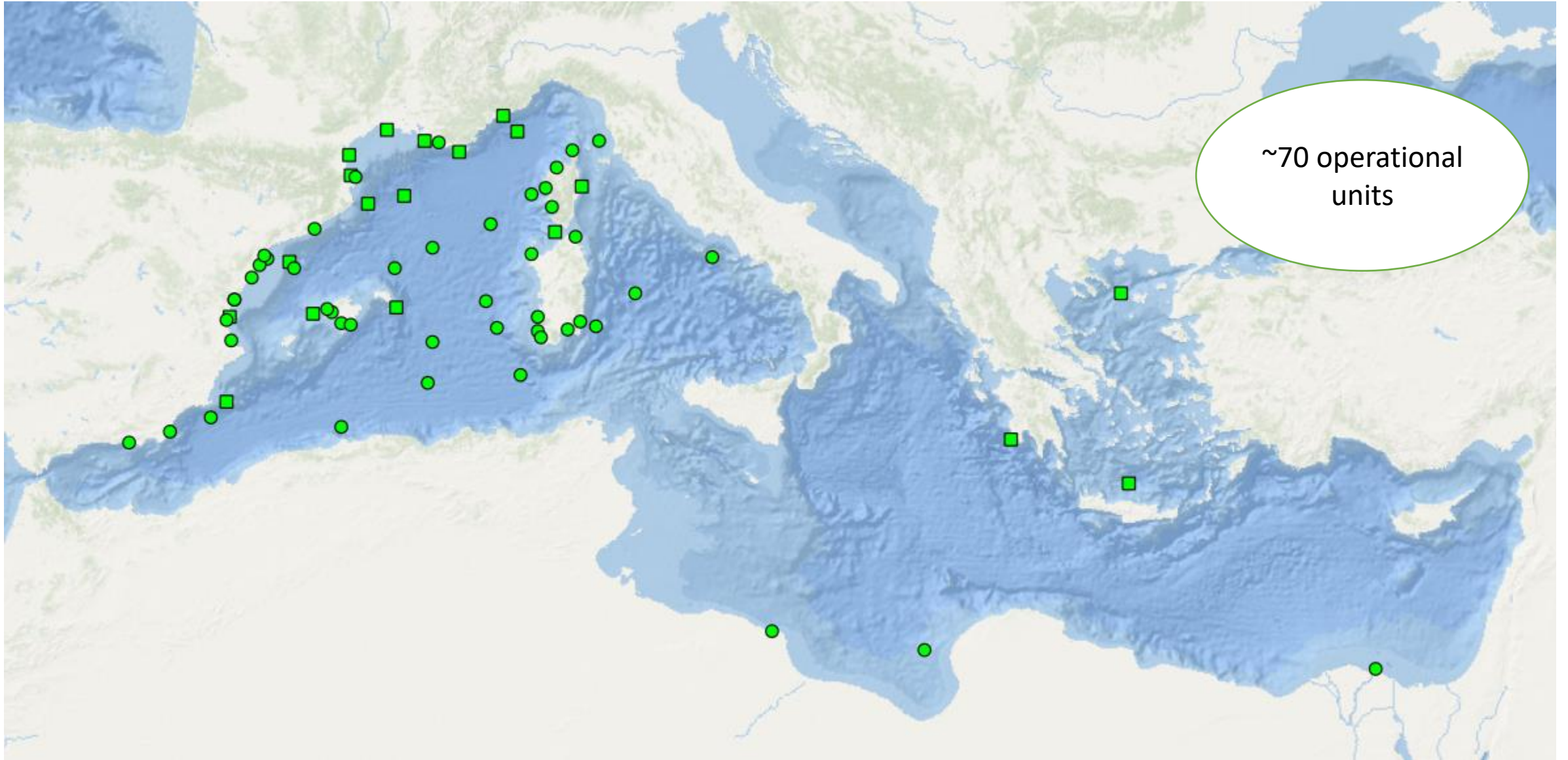
### Ship based measurements

- Ocean reference stations - OceanSITES
- Sea level gauges - GLOSS
- High Frequency radars
- Manned weather stations - SOT/VOS
- Automated weather stations - SOT/VOS

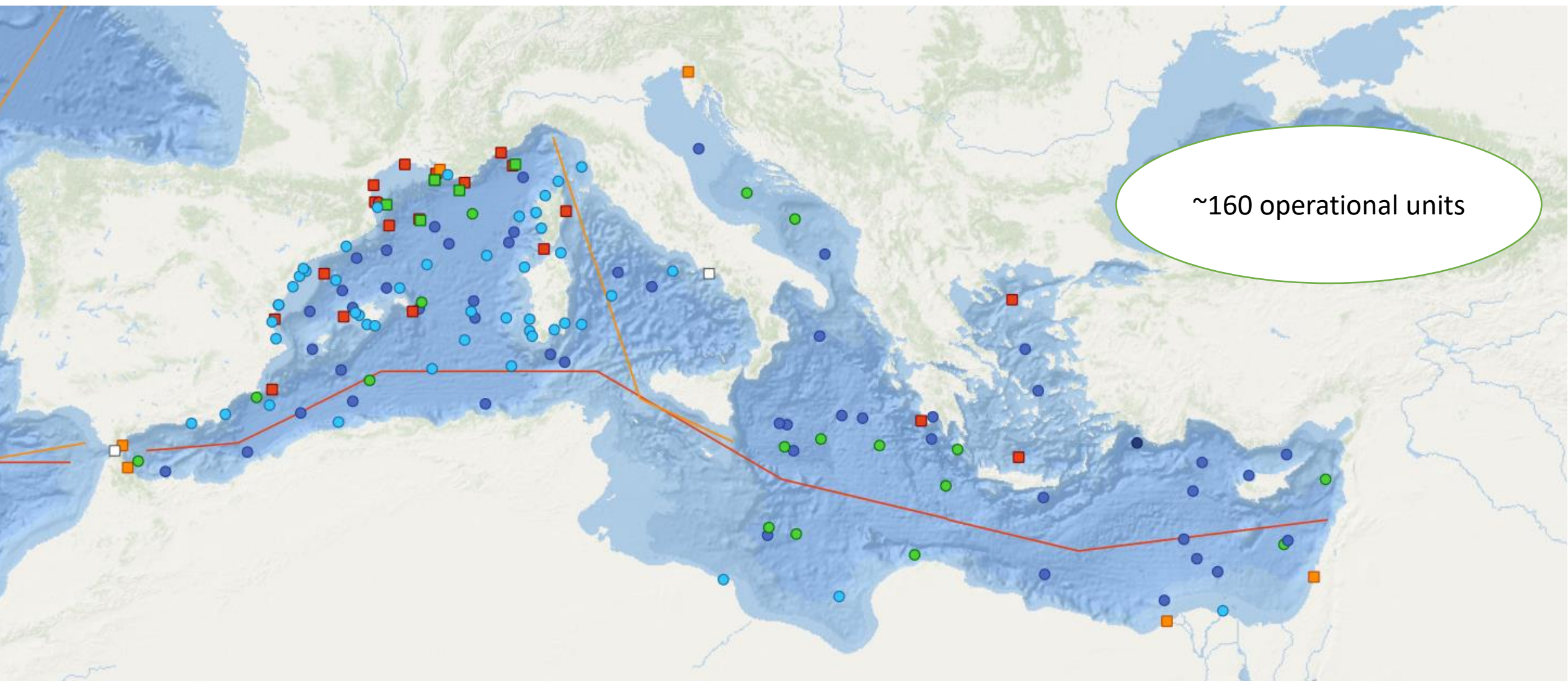
### Reference lines and areas

- ☁ Radiosondes - SOT/ASAP
- Repeat hydrography - GO-SHIP
- eXpendable BathyThermographs - SOT/SOOP
- ▭ Sampled sites - OceanGliders





~70 operational units



~160 operational units

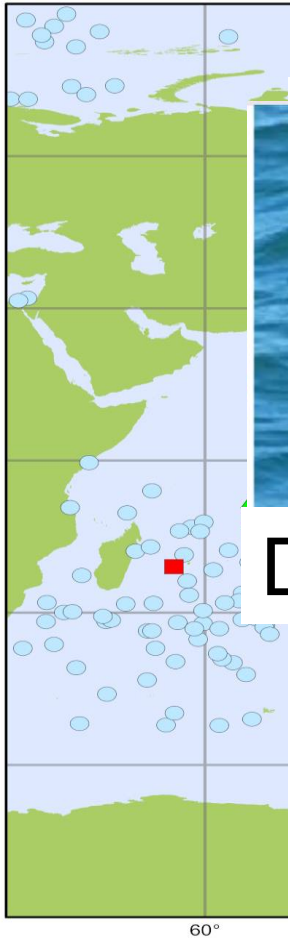


# The DBCP component

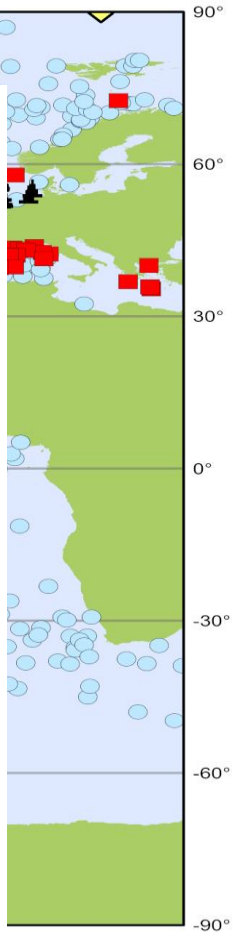
Above, at and just below the ocean surface

## Essential weather and climate observations

Temperature  
Pressure  
Wind  
Waves  
Currents



Data Buoy Coverage



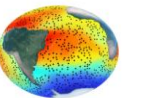
October 2022



Tropical MB (349)

Drifting Buoys (1 518)

Tsunami buoys  
Tropical MB (67)





# Why we exist and what we do

## VISION

A **flagship surface ocean observing** panel of **global standing** recognized for its **significant contributions** from **drifting** and **fixed moored buoys** to ocean and climate science, weather, ocean and earth system prediction, sustainable development, safety, well-being and prosperity.

## MISSION

To **facilitate** the collection of **essential and trusted observations** from **data buoys** at the **air-sea interface** and the **upper ocean** as part of an **integrated, resilient** and **sustainable** global observing system that serves the current and emerging **needs of society** - all day, every day.



# How we operate

Executive Board

Chair

Environmental Stewardship

Technology Innovation

Diversity and Inclusivity

Impact and value

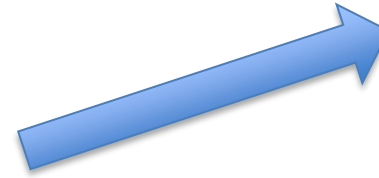
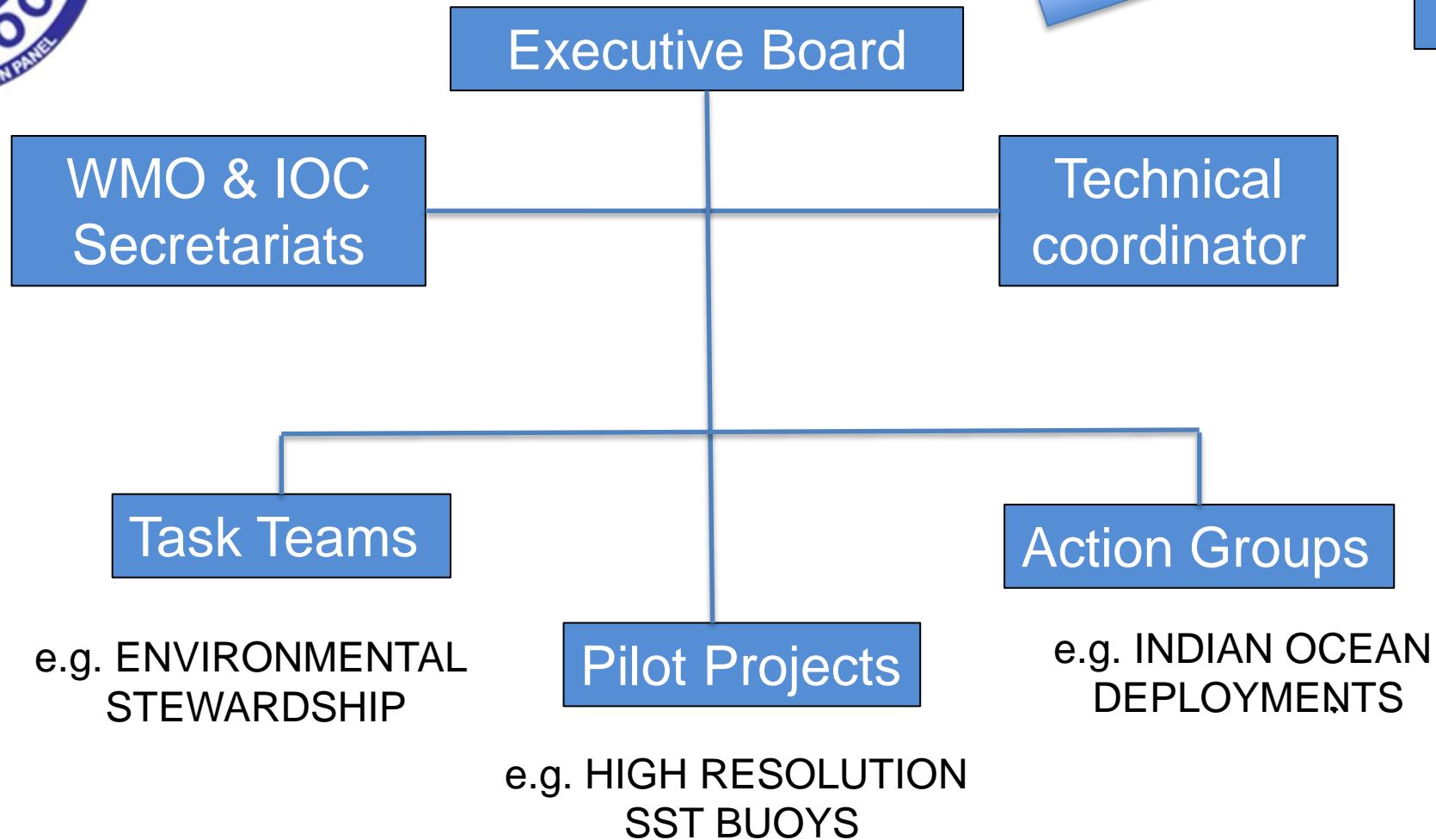
Scientific Excellence

International cooperation  
partnerships

Operational excellence



# How we operate



GOOS  
Observations  
Coordination  
Group





# The Engine Room – Task Teams

They address specific areas of focus

- Data Management (Lance Braasch, Shaun Dolk)
- Drifter Best Practices and Technology Development (Rick Lumpkin)
- Moored Buoys (Ken Connell)
- Capacity Building (Rachel Qiu)
- Wave Measurement (Val Swail and Bob Jensen)
- Environmental Stewardship (Karen Grissom)
- Impact and Value (Users) (?)

For more info: <https://www.ocean-ops.org/dbcp/overview/taskteams.html>

# OceanOPS

- Metadata Management, 5-year strategy
- Office in Brest, France (Toulouse, France + Monaco)
  - Manager
  - TC Argo, Gliders, AniBOS
  - TC SOT (ASAP, VOS,...)
  - **TC DBCP**, OceanSITES, HF Radars, Tide Gauges/GLOSS
  - **TC BGC Argo, Medi... (Monaco)**
  - IT manager + IT support in Toulouse
  - Metadata clerk
  - Communication

# OceanOPS

- Monitoring GOOS networks
  - Metadata system
    - <https://www.ocean-ops.org/metadata>
  - WMO ID allocation
    - <https://www.ocean-ops.org/api/1/help/#about-the-api>
- Annual report card
  - <https://www.ocean-ops.org/reportcard>
- Facilitate global and regional coordination
- Facilitate new data stream and deployment initiatives





# OceanOPS report card 2022

GOOS in situ networks <sup>1</sup>	Implementation STATUS <sup>2</sup>	Data & metadata			Best practices <sup>5</sup>	GOOS delivery areas <sup>7</sup>		
		REAL TIME <sup>3</sup>	ARCHIVED DELAYED MODE <sup>4</sup>	META-DATA <sup>5</sup>		OPERATIONAL SERVICES	CLIMATE	OCEAN HEALTH
Ship based meteorological - SOT	★★★	★★★	★★★	★★★	★★★	🌐	🌐	🌐
Ship based oceanographic - SOT	★★★	★★★	★★★	★★★	★★★	🌐	🌐	🌐
Repeated transects - CO-SHIP	★★★	Not applicable	★★★	★★★	★★★	🌐	🌐	🌐
Sea level gauges - GLOSS	★★★	★★★	★★★	★★★	★★★	🌐	🌐	🌐
Time series sites - OceanSITES	★★★	Not applicable	★★★	★★★	★★★	🌐	🌐	🌐
Moored buoys - DBCP	★★★	★★★	★★★	★★★	★★★	🌐	🌐	🌐
Tsunami buoys - DBCP	★★★	★★★	★★★	★★★	★★★	🌐	🌐	🌐
HF radars	★★★ Emerging	★★★	★★★	★★★	★★★	🌐	🌐	🌐
Drifting buoys - DBCP	★★★	★★★	★★★	★★★	★★★	🌐	🌐	🌐
Profiling floats - Argo	★★★	★★★	★★★	★★★	★★★	🌐	🌐	🌐
Deep & biogeochemistry floats - Argo	★★★ Emerging	★★★	★★★	★★★	★★★	🌐	🌐	🌐
OceanGliders	★★★ Emerging	★★★	★★★	★★★	★★★	🌐	🌐	🌐
Animal borne sensors - AniBOS	★★★ Emerging	★★★	★★★	★★★	★★★	🌐	🌐	🌐

(1) More information at [www.goosiocean.org](http://www.goosiocean.org) (2) Status: status of the implementation compared to the community widely adopted targets when it exists; network self-assessed status when target doesn't exist. (3) Real time: data freely available, without any restriction, on Global Telecommunication System of WMO and internet. (4) Archived delayed mode: data of the highest quality available for scientific analysis (e.g. climate studies). (5) Metadata: information required by OceanOPS. (6) Best Practices: community reviewed and easily accessible documentation encompassing the observations lifecycle. (7) See [Network Specification Sheets](#): [www.goosiocean.org](http://www.goosiocean.org) > Observations > Network Specification Sheets. More information on networks status & indicators definition at: [ocean-ops.org/reportcard2022](http://ocean-ops.org/reportcard2022)

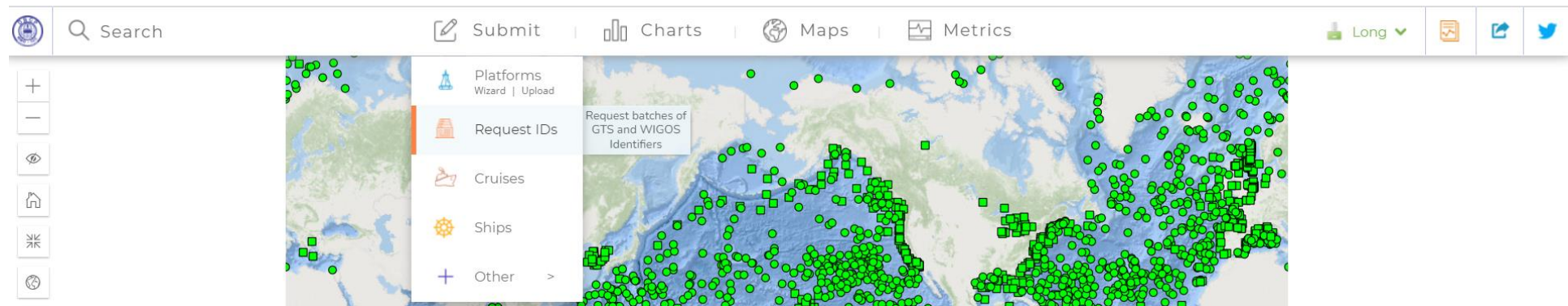


- <https://www.ocean-ops.org/reportcard/reportcard2022.pdf>



# Data and metadata mapping

- Metadata structure and templates
  - <https://www.ocean-ops.org/metadata>
- WSI automation and API
  - <https://www.ocean-ops.org/api/1/help/#about-the-api>





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[Support@ocean-ops.org](mailto:Support@ocean-ops.org)





# BGC Argo & Med Coordinator