



Copernicus Marine Service- In Situ Thematic center

05/06/2022 S Pouliquen



PROGRAMME OF
THE EUROPEAN UNION



implemented by



**MERCATOR
OCEAN**
INTERNATIONAL

The EU Copernicus Marine Service

Global & Regional Ocean Monitoring and Forecasting

MULTI-YEAR

10 to 45 years

REAL-TIME

Daily, hourly

FORECAST

2 to 10 days

ESSENTIAL OCEAN VARIABLES

Blue
(Physics)

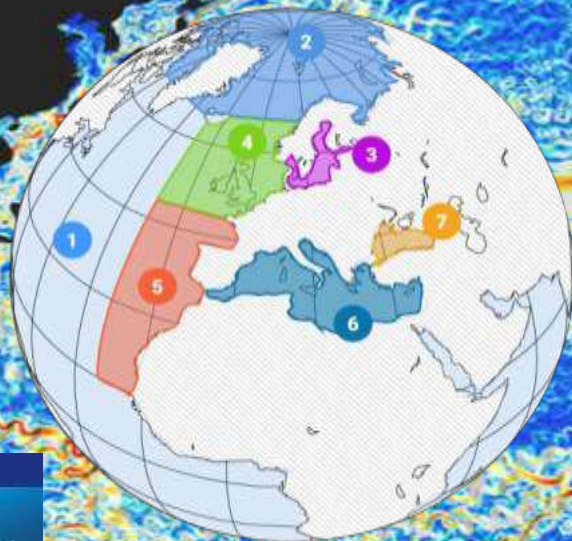
White
(Sea Ice)

Green
(Biogeochemistry)

OBSERVATIONS
In-situ & Satellites

NUMERICAL MODELS & data
assimilation

marine.copernicus.eu



- 1 Global
- 2 Arctic
- 3 Baltic
- 4 NWS
- 5 IBI
- 6 Med Sea
- 7 Black Sea



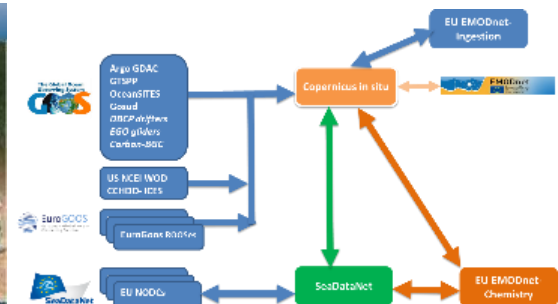
A distributed service integrating in situ data from different sources

In situ Thematic Assembly Centre (In Situ TAC)

- INSTAC is a distributed centre that collaborates closely with networks both at international level through **GOOS** and European scale through the **EuroGOOS** ROOSes.
- Cooperation with **EMODNET/Physics, /Chemistry and /Ingestion** and **SEADATANET**
- **Global** coverage on a **limited number of parameters** essential for **Copernicus Marine Service**



Global: Ifremer / France
Arctic: IMR / Norway
Baltic: SMHI / Sweden
NWIS: BSH / Germany
IBS: Puerto del Estado / Spain
MED: HCMR / Greece
Black Sea: IOBOS / Bulgaria



Dealing with the complexity of in situ observing system

In Situ TAC - Operations

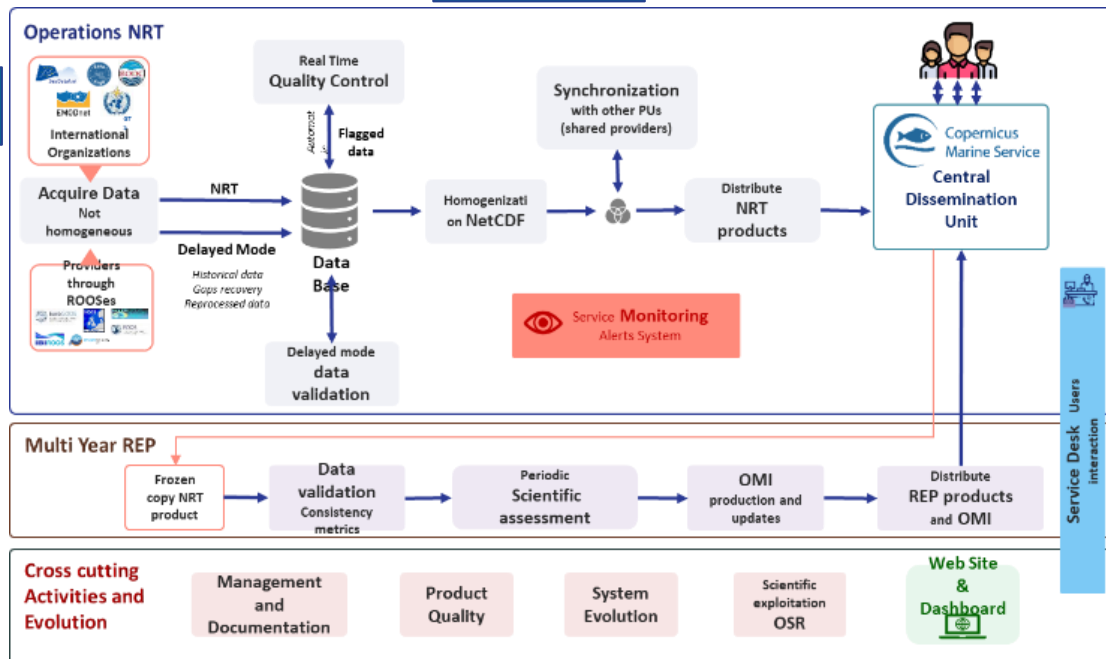
**Delivering
In Situ products
within few
hours for NRT
products**

**Scientifically
assessed every
6 months for the
REP products**

What



How



A provider can know the use through Copernicus Marine service

- Provider catalogue updated from the CMS FTP service log file
- <http://www.marineinsitu.eu/providers/>
- Will be updated (target monthly) soon



176 platforms
138 users

All type of
platforms

Stack

platform types
CTDS SLIDER DRIFTING BUOY (BT) FIXED BUOY OR MOORING PROFILING FLOATER TIDE GAUGE HIGH FREQUENCY RADAR DRIFTING BUOY (DB)

feature types
PROFILE TIME SERIES TRAJECTORY RADAR RADIAL VELOCITY GRID RADAR TOTAL VELOCITY GRID

parameter categories
METEOROLOGICAL OCEANOGRAPHICAL SST WAVEK SEA LEVEL

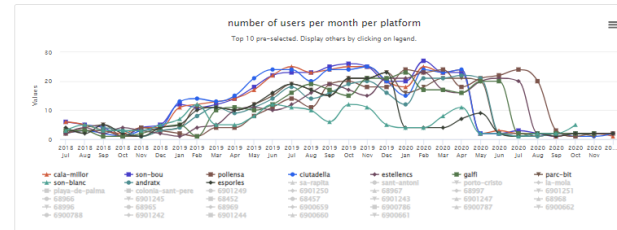
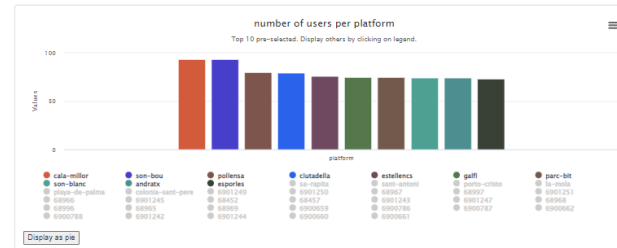
products
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INSTRUMENTAL_OBSERVATIONS_10_448 INSTRUMENTAL_OBSERVATIONS_10_448 INSTRUMENTAL_OBSERVATIONS_10_448 INSTRUMENTAL_OBSERVATIONS_10_448

Engagement

Notice: These are rough estimates on data usage. If you want more granularity visit the In Situ TAC Kibana

platform

Gliders selected

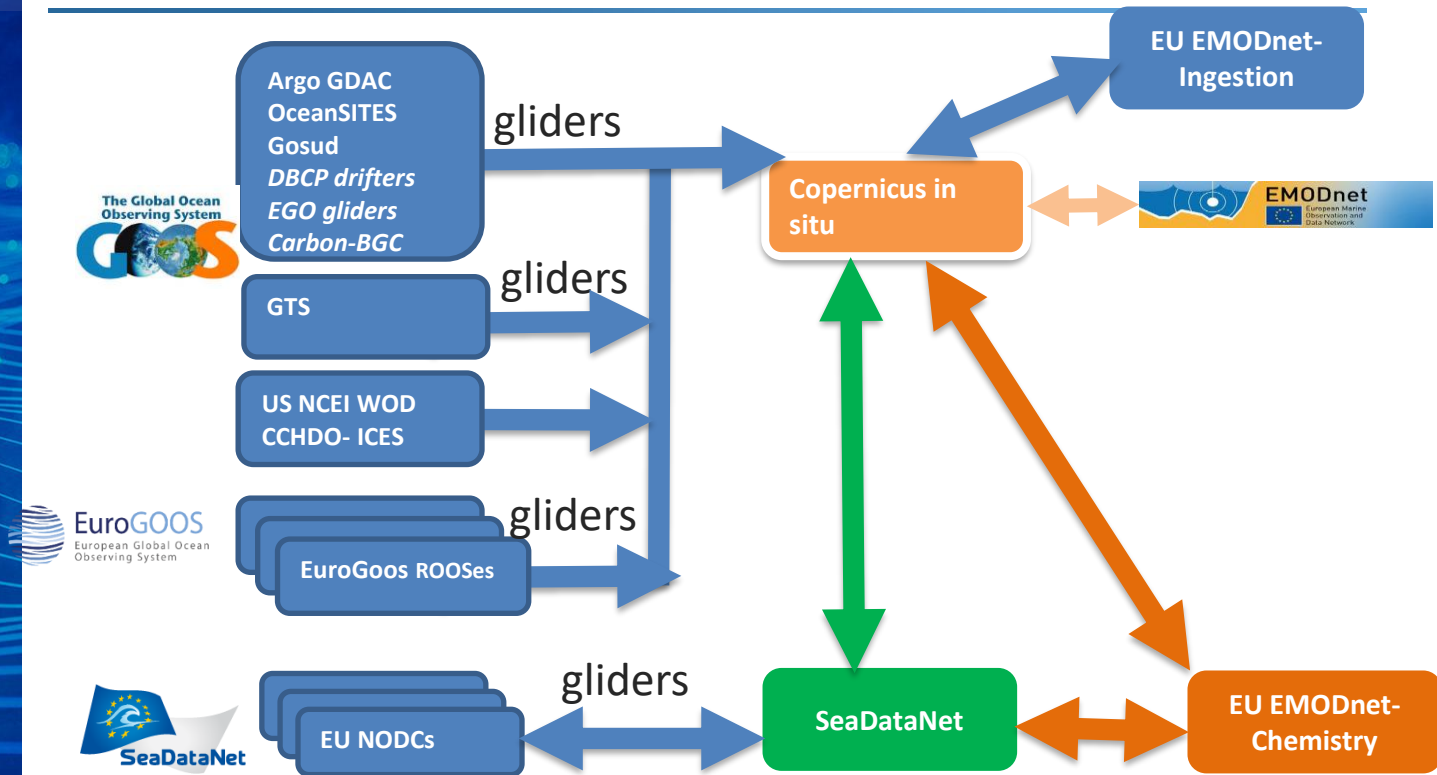


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Data Sources

Where do we get Glider data from?



Copernicus Marine In Situ TAC and GLIDER

- As for Argo we would like to have OceanGLIDER GDAC managed by the international GOOS program
- In the meantime we privilege the existing Glider portals
 - The European DAC set up in previous GROOM project
 - Direct connection to some providers when they provide access only from their institutes
 - GTS for NRT when it's the unique source
- Glider data are integrated in the INSTAC products : GLOBAL-NRT multi variables and the REP organised per EOVs as profiles in NETCDF files

Recommendations

- Recommendations exist on FAIR principle implementation that have been enhanced in the ENVRI-FAIR project, in link with OceanBestPractice initiative .
 - For the marine domain it's built on 20 years of development through SeaDataNet, AtlantoS, EMODnet, Copernicus, EuroGOOS and OceanOPS ...
 - recommendations are being synthesised in a deliverable D3.7 in EuroSEA Glider contributed
 - Unique ID, essential metadata to be provided, use of common vocabularies, recommended services ...
- Recommendation to set up a portal on the “best version” of the GROOM-RI glider data would facilitate integration in CMS products



Thank you
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