

IN SITU THEMATIC ASSEMBLY CENTRE FOR MARINE SERVICE



IN SITU TAC

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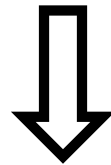
ROLE IN CMEMS

- One of CMEMS observational data providers along with remote satellites.
- Keystone for assimilation and validation of Marine Forecasting Centres (MFC).
- Interface for national and international observing systems

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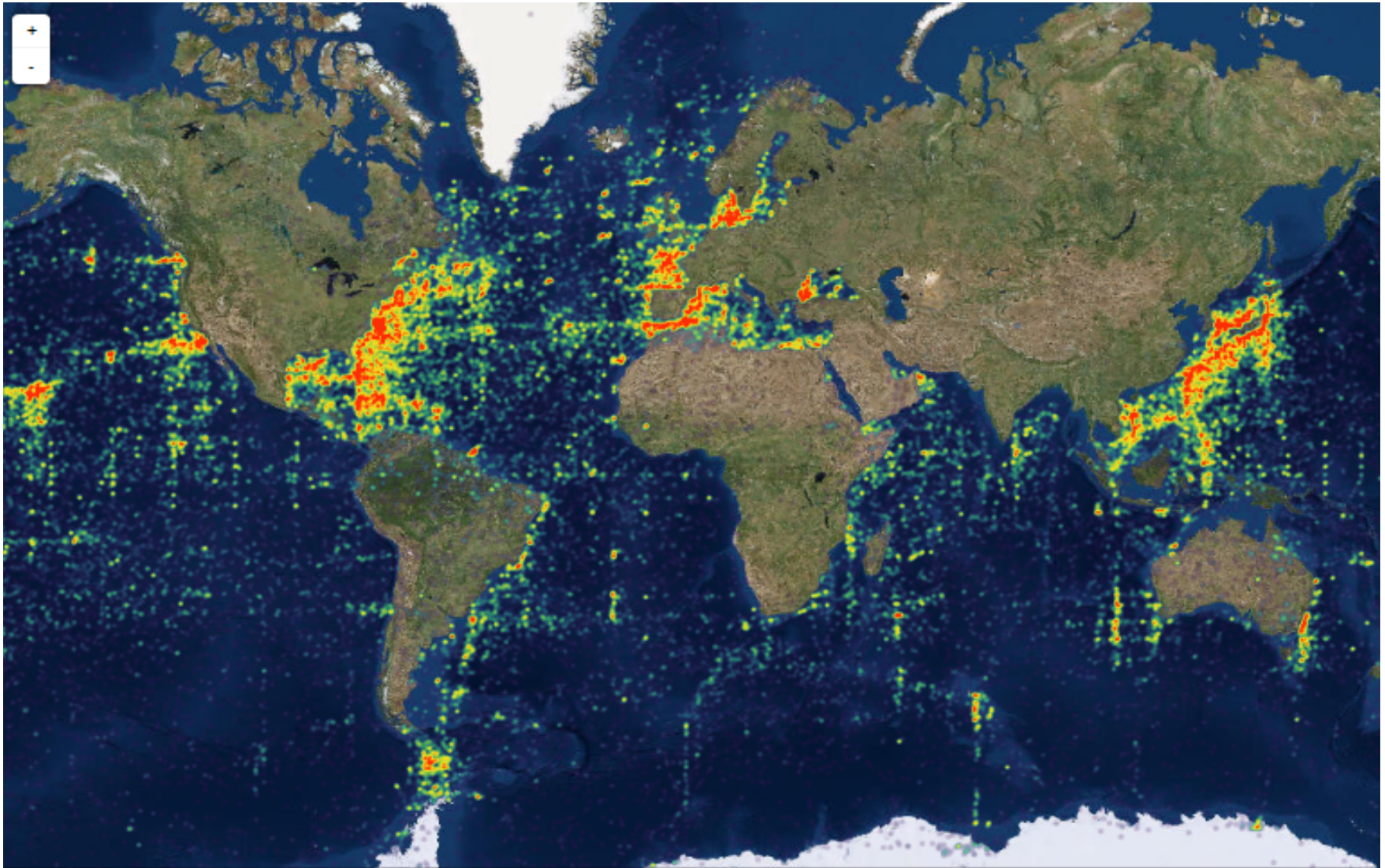
GOALS

Provide a global picture of the ocean state and
variability



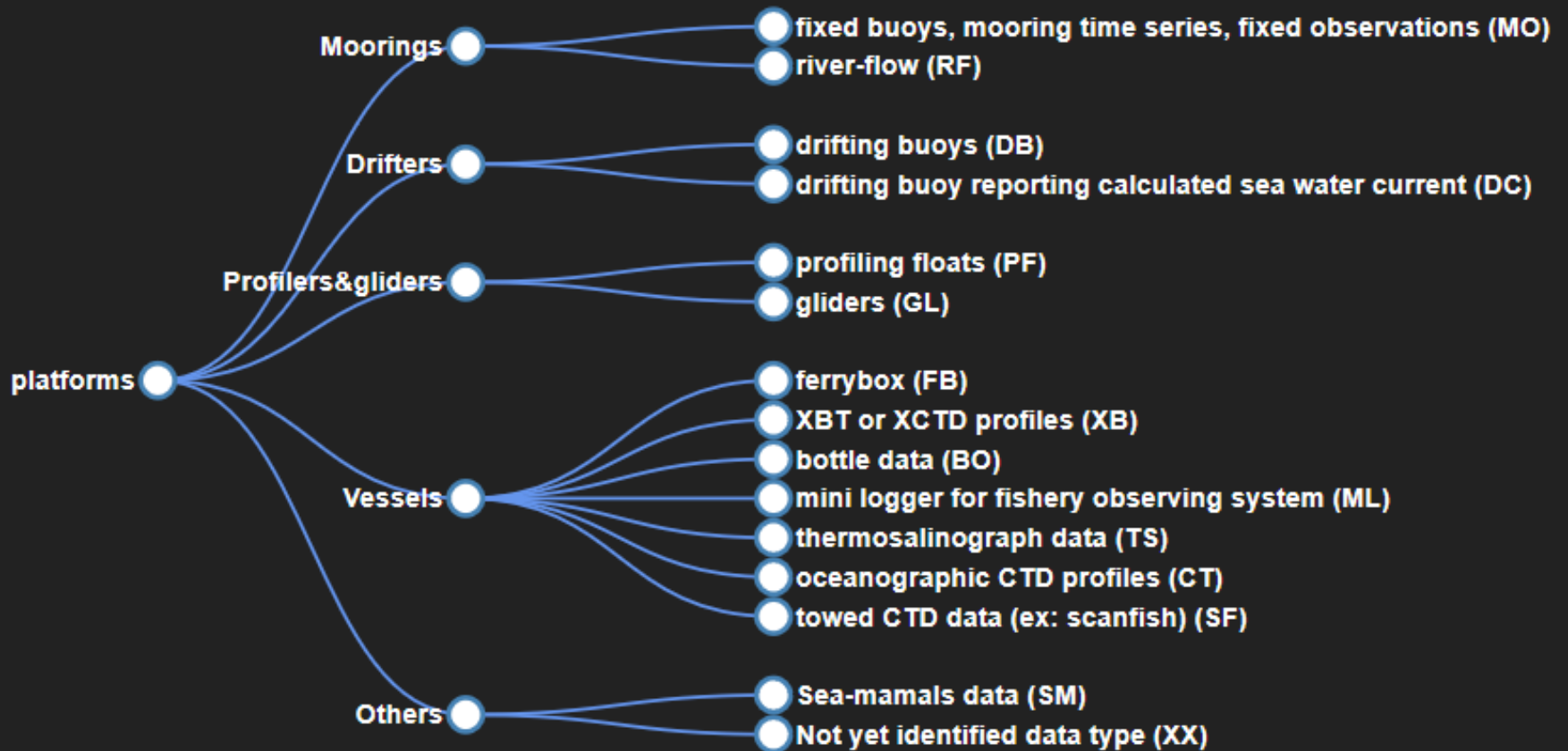
Integrating thousand of local data from on-site sensors
on board of a wide range of platforms.

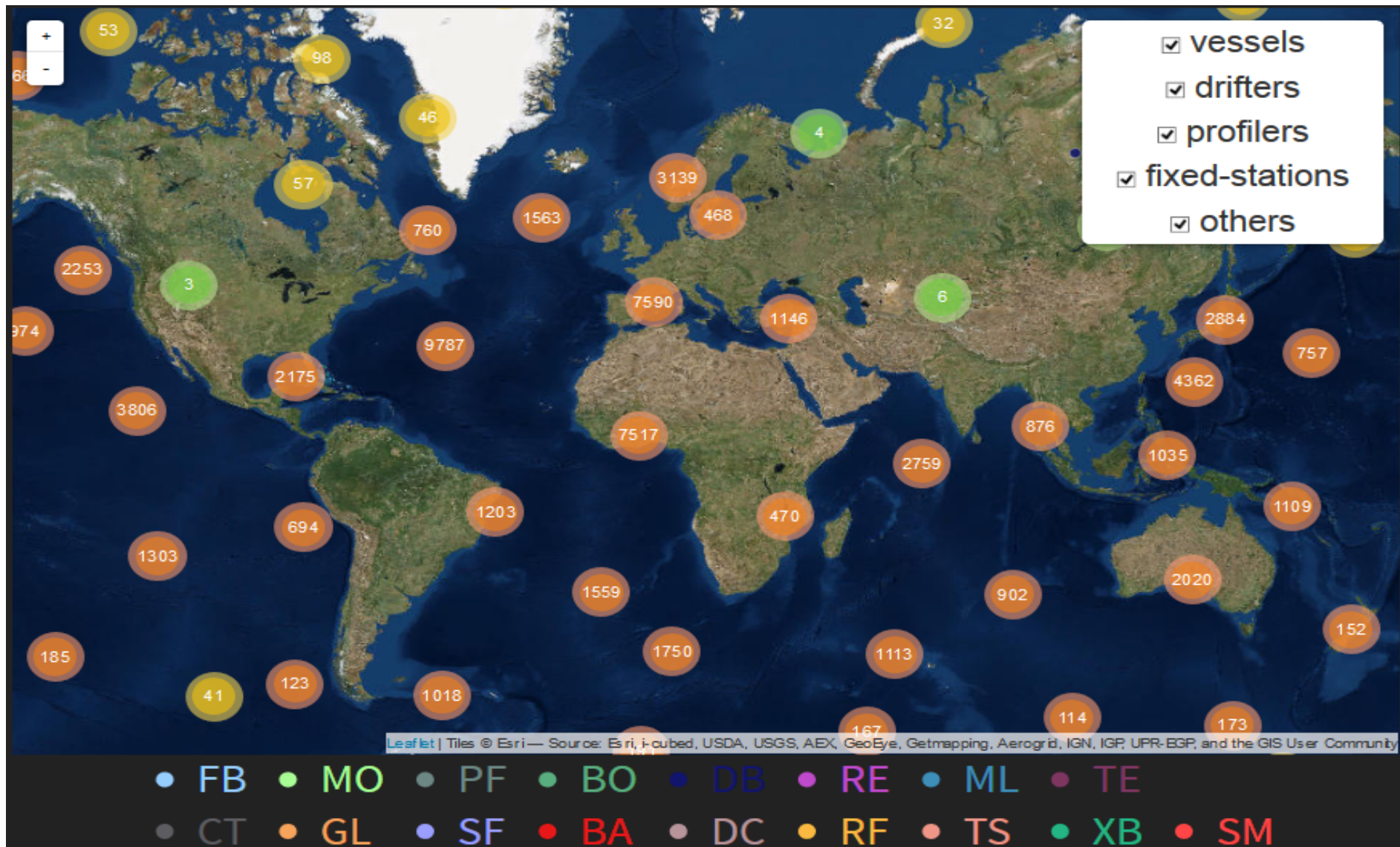
HISTORICAL PLATFORMS HEATMAP



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PLATFORMS





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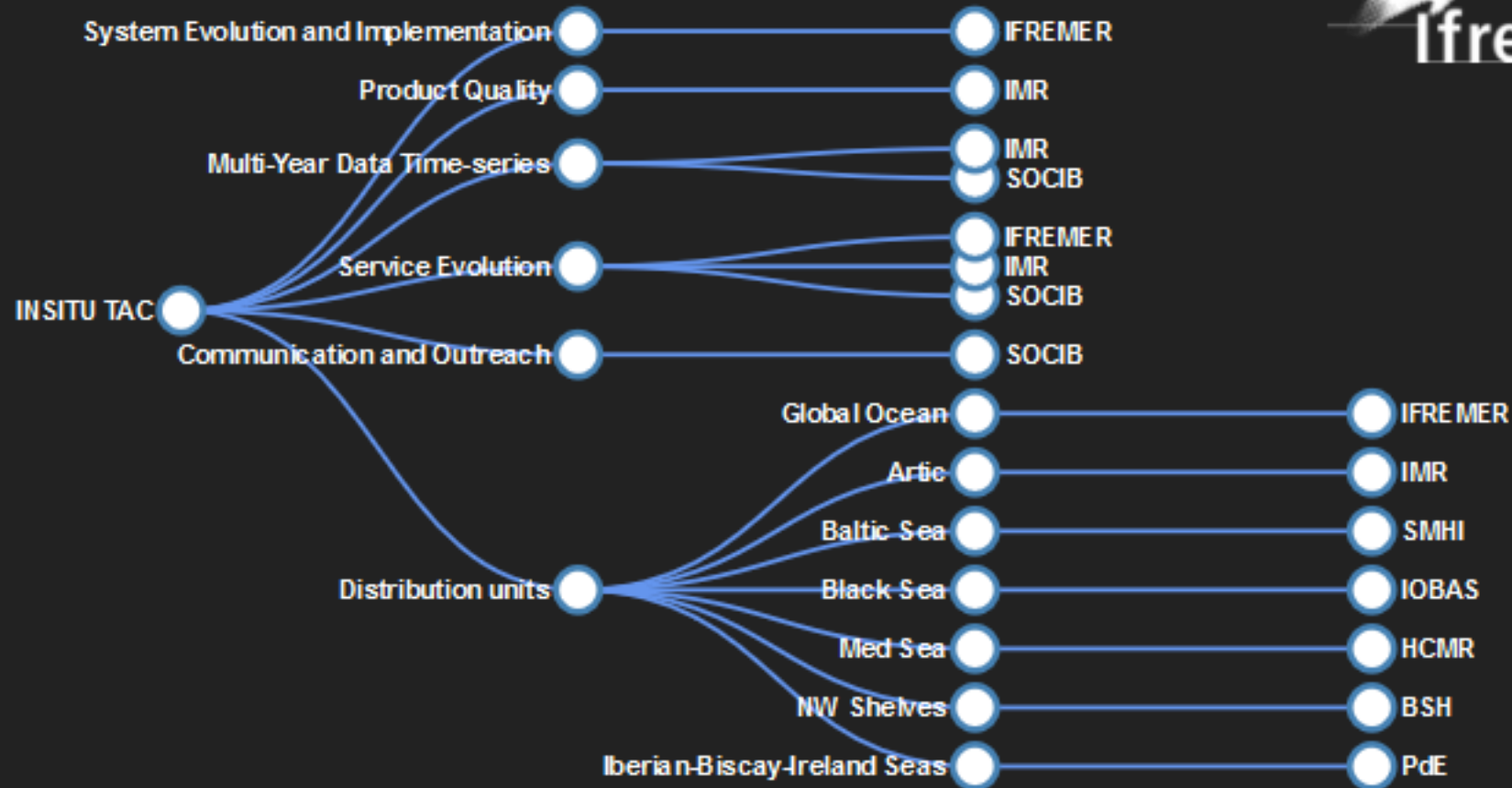
SCOPE



- Global
- + 6 regions:
- Arctic
- Baltic
- North West Shelves
- Iberia-Biscay-Ireland
- Mediterranean
- Black Sea

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PLAYERS



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COMMITMENTS

- same data format (netCDF
(<https://www.unidata.ucar.edu/software/netcdf/>) -
OceanSites 1.2)
- same data flagging convention
- same ftp structure
- same file naming convention

SAME DATA FORMAT

For each region, the In Situ Distribution Unit distributes all its data and metadata products in [NetCDF](#) files on an FTP server.

The data files format is an implementation of NetCDF [OceanSITES](#) format.

FLAGGING CONVENTION

NRT quality controls are available here

(<http://www.coriolis.eu.org/Documentation/Organizational>)

Quality control flag scale:

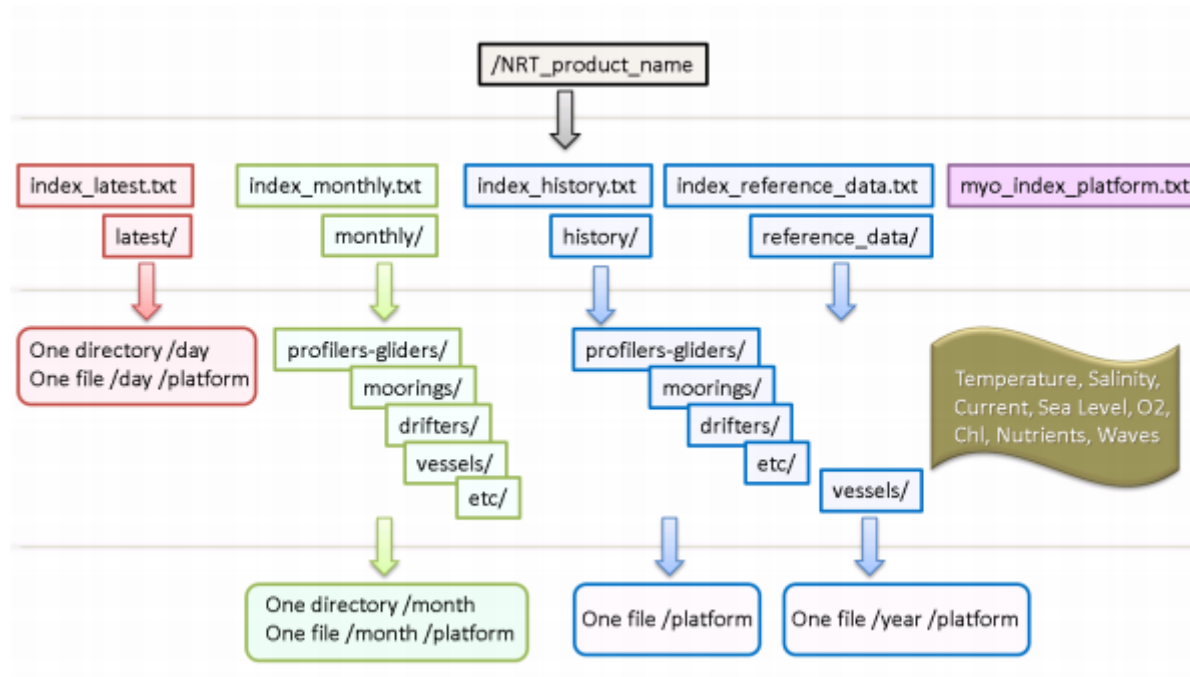
Code	Meaning	Comment
0	No QC performed	-
1	Good data	All real-time QC tests passed
2	Probably good data	-
3	Bad data that are potentially correctable	These data are not to be used without scientific correction

FLAGGING CONVENTION

Code	Meaning	Comment
4	Bad data	Data have failed one or more of the tests
5	Value changed	Data may be recovered after transmission error
6	Not used	-
7	Nominal value	Data were not observed but reported. Example: an instrument target depth
8	Interpolated value	Missing data may be interpolated from neighbouring data in space or time
9	Missing value	The value is missing, is not reported, is not applicable

SAME FTP STRUCTURE

Each DU distributes all its data and metadata products in NetCDF files on an FTP server sticking with the same structure:



SAME FILE NAMING CONVENTION

History

RR_XX_YY_CODE<_ZZZ>.nc

Monthly

RR_YYYYMM_XX_YY_CODE.nc

Latest

RR_LATEST_XX_YY_CODE_YYYYMMDD.nc

GL_TS_MO_15001_2010daily.nc

IR_200911_TS_DB_44607.nc

IR_LATEST_TS_DB_44607_20091117.nc

Common:

- RR: region bigram
- XX: TS (timeseries) or PR (profile)
- YY: data type
- CODE: platform code

Directory-dependent:

- Timestamp:
YYYYMMDD (latest)& YYYYMM (monthly)
- Fixed name: LATEST (latest)
- _ZZZ: optional subsetting code (history)

IN SITU TAC

DATA PRODUCTS

NORTH WEST SHELVES

ARTIC

BALTIC

IBERIA-BISCAY-IRELAND

BLACK SEA

MED

GLOBAL

GLOBAL

INSITU_GLO_NRT_OBSERVATIONS_013_030

INSITU_GLO_TS_REP_OBSERVATIONS_013_001_b

INSITU_GLO_TS_OA_NRT_OBSERVATIONS_013_002_a

INSITU_GLO_TS_OA_REP_OBSERVATIONS_013_002_b

INSITU_GLO_UV_L2_REP_OBSERVATIONS_013_044

GLOBAL_ANALYSIS_PHYS_001_020

GLOBAL_REP_PHY_001_021

IN SITU TAC

DATA ACCESS

1. GET GRANTED

user & password

(<http://marine.copernicus.eu/services-portfolio/register-now/>)

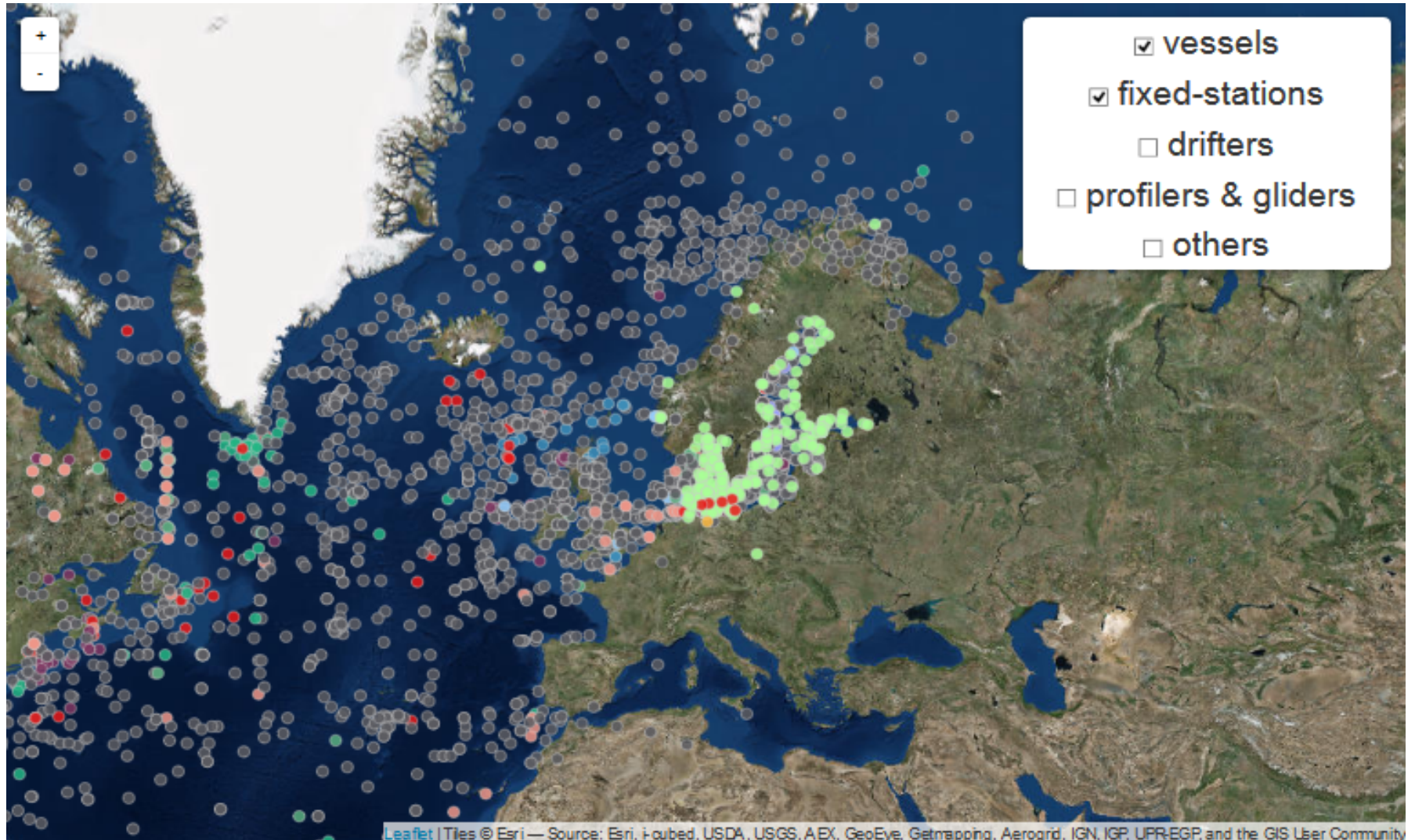
2. GET YOUR DATA

- **Interactive:** [CMEMS Web Portal - Example](#)
- **Non-interactive - Programmatically:**
 - Motu Web Server - [Requirements & Examples](#)
 - Index files - [NRT & REP examples](#)

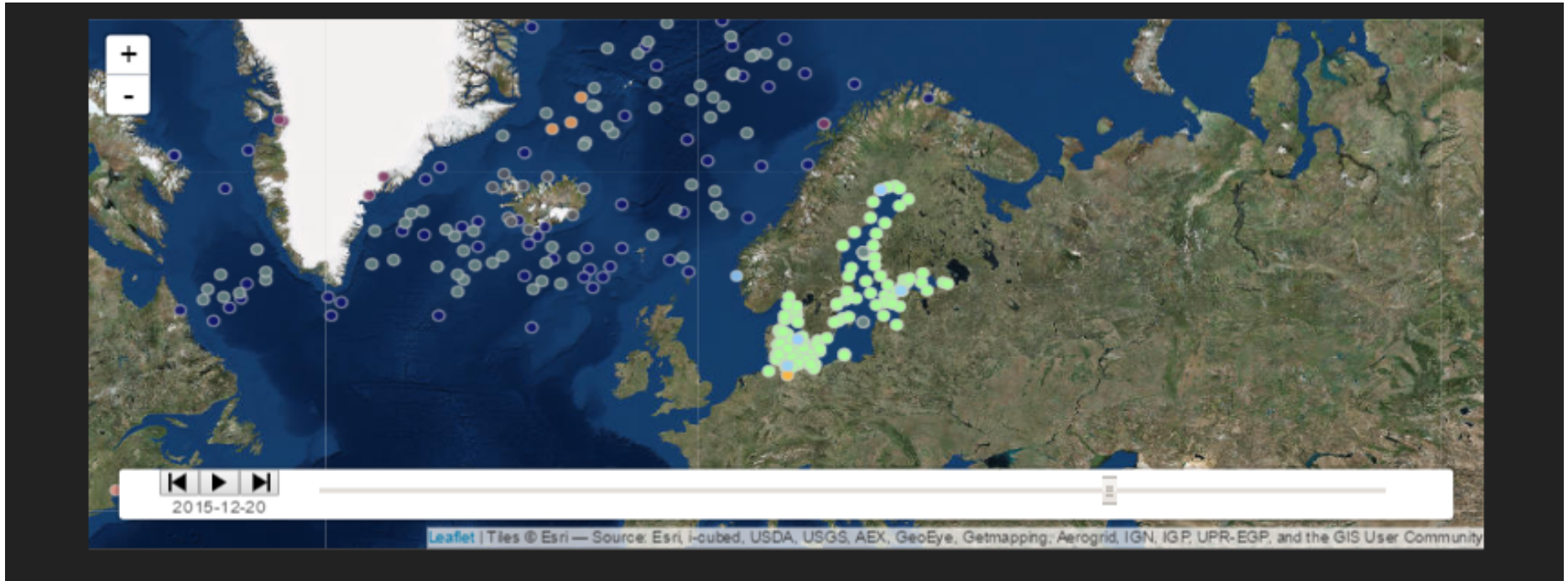
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ARTIC & BALTIC

HISTORICAL PLATFORM DISTRIBUTION



LAST 5 YEARS



Platform evolution

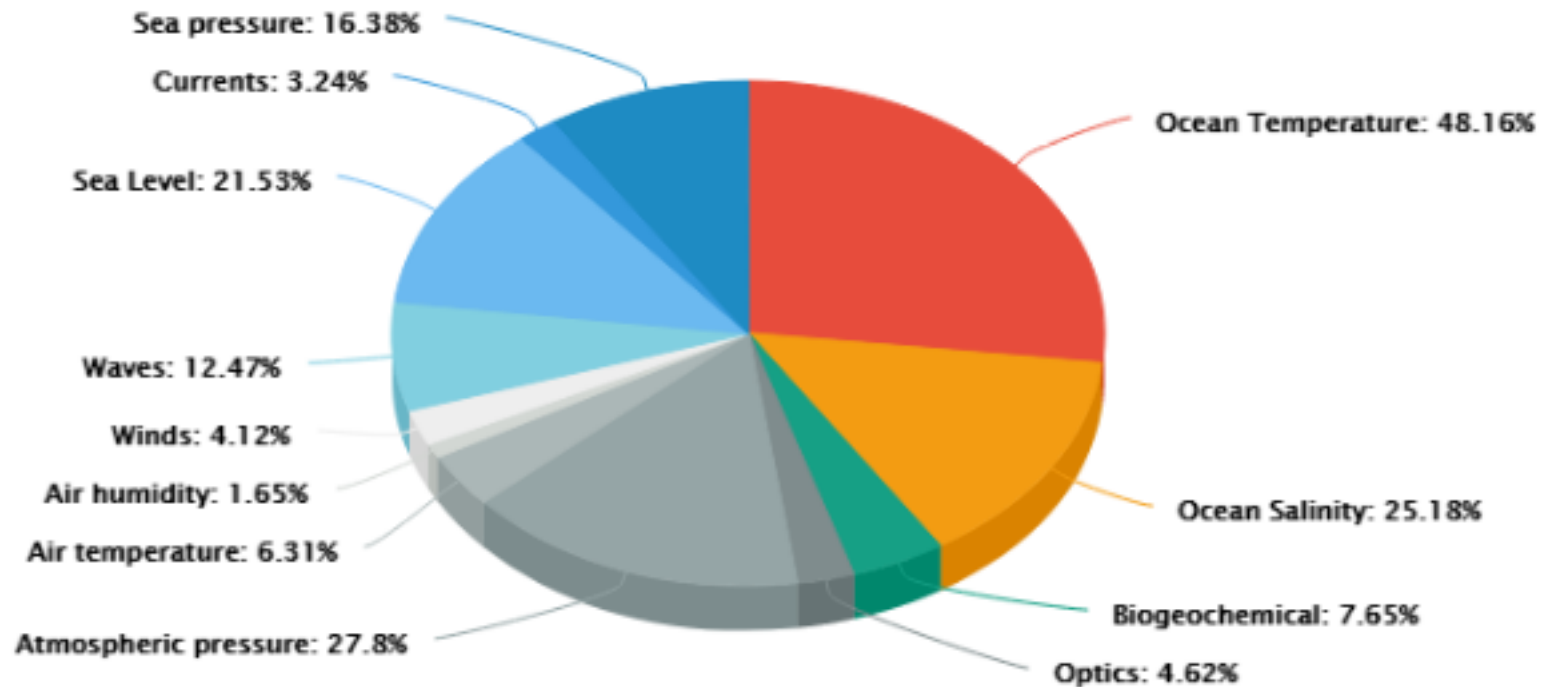
source: index_history.txt



LAST 5 YEARS

variables

Source: index_monthly.txt



TOMORROW:

DOWNSTREAM APPLICATIONS...

See you there!

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