

# EuroGOOS ROOS Chairs' reports

EuroGOOS General Assembly  
30-31 May 2023



**EuroGOOS**  
European Global Ocean  
Observing System



# ArcticROOS

EuroGOOS Arctic Regional  
Ocean Observing System



**ArcticROOS**

EuroGOOS Arctic Regional  
Ocean Observing System



**EuroGOOS**

European Global Ocean  
Observing System

# Arctic ROOS

EuroGOOS General Assembly  
30-31 May 2023

# Arctic ROOS updates

**Co-Chairs: Anna Nikolopoulos (NPI) and Vidar Lien (IMR)**

- Successful online workshop on opportunities and challenges for in-situ ocean observations in the Arctic
  - Four sessions with invited talks and fruitful discussions, over 100 participants
- Facilitated the initiation of an international Arctic GRA design Task Team
  - Roundtable discussions convened at the Arctic Science Summit Week 2023 in Vienna
- **Updated** MoU signed by members
- General Assembly 3-4 May 2023 in-person @DMI.dk
  - Update from partners and thematic discussions

## Planned activities

- ❖ Support the OceanPrediction Decade Collaboration Centre
  - Host joint ArcticROOS - OP DCC workshop in fall 2023
  - Arctic regional leader closely tied to ArcticROOS
  - Participation in Steering Group / Expert Groups for the OP DCC Arctic region
- ❖ Establish Task Team on in-situ sea ice observations
  - In-situ sea-ice observations currently lacking in Copernicus and EMODnet
- ❖ Lead the process of designing a framework for an Arctic GRA
  - Task Team ToR and 18-month timeline established (started April 2023)

# Task Team to Advance the Development of an Arctic GRA

**An international task team, initiated by Arctic ROOS, to work on a design for a potential future Arctic GOOS Regional Alliance**

**Co-Chairs:** Jari Haapala (FMI, Finland), Craig Lee (University of Washington, United States)

**Members:** Nicoletta Ademollo (CNR-ISP, Italy), Maurizio Azzaro (CNR-ISP, Italy), Manuel Bensi (OGS, Italy), Dominique Berod (WMO, Switzerland), Agnieszka Beszczynska-Moeller (IO PAN, Poland), Maria Teresa Bezem (UiB, Norway), Melissa Chierci (IMR, Norway), Cathy Coon (Department of Interior, United States), Maria Hood (MOi, France), Michael Karcher (AWI, Germany), Takashi Kikuchi (JAMSTEC, Japan), Vidar Lien (IMR, Norway), Inga Lips (EuroGOOS, Belgium), Molly McCammon (AOOS, United States), Anna Nikolopoulos (NPI, Norway) Joseph Nolan (EuroGOOS, Belgium), Steffen Olsen (DMI, Denmark), Nicholas Roden (NIVA, Norway), Hanne Sagen (NERSC, Norway), Stein Sandven (NERSC, Norway), Toste Tanhua (GEOMAR, Germany) Jeremy Wilkinson (BAS, United Kingdom), Eun Jin Yang (KOPRI, Republic of Korea)

## **Objectives:**

1. Lead the process to develop a proposal for a potential future Arctic GRA.
2. Ensure wide engagement of relevant rights holders and stakeholders in this process, including representatives of Arctic Indigenous and Local communities and organisations.
3. Prepare for the implementation of the proposed Arctic ocean observing alliance that includes equitable partnerships with Arctic Indigenous Peoples.

**The Task Team is initially proposed to last 18 months (April 2023 to October 2024).**

**First meeting held on 21st April 2023.**

**Task Team was presented to the GOOS SC in April 2023, with feedback to be addressed before formal endorsement possible as an Arctic Task Team.**

# Connections to EuroGOOS Strategy

## 1. Stimulate communities of practice

- Promote community measurements (citizens, fishermen, tourist ships, VOS)
- Enhance delivery of real-time observations to the EMODnet
- Co-develop products with users, for example enhance link to ice services
- Develop best practices to measure and share data in the polar environment

## 1. Advocate for coordinated and integrated European ocean observing and operational oceanography

- Establish workshops and seminars on topics related to the ArcticROOS
- Form partnerships with large EU projects
- Facilitate building of joint R&D projects
- Be active on providing feedback on upcoming calls

## Connections to EuroGOOS Strategy

### 3. Strengthen and expand partnerships

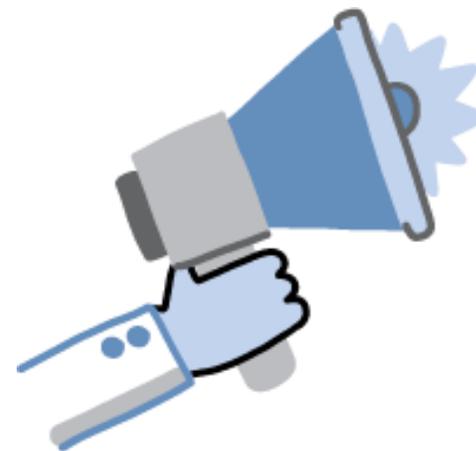
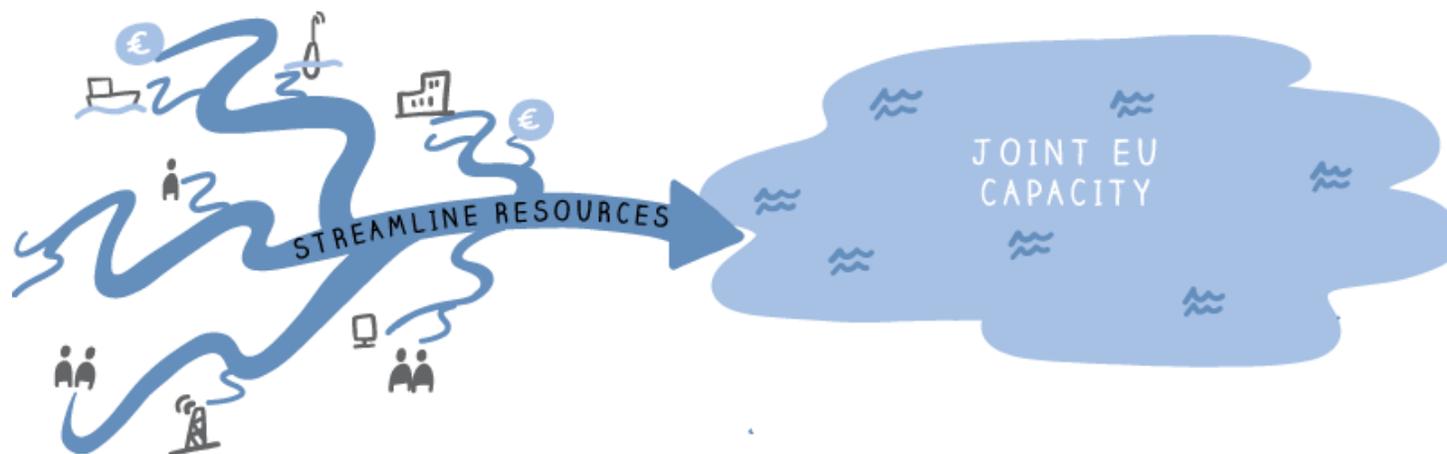
- Be active in developing of the ArcticGOOS (GRA)
- Keep a close dialogue with the AOOS, Canadian OOS, PAG etc. networks
- ArcticROOS members should be active in participation for developing the Atlantic-Arctic DBO (Distributed Biological Observatory) and other large international initiatives
- Expand activities to observe and model physics-biogeochemistry interactions

### 4. Promote sustainability across the value chain of operational oceanography and ocean observing

- Operational centres like met.no, DMI, FMI will implement new services in operational mode
- Impact and added value for clients of the pilot services should be assessed before implementing those in the Copernicus Marine Service
- Establish an observations system to combine in-situ and satellite data

### 5. Mobilise the public on the importance of the ocean and oceanographic services

- Provide information to the EuroGOOS office on the Arctic specific topics



**Co-Chairs:**

**Anna Nikolopoulos (NPI)**

[anna.nikolopoulos@npolar.no](mailto:anna.nikolopoulos@npolar.no)

**Vidar Lien (IMR)**

[vidar.lien@hi.no](mailto:vidar.lien@hi.no)



**EuroGOOS**  
European Global Ocean  
Observing System



# BOOS

EuroGOOS Baltic Regional  
Operational Oceanographic System

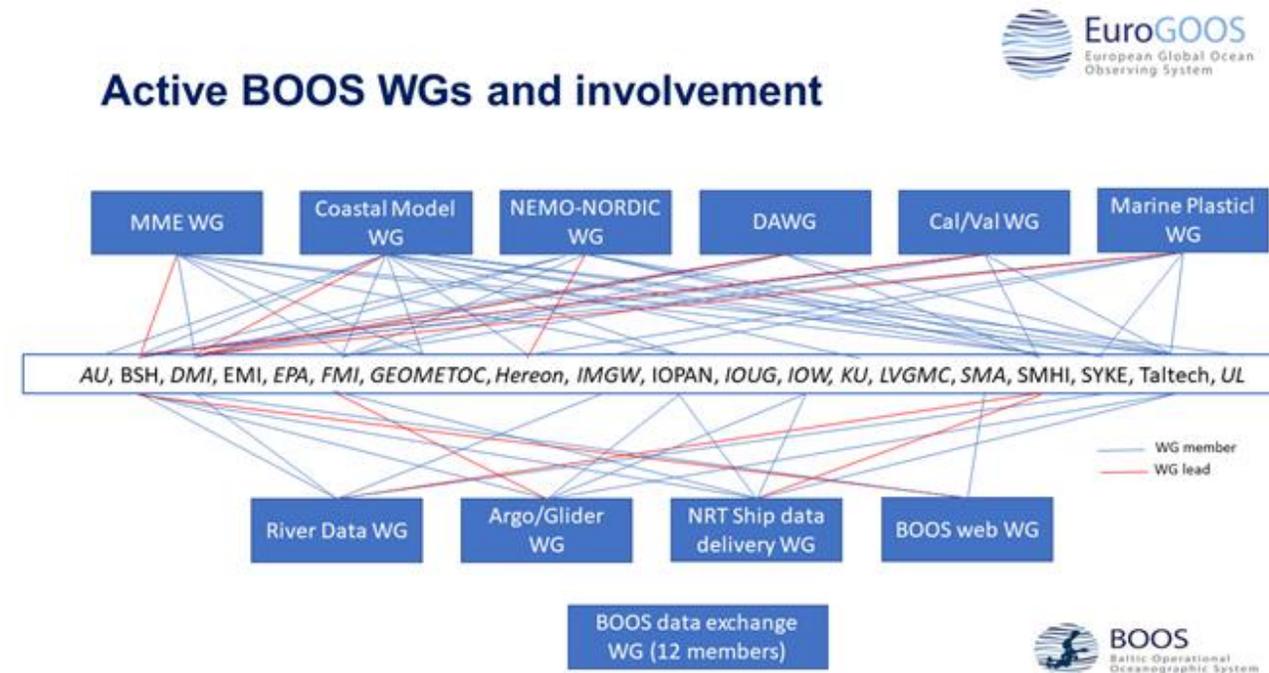
# BOOS activities in 2022/23 and plans for 2023/24

EuroGOOS General Assembly  
30-31 May 2023

*Jun She, Danish Meteorological Institute*

# On-going BOOS cooperation

- **Research projects:**
  - CMEMS: BALMFC, INSTAC, SST TAC, SI TAC, OCTAC
  - JERICO-S3: DMI, FMI, SMHI, SYKE, TalTech
  - EDITO/OLAMUR: AU, DMI, HEREON, EMI, KLU
- **BOOS Work Groups (12)**
- **Bi/multi-lateral cooperation, e.g.,**
  - DMI-BSH on marine climate service
  - IOPAN-EMI-...Remote sensing cooperation
- **Other cooperation:** HELCOM, CMEMS, EMODnet, EuroArgo,...



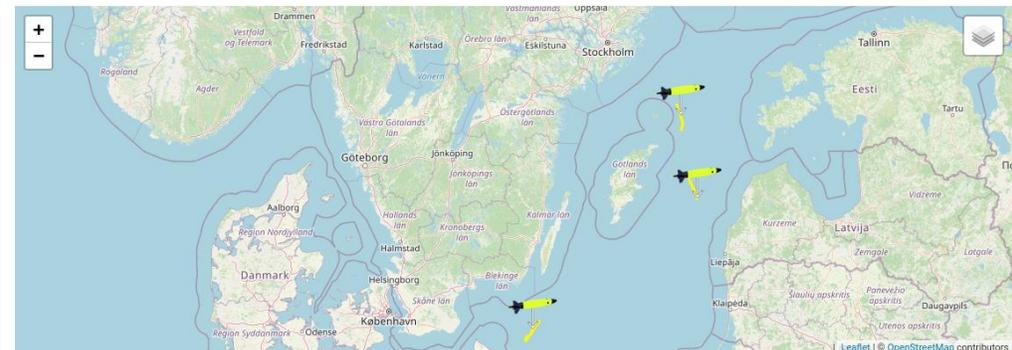
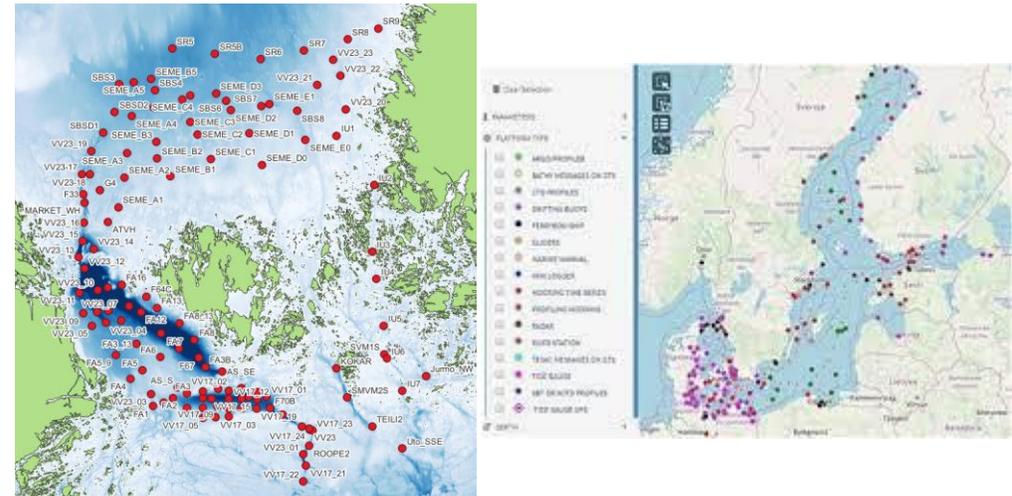
# Highlighted features of BOOS cooperation

- **Virtual code environment** (github, slack)
  - Data assimilation WG
  - NEMO-Nordic WG
  - Cal/Val WG
- **Real-time exchange** of observation and forecast, and **Multi-model ensemble** forecast: DataExWG, MME WG
- **BOOS-CMEMS** (BALMFC, INSTAC) cooperation
  - DA WG, NEMO WG, Cal/Val WG, MME WG, SHIP\_DWG
- **BOOS-EMODnet** cooperation: RiverDWG
- **New WGs** on Machine learning and Remote sensing were established
- **Observing:**
  - Private-public partnership: VOTO
  - Near Real Time ship data delivery
  - Shallow water Argo&gliders, bgc argo
- **Implementing seamless earth system approach**
  - Offshore farm impact-resolving modelling
  - Seamless modelling (riverine-estuarial-coastal-open sea, synoptic2climate, PHY2BIO)
  - Nature-based solution: AU, DMI, HEREON...
  - Towards Baltic Digital Twin: on-demand modelling, relocatable models, ML WG...
  - Optimizing in-situ observing system
- **National marine climate services:** BSH, DMI, UL...

# Argo & Glider WG

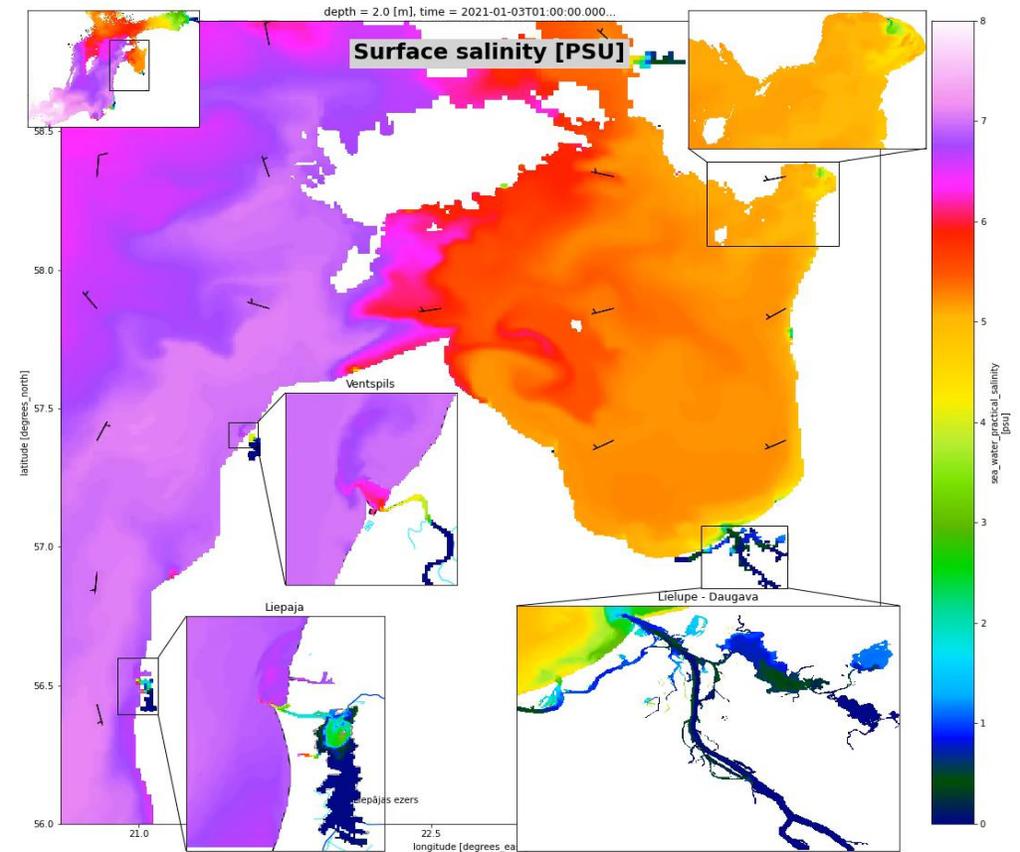
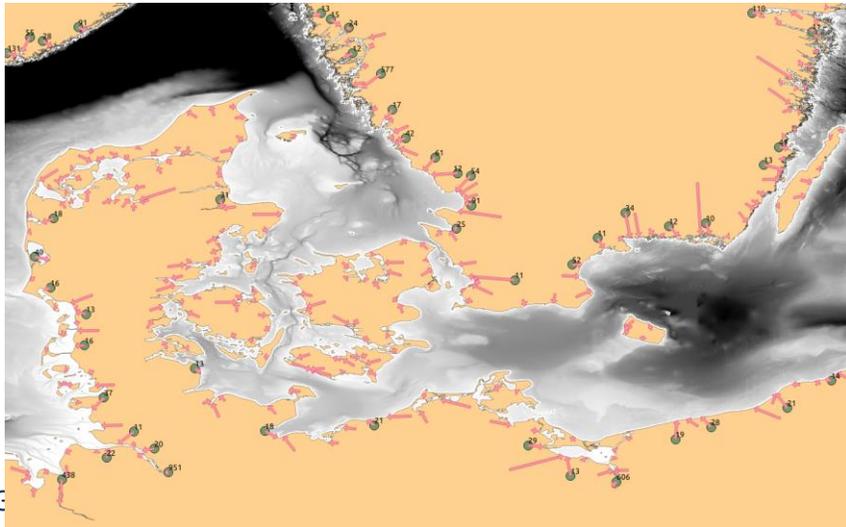
- **Collaborative activities:**
  - Deployments and recovery
  - Planning joint missions
  - Providing NRT glider data for users
  - Developing DMQC methods
  - Legal aspects - Deploying to or crossing EEZ
  - sharing best practices about operating in shallow and seasonally ice-covered areas
  - widening the user community
- **DMQC Workshop** May 2023, Sopot
- **Shallow water glider development**

BOOS-EuroArgo ERIC



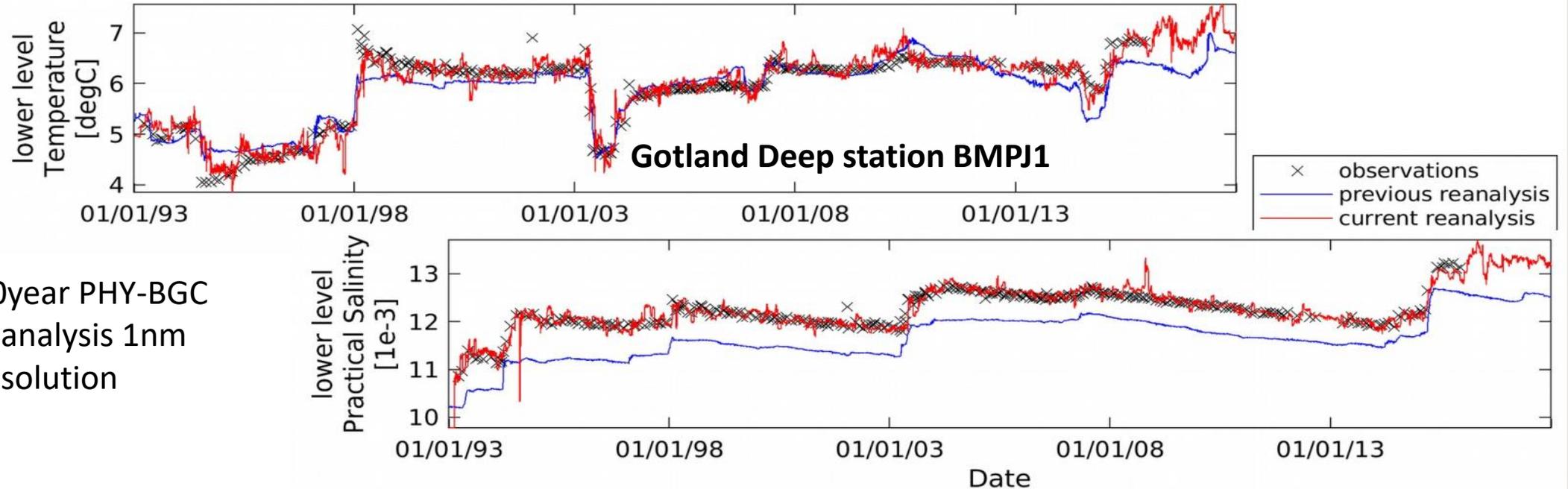
# Coastal-Estuary modelling WG

- **National systems**, DITO, Lighthouse, CMEMS coastal service
- **On-demand modelling** (open source, relocatable HBM, Auto-model configuration)
- **Seamless modelling**
- **Impact-resolving modelling**
- **CMWG Workshop 2022**



# Data assimilation WG

- **Virtual coding** environment
- Coupled data assimilation framework **PDAF-OMI** applied to NEMO-ERGOM
- **T/S and Sea ice DA** is operational
- A new 1nm resolution 30y PHY-BGC **reanalysis** was released
- **OSEs**: Argo/mooring/gliders data were assimilated in Interim reanalysis



30year PHY-BGC reanalysis 1nm resolution



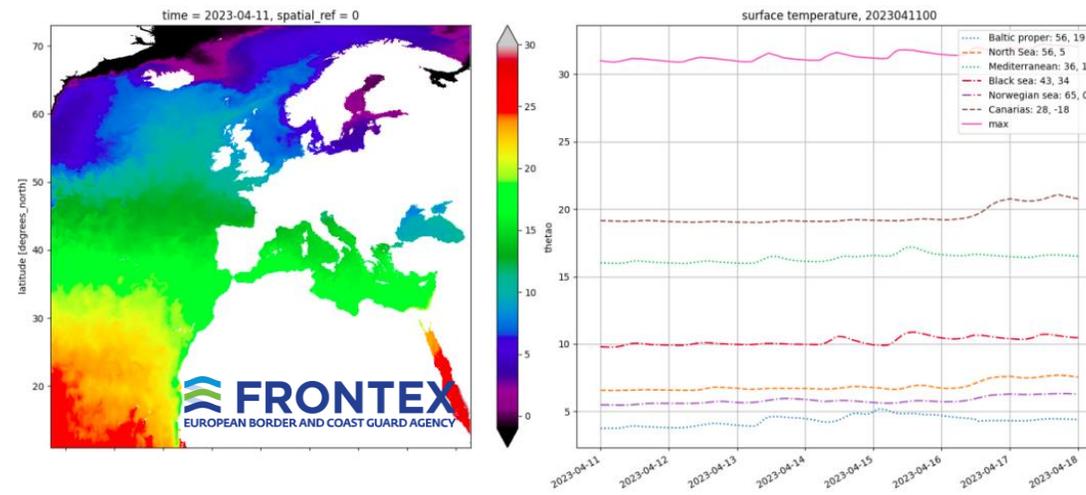
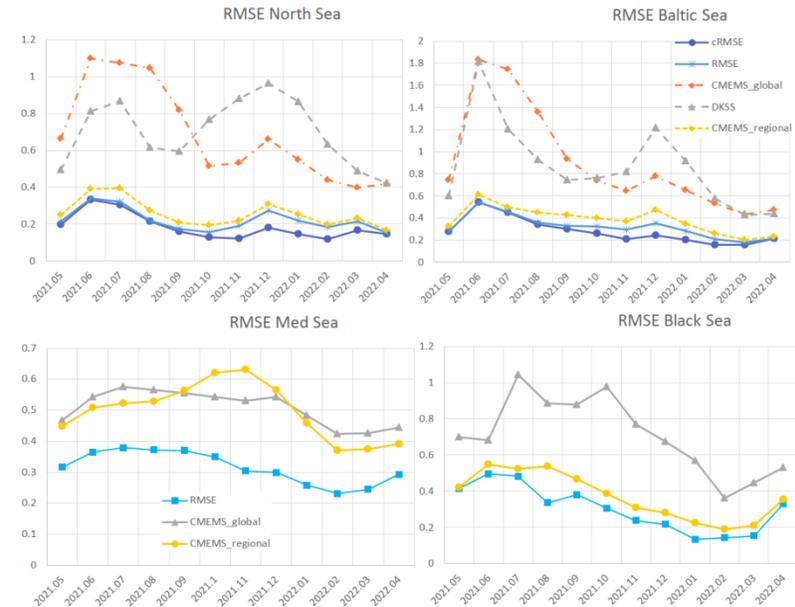
# Marine plastic WG

- Regular plastic monitoring cruises in IMWM, SYKE and TalTech; Involvement in MSFD, HELCOM, ICES Marine litter WG/TGs
  - Developing **new modelling capacities**: resuspension, Lagrangian modelling
  - Improving **MP automatic sampling** instruments (TalTech)
  - **MPWG Workshop 2022**
  - **Make joint publications**
- Publications
    - Christensen et al.(2023). Simulating transport and distribution of marine macro-plastic in the Baltic Sea. PloS one 18 (1), e0280644.
    - Frishfelds et al. (2022). Transport of Microplastics from the Daugava Estuary to the Open Sea. Front. Mar. Sci. 9:886775. doi: 10.3389/fmars.2022.886775
    - Mishra et al. (2022). Spatiotemporal Variability of Microplastics in the Eastern Baltic Sea. Frontiers in Marine Science, 9. DOI:10.3389/fmars.
    - Murawski et al. (2022). Modelling drift and fate of microplastics in the Baltic Sea. Front. Mar. Sci. 9:886295. doi:10.3389/fmars.2022.886295
    - She et al. (2022). Uncertainty and Consistency Assessment in Multiple Microplastic Observation Datasets in the Baltic Sea. Front. Mar. Sci. 9:886357.
    - She et al.(2023). Developing Realistic Models for Assessing Marine Plastic Pollution in Semi-Enclosed Seas. Oceanography. 36(1), p54-57.

# Multi-model Ensemble (MME) WG

- An aggregated MME forecast system for FRONTEX (DMI)
  - Method: weighted MME forecast
  - Coverage: European Seas
  - Input data: CMEMS global & regional forecasts, DMI & CMCC forecast (SST)
  - Operational service for FRONTEX
- Frishfelds et al. (2023). Aggregating Sea Surface Hydrodynamic Forecasts From Multi-Models for European Seas. TransNav, DOI: 10.12716/1001.16.

BOOS-NOOS, BOOS-BALMFC



# BOOS-EMODnet RiverData WG: Status

Country	Operational	Constraints
Denmark	✓	
Estonia	✗	NRT only water levels
Finland	✗	Support needed
Germany	✓	
Latvia	✗	Support needed (only images)
Lithuania	✗	Support needed (only images)
Norway	✓	
Poland	✓	Stations being currently added
Russia	✗	?
Sweden	✓	



# SHIP\_DWG: NRT data from CTD monitoring cruises

- SMHI has set up the collection and data management for receiving CTD-profiles in near real time
- Data are immediately fetched, QC'd and delivered to Copernicus Marine (in NRT) and hence EMODnet
- **Estonian** data are already connected (fully automatic to speed up the process), **Finland** has just started (May 2023) to deliver and others on the way (**Poland, Denmark, Germany...**)

**Start sending CTD-profiles from your cruises either in near real time (preferably) from the ship or in partly delayed mode from after the cruise to:**

<ftp.smhi.se>

Contact Johanna, [johanna.linders@smhi.se](mailto:johanna.linders@smhi.se), to set up a dedicated folder

# Machine learning in BOOS

- **Kraft et al. (2022, SYKE, FMI)** Towards operational phytoplankton recognition with automated high-throughput imaging, near-real-time data processing, and convolutional neural networks. *Front. Mar. Sci.* 9:867695. doi: 10.3389/fmars.2022.867695
- **Raudsepp and Maljutenko (TalTech, 2022)**: A method for assessment of the general circulation model quality using the K-means clustering algorithm: a case study with GETM v2.5, *GMD*, 15, 535–551.
- **Westerlund (FMI, 2023)**: A data-driven approach to rapidly estimate seasonal thermocline depth in the Northern Baltic Sea
- **Bellinghausen (Hereon, 2023)**: Short-term prediction of extreme sea-level at the Baltic Sea coast by Random Forests
- **Su (DMI, 2023)**: Predict the monthly mean sea level with different machine learning method
- **A new ML WG** was established in BOOS AM 2023, led by Jian Su, DMI.

Updated BOOS website: BOOS Working Groups  
(implemented by EuroGOOS)

<http://www.boos.org/working-groups/>

## New projects, proposals

- **EDITO Model\_Lab**: develop on-demand coastal models, DMI, HEREON
- **OLAMUR**: assessing impacts of co-located aquaculture and wind farms, AU, FMI, HEREON, EMI, KLU
- **BlueMissionBANOS** Supporting the Mission Ocean Lighthouse in the Baltic and North Sea: IOPAN...
- **NECCTON**: Developing next generation CMEMS ecological model, BSH
- **FOCCUS proposal**: CMEMS Coastal Service, HEREON, DMI

# Meetings

- DAWG/NEMOWG/Cal/valWG weekly meetings
- CMWG Workshop, Dec. 2022
- MPWG workshop, Dec. 2022
- Argo/Glider WG data quality control workshop, 3-4 May 2022
- BOOS-EMODnet River Data Workshop, 27 April 2023
- BOOS-EuroGOOS meeting on Web update
- BOOS WG cooperation meeting, 9 May 2023
- BOOS Scientific Workshop, 10 May 2023
- BOOS Annual Meeting, 14 December 2022
- BOOS Annual meeting, 11 May 2023



BOOS Scientific Workshop, 10 May 2023, FMI hybrid

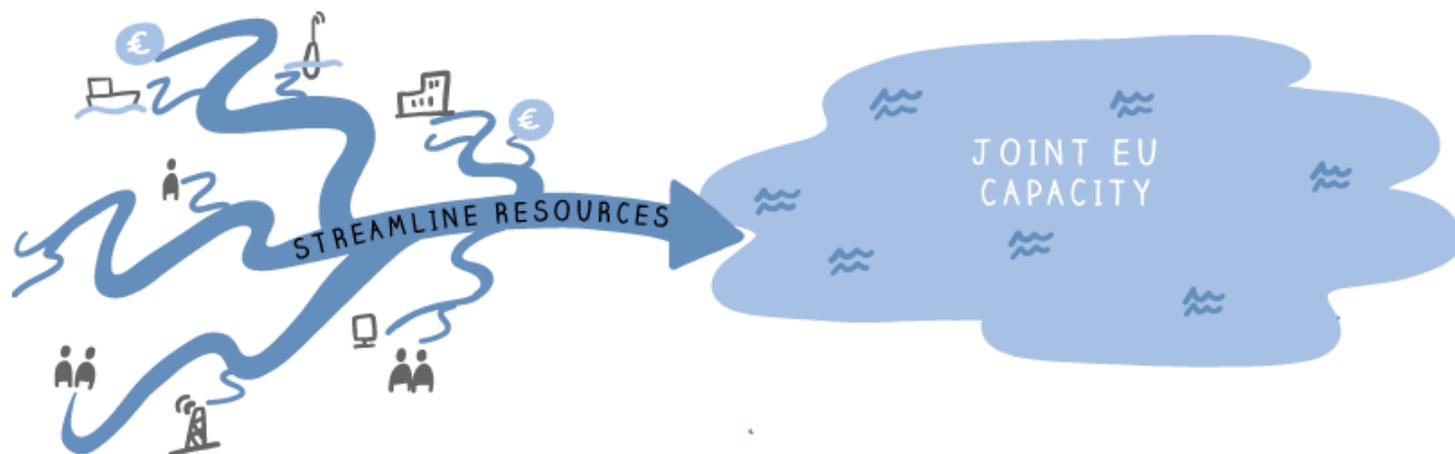
# BOOS 2023/24 plans & priorities

- **Observations:**
  - enhance interaction between BOOS-EMODnet on RiverData
  - enhance private-public monitoring: VOTO in OLAMUR & Argo/Glider WG
- **Data management**
  - Data QC for Argo/Glider WG
  - SHIP Data NRT delivery WG: to make it happen
- **Integrate model-observations**
  - demonstrate values and assess impacts of various ocean observing systems
- **Enhance cross-cutting cooperation**
  - BOOS relationship with national UNDOS Committee and regional UNDOS (BSSC)
  - BOOS interactions with EuroGOOS CoastalWG, SAWG
  - BOOS-BALMFC/INSTAC cooperation
- **Modelling**
  - Implement seamless earth system approach (on-demand, open source, relocatable, impact-resolving, seamless modelling, MME etc).
  - High resolution models for BSHC port service
- Strengthen research in emerging areas with new WGs, eg ML WG
- Extend BOOS cooperation in remote sensing area via a new RSWG
- Improve BOOS website, together with EuroGOOS



EuroGOOS

European Global Ocean  
Observing System



Jun She  
[js@dmi.dk](mailto:js@dmi.dk)



# IBIROOS

EuroGOOS Ireland Biscay Iberia  
Regional Operational Oceanographic System

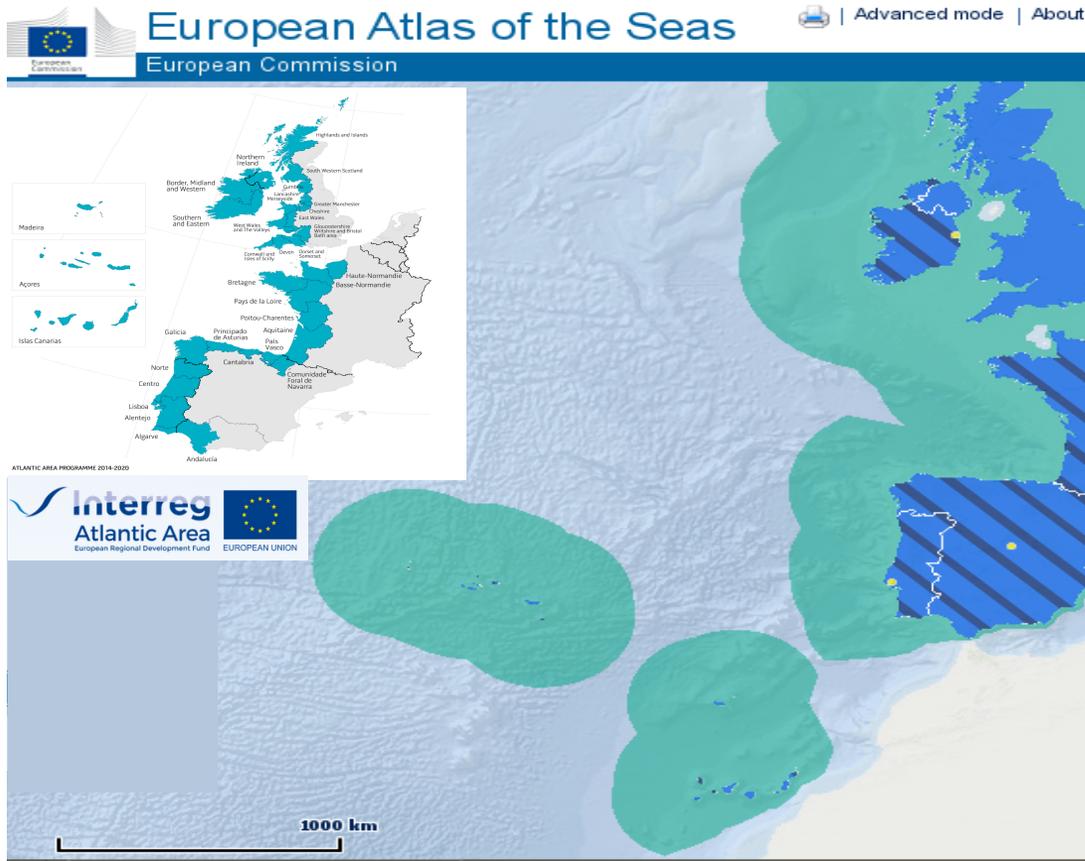


# IBIROOS



EuroGOOS General Assembly  
30-31 May 2022

# STRENGTHEN and expand partnerships



17 members, 5 countries (Portugal, Spain, France, Ireland, UK)

- Success in consolidating cooperation (Atlantic coastal observatories) extending IBIROOS activities to the Macaronesia (Canary, Azores and Madeira)
- Cooperation with UK institutes intensified and new observers
- We are preparing an updated MoU

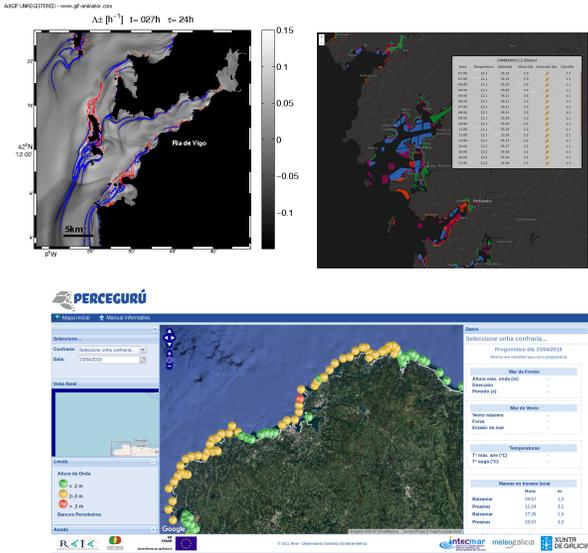
## Meetings

- 2019 IBI meeting in Plymouth (together with Mycoast meeting)
- 29 Nov-1 Dec 2022, Santiago de Compostela, IBIROOS Annual meeting together with MyCOAST
- 14-16 June 2023, Lisbon, IBIROOS Annual meeting together with MyCOAST meeting

IBIROOS showcases the impact of **regional cooperation** in maintenance and development of sustained observing systems and operational products in the **European Atlantic Area** (**shelf, slope, open ocean, islands**)

# STIMULATE communities of practices

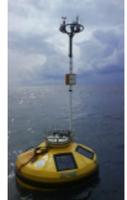
Review of existing tools for different coastal risks



Selection of MyCoast tools  
Co-design and Co-development

### Mycoast dataset harmonisation

**Mooring Platforms**



Outputs: Time Series

**Radar HF**



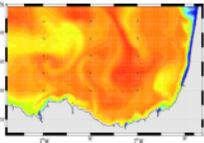
2D+1 Grids

**CTD Profiles**



Profiles

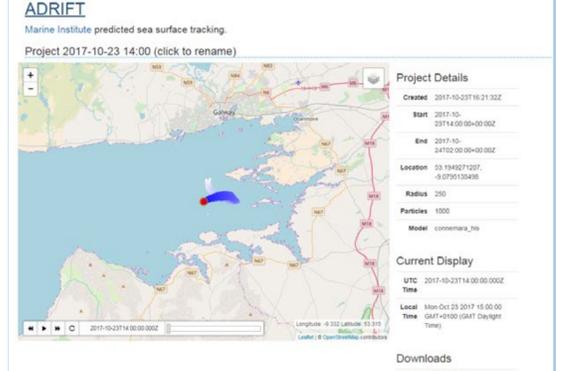
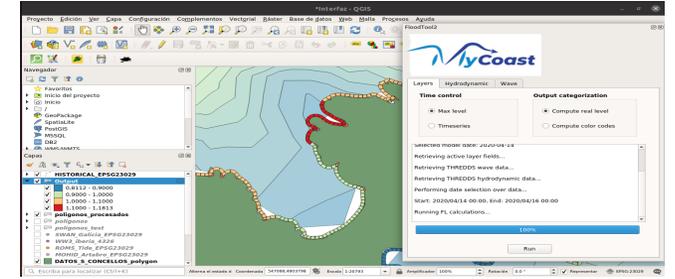
**Numerical Models**



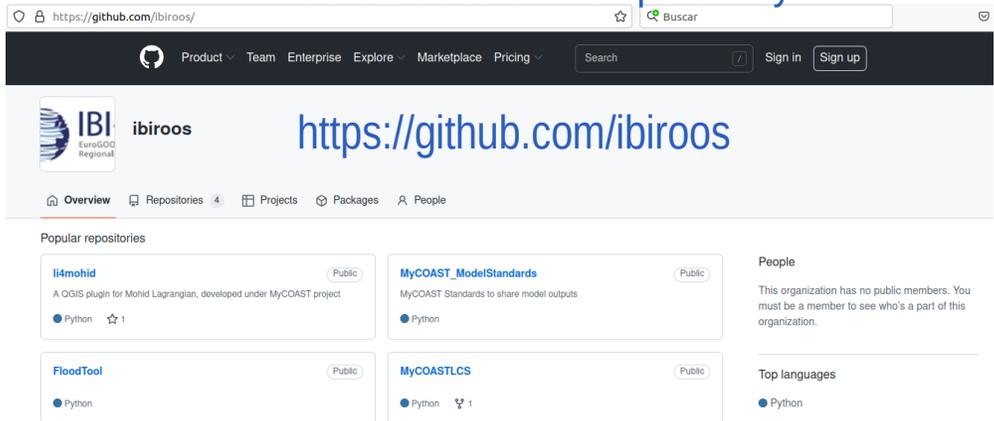
3D+1 Grids

Review standards ✓	Review standards ✓	Review standards ✓	Review standards ✓
Adopt standards ✓	Adopt standards ✓	Adopt standards ✓	Adopt standards ✓
Create tools ✓	Create tools ✓	Create tools ✓	Create tools ✓

Pilot demonstrations along the Atlantic Area  
Co-production. AA Capitalization call



## Standards and interoperability



The screenshot shows the GitHub repository for 'ibiroos'. The repository name is 'ibiros' and the URL is 'https://github.com/ibiroos'. It lists several popular repositories: 'li4mohid', 'MyCOAST\_ModelStandards', 'FloodTool', and 'MyCOASTLCS'. The 'MyCOAST\_ModelStandards' repository is highlighted, showing it is a Python-based project for sharing model outputs.

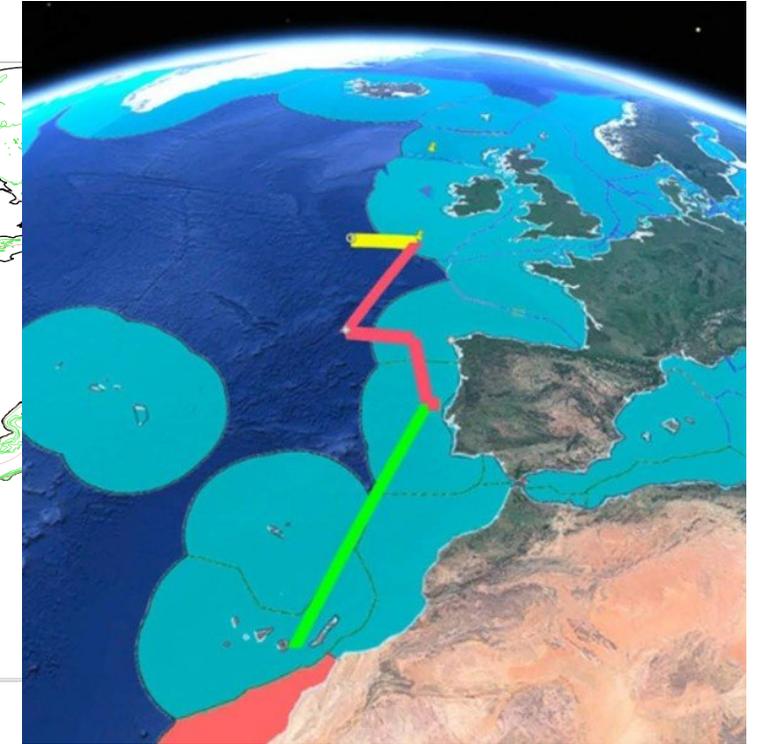
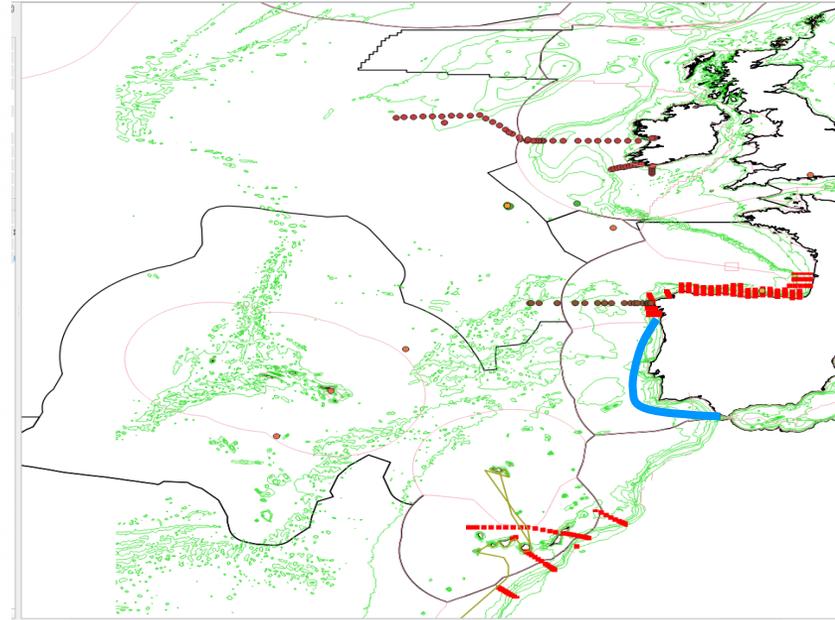


# Co-developed relocatable standardised tools for tackling coastal risks demonstrated along the Atlantic Area

Coastal Risk	MyCoast Tool	Models
Flood	Flood tool	ROMS (tide), SWAN (wave)
Pollution	MyCoastLCS	FVCOM, MOHID, ROMS, NEMO, TELEMAC
Search and rescue	ADRIFT	ROMS, FVCOM
HNS & OILSPILL Forecast	LI4MOHID	MOHID, FVCOM, NEMO, ROMS
Maritime safety tool	Weather Window tool	SWAN, WW3



# ADVOCATE for coordinated and integrated EU observing and operational system



Monitoring cruises  
MFSD implementation  
Offshore pelagic ecosystem  
Novel methodologies, SOPs, Best practises

iFADO Final Workshop  
1<sup>st</sup> June 2023  
[Register Here](#)

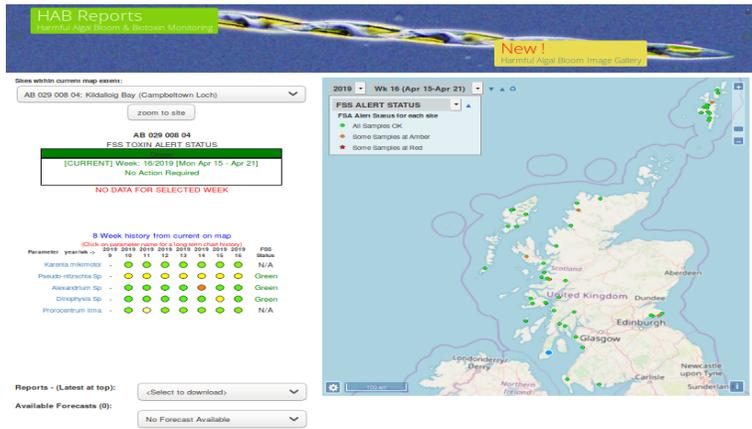


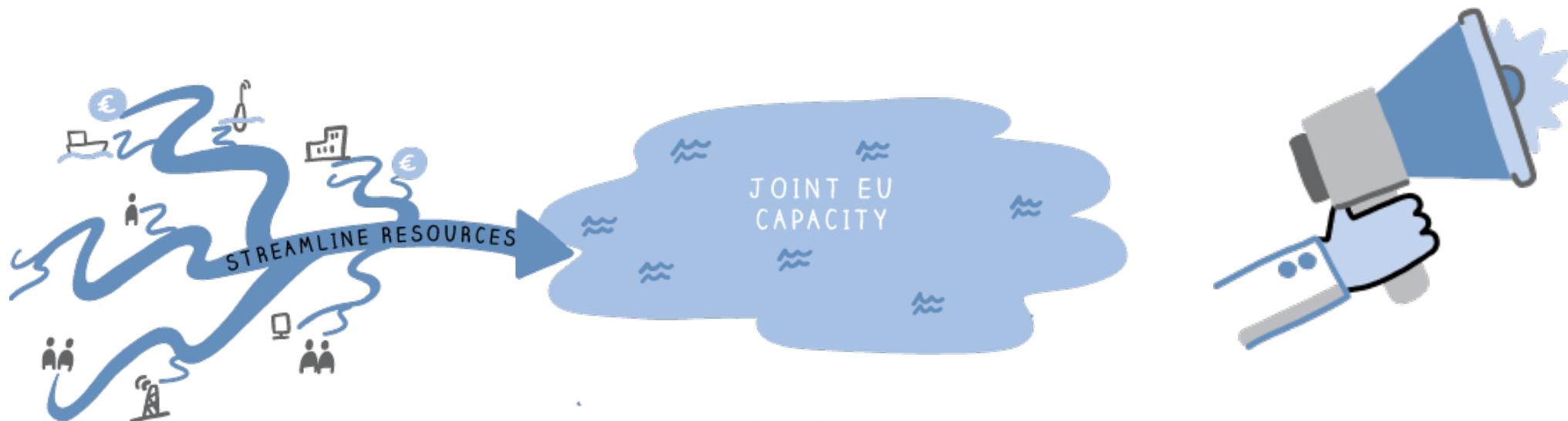
#PAAoramic Glider mission  
Winter-spring 2023: AA  
capitalization call

<https://www.ifado.eu/>

## PROMOTE sustainability across the value chain of operational oceanography and ocean observing

# STIMULATE communities of practices





Chairs:

Manuel Ruiz Villarreal (IEO-CSIC)

Julien Mader (AZTI)

[manuel.ruiz@ieo.csic.es](mailto:manuel.ruiz@ieo.csic.es)

[jmader@azti.es](mailto:jmader@azti.es)



**EuroGOOS**  
European Global Ocean  
Observing System



# MonGOOS



**EuroGOOS**  
European Global Ocean  
Observing System



**MonGOOS**

EuroGOOS General Assembly  
30-31 May 2023

# Strengthen and Stimulate collaborations



**34 partners** (48 partners before) have already signed the new MOA

From 12 countries:

Spain, France, Portugal, Italy, Greece, Slovenia, Croatia, Montenegro, Morocco, Israel, Cyprus and Malta.

- Egypt and Turkey have not sign the new MoA

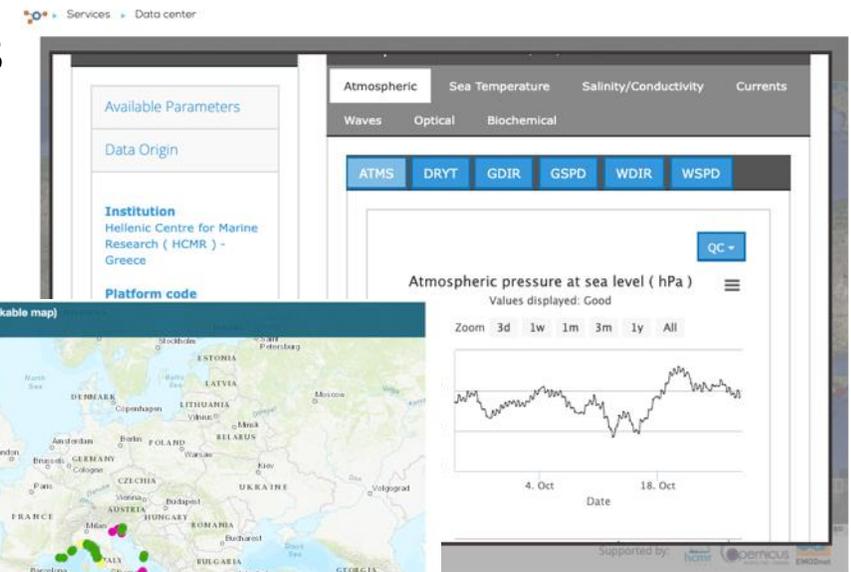


# Main Management Outcomes and Activities: Management Several Outcomes

Website update (@eurogoos.eu):

- ✓ update member's site information
- ✓ update the code of the database link
- ✓ New section and link to Repeated Mediterranean Cruises
- ✓ .....

Close collaboration with EuroGOOS



still to be done:

- ❖ data providers information

# Main Management Outcomes and Activities - Management

## New logo !!!!

Style Unification with other logos and ROOS

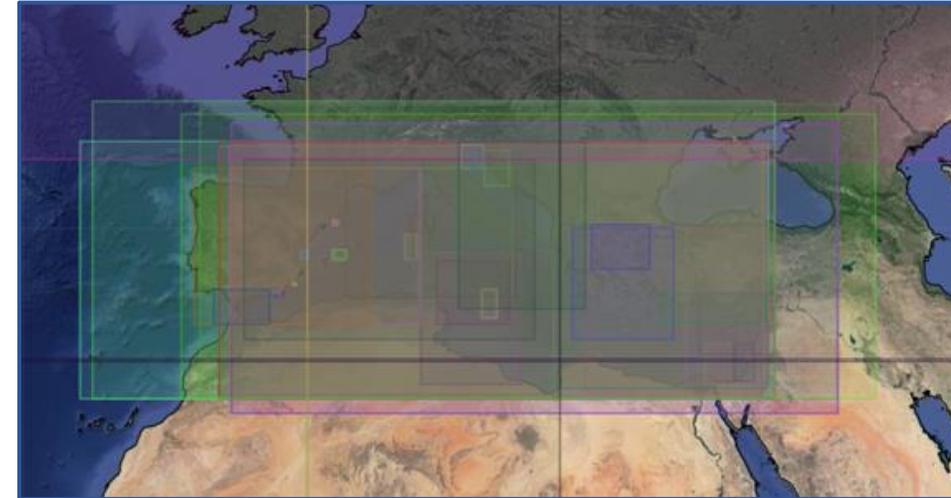


Mediterranean oceanographic network for the **Global Ocean Observing System**

# Main Management Outcomes and Activities - Modelling

## Collaboration with OceanPredict DCC

- ToR between MERCATOR /DCC and MonGOOS
- Contribution to the preparation of ATLAS together with MERCATOR
- Preparation of the first regional team meeting in the framework of the Ocean Predict DCC



## Update of the Modelling database ( working in progress)

- Collaboration with all the model providers in the Mediterranean Sea



**MERCATOR OCEAN INTERNATIONAL**

### Future community building tools

- Atlas of OOFs, persons and institutions (in close collaboration with MONGOOS modeling WG)
- Forum
- ETOofs guide Wiki

<https://www.mercator-ocean.eu/en/guide-etoofs/>

mercator-ocean.eu

## Meetings during the reporting period

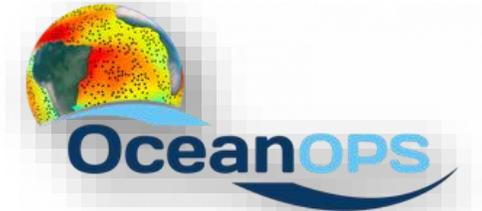
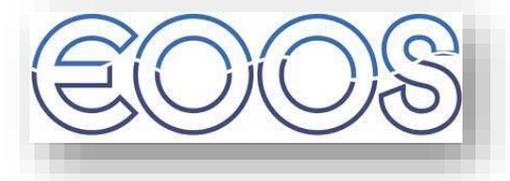
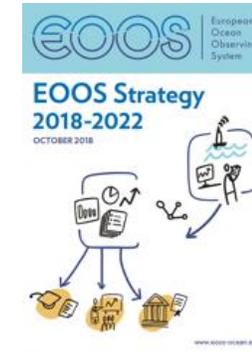
### Active participation in several meetings for the presentation of MonGOOS

- EGU Conference, 24 -28 April 2023
- EuroGOOS TT meeting 4-5 April 2023
- Global Regional Alliances (GRAs) Council Meetings: 14 February 2023, , 6 July 2022
- Chair session of the Mediterranean at the DCC launch event, 11 - 12 January 2023
- GRA Council on Observing Together, 21 November 2022
- Workshop on collaboration between GMES and Africa GOOS, October 2022
- Kick-off event for the SCINMEET Ocean Decade program for the Mediterranean region, July 2022
- SHAREMED Project Expert Meeting, 1 June 2022

# Main Management Outcomes (from the GA)

Being active as a community at ocean decade, and other future initiatives:

- *Sharemed Interreg project*
- *Ocean Predict DCC*
- *ScinMEET*
  - ...



- Strengthen the collaboration with OceanOps

Increase the dialog with EOOS at national and regional level and viceversa

Align at least part of the actions of the strategy plan between ROOS at regional level

Improve the connection with users and stakeholders

- Open Access – Need to brake barriers, especially with industry (To set up a system and afterwards look for users)
- Important to capitalize on projects (current + past)



# Synergies and Strengthening scientific collaboration among partners

## MonGOOS Extraordinary Assembly, 18 May, 2022

V. Cardin renewal mandate for 3 years (2022-2024) and election of new chair: Karim Hilmi



## WORKSHOP & GA

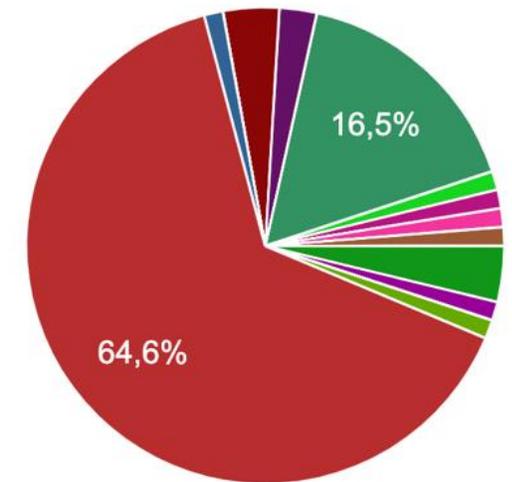
**Florence, 22-23/24 November 2022**

The importance of scales and uncertainties in ocean transport:  
Physical and biogeochemical interactions in the Mediterranean Sea  
Organized by LAMMA, OGS, CMCC, ISPRA

## EGU Session on:

Advances in understanding of the multi-scale and multi-disciplinary dynamics of the Southern European Seas (Mediterranean and Black Sea) - April 24– 28, 2023  
Conveners: V. Cardin, A. Capet, A. Orfila, K. Schroeder

12 Countries Participation  
43 Presentations (Oral + Poster)



35 Presentations (Oral + Poster)

# Main Gaps and bottlenecks

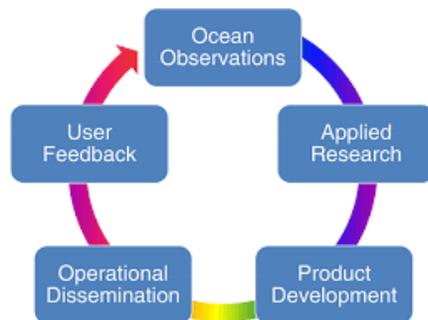
- ✓ To boost the participation of “sleeping partners”



- ✓ Communication between partners and within their institutions & dissemination of information
- ✓ Communication with stakeholders is generally lacking

- ✓ Consolidate MONGOOS presence on EuroGOOS Board; encourage participation of "ambassadors" at WG and TT

Voluntary Participation



Nimit, K. (2021)

- ✓ Appointment of WG chairs to promote all activities  
(new chairs might restart this activity)

# Main Gaps and bottlenecks

- Gap between EU and non-EU countries in terms of data density, policy and availability
- Not enough biogeochemical observations
- Almost no data close to river mouths (runoff, but also salinity and nutrients) – collaboration with DANUBIUS ERIC
- Need of observational data (specific campaigns) at straits
- Existing network mainly funded by national research funds and long term in situ observations is at a risk
- International collaborative framework exists but coordination and synergies must be strengthened
- Communities are too much disconnected

Nimit, K. (2021)

# Main priority areas (2023-2024)

## Cooperation

- Update information on forecast models within MonGOOS (website) according to the results of ATLAS (IT web-tool developed by MERCATOR)
- Start building future participation in the Regional Focal Point for the Mediterranean and Black Seas - Coastal Predict
- Start of cooperation with INFO /RAC, PlanBleu
- Preparation of a joint paper describing the modeling capabilities of MonGOOS (Mediterranean Sea)
- Knowledge exchange between Europe and Africa --[?] Seamless Horizon 2020 project - Mediterranean Sea products
- Connection with EuroGO- SHIP - Participation in Euroship annual meeting,

## Science based:

- Further advances in scientific understanding → Transmed ship cruise proposal
- Promote visibility and recognition of services
- Improving the usability of data

## Management: MonGOOS DataBase

- Inventory of Oceanographic platforms
- Enhancing the Collaboration with EuroGOOS - Ambassadors

# Next planned meetings (2023-2024)

➤ **June 2023** - First Regional Team Meeting in the framework

➤ **MonGOOS Workshop and GA**

When ? -----> November 14 – 16,

Where? Tangier, Morocco

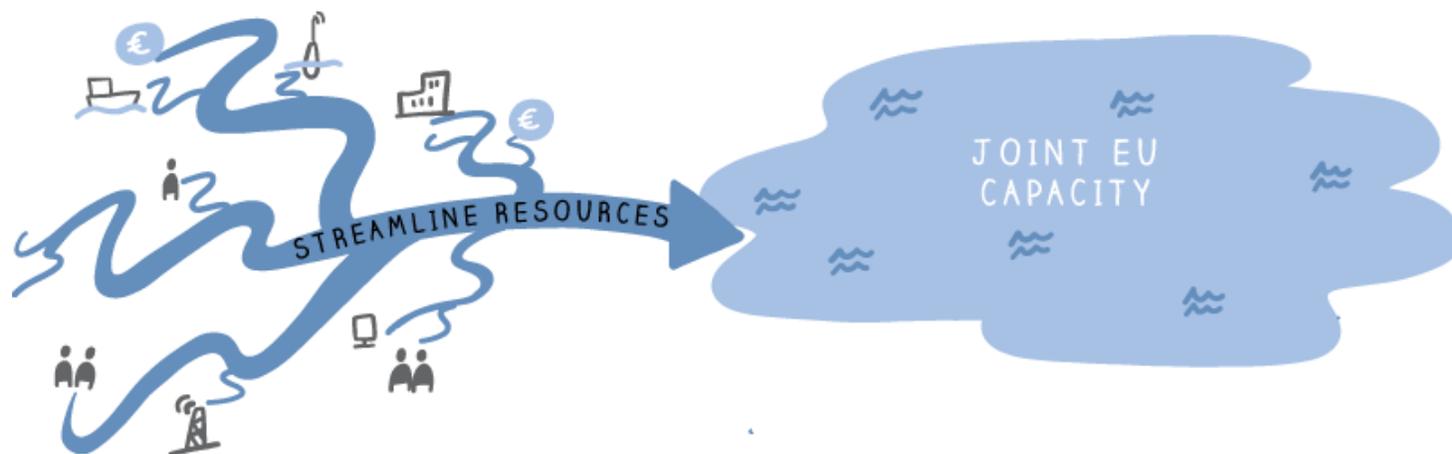


Hosted by the Université Abdelmalek Essaadi

First time in an African Med Country since MonGOOS was established

Dedicated session to present the Mediterranean activities in the framework of DCC

Applied session (hands-on) to apply products developed in the SeamLESS project



Vanessa Cardin Chair,  
Karim Hilm co-chair

[vcardin@ogs.it](mailto:vcardin@ogs.it)



# NOOS

EuroGOOS North West European Shelf  
Operational Oceanographic System



# NOOS

EuroGOOS General Assembly  
30-31 May 2023

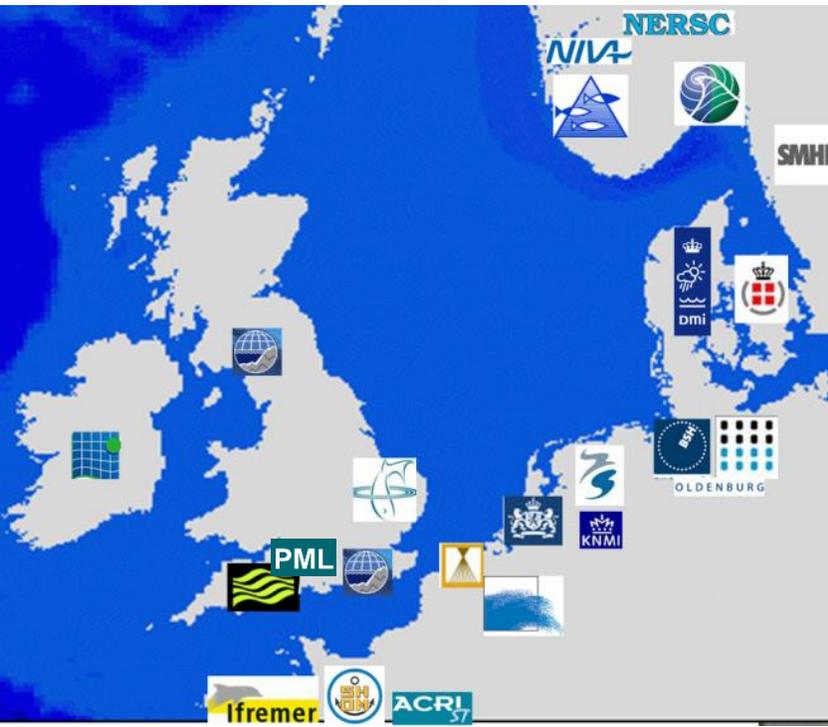
# NOOS: a ROOS, a network of Institutes & a network of people!



**EuroGOOS**  
European Global Ocean  
Observing System

NOOS is a network of 23 governmental agencies and research institutions

- From the 9 countries bordering the NWS
- Active in operational oceanography
- **Willing to operate real-time operational data, products and services**
- For the whole NWS and its Atlantic margin





# NOOS

EuroGOOS North West European Shelf  
Operational Oceanographic System

## 20+ years of active in-kind collaborations

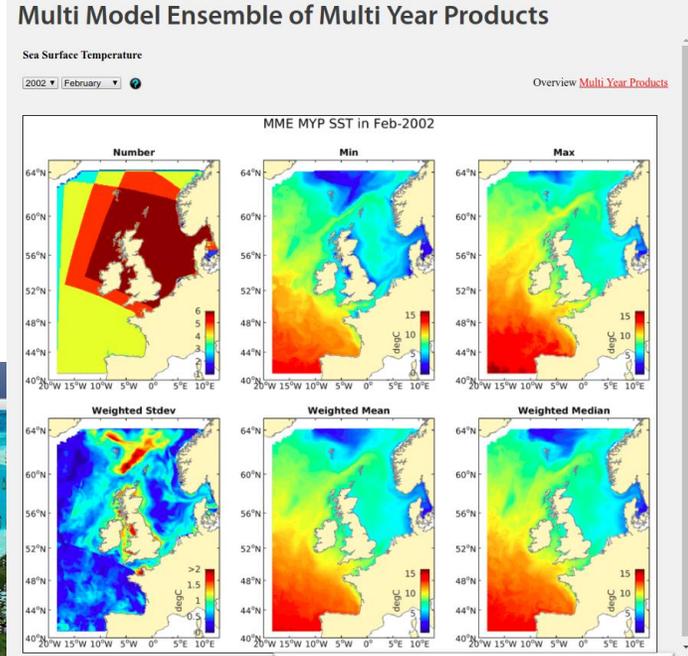
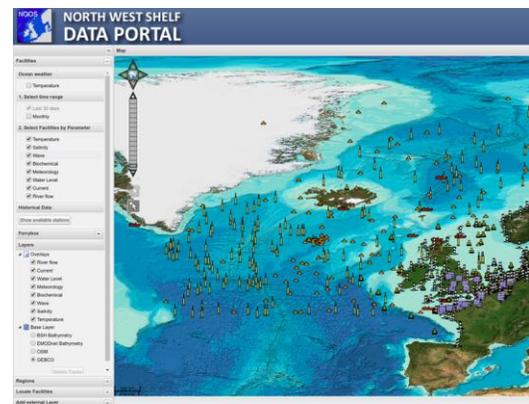
## Sharing inspiring ideas & innovation

## Co-producing community services

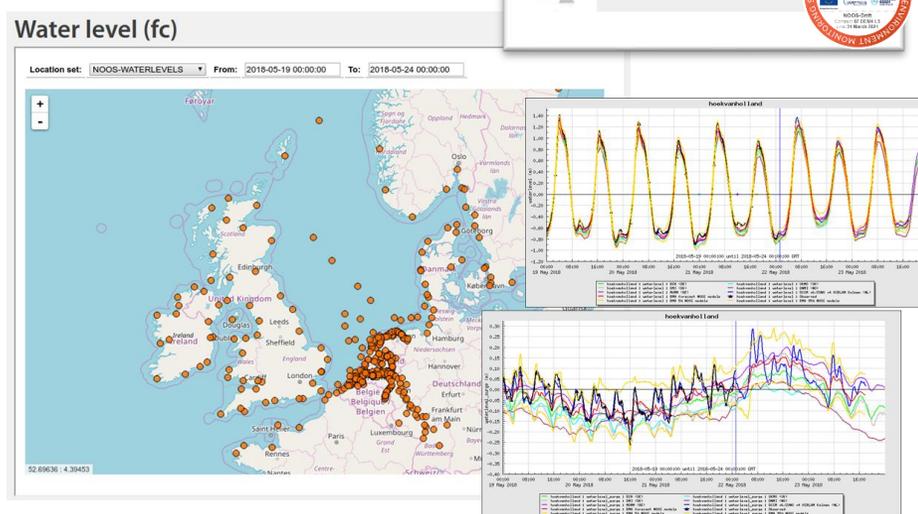
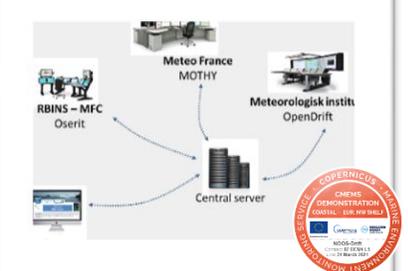
- Data portal,
- Storm surge & waves BMA forecast
- Multi-models ensemble forecast & reanalysis
- NOOS-Drift, a multi-models ensemble system to assess and improve drift forecast accuracy

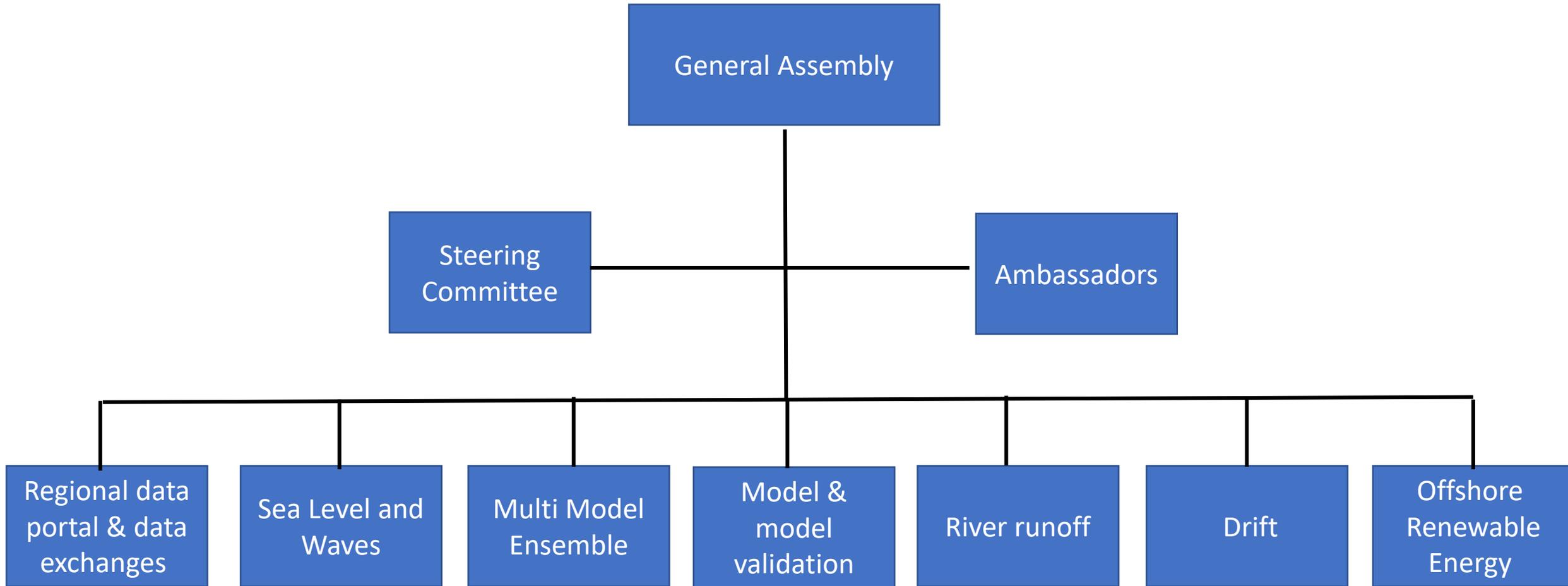
## Contributing to pan European structuring initiatives

[CMEMS, Copernicus Coastal Service, JERICO, EMODNET, EOO, CoastPredict, Green Deal...]



Back office work to





<http://noos.eurogoos.eu/>

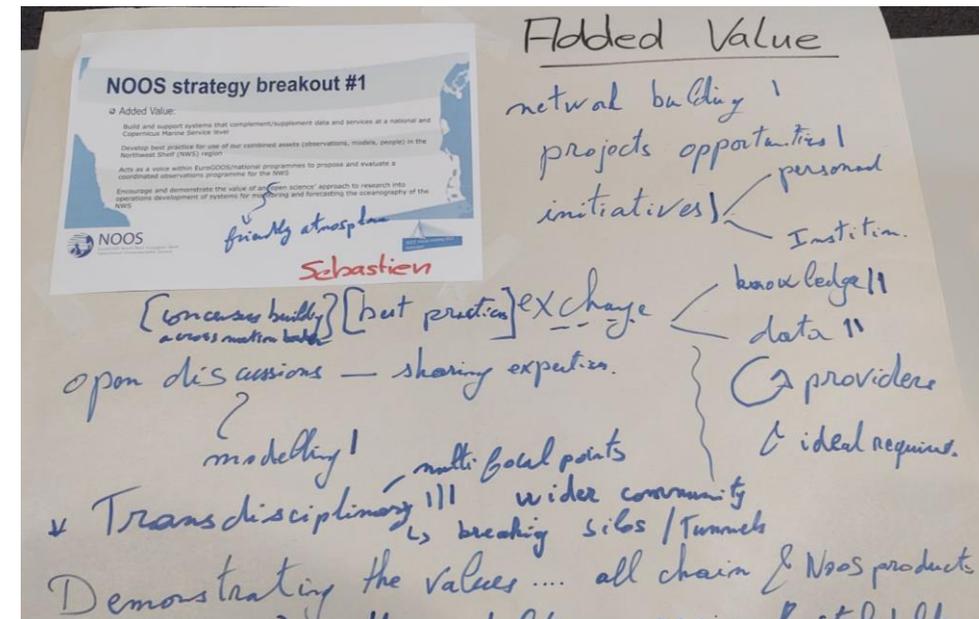
# Highlights 2022-2023

- NOOS annual meeting @Rotterdam, 14-16 Sept 2022  
Reconnecting with members after 2 years of pandemic  
Connecting with I-STORM, intl network of storm surge barrier
- ORE: A proposal for a new OSPAR WG on MSFD D7 (RWS, RBINS, BSH, SHOM )
- NOOS-Drift system in a test for a new SAR service of EMSA ('23-'24)
- Reactivating WGs : Half of the WGs have met at least once
- Extending and consolidating NOOS members basis:  
Contacts with Met Eireaan and NORCE Research Center
- NOOS strategy & NOOS MoU



# NOOS Strategy document

- Objective : a 15-pages document to present ourselves internally and externally
- Methodology :
  - '19: first brainstorming with members
  - '20-'21 : Pandemy
  - '22 : world café around 4 themes
    - NOOS added value
    - Needs
    - Gaps, SWOT
    - Focus topics
  - '22-'23 : Steering Committee to draft the document



**Vision** : Sustain Ocean Observing Systems and operational oceanography services that benefit the European Society

**Mission** : To cooperate in the development and implementation of sustained and coordinated operational oceanography across the NWS region

(Fully aligned with EuroGOOS)

## Objective 1

Cooperate as a NOOS community of experts

## Objective 2

Improve operational oceanographic data and information services

## Objective 3

Build together NOOS community products & services

## Objective 4

Support European partners and networks

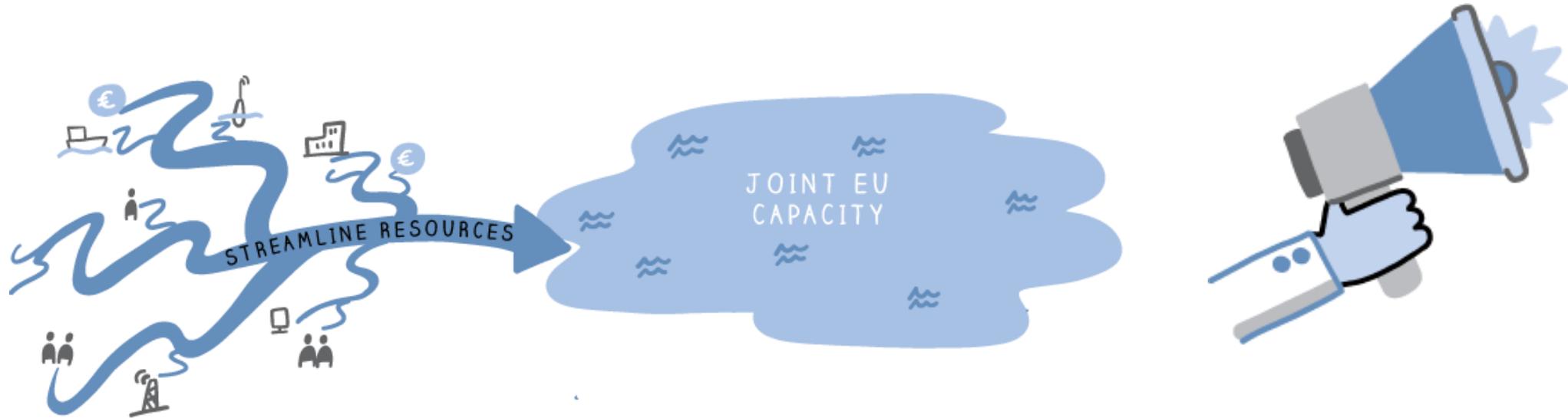
(Links EuroGOOS S01, S02, S03 and S04)

# Bottlenecks

- Erosion of NOOS leadership in strategic initiatives:
  - CMEMS NWS-MFC future more than unclear and uncertain
  - No involvement in ECFAS
  - Not consulted in European Digital Twin(s) of the Ocean
  - No direct involvement in UN Ocean Decade initiatives

=> Need more interaction with the board.

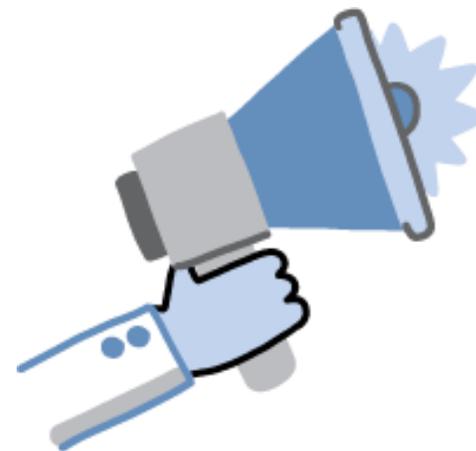
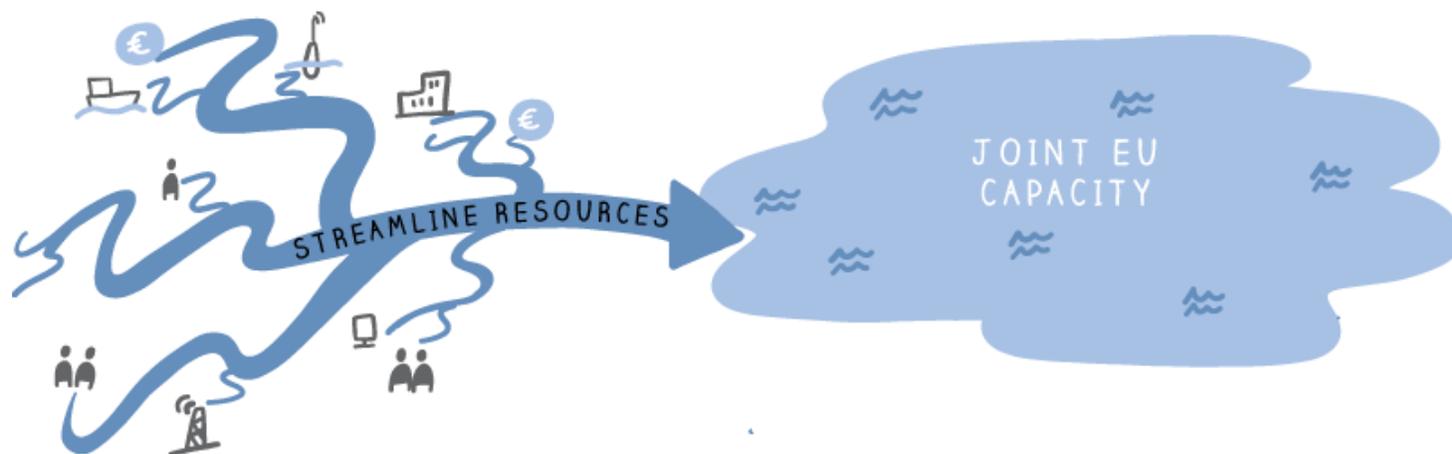
- Lack of funding and resources
  - The greatest difficulty to initiate projects based on NOOS partnership



S. Legrand

[slegrand@naturalsciences.be](mailto:slegrand@naturalsciences.be)

<http://noos.eurogoos.be/>



@EuroGOOS

[info@eurogoos.eu](mailto:info@eurogoos.eu)

[www.eurogoos.eu](http://www.eurogoos.eu)