



EuroGOOS Working Group Chairs' reports

EuroGOOS General Assembly
30-31 May 2023



EuroGOOS
European Global Ocean
Observing System

Coastal Working Group

EuroGOOS General Assembly
30-31 May 2023

Objective of the Working Group

Examine the entire value chain from coastal observations, satellite data, ocean forecasts and analysis, to products and services for coastal users.

- Examine the sustainability and fitness for purpose of the existing system
- provide a status of the coastal observing system at the present time
- build upon significant initiatives already completed or underway in projects, EuroGOOS working groups, task teams, and the five regional operational oceanographic systems (ROOS).
- identify future steps needed to secure and improve all elements of the coastal value chain.

Map of Potential Users of coastal products

Observations inventory / Review of available (and not available) coastal data

River data sources inventory

Modelling inventory – EuroGOOS modelling recommendations

Coastal Products and Services

Roadmap towards Coastal operational



23 members
11 countries

STIMULATE communities of practice

Map of Potential Users of coastal products

Status: a draft inventory already exists (this structure was used initially by FORCOAST and JERICO stakeholders' analysis - though further modified)

<https://docs.google.com/spreadsheets/d/1P46OzDZTQj7q-od5yOFrTdlvhIUF9WQb/edit?usp=sharing&oid=107404446292299025323&rtpof=true&sd=true>

All Coastal Working Group members can introduce here the existing or potential most prominent users of their products and services (please use blue for existing and red for potential users).										
The users can be listed under the following general categories/sectors but more can be added										
	<u>Maritime safety</u>	<u>Water pollution</u>	<u>Offshore Energy</u>	<u>Tourism & Recreational Activities</u>	<u>Coastal protection</u>	<u>Ports & Shipping</u>	<u>Sustainable Marine living Resources</u>	<u>Weather & Climate</u>	<u>Basic and applied research in coastal oceanography</u>	<u>Other (Please Specify)</u>
	e.g: SAR operators, coastguard, oil spill response managers, maritime emergency managers, Navy, national and local security agencies ...	e.g: Local authorities; European Marine Strategy Framework Directive (MSFD) ...	e.g: energy company managers; Environmental Impact Assessments...	e.g: recreational sailing, sports sailing/regattas, surfing, diving, citizens, NGOs..	e.g. government environmental managers, beach and coastal planners ...	e.g: port managers, port pilots, ferry companies/captains, shipping companies/captains, cruise companies/captains ...	e.g: fisheries managers, fisheries scientists, commercial fishermen, recreational fishermen, sustainability managers; Aquaculture; HABs	eg: Weather Forecast Centers (data for model validation, assimilation)	e.g: Academia, private research organizations, ONGs	
Deltares, Netherlands		Rijkswaterstaat (part of the Ministry of Infrastructure and Water Management of the Netherlands); WFD, MSFD, Bathing water directive, OSPAR and HELCOM			Rijkswaterstaat (part of the Ministry of Infrastructure and Water Management of the Netherlands)	Port authorities		KNMI	Imares	

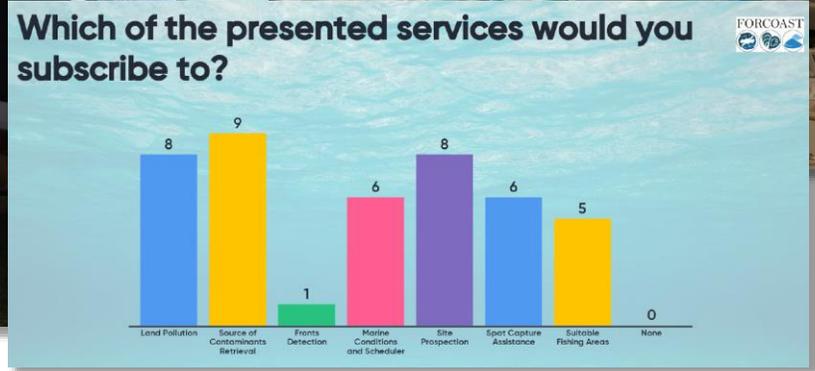
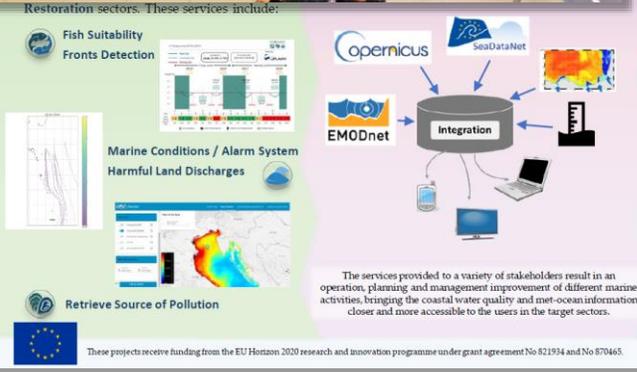
User Engagement in aquaculture, and other sectors

**STIMULATE
communities of
practice**

Multiple promotion events and workshops to collect user feedback



ICE INFORMATION
RE
n and Ghada El Seray
SD Delft, Netherlands
The HiSea plat
Cage Settlement
Water Quality
Harmful Alga



Deltares

ADVOCATE for coordinated and integrated European ocean observing and operational oceanography

Observations inventory / Review of available (and not available) coastal data

Linked with other initiatives (COpernicus Marine in Situ/JERICO/EMODnet/ROOS etc...)

River data sources inventory

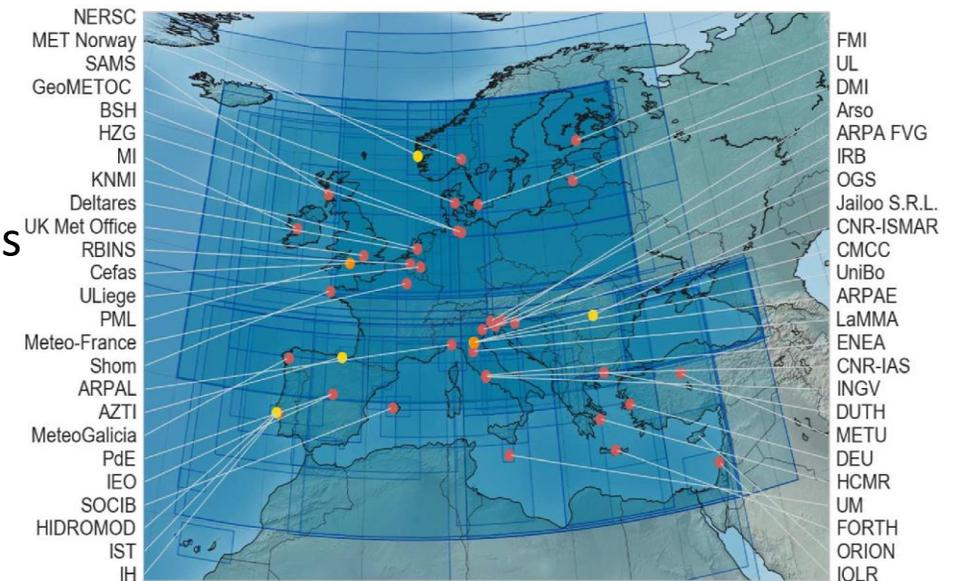
A task force on river data for the use on coastal applications, led by Francisco Campuzano, Antonio Guarnieri, Naomi Greenwood and Helene Frigstad

Link with EMODnet Physics and EEA COINS project on in situ data for Copernicus

Link with ROOSs for data inventory in different regions

Modelling inventory – EuroGOOS modelling recommendations

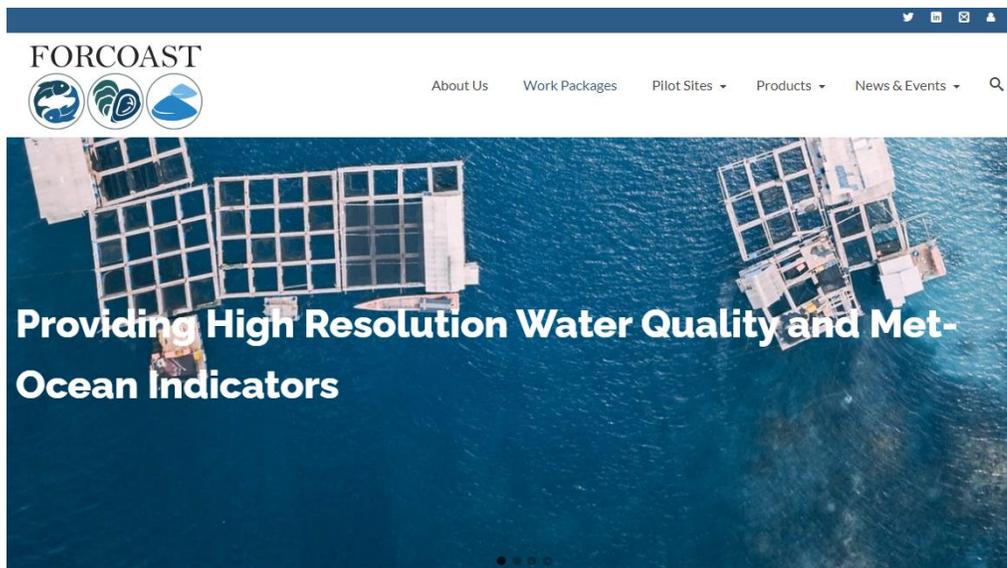
Capet et al paper on methodology and recommendations/gaps has been used as a first entry to Ocean Prediction state of the art and has inspired the Copernicus CMEMS in their coastal Thematic Hub and coastal services provision





Coastal Products and Services

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

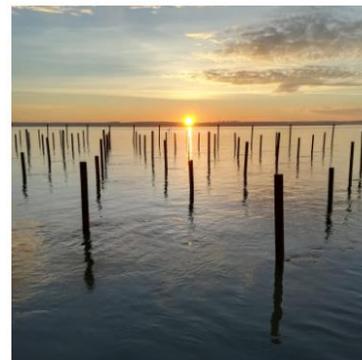


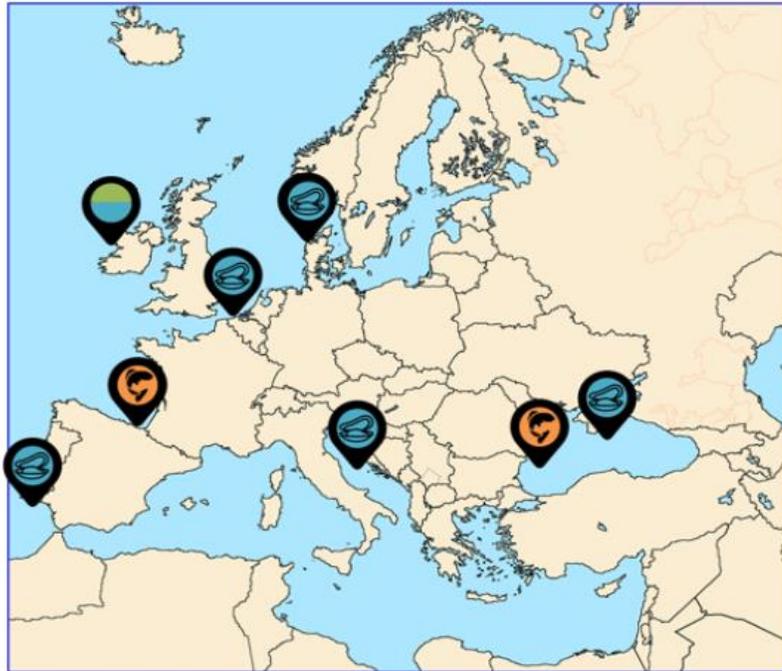
What?

Provide information services that offer **high resolution water quality** and **metocean indicators** in **coastal and nearshore areas**

Why?

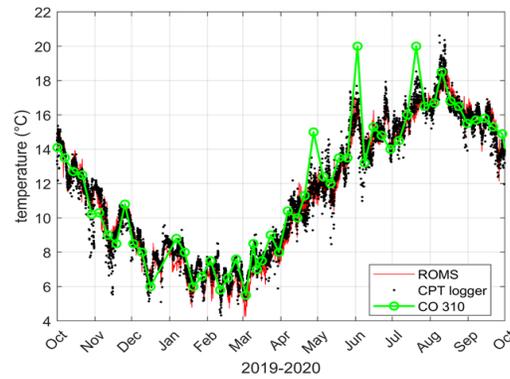
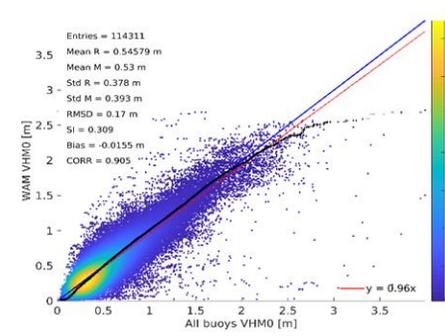
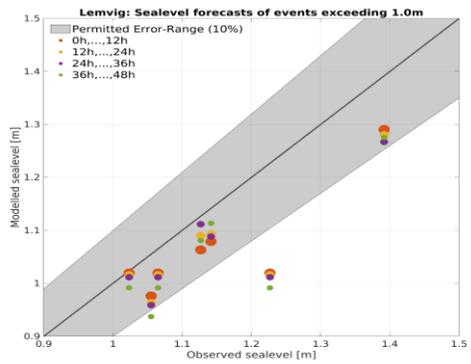
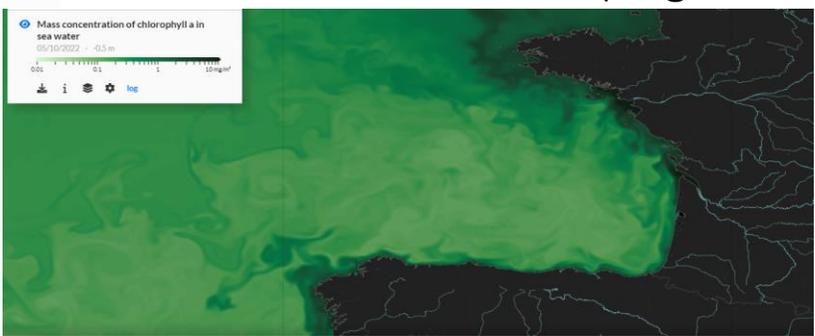
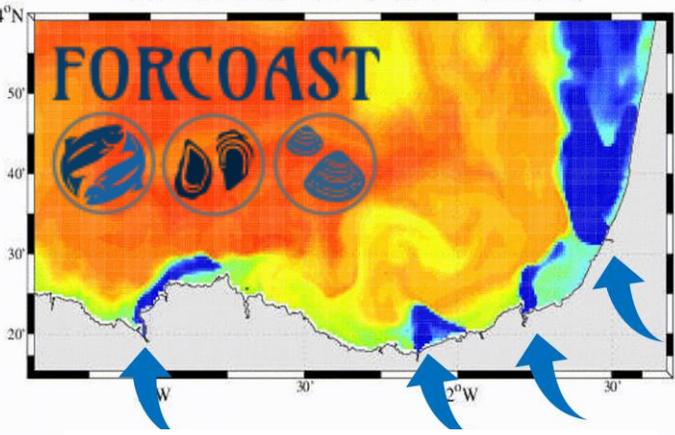
To improve operation, planning and management of different marine activities in the sectors of **wild fisheries, oystergrounds restoration, and bivalve mariculture.**





Pilot	Location	FORCOAST partners	Type	Planned activities (i.e. restoration, cultivation)
1	Atlantic, Portugal	Exporsado	SME	Oysters
		IST	Research	
2	Atlantic, Spain	Marine Instruments	SME	Fishery, oysters
		AZTI	Research	
3	Black Sea, Bulgaria	Terrasigna	SME	Fishery
		USOF	Academia	
4	North Sea, Belgium	RBINS	Research	Oysters, mussel
		ILVO	Research	
		Brevisco	SME	
5	Atlantic, Ireland	Cuan Beo	SME	Oysters, mussels
		Marine Institute	Research	
6	Baltic-North Sea, Denmark	DMI	Research	Oysters, mussels
		AU	Academia	
		Oyster boat	SME	
7	Black Sea, Romania	ULiege	Academia	Mussels
		NIMRD	Research	
		Jailoo	SME	
8	Northern Adriatic Sea, Italy	CNR	Research	Mussels
		OGS	Research	

Tailored coastal information services (High resolution services)

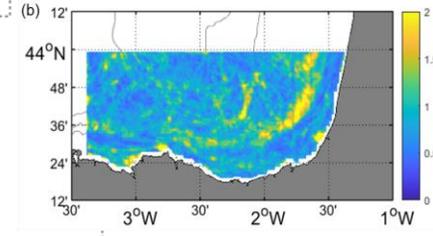
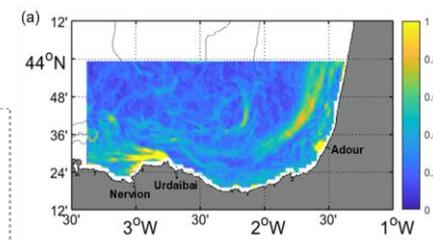


Data Processing



Processed data

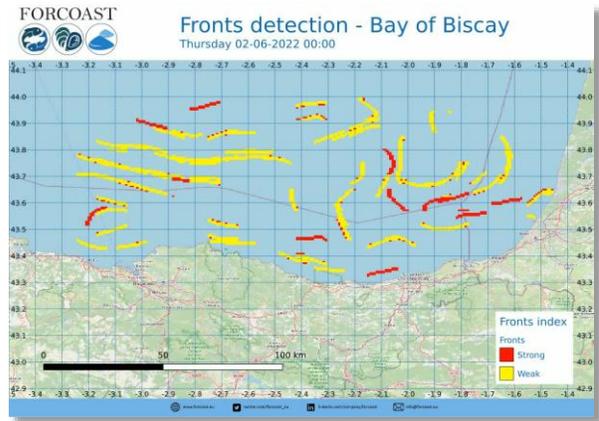
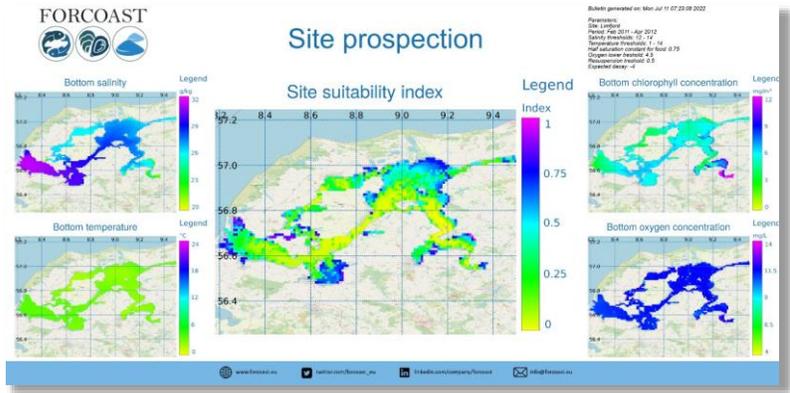
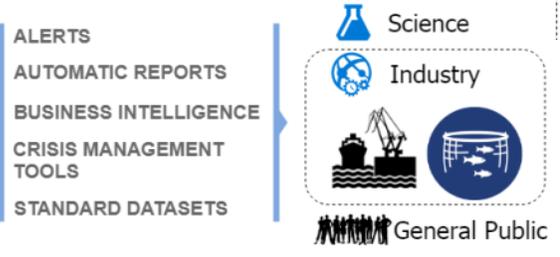
Added value products



Operational System

Aggregate, analyse, index

Services



Future activities : Applied Data Science in coastal services

Proposed Paper/Activity: Data Science best practices in the coastal zone

Use of Artificial Intelligence, Machine Learning and Data Science in general , how effective it is to extract the relevant indicator/information/predictive capacity in the coastal zone

Inventory of products and services

Techniques availability in different platforms/tools/hubs

Indicators and their observability

Piloting in MPA the Wadden Sea and others

Integrated Coastal Services Stories

- Stories that clearly demonstrate the use of coastal data integrated with models
- An interactive online tool that can be sustained
- A first mock-up showing examples of existing integrated coastal services have been prepared and is available here: <https://arcg.is/18C4ui>

Status: It was decided to create an interactive platform (under the EuroGOOS website) to showcase success stories by coastal Sector (e.g. aquaculture, Marine safety, Offshore platforms,...), where also users will be able to reach the information, but also to (actively) interact. This tool has also the objective to increase the visibility and networking among the coastal users and stakeholders. -

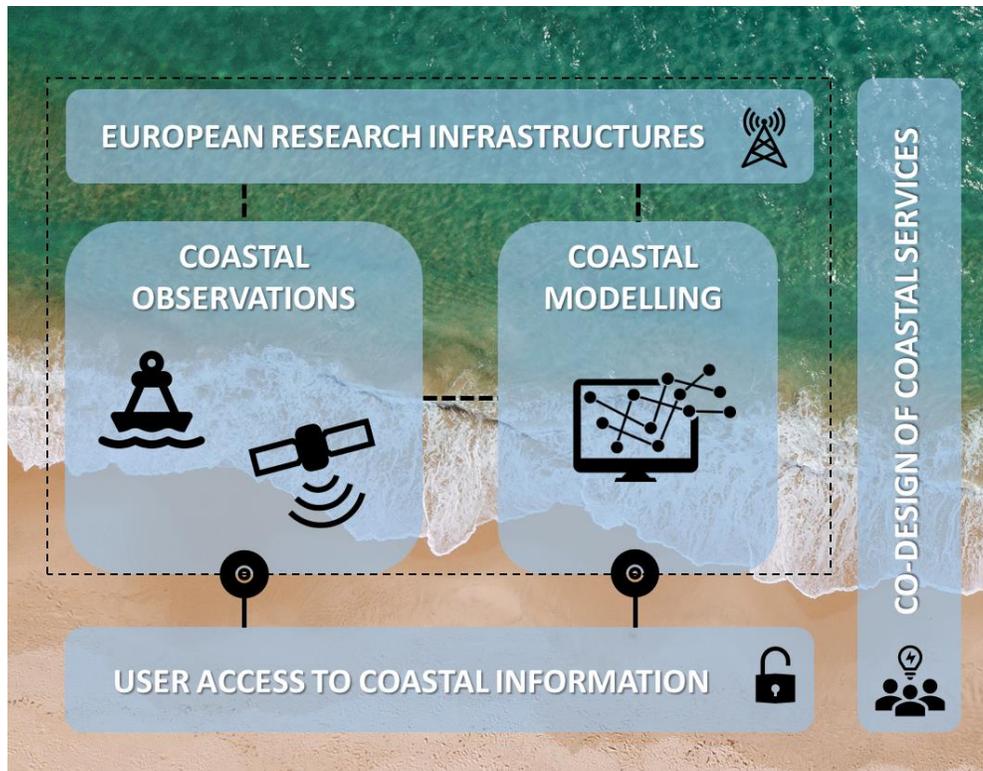
PROMOTE sustainability across the value chain of operational oceanography and ocean observing

The screenshot displays the 'EuroGOOS Integrated Coastal Services Stories' website. The header includes the title, 'A EuroGOOS Coastal Working Group Product', and social media icons. Below the header is a navigation menu with tabs for 'Aquaculture', 'Ports and shipping', 'Maritime safety', 'Offshore Energy', and 'Tourism and recreation'. The main content area features a map of Europe and the Mediterranean region with three blue location markers. To the left of the map are three story thumbnails: 'Salmon aquaculture in Norway', 'Dutch near shore aquaculture', and 'Fish farming Greece'. The map includes standard navigation controls like zoom in (+), zoom out (-), home, and full screen. The footer contains the text 'POWERED BY esri' and 'Esri, GEBCO, DeLorme, NaturalVue | GDI-...'. The EuroGOOS logo is also present in the top right corner.

Whitepaper “EuroGOOS Roadmap for (Operational) Coastal (Downstream) Services”

Policy and Practice Reviews, Frontier in Marine Sciences. - Coastal Ocean Processes

Ghada El Serafy , [Lőrinc Mészáros](#), [Vicente Fernández](#), [Arthur Capet](#), [Jun She](#), [Marcos García Sotillo](#), [Angelique Melet](#), Sebastien Legrand, [Baptiste Mourre](#), [Francisco Campuzano](#), [Ivan Federico](#), [Antonio Guarnieri](#), [Anna Rubio](#), [Tomasz Dabrowski](#), [Georg Umgieser](#), [Joanna Staneva](#), [Laura Ursella](#), [Ivane Pairaud](#), [Antonello Bruschi](#), [Helene Frigstad](#), Katrijn Baetens, [Veronique CREACH](#), [Guillaume Charria](#) and [Enrique Alvarez Fanjul](#)



	Users	Benefits	Uniqueness
Aquaculture	<ul style="list-style-type: none"> wild fisheries oyster ground restoration bivalve mariculture Offshore aquaculture 	<ul style="list-style-type: none"> HAB forecasting services Suitable fishing areas Fronts detection Marine conditions and scheduler Weather window 	<ul style="list-style-type: none"> Land pollution risk indication Spat capture assistance Contaminant source retrieval
Coastal tourism	<ul style="list-style-type: none"> Sailing community Beach goers Beach managers Lifeguards Hotels Surfers 	<ul style="list-style-type: none"> Link to sailing route planning and navigation software Beach water quality and safety indicators Better understanding of beach incidents 	<ul style="list-style-type: none"> Facilitate low data volume exchange at sea Link to mobile devices Beach user density information
Renewable energy	<ul style="list-style-type: none"> Offshore wind Floating solar energy Sustainable Energy Authority 	<ul style="list-style-type: none"> Estimate of wind power potential Renewable energy site assessment and management (costs and environmental impacts) 	<ul style="list-style-type: none"> Reaching extended offshore zones Demonstrating multi-use possibilities Supporting Offshore Renewable Energy Development Plan
Ports	<ul style="list-style-type: none"> Port authorities Oil spill response enforcement 	<ul style="list-style-type: none"> Disaster early warning Real time crisis management Key performance indicators Operation planning 	<ul style="list-style-type: none"> Oil spill back tracking Very high resolution (10m) satellite information Environmental impacts of port operations
Cross-sectoral	<ul style="list-style-type: none"> cross-sectoral, public, private 	<ul style="list-style-type: none"> Enhanced monitoring Flood safety Tackling policy implementation Coastal planning and emergency response 	<ul style="list-style-type: none"> Building standardized transferable datasets to be shared across applications and sectors

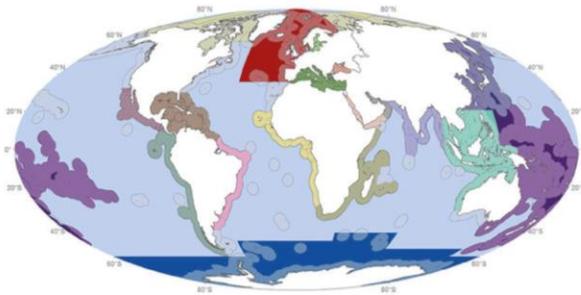
COMMUNITY BENEFITS AND REQUIREMENTS

A global and transversal community

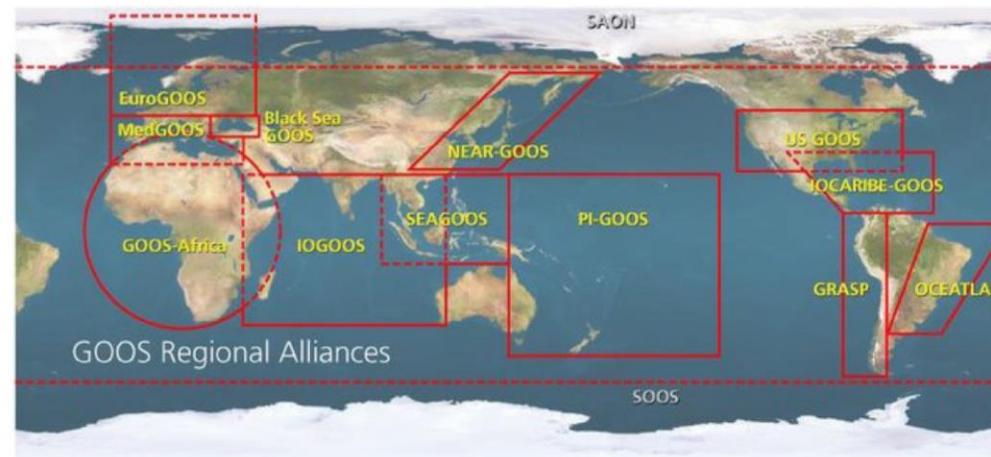
Promoting ocean forecasting worldwide

A backbone collaboration structure to provide a collective voice to a wide ocean prediction community (from coastal to deep sea, nowcast to climate, Bio to physics, public to private, users to scientists)

UNEP regional seas



GOOS regional alliances



Regions:

0. Global
1. West Pacific and East Asian seas
2. Indian seas
3. African seas
4. Mediterranean and Black Sea
5. North-East Atlantic
6. South and central America
7. North America
8. Arctic
9. Antarctic



“Boots on the ground” work:

- Identify and attract a wide community: Scientist, users, private sector, NGOs, etc.
- Support decade actions related to ocean forecasting
- Identify gaps and ways forward
- Capacity building
- Advocate for implementation of Best Practices, Standards and Tools
- ...

he **EuroGOOS Coastal WG** and the **OceanPrediction DCC** are glad to invite you to participate in the First **OceanPrediction DCC NE Atlantic Regional Team meeting** which will be held on **5th July at 3PM UTC+2**.



During this first Regional Team meeting, we will introduce the whole concept, exchange altogether about future activities, and discuss and **approve of the Terms of Reference (ToR)**, with special focus on the **Steering Team role**.

Stay tuned as the agenda for the meeting will be provided soon. For now, please save the date and register!

Register

We **highly value your expertise and contribution to the team** and look forward to your active participation in the meeting.

Thank you for your commitment to the **North East Atlantic Regional Team**.

For any questions, please send an email to: oceanprediction@mercator-ocean.eu

Sincerely,

Ghada El Serafy and Enrique Alvarez Fanjul

Participation in various high-level conferences and workshops

Attended the Predict on Time (Lecche, 2023) CoastPredict Observing and Predicting the Global Coastal Ocean

Attended Copernicus GA 2022, and will GA 2023

Events organized by EC (DG-MARE), EEA, CMEMS for the coastal zone product, JERICO, Coastpredict, UN Ocean Decade, etc..



Participation in various projects and proposals

FOCCUS project for the Copernicus Marine Evolution in the coastal services

EDITO the digital twin of the Ocean with focus application in the coastal zone

LandSeaLot Proposal link between Danubius and Jerico

Joint collaboration on funding opportunities

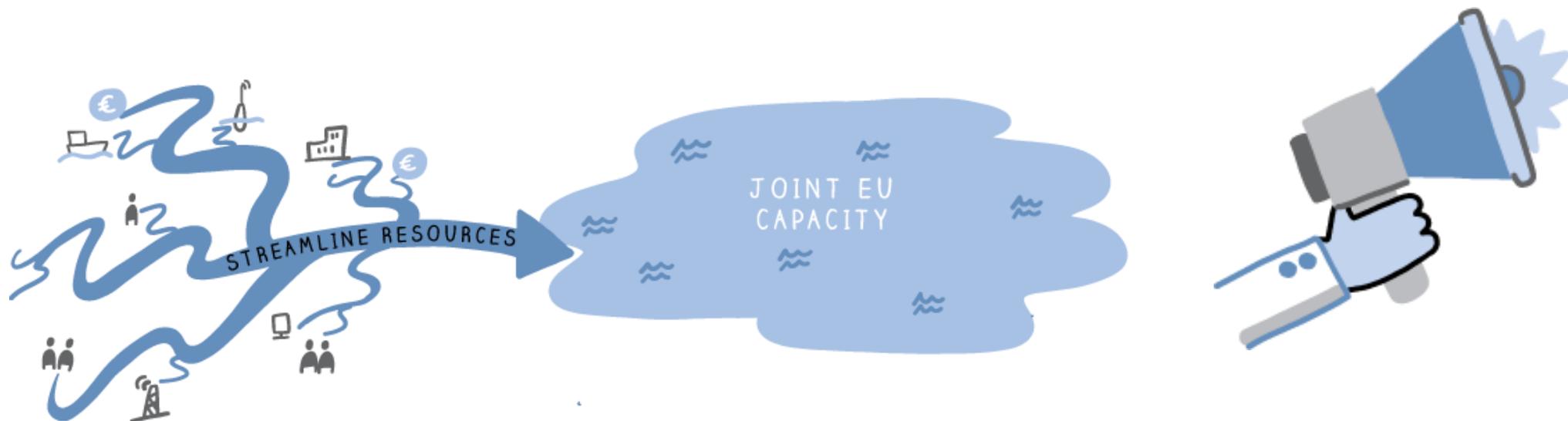
Exploring other funding possibilities:

- ERAnet
- JPI Oceans
- COST Action
- EEA
- **Horizon Europe upcoming**

<https://docs.google.com/spreadsheets/d/1NNfUNiZudOrQbwoHqiCiPUAtj6u4Mp1U4VPDmbZDoJg/edit#gid=0>



A	B	C	D	E	F	G
No	Funding opportunity	Short description of the call topic	Short description of the idea/project that can be developed in the call	Link to website	Submission deadline	Other comments
1	COST actions	COST actions objectives : <ul style="list-style-type: none"> □ Joining research efforts and developing common S&T programmes by coordinating nationally funded research activities led by pan-European, high quality, collaborative S&T networks. □ Building capacity by providing networking and leadership opportunities for emerging talents and thereby strengthening and building up excellent S&T communities. □ Addressing Societal Questions by promoting transdisciplinary, new approaches and topics and identifying early warning signals of unforeseen societal problems aiming to contribute to Societal Challenges. □ Strengthening COST Inclusiveness Policy by fostering better access and integration of less research-intensive countries' researchers to the knowledge hubs of the European Research Area aiming at contributing to the Widening Pillar of Horizon 2020. 	Based on the model inventory paper and the white paper, we have a number of recommendations that can be used as the backbone of a COST action. I wonder if the model inventory platform could be funded here, as a networking tool. Intermodel Comparison platform/exercise would be extremely valuable as well, and can be presented as promotion of best practices, networking, training, and general assessment of the topic's state for the art.	https://www.cost.eu/funding/how-to-get-funding/open-call/	Thursday 29 October 2020 (postponed by COVID-19)	40 new Actions are expected to be approved in November 2020, subject to available budget.
2	ESA Blue Worlds Programme					



Chair: Ghada El Serafy (Deltares, Netherlands) ,
co-chair: Anna Rubio (AZTI, Spain)

Ghada.ElSerafy@deltares.nl
arubio@azti.es

Integration with other WGs

1. Coastal products and services:

- a. need of more data ([link with DATAMEQ WG](#) and [observing platforms Task Teams](#))
- a. [links with SAWG](#) to improve seamless models and forecasts (We are leading a White paper to be continued...)
- a. links with ROOSs and their developed services and products (NOOS)

1. Modelling inventory - links with different ROOSs

- 1. **Data Assimilation review** and its use in EuroGOOS community - Draft by Jun She - links with ROOS and SAWG

FORCOAST Services

FORCOAST CATALOGUE



Marine Conditions at farming site



Exposure to Harmful Land Discharges



Prospection of New Sites



Assistance for Spat Captures



Retrieve Source of Contaminants



Suitable Fishing Areas



Front detection

& CENTRAL PLATFORM

Serves as a central hub from where the user can navigate to the service they are interested in, selecting the respective Service Module in their geographical area of interest.



DataMEQ Working Group

EuroGOOS General Assembly
30-31 May 2023

DataMEQ future plans and strategic ideas

Main priority areas (2023-2024)

- Adoption of the EuroGOOS data policy by each member, this is:
 - the implementation of *IOC Oceanographic Data Exchange Policy* and *EU directive on High Value Datasets*
 - our commitment for the free circulation of Essential Ocean Variables observations
- FAIR data : improve citation and credits to data providers through DOI best practices (Digital Object Identifier) and SeaDataNet vocabularies (EDMO codes)
- DATAMEQ WG should be represented in RDA - Research Data Alliance

DataMEQ future plans and strategic ideas

Other major activities (2023-2024)

- Contribute to EuroGOOS conference, October 2023

Links and synergies with other EuroGOOS ROOS/Working Groups/Task Teams

- OceanGlider NetCDF format implementation
 - An international activity, organized by OceanOPS
- HF-Radar NetCDF format improvement (global attributes, compression)
 - A Copernicus and SeaDataNet joint data format
- BGC-Argo synthetic profiles towards Copernicus Marine in situ NetCDF
 - One format for Core-Argo and BGC-Argo data
- SeaDataNet NetCDF and vocabularies for Ship-ADCP (EuroGO-SHIP project funding)

DataMEQ future plans and strategic ideas

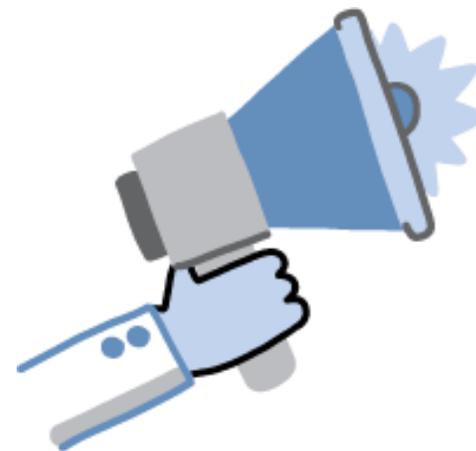
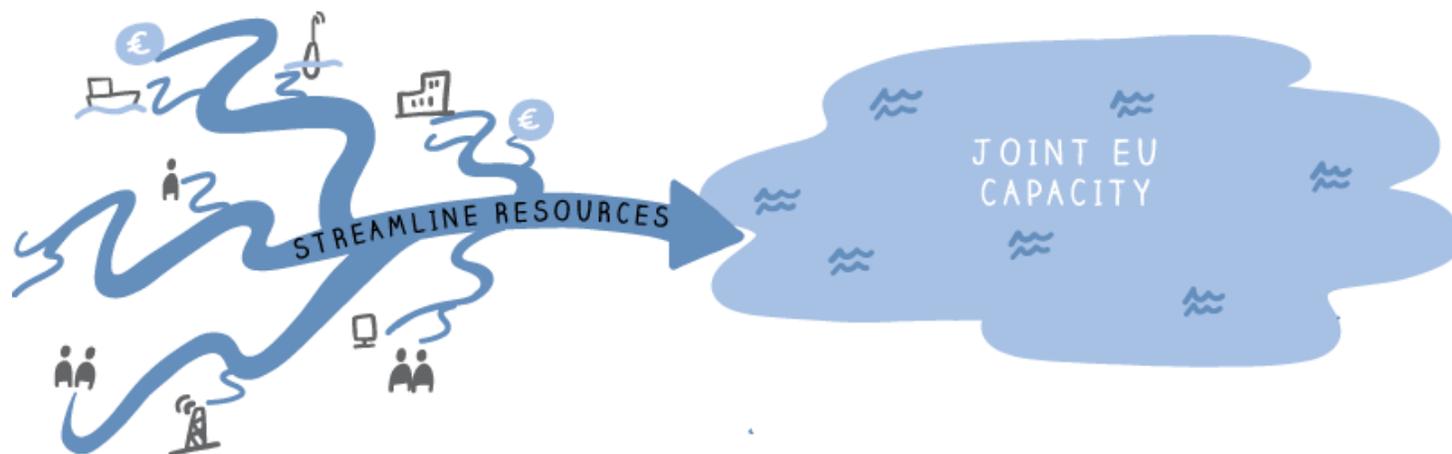
Links and synergies with other EuroGOOS ROOS/Working Groups/Task Teams

- Towards Cloud native workflows for DAC/GDAC architecture
 - Today's data workflows are based on unsecure FTP or unefficient HTTPS protocols
 - In a cloud native workflow:
 - No need to download, data is directly usable and up to date
 - Every version of data is preserved and accessible
 - In the scope of new projects VREs (Virtual Research Environments)
 - ENVRI FAIR-EASE, EOSC Blue-Cloud 2026
 - Objective of new proposals
 - Copernicus Marine Data Store – MDS
 - EOSC AMRIT (upstream data services for ERICs)
 - EOSC ENVRI-Hub (downstream data services for ERICs)
 - EOSC-Ocre (use big data infrastructure, academic and commercial)

DataMEQ future plans and strategic ideas

Links and synergies with non-EuroGOOS initiatives

- Contribution to ENVRI-FAIR EU project:
 - coordination of the Marine RIs fairness improvement (D9.8)
 - Research Infrastructures whitepaper for sustainability roadmap (D9.10)
- Contribution to Eurosea data handbook (D3.13)
- Contribution to Copernicus Marine in situ NetCDF CF 1.10 format



Thierry Carval (Ifremer)
Thierry.Carval@ifremer.fr



EuroGOOS
European Global Ocean
Observing System

Ocean Literacy Working Group

EuroGOOS General Assembly
30-31 May 2023

OLWG underpins all strategic objectives of EuroGOOS:

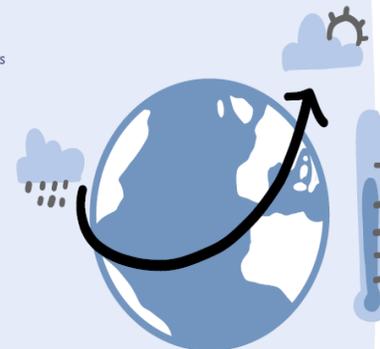
- **Advances the communities of practice on ocean literacy** and unites and enhances the work of marine scientists and oceanographers as ocean advocates to society;
- **Supports advocacy for support and coordination of European ocean observing and operational oceanography**, connecting with other EuroGOOS WG and Task Teams and closely working with the Office;
- **Strengthens and expands partnerships**, for example through the *EU4Ocean coalition* and *EU projects* such as DOORS, and collaborates regularly with *UNESCO*, in addition *EuroGOOS Ocean Decade project Scientists for Ocean Literacy* is an avenue to expand partnerships in Europe and globally;
- **Promotes sustainability** in ocean observing and operational oceanography emphasizing them as key societal services, for example, through policy brief Ocean Literacy in European Oceanographic Agencies in the UN Decade of Ocean Science for Sustainable Development 2021-2030 (2021);
- **Mobilizes the public** on the importance of the ocean and ocean knowledge and services through events with adults and children implemented by the OLWG members and their joint efforts leveraged at pan-European and international levels.

International OCEAN LITERACY Framework

The international Ocean Literacy framework includes seven principles representing key concepts about the ocean and its importance¹.

Ocean Literacy principles:

1. The Earth has one big ocean with many features.
2. The ocean and life in the ocean shape the features of Earth.
3. The ocean is a major influence on weather and climate.
4. The ocean made the Earth habitable.
5. The ocean supports a great diversity of life and ecosystems.
6. The ocean and humans are inextricably interconnected.
7. The ocean is largely unexplored.



Key achievements (May 2022-May 2023):

- Launch of OL WG Task groups on: OL survey, OL resources, Outreach activities, Equity and diversity
- Connections with EuroGOOS other WG and TT established – meetings & evaluation of narratives
- Workshop at the European Maritime Day 2022 co-organized by EuroGOOS and UNESCO including the launch of the EuroGOOS Scientists for Ocean Literacy project of the Ocean Decade.
- SciNMeet Program activities and launch conference in July 2022 – OLWG in OL task team.
- Joint project with ILICO, France, images & messages: 'I observe the ocean', 'I care for the ocean', 'I discover sea monsters', 'I preserve the ocean'. Available here: <https://bit.ly/44FvXDb>
- DOORS project – some funding; DOORS OL Network created on the example of the EuroGOOS OLWG
- EU4Ocean coalition – some funding (EuroGOOS has become official subcontractor in Dec 2022)
- Collaboration with EU GES4SEAS project



Main issues:

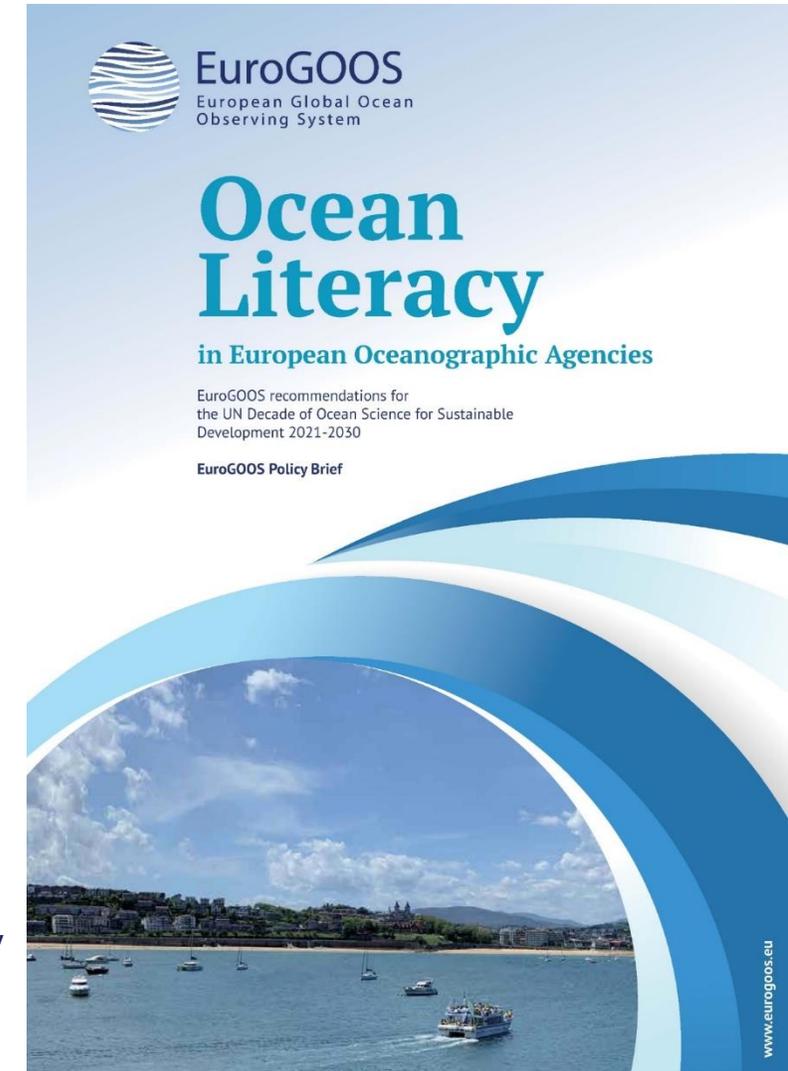
Lack of time for experts to commit to activities due to the overall lack of resources for ocean literacy.

This obstacle is being addressed through more frequent (monthly) but shorter (1 hour) on-line meetings, which help OLWG members to be up-to-date and co-develop activities and ideas.

External funding has been achieved through the DOORS and EU4Ocean projects, but these funds remain small to fulfill the objectives. More dedicated resources are needed to make the UN Ocean Decade project of EuroGOOS a reality.

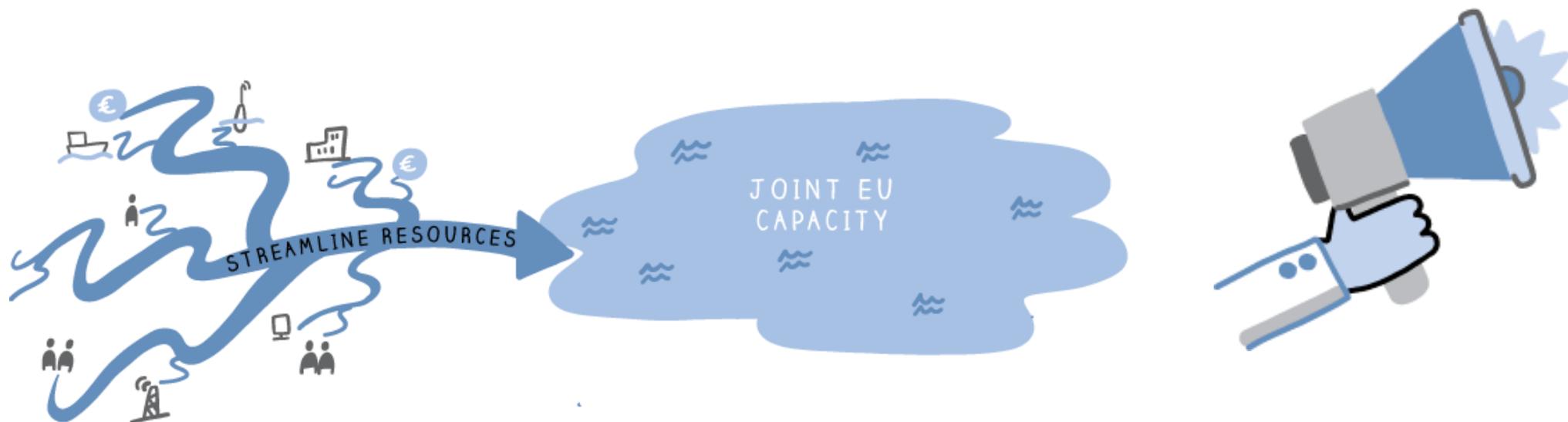
Priority areas (2023-2024):

- Finalize the work plan in the EU4Ocean coalition contract (in progress with coordinator Acteon);
- Report on Scientists for Ocean Literacy Decade project to UNESCO (June 2023);
- Finalize and launch the second survey on the OL activities in European ocean science institutes (members of EuroGOOS and beyond) & deliver a scientific publication;
- Deliver a training to help scientists engage in ocean literacy;
- Expand the offer of OL resources on the web page <https://eurogoos.eu/ocean-literacy-resources/>;
- Present the achievements and work of OLWG and EuroGOOS in societal and policy mobilization at relevant events;
- Consult and collaborate with the DOORS project which is building an OL network for the Black Sea;
- Develop synergies with relevant EU initiatives and projects managed/led by EuroGOOS members, e.g. GES4SEAS led by AZTI.



Work plans/suggestions (2023-2024):

- Possibly arrange a **physical meeting back to back with the Conference** (October 2023), where OLWG members can meet with experts involved in other EuroGOOS groups in their organizations and discuss possible synergies and connections. Narratives on the societal relevance of several groups were agreed through this meetings (further to the EuroGOOS integration workshop action 2022), which will help EuroGOOS Office in communication. Several OLWG members also sit on other EuroGOOS groups (SAWG, DataMEQ, FerryBox TT, Argo TT).
- **Website OL resources page enhancement**. With the revamp of the EuroGOOS website, we would like to see that the OL resources of EuroGOOS members are easily findable on it. The OL on-line library has been very well received and used and will benefit from more visibility and time effort to display more materials. Ideally, such resource page should be available from the homepage as its targets are not scientists or managers but general public and educators <https://eurogoos.eu/ocean-literacy-resources/>.



Angela Pomaro, Yolanda Koulouri, Dina
Eparkhina

angela.pomaro@cnr.it, yol72@hcmr.gr,
dina.eparkhina@eurogoos.eu



EuroGOOS
European Global Ocean
Observing System

Technology Plan Working Group

EuroGOOS General Assembly
30-31 May 2023

Objective/Activity

Improve in-house collaboration to deal with identified technical issues relating to specified EuroGOOS mission goals from the perspective of instrumentation, methodologies and Best Practices through better coordination between relevant areas of expertise.

- **Preliminary interaction with the Biological Observation Working Group on potential for joint integration actions.**

Carry forward the Technology Forum initiative of the European Ocean Observing System (EOOS) aimed at promoting synergies within, and between, the public and private sectors to drive development and innovation in the field of ocean observing technologies in Europe.

- **Publication and dissemination of the final report on the 2022 edition of the EOOS Technology Forum (“Thinking ahead: The technology of the Science we will need for the Ocean we want”).**

External links and synergies

- **MINKE, JERICO-S3, EuroSea, EMSO, JPI, IOC-UNESCO Ocean Best Practices System (OBPS), European Metrology Network (EMN) for Climate and Ocean Observation (EURAMET).**
- **EOOS Technology Forum (EOOS Pilot 3.4.1).**

Bottlenecks/Obstacles

- **Ensuring greater geographic and gender representation within the WG membership.**
- **Linking with Industry and Services, as both technology providers and users (partly addressed through the EOOS Technology Forum event).**
- **Ensuring funding for activities, especially for supporting the EOOS Technology Forum as a regular, openly accessible, international marine observing technology event.**
- **Identifying WG ambassadors to relevant EuroGOOS bodies.**

Overriding Goal

Promote and help to build synergies within, and between, the public and private sectors to drive technology development and innovation in the field of Ocean Observing in Europe.

Relevance to EuroGOOS 2030 strategy brief, Objective #1 "*Stimulate communities of practice*": maintain and expand the European communities of practice in the area of ocean observing instrumentation and their utilization to respond to user requirements and service delivery.

EuroGOOS 2030 strategy brief, Objective #3 "*Strengthen and expand partnerships*": encourage and facilitate partnerships paramount to achieving common objectives and gaining the European added value in the development and implementation of marine technologies in support of oceanographic services and information.

The EOOS Technology Forum

The platform for constructive engagement and dissemination.

The 2024 EOOS Technology Forum

[When]

March, 2024

Duration: 1 day

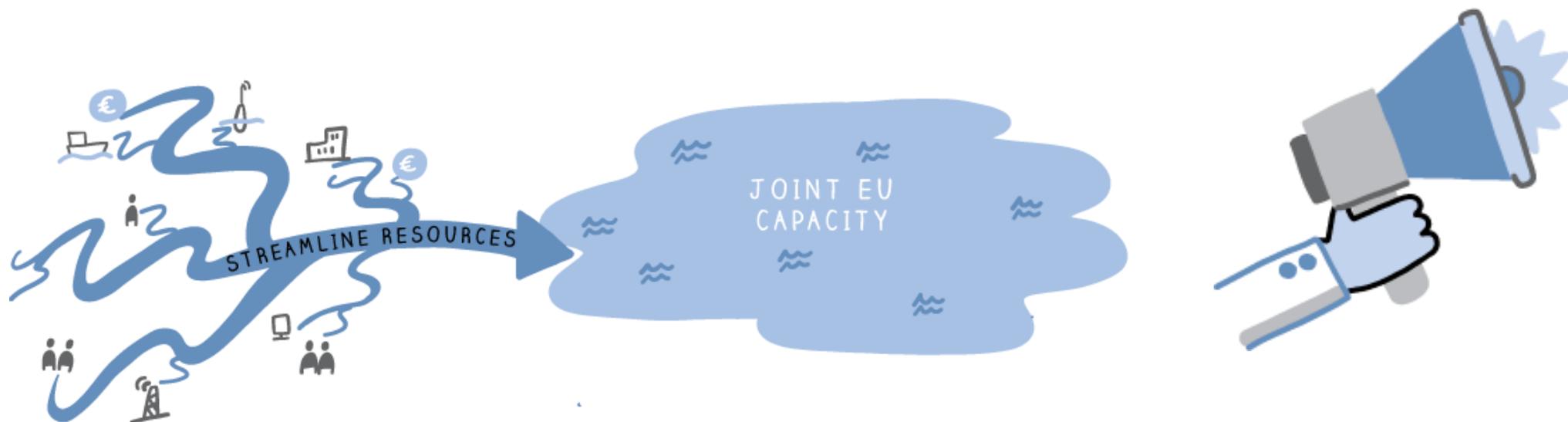
[Where]

Oceanology International

London, ExCel, UK

Topic possibilities (TBD):

- ***“Low-cost” concept.***
- ***Observing technologies facilitating Participatory (Citizen) Science.***
- ***Standards.***



Rajesh Nair, Laurent Delauney

rnair@ogs.it, laurent.delauney@ifremer.fr



Science Advisory Working Group



EuroGOOS
European Global Ocean
Observing System

Scientific Advisory Working Group

EuroGOOS General Assembly
30-31 May 2023

Scientific Advisory Working Group

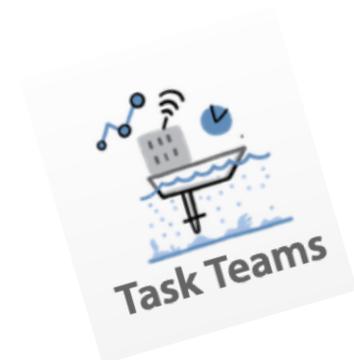
Meet the Group :

Alejandro Orfila	Mediterranean Institute for Advanced Studies
Antonio Bonaduce	Nansen Environmental and Remote Sensing Center (NERSC)
Eric Jansen	Euro-Mediterranean Centre on Climate Change (CMCC)
George Petihakis	Hellenic Centre for Marine Research (HCMR)
Ghada El Serafy	Deltares
Giuseppe Civitarese	National Institute of Oceanography and Experimental Geophysics (OGS)
Helene Frigstad	Norwegian Institute for Water Research (NIVA)
Henning Wehde	Institute of Marine Research
Inga Lips	EuroGOOS Office
Jari Haapala	Finnish Meteorological Institute (FMI)
Joanna Staneva	Helmholtz-Zentrum (Hereon)
Joseph Nolan	EuroGOOS Office
Julien Mader	FUNDACION AZTI - AZTI FUNDAZIOA
Jun She (Co-Chair)	Danish Meteorological Institute (DMI)
Laura Beranzoli	National Institute of Geophysics and Volcanology (INGV)
Lucie Cocquempot (Co-Chair)	French Research Institute for Exploitation of the Sea (Ifremer)
Manuel Ruiz Villareal	Spanish Institute of Oceanography (IEO)
Marco Marcelli	University of Tuscia
Sara Morucci	ISPRA
Sebastien Legrand	Royal Belgian Institute of Natural Sciences (RBINS)
Steffen OLSEN	Danish Meteorological Institute (DMI)

Scientific Advisory Working Group

Meet the Group :

Alejandro Orfila	Mediterranean Institute for Advanced Studies
Antonio Bonaduce	Nansen Environmental and Remote Sensing Center (NERSC)
Eric Jansen	Euro-Mediterranean Centre on Climate Change (CMCC)
George Petihakis	Hellenic Centre for Marine Research (HCMR)
Ghada El Serafy	Deltares
Giuseppe Civitarese	National Institute of Oceanography and Experimental Geophysics (OGS)
Helene Frigstad	Norwegian Institute for Water Research (NIVA)
Henning Wehde	Institute of Marine Research
Inga Lips	EuroGOOS Office
Jari Haapala	Finnish Meteorological Institute (FMI)
Joanna Staneva	Helmholtz-Zentrum (Hereon)
Joseph Nolan	EuroGOOS Office
Julien Mader	FUNDACION AZTI - AZTI FUNDAZIOA
Jun She (Co-Chair)	Danish Meteorological Institute (DMI)
Laura Beranzoli	National Institute of Geophysics and Volcanology (INGV)
Lucie Cocquempot (Co-Chair)	French Research Institute for Exploitation of the Sea (Ifremer)
Manuel Ruiz Villareal	Spanish Institute of Oceanography (IEO)
Marco Marcelli	University of Tuscia
Sara Morucci	ISPRA
Sebastien Legrand	Royal Belgian Institute of Natural Sciences (RBINS)
Steffen OLSEN	Danish Meteorological Institute (DMI)



Scientific Advisory Working Group

Meet the Group :

Alejandro Orfila	Mediterranean Institute for Advanced Studies
Antonio Bonaduce	Nansen Environmental and Remote Sensing Center (NERSC)
Eric Jansen	Euro-Mediterranean Centre on Climate Change (CMCC)
George Petihakis	Hellenic Centre for Marine Research (HCMR)
Ghada El Serafy	Deltares
Giuseppe Civitarese	National Institute of Oceanography and Experimental Geophysics (OGS)
Helene Frigstad	Norwegian Institute for Water Research (NIVA)
Henning Wehde	Institute of Marine Research
Inga Lips	EuroGOOS Office
Jari Haapala	Finnish Meteorological Institute (FMI)
Joanna Staneva	Helmholtz-Zentrum (Hereon)
Joseph Nolan	EuroGOOS Office
Julien Mader	FUNDACION AZTI - AZTI FUNDAZIOA
Jun She (Co-Chair)	Danish Meteorological Institute (DMI)
Laura Beranzoli	National Institute of Geophysics and Volcanology (INGV)
Lucie Cocquempot (Co-Chair)	French Research Institute for Exploitation of the Sea (Ifremer)
Manuel Ruiz Villareal	Spanish Institute of Oceanography (IEO)
Marco Marcelli	University of Tuscia
Sara Morucci	ISPRA
Sebastien Legrand	Royal Belgian Institute of Natural Sciences (RBINS)
Steffen OLSEN	Danish Meteorological Institute (DMI)



Activities highlights and connections with EuroGOOS Strategy

1
STIMULATE
communities of practice

2
ADVOCATE
for coordinated and
integrated European
ocean observing and
operational oceanography

3
STRENGTHEN
and expand partnerships

4
PROMOTE
sustainability across
the value chain of
operational oceanography
and ocean observing

5
MOBILISE
the public on the
importance of the ocean
and oceanographic services

Activities highlights

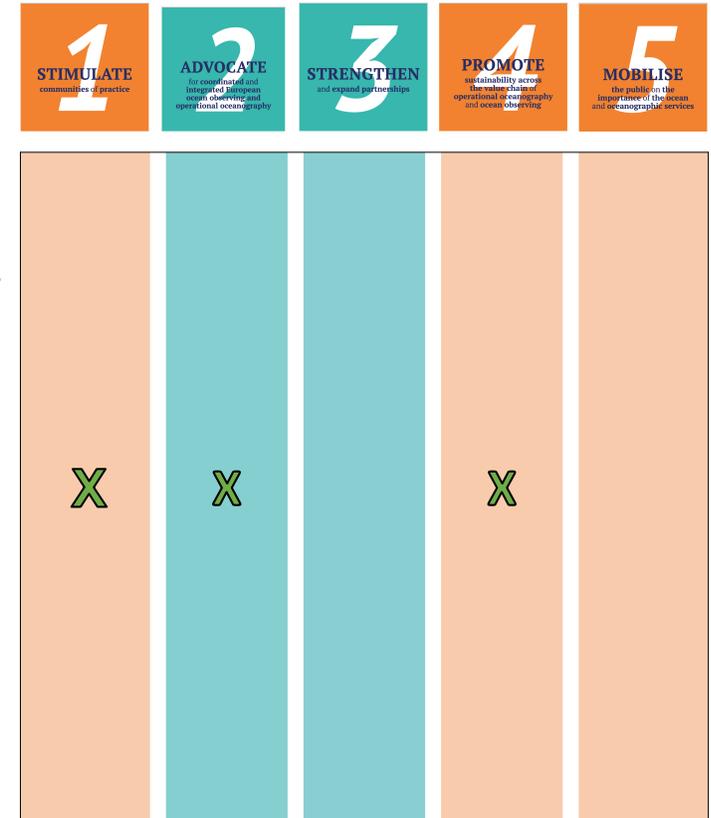
1 STIMULATE communities of practice	2 ADVOCATE for coordinated and integrated European operational observing and operational oceanography	3 STRENGTHEN and expand partnerships	4 PROMOTE sustainability across the value chain of operational oceanography and ocean observing	5 MOBILISE the public in the importance of the ocean and oceanographic services

Activities highlights

SAWG is an open forum/ a think tank for sharing innovative trends and scientific challenges faced by our institutions, countries and regions....

- **Marine renewable energies** are a strategic topic for Europe, whether in terms of measuring their impact on the ecosystem or using them as observation platforms.

-> **EuroGOOS** (together with JERICO) has a key role to play in preparing the ground for this.

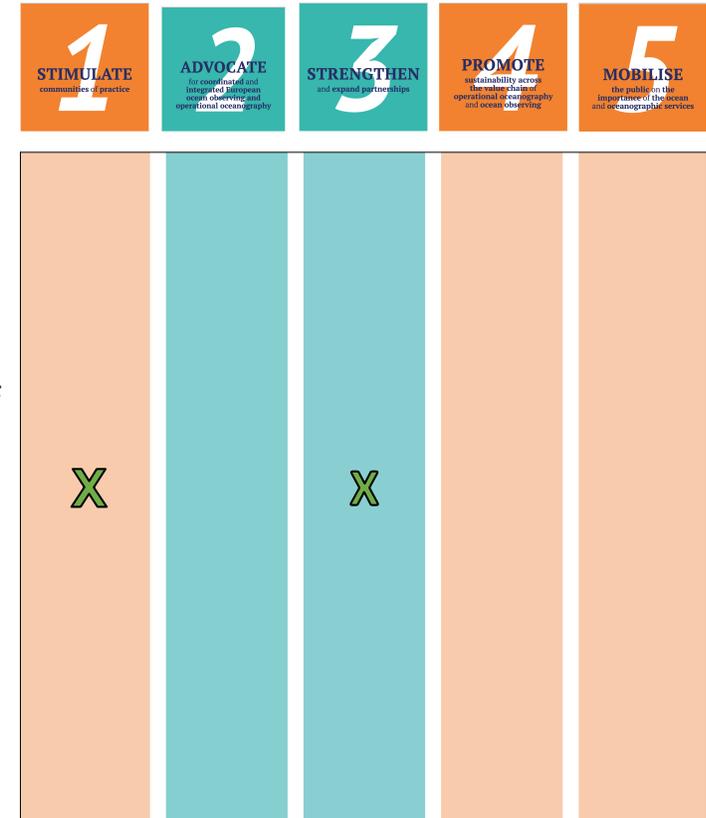


Activities highlights

SAWG is an open forum/ a think tank for sharing innovative trends and scientific challenges faced by our institutions, countries and regions....

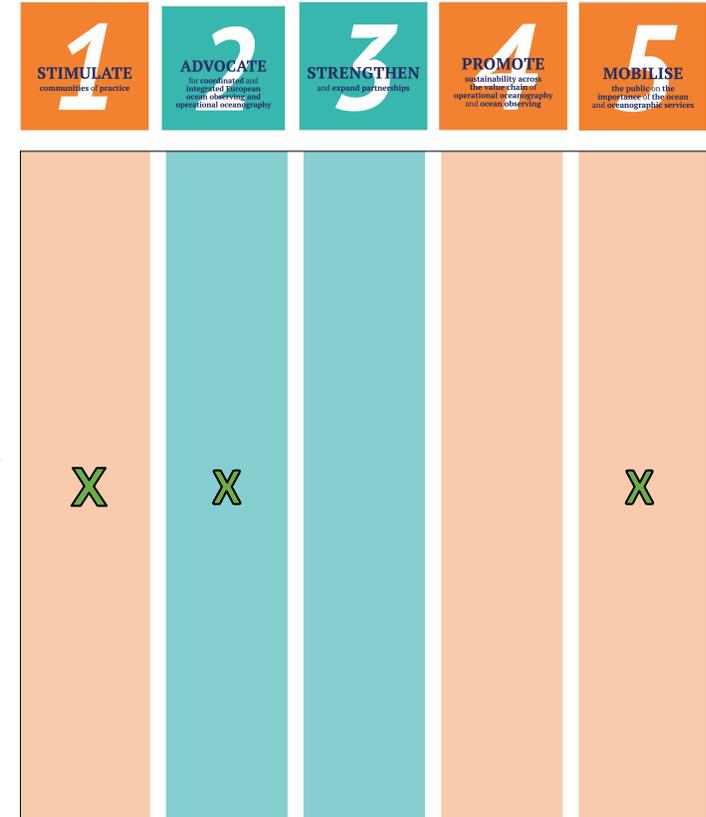
- The partnership with **Mercator** is a great opportunity for the EuroGOOS community. We have an MoU, but we need to feed this collaboration through regular exchanges in terms of requirements, user experience, regional approach to modeling.

-> We need a group within **EuroGOOS** to monitor this partnership from a scientific point of view.



Activities highlights

SAWG is an open forum/ a think tank for sharing innovative trends and scientific challenges faced by our institutions, countries and regions....



- The **user-oriented approach** is going to become predominant with the emergence of DTOs and On-demand services. But our community generally lacks guidelines and best practices. ROOS has long-standing experience of managing user relations and setting up user forums.

-> **EuroGOOS** has a strategic role to play in collecting and promoting existing European expertise.

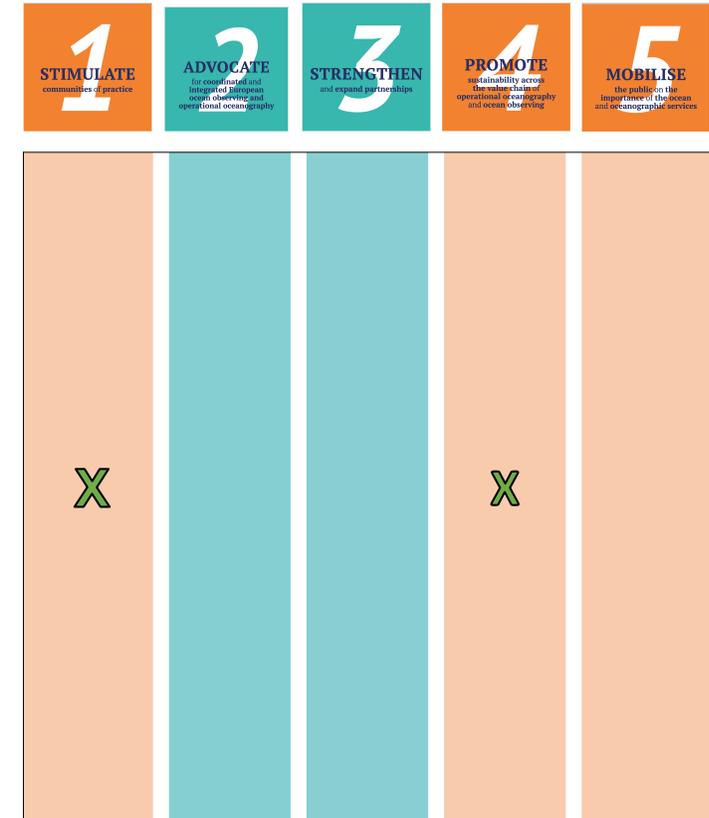


Activities highlights

SAWG is an open forum/ a think tank for sharing innovative trends and scientific challenges faced by our institutions, countries and regions....

- **Ecosystem observation strategies** (including biology) are benefitting from being discussed at European level, as would the design of observation systems using new techniques: AUV, Drones, etc. (including regulatory aspects).

-> Does **EuroGOOS** have enough dedicated space for this?



Activities highlights

SAWG is an open forum/ a think tank for sharing innovative trends and scientific challenges faced by our institutions, countries and regions....

- Marine renewable energies
- Mercator partnership
- The user-oriented approach
- Ecosystem observation strategies



1 STIMULATE communities of practice	2 ADVOCATE for coordinated and integrated European operational observing and operational oceanography	3 STRENGTHEN and expand partnerships	4 PROMOTE sustainability across the value chain of operational oceanography and ocean observing	5 MOBILISE the public in the importance of the ocean and oceanographic services
X	X		X	
X		X		
X	X			X
X			X	

Activities highlights

1 STIMULATE communities of practice	2 ADVOCATE for coordinated and integrated European operational observing and operational oceanography	3 STRENGTHEN and expand partnerships	4 PROMOTE sustainability across the value chain of operational oceanography and ocean observing	5 MOBILISE the public in the importance of the ocean and oceanographic services
X	X	X	X	X

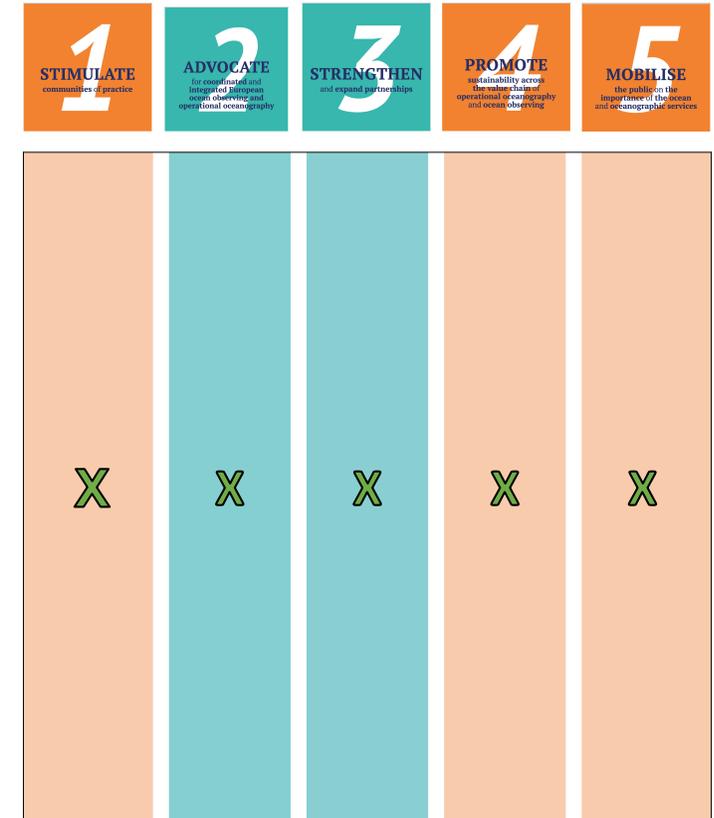
Activities highlights



Key achievement:

Planning for White Paper with writing teams established for chapters aligned with the **GOOS Strategy 2030**, on:

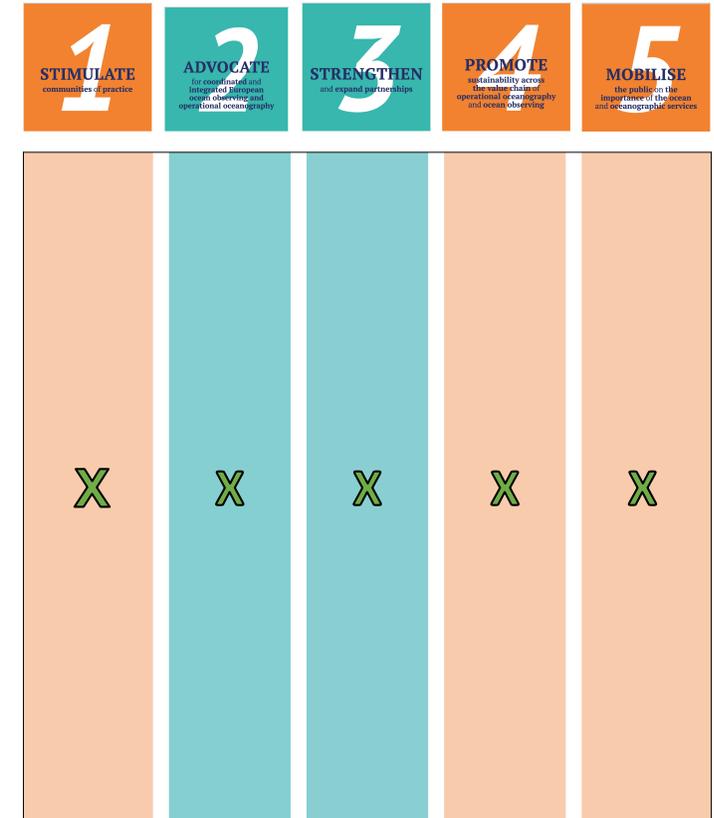
- I. Observations,
- II. Data management
- III. Analysis & modelling
- IV. Applications



Activities highlights



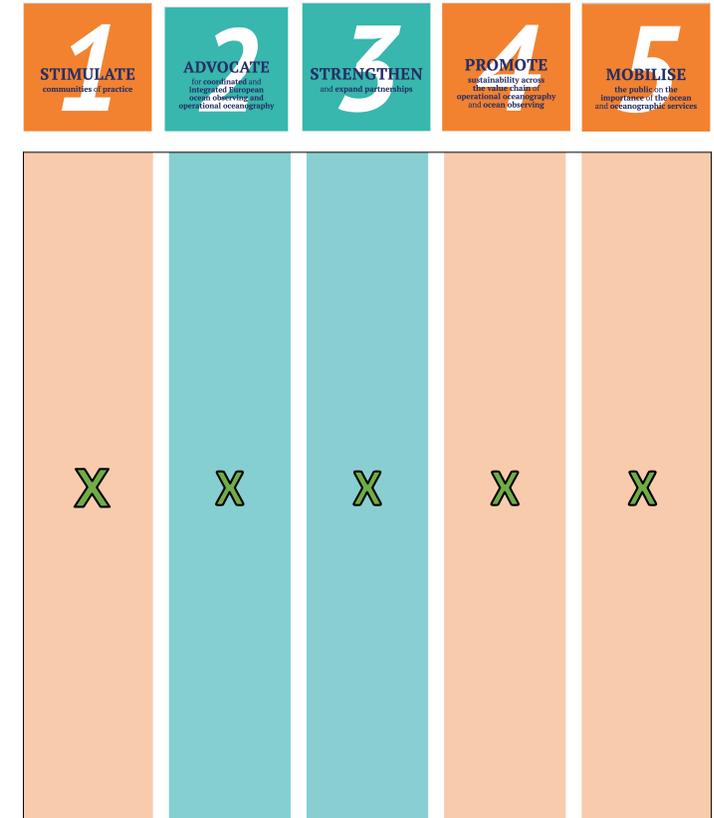
- ✓ Collective view of EuroGOOS Members, highlighting EuroGOOS strategic role
- ✓ Not simply be a scientific review, although a version of it may be submitted for publication as a paper.
- ✓ Approximately 15-page doc for policymakers and programme managers.
- ✓ Material for policy briefing events and other communication supports



Activities highlights



- ✓ Collective view of EuroGOOS Members, highlighting EuroGOOS strategic role
- ✓ Not simply be a scientific review, although a version of it may be submitted for publication as a paper.
- ✓ Approximately 15-page doc for policymakers and programme managers.
- ✓ Material for policy briefing event and other communication supports

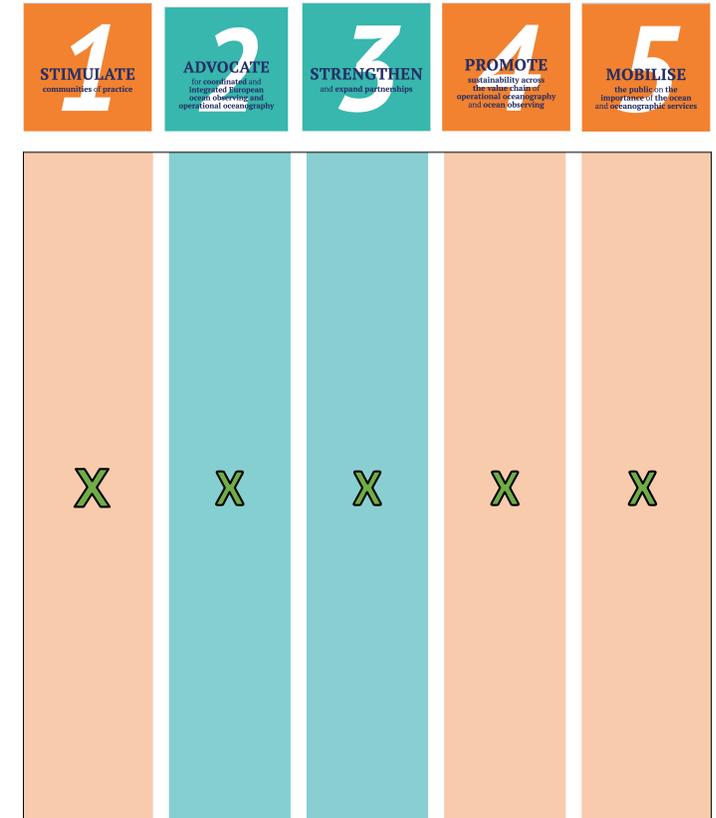


Previous EuroGOOS white paper published in 2016 (DOI: 10.5194/os-12-953-2016)

Activities highlights



Where to start ?

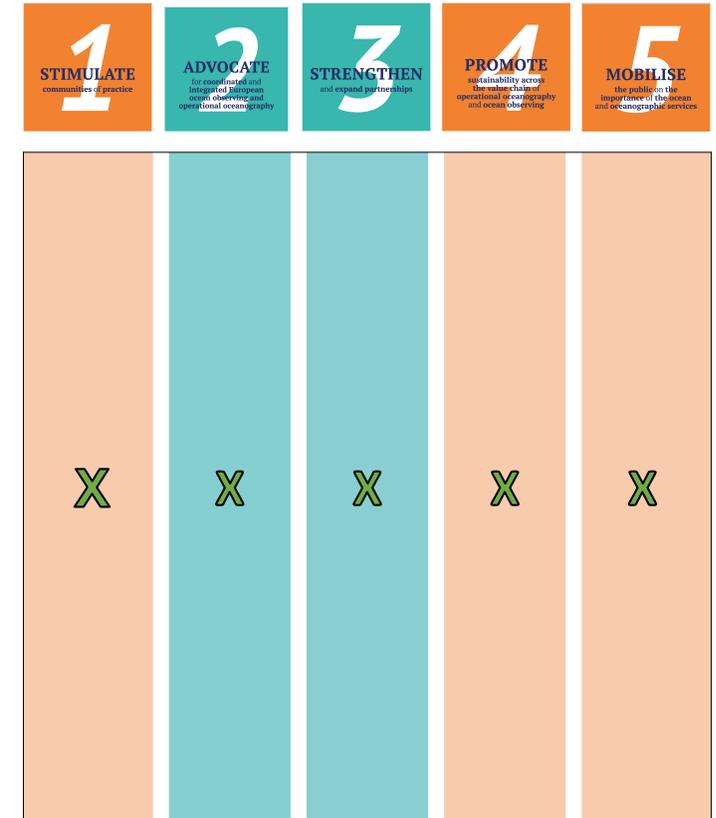


Activities highlights



Where to start ?

Brainstorming Sessions!



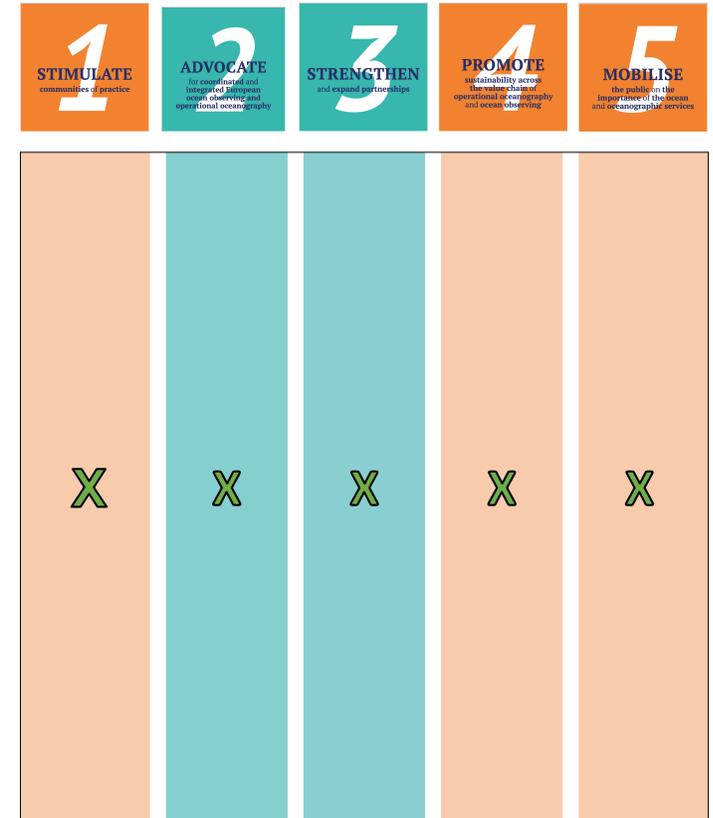
Activities highlights



Where to start ?

Brainstorming Sessions!

1-Hour web-based session



Activities highlights

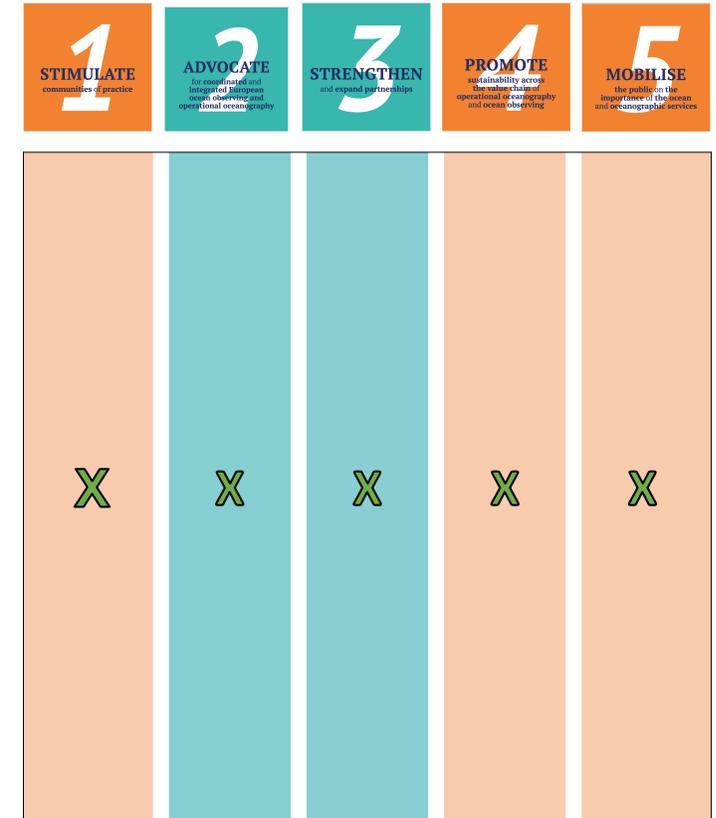


Where to start ?

Brainstorming Sessions!

1-Hour web-based session

All members TT, WG, ROOS invited



Activities highlights



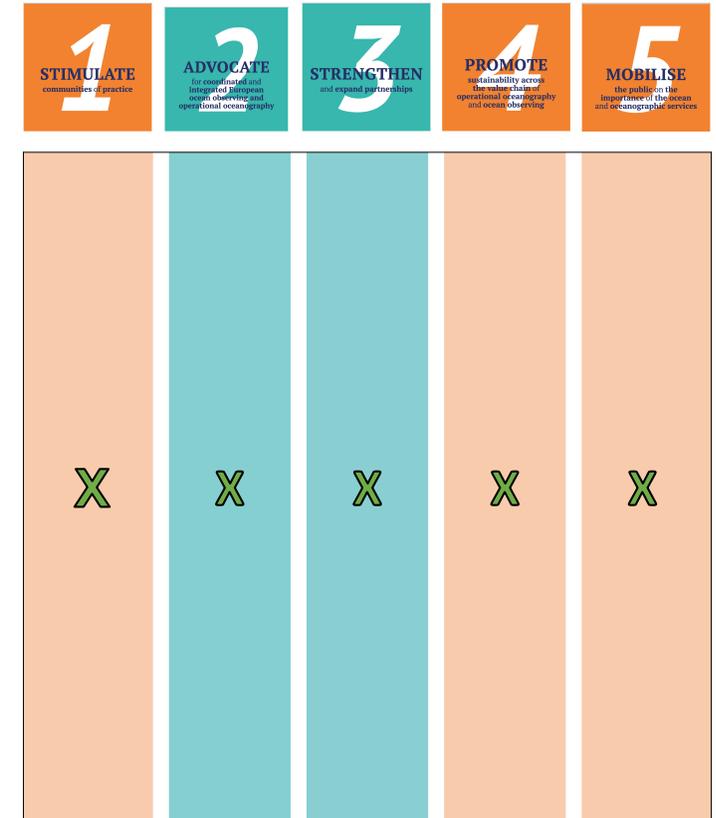
Where to start ?

Brainstorming Sessions!

1-Hour web-based session

All members TT, WG, ROOS invited

SAWG writing team is doing the preparation



Activities highlights



Where to start ?

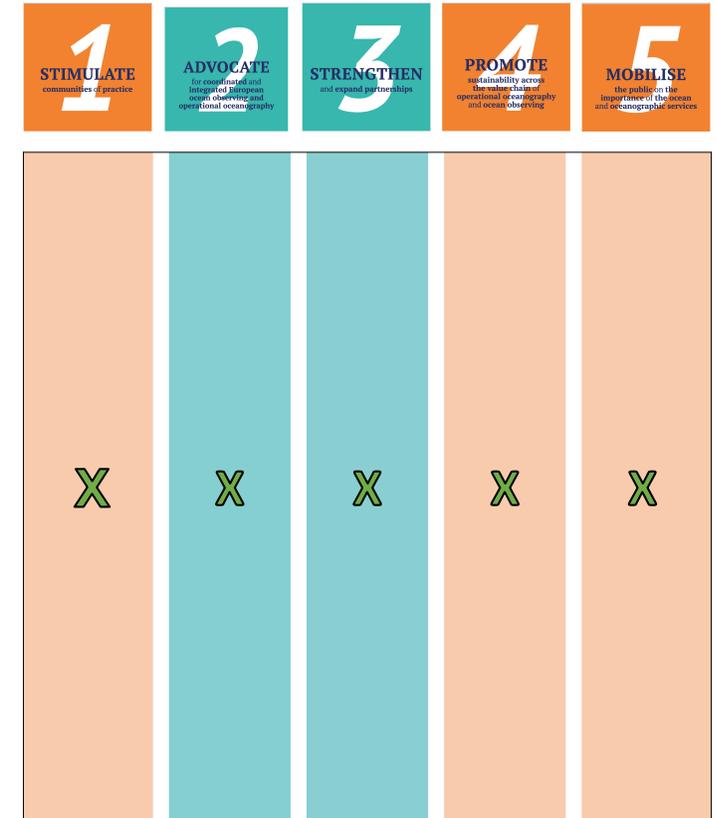
Brainstorming Sessions!

1-Hour web-based session

All members TT, WG, ROOS invited

15 minutes of inspiring presentation/
controversial ideas
45 minutes discussion (knowledge sharing)

SAWG writing team is
doing the preparation



Activities highlights



Where to start ?

Brainstorming Sessions!

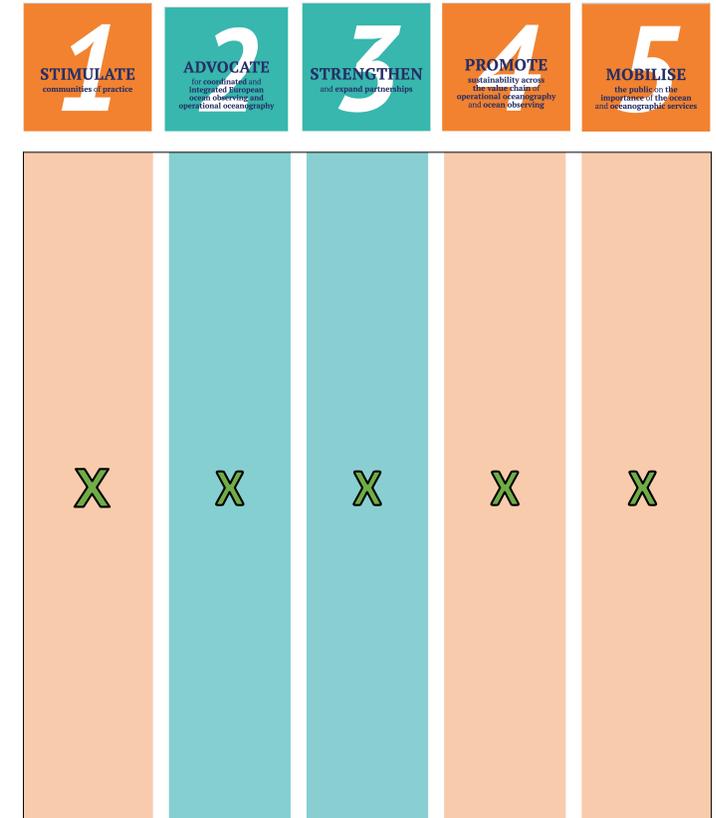
1-Hour web-based session

Interactive tools
Slido
Miro

All members TT,
WG, ROOS invited

15 minutes of inspiring presentation/
controversial ideas
45 minutes discussion (knowledge sharing)

SAWG writing team is
doing the preparation



#1 Brainstorming Session :

-1-hour Webinar - End of June – Beginning of July

#1 Brainstorming Session :

-1-hour Webinar - End of June – Beginning of July

Sustainable , Cost-efficient, environment-friendly
Ocean Observation in Europe

#1 brainstorming Session :

End of June – Beginning of July



#1 brainstorming Session :

End of June – Beginning of July



#1 brainstorming Session :

End of June – Beginning of July

How EuroGOOS is helping SDGs ?



#1 brainstorming Session :

End of June – Beginning of July

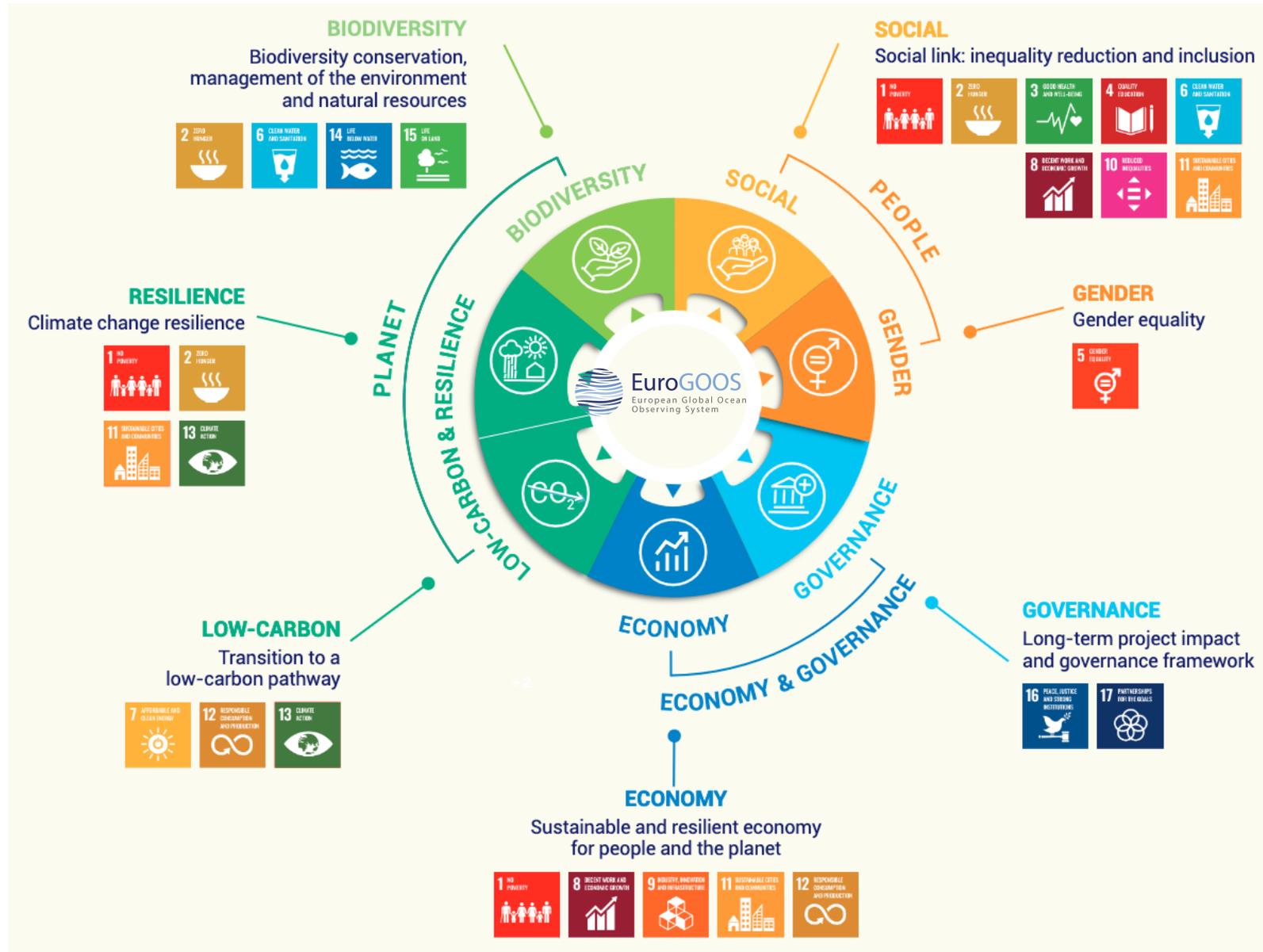


How EuroGOOS is helping SDGs ?



How SDGs are helping EuroGOOS ?







EuroGOOS
European Global Ocean
Observing System

Scientific Advisory Working Group

EuroGOOS General Assembly
30-31 May 2023



EuroGOOS
European Global Ocean
Observing System

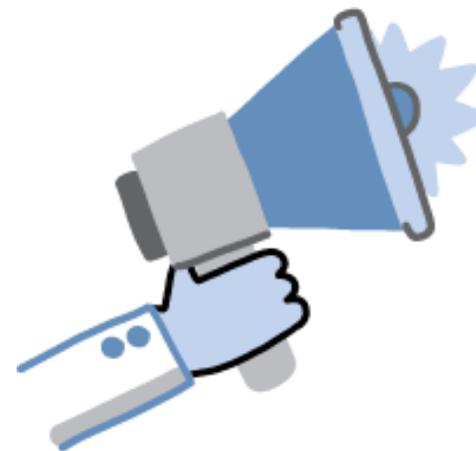
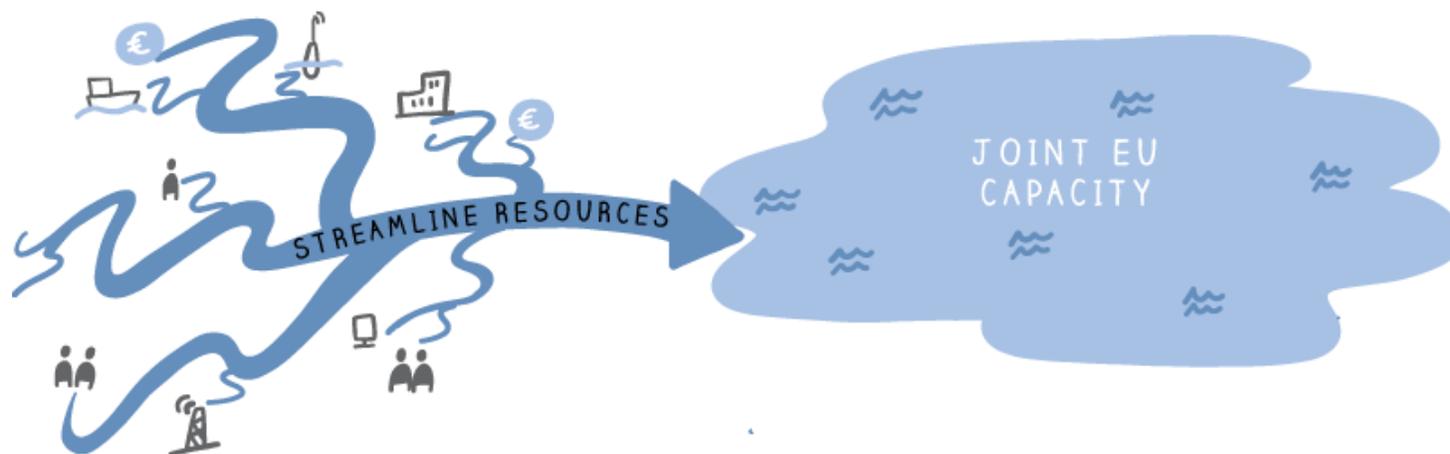


we're hiring

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et

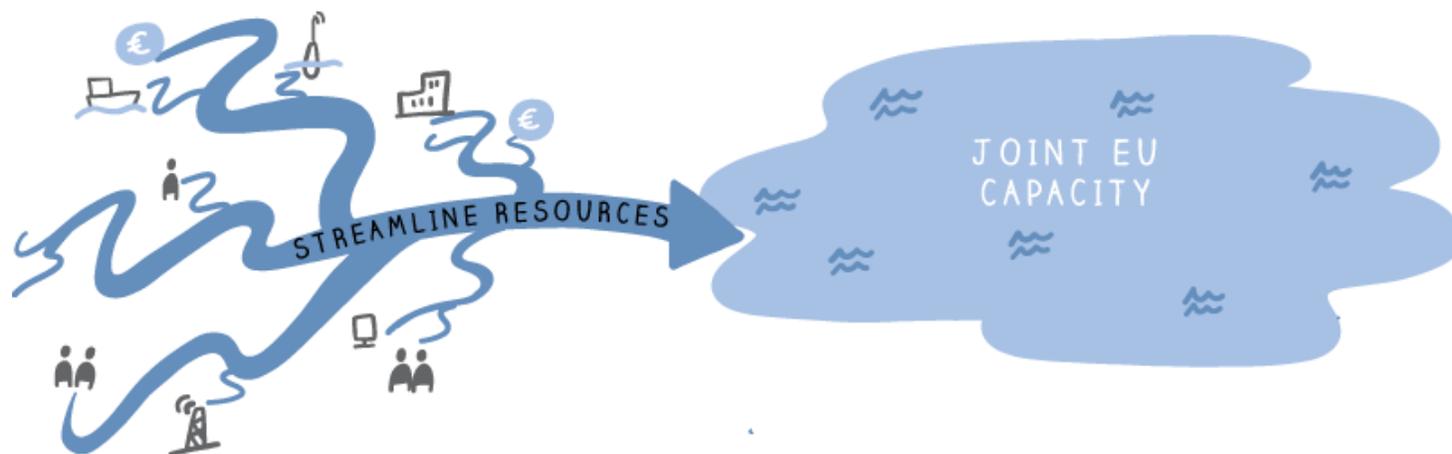
[GET STARTED](#)





Chair, co-chair

email



@EuroGOOS

info@eurogoos.eu

www.eurogoos.eu



Biological Observations Working Group