



European  
Ocean  
Observing  
System

# E000S for Beginners

**Glenn Nolan, Sheila Heymans,  
Isabel Sousa Pinto**

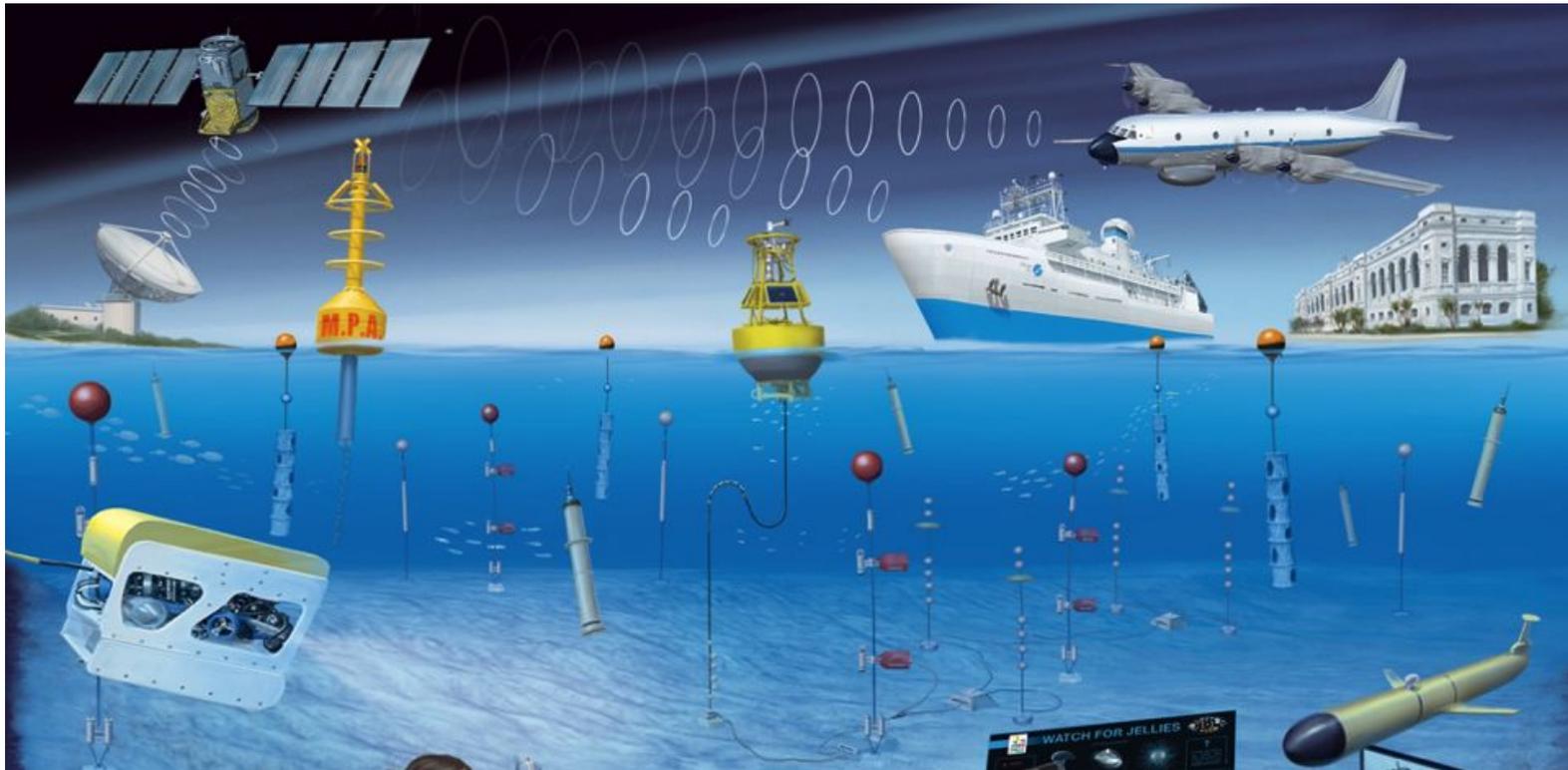


**EuroGOOS**  
European Global Ocean  
Observing System

**EuroSEA Kick-off meeting, Brussels, Nov 27-29 2019**

# Why EOOS?

**Ostend (2010) and Rome Declarations (2014) called for a dedicated European Ocean Observing System**  
Setting a vision for seas and ocean science



# Who is EOOS?



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- A community-driven initiative
- Steering Group: co-Chaired by EuroGOOS and EMB

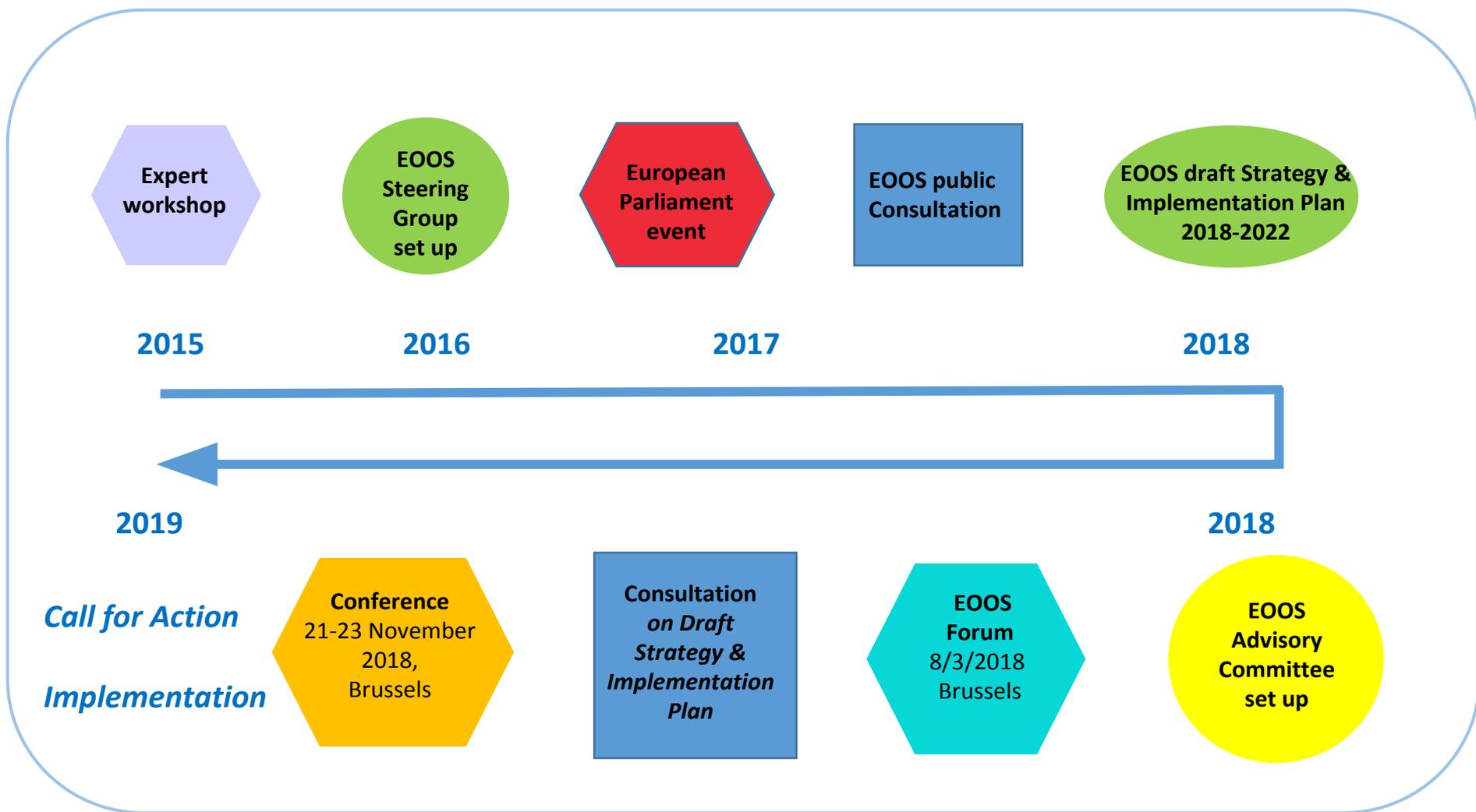
**Vision:** Connect Europe's diverse ocean observing stakeholders and make ocean observation a public utility in Europe, by strengthening coordination, strategy and sustainability in ocean observation.



# EOOS time-line

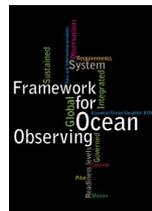


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# EOOS progress

- **2007:** EuroGOOS and EMB work together on EOOS concept supported by the community push an end-to-end sustained European ocean observing system as part of the **Integrated Maritime Policy**;
- **2008:** EuroGOOS and EMB released a joint **vision document** on EMODnet, outlining a vision for EOOS;
- **2009:** **Framework for Ocean Observing** was internationally adopted at the OceanObs conference;
- **2010:** Ostend Declaration adopted by the EuroOCEAN 2010 conference put **EOOS as one of three top priorities 2020**;
- **2010:** **EC expert group on marine research infrastructures** convened as action under the EU Strategy for Marine and Maritime Research;
- **2012:** **Industry-led vision** for an Open Integrated Sea Information System released;
- **2013:** **Towards European Integrated Ocean Observation report** released by EC expert group on marine research infrastructures;
- **2013:** **Navigating the Future IV**, EMB position paper, dedicated chapter 11 to EOOS;
- **2014:** EuroGOOS and EMB make a **call at EuroOCEAN 2014** and start actions to make EOOS reality;
- **2015:** Joint EuroGOOS-EMB **brainstorming expert workshop on EOOS**;
- **2016:** EOOS draft **concept** document released based on the workshop outcomes, **branding** launched, **EOOS steering group** started working to develop a roadmap for a wide consultation



# Building a European Ocean Observing System

8 September 2016, 15:00-18:00  
Room ASP 3 G 3  
European Parliament, Brussels

HOSTED BY  
**Ricardo Serrão Santos MEP**

*“With every drop of water you drink, every breath you take, you’re connected to the sea. No matter where on Earth you live.”*

SYLVIA EABLE, OCEANOGRAPHER, UNCHAMPION OF THE EARTH

The ocean is a crucial driver of our climate, a source of food, water, energy and raw materials, and a medium for tourism, transport and commerce. Blue Growth and ecosystem health rely on the ocean observing information.

We need ocean observing for predicting natural hazards, e.g. tsunamis and storm surges; marine spatial planning, search and rescue operations, and ecosystem and climate modelling. Sustained monitoring and observation of our coastal seas and oceans is essential for multiple maritime sectors from ports and shipping to fisheries and aquaculture, offshore energy, tourism and leisure.



- **GOOS Regional Alliances Forum**
- Meetings with **Commissioner Vella**
- **Galway: Seabed Mapping WG**
- **EOOS events: European Parliament, Forum, Conference**
- **CIESM Congress**
- **COLUMBUS Conference**
- **RI meetings: Jerico, AtlantOS, Euro-Argo, FixO3, GAIC, ENVRI+**
- **Exhibitions: EMD, UNESCO IOC World Oceans Day, EGU, AGU, IMDIS**
- **EC Science and Business Forum**
- **GEO-XIII Plenary**
- **International MSP Conference, UNESCO**
- **EMD 2016, 17, 18, 19...**



# Connecting communities



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EOOS Forum, March 2018



EOOS Conference, November 2018

EOOS events Advisory Committee of ocean observation and monitoring stakeholders

Stakeholder consultation, Strategy and Implementation Plan and Call to Action co-design



# EOOS Strategy & Implementation Plan

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## EOOS Strategy 2018-2022

OCTOBER 2018



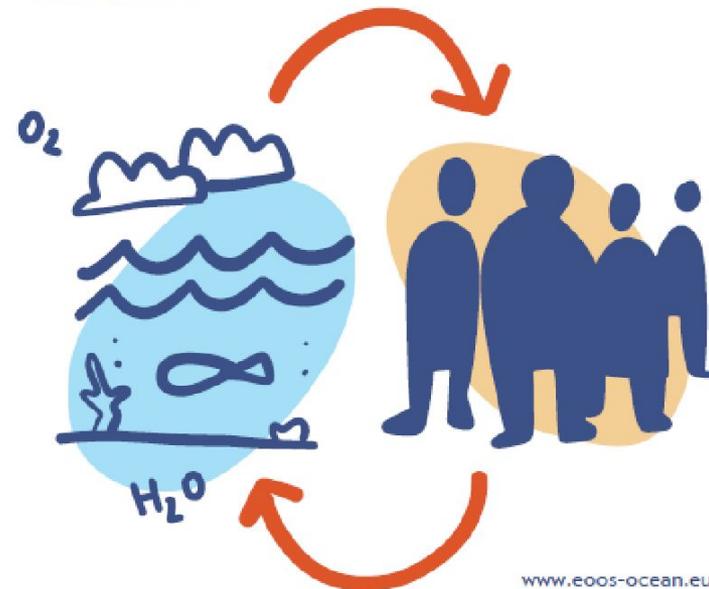
[www.eoos-ocean.eu](http://www.eoos-ocean.eu)

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## Implementation Plan 2018-2022

OCTOBER 2018



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# EOOS Conference conclusion



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- **Data collection** - the foundation of the whole marine knowledge value chain;
- **Ocean data** = blue economy enabler & prerequisite for protecting ocean health;
- Ocean science & research is not only a service to mankind if the **data are made publicly available**;
- Policy drivers and societal needs are changing and we have the infrastructures, know-how, networks, mechanisms and resources to build on what exists already – can we step up to the challenge? How to dialogue and coordinate our existing capability to deliver a more integrated approach?

**Call to action!**

*“If we want to build solid, fact-based policies and harness our society for today’s and tomorrow’s challenges, we need to make sure that ocean observations continue [...] cross-sector international collaboration is a must and coordination and sharing is a Commission priority.”* Karmenu Vella, EC Commissioner for DG MARE



# EOOS Call to Action: Next Steps

## Extract from EOOS' call to Action 2018:

*We therefore call on European countries and the EU to examine what is currently being done under their responsibility and establish roadmaps with specific actions and indicators to move towards a more integrated, transparent and coordinated approach. The following key actions should be undertaken:*



Dissemination and communication on Call to Action



Scoping study **on national coordination mechanisms for marine monitoring and ocean observing** (spring-summer 2019)



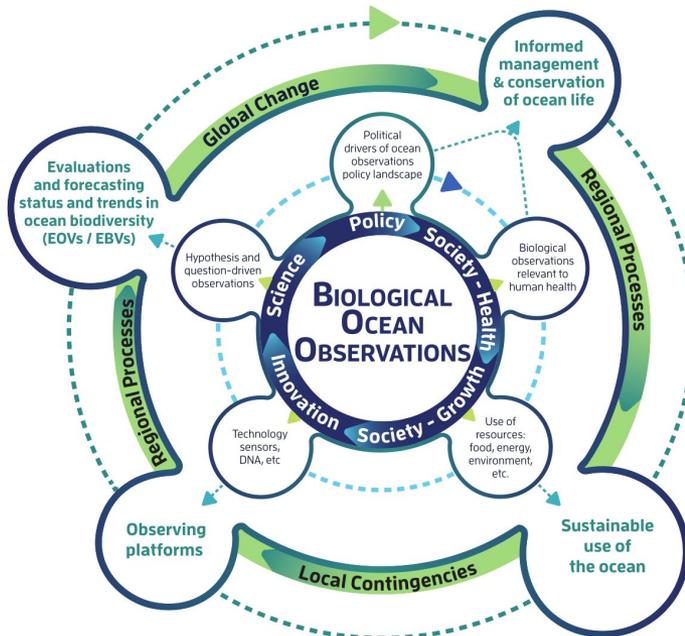
Tracking uptake and impact of Call to Action at national and European level (spring 2020)

# EOOS pilot projects



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**EMB Biological Observations Future Science Brief:**  
Europe needs a multi-purpose integrated biological ocean observing system to underpin sustainable management of human activity (CFP, WFD); Implement policy: CBD and MSFD; develop an integrated system that meet user needs (MSP); and assess progress against conservation targets (CBD Aichi Targets), the Sustainable Development Goals (SDGs), and the Blue Growth agenda



## Future Science Brief

N° 3 July 2018

### Strengthening Europe's Capability in Biological Ocean Observations

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

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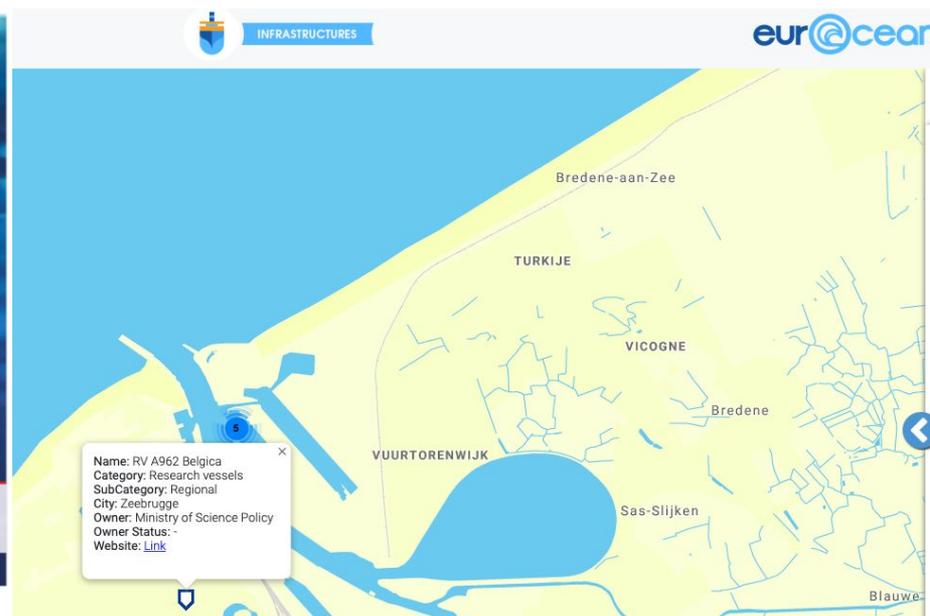
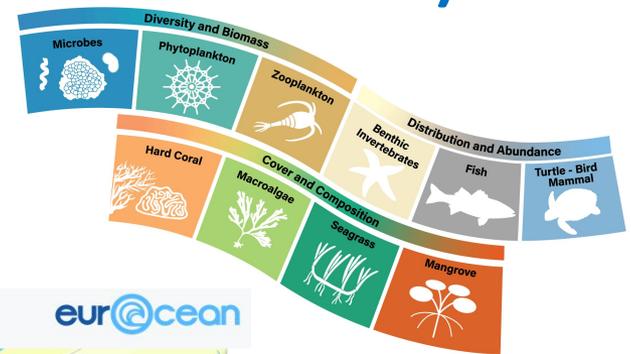




# Concept notes in preparation



Requirements (CMEMS, EEA and other)  
Mapping stakeholders (EurOcean)  
Biological networks (specific resources in EuroSEA)  
Cost benefit analysis



Observations

Forecast/analysis/aggregation

Services



Ocean  
health

Partners

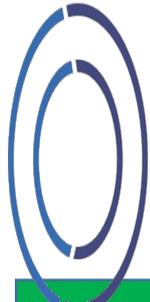
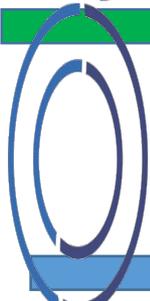
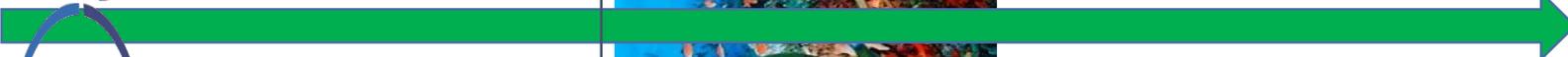


**EuroGOOS**  
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Operational services



Partners



Climate

# EUROPEAN GLOBAL OCEAN OBSERVING SYSTEM

EUROGOOS

GOOS

EuroGOOS supports EOOS with:

Climate

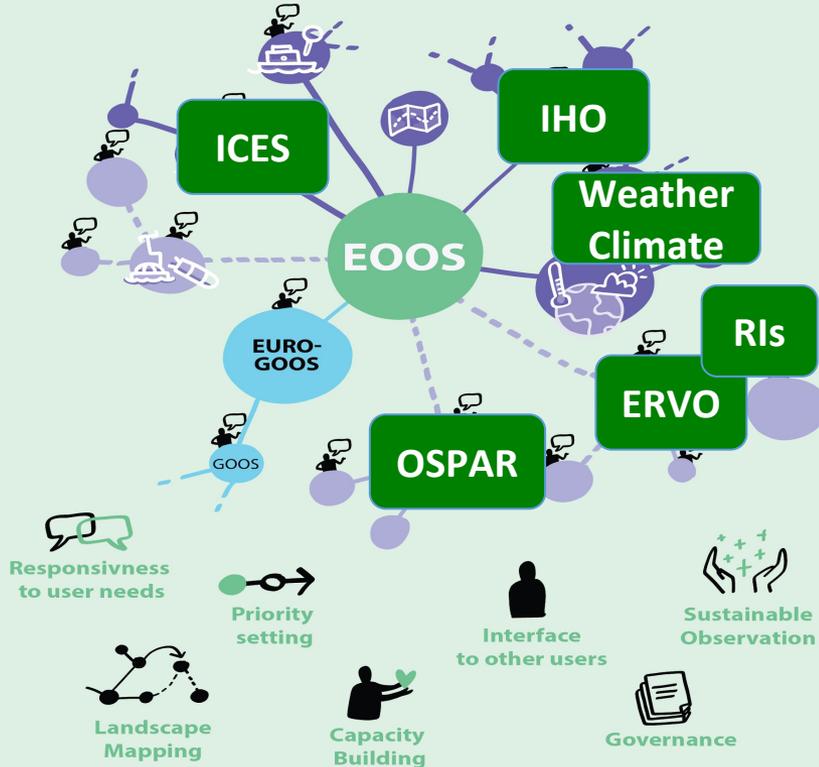
Ocean health

Operational services

Partners

Partners

# EUROPEAN OCEAN OBSERVING SYSTEM

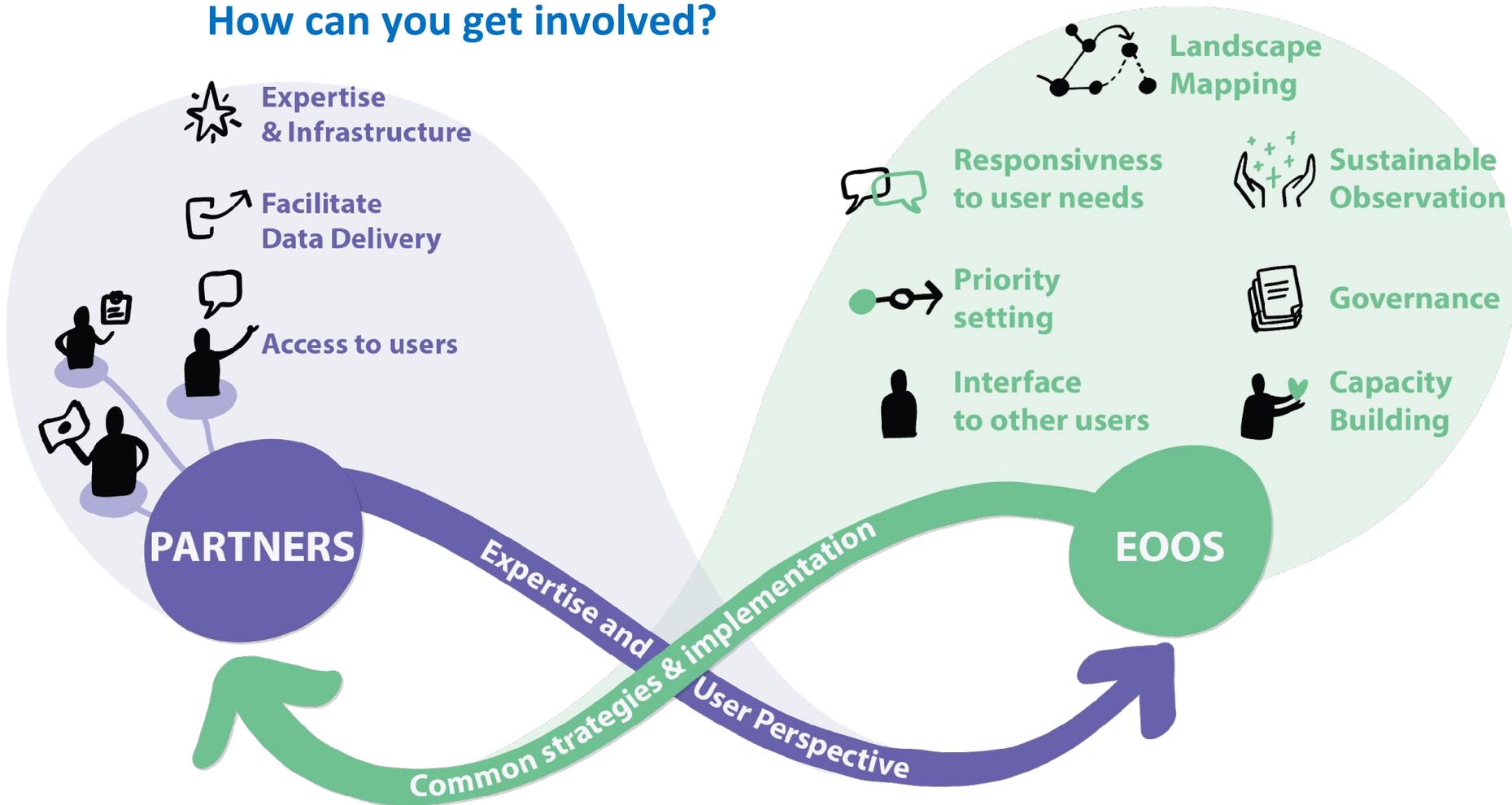


# Partnerships



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## How can you get involved?

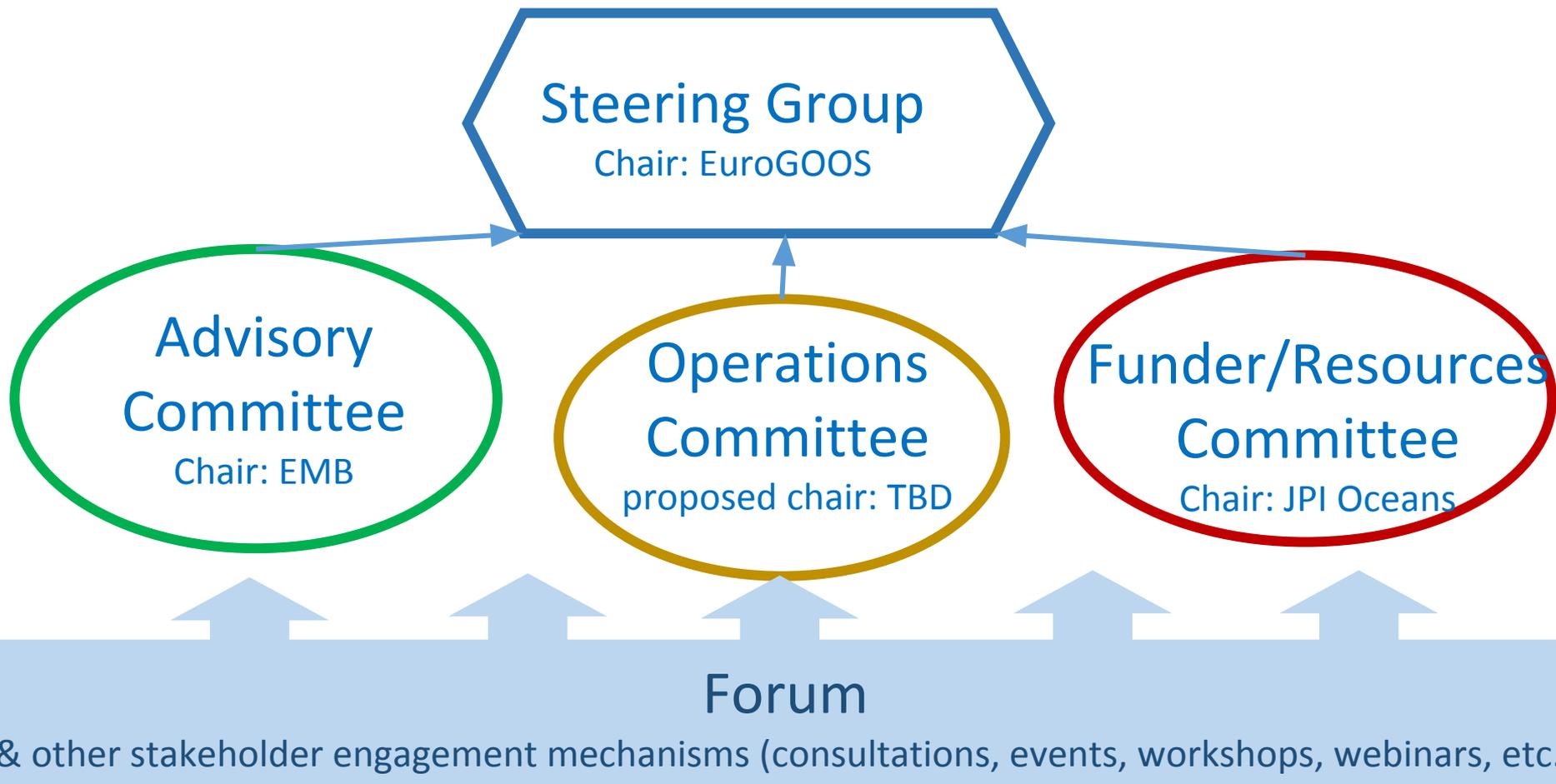


# Governance 2019



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## Structure in place as of 1 May 2019



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# E00S Implementation cycle



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# EOOS Funders Committee

The EOOS funders committee will **help with the long-term sustainability of ocean observing in Europe**. This committee should include national and European funders of ocean observing. It is proposed that this committee be led by the Executive Director of JPI Ocean

## The members of this Funders Committee will include:

- JPI Oceans Executive Director (Chair) - TBC
- Industries
- Foundations / donors
- National representatives (e.g. “revigorated” GOOS focal points) or directorate of main European marine centres.

## Observers:

- EOOS SG members and supporting staff
- Advisory and Operations Committees’ chairs

# Operations Committee (support through EuroSEA)

Membership	Terms of reference
<ul style="list-style-type: none"> <li>• EuroGOOS ROOS Chairs (5)</li> <li>• RIs : EMBRC, EuroFLEETS/ERVO, EuroARGO, ICOS, EMSO, Danubius, Jerico</li> <li>• EuroGOOS Task Teams</li> <li>• Hydrographic offices</li> <li>• Reinvigorated GOOS Focal Points</li> <li>• Other “implementers” to be identified – national operators, implementers?</li>   <li>• Observers:               <ul style="list-style-type: none"> <li>- EOOS SG members and supporting staff</li> <li>- Advisory Committee and Resource Forum chairs</li> </ul> </li>   <li>• Supporting the Committee:               <ul style="list-style-type: none"> <li>- EuroGOOS secretariat TBD</li> </ul> </li> </ul>	<p>Provide information about relevant strategic opportunities for EOOS;</p> <ul style="list-style-type: none"> <li>- Specify system requirements to meet user needs sustainably;</li> <li>- Enable the EOOS implementation plan where relevant and practicable;</li> <li>- Advise the EOOS Steering Group about changes in the ocean observing landscape at European and international level;</li> <li>- Contribute to mapping of infrastructure, technology and human capacity;</li> <li>- Identify shared priorities and advise on EOOS added value.</li> </ul>



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**Help us shape the future EOOS!**

**Check [www.eoos-ocean.eu](http://www.eoos-ocean.eu) for latest information**



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