



# **EuroGOOS** updates

Inga Lips EuroGOOS Office

# EuroGOOS

Strategy

### **EuroGOOS Strategy**





EuroGOOS 2030 Strategy

### SUSTAINED OCEAN OBSERVING

and **operational oceanography services that benefit the European society** and **are supported by it.**  TO LEAD

the development and implementation of sustained and coordinated operational oceanography across Europe.

**STIMULATE** communities of practice.

### ADVOCATE

for **coordinated** and **integrated European** ocean observing and operational oceanography.



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

observing.

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

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## EuroGOOS Strategy Implementation

### **Relevant activities for ROOS in the IP:**

### **SO1**

1.1 Strengthen and integrate EuroGOOS ROOS, TT and WG

- **Review ROOS membership**
- **Revise ROOS MoU** ٠
- Develop case studies of EG organizational integration ٠
- 1.2 Maintain a forum for exchange of BP in operational oceanography
- Facilitate linkage of ocean observing and forecasting to ٠ define priorities
- Boost synergies across all sectors ٠
- Support timely delivery of data to services ٠
- Enhance international cooperation and interoperability, ٠ re-usability and capacity development

### **SO2**

2.2 Lead the EOOS framework and create mechanisms for co-design with end users

Contribute to European Ocean Observations System design

### SO<sub>3</sub>

- 3.1 Promote earth system approach and seamless services
- Support development and implementation of seamless modelling strategy

3.2 Advance existing partnerships to enhance NRT data delivery

3.4 Develop partnerships with networks engaged in ocean health and climate observation and forecasting

- Improve synergies between these communities
- 3.7 Continue joint efforts with global programs
- Support continued engagement with OceanOPS
- Support implementation of OceanObs 19 action plan

### **SO5**

- 5.3 Promote citizen science and help integrate it into projects/ocean observing value chain
- 5.4 Promote diversity and inclusion and adequate life-long training
- Engage with early careers
- Improve diversity and inclusion in EG activities
- Contribute expertise to life-log capacity development • programs **NOOS Annual Meeting, 9 December 2021**



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# EuroGOOS

Events/Publications/Websites

# EuroGOOS 9<sup>th</sup> International Conference







### First virtual conference

- ~500 participants
- 45 countries
- 90 scientific presentations
- 22 posters



ADVANCES IN OPERATIONAL OCEANOGRAPHY:

EXPANDING EUROPE'S OCEAN OBSERVING AND FORECASTING CAPACITY



<u>Conference website</u> <u>Conference Proceedings</u> NOOS Annual Meeting, 9 December 2021

### **EuroGOOS** Publications

EuroGOOS European Global Ocean Observing System	frontiers in Marine Science	ESCAPECINE contract to Contract to Contract contract to Southern under South South		borative Automation and echnologies for Coastal
Ocean Literacy	Techno Obsern Patrizio Marian Marat V Archel George Peterba	orative Automation and IoT ologies for Coastal Ocean ving Systems ", Rat Bachmayer', Sokid Kosta', Ermanio Pietrosemol", ", Oogiar P Comerci, Sokid Aussandro Cisa" ", Filcher Thompson' and Aussandro Cisa"		in Observing Systems
in European Oceanographic Agencies EuroGOOS recommendations for the UN Decade of Ocean Science for Sustainable Development 2021-2030 EuroGOOS Policy Brief	of Barney, Bronn, OPEN ACCESS and Barnation Center and Barnation (Center)	<text><section-header><section-header><section-header> <text><section-header></section-header></text></section-header></section-header></section-header></text>	<ul> <li>Karien De Causwer<sup>3</sup>, maki<sup>1</sup>, Christina Zert<sup>1</sup><sup>1</sup><sup>1</sup><sup>1</sup><sup>1</sup><sup>1</sup><sup>1</sup><sup>1</sup><sup>1</sup><sup>1</sup><sup>1</sup><sup>1</sup><sup>1</sup><sup></sup></li></ul>	
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### **EuroGOOS Policy Brief**

The European Integrated Maritime Policy [1] aims to achieve coherence across the range of economic activities in the marine environment carried out by different marine sectors. The uses of marine resources should be constrained within sustainable limits, as stated by the "Blue Growth Directive" [2] and need to be harmonized as outlined by advation (CC BV) former (https:// menonin care (Scottano (See /

stainability 2021. 13. 8664. https://doi.org/10.3060/sac13158664 https://www.mdpi.com/journal/stastainability





ience for Good vironmental Status: A ropean Joint Action to Support Marine Policy

# EuroGOOS ROOS websites/identity





Arctic ROOS EuroGOOS Arctic Regional **Operational Oceanographic System** 



**BI-ROOS** EuroGOOS Ireland-Biscay-Iberia Regional Operational Oceanographic System



### EuroGOOS North West European Shelf **Operational Oceanographic System**



BOOS EuroGOOS Baltic Operational Oceanographic System





Data Po



#### EuroGOOS > Biological Observations Working Group (BIOWG) **Biological Observations Working** Group (BIOWG)

The EuroGOOS Biological Observations Working Group (BIOWG) works to better integrate biological observation into the EuroGOOS framework. They will contribute to the EuroGOOS 2030 strategy and aims to achieve a cultural change in biological observation from individual efforts into an integrated, and coordinated European effort with global impact to further our understanding of life in the ocean and how it interacts with and influences the environment.

#### **Key Objectives**

This working group will focus on developing rigorous and operationally focused standard specifications and operating procedures for the generation of quantitative and qualitative biological data products, so that it may

Working Group / Task Team Highlights

EuroGOOS establishes a new Biological **Observations Working Group** 

The recently renewed EuroGOOS Science Advisory Working Group will have their kick-off meeting on the 5th of October with new membership. The WG will elect a co-chair and review their ToR. There are ma.. Read more »



#### EuroGOOS Science Advisory Working Group Kick of Meeting

The recently renewed EuroGOOS Science Advisory Working Group will have their kick-off meeting on the 5th of October with new membership. The WG will elect a co-chair and review their ToR. There are ma

Taking Samples. Photo Credit: Getxo

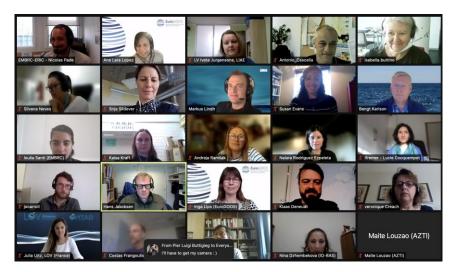
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# EuroGOOS

Working Groups

# EuroGOOS Biological Observations WG





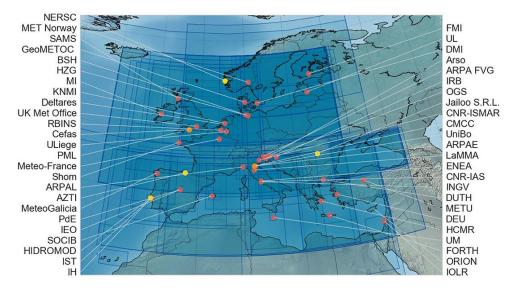


- 30 members from 25 organisations
- Kick off Meeting on 1 October 2021
- Co-Chairs: Nickolas Pade (EMBRC) and Markus Lindh (SMHI)
- Will help expand scope into ocean health and climate
- Focus on "omics" and imaging
- Develops operationally focused standard specifications and operating procedures for the generation of quantitative and qualitative biological data products
- Formulates and implements recommendations for new sensors and autonomous platform development and integration with existing approaches
- No NOOS Ambassador

### **EuroGOOS Coastal WG**

- 21 members from 18 organisations
- Co-Chairs: Ghada El-Serafy (Deltares) and Anna Rubio (AZTI) were re-elected in June 2021 for an extended 2-years mandate
- Working on a EuroGOOS Roadmap for operational Coastal Downstream Services community paper (led by Deltares and with the participation of the whole WG)
- Active participation in the Copernicus In-Situ Coordination project (EEA COINS)
- NOOS Ambassador: Sébastien Legrand (RBINS)







#### NOOS Annual Meeting, 9 December 2021 8

### EuroGOOS Data MEQ WG

- 29 members from 20 organisations
- Chair: Sylvie Pouliquen (Ifremer)
- Helps improve harmonization and integration of European marine data
- Works hand in hand with Copernicus Marine Service (CMEMS), SeaDataNet, EMODnet and EuroGOOS TTs
- Recently conducted a survey on FAIR data principles implementation among EuroGOOS and ROOS members
- Updating EuroGOOS data policy (2022)
- NOOS Ambassadors: Susanne Tamm (BSH) and Kate Collingridge (CEFAS)





## EuroGOOS Ocean Literacy WG

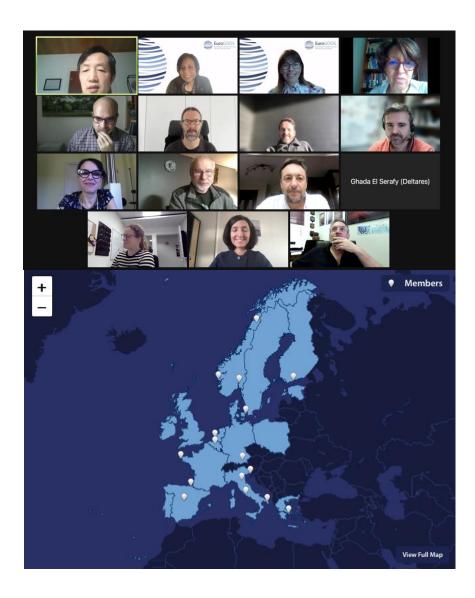




- 23 members from 17 organisations
- Kick off Meeting on 20-21 October 2021
- Co-Chairs: Yolanda Koulouri (HCMR) and Angela Pomaro (CNR)
- Upscales the national efforts in Europe and contributes to broader Ocean Literacy efforts globally
- Delivers Ocean Literacy <u>resources platform</u>
- Implements UN Ocean Decade endorsed project '<u>Scientists for Ocean Literacy</u>' (Coordinated by EuroGOOS)
- No NOOS Ambassador

### EuroGOOS Science Advisory WG





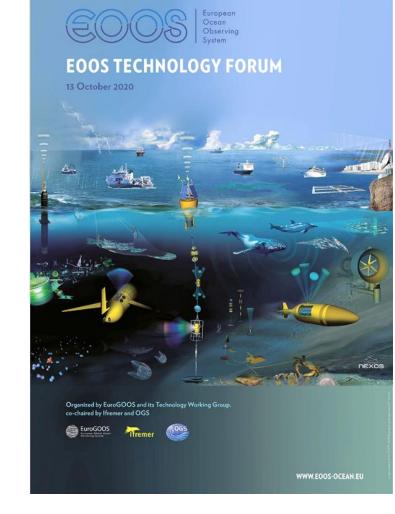
- 19 members from 18 organisations
- Re-invigorated, Kick-off Meeting on 5 October 2021
- Co-Chairs: Jun She (DMI) and Lucie Cocquempot (Ifremer)
- Aim to:
  - Support ROOS, WG and TT on their research
  - Support implementation of EuroGOOS and EOOS strategies
  - Provides advice on knowledge gaps and identifies research priorities
  - Address challenges of seamless modelling, monitoring and forecasting capacities
- NOOS Ambassador: Henning Wehde (IMR)

# EuroGOOS Technology Plan WG





- Co-Chairs: Rajesh Nair (OGS) and Laurent Delauney (Ifremer)
- Aim to:
  - Optimize collaboration and integration on technology and technical issues across observing system elements
  - Organises EOOS Technology Forums
  - Articulate and document best practices
- Virtual EOOS Tech Forum/EuroSea Technology Foresight WS 25-27 January 2022 (TBC)
- No NOOS Ambassador



# EuroGOOS

Task Teams

## EuroGOOS EuroArgo TT



European Global Ocean Working Task Teams EU Projects Members Regions EuroGOOS > EuroGOOS Euro-Argo Task Team EuroGOOS Euro-Argo Task Team

The EuroGOOS Euro-Argo Task Team Integrates the Euro-Argo ERIC Into the EuroGOOS framework to mutually coordinate actions related to operational oceanography

EuroGOOS

#### **Key Objectives**

- 1. Promote and contribute to the development of a European Ocean Observing System (EOOS). 2. Promote and engage with new institutes and
- countries to extend Euro-Argo activity in Europe 3. Promote and contribute to the development of a
- Photo Credit: Yiannis isstate-of-the are and sustained in situ component in sarts, HCMR support of the Copernicus Marine Service
- Promote the development of common operational data procedures and services. Including data guality control and data management for operational oceanography in partnership with other observing systems.
- 5. Promote the development of the scientific and technological means to carry out joint programs and concerted actions common to their respective areas.

#### Map of Members



MoU and the Statutes of the ERIC

See the Euro Argo ERIC Statutes

Working Group / Task Team Highlights EuroGOO5 establishes a new **Biological Observations Working** Group

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> > EuroGOO5 Science Advisory Working Group Kick of Meeting

The recently renewed EuroGOOS Science Advisory Working Group will have their kick-off meeting on the 5th of October with new membership. The WG will elect a co-chair and review their ToR. There are ma... Read more )

- Chair: Sylvie Pouliquen (Ifremer)
  - Call for new members and Co-Chair from countries outside of Euro-Argo ERIC
    - Facilitate collaboration and engagement between the Euro-Argo ERIC with non-Member countries
    - Increase the impact of the activities of both EuroGOOS and Euro-Argo through broader engagement
- EuroGOOS webpage updated
- No NOOS Ambassador



# EuroGOOS FerryBox TT





- 20 members from 12 organisations
- Co-Chairs: Andrew King (NIVA) and Yoana Voynova (Hereon)
- Call for new members opened in August

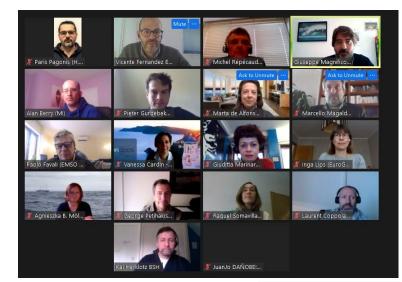
   Seven new members
- Last meeting on 8 November 2021
- FerryBox workshop, F2F likely in fall 2022 in Hereon
  - Will include biological observations
- Participating in EOOS OC OceanOPS TT
- NOOS Ambassador: Henning Wehde (IMR) and Yoana Voynova (Hereon)

# EuroGOOS Fixed Platforms TT

- 18 members from 18 organisations
- Co-Chairs: Giuseppe Magnifico (CNR), Alan Berry (MI), Paolo Favali (EMSO ERIC)
- Kick Off Meeting 25 March 2021
- Second meeting 11 October 2021
- Aims at integrating the European fixed-point observatories, both in the open and coastal ocean:
  - Seabed stations

     o Cabled observatories
     o Stand-alone platforms
  - Buoys and Moorings (Oceanic and Coastal)
  - Fixed coastal stations/observing systems
- No NOOS Ambassador







## EuroGOOS Gliders TT

- 24 members from 24 organisations
- Co-Chairs: Carlos Barrera (PLOCAN), Pierre Testor (CNRS), Victor Turpin (JCOMMOPS)
- Kick-Off Meeting planned in early 2022
- Represents the European voice of the global glider community
- Coordinate and assist in the standardization and sharing of best practices for glider operations and data and metadata sharing and management
- NOOS Ambassador: Holger Brix (Hereon)







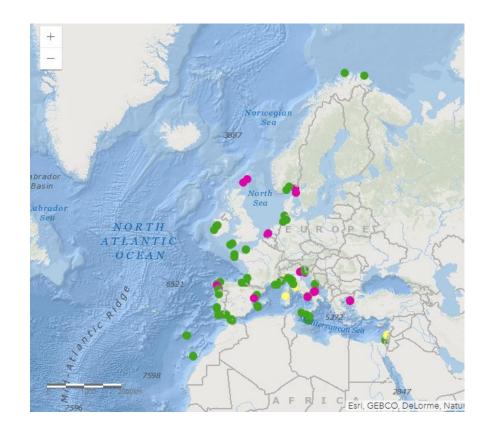
# EuroGOOS HF Radar TT

- 54 members from 32 organisations
- Chair: Julien Mader (AZTI)
- Inventory of HFR updated in July 2021 (69 ongoing systems in green, future installations (14) in yellow and nonfunctioning (24). 45 HFRs are connected to the HFR node (pulsing circles) sending data in near real-time <u>http://eurogoos.eu/high-frequency-radar-taskteam/</u>
- An EuroSea Deliverable was produced with a proposal of a European Radar Network Governance <u>https://eurosea.eu/download/eurosea-d3-4hfr-governance/?wpdmdl=3585&refresh=619b7733dc8aa</u>

<u>1637578547</u>

- Next meeting in Spring 2022 focuses on the Wave measurements from HF Radar
- NOOS Ambassador: Jochen Horstmann (Hereon)









## EuroGOOS Tide Gauges TT

- 35 members from 27 organisations
- New Co-Chairs: Angela Hibbert (NOC); Elizabeth Bradshaw (BODC); Claire Fraboul (SHOM)
- On-going work: Metadata catalogue (on-line portal) of all permanent, managed sea level monitoring stations across Europe and adjacent coastlines, including North-Africa <u>http://eutgn.marine.ie/geonetwork/srv/spa/catalog.search#/home</u>
- The TT has contributed in EuroSea to a web portal for global sea level data which have been derived from Global Navigation Satellite System-Interferometric Reflectometry (GNSS-IR) <a href="https://psmsl.org/data/gnssir/map.php">https://psmsl.org/data/gnssir/map.php</a>
- NOOS Ambassadors: Anna von Gyldenfeldt (BSH) and Martin Verlaan (Deltares)

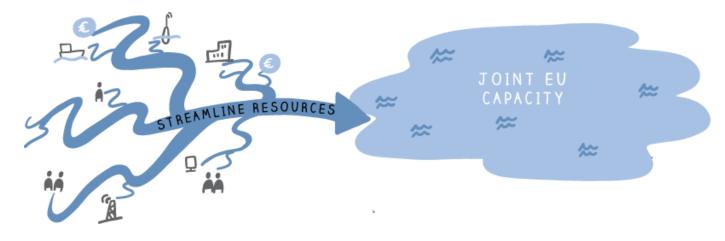












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