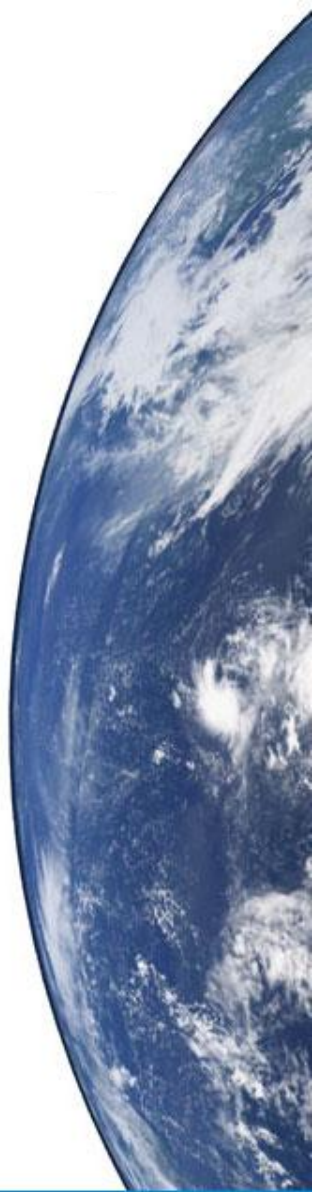




GRA Background Report **EuroGOOS AISBL**

Inga Lips

*GOOS Regional Forum-11,
8-9 April 2024 Barcelona, Spain*



UNESCO
UNITED NATIONS
EDUCATIONAL
SCIENTIFIC
AND
CULTURAL
ORGANIZATION



IOC



WMO



UNEP



ICSU

EuroGOOS evolvement

46 Member Organisations of EuroGOOS Association
19 from countries




ArcticROOS
EuroGOOS Arctic Regional
Ocean Observing System



NOOS
EuroGOOS North West European Shelf
Operational Oceanographic System



IBIROOS
EuroGOOS Ireland Biscay Iberia
Regional Operational Oceanographic System



BOOS
EuroGOOS Baltic Regional
Operational Oceanographic System



MonGOOS

Success 1 – EOOS Strategy 2023-2027



**Technology
Forum 2024**

13 March 2024 • 09:45 - 17:45

📍 South Gallery Room SG5



**CATCHING THE MOMENTUM IN OCEAN OBSERVING TECHNOLOGY:
OPTIMISING VALUE AND DATA PROVISION**

- Session 1** (10:00-11:00) **Accessible technology: Needs of the ocean observing community**
- Session 2** (11:30-13:00) **Opportunities and challenges for accessible ocean observing technologies**
- Session 3** (14:00-15:30) **Data quality aspects of accessible ocean observing technologies**
- Session 4** (15:30-17:30) **Sustainability aspects of accessible ocean observing technologies**
- Closing session** (17:30-17:45)



2021
2030
United Nations Decade
of Ocean Science
for Sustainable Development

that is sustained and meets the specific
needs of users

fostering collaboration and
innovation

Success 2 – EuroGOOS 10th Int. Conference



- ✓ Operational oceanography in Europe must develop with a holistic Earth system approach.
- ✓ Without observations, ocean services and products are not possible.
- ✓ EuroGOOS activities are an important asset contributing to the UN Ocean Decade Challenges for collective impact.
- ✓ Genuine co-design of operational oceanography with users and stakeholders, including policymakers, is essential to ensure their needs are met.
- ✓ There is no operational oceanography without people - the skilled individuals without whom there would be no ocean observations, infrastructure and data management, or forecasts and services.

Success 3 – Ocean Decade Activities

3.1 Decade Implementing Partner



SCIENTISTS FOR OCEAN LITERACY (OCEANOGRAPHERS AND METEOROLOGISTS FOR OCEAN LITERACY)



3.4 Programs: CoastPredict, SciNMeet

3.2 Supporting the Ocean Predictions DCC

Success 4 — Towards an pan-Arctic ocean observing alliance (Arctic GRA)

►►►► Towards a pan-Arctic alliance for ocean observing

What is an ocean observing alliance?

Ocean observing alliances identify, enable, coordinate, and develop sustained ocean monitoring and services to meet regional and national priorities. Several existing ocean observing alliances around the world are endorsed as **GOOS Regional Alliances (GRAs)**, aligning the global goals of the **Global Ocean Observing System (GOOS)** with the need for services and products satisfying local requirements.

As an integral part of GOOS, the GRAs are tasked with adhering to the GOOS Principles (1998) of shared ocean observations, data policy, best practices and capacity development in their implementation of regional and national ocean observation systems.

Existing GRAs include **EuroGOOS** (the GRA for Europe), the **US Integrated Ocean Observing System (IOOS)** and the **Canadian Integrated Ocean Observing System (C-IOS)**. Currently, there is no ocean observing alliance for the whole Arctic, with **Sustaining Arctic Observing Networks (SAON)** serving in this role.

What is GOOS?

The **Global Ocean Observing System (GOOS)** is a permanent programme coordinating the functioning of a long-term, sustained ocean observing system serving societal needs for climate, operational services and ocean health. GOOS binds together contributions from diverse national organisations to create a sustained global network that benefits people all over the world.

Why a pan-Arctic ocean observing alliance?

The Arctic hosts numerous national and international observing efforts, spanning coastal areas, continental shelves and the central Arctic Ocean. Challenges remain, including international coordination during planning and execution, engagement with rights holders and stakeholders, production and delivery of data products to users outside the research community and coordination with established global ocean observing programs. A GOOS Arctic regional alliance could work to address these needs.

What global benefits could a pan-Arctic marine observing alliance provide?

- Improved coordination of the currently fragmented landscape of Arctic ocean observing initiatives, programmes and projects, identifying efficiencies, reducing duplication, and better meeting user needs.
- Advocate for and support for the extension of existing global ocean observing networks into the Arctic.
- Greater coverage and accessibility of ocean information and data in the Arctic, helping to fill known gaps that limit the accuracy of climate models, ocean and weather forecasts, and scientific understanding of the Arctic in general.
- Support of knowledge-based decision-making on local to international levels.

What might a pan-Arctic ocean observing alliance look like?

The nature of a pan-Arctic ocean observing alliance is to be determined through an inclusive co-design process with engagement of rights holders and stakeholders throughout the Arctic. Existing ocean observing alliances are heterogeneous in their design, organisation and governance. Potential options include endorsement as a GRA within the governance structure of GOOS, establishing an alliance as a body with SAON, or an alternative such as the Southern Ocean Observing System (SOOS), which is a joint initiative of the Scientific Committee on Antarctic Research (SCAR) and the Scientific Committee on Oceanic Research (SCOR). A combined status is also possible.

What is the process for creating a pan-Arctic ocean observing alliance?

While the idea of a pan-Arctic ocean observing alliance has been discussed in the oceanographic community for some time, its development has been slowed by political concerns and by the COVID pandemic. In 2023 an international task team was formed to develop an inclusive process to co-design a potential future alliance, in partnership with rights-holders and stakeholders. The task team is still in development, working to ensure all necessary partners are included and represented. Once the task team has been established, the next steps will be to:

- EuroGOOS is supporting the international Task Team to advance the development of pan-Arctic ocean observing alliance. Or
- Session held at the Arctic Observing Summit in March 2024 to gather community input to process to develop a potential Arctic GRA, including engagement of Indigenous partners. The Arctic community
- Alternatives to formal GRA designation will be explored (political climate).
- The Task Team is endorsed by SAON.

►►►► Contact info

Task teams co-chairs

Arvi Heikkinen, Arctic Regional Lead, University of Lapland, Rovaniemi, Finland
 Oleg Laz, University of Washington, Seattle, USA
 David Thompson, University of Victoria, Victoria, Canada

Support

Joseph Nolan, EuroGOOS (joseph.nolan@eurogoos.eu)

Success 5 – European networks

Active European platform networks contributing to the Global networks –
HFRadars, Gliders, Tide Gauges



EUROPEAN HF RADAR COMMUNITY
Overseeing the day-to-day management of HFR data in Europe
Taking the pulse of the global ocean
#EuroGOOSTaskTeam



HFRadar
EuroGOOS Task Team

Tide Gauge
EuroGOOS Task Team

Glider
EuroGOOS Task Team

European HFRadar Node
HOME ABOUT NETWORKS
This website is under construction. This version will be updated soon.
European HFRadar Node
Overseeing the day-to-day management of HFR data in Europe.
Location and coverage HOORT Platform

EUTGN - European and adjacent areas Tide Gauge Network inventory
A database of permanent managed tide monitoring stations (V1).
Browse Tide Gauge Records View Tide Gauges Locations
EuroGOOS Tide Gauge Task Team 20 May 2022

Tide Gauge Portals Intercomparison

Catalogs selection

Metadata settings

Data settings

Loading options

Catalogs statistics

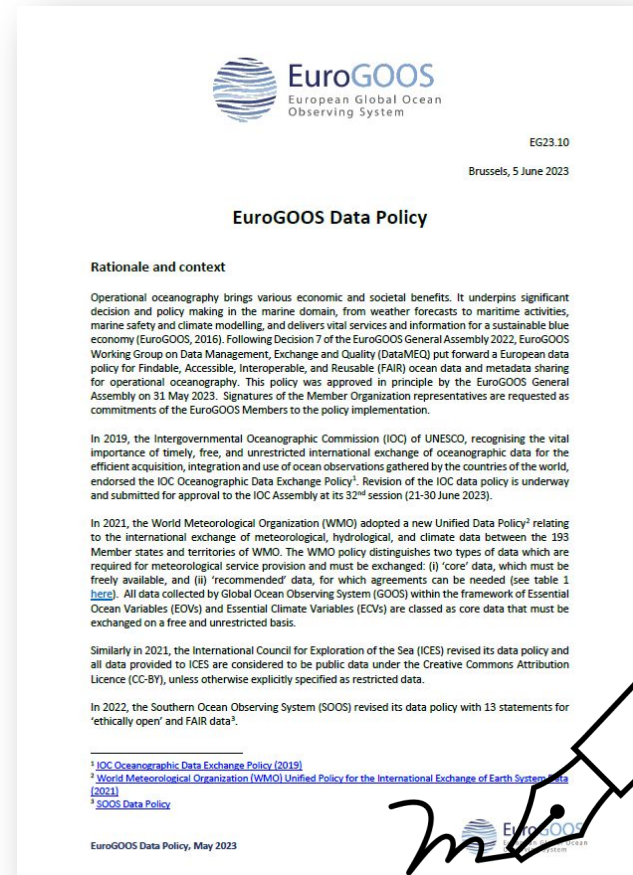
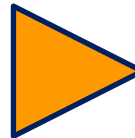
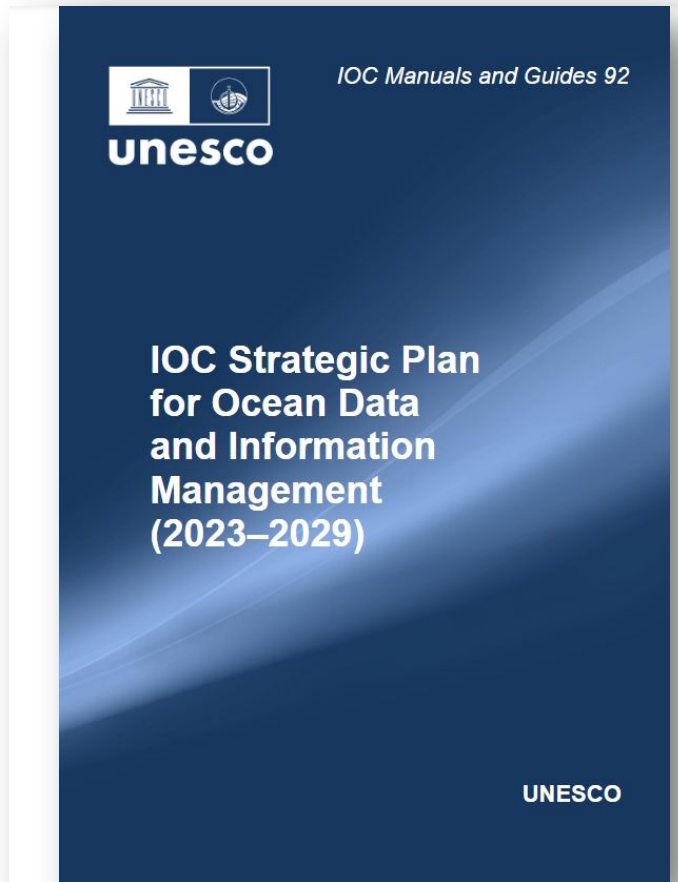
Sites map

Site informations

Potential identical sites

Name	Longitude	Latitude	Original catalog	Ref	Phase	Open code
01	10.222088	36.143332	190	3	0	1
02	10.222088	36.143332	190	3	0	1
03	10.222088	36.143332	190	3	0	1
04	10.222088	36.143332	190	3	0	1
05	10.222088	36.143332	190	3	0	1
06	10.222088	36.143332	190	3	0	1
07	10.222088	36.143332	190	3	0	1
08	10.222088	36.143332	190	3	0	1
09	10.222088	36.143332	190	3	0	1
10	10.222088	36.143332	190	3	0	1

Success 6 – EuroGOOS Data Policy



Priorities

- Short-term (in the next year or two)
 - **Communication with stakeholders and public** – there are no sustained oceanographic services for society without sustained ocean observations
 - **Identify the observation gaps** for developing Digital Twins
 - **Contribute** to the OceanPredictions DCC **global model inventory**
- Long-term (5+ years)
 - Strengthen and further EuroGOOS' role in **ocean health** and **climate services**
 - Promote sustainability across the **value chain** of operational oceanography
 - Implementation of **EOOS** supported by Member States