

Terms of Reference

Table of Contents

1.	Background, Rationale, and Link with EuroGOOS Strategic Priorities	1
2.	Target Audience and Expected Impact	1
3.	Aim and Objectives	1
4.	Composition and Operation	2
4.1	Chair’s nomination process, mandate, responsibilities	2
4.2	Members nomination and selection process, mandates, responsibilities	3
5.	Mode of Operation.....	4
6.	Deliverables.....	4

1. Background, Rationale, and Link with EuroGOOS Strategic Priorities

High Frequency Radar (HFR) networks have rapidly grown worldwide as a profitable land-based asset for both societal and research purposes, able to play a pivotal role in integrated coastal ocean observing systems+. On one hand, HFRs provide fine-resolution maps of the surface currents over broad coastal areas in near real time. Additionally, they collect reliable wave information and estimations of local wind direction, although today these products remain rather unexplored. On the other hand, HFRs have proved to be cost-effective tools to monitor extreme coastal hazards, track pollutants or biological matter, enhance numerical simulations (by resolving fine-scale processes in intricate nearshore regions) and complement biogeochemical estimations provided by other observational platforms.

The EuroGOOS High Frequency Task Team was created in 2015 in order to be one of the key communities of practice within EuroGOOS and its member institutes dealing with issues relating to planning, deployment, maintenance, and sustainability of High Frequency Radars in Europe.

The HFR Task Team aimed to contribute in the implementation of the EuroGOOS strategy (2021-2030) with links with five strategic objectives: 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. All these objectives are being implemented in close collaboration with other EuroGOOS activities (i.e. ROOS, Working Groups and other observation platform Task Teams).

2. Target Audience and Expected Impact

The target audience and stakeholders of the High Frequency Radar Task Team are the different EuroGOOS Regional Operational Oceanography Systems (ROOSs), the global HF Radar Community (<http://global-hfradar.org/>), national HF Radar operators, marine scientists, equipment suppliers and service providers, global, European and national metadata and data portals, European and national Coastal Observing Infrastructures, coastal modelling community and end-users such as ports authorities or Search and Rescue organizations.

The main expected impact is to achieve a framework to increase the collaboration and synergies between the different actors and avoid duplication of efforts while maintaining the adequate and relevant information available and easy to access for the different purposes and applications.

3. Aim and Objectives

The EuroGOOS High Frequency Radar Task Team will address the following objectives:

1. To develop the European High Frequency Radar (HFR) network and assist the standardization of HFR operations, metadata, data and applications, including:
 - All applications of coastal radars (surface current, wave, wind, target detection...)

- Applications in integration with other technologies (including satellite, X-band, fixed platforms, gliders, numerical modeling...)
2. To contribute to the development of the European Ocean Observing System (EOOS)
 3. To ensure the integration of HFR networks in the European Marine Downstream Services
 4. To act as the European component in the global HFR community
 5. To ensure open data availability via the ROOS data portals and other European data aggregators (EMODnet physics, CMEMS INSTAC, SeaDataNet)
 6. To provide recommendations (from operators to end-users) on:
 - Data and metadata structure, format and dissemination (interoperability of datasets)
 - Quality control and Quality assessment procedures
 - Validation procedures
 - Technological solutions
 7. To be a framework for:
 - sharing success stories and difficulties;
 - improving administrative procedures (installation permits, frequency sharing, etc.), regulations at European level that can be adopted in member states;
 - providing and exchanging tools (software, data analysis, applications...);
 - promoting scientific synergies for addressing key scientific questions;
 - advising about prioritized gaps that should be covered along the European coasts and looking for complementarity with other technologies or modeling products;
 - promoting joint progress through networking (e.g. creating synergies between different local consortium).

4. Composition and Operation

The Task Team is composed of a Chair, a co-Chair(s) and voluntary members representing the HF Radar community. The Chair(s) is(are) supported by a dedicated officer at the EuroGOOS office.

4.1 Chair's nomination process, mandate, responsibilities

One of the co-chairs must be a representative of a EuroGOOS member organization¹. There can be two or three co-Chairs. The mandate, role and responsibilities of the co-Chairs are the same. The co-Chairs are elected by the members of the group and approved by the EuroGOOS Executive Directors Board. The Chair's mandate is for three years and renewable.

Co-Chairs are responsible for:

- Oversight of the Task Team;

¹ <http://eurogoos.eu/about-eurogoos/members>

- Alignment of the Task Team’s work with its Terms of Reference (ToR) and with the EuroGOOS strategy;
- Developing the Task Team yearly implementation plan in line with the above;
- Reporting to the EuroGOOS General Assembly and EuroGOOS Executive Directors Board (including both at physical meetings and in writing);
- Regularly reviewing the membership of the Task Team (e.g. once a year);
- Regularly liaise with the EuroGOOS office to follow up on the Task Team’s alignment with the other EuroGOOS activities (at least monthly);
- Represent the Task Team at external meetings.

The EuroGOOS Task Team Chair is a member of the EOOS Operations Committee (<https://www.eoos-ocean.eu/approach/governance/operations-committee/>), established in 2020. The EOOS Operations Committee is part of the EOOS governance representing the ocean observing implementers at national, regional and Pan-European levels to help with the long-term sustainability of the ocean observing efforts in Europe and to implement EOOS.

The EuroGOOS Task Team co-Chair(s) and a core group of members constitute a Steering Group which coordinate and lead the work plan. The progress is communicated to all the Task Team and European HFR operators at least twice a year (a Task Team meeting is held annually).

Within the EuroGOOS organization, the ambassadors of the HFR Task Team to the Regional Systems (ROOS) play an important role for ensuring the integration and coordination of activities with the regions. Different meetings of the EuroGOOS Executive Board and Chairs are organized along the year and an annual presentation of a Progress Report takes place once a year in the EuroGOOS General Assembly in May.

Other links with the EuroGOOS Working Groups (Science Advisory, Technology Planning, Data Exchange, Coastal, Ocean Literacy) are ensured by at least one member of the Steering Group.

4.2 Members nomination and selection process, mandates, responsibilities

Members are selected based on a call for nominations to the EuroGOOS members. Task Team members can be selected through an external call for expression of interest or through voluntary candidatures.

Members do not have an established mandate unless the activity is terminated. However, membership is reviewed by the co-Chairs and the EuroGOOS office on a regular basis and can be terminated if the member does not fulfil the below responsibilities.

Members’ responsibilities are to:

- Participate in the Task Team activities;
- Deliver outputs as required, orally or in writing, in a timely manner;
- Represent the activity at external meetings, upon agreement with the co-Chairs and the EuroGOOS office;

- Attend Task Team meetings;
- Follow-up on the developments related to the Task Team’s activity, to ensure the Task Team’s work is timely and topical.

5. Mode of Operation

The terms of reference for the task team are developed by the EuroGOOS office in liaison with the Chair and submitted first to the EuroGOOS Directors Board and then to the EuroGOOS General Assembly for approval.

Once approved at the EuroGOOS General Assembly, the Task Team Chair and the EuroGOOS office launch a call for member nominations (see item 4.2).

When the membership of the Task Team is established, the Task Team is regarded as operational. In most cases, a physical kick-off meeting will be organized to agree the terms of reference with all the members and develop the first annual implementation plan. EuroGOOS office oversees the communication related to the Task Team activities. To this end, the Task Team implementation plan should be cognisant of the EuroGOOS communication strategy.

The group operates based on its terms of reference and annual implementation plans. Its activities are reviewed at the EuroGOOS Executive Directors Board meetings (three times a year) and the EuroGOOS General Assembly (annually).

6. Deliverables

A first list of envisaged deliverables is the following:

- Continuous review of the European HFR installation inventory and web map showing the systems sending data in near real time to the HFR Node
- Newsletter production (twice a year)
- Identification and roadmaps for joint work lines of interest in the community
- Reporting European Network activities in the Global HFR
- Community tools for centralized qualified data management