

# EuroGOOS Task Team Chairs' reports

EuroGOOS General Assembly  
30-31 May 2023



**EuroGOOS**  
European Global Ocean  
Observing System



**FerryBox**  
EuroGOOS Task Team

# FerryBox Task Team

EuroGOOS General Assembly  
30-31 May 2023

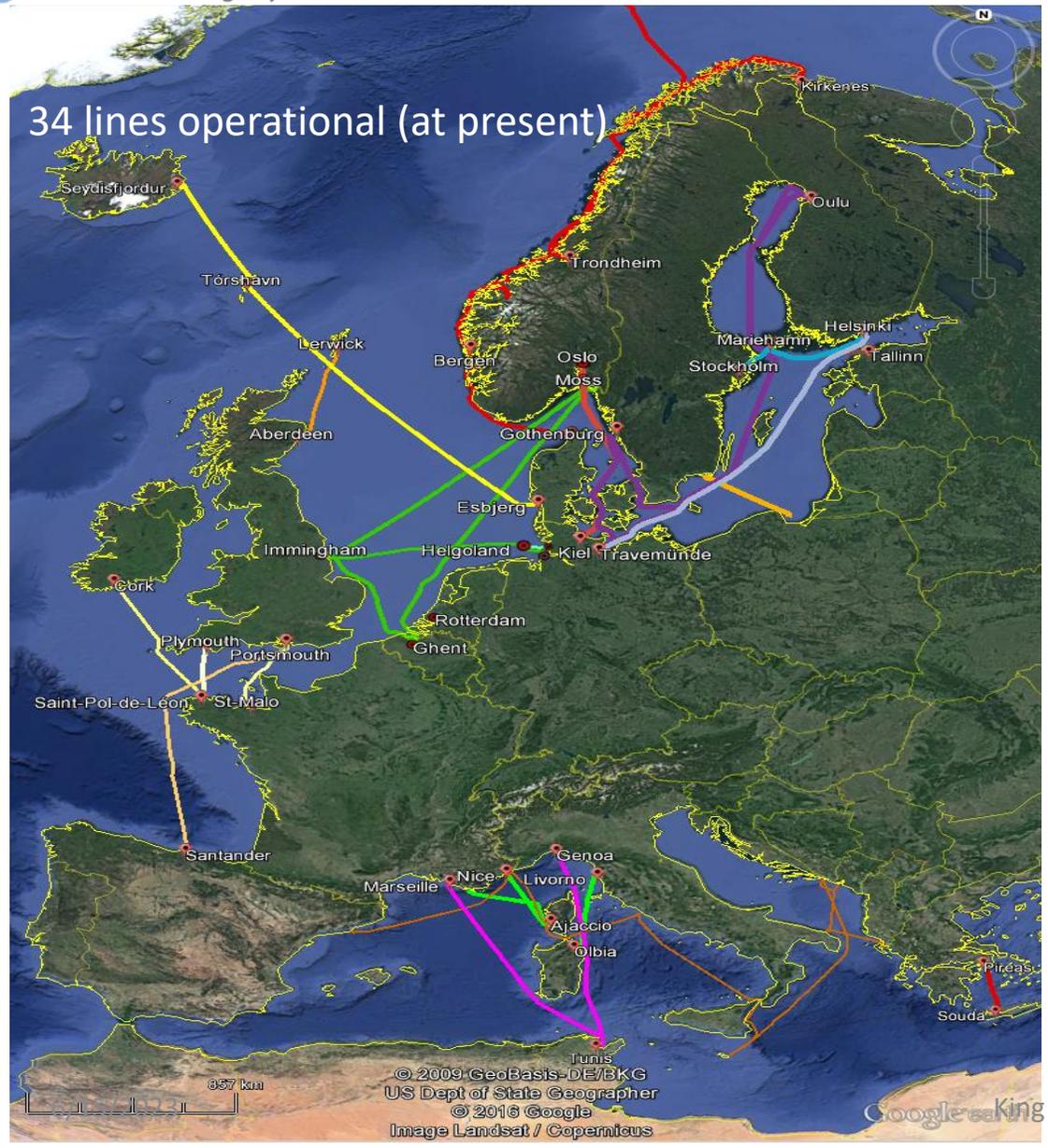
# EuroGOOS FerryBox Task Team

[www.ferrybox.org](http://www.ferrybox.org); [eurogoos.eu/ferrybox-task-team/](http://eurogoos.eu/ferrybox-task-team/)

- Partners involved :**
- Norwegian Institute for Water Research, NIVA(Norway)
  - Helmholtz-Zentrum Hereon (Germany)
  - Institute for Marine Research, IMR (Norway)
  - EuroGOOS (Belgium)
  - Finnish Environment Institute, SYKE (Finland)
  - Swedish Meteorological & Hydrological Institute, SMHI (Sweden)
  - Tallinn University of Technology, TTU (Estonia)
  - Hellenic Centre for Marine Research, HCMR (Greece)
  - French Institute for Ocean Science, IFREMER (France)
  - Centre for Environment, Fisheries & Aquaculture Science, CEFAS (UK)
  - Dutch institute for Delta Technology, Deltares (Netherlands)
  - Flanders Marine Institute, VLIZ (Belgium)**
  - Spanish Institute of Oceanography, IEO (Spain)**
  - National Research Council Italy, Marine Sci. Institute, CNR-ISMAR (Italy)**
  - Oceanic Platform of the Canary Islands, PLOCAN (Spain)**

Recently joined members in red

**Chairs: Andrew L. King (Norwegian Institute for Water Research; NIVA) & Yoana G. Voynova (Hereon)**



# FerryBox-TT Objectives

- Act as the European component of the global community using ships of opportunity
- Develop links with other EuroGOOS TT/WG/ROOS, GOOS, Ocean OPS, ICOS, and other complementary activities
- Ensure the integration of FerryBox networks in the European ocean observing efforts and contribute to the development of EOOS
- Operate and promote a common European FerryBox data portal
- Ensure and enable data availability via the EuroGOOS ROOS data portals including data quality procedures and links to CMEMS and EMODnet

# Strategy 2030: main achievements & outlook

- Stimulate communities of practice:
  - Continued contribution to H2020 projects such as JERICO-S3/DS, EuroSea, CLAIM, NAUTILOS, MINKE
  - (Always) improving data flow/QC and feeding of data to CMEMS/EMODnet
  - Best practices and QC of underway autonomous carbonate system measurements and automated phytoplankton observations, long-time QC-ed datasets analysed & published
- Advocate for coordinated and integrated ocean observations
  - Built links with Ocean-OPS/SOT and GOOS SOOPIP, also with ICOS for FB pCO<sub>2</sub> observations, EuroGOOS BIO and OL WGs, ROOSs
- Strengthen/expand partnerships
  - Added new partner institutes to the FB-TT, several new members from existing partner institutes, election of new chair/co-chair planned for 2023, training new partner institutes
  - 11th FB workshop in Sept 2022 in Hamburg organized by Hereon, together with H2020 JERICO-S3 project meetings; 12th FB workshop planned for spring 2024, tentatively organized by SYKE/FMI in Helsinki, Finland
- Promote sustainability
  - Participation in proposals/projects that include FB in infrastructure projects; continued to look for ways for FB Task Team to contribute to EOOS
- Mobilise the public
  - Promote citizen science and ocean literacy through FB-TT activities and research and with OL WG

# Recent notes from Task Team members

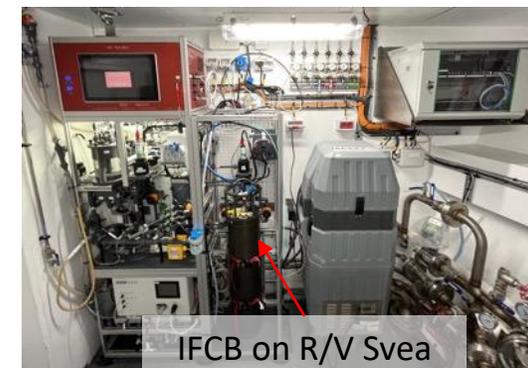
## General notes:

- **SYKE** is celebrating 30 years of observations on Silja Serenade (Helsinki-Stockholm) and Finnmaid (Helsinki-Travemunde)
- Tallinn-Helsinki FerryBox (Baltic Sea, **MSI/TTU**) not operational since September 2022 (COVID-19 and other difficulties), planned return to the normal route in July 2023.
- Baltic FerryBox calibration workshop in February 2023 (**SYKE, SMHI, NIVA**, Univ. Tartu, Univ. Helsinki)
- Operational plankton imaging systems onboard Finnmaid (Helsinki-Travemunde, **SYKE**) and R/V Svea (Baltic, Eastern North Sea, **SMHI**); in progress for M/S Color Fantasy (Oslo-Kiel, **NIVA**)



## Recently added FerryBoxes:

- **Viking Octantis** and **Viking Polaris** (cruise ships, Arctic/Antarctic, **NIVA**)
- **M/S Connector** (cargo ship, Norway-Netherlands-UK, **NIVA/RWS (Deltares)**)
- **Poseidon FerryBox** (PFB) is back operational in Cretan Sea (Eastern Mediterranean; Heraklion-Piraeus; daily frequency, 170 nautical miles, **HCMR**);  $p\text{CO}_2$  and automatic water sampling to be added in 2023
- **Tesperhude Station** (stationary, Elbe Estuary (Germany), **Hereon**)



## Upgraded FerryBoxes:

- **M/S Tavastland** (new FerryBox; cargo ship, Baltic Sea, **SMHI**)
- **NIVA/IMR** still working on implementing NorSOOP sensors and samplers

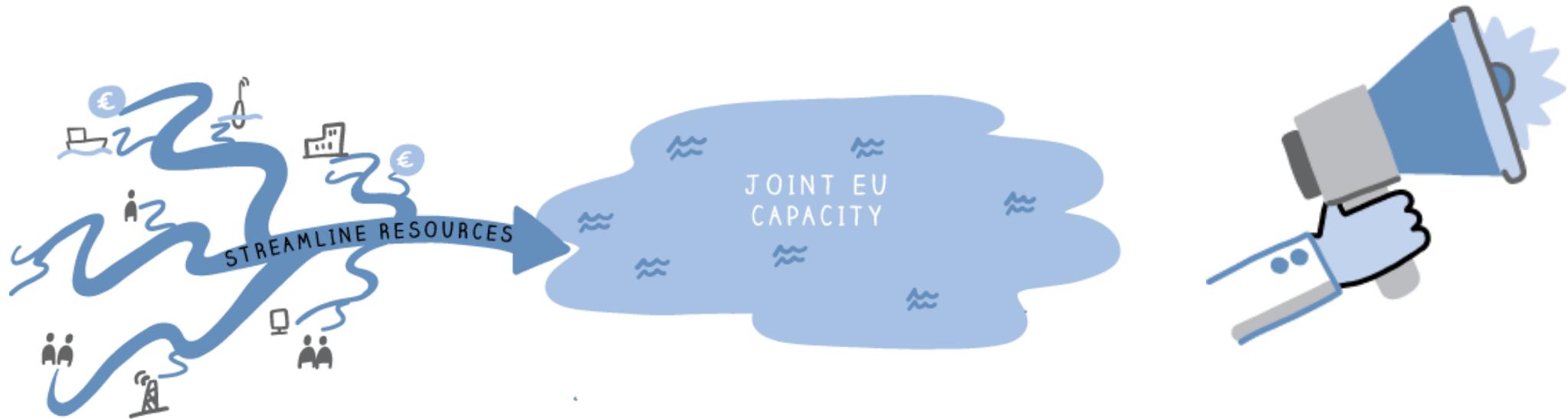
## Planned:

- **M/S Richard With** (passenger ship, coastal Norway, **NIVA**)

## FerryBox Task Team-ICOS cooperation:

- **M/S Tavastland** (cargo ship, Baltic Sea, **SMHI/SYKE**) and **M/S Trollfjord** (passenger ship, coastal Norway, **NIVA**) already involved in ICOS
- **M/S Silja Serenade** (passenger ship, Baltic Sea, **SYKE**) will join ICOS in 2023
- **Cuxhaven Station** (stationary, Elbe Estuary (Germany), **Hereon**), pilot ICOS-D estuarine station, 2023





Henning Wehde (IMR/EuroGOOS) on behalf of  
Andrew King (NIVA) & Yoana Voynova (Hereon)

[andrew.king@niva.no](mailto:andrew.king@niva.no);  
[yoana.voynova@hereon.de](mailto:yoana.voynova@hereon.de)



**EuroGOOS**  
European Global Ocean  
Observing System



# Fixed Platforms

EuroGOOS Task Team

# Fixed Platforms Task Team

EuroGOOS General Assembly  
30-31 May 2023

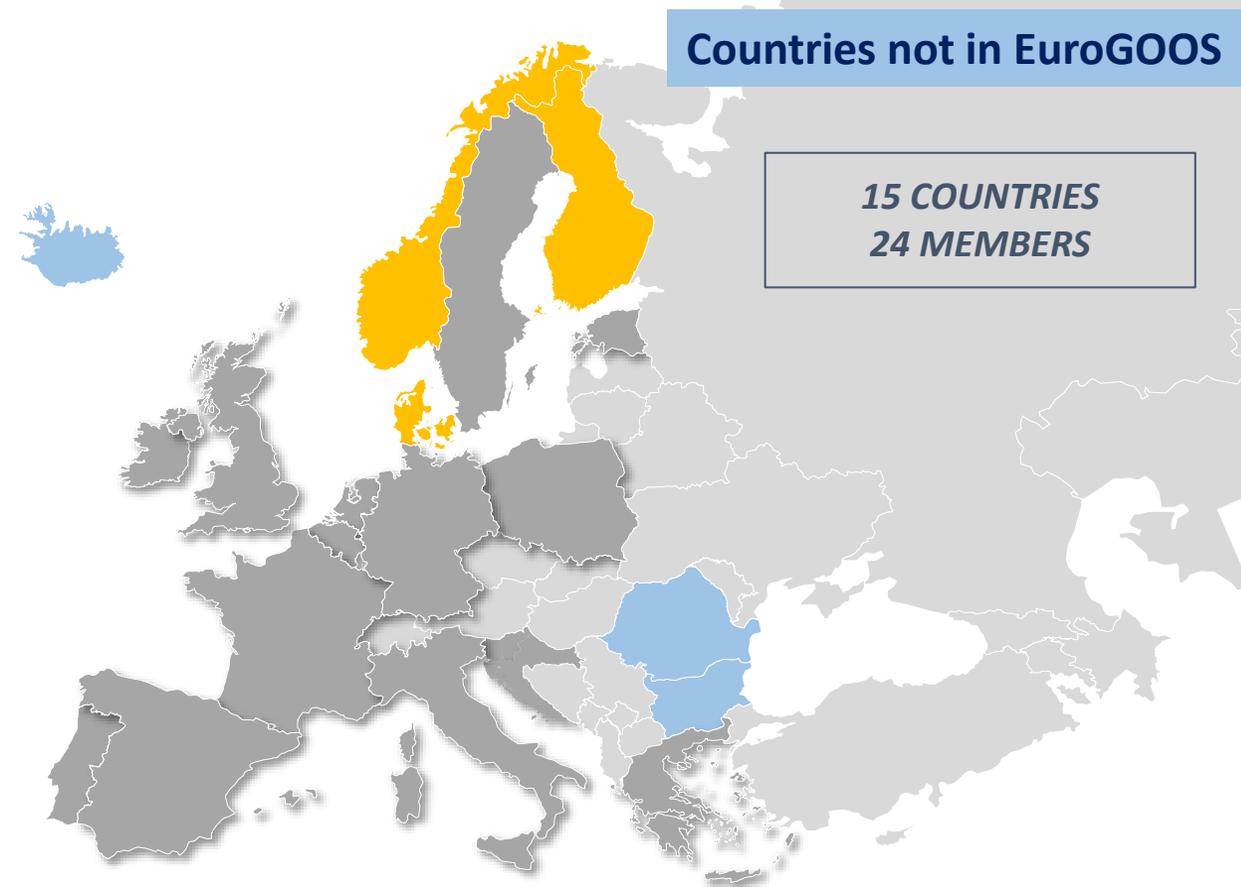
# Main priority areas

- **Sharing** of Experience, Knowledge, Expertise, Best Practices and Standards (design, operation, calibration, QC, data management, etc.)
- **Expanding** Observations in European Sea (EOVs, ECVs, bio/eco-logical)
- **Dealing** with Technological Issues
- **Delivering** Recommendations, Proposals and Solutions on Data/Metadata
- **Fostering** Links and Synergy inside and outside EuroGOOS
- **Contributing** to EOOS
- **Contributing** to SDGs/UN Decade
- **Developing** Joint Initiatives and Projects

# Current membership

Country	Institution	Contact person
Belgium	Agency for Maritime and Coastal Services (MDK), Coastal Division	Pieter Gurdebeke
	Royal Belgian Institute of Natural Sciences (RBINS)	Michael Fettweis
Croatia	Croatian Meteorological and Hydrological Service (DHMZ)	Dijana Klavic
Estonia	Tallinn University of Technology, Marine Systems Institute (MSI)	Urmas Lips
France	French Research Institute for Exploitation of the Sea (IFREMER)	Michel Repecaud
	French National Centre for Scientific Research (CNRS)	Laurent Coppola
Germany	Federal Maritime and Hydrographic Agency (BSH)	Kai Herklotz
	Institute of Carbon Cycles (CCI)	Holger Brix
Greece	Hellenic Centre for Marine Research Institute of Oceanography (HCMR)	Paris Pagonis
Ireland	Marine Institute (MI)	Conall O' Malley
Italy	National Research Council of Italy (CNR)	Marcello Magaldi
	European Multidisciplinary Seafloor and water column Observatory (EMSO ERIC)	Paolo Favali
	National Institute of Geophysics and Volcanology (INGV)	Giuditta Marinaro
	National Institute of Oceanography and Experimental Geophysics (OGS)	Vanessa Cardin
	Italian National Institute for Environmental Protection and Research (ISPRA)	Arianna Orasi
The Netherlands	Royal Netherlands Meteorological Institute (KNMI)	Jitze P. van der Meulen
Poland	Institute of Oceanology Polish Academy of Sciences (IOPAN)	Agnieszka Beszczynska-Möller
Portugal	Instituto Hidrográfico (IH)	Nuno Gonçalo Rufino Zacarias
Slovenia	National Institute of Biology (NIB)	Branko Čermelj
Spain	Puertos del Estado (PdE)	Marta de Alfonso Alonso-Muñoyerro
	Spanish Institute of Oceanography (IEO)	Raquel Somavilla
	Basque Research & Technology Alliance (AZTI)	Julian Mader
Sweden	Swedish Meteorological and Hydrological Institute (SMHI)	Carl Johan Andersson
UK	National Oceanography Centre (NOC)	Andrew Gates

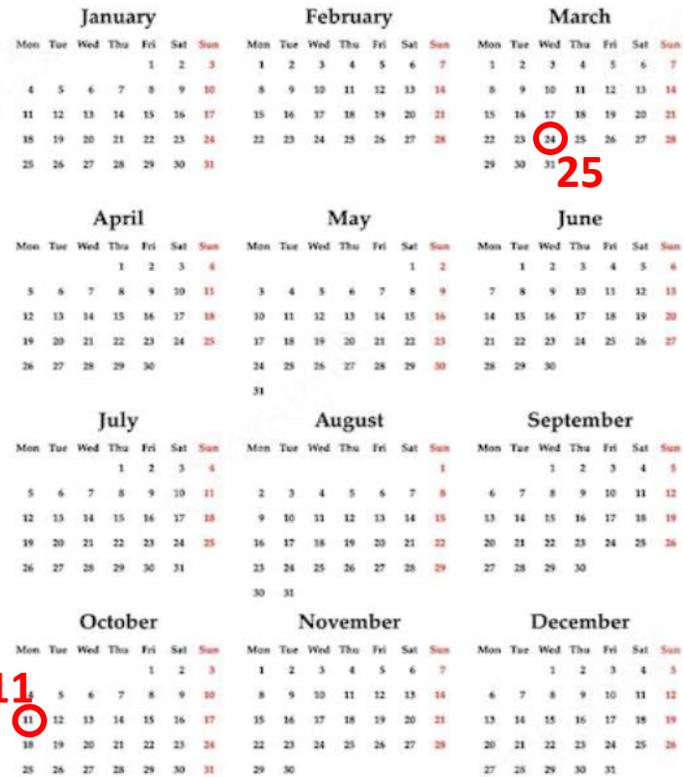
**EuroGOOS Countries not represented at all**



**All 5 EuroGOOS ROOSes represented (BOOS, NOOS, IBI, MONGOOS and Arctic ROOS)**

# Meetings

## 2021



## 2022



## 2023



# Main achievements (May 2022 - April 2023)

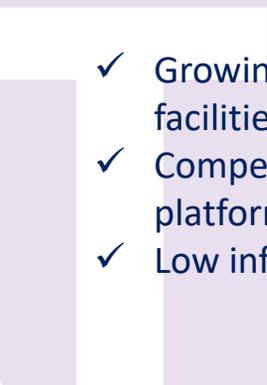
- ❑ FP TT website updates (FP TT membership, presentations, recordings and minutes of the meetings)
- ❑ Call for nominations for the third co-Chair of the FP TT
- ❑ Review of FP TT membership to have onboard EuroGOOS members still missing in the FP TT:
  - New members from Croatia, Germany and Spain
  - Invited members from Denmark, Norway, Finland, Iceland, Romania and Bulgaria
- ❑ **EuroGOOS FP TT SWOT Analysis and action plan for the next year**
- ❑ Survey to list/map FP represented in the TT (country, operating Institution, station name, location – lat. e long. – type, WMO code, depth and remark)
- ❑ **Advanced design of a FP TT Information leaflet**
- ❑ Evaluation of link between the FP TT and ongoing initiatives inside and outside the EuroGOOS framework
- ❑ Abstract submitted at the 10<sup>th</sup> EuroGOOS International Conference

# SWOT Analysis

- 
- ✓ Wide coverage (geographical, technologies, experience, knowledge)
  - ✓ Linking networks and initiatives
  - ✓ Sharing information, expertise and best practices

- 
- ✓ Growing demand of ocean marine data (climate change, blue economy and regional approach)
  - ✓ Taking advantage from emerging and mature research infrastructure communities
  - ✓ Fostering a coordination at national level
  - ✓ Lobbying to the sensor manufacturers'
  - ✓ Applying to funding opportunities

- 
- ✓ Diversity in organizational and management approach, in national agenda
  - ✓ Risk of duplication of activities
  - ✓ Low external visibility
  - ✓ Lack of funds

- 
- ✓ Growing CAPEX and OPEX of the facilities
  - ✓ Competition for funding with other platform/communities
  - ✓ Low influence at decision-level



# FP TT Information leaflet



## Fixed Platforms

EuroGOOS Task Team

Fixed Platforms Task Team promotes scientific and technological synergies among European ocean observing infrastructures and national and regional observatories.

The members collaborate in the areas of shared priorities, exchange best practices, and feed data to the EuroGOOS ROOS regional portals, EMODnet, and Copernicus Marine Service.

### Objectives

- Develop Europe's Fixed Platform network
- Integrate Fixed Platforms in open and coastal ocean
- Provide European input to the OceanSites community
- Contribute to the European Ocean Observing System (EOOS)
- Enhance biogeochemical measurements in European seas



**24 members**  
from  
**15 countries**

### Co-Chairs

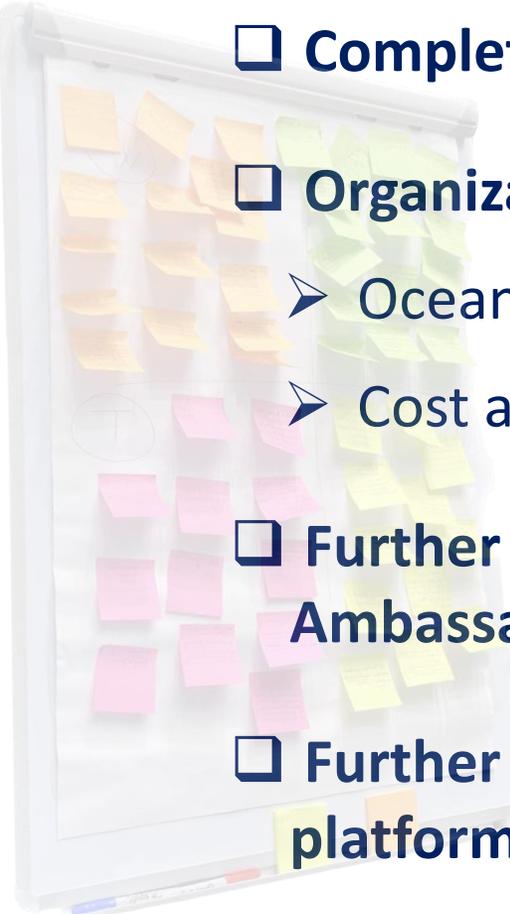
Giuseppe Magnifico, National Research Council of Italy (CNR)  
Paolo Favali, European Multidisciplinary Seafloor and water column Observatory (EMSO ERIC)

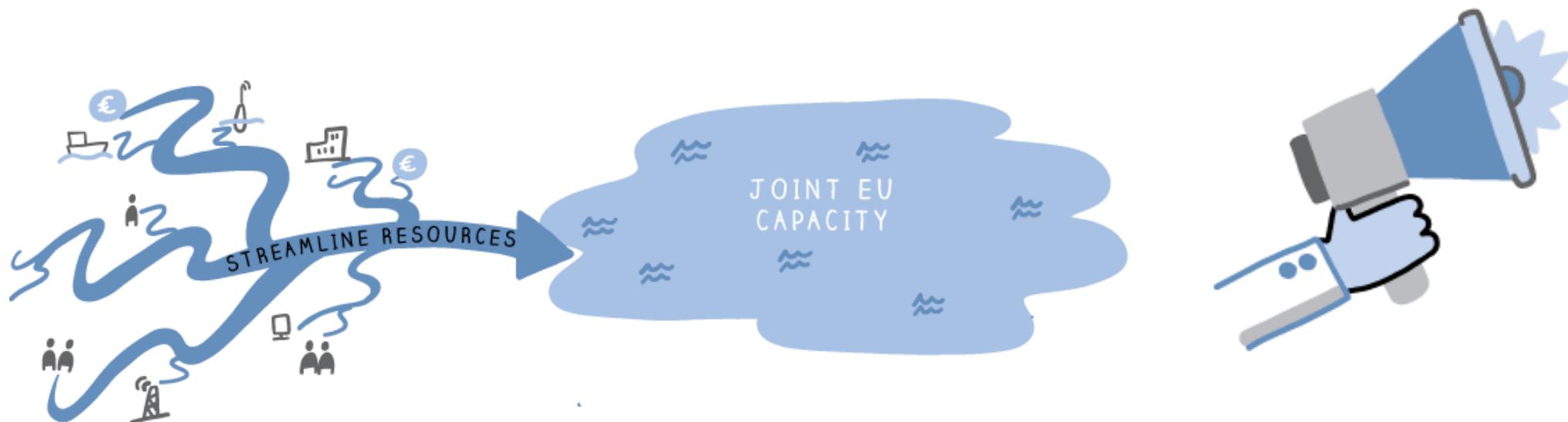
- Foster co-operation with Research Vessel operators
- Establish links with Data Buoy Cooperation Panel and E-SURFMAR
- Deliver recommendations and best practices on data management
- Engage with EuroGOOS community, Research Infrastructures, and programmes
- Ensure data availability via the ROOS, EMODnet and Copernicus Marine data portals



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# Action plan for the next year

- 
- 
- Complete Mapping of FP facilities (121 FP listed so far)**
  - Organization of “internal” webinars on:**
    - OceanOPS
    - Cost and value of multidisciplinary fixed-point ocean observatories
  - Further integration action with EuroGOOS ROOSes, WGs and TTs (FP TT Ambassadors)**
  - Further networking action with ongoing initiatives dealing with fixed platforms**
  - Further elaboration of SWOT analysis**



Giuseppe Magnifico (CNR), Paolo Favali (EMSO ERIC)

[giuseppe.magnifico@cnr.it](mailto:giuseppe.magnifico@cnr.it), [paolo.favali@emso-eu.org](mailto:paolo.favali@emso-eu.org)

# Discussion points

- ❑ What is the role of the Task Teams in the European landscape of marine Research Infrastructures and European initiatives?

**The EuroGOOS Fixed Platforms Task Team aims at integrating the European fixed-point observatories, both in the open and coastal ocean.**

- ❑ How do task teams link to the development of European Research Infrastructures?

**Benefitting of the involvement of FP TT members in European Research Infrastructures the following initiatives will be implemented to avoid duplication/overlap and find synergies: *Nomination of FP TT Ambassadors, Promotion of Webinars Series and Special Events with thematic focus, Participation in workshops, etc.***

# Discussion points

❑ How are Task Teams linking up with EOOS over its current Strategy period and related Activities?

1. Promoting best practices and open data sharing – **Being a reference point for the EU FP community sharing information, expertise and best practices on facility management, maintenance and data management; Establishing a link with DBCP (Data Buoy Cooperation Panel) and E-SURFMAR in order to coordinate best practices.**
2. Fostering innovation in ocean observing - **Lobbing to the sensor/system manufacturers.**
3. Advancing the transition to a well-connected, coordination ocean observing system - **Providing European input to the OceanSites community and other relevant initiatives.**

❑ How can Office/Board better support the Task Teams?

**Exchange of information within the FP TT via Chairs and EuroGOOS Office and Outreach of the activities via EuroGOOS FP TT website (webinars, leaflet, etc.).**



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European Global Ocean  
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**Glider**  
EuroGOOS Task Team



**HF Radar**  
EuroGOOS Task Team

# HF Radar Task Team

EuroGOOS General Assembly  
30-31 May 2023

# Main activities highlights




European HFRadar Node

High-frequency radar (HFR) is a unique technology mapping ocean surface currents and wave fields (along with other variables) over wide areas with high spatial and temporal resolution. HFR is cost-effective, requiring only small manpower and technical costs.

Location and coverage | HFR Networks | HOORT Platform | HFR Tools



## The Global High Frequency Radar Network

Hugh Roarty<sup>1\*</sup>, Thomas Cook<sup>2</sup>, Lisa Hazard<sup>3</sup>, Doug George<sup>4</sup>, Jack Harlan<sup>4</sup>, Simone Cosoli<sup>5</sup>, Lucy Wyatt<sup>6</sup>, Enrique Alvarez Fanjul<sup>7</sup>, Eric Terrill<sup>8</sup>, Mark Otero<sup>9</sup>, John Largier<sup>10</sup>, Scott Glenn<sup>11</sup>, Naoto Ebuchi<sup>12</sup>, Brian Whitehouse<sup>13</sup>, Kevin Bartlett<sup>14</sup>, Julien Mader<sup>15</sup>, Anna Rubio<sup>16</sup>, Lorenzo Corgnati<sup>17</sup>, Carlo Mantovani<sup>18</sup>, Annalicia Graffa<sup>19</sup>, Emma Reyes<sup>20</sup>, Pablo Lorente<sup>21</sup>, Xavier Flores-Vidal<sup>22</sup>, Kelly Johanna Saavedra-Matta<sup>23</sup>, Peter Rogowski<sup>24</sup>, Sirluk Prukpitikul<sup>25</sup>, Sang-Ho Lee<sup>26</sup>, Jian-Wu Lai<sup>27</sup>, Charles-Antoine Guerin<sup>28</sup>, Jorge Sanchez<sup>29</sup>, Birgit Hansen<sup>30</sup> and Stephan Grilli<sup>31</sup>

Network Operator

Global

Integration



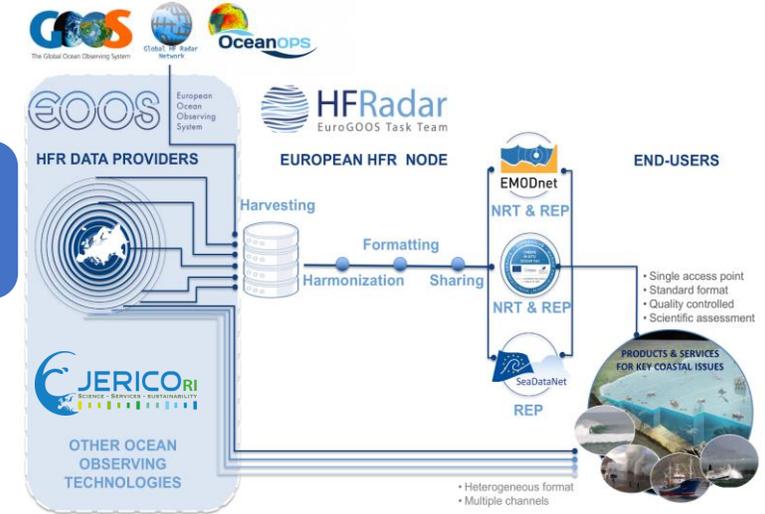
**HFRadar**  
EuroGOOS Task Team

**Sustainable European HFR Network**

Stakeholder

Best Practice

Impact




HFRadar  
EuroGOOS Task Team

Manufacturer: CODAR, LERA, VIERA

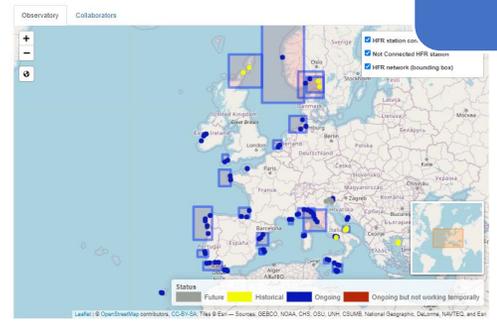
Time Interval: 2000-01-27 to 2023-05-23

Frequency Range: <10 MHz, 10-20 MHz, >20 MHz

Longitude Range: -180.027 to 35.0613

Latitude Range: 17.9334 to 71.3789

Download metadata | Clean Selection



HOORT Platform

Map showing HFR station locations across Europe. Legend: Future (grey), Historical (yellow), Ongoing (blue), Ongoing but not working temporarily (orange).




frontiers  
in Marine Science

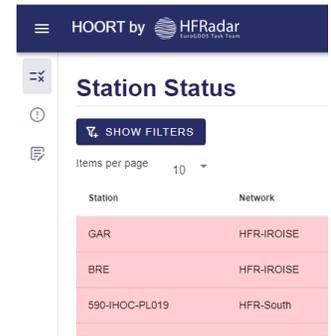
REVIEW  
published: 03 April 2021  
doi: 10.3389/fmars.2021.681201

**Best Practices on High Frequency Radar Deployment and Operation for Ocean Current Measurement**

Carlo Mantovani<sup>1\*</sup>, Lorenzo Corgnati<sup>2</sup>, Jochen Horstmann<sup>3</sup>, Anna Rubio<sup>4</sup>, Emma Reyes<sup>5</sup>, Céline Quentin<sup>6</sup>, Simone Cosoli<sup>7</sup>, Jose Luis Asensio<sup>8</sup>, Julien Mader<sup>9</sup> and Anekalie Giriy<sup>10</sup>

OPEN ACCESS

Edited by: Juhel Narain, South Asian Environmental Observation Network (SAEON)



HOORT by HFRadar  
EuroGOOS Task Team

Station Status

SHOW FILTERS

Items per page: 10

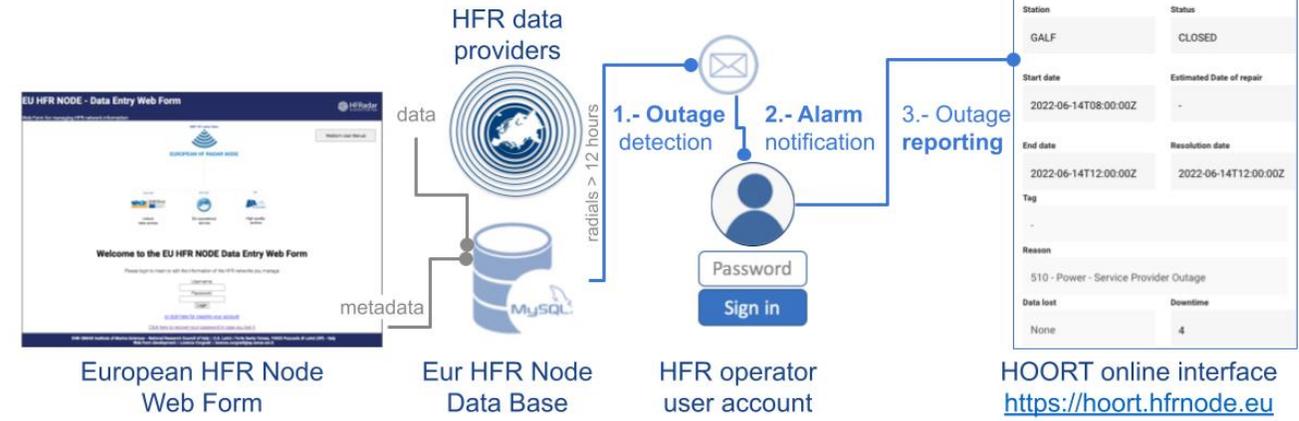
Station	Network
GAR	HFR-IROISE
BRE	HFR-IROISE
590-IHOC-PL019	HFR-South



# BEST PRACTICE

## HOORT: HFR Online Outage Reporting Tool

- What is HOORT?**
  - An application to aid HFR O&M
  - A tool to report outages
  - A database of outages
  - A forum for troubleshooting
- What is HOORT for?**
  - Detect: the outage automatically
  - Alert: the operator automatically
  - Report: the outage manually
- Targets?**
  - Primarily, HFR operators
  - Managers, general public, users.



**1**  
**STIMULATE**  
communities of practice

**3**  
**STRENGTHEN**  
and expand partnerships

HOORT by HFRadar

2022-11-19T19:55:49Z

PRODUCT USER MANUAL Hello, Emma Reyes Reyes

### Station Status

SHOW FILTERS

Station	Network	CF (MHz)	Direction of Arrival	Calibration Type	Latitude	Longitude	Latest File Date
CSAP	HFR-NASCUM	25	DIRECTION FINDING	APM	45.4899	13.491	2022-11-18T22:55:01Z
CSMR	HFR-Granitola	16.1	BEAM FORMING	FULL	37.4856	13.0175	2022-11-18T22:55:01Z
CSTB	HFR-GoN	24.6	DIRECTION FINDING	APM	40.6929	14.4643	2022-11-18T22:55:01Z
CZUB	HFR-NASCUM	25	DIRECTION FINDING	APM	45.2982	13.5691	2022-11-19T17:55:01Z
FISI	HFR-Dardanos	13.5	BEAM FORMING	FULL	39.8105	25.3709	2011-06-24T00:00:00Z
FIST	HFR-Galicia	4.463	DIRECTION FINDING	APM	42.88	-9.27	2022-11-18T21:55:01Z
FORM	HFR-Ibiza	13.5	DIRECTION FINDING	APM	38.6662	1.3887	2022-11-19T18:00:00Z
FRUH	HFR-Finmark	4.453	DIRECTION FINDING	APM	71.094	23.982	2022-11-19T19:55:02Z
GALF	HFR-Ibiza	13.5	DIRECTION FINDING	APM	38.9519	1.21915	2022-11-19T19:00:00Z
GAR	HFR-ROISE	12.377	BEAM FORMING	INTERNAL	48.5028	-4.77556	2022-09-08T17:19:29Z

Showing 31 to 40 of 108 items

HOORT by HFRadar

2022-11-19T20:29:14Z

PRODUCT USER MANUAL Hello, Emma Reyes Reyes

### Outages

SHOW FILTERS

Station	Status	Reason	Start date	End date	Estimated Date of repair	Downtime (hours)
FORM	CLOSED	999 - Unknown	2022-11-19T20:22:14Z	2022-11-19T20:27:36Z	2022-11-26T12:00:00Z	-
HFR_biza_FORM1	CLOSED	300 - Communications	2022-11-15T14:50:16Z	2022-11-15T14:51:12Z	2022-11-15T18:54:00Z	1
HFR_biza_FORM1	CLOSED	200 - Computer/Software	2022-11-15T10:04:12Z	2022-11-15T10:09:49Z	2022-11-15T17:13:00Z	1
FORM	CLOSED	200 - Computer/Software	2022-08-26T16:14:00Z	2022-08-26T17:53:00Z	-	-
FORM	CLOSED	300 - Communications	2022-08-26T05:00:00Z	2022-08-26T12:00:00Z	-	7
GALF	CLOSED	300 - Communications	2022-08-24T22:00:00Z	2022-08-25T08:00:00Z	-	10
FORM	CLOSED	200 - Computer/Software	2022-08-17T00:00:00Z	2022-08-17T00:00:00Z	-	-
GALF	CLOSED	200 - Computer/Software	2022-08-02T03:00:00Z	2022-08-02T05:00:00Z	-	2
FORM	CLOSED	200 - Computer/Software	2022-07-29T06:00:00Z	2022-07-29T12:00:00Z	-	6
GALF	CLOSED	500 - Power	2022-06-14T08:00:00Z	2022-06-14T12:00:00Z	-	4

Showing 1 to 10 of 179 items

### Outage Details

VIEW HISTORY

Station	GALF	Status	CLOSED
Start date	2022-06-14T08:00:00Z	Estimated Date of repair	-
End date	2022-06-14T12:00:00Z	Resolution date	2022-06-14T12:00:00Z
Tag	-		
Reason	S10 - Power - Service Provider Outage		
Data lost	None	Downtime	4

HOORT online interface  
<https://hoort.hfrnode.eu>

Outage Details (side-by-side)

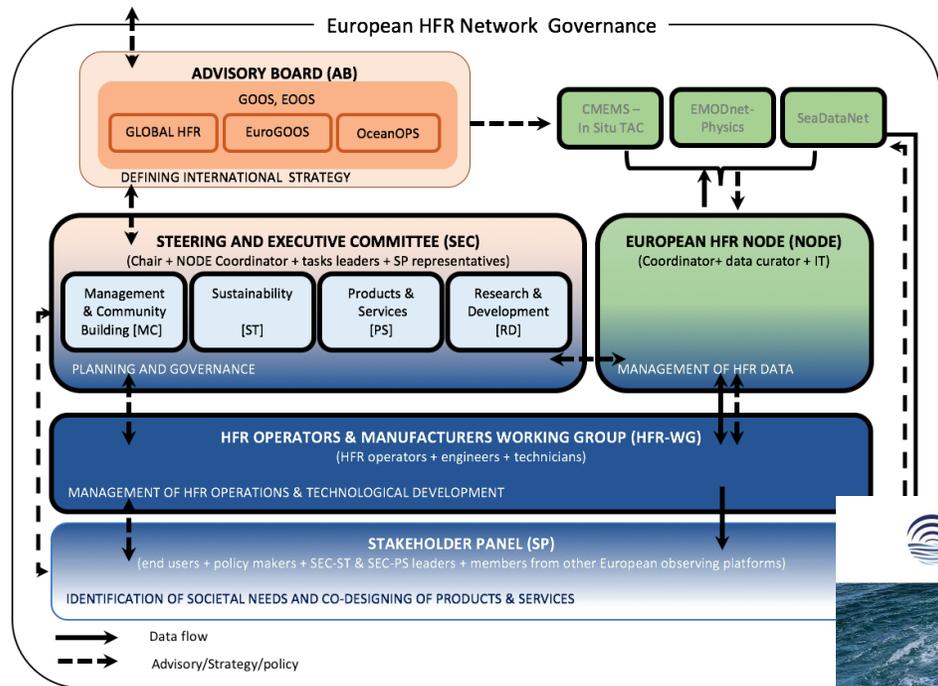
Outage Code

HFR OUTAGE CODING

100 Hardware	[110 - 170]
200 Computer/Software	[210 - 250]
300 Communications	[310 - 340]
400 Site Operation & Maintenance	[410 - 450]
500 Power	[510 - 530]

# Up-to-date information of the network

## Coordinated and integrated



Manufacturer: CODAR, LERA, WERA

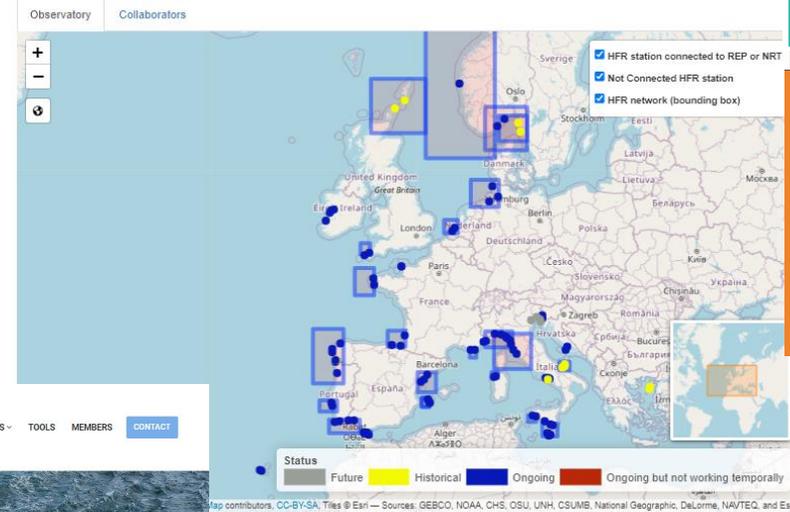
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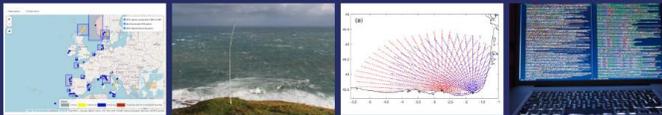
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Download metadata | Clean Selection



**European HFRadar Node**

High-frequency radar (HFR) is a unique technology mapping ocean surface currents and wave fields (along with other variables) over wide areas with high spatial and temporal resolution. HFR is cost-effective, requiring only small manpower and technical costs.



- Location and coverage
- HFR Networks
- HOORT Platform
- HFR Tools

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

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

# Partnership



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Observing System

## Partnership and collaboration in the Ocean Observing Network

- DOI strategy at network level
- Supporting and integrating new actors



HOME ABOUT HFR INDIVIDUAL NETWORKS TOOLS MEMBERS CONTACT

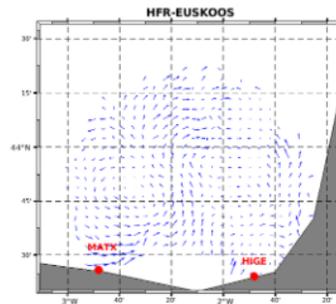
### HFR-EUSKOOS

**HFR system name:** HFR-EUSKOOS  
**Spatial location:** Bay of Biscay (Spain)  
**Sites (frequency):** MATX (4.46 MHz), HIGE (4.46 MHz)  
**Manufacturer:** CODAR  
**Owning institution:** Basque Government  
**Operating institution:** AZTI  
**EDMO code:** 1623  
**Contact names:** Julien Mader, Anna Rubio, Lohitzune Solabarrieta  
**Contact emails:** jmader@azti.es; arubio@azti.es; lsolabarrieta@azti.es

**DOI:** 10.57762/N22G-WQ86

**Time coverage:** 2009 - present

**Description:** The EuskOOS HFR network is a CODAR Seasonde HF Radar system, retrieving hourly surface currents and waves in the southeastern Bay of Biscay. It is composed by two long range antennas, both emitting at a central frequency of 4.46 MHz, with a 30 kHz bandwidth. They offer hourly radial data, with 5km radial resolution and a radial coverage close to 180 km.



HFR-EUSKOOS

#### Citation:

HFR-EUSKOOS, AZTI, Euskalmet – Basque Meteorological Agency, & Basque Government Security Department.  
<https://doi.org/10.57762/T4WH-DQ48>

[VIEW DATA CATALOGUE HERE](#)

**Operating Institution:**

In progress...

**3**  
**STRENGTHEN**  
and expand partnerships

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

HF Radar Task Team

# Partnership



**EuroGOOS**  
European Global Ocean  
Observing System

Co-producing services and information

- Data gap filling & Wave WGs: Advanced products
- Coastal R&D Services
- Coastal Upwelling Index from HFR (OSR#7)



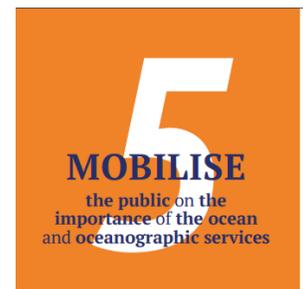
➤ Training Workshop Florence  
21-22 Nov 2022

➤ Newsletters “Taking the pulse of the coastal ocean”



## Taking the pulse of the coastal ocean

Newsletter of the European HF Radar community  
August 2022



# Main activities highlights




European HFRadar Node

High-frequency radar (HFR) is a unique technology mapping ocean surface currents and wave fields (along with other variables) over wide areas with high spatial and temporal resolution. HFR is cost-effective, requiring only small manpower and technical costs.

Location and coverage | HFR Networks | HOORT Platform | HFR Tools

**Coordinated and active in Global Community**

frontiers in Marine Science

TECHNOLOGY REPORT  
published: 14 May 2019  
doi: 10.3389/fmars.2019.00164

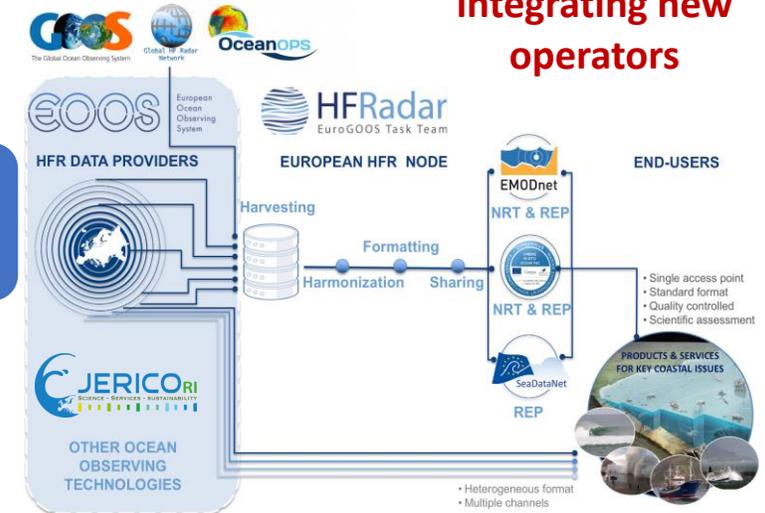


## The Global High Frequency Radar Network

Hugh Roarty<sup>1\*</sup>, Thomas Cook<sup>2</sup>, Lisa Hazard<sup>2</sup>, Doug George<sup>3</sup>, Jack Harlan<sup>4</sup>, Simone Cosoli<sup>5</sup>, Lucy Wyatt<sup>6</sup>, Enrique Alvarez Fanjul<sup>7</sup>, Eric Terrill<sup>8</sup>, Mark Otero<sup>9</sup>, John Largier<sup>10</sup>, Scott Glenn<sup>11</sup>, Naoto Ebuchi<sup>12</sup>, Brian Whitehouse<sup>13</sup>, Kevin Bartlett<sup>14</sup>, Julien Mader<sup>15</sup>, Anna Rubio<sup>16</sup>, Lorenzo Corgrati<sup>17</sup>, Carlo Mantovani<sup>18</sup>, Annalisa Graffa<sup>19</sup>, Emma Reyes<sup>20</sup>, Pablo Lorente<sup>21</sup>, Xavier Flores-Vidal<sup>22</sup>, Kelly Johanna Saavedra-Matta<sup>23</sup>, Peter Rogowski<sup>24</sup>, Sirluk Prukpitikul<sup>25</sup>, Sang-Ho Lee<sup>26</sup>, Jian-Wu Lai<sup>27</sup>, Charles-Antoine Guerin<sup>28</sup>, Jorge Sanchez<sup>29</sup>, Birgit Hansen<sup>30</sup> and Stephan Grill<sup>31</sup>

Global

**Supporting and integrating new operators**



Integration



**HFRadar**  
EuroGOOS Task Team

**Sustainable European HFR Network**

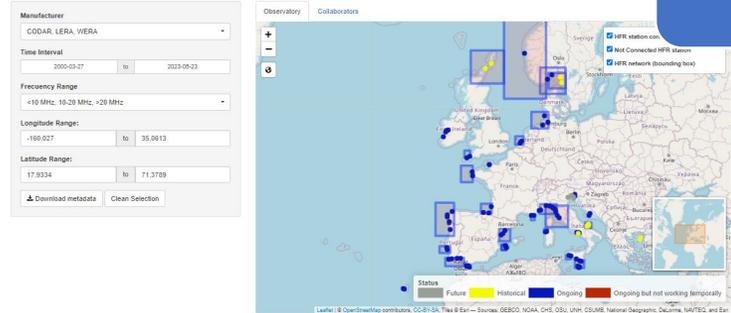
Stakeholder



**DOI strategy at network level**

**Operational update of network metadata**

HFRadar EuroGOOS Task Team



Metadata management interface showing a map of Europe with station locations and various filters (Manufacturer, Time Interval, Frequency Range, Longitude Range, Latitude Range, etc.).

Best Practice

frontiers in Marine Science

REVIEW  
published: 03 April 2020  
doi: 10.3389/fmars.2020.00102

## Best Practices on High Frequency Radar Deployment and Operation for Ocean Current Measurement

Carlo Mantovani<sup>1\*</sup>, Lorenzo Corgrati<sup>2</sup>, Jochen Horstmann<sup>3</sup>, Anna Rubio<sup>4</sup>, Emma Reyes<sup>5</sup>, Céline Quentin<sup>6</sup>, Simone Cosoli<sup>7</sup>, Jose Luis Asensio<sup>8</sup>, Julien Mader<sup>9</sup> and Anekalie Giritli<sup>10</sup>

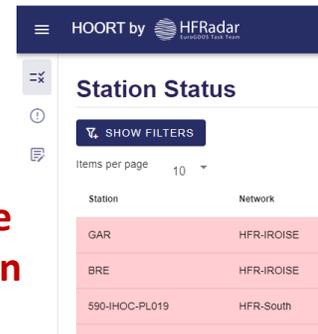
OPEN ACCESS



Impact

**Data gap filling & Wave WGs, CUI**

**Supporting the implementation of HOORT**



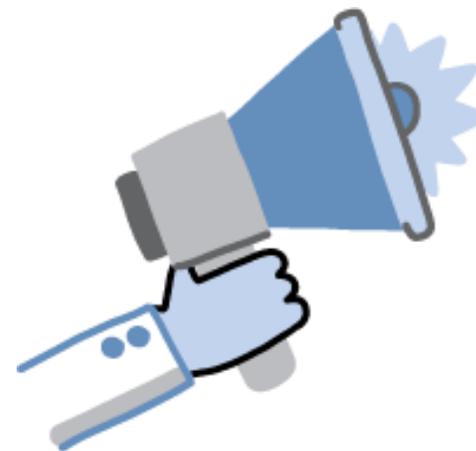
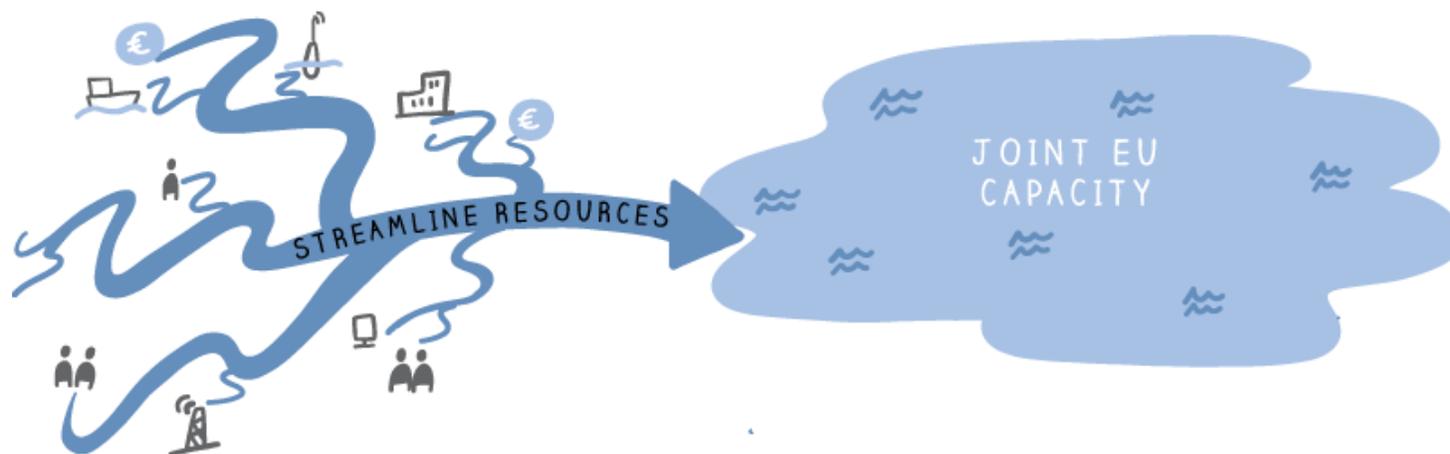
HOORT by HFRadar EuroGOOS Task Team

Station Status

SHOW FILTERS

Items per page: 10

Station	Network
GAR	HFR-JROISE
BRE	HFR-JROISE
590-IHOC-PL019	HFR-South



Julien Mader

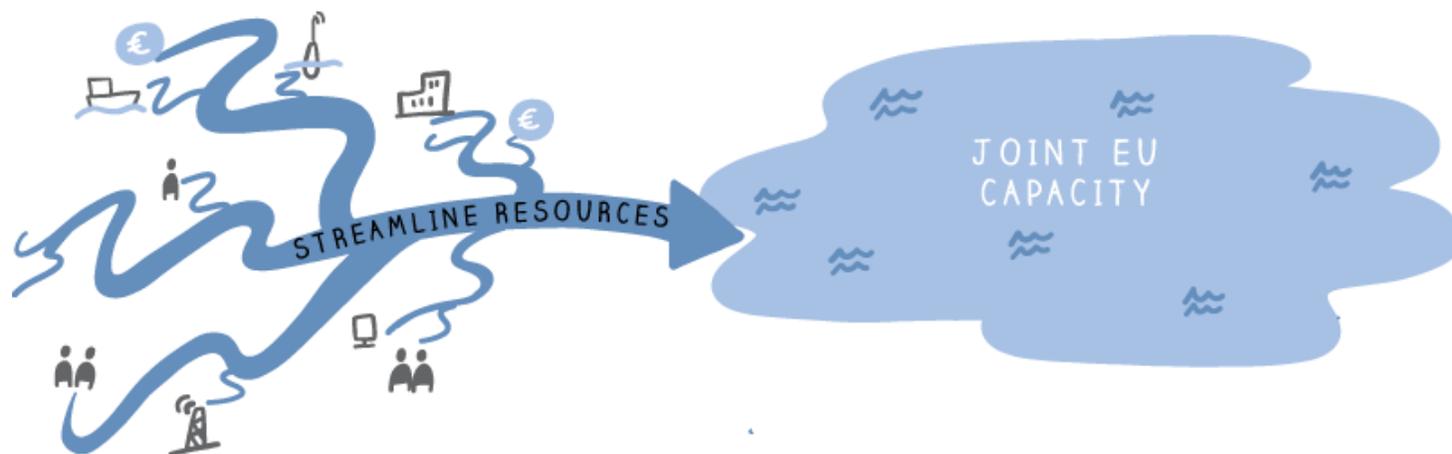
[jmader@azti.es](mailto:jmader@azti.es)



**EuroGOOS**  
European Global Ocean  
Observing System



**Tide Gauge**  
EuroGOOS Task Team



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**EuroGOOS**  
European Global Ocean  
Observing System



**ARGO**  
EuroGOOS Task Team

# Euro Argo Task Team

EuroGOOS General Assembly  
30-31 May 2023

Co-chairs: A. Miguel P. Santos (IPMA, PT) and  
Griet Neukermans (UGent, BE)

# Main objective

Facilitate interactions between non-Euro-Argo ERIC institutes/countries and the Euro-Argo ERIC governance structure, especially the Management Board (MB).



## Renewed in 2022

- 2 co-chairs, 11 members (from 6 countries: PT, UK, BE, CY, TR, IT + Argo MB+Office)
- ToR renewed in 2022, approved by EuroGOOS Exec. Board of Directors
- Kickoff meeting (virtual) held in February 2023
- Web: <https://eurogoos.eu/eurogoos-argo-task-team/> updated

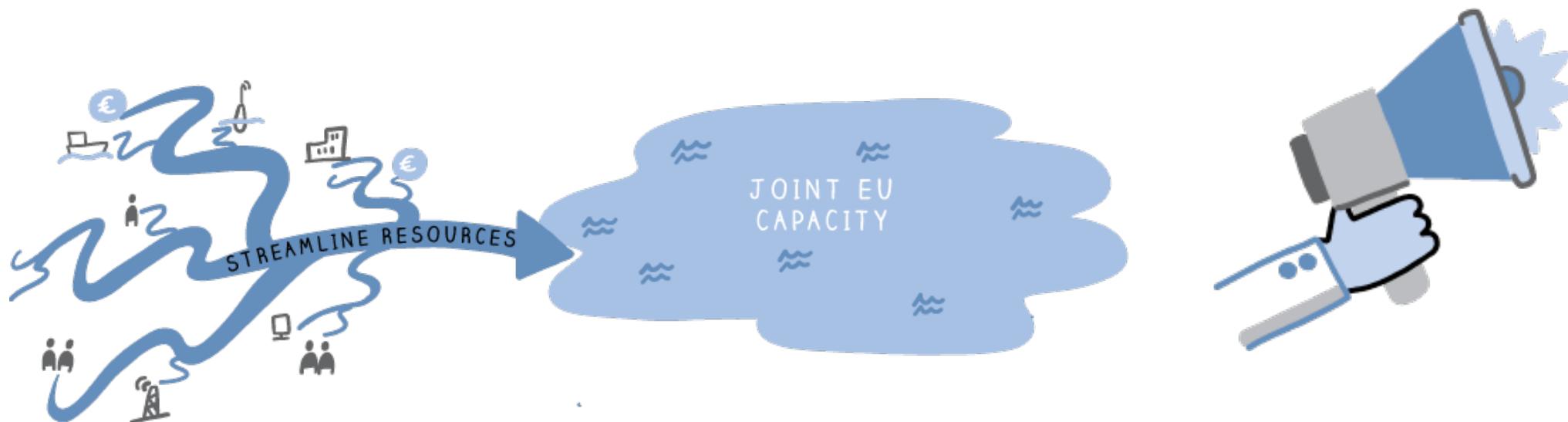


## Planned activities

- Organize workshops/training on Argo data (e.g., DM, QC)
- Develop a plan for Argo float deployment
- Collaborate in the development of BGC and Deep Argo program
- Participate in EuroGOOS Conference – Argo session/OneArgo side event

# Specific objectives

- Meet regularly with the Euro-Argo ERIC MB, at least once a year
- Support and facilitate the process of Euro-Argo ERIC membership of present non-Euro-Argo ERIC countries;
- Collaborate in the organization of events with the Euro-Argo ERIC (e.g., Science Meeting and Users Meeting);
- Prepare, in collaboration with the Euro-Argo ERIC, the participation to the Argo Steering Team (AST) and Argo Data Management Team (ADMT) meetings;
- Develop the collaboration with users and stakeholder communities in non-ERIC EU member countries, and facilitate the recruitment of new members;
- Link with EuroGOOS Regional Operational Observing Systems (ROOSs), Working Groups, Task Teams and relevant ongoing observational programmes/projects;
- Report annually to the EuroGOOS General Assembly.



Co-chairs: A. Miguel P. Santos (IPMA, PT) and  
Griet Neukermans (UGent, BE)

Email: your email, [griet.neukermans@ugent.be](mailto:griet.neukermans@ugent.be)