|  |
| --- |
| HF Radar TT Workplan 2019 |
| Full Task Team Title | EuroGOOS HF Radar Task Team |
| Objective  | ToR#1. To develop the European High Frequency Radar (HFR) network and assist the standardization of HFR operations, data and applications, including:* All applications of coastal radars (surface current, wave, wind direction, target detection…)
* Applications in integration with other technologies (including satellite, X-band, fixed platforms, gliders, numerical modeling…)

ToR#2. To contribute to the development of the European Ocean Observing System (EOOS)ToR#3. To ensure the integration of HFR networks in the European marine downstream servicesToR#4. To act as the European component in the global HFR communityToR#5. To ensure data availability via the ROOS data portalsToR#6. To provide recommendations (from operators to end-users) on: \*Data structure, format and dissemination (interoperability of datasets), \*Quality control procedures, \*Validation procedures, \*Technological solutions.ToR#7. To be a framework for:* sharing success stories and difficulties;
* improving administrative procedures, regulations at European level that can be adopted in member states;
* providing and exchanging tools (data analysis, applications…);
* promoting scientific synergies for key questions;
* filling gaps and looking for complementarity with other technologies or modeling products;
* promoting joint progress through networking (e.g. creating synergies between different local consortium).
 |
| Relevance to EuroGOOS Strategy | **i. Sustained observing system:** Developing an important component of the ocean observing system: a unique insight to coastal ocean variability, by providing synoptic, high frequency and high resolution data at the ocean atmosphere interfaceEnhancing the current potential of the European systems and planning the futureCreating community at operator level for playing a role in establishing a sustainable integrated coastal observatory (EOOS, Research Infrastructure, multi-platform approach)Connexion with Global organizations (GOOS, GEO, JCOMM)**ii. Data:** Performing (and updating) European HFR Inventory <http://eurogoos.eu/download/publications/EU_HFRadar_inventory.pdf> (2016). Last update in Feb2018.Enhance and promote the progress on standardization of Data format, control and distribution, and the integration of HFR data in CMEMS , SeaDataCloud and EMODnet Physics.Unlocking the access to data, involving providers and European data infrastructuresFocus on users (data assimilation and model assessment, marine safety, coastal and marine environment, marine resources)**iii. Products:** Development of advanced products (Data gap filling, refined grid products, Short term prediction, Lagrangian products)Working both at the level of European data infrastructures (JERICO-NEXT, EMODnet, CMEMS…) and within downstream services (CMEMS UU).MSFD: Promote the use of HFR in Environmental programs with strong hydrodynamic and transport monitoring components. Integration of HFRs with other observing technologies with wider horizontal (as the satellite remote sensing) and vertical coverage (as profilers, ADCPs in fixed stations or gliders)**iv. Communications Interface:** Outreach activities as HFR European community (contents for EuroGOOS web, workshops, conferences, review paper, etc)Supporting joint initiatives between European HFR actorsWorking with EuroGOOS office for communication actionsImprove visibility of the European systems (Inventory, EMODnet Physics, …)Supporting communications with GOOS and GEO**v. Cross-cutting activities:** Assisting coordination and complementarities between different initiatives or projectsGood involvement of the HFR European community (HFR Task Team driven by a Core group with an extended list of associated actors).Contribution into the EuroGOOS advisory role (EOOS workshops…)Contribution into the EuroGOOS communication. |
| Bottle necks / problems  | Difficulties in funding a wide networking project (like a COST action). The exchange dynamics has been anyway very positive during the proposal phase. Some operators still have difficulties to make their system sustainable (Research funding).Another important need to be addressed through international collaboration is to coordinate the use of the limited radio frequency bands and protect them either from reciprocal HFRs radio interference or from unauthorized radio sources. |
| Main work plan areas 2019 | Priority 1: Sustained Observing Systems (New platforms/ Sensors; Observation requirements gathering; Best practices; Mapping existing infrastructures; etc.)D2.4 : Report on Best Practice in the implementation and use of HF-radar systems (JERICO-NEXT)Resp: A.Rubio, J.HorstmannContributors: MIO-CNRS, HZG, SOCIB, AZTI…Estimated deadline: Feb 2019To establish a way to allow a continuous update of the inventory of operational systems and plans in the next 2-3 years.Resp: J.MaderContributors: All providersEstimated deadline: Sep 2019Joint actions for measuring the allocated radio frequency bands to inform national representatives and trying to protect them either from reciprocal HFRs radio interference or from unauthorized radio sourcesResp: J.Horstmann, E.ReyesContributors: AllEstimated deadline: 2020 (starting in 2019) |
| Main work plan areas 2019 (cont.) | Priority 2: Marine data (New available Datasets; catalogues…) To implement in the European network the common data and metadata model complying with the existing European infrastructures (CMEMS INSTAC, SeaDataNet, EMODnet Physics). Establishment of the NRT data flow between providers and EU HFR Node (for TOT and RAD current data).Resp: L. CorgnatiContributors: CNR-ISMAR, AZTI, SOCIB + operatorsEstimated deadline: 60% of the network in Dec 2019Kickoff of HFR products in CMEMS catalogue. The first product will be available in CMEMS Catalogue V5 in Apr 2019.Resp: J. MaderContributors: CNR-ISMAR, SOCIB & INSTAC partnersEstimated deadline: April 2019Definition of Quality procedures for the historical Time series.Resp: A. RubioContributors: CNR-ISMAR, SOCIB, othersEstimated deadline: June 2019Agreement for data exchanges at Global level will be studied, in particular with IOOS.Resp: J.MaderContributors: ETT, CNR-ISMAR, SOCIB, othersEstimated deadline: Sep 2019Priority 3: Marine products and services (New modelling setups; new products and tools; new applications; stakeholder identifications; intermediate and end-users; catalogues, etc…). * The outputs of different current projects will be reviewed, including European and national projects. As examples: Additional CMEMS HFR-related projects have recently been approved, where HFR data products will be used to improve coastal altimetry (CMEMS SE COMBAT) and demonstrate its potential for SAR operations (CMEMS UU IBISAR).

New cross-boundary systems and applications will be developed in the framework of INTERREG Projects (MyCOAST, IMPACT, Calypso-South, …), in particular HFR data will be used as benchmark to intercompare operational ocean forecasting systems running in overlapping regions.New applications are also planned at national level (Malta, Portugal, Spain, France, Italy, …)Resp: A. RubioContributors: AllEstimated deadline: Nov 2019 |
| Main work plan areas 2019 (cont.) | Priority 4 : Communication (Contribution to conferences; websites; press notes, etc)* New actions for improving visibility in the EuroGOOS webpage will be defined in collaboration with the office.

Resp: J.MaderContributors: AllEstimated deadline: June 2019* Communication on European coordinated activities will be performed in conferences and workshops (EGU in April, CMEMS week in May).

Resp: A RubioContributors: AllEstimated deadline: Specific timelines for the selected events. |