



**EuroGOOS**  
European Global Ocean  
Observing System

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**EuroGOOS AISBL**

**Strategy 2014-2020**  
**(Draft V3)**



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## 1. Background - Context

In 2014 EuroGOOS celebrates its 20 years of operation as an association of European national institutions that develop Operational Oceanography. At the same time it runs through its second year of operation as a formal International Non-Profit Association (INPA – AISBL) operating under the Belgian Law. This recent change of the legal profile of the association has not changed its main objectives that have driven the work during the past two decades. But it provides additional opportunities for a more efficient implementation of commonly agreed activities at a European level.

In the previous years the framework of operation of EuroGOOS was provided by the:

- Strategy for EuroGOOS, published in 1996 (EuroGOOS publication #1);
- EuroGOOS Agreement and the objectives included therein (EG99.18);
- EuroGOOS Priorities agreed in 2002 (EG03.43);
- EuroGOOS short term Strategy 2009-2013 (EG09.05)

Following the formation of EuroGOOS AISBL, the working framework is provided by the Articles of Association that define the following purpose for the association:

- Identify European priorities for operational oceanography (**STRATEGIES**);
- Promote operational oceanography and the development of underpinning science and technology at regional and global scales (**PROMOTION**);
- Foster cooperation within operational oceanography at regional and global scales, including the establishment or recognition, support and coordination of Regional Operational Oceanographic Systems (**CO-OPERATION**);
- Promote and coordinate the development of commonly available, operational, observation and model-based, products and services (**CO-PRODUCTION**);
- Ensure coordination of the European contribution to sustained marine observational systems necessary to meet the requirements for all marine-related purposes, including research, operational oceanography, and regular assessments of the state of our seas and oceans (**SUSTAINED OBSERVATIONS**).

The strategy of EuroGOOS for the 2014-2020 needs to fulfil the above objectives and is thus structured along these priorities, which actually form groups of activities and initiatives that need to be taken.

### **Cross – cutting key issues**

Besides the above specific objectives and priorities, which are analysed in the following sections, there are several horizontal and cross-cutting issues that will drive the EuroGOOS strategy 2014-2020 and are summarized below.

**Links with research.** Operational oceanography can advance only by maintaining tight links with research and technological developments. The research community has played a key role over the past two decades in developing new observing and modelling systems that have gradually transitioned to operational tools increasing our capacity to monitor and predict the oceans. In Europe, the research framework programs (mainly FP4-FP7) have contributed to development of new systems and formation of the research community of European operational oceanography. A key priority of the next years is to maintain and enhance the links between the operational and research communities, mainly through the Horizon 2020 funding framework but also taking advantage of other tools such as structural and cohesion funds. This should be also reflected in the membership of EuroGOOS by including the key European research institutes that develop operational oceanography.

**Links with industry.** The private sector has remarkable activities in operational oceanography, especially when it comes to innovative services and new technologies. However in most cases these activities are isolated and not linked to a broader framework. Thus the transfer of knowledge to national / public agencies to feed the operational activities is often delayed or even not realized at all. EuroGOOS should enhance the links with the private sector aiming to joint activities either at RTD or at operational implementation level. Horizon 2020 provides additional incentives for such collaborative actions and should be fully exploited during the coming years.

**Links with users.** Operational oceanography has always been user-driven and the dialogue with users has been a priority of EuroGOOS. During the past years and through the experience of Copernicus the engagement of service providers with users has increased and EuroGOOS has helped in this process. It will be a priority for the next years to consolidate and enhance this interaction with intermediate and end users, both for the definition of requirements and for assessment of operational oceanography services. This is expected to increase user uptake and strengthen the downstream services development.

**EU policies.** During the past years a series of EU policies and strategies has increased the requirements for ocean observations. The Marine Strategy Framework Directive, the Integrated Maritime Policy with EMODnet, the Marine Spatial Planning, are some examples of such new policies that bring new requirement on top of those posed by CFP and WFD. Fulfilling the requirements of these policies, with emphasis on MSFD, will be a key task for EuroGOOS and its members until 2020.

**Membership.** EuroGOOS AISBL in its new legal status needs to strengthen its position at a European and Global landscape, demonstrating its ability to represent the whole community. It is therefore a priority of EuroGOOS to expand its membership and include all European institutions that develop and implement Operational Oceanography. It is estimated that the number of 50 members by 2020 is a feasible target that will also fulfil the objective of representation of the whole community.

## 2. Strategies

*EuroGOOS should have well-processed views and strategies regarding Operational Oceanography and its priorities in Europe.*

One of the functions of EuroGOOS is to develop common views among its members regarding key issues of common interest at European and regional scales. This increases the potential for more efficient interventions at various levels and promotion of the interests of EuroGOOS and operational oceanography. These strategies have to be well processed, with broad consensus among members and adaptive to the changing European and international conditions.

### RTD priorities

The definition of priorities should be based on a systematic and thorough analysis of user needs, capacities and scientific – technological development. This is typically the work of the EuroGOOS working groups and it is thus expected that during the following years:

- The Science Advisory Working Group (SAWG) and the Coastal Modeling working group (COSMO) will contribute to development of science - research priorities of Operational Oceanography in Europe;
- The Technology Plan Working Group (TPWG) will contribute to development of marine technology priorities;
- The EuroGOOS Products Working Group (TPWG) will contribute to development of priorities for new Services and Products. For the next years priority will be the products for MSFD.

The major goal for the next years is to maximize the impact on EU research funding priorities with emphasis on Horizon 2020, as well as regional and national Research Agendas.

### Key European initiatives

EuroGOOS need a consistent position and strategy for key European initiatives that are relevant for Operational Oceanography and Marine Science. Such initiatives include:

- **Copernicus Marine Service.** EuroGOOS has played an important role since the initial phase of Copernicus, including its involvement in the Implementation Group and preparation of the Marine Service Implementation Plan. At the present phase EuroGOOS is involved mainly through the ECOMF Strategic Partnership and operation of the relevant working group (ESPWG). For the coming years EuroGOOS will aim to have an active role in the Copernicus marine service, with its efforts focusing on maximum engagement of its members and the uptake at national level; however its exact role will also depend on the structures that EU will setup for the implementation of the Service.
- **EMODnet.** EuroGOOS has developed its position for EMODnet through the relevant vision paper issued in collaboration with the European Marine Board (2010). The

secretary general or the chair have been / are members of the MODEG expert group having the opportunity to promote the views of the association. Furthermore the Secretariat (and now the AISBL) participates in the EMODnet Physics project that develops the portal and organizes the data flow of the relevant data. In the future EuroGOOS should be ready to adapt its position and strategy regarding EMODnet, depending on the structures that the EC will decide to put in place for the implementation and long-term operation of the system. Contribution is expected from the Data Management Exchange and Quality Working Group (DataMEQ). The overall strategy is that EuroGOOS should establish a leading role in the implementation of EMODnet.

- **Marine Research infrastructures.** During the recent years research infrastructures have been recognized as a key component of the research-funding framework of Europe (FP7, Horizon2020). The ESFRI framework and the Integrated Actions projects have been the key tools in this process. The Operational Oceanography community has been particularly active in this effort and projects such as EuroARGO (ESFRI), EuroSITES – FixO3, GROOM, and JERICO (IA) are developing the relevant networks of observing systems (Argo floats, Fixed Observatories, Gliders, Coastal Systems). During the next years EuroGOOS will promote the convergence of efforts under the umbrella of a European Ocean Observing System (EOOS), also in view of the long-term sustainability of the systems (see section 6).

### 3. Promotion

*EuroGOOS should systematically and effectively promote Operational Oceanography and the need for relevant investments in infrastructures as well as research & technological development actions.*

A key function of EuroGOOS since its foundation has been the promotion of Operational Oceanography at different levels. This practice will continue and be intensified during the coming years since the need for further advancement and sustainability of observing and computing infrastructures remains a pressing issue. Furthermore, there is a need to consolidate the role of EuroGOOS as the key organization for ocean observations and O.O. services in Europe. This promotion has to target different groups of stakeholders:

- The EU with emphasis on the Horizon 2020 research funding program;
- The funding agencies that already support development of O.O. or can potentially do it in the future;
- The Users of O.O. in order to increase the uptake of products and services and increase their support for the development and sustainability of O.O.
- The marine and in general environmental sciences community in order to enhance collaboration towards further advancement of O.O. through RTD.

The key activities and tools that will be used are described below.

#### **Publications**

EuroGOOS publications have always been a key product of the association but their production rate has decreased during the recent years. Priority for the next years will be to intensify the production of publications, including both position papers on relevant strategic issues and scientific papers regarding research and technological development of operational oceanography. The main method will be the publication of the output of the working groups of EuroGOOS, that under their new mode of operation will have a limited duration of work on a specific topic and the goal to publish their output at the end of their term.

#### **Engagement in key initiatives**

Participation in wider initiatives of the marine & environmental sciences allows the promotion of EuroGOOS outside the operational oceanography community. During the next years EuroGOOS will increase its interactions with such initiatives in order to establish its leading role in ocean monitoring and forecasting and increase the opportunities for large-scale collaborative actions. Among others, EuroGOOS will increase its engagement in GEO and its interaction with the research funding agencies networked under the SEASERA EraNET and JPI-Oceans (Joint Programing Initiative: Healthy and Productive Seas and Oceans).

## **Networking**

EuroGOOS has over the past years established collaborations with other European networks of Marine Science, promoting the role and importance of the association and operational oceanography. These include the European Marine Board (EMB) with which common activities have been undertaken (joint vision paper on EMODnet, 2010), ICES (especially through the WGOOFE group), Waterborne, CIESM and MARS (through the MARCOM project) as well as with EUMETSAT (GMES-PURE project). During the coming years EuroGOOS will enhance its interaction with other European and international networks of marine and environmental sciences.

## **EuroGOOS Conference**

The EuroGOOS conference has been a key activity of the association since its foundation. Over the years it has become a reference event for the operational oceanography community that meets every three years to discuss scientific and technological developments and interact with users. During the coming years EuroGOOS will aim to further increase the impact of its conference by delivering more focused messages and enhancing the science-policy dialogue as well as the User's interactions.

## **Communication**

Up to now EuroGOOS had not focused much on communication activities. Recognizing that that efficient communication is an important component of the promotion effort, EuroGOOS will intensify in the coming years its communication activities mainly using Internet and social media tools. Different messages will be used to address the different stakeholders such as the O.O. community, the Users community the Policy makers and key Stakeholders at International, European and National levels. The EuroGOOS members will need to play a key role in this process in order to formulate messages and disseminate them at national level.

## 4. Cooperation

*EuroGOOS should further enhance cooperation between key institutions that develop Operational Oceanography at Global, European and Regional Scales.*

The development of Operational Oceanography involves major investments in infrastructures, including observing systems and high performance computing hardware, as well as human resources with appropriate training. Such investments are difficult to be made by a single country and thus active cooperation has always been key for the development of GOOS. Especially when it comes to open sea systems either at regional or at global scales. During the next years EuroGOOS will continue to promote active cooperation at different levels in order to maximize the efficiency of national resources and investments in operational oceanography.

### Global scale

- **GRA.** EuroGOOS has always had an active contribution to the GOOS Regional Alliances (GRA) and together with MONGOOS have promoted the formation of their Forum and more efficient collaboration through the establishment of the GOOS Regional Council (GRC). EuroGOOS has chaired the GRC between 2007-2010 and has hosted two out of the six GRA Forums. During the next years EuroGOOS will continue to actively support the GRAs aiming to strengthen the network and promote more joint activities and harmonization of practices at global level.
- **IOC/GOOS Project Office.** EuroGOOS will seek to enhance the cooperation with GOOS Office of IOC especially for the European contribution to the global component. A GOOS office representative will be invited to all the General Meetings of EuroGOOS AISBL. An active collaboration is expected during the EU funded project for the Integrated Atlantic Ocean Observing System that is expected to be implemented during 2015-2018.
- **JCOMM. GODAE Ocean View.** During the previous years there is increasing European representation in JCOMM through individual scientists / national representatives. This trend should continue in order to have a more substantial representation of the Oceanographic community. EuroGOOS will promote an increased representation of European countries to JCOMM and will aim to better coordinate them to achieve a harmonized European voice. Regarding GODAE Ocean View (GOV), the EuroGOOS Secretariat has established contact with the respective project office aiming to a closer collaboration and joint activities during the coming years.

### European Scale

- **National institutes.** EuroGOOS AISBL currently (2014) has 36 members from 16 European countries. As already mentioned the target is that EuroGOOS AISBL will have 50 members by 2020. In the same time EuroGOOS will aim to enhance the cooperation

between these institutes in order to increase the level of joint collaborative actions at European scale and achieve more coherent views on European affairs.

- **European networks.** EuroGOOS will continue its efforts for enhanced cooperation between European networks that develop Operational Oceanography and Ocean Observation infrastructures. This mainly involves the networks that have been developed through infrastructure projects and focus on specific observing platforms (Argo floats, Gliders, Fixed Moorings, FerryBox, Coastal Systems, Sea Level). It also involves networks that contribute to ocean observations outside the operational oceanography community (e.g. MARS network of marine stations). The collaboration with EUMETNET will be of high priority for the next years since there is a large potential for joint actions.

### **Regional scale**

- **ROOS.** EuroGOOS will continue to support and enhance the role of the five Regional Operational Oceanography Systems – ROOS. Emphasis will be given to cross-regional collaboration aiming to avoid duplication of efforts and higher degree of harmonization. The operation of EuroGOOS working groups with balanced representation of ROOSs will be a key tool in this effort.
- **Regional Partners.** Within each region, EuroGOOS will promote closer collaboration with non-EU countries bordering the shared seas (US, Canada, north African, Middle-East, Baltic and Black Sea countries, etc). The collaboration with the respective GRAs will be the key tool in this effort. The cooperation with Regional Conventions is also expected to be enhanced, especially through the process of MSFD implementation.
- **Arctic.** Over the past years the interest for the Arctic and its marine environment is steadily increasing. Operational ocean observations in the Arctic are limited and there are perspectives for major investments in the coming years. EuroGOOS will actively contribute to developments in the Arctic through its ROOS (ArcticROOS) and will support the efforts for evolution of this ROOS to a GRA.

## 5. Co-production

*EuroGOOS should support collaborative actions leading to commonly available operational, observation and model-based, products and services.*

Similar to the need for sharing infrastructures and making common investments for the development of operational oceanography capacities, there is a need for enhanced cooperation in production of services. This allows reduction of cost and higher specialization of each provider in a specific observational or model – based product or service. Ultimately, coproduction optimizes quality and maximizes the benefits for the community.

### European Scale

The EU funded research projects of recent years have supported the coproduction of pan-European or regional services. EuroGOOS will support such efforts with emphasis on the Copernicus Marine Service and EMODnet. The development and co-production of downstream services that can be used by national agencies and private users will also be promoted. The working groups for Data Management (DataMEQ), Coastal Modeling (COSMO) and Products (EPWG) will continue to work on harmonization of practices that facilitates coproduction of services.

### Regional scale

Coproduction has been developed in some regions, such as the Baltic, but cannot be considered a common practice for all European Seas. EuroGOOS will support the extension of coproduction practices to all ROOSs by sharing best practices and improving knowledge transfer. EuroGOOS will also support its extension with new products and services, especially on the downstream side (end-user applications). Since for open sea systems coproduction is already relatively advanced, emphasis will be put over the next years on shelf systems and especially their in-situ observations and services components.

### MSFD

Delivery of specific products for the needs of the Marine Strategy Framework Directive will be a major obligation for EU member states during the coming years. Since the emphasis is not on coastal but rather on shelf and open seas of Europe, there is an obvious need for collaboration for the production of the relevant deliverables by neighbouring countries. Some EuroGOOS members are already active in this process especially for the design of the needed monitoring programs. EuroGOOS will aim to better coordinate coproduction for the MSFD, starting with the next assessment of the monitoring programs in 2016. EuroGOOS will also work to demonstrate the use of Operational Oceanography observational and modelling products for the needs of MSFD.

## 6. Sustained Ocean Observations

*EuroGOOS should ensure coordination of the European contribution to sustained marine observational systems necessary to meet the requirements for all marine-related purposes, including research, operational oceanography, and regular assessments of the state of our seas and oceans.*

In-situ marine observations and their sustainability have always been the key priority of EuroGOOS. With the Remote Sensing observations and the Ocean Forecasting services having successfully entered into the long term planning of Copernicus, the promotion of the in-situ components and their sustainability needs additional focus over the coming years. The aim will be to achieve more coherent observing strategies and maximize the availability of ocean data in an open and free framework.

### EOOS

EuroGOOS will promote the need for the development of an integrated European Ocean Observing System (EOOS) during the next years. The proposed system will be based to a large extent on past and planned investments: national systems, regional collaborative observing programs such as FerryBox and VOS, European programs and infrastructures such as: EuroARGO, JERICO, FixO3, GROOM etc. But following a *system's* approach which means an additional level of operational networking and a governance scheme that will allow common programming and joint investments. This effort will be carried out in collaboration with the European Marine Board and other initiatives such as JPI-Oceans.

### EMODnet

EMODnet represents today a key EU initiative for in-situ marine data especially for their availability and dissemination to end-users. EuroGOOS participates actively in the process especially through participation to the Physics component and the relevant projects, promoting the role of ROOSs (see also the strategies section). Apart of the overall strategy to continue playing a leading role, EuroGOOS will promote during the next years the use of EMODnet/DG MARE funding to support new ocean observations and not only data management and dissemination.

### EEA – Copernicus

Through the preparatory phase of Copernicus and its in-situ component, EuroGOOS has developed a close collaboration with EEA. A relevant MoU has been signed, according to which EuroGOOS will coordinate the delivery of in-situ data to the Copernicus Marine Service, using ROOSs as the interface between national data providers and the Service. Although final decisions have not been taken regarding the in-situ component of Copernicus and the relevant structures / governance, EuroGOOS will maintain a close collaboration with EEA regarding ocean observations, including the needs of Copernicus and MSFD.

## **National Systems**

Ocean observations are based on national systems and relevant infrastructures. Therefore, apart of promotion and coordination at European level, there is a need to develop similar initiatives at national level where the decisions for future funding are made. EuroGOOS will support this effort to guarantee sustainability of national investments for ocean observing systems, mainly through initiatives of its members. To increase the efficiency of this effort, EuroGOOS will seek to enhance coordination and exchange of best practices among its members.

## 7. List of Goals

Based on the above, the priorities of EuroGOOS for the 2014-2020 period can be expressed by the following Strategic (2-5 years) and Tactic (1-2 years) goals:

### Strategic Goals

- Broaden the impact of operational oceanography in Europe through enhancing the interactions:
  - Between the operational and research communities, mainly through the Horizon 2020 funding framework. Participate, as AISBL, to relevant proposals for RTD projects aiming to always have at least one EU funded project throughout Horizon2020, following the agreed principles of the Association. Continue interaction with the EMB aiming to have one common working group / publication during the next 5 years.
  - With the private sector aiming to joint activities either at RTD or at operational implementation level. Work through the TPWG to maintain the Forum for Coastal Technologies. Mainly through the support and participation to a follow-up of the JERICO project under Horizon2020.
  - With intermediate and end users, both for the definition of requirements and for assessment of operational oceanography services. Maintain the requirements data base developed through MyOcean and GMES-PURE projects. Participate to the user forums of the Copernicus Marine Service and organized specific sessions during the EuroGOOS conferences.
- Actively contribute to the development of an integrated European Ocean Observing System (EOOS) during the next years. Integrate the present Marine Research Infrastructures initiatives under the umbrella of EOOS, also in view of the long-term sustainability of the systems.
  - Enhance the visibility and influence of EuroGOOS through closer interaction with other European and international entities of marine and environmental sciences (EMB, EUMETSAT, ICES, GEO, EEA) as well as research funding networks (SEASERA EraNET, JPI-Oceans).
  - Further increase the impact of its Conference by delivering more focused messages and enhancing the science-policy dialogue as well as the User's interactions through specific tools (panel discussions, demonstrations, dedicated sessions).
  - Actively contribute to developments in the Arctic through its ROOS (ArcticROOS) and support the efforts for evolution of this ROOS to a GRA.
  - Intensify the production of publications, including both position papers on relevant strategic issues and scientific papers regarding research and

technological development of operational oceanography. Aiming to have one publication per year.

- Extend the EuroGOOS AISBL membership aiming to have 50 members by 2020.

### **Tactic Goals**

- Have an active role in the Copernicus Marine Service, with its efforts focusing on maximum engagement of its members and the Service uptake at national level. Also on its in-situ data component promoting the role of an EOOS.
- Establish a leading role in the implementation of EMODnet, especially but not limited to its physics component. Enhance the collaboration with the EMODnet Secretariat and have an active contribution to MODEG.
- Increase its visibility through intensified communication activities mainly using the new Internet web page and social media tools. Expand communication activities at national level focusing on sustainability of investments for ocean observing systems.
- Increase its impact at global level through:
  - Strengthening the GRA and promoting more joint activities and harmonization of practices at global level through active contribution to its functioning.
  - Enhancing the cooperation with UNESCO/GOOS Project Office.
  - Strengthening and better coordinating European representation at JCOMM.
- Increase the level of joint collaborative actions between EuroGOOS members by supporting closer and defining common priorities.
- Strengthen its regional strategy by continuing to support and enhance the role of the five Regional Operational Oceanography Systems – ROOS.
- Establish closer collaboration with non-EU countries bordering the shared seas. Emphasis on joint activities with capacity building character.
- Increase the level of coproduction by sharing best practices and improving knowledge transfer between ROOSs. Also support its extension with new products and services, especially on the downstream side (end-user applications).
- Contribute to the next assessment of the MSFD monitoring programs in 2016, using coproduction of EU members as a main tool. Also promote the use of Operational Oceanography observational and modelling products for the needs of MSFD.



## **ANNEX**

List of organizations & Initiatives relevant to EuroGOOS



(In alphabetical order)

- CIESM** The Mediterranean Science Commission ([www.ciesm.org](http://www.ciesm.org)): with members from 23 EU countries, CIESM promotes international research in the Mediterranean Sea and the Black Sea. CIESM acts as a focus for the exchange of ideas, the communication of scientific information and the development of scientific standards across the Basin.
- CFP** Common Fisheries Policy ([ec.europa.eu/fisheries/cfp/index\\_en.htm](http://ec.europa.eu/fisheries/cfp/index_en.htm)): The CFP is a set of rules for managing European fishing fleets and for conserving fish stocks.
- Copernicus Marine Service** Copernicus Marine Environment Monitoring Service ([www.copernicus.eu/pages-principales/services/marine-monitoring/](http://www.copernicus.eu/pages-principales/services/marine-monitoring/)): provides regular and systematic reference information on the state of the physical oceans and regional seas. The observations and forecasts produced by the service support all marine applications. The service is currently delivered in a pre-operational mode provided through the EU-funded project MyOcean2. Copernicus, previously known as GMES (Global Monitoring for Environment and Security), is the European Programme for the establishment of a European capacity for Earth Observation.
- DG MARE** Directorate-General for Maritime Affairs and Fisheries ([ec.europa.eu/dgs/maritimeaffairs\\_fisheries/index\\_en.htm](http://ec.europa.eu/dgs/maritimeaffairs_fisheries/index_en.htm)): European Commission department responsible for the implementation of the Common Fisheries policy and of the Integrated Maritime Policy.
- EEA** The European Environment Agency ([www.eea.europa.eu](http://www.eea.europa.eu)) is an agency of the European Union with the task to provide sound, independent information on the environment. In early 2013 EEA and EuroGOOS signed an agreement setting a framework of collaboration for the Copernicus in-situ component.
- EMB** European Marine Board ([www.marineboard.eu](http://www.marineboard.eu)): Marine Board stakeholders include EMB members, partner European and international networks, policymakers, strategy developers and programme managers at national, European and international level, as well as the marine and maritime science community at large. The European Marine Board develops common positions on research priorities and strategies for European marine science, facilitating enhanced cooperation between stakeholders involved in supporting, delivering and using marine research and technology. EuroGOOS had collaborated with EMB in the past through the joint working group on EMODnet and a relevant vision paper has been produced (September 2010).
- ECOMF** The European Centre for Ocean Monitoring and Forecasting (ECOMF) will be implemented to deliver the COPERNICUS Marine Service beyond 2014.

## **ECOMF Strategic**

- Partnership** An alliance between ECOMF and the national institutions that deliver operational oceanography services to the public. The alliance is implemented in close cooperation with EuroGOOS and its ROOSs.
- EMODnet** EMODnet ([www.emodnet.eu](http://www.emodnet.eu)) is a consortium of organisations within Europe that assembles marine data, data products and metadata from diverse sources in a uniform way. Presently, there are six sub-portals in operation that provide access to marine data from the following themes: bathymetry, geology, physics, chemistry, biology, and seabed habitats.
- EMODnet Physics** The existing EMODnet-Physics portal ([www.emodnet-physics.eu](http://www.emodnet-physics.eu)) is based on a strong collaboration between EuroGOOS member institutes and its ROOSs, and the National Oceanographic Data Centres (NODCs), and it is a marine observation information system that makes (in situ) physical data and metadata available for use (discover, view, plot and download) and contributes towards the definition of an operational European Marine Observation and Data Network (EMODnet).
- ESFRI** The European Strategy Forum on Research Infrastructures ([http://ec.europa.eu/research/infrastructures/index\\_en.cfm?pg=esfri](http://ec.europa.eu/research/infrastructures/index_en.cfm?pg=esfri)) is a strategic instrument to develop the scientific integration of Europe and to strengthen its international outreach.
- EUMETNET** EIG EUMETNET ([www.eumetnet.eu](http://www.eumetnet.eu)) is a grouping of 31 European National Meteorological Services that provides a framework to organise co-operative programmes between its Members in the various fields of basic meteorological activities. These activities include observing systems, data processing, basic forecasting products, research and development and training.
- EUMETSAT** The European Organisation for the Exploitation of Meteorological Satellites ([www.eumetsat.int](http://www.eumetsat.int)) is the European operational satellite agency for monitoring weather, climate and the environment. EUMETSAT's primary objective is to establish, maintain and exploit European systems of operational meteorological satellites. EUMETSAT is responsible for the launch and operation of the satellites and for delivering satellite data to end-users as well as contributing to the operational monitoring of climate and the detection of global climate changes. EuroGOOS and EUMETSAT cooperate since 2013 in the GMES-PURE FP7 CSA.
- EuroArgo** Started in January 2008 as a project, Euro-Argo ([www.euro-argo.eu](http://www.euro-argo.eu)) aims at developing a European "infrastructure" for Argo ([www.argo.net](http://www.argo.net)) to the level where the European partners have the capacity to procure and deploy about 250 floats per year, to monitor these floats and ensure all the data can be processed and delivered to users (both in real-time and delayed-mode). The Euro-Argo project involves 25 organisations from 12 countries.

- EuroSITES** European Ocean Observatory Network ([www.eurosites.info](http://www.eurosites.info)): EuroSITES forms an integrated European network of nine deep-ocean observatories sited in waters off the continental shelf and of greater than 1000m depth, measuring variables from sea surface to sea floor. It is coordinated by the National Oceanography Centre, Southampton, UK and involves 13 Partners across Europe and the Cape Verde Islands.
- FerryBox** The EU Science Framework 5 funded the highly successful project “Ferry-Box” from 2002 to 2005 ([www.ferrybox.com/eu\\_project\\_ferrybox/index.html.en](http://www.ferrybox.com/eu_project_ferrybox/index.html.en)). The project enabled the cooperation of 11 organisations and established the coordinated use of commercial ferry ships for the collection of scientific data. This has been an important step towards achieving the cost-effective extension of the European marine observational and reporting network envisioned in the EuroGOOS concept. The 11 partners operated on 9 shipping routes around Europe, from the eastern Mediterranean to the Baltic.
- FixO3** Fixed-point Open Ocean Observatories Project - FP7 ([www.fixo3.eu](http://www.fixo3.eu)): seeks to integrate European open ocean fixed point observatories and to improve access to these key installations for the broader community.
- GEO** Group on Earth Observations ([www.earthobservations.org](http://www.earthobservations.org)): The Group on Earth Observations is coordinating efforts to build a Global Earth Observation System of Systems, or GEOSS. GEO was launched in response to calls for action by the 2002 World Summit on Sustainable Development and by the G8 (Group of Eight) leading industrialized countries. GEO is a voluntary partnership of governments and international organizations.
- GMES-PURE** The GMES-PURE project (Partnership for User Requirements Evaluation, [www.gmes-pure.eu/](http://www.gmes-pure.eu/)) is an FP7 Coordination and Support Action, aiming to support the EC in capturing current and emerging requirements of users of Copernicus marine and atmosphere services. It is a 2-year project that started on 1 January 2013. It is coordinated by EUMETSAT and partners are FMI & RAL (atmosphere service) as well as EuroGOOS (marine service).
- GODAE Ocean View** The Global Ocean Data Assimilation Experiment (GODAE), initiated in 1997, aimed to establish an effective and efficient infrastructure for global operational oceanography and to develop practical and robust operational activities for oceanography with great benefit for society. The International GODAE Steering Team (IGST) coordinated and facilitated the development of global and regional ocean forecasting systems from 1998 – 2008. The GODAE OceanView ([www.godae-oceanview.org](http://www.godae-oceanview.org)) Science Team (GOVST) continues to provide coordination and leadership in consolidating and improving global & regional ocean analysis and forecasting systems on an international level.

- GOOS** GOOS, the Global Ocean Observing System ([www.ioc-goos.org](http://www.ioc-goos.org)) is a permanent global system for observations, modelling and analysis of marine and ocean variables to support operational ocean services worldwide. GOOS is an instrument of UNESCO/IOC and a system of programmes, each of which is working on different and complementary aspects of establishing an operational ocean observation capability for all of the world's nations. GOOS is the oceanographic component of GEOSS, the Global Earth Observing System of Systems.
- GROOM** Gliders for Research, Ocean Observation and Management (<http://www.groom-fp7.eu/>): The objective of the GROOM project is to design a new European Research Infrastructure that uses underwater gliders for collecting oceanographic data. This new infrastructure shall be beneficial for a large number of marine activities and societal applications, which can be related to climate change, marine ecosystems, resources, or security and which rely on academic oceanographic research and/or operational oceanography systems.
- Horizon2020** Horizon 2020 is the biggest EU Research and Innovation programme ever with nearly €80 billion of funding available over 7 years (2014 to 2020) ([ec.europa.eu/programmes/horizon2020/](http://ec.europa.eu/programmes/horizon2020/)). Horizon 2020 is the financial instrument implementing the Innovation Union, a Europe 2020 flagship initiative aimed at securing Europe's global competitiveness.
- ICES** International Council for the Exploration of the Sea ([www.ices.dk](http://www.ices.dk)): ICES is an intergovernmental organization whose main objective is to increase the scientific knowledge of the marine environment and its living resources and to use this knowledge to provide advice to competent authorities.
- IOC** UNESCO's Intergovernmental Oceanographic Commission ([www.unesco.org/new/en/natural-sciences/ioc-oceans/](http://www.unesco.org/new/en/natural-sciences/ioc-oceans/)) promotes international cooperation and coordinates programmes in marine research, services, observation systems, hazard mitigation, and capacity development in order to understand and effectively manage the resources of the ocean and coastal areas. IOC coordinates ocean observation and monitoring through the Global Ocean Observing System (GOOS).
- JCOMM** The Joint Technical Commission for Oceanography and Marine Meteorology ([www.jcomm.info](http://www.jcomm.info)) is an intergovernmental body of technical experts that provides a mechanism for international coordination of oceanographic and marine meteorological observing, data management and services, combining the expertise, technologies and capacity building capabilities of the meteorological and oceanographic communities.
- JERICO** JERICO (Towards a Joint European Research Infrastructure network for Coastal Observatories) is an FP7 programme (<http://jerico-fp7.eu/>) which

proposes a Pan European approach for a European coastal marine observatory network, integrating infrastructure and technologies such as moorings, drifters, ferrybox and gliders.

- JPI Oceans** Joint Programming Initiative for Healthy and Productive Seas and Oceans ([www.jpi-oceans.eu](http://www.jpi-oceans.eu)): In its role as a coordination platform, JPI Oceans will focus on making better and more efficient use of national research budgets, which represent 85% of the marine-maritime funding within Europe. One of JPI's goals is to develop joint research programs in which countries can be involved on a voluntary basis (variable geometry). Participating countries will also decide what contribution to make: this may include institutional, project-related or new funding.
- MARS** The European Network of Marine Research Institutes and Stations ([www.marsnetwork.org/](http://www.marsnetwork.org/)): the MARS network is a foundation created by, and open to, Europe's marine research institutes and stations. MARS is a partner network of MARCOM.
- MODEG** The Marine Observation And Data Expert Group: The mission of the Marine Observation and Data Expert Group (MODEG) is to provide the Commission with the scientific, technical and operational expertise it needs to ensure that the European Marine Observation and Data Network (EMODNET) best meets the needs of its future users. The Members are independent of national or commercial interests.
- MSFD** Marine Strategy Framework Directive ([ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index\\_en.htm](http://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index_en.htm)): The Marine Directive aims to achieve Good Environmental Status (GES) of the EU's marine waters by 2020 and to protect the resource base upon which marine-related economic and social activities depend. It is the first EU legislative instrument related to the protection of marine biodiversity, as it contains the explicit regulatory objective that "biodiversity is maintained by 2020", as the cornerstone for achieving GES.
- MSP** Maritime spatial planning ([ec.europa.eu/maritimeaffairs/policy/maritime\\_spatial\\_planning/index\\_en.htm](http://ec.europa.eu/maritimeaffairs/policy/maritime_spatial_planning/index_en.htm)): In March 2013, the Commission proposed legislation to create a common framework for maritime spatial planning and integrated coastal management. While each EU country will be free to plan its own maritime activities, local, regional and national planning in shared seas would be made more compatible through a set of minimum common requirements.
- MyOcean / MyOcean2** FP7 project ([www.myocean.eu/](http://www.myocean.eu/)) currently delivering the pre-operational phase of Copernicus Marine Service. In the period from April 2012 to September 2014, MyOcean2 will ensure a controlled continuation and extension of the services and systems already implemented in MyOcean (2009).

- SEASERA** SEAS-ERA (2010-2014) ([www.seas-era.eu/](http://www.seas-era.eu/)) is a project funded by the EU FP7 ERA-NET Scheme. SEAS-ERA is a partnership of the leading Marine RTD Funding Organizations in 18 countries and aims at coordinating the national and regional RTD activities.
- VOS** The Voluntary Observing Ship (VOS) scheme (<http://www.wmo.int/pages/prog/amp/mmop/JCOMM/OPA/SOT/vos.html>)
- WATERBORNE** The European Technology Platform WATERBORNE ([www.waterborne-tp.org/](http://www.waterborne-tp.org/)) is a forum where all stakeholders from the waterborne sector (sea & inland) define and share a common Vision and a Strategic Research Agenda, driving the necessary innovation efforts forward.
- WFD** Water Framework Directive ([http://ec.europa.eu/environment/water/water-framework/index\\_en.html](http://ec.europa.eu/environment/water/water-framework/index_en.html)): adopted on 23 October 2000, the "Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy" or, in short, the EU Water Framework Directive aims at cleaner EU rivers and lakes, groundwater and coastal beaches.
- WGOOFE** ICES Working Group on Operational Oceanographic Products for Fisheries and the Environment (<http://groupsites.ices.dk/sites/wgoofe/Pages/default.aspx>): a one source route to access these data from oceanographic contributors across the European marine science community.