

9th IBI-ROOS meeting



Iberia Biscay Ireland Regional Operational Oceanographic System

*14th – 16th February 2012
AZTI San Sebastian (SPAIN)*

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The 9th IBI-ROOS meeting was held at AZTI San Sebastian (SPAIN). 17 persons attended the meeting from 4 among the 5 countries involved in IBI-ROOS (see list in annex2). The meeting started at 14h00 on the 14th February and finished on the 16th at 13h00. Julien Mader welcomed the participants and provided the logistical information for the two day meeting.

1 News from the MOU and the DEA(Data Exchange Agreement)

S. Pouliquen reported on the coordination of the IBI-ROOS. 16 institutes have signed the MoU, 4 are considering it. We are very pleased to welcome NOC/UK who signed the MoU this year.

| Signed | Potential members |
|---|--|
| <ol style="list-style-type: none"> 1. AZTI/Spain 2. MeteoGALicia / Spain 3. Euskalmet-Basque Météorological Agency / Spain 4. I.E.O / Spain 5. Ifremer /France 6. Instituto Hidrografico /Portugal 7. INTECMAR/ Spain 8. IPIMAR / Portugal 9. Irish Marine Institute/ Ireland 10. IST / Portugal 11. Mercator-Ocean/France 12. SHOM/ France 13. Météo-France/ France 14. CNRS France 15. Puertos Del Estado/Spain 16. NERC / UK 17. CETMEF/France 18. MetOffice / UK 19. Universidade dos Açores, Portugal | <ol style="list-style-type: none"> 1. Météo-France/ France 2. CNRS / France 3. Centre for Environment, Fisheries & Aquaculture Science (CEFAS)/UK |

The Azores University signed on the 13th February 2012. Among the institutes who signed the MoU 14 have signed the Data exchange agreement. The list of the observation and model products provided by these institutes is attached in annex 5

| Signed | Potential members |
|--|--|
| <ol style="list-style-type: none"> 1. Ifremer /France 2. MeteoGalicia / Spain 3. Instituto Hidrografico /Portugal 4. INTECMAR/ Spain 5. SHOM/ France 6. Puertos Del Estado/Spain 7. Mercator-Ocean 8. Euskalmet-Basque Météorological Agency / Spain 9. AZTI 10. Irish Marine Institute/ Ireland 11. NERC/UK 12. CETMEF /France 13. IEO/Spain 14. MetOffice / UK | <ol style="list-style-type: none"> 4. IPIMAR / Portugal 5. IST / Portugal 6. Météo-France/ France 7. CNRS / France 8. NERC / UK 9. Centre for Environment, Fisheries & Aquaculture Science (CEFAS)/UK 10. Universidade dos Açores, Portugal |

2 Link with European groups or projects

2.1 *EuroGOOS*

Hans Dahlin presented the evolution of EuroGOOS since its creation. EuroGOOS started as an association to foster operational oceanography in Europe with no legal personality. About 35 members are in EuroGOOS and 60 institutes are involved in the ROOSes. At last annual meeting, the decision was taken to move to a legal body as a “Non-Profit Organisation according to the Belgian Law”. A First Draft agreement has just been finalized and sent to members. While the complete transfer may take years, the EuroGOOS office (P Gorringer) will move to Brussels in September 2012 and the process to appoint a new director is underway.

The purpose of moving EuroGOOS to a legal entity is to strengthen EuroGOOS but also develop the capability to submit project proposals and eventually employ people to support the EuroGOOS activities. EuroGOOS promotes establishment of ROOS secretariats and some funds could be raised through European Commission. The ROOSes have their origin in the EuroGOOS task teams but have their own inter-agency/institute agreements and presently there is no formal agreement with EuroGOOS except for reporting at the annual meeting. There is a EuroGOOS ambition to create a formal connection between EuroGOOS and ROOSes and the issue of having more ROOS members becoming EuroGOOS members was raised. ROOS members who are running operational services should study the possibility of being a member of EuroGOOS. .

2.2 *Information on MyOcean and MyOceanII*

S. Pouliquen provided on behalf of P Bahurel , the project coordinator, an overview of MyOcean project that will end on the 31st March. The « Service v2 » has been successfully launched in Jan 2012. All components are connected. User registration was simplified as requested at the User forum that was held in Stockholm in early 2011. Integrated access to products has been improved as well as the product catalogue with Product manuals and Quality Information documents and a viewing service for the gridded products.

MyOcean2 project will start on the 1st April 2012 for 2.5 years. While MyOcean was focused on the system integration to deliver a European service, MyOcean2 will be focused on the service improvement to users with a specific WP (WP3) targeted to National user uptake led by Glenn Nolan and MyOcean2 will be organized to capture more dynamically user feedbacks, and adapt the service. The level of funding per year is the same as for MyOcean and the consortium is more or less the same. MyOcean2 improves economies of scales by reducing unnecessary redundancies in the MFC and TAC. The lead of the Atlantic IBI MFC moves from Mercator (France) to Puertos (Spain) ; the central service operations moves from Met Office (UK) to Mercator (France). All systems and products are improved from MyOcean to MyOcean2, thanks to R&D transfers. WP breakdown is improved to simplify the « service » activity (one WP only), and foster activity on « quality », « multi-year assessment » and « user training » (new WP).

2.3 *Information on NOOS*

Glenn Nolan presented on behalf of Henning Wedhe the activities of the NOOS ROOS that aims at coordinating Operation Oceanography activities in the North West shelf area. NOOS is providing from its WWW site (<http://www.noos.cc/>) access to services that can be sustained in the long term by the nations :

- **Storm surge services** are reaching Maturity level with a yearly evaluation of all national model forecasts by DMI
- **Wave services** still have to be extended with more observations for better coverage and has started with forecast information
- **Transport service** (29 transects) with daily multi-model output. A model to model comparison has been carried out, comparing them to estimates published in connection with the MyOcean project. MUMM will continue the model to model comparison on an annual basis
- **River discharge:** Makes river runoff data observed and predicted fresh water flux and nutrient/contaminant loads available to NOOS partners
- **In Situ Observation services** A newly develop portal for the provision of In Situ data is established at BSH. There is still an issue with standardising Meta-data information

Henning identified the following potential areas of collaboration:

1. Continue collaboration on *in situ* observations harmonisation, collation and dissemination
2. Possible common collation and provision of community forcing information; atmospheric forcing, bathymetry, rivers
3. Collaboration on forecasts for drift and spill
 - Provide ensemble of 3D ocean currents for inclusion in spill/drift models
 - Develop a community oil spill model for testing use of deterministic and probabilistic ensemble models
4. Forecasts for surge :Provide ensemble of SSH for inclusion in surge prediction
5. Transport : Development of common products (observational and modeled)

These point were discussed during the meeting in the different topics and it is clear that some actions are already started (data management, river discharges, oil spill, storm surge) and some are planned (transport within model validation activities)

2.4 *Information on GISC project*

Whereas the space component of GMES is managed and developed by the European Space Agency (ESA), the GMES in-situ component is based on an observation infrastructure owned and operated by a large number of national and European stakeholders. In some cases they are coordinated within the framework of European and international networks. The European Environment Agency (EEA) leads the FP7 funded Coordination Action “GMES In-situ Coordination – GISC”. The GISC project is acting between data providers and operational GMES services to stimulate an open access to all relevant in-situ data in a cost effective and sustainable way. The project’s main objectives are to determine methods enabling networks to provide the required in-situ data for GMES. Moreover, the needs of GMES services for in-situ data are identified and prioritised in consultation with stakeholders. Finally, approaches for the integration of in-situ assets and networks into long-term sustainable frameworks for GMES services, including providing proofs of concept of operational in-situ architecture should be explored.

For the Marine sector, two workshops have been organized in June 2010 and November 2011 and the reports as well as the deliverables are available on the GISC www site at (<http://gisc.ew.eea.europa.eu>). During the first workshop the main requirements were reviewed at regional and global scales, the gaps were identified: coordination of the in situ observing system implementation, sustainability of the observing system at national and EU level, the improvements needed in term of sampling, variables and platforms. Based on the reports provided by the ROOSes and the transverse networks (Euro-Argo, EuroSites, Ferrybox, Glider,...), the overall cost(investment and annual maintenance) for the observing system required by the GMES Marine component (Core and downstream) was estimated to be about 50 to 60 Meuros with a future requirement of 70 to 80 Meuros per year that need to be funded jointly by nations and EU. The second workshop focused on the long term organization of the in situ component:

- A governance level which should have the capability to decide on the evolution of the observing systems is needed for the GMES Marine Service to take measures (including funding) and to implement them. This should involve both member states and European Union. EEA should play a leading role here with links with the European Commission and member states as part of the overall GMES governance. A European link with international coordination bodies (JCOMM, IOC, GOOS) should also be formally established.
- A scientific/technical/operational level for the coordination, implementation and monitoring of observing systems. There is first a need for coordination by geographical area (global and regional seas). EuroGOOS (with its ROOSes) is the main body for providing such a European coordination at regional level.
 - a formal coordination for the European contribution to the global ocean observing system is needed and EuroGOOS could take this role in the future (including interactions with GOOS, IOC and JCOMM).
 - There is also a need for coordination for specific components of the global and regional ocean observing systems such as Euro-Argo, Euro-Sites and FerryBoxes.

- A scientific and operational evaluation of the observing system with respect to GMES Marine Service needs. This should be primarily the role of MyOcean (and a future ECOMF) in interaction with EuroGOOS and specific components such as Euro-Argo.
- As EuroGOOS is going to evolve into a more stable structure, it is now urgent to agree on the long term relationship between EEA and EuroGOOS and agree on a MoU between EEA and EuroGOOS where the respective roles should be agreed.

2.5 Summary of 2012 Actions

Communication

1. Update the WWW to better highlight what we do: Set up a new topic “Access to products” that will link to the services that are provided by institutes or through projects: Each member to provide the link to one product that they want to highlight

3 Data exchange working group

3.1 Status of Real Time data exchange

Marta de Alfonso provided an overview of the data exchange activities within IBI that are operated jointly by Puertos Del Estado and Ifremer within the MyOcean FP7 project. The service has been improved with direct links established to most of the observation providers in the IBI area. Tools have been developed to monitor the service both in term of interfaces with the data providers, data coverage, delays in retrieving the data and quality of the products. Carlos mentioned that Tide Gauges from IH will be available before end of February 2012 .

Viewing tools have been enhanced and are connected to the IBI WWW site at <http://myodata.puertos.es/> and tools are under development to access data through internet (Oceanotron which is an OPeNDAP service for in situ). Quarterly assessment of the parameters handled within MyOcean context (T,S, sea Level) has started and allows us to better qualify the data. This activity will be enhanced within MyOceanII. PdE and Ifremer have the willingness to integrate more biogeochemical data but there are a limited number that can be shared in real-time and such activity is more likely to start with historical data.

Concerning historical data, IBI members pointed out that a lot of their data were in SeaDataNet or in ICES and that for efficiency connection to these services should be the long term objective. In the meantime, some IBI members are willing to share their historical data on the IBI portal and with MyOcean as long as no restrictions are put on IBI people to access IBI data they agreed to share with the DEA. S Pouliquen should get confirmation from P Bahurel on this aspect before they start providing these data. S Pouliquen mentioned that there is manpower funded within MyOceanII both for historical data collection and T&S product assessment for reanalysis purposes. Such regional product should be valuable for reanalysis activities carried on by National systems within the IBI area.

3.2 Action status for 2011

At last IBI-ROOS annual meeting the following actions were decided. Since then, most if them are **on going** and were discussed during the meeting

- Apply the agreed procedures at data provider lever for T&S, Sea Level, Current (ASAP)
 - Done at Coriolis
 - No feedback received from partners
- Provide feedback on the RTQC for Bio data so that we can apply such procedure at data provider level in future by June
 - Nothing to add to this documentation. PREVIMER operational daily model forecast production lines will include en 2012 automatic qualification step based on in-situ RTQC
 - Procedures were distributed within IEO and no feedback was received
- Sylvie to Update data provider list with Biogeochemical data providers by March
 - Sylvie sent a request to partners and received no feedback as very few real time Biogeochemical data are acquired within IBI
- Link with SeaDataNet for first version of the T&S product for reanalysis(1990-2010) (June). Specific help from the NODCs involved in IBI (Ifremer, IEO, NERC, MI, IH).
 - SISMER data are integrated
 - The majority of the IEO TS data is already in SeaDataNet and in ICES. Manuel to verify they are free access
- Each agency having long time series for this period , first T&S and Sea Level, that are not in the SDN infrastructure to study how they can share such data with the IBI partners
 - Coriolis started from 2000
 - Data from PdE started in 1996 for T&S and from 1992 for Sea level (hourly values instead of one-minute data).
 - IEO to retrieve through SDN
 - Other partners was discussed during the meeting

3.3 EMODNET-Physics

Summary to be provided by Patrick Gorringer

Patrick Gorringe presented the EMODNET context that is a program that aims at easing access to observations and highlighting the gaps . The first phase is developing prototypes of portals in 6 thematic areas. In the next phase they should be merged into a unique portal and sustained . EuroGOOS is deeply involved in the development of the physical portal targeting fixed platforms and ferrybox and the main parameters collected both in real-time and delayed mode. The system is developed upon the ROOS portals set up jointly with MyOcean for NRT data and the SeaDataNet network for historical ones. The link with data providers has been organized through regional workshops that were held in the past 8 months, the link between the two systems is done via the EDIOS catalogue that contains the metadata that describes the platforms. While the portal is mainly an access point for outreach and the EC, Emodnet-PP is contributing to strengthening our activities by unlocking access to national systems and therefore benefits the ROOSes by increasing the amount of data freely available. The ROOSes are advised to collect the data directly from providers and enhance the service built for MyOcean to fulfill the ROOSes needs. Users would like to have similar services on the archived data as for RT/NRT data , and especially seamless access to data from fixed stations without using "shopping basket" mechanism (PdE portal). For some institutes that are not connected to SDN , they would prefer to provide access to their historical data via the MyOcean/ROOS portals. The commitment for MyOcean is to start the historical product at 1990 but the ROOSes can extend the period according to their needs. SDN will still benefit due to the fact that EMODnet unlocks data. . In future such portals may include more platforms such as Argo, Glider, drifters ...

3.4 Summary of 2012 Actions on Data Exchange activities

Data Exchange

2. Sylvie: See with P Bahurel that no restriction is put on IBI people to access IBI data they agreed to share with the DEA
3. Once clarified Sylvie to ask Institutes who agreed at the IBI meeting to provide Historical data for reanalysis activities

4 Observing System working group

Garbine Ayensa presented the RAIA network that aims at improving the oceanic observation at the Western Iberian Peninsula in terms of meteorological, oceanographical and water quality data. It is composed of 5 new buoys that will be located near the coast, HF radars, tide gauges, vessels, operated jointly by Portugal and Spain. RAIA data are available on www.marnaraia.com and are integrated within the IBI in situ portal. Operational models allow to give forecasts up to 72 hours of the state of the sea and RAIA developed specific applications for end users using the capacity of the Observatory to provide forecasts and observations in real time; harbors, fishermen, tourism,...

A presentation of JERICO and especially WP2 was planned but was not provided as Henning Wehde didn't manage to reach the meeting place. Anyway what we were expecting from WP2 in JERICO was discussed and we highlighted the fact that we wanted to do more than another inventory and that our aim was really to work on "What is the observing system that we need in the IBI Area to fulfill our transverse and national activities?". Such a document is needed when we seek additional funding both at EU and national levels. IH and AZTI, representing IBI in WP2 should carry this message to JERICO WP2. We agreed that the method proposed by Julien Mader in 2010 was the path we wanted to follow to justify from a scientific/driver point of view the vision of the Observing system we need. Julien reminded the activities that need to be carried out by the Observing system working group in IBI. The first role is to share national experiences and present new initiatives, the second is to involve main actors in IBI (both Core and downstream services and users to be able to:

- Provide the IBI-ROOS Observing System status (updates)
- Define the requirements and priorities
- Coordinate the implementation of the observing system to avoid overlap and foster synergy

The IBI-ROOS community as a whole will benefit from this approach

- To participate in the establishment/maintenance of the observing network that will improve the quality of MCS and downstream products
- To be involved in defining key control points and data assimilation points for MCS products, in particular to evaluate boundary conditions for nested downstream systems → network optimization
- To achieve the common objective of sustainability (co-funding, to reinforce visibility of national or regional effort)

It was agreed that the Observing working group composed of one representative per country should prepare for the EuroGOOS annual meeting a first version of this document

4.1 Summary of 2012 Actions on Observing system

Working Group : A volunteer from in each country: SPAIN-AZTI (Julien Mader), Portugal-IH (Francisco Almeida), Ireland-MI (Glenn Nolan), France-Ifremer (Guillaume Charria) UK-CEFAS(Dave Mills?).

4. Glenn and Lucia to confirm participation of UK and French members
5. The group to Update the observing system inventory
6. What are the drivers for the observing system? : First document to be ready before EuroGOOS annual meeting in Hamburg on November 21st 2012.

5 Progress on River Runoff

5.1 Report on EHYPE from OPERR project

Yolanda Sagarminaga presented the results of the E-HypeV2.0 river discharge forecast tests she made within the OPERR project. The version 2.0 achieved important improvements from v1.0, but still irregular results: while it works well for the main rivers, the results are worse in small rivers and irrigation areas. An Operational e-hype 2.1 is due to Autumn 2012 and will include quality parameters (nitrates & phosphates). Work is underway at AZTI to couple shelf models to river data.

Jerome Chanut mentioned that Mercator is also using E-HYPE forecast for the main rivers and improvements to the forecast compared to using climatology.

5.2 Status of Inventory of main rivers

Julien Mader stated that two inventories are available for sharing in the IBI community on the WWW :

- IBI inventory for the main rivers in the IBI area
- A more detailed inventory as a kml file with the link to the river out flow providers.

UK is working with the Environment Agency to provide access to UK rivers outflow

SMHI is presently running/producing the forecast of the Atlantic rivers for Mercator. It would be interesting to share this forecast within IBI and the question will be raised to SMHI.

It was also agreed that it would be good if the model teams could share the river flow they use at the mouth of the main rivers in real-time.

5.3 Summary of the actions for 2012

7. Put on the IBI WWW the inventories made by AZTI (Julien –Sylvie)
8. All model teams to provide by FTP the river flows at the mouth they use in Real-Time
9. Yolanda to ask SHMI if possible to give access to IBI partners to E-hype forecast via FTP. To show it on the IBI WWW site, Manuel to prepare a www page. If E-Hype fields are available, the way to be integrated on the IBI portal will be studied

6 Model Downscaling

6.1 Progress made in 2011

AZTI: Julien

Ifremer: Lucia

Lucia Pineau presented the 2011 developments in French Coastal Oceanographic Operational System PREVIMER. A new web interface allows visualizing all the platforms of the networks archived in the Coastal Operational Oceanography Database. This tool allows to have synthetic information on measurements (platform code, platform name, institution, available data...) and to download data.

Concerning downscaling modelling, the future 2D currents, sea level and surges models will have a spatial resolution of 2 000 m for rank 0, 700 m for rank 1 and about 200 m for rank 2. These models have been improved (wave effect on wind parameterization implemented, hourly meteo forecast). The 3D Bay of Biscay grid has been extended, the spatial resolution has moved from 4 km to 2.5 km, and vertical resolution from 30 to 72 vertical levels. The perspective is AGRIF zooms of about 500 m resolution. Under development: towards turbidity modeling, data assimilation and spectral nudging. The new Wave Watch III model fully covers the Bay of Biscay and the Channel with an unstructured grid up to 200 m of spatial resolution.

The products under developments have been briefly presented: means, newsletter, hindcast, indicators for monitoring and alert, quality indicator and reanalysis.

IEO: Manuel

MI: The Irish Marine Institute runs several ocean models that are provided routinely to users. These include a 2km horizontal resolution model of the Irish region with 40 vertical levels using the ROMS model. ROMS is also nested for two bays, Galway Bay and Bantry Bay at an approximate horizontal resolution of 200m, with 20 vertical levels. The Bantry Bay model includes both physical and biogeochemical fields. An oil spill model with a GIS front-end has also been developed under the ARCOPOL project. IMI also runs the SWAN wave model operationally at 3km resolution.

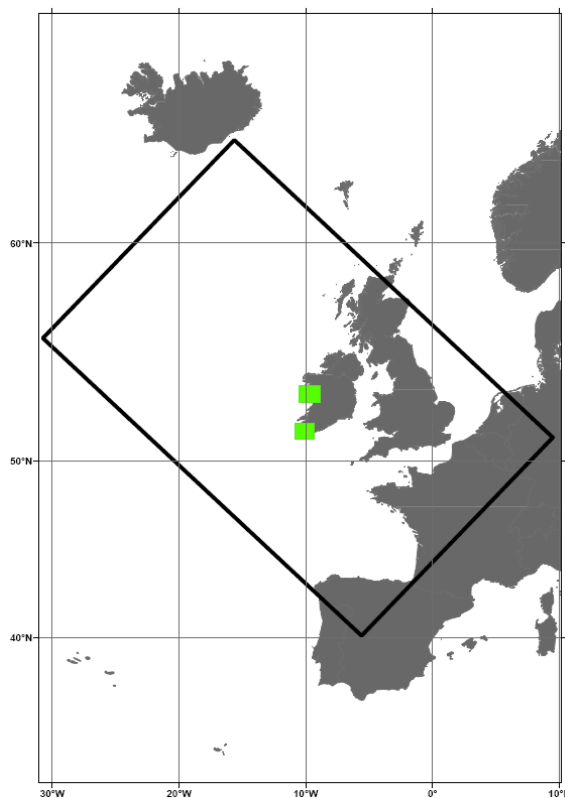


Figure ?? Domain of the IMI ROMS model including the two sub domains in Bantry Bay (SW Ireland) and Galway Bay (West coast).

Typical model products are focused on hindcast applications such as site assessment for offshore aquaculture, criminal investigations (based on Lagrangian particle tracking), fisheries stock assessment and ocean energy industry development.

Model forecasts can be found at: <http://www.marine.ie/home/services/operational/oceanography>.

Future plans include the development of a <1km model for the entire Irish shelf region in late 2012 and possibly higher resolution wave modelling in key areas close to the Irish coast.

Maretec-IST:Francisco

The Portuguese Coast Operational Modeling System (PCOMS) produce daily hydrodynamic and ecological results for the previous day and three days forecast for the Western Iberia Coast. The obtained results would serve as ocean boundary conditions to different local models where a higher model resolution is needed, see Figure 1, bringing ocean forecasts to more specific areas.

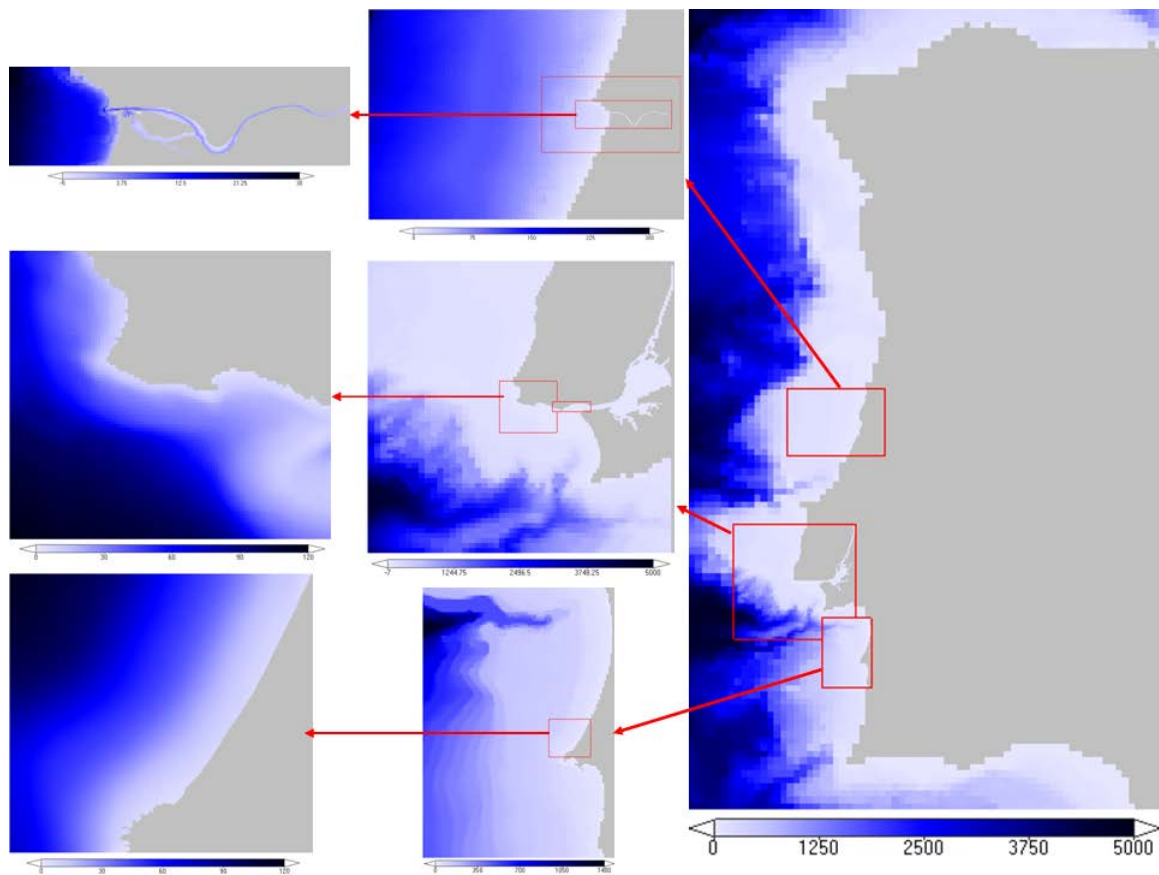


Figure 1. Portugal 3D domain with some of the submodels, from top to bottom at the centre: Figueira da Foz coast, Tagus estuary, Sines coast, from top to bottom at the left: Mondego estuary, Guia outfall discharging area, Sines outfall discharging area.

The PCOMS consists of two nested domains WestIberia (2D) and Portugal (3D) covering the Iberian Atlantic coast and its contiguous ocean. The 3D model is a downscaling of the Mercator-Ocean PSY2V4 North Atlantic solution that run the Mohid model in full baroclinic mode with a horizontal resolution of 5.6 km and with 50 vertical levels with a resolution of down to 1 m near the surface. The PCOMS is forced with tidal components obtained from FES2004 global tide solution at different allocations along the ocean open boundary. Atmospheric conditions, including wind forcing, are imposed using 9 km resolution MM5 model results ran at IST.

In order to manage the operational procedures, the Maretec-IST developed a software for automatization that preprocess the input files needed by the hydrodynamical-ecological model, execute the model using the Mohid

configured files and finally store, graph and distribute the model results via opendap, smartphone and publishing on webpages. At the preprocessing phase, it adapts using different data sources to the model domain i.e. results from atmospheric models (i.e. MM5, WRF), global circulation model results (i.e. Mercator-Ocean), meteorological or flow monitoring stations, etc.

As an example of the downscaling process, here is described the operational 3D model for the Tagus estuary. The Tagus operational model runs the Mohid numerical model (<http://www.mohid.com/>) in full 3D baroclinic mode with a variable horizontal resolution ranging from 2 km to 300 m around the estuary mouth. The vertical discretisation consists in 50 vertical levels with a resolution close to 1 m near the surface.

Currently, in order to improve the model results, the Tagus estuary open ocean boundary receives hydrodynamic and ecological forcing from the 3D model PCOMS (Portuguese Coast Operational Model System). In the atmospheric interface, the model is forced by atmospheric results obtained from a 3 km resolution WRF model application performed by the IST Meteorological team.

In the estuarine area, the model receives hourly river flow measurements of the Tagus River from the hydrometric station of Almourol, located upstream of the tidal signal and part of the National Hydrological Monitoring System. Water properties for the Tagus River discharge come from climatological analysis. For the Sorraia and Trancão rivers both the river flow and the water properties

The Tagus estuary local model aims to give answer to different services at local level, including the estuary water quality monitoring and to provide integrated conditions to more refined models i.e. monitoring and forecast for the Guia outfall model and for the bathing water quality in the influence area of the estuary.

Following this downscaling philosophy, conditions are brought from the open ocean to local solutions with high resolution improving the numerical results and predictions as can be observed in Figure 2 for the 3D Guia application with a resolution of 200 m.

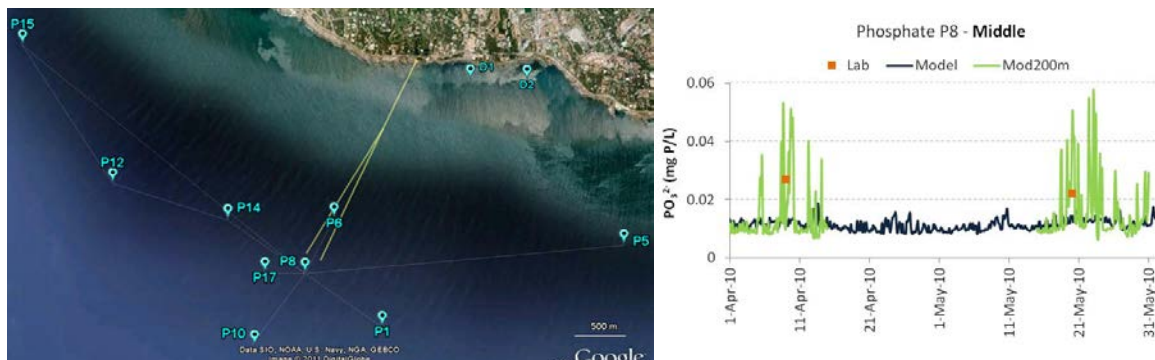


Figure 2 Location of the monitoring stations (blue marks) around the outfall diffuser (yellow lines) and phosphate values obtained through downscaling models to the actual 3D Guia 200m model (green line) compared with the refined Tagus 3D model (blue line) and observed values (orange dots) at the middle of the water column.

Mercator: Jerome

PdE: Enrique.

6.2 Intercomparison performed at Mercator

Bruno Levier presented the inter-comparison activity run at Mercator to validate the MyOcean IBI model. The partners gave access to their model at Mercator by OPeNDAP. The models were compared to satellite SST and Sea level from the In situ portal and all the figures related to these tests have been produced. Such results are important for all teams to improve their models and therefore the different modellers asked to have access to the comparison or at least to the report that would synthesize the results

6.3 A proposal to improve model validation

Julien showed a proposal under Interreg-SUDOE call (South West Atlantic = Portugal/Spain France up to Poitou-Charente) . Would involve some LOREA and RAIA partners. Aims at coordinating the intermediate users activities in this region for MyOcean Validation on intermediate users perspectives (link shelf-slope processes, IPC current,..) and feedback to core service as well as develop and optimize observing system in particular HF radar networking and work on distributing these obs on the IBI platform.

6.4 Coordinating Feedback to MyOcean User Group (link with WP3 MYOII)

The process of defining the Core Service products within MyOceanI and II has not been clear and the challenge is to draw in each region the limit between what is done at Core and what is to be done by the intermediate users. It could be dangerous for the follow up of MyOcean if this is not done properly and if it puts in danger what is done at National level. Within MyOceanII a closer loop with the Intermediate users will be implemented within WP3 led by Glenn Nolan. After the WP3 meeting that will be held end of March a draft of the way to work with the ROOSes will be distributed to the ROOSes in April.

6.5 Summary of the actions for 2012

10. Mercator to Study how to provide access to IBI partners the result presented by Bruno Levier.
 11. If additional funds are provided to Mercator within MyOceanII then study the possibility to add IEO and Azti into this inter-comparison.
- Mercator to provide a report within the year on the inter-comparison results.
12. Mercator and AZTI to define some metrics (basically transports at selected sections following what has been done in the North Sea) to monitor slope currents in the different systems .
 13. After the WP3 meeting that will be held end of March , Glenn to distribute to IBI a draft of the way to work with the ROOSes (April 2012)

7 Towards applications

7.1 *Marine Framework Strategy Directive*

Manuel updated the presentation made two years ago by Yann-Hervé De Roeck . The Marine Strategy Framework Directive that was signed in June 2008 will rely on regional conventions such as OSPAR for the IBI area as well as the efforts of individual member states. The MSFD has the following timetable

- 2012: describe and assess of current environmental Status, define good status, establish environmental target et indicators
- 2014: monitoring status
- 2020 : reach good assessment

In 2012 each country has to provide the initial assessment of their national waters that is mainly descriptive. This leads to the establishment of monitoring programs for the next steps. Manuel showed what was done at IEO in Spain, at UK (DEFRA report), or Indicators developed by INGV for EEA for European seas. Lucia presented what Previmer is prototyping as Traffic Light system of indicators and thresholds elaborated from satellite, in situ and model to be able generate map allowing monitoring and alert for the next 5 days : for Biomass (from chlorophyll), for Wave, Surge, Sea Level, Turbidity, Anoxia, Oyster mortality... This work at Ifremer is developed jointly with the persons that are in charge of the report at national level.

Even though it is a national duty and commitment to provide the indicators related to MFSD, we will need a regional approach (ecological objective, operational objective, indicators) where operational oceanography will have a role to play. A working group has been identified and a specific meeting on this subject will be organized at Ifremer/Paris in September 2012

7.2 *Summary of the actions for 2012*

Working Group on MFSD : Lucia Pineau-Guillou, Glenn Nolan, Manuel Ruiz, Dave Mills, Rosa Barciela, Portugal?, PY Dupuis(SHOM)

14. Glenn and Manuel to confirm participation of UK and Portugal members.
15. Lucia to organize a meeting in Paris Ifremer in September to share experience and define a common strategy

7.3 *Toward Marine Safety Search & Rescue common activities*

Not much progress has been done in the past year at IBI level except contact with NOOS where a similar working group has been set up. There was an agreement to have joint activity with NOOS. Both P Daniel from France and Rodrigo Fernandez from Portugal are willing to work with NOOS people on these issues and feedback to IBI on these activities as there is a requirement to continue to have expertise in the IBI as another accident like Prestige may happen again.

7.4 *HAB Detection*

The HAB activity is carried out through the ASIMUTH project that aims at developing with SMEs a GMES downstream service for HAB detection, forecast and alert to shellfish farmers in Spain, France, Portugal, Ireland and UK. It is lead by DOMMRS (Daithi O'Murchu Marine Research Station), an Irish SME..

The objective is to build a HAB decision support system that assembles the data (model, in-situ and satellite observation) from MCS and monitoring data for expert to take decision and issue or not a warning bulletin that will be disseminated to users by WEB, sms or smart phone. They are targeting HAB blooms that are already identified as toxic and are transported from one area or another.

We agreed that IMI will report next year on progress made in ASIMUTH and we will then see if other complementary actions need to be carried out.

8 Revising the strategic plan

Last strategic plan was written in 2005 for 2006-2010 period. The context of operational activities have changed in particular with the development of GMES . It was agreed to set up a working group to elaborate the first draft of the 2013-2020 strategic plan

Strategic Plan 2013-2020 Working Group : Glenn Nolan , Sylvie Pouliquen , Manuel Ruiz, Franscisco Campuzano , UK(Dave Mills ?)

16. Glenn to confirm participation of UK member
17. Each participant to re-read the existing and provide comments and suggestion before mid-march.
18. The WG to meet by phone and prepare a draft by the next annual meeting

9 Wrap session /actions for 2012

After 10 years as a chair of IBI ROOS S Pouliquen stepped down as chair of IBI-ROOS. Glenn Nolan proposed to take the lead and he was elected by the members. S Pouliquen will continue to help as a co-chair of IBI-ROOS

The location of next meeting will be defined in March.

Annex1 Agenda

Tuesday February 14th

14h00: Welcome from local host and logistic information.

14H15 – 16h00 Issues regarding IBI-ROOS Context

- Evolution EuroGOOS (EuroGOOS Office) 20mn
- Discussion of the links between EuroGOOS and the ROOSes(EuroGOOS Office) 30mn
- Information on MyOceanI and MyOceanII (S Pouliquen on behalf of P Bahurel) 20mn
- Information n NOOS and possible areas of Collaboration (Henning) 20mn
- Information on GISC(update from 2nd EEA workshop) (Sylvie or Glenn) 15mn

16h00-18h00 Data exchange – Chair Sylvie Pouliquen & Marta Alfonso

- Progress on data exchange within IBI-ROOS, Marta 30mn
- Feedback on EmodNet-PP (Patrick Gorringer) 20mn
- Discussion on 2012 actions : ALL
 - How to progress on historical data integration
 - How to progress on BioGeochemical data integration
 - Feedback on RTQC procedures for BIO observations
 - What about including HF radar on the portal ?

Wednesday February 15th

0900-1100 Observing System working group – Glenn Nolan and Julien Mader

- Feedback on RAIA and on the Atlantic Coastal Observatories proposal (Vicente) 20mn
- Presentation of the Observing System Status and Priority, Glenn & Julien 30mn

1100-1200 Progress on River Discharge and Plans-Julien Mader

- Report on EHYPE from OPERR project (J Mader)
- Status on Inventory of main rivers (Julien/Jerome)

1200-1630 Model Downscaling - Chair Enrique Alvarez & Jérôme Chanut

- Progress made in 2011: Julien Mader, Vicente Pérez, Lucia Pineau-Guillou, Manuel Ruíz, Glenn Nolan, Francisco J. Campuzano, Jerome Chanut and Enrique Alvarez (15mn each MAX!)
- Review the action status : Enrique & Jerome 30mn
- MyOcean V1 Validation by IBI : Julien 30mn
- Coordinating Feedback to MyOcean User Group (link with WP3 MYOII) Glenn

16h30-18h00 : MSFD

- What are the needs , Link with OSPAR Dave Mills 15mn
- What can be provided by Operational Oceanography (Manuel, Dave, Glenn, Lucia,..) 30mn
- Define a strategy for coming years

Thursday February 16th

09h00-10h00 Progress on Oil spill: Pierre Daniel

10h00-11h00 HAB and Ecosystem Feedback from Asimuth (Glenn)

11h00-12h00 Reviewing the Strategic Plan for 2013-2020

12h00-12h30 Election of a new chair /co-chair for IBI-ROOS

12H30-13h00 Wrap session, Work plan/actions for 2012

Annex 2 Attendees

| Name | Institute | Country |
|------------------------|-----------------------------------|----------------|
| Lucia Pineau | Ifremer | France |
| Sylvie Pouliquen | Ifremer | France |
| Bruno Levier | Mercator Ocean | France |
| Jérôme Chanut | Mercator Ocean | France |
| Stéphanie Louazel | SHOM | France |
| Glenn Nolan | Marine Institute | Ireland |
| Carlos Fernandes | Portuguese Hydrographic Institute | Portugal |
| Pedro Agostinho | Qualitas Portugal | Portugal |
| Julien Mader | AZTI-Tecnalia | Spain |
| Yolanda Sagarminaga | AZTI-Tecnalia | Spain |
| Manuel Ruiz | IEO Coruña | Spain |
| Garbiñe Ayensa | INTECMAR | Spain |
| Francisco J. Campuzano | Maretec - IST | Portugal |
| Enrique Alvarez | Puertos del Estado | Spain |
| Marta de Alfonso | Puertos del Estado | Spain |
| Hans Dahlin | EuroGOOS | Sweden |
| Patrick Gorringe | EuroGOOS, SMHI | Sweden |

10 Annex3 Actions status for 2011

Updated 27/01/2012

Strategic Plan revision :

- Sylvie to propose a first outline of Chapter 5 and 4 updates : **Not Started**
- All countries to contribute taking into account the national plan so the plans are realistic

EMODNET-Physics

- Hans to provide IBI partner with project presentation and provide more precise outlook of the Data provider workshop that will be held in June . [see report](#)
<http://www.eurogoos.org/documents/eurogoos/downloads/emodnetppreport.pdf>
- Sylvie will provide the Data Provider list that has been established for data exchange **done**

WGOOFE

- IBI partners to review the IBI product pages on www.wgoofe.org and send material to Rosa to provide a more accurate information on what products are available for ICES
 - Fabrice - **Done** : all PREVIMER links have been updated in WGOOFE website
- IBI persons interested to participate to WGOOFE should contact Rosa
 - Martin Huret will represent Ifremer in WGOOFE workgroup (last meeting in Exeter in November 2011)
 - IEO have started to participate in WGOOFE and attended the last meeting

MFSD

- UK (Rosa , Boris, Mike?) to provide the link to the CP2 report made for DEFRA **Done**
- People involved in OSPAR (Glenn and Dave) should represent IBI and provide feedback to the IBI community on development made related to MFSD in OSPAR...**Not Done**
- Manuel to contact G Coppini at INGV to see what indicators are developed for the Med Will be presented at IBI meeting **Presented at the meeting**

MyOcean

- IBI partners to register as MyOcean users by signing the SLA so that the user community in the IBI area is visible and recognized
 - Fabrice – **Done** : F. Lecornu is registered as MyOcean user for PREVIMER boundary conditions and satellite products. PREVIMER is not a client of MyOcean TAC because most used data are acquired in the frame of PREVIMER and provided to Coriolis to be included in Ifremer in-situ TAC
- Glenn and Julien to represent IBI community at the User Forum . IBI people to provide their feedback to them **Done**

Data Exchange

- Apply the agreed procedures at data provider level for T&S, Sea Level, Current (ASAP)
 - **Done at Coriolis**
 - **No feedback received from partners**
- Provide feedback on the RTQC for Bio data so that we can apply such procedure at data provider level in future by June
 - **Nothing to add to this documentation. PREVIMER operational daily model forecast production lines will include in 2012 automatic qualification step based on in-situ RTQC**
 - **procedures were distributed within IEO and no feedback was received**
- Sylvie to Update data provider list with Biogeochemical data providers by March
 - **Sylvie sent a request to partners**
- Link with SeaDataNet for first version of the T&S product for reanalysis(1990-2010) (June). Specific help from the NODCs involved in IBI (Ifremer, IEO, NERC, MI, IH).
 - **SISMER data are integrated**
 - **the majority of the IEO TS data is already in seadatanet and in ices. Manuel to verify they are free access**
- Each agency having long time series for this period , first T&S and Sea Level, that are not in the SDN infrastructure to study how they can share such data with the IBI partners
 - **Coriolis started from 2000**
 - **Data from PdE started in 1996 for T&S and from 1992 for Sea level (hourly values instead of one-minute data).**

- IEO to retrieved through SDN
- What about the other IBI partners????

Observing System

- Julien/Glenn to provide a revised version of the document prepared in June for the EEA workshop that would make the links with drivers ((Drivers -> requirements ->prioritize for research areas and prioritize the technology) to provide IBI priorities in a better argued manner **Nothing Received**

River RunOFF

- Update the inventory focusing on on main rivers (30m3/s)without removing rivers that are important when there is extreme events or will cross check with Jerome at Mercator to provide an inventory BEFORE the IBI meeting
- Julien to report at next meeting to progress on Hype from OOPER project: **Julien will report at the IBI meeting**
- MF and MetOffice as well as other Met Offices to study the possibility of getting RT runoff from data elaborated by meteo institutes that could be shared with IBI partners.(Action Joel and Rosa)
- **UK is working on it, no information from France**

Model

- Mercator-Ocean to set up common metrics from IBI models available on opendap and run operationally (IST, PreviMER, IMI, MyOcean-IBI V0 & V1) to provide common metrics and allow inter-comparison material to all teams for weekly or monthly analysis.
 - **Fabrice – Done : an access to PREVIMER_MARS3D-MANGA4000 results has been given to Mercator-Ocean to be able to provide common metrics.**
- Try to involve other partners in the storm surge (ENSURF) (Begonia Perez , Rosa, Fabrice, Enrique, Joel)
 - **Fabrice – Done : an access to PREVIMER large scale surge model has been given to Begoña PEREZ GOMEZ (Puertos Del Estado) to be integrated in ENSURF website**
 - **Begonia in PdE is working on it. She has access to the information and she is working in the integration. We hope to have everything ready very soon...**
- Cross check that IBI INS TAC gathered all the sea level data necessary for ENSURF: **PdE is gathering all the IBI sea level data need for ENSURF. We were missing SHOM data but recently we have solved the problems...**
- Action on Jerome and Alistair to provide the updated on the IBI Validation plan and Interchange with NWS Validation plan **Cancelled**
- Julien to explore the possibility of launching a proposal on inter-comparison of models output in the IBI area through a process oriented validation : **Proposal presented at Metting**

Marine Safety

1. The result of this survey should be presented by P Daniel to the SaferSeas meeting in Brest in May and ask oil spill modelers to suggest axis for future development of oil spill model (community model) and provide feedback to the ocean model to improve/facilitate these oil spill
 - **Contact with NOOS WG; Propose to join activity**

HAB and Ecosystem

2. No action