IBI-ROOS meeting

27th-28th February 2007
Puertos Del Estado – Madrid (Spain)

The IBI-ROOS annual meeting was hosted by Puertos Del Estado in Madrid and started at 930 on Thuesday. 35 participants from 12 institutes and 4 countries attended. E Alvarez and G Parrilla opened the meeting and welcome them to Madrid. Everybody thanked Marta De Alfonso for the organizing the logistic of the meeting.

Objectives of the meeting→

- Inform on National Programs status
- Organize the links with the European projects
- Organize the work plan for the coming 2 years

1 Information on National programs

1.1 Spanish ESEOO project (E. Alvarez)

The 3 year ESEOO project was launched in January 2004. The main objective of the project has been the development and implementation of a Spanish Operational Oceanography system able to be used in emergency situations at sea, such us oil spill accidents. The system consists of several applications based on numerical modelling and analysis of oceanographic data, both historical and real time. The results of this project will not be limited to emergency cases, but will boost the knowledge of Spanish coastal waters and the related scientific tools available. All the systems created in ESEOO have been tested in exercises at sea.

1.2 Operational Oceanography at IEO in the IBIROOS area (A Lavin & IEO colleagues)

Among the activities that develop IEO, some are related with the Operational Oceanography.

- Sea Level measurements from the 1940s in a net of 8 tide gauges in the IBI area:. Some of the data are in 'quasi real time' in the web: http://www.ieo.es/indamar .

- SST images from NOAA satellites is been systematically received since 1998. A data base of satellite images with different areas (Bay of Biscay, Western Iberia and the Canaries in the IBI area) in a monthly base is presented at www.teledeteccionoceanografica-ieo.net.

- Coastal and Oceanic Hydrographic Standard Sections and Stations. The Coastal sampling in 5 sections in the N/NW since 1987 or 2001 until today.. Deep Standard Sections (VACLAN project) in N/NW from 2003 and in the Canaries (RAPROCAN) since 2004 T/S/LADCP and current moorings. CTD data are transmitted on 'quasy real time' to be used by the European operational models. Contribution to different climatic reports as the ICES Report on Ocean Climate (IROC), ICES Working Group on Oceanic Hydrography, Spanish climatic reports, etc

- Contribution to the International ARGO program from Gyroscope EU project (2002-2004), , Argo-España action and participation in the ESFRI new initiative.

- Thermosalinograph data. Collaboration in EU Mersea project, (sending daily data from the R/V Cornide de Saavedra TSG to the Coriolis data Center)

- Modeling activities in Galicia and Cantabrian Sea (southern Bay of Biscay). The model has 1-2 km resolution aimed at ecosystem studies with high-resolution meteorological forcing. IEO is interested on high resolution shelf and slope processes (upwelling, river plumes, slope currents…). Main applications are evaluating impact of circulation on ecosystems, support to IEO

research (especially biologists), managers in the fields of fisheries and HAB alerts. IEO system is a coastal forecast system in IBIROOS plan.

- Launch a new oceanographic-meteorological buoy at 43º 50'N, 3º 47'W in the deep waters (2500m) of the Bay of Biscay . The buoy will be equipped with the following sensors: Air temperature, Atmospheric Pressure, Directional Waves, ADCP (measuring currents until 160m depth), SST, Salinity, Chlorophyll, Oxygen and pH. The buoy has been partially funded by the Government of Cantabria.

1.3 French National program Previmer (J Legrand)

PREVIMER is a project aiming at the development of an information system capable to provide , in real time, information on the present state and 48h forecasts of physical and environmental conditions in the French shelf seas and coastal areas. Geographical scales go from facades (Channel, Bay of Biscay and French Mediterranean cost) with a grid of, typically 1.5 km to regional to local area with grid of 150 m (or even smaller if necessary). Thematic are: current (speed and direction), salinity and water temperature from the surface to sea bottom, waves (height, direction and frequency), sea level and surges, particles and chlorophyll concentration, water quality (microbiology).

PREVIMER is being built on four components:

- in situ measurement systems (development of new instrumentation e.g. a shallow water TS profiler and use of fishing boat as VOS using dedicated sensors),
- numerical models: MARS and ROMS (nested), WaveWatch III and SWAN, ecology and sediment transport modules linked to MARS.
- Data centre which concentrates the data needed by the models: reference data (bathymetry and sea floor characteristics), forcing data (meteorological, river run off, limit conditions at open boundary) and archive the model outputs for retrospectives studies.
- Web site for the diffusion of the information to the users.

The project is in its first year, i.e. mid-term of phase I. Phase II will extend from 2008 to 2013, Partnership include SHOM, Météo France, CNRS/INSU, CETMEF and IRD under the coordination of Ifremer. Financial resources are brought by European Union, Ifremer, SHOM, Brittany Region, Brest Urban Community. In the course of Phase II, it is planned to install a dedicated structure for operational exploitation of the PREVIMER system.

The progress in the construction and in the pre operational activity can be followed on line at the address: http://www.previmer.org

1.4 Irish Operation Oceanography activities (G Nolan)

The Irish Marine Institute (IMI)maintain a network of 6 offshore met buoys and 8 coastal tide gauges at present, all reporting data in near real-time to users. As a contribution to ICES Ireland occupies standard oceanographic sections on the Irish Shelf and in the Rockall Trough. IMI is also involved in deploying and maintaining coastal buoys around the Irish coast and with providing satellite data to end users, primarily SST and ocean colour. We have a large model domain extending to Iceland and Iberia at 2.5km horizontal resolution, the forecasts from which are made available on the internet. Downscaling of this model to coastal locations is a key part of our work as is continuous validation of the models we develope. We are also active in storm surge and wave modelling.

IMI currently co-ordinates the European Seafloor Observatory Network Implementation Model Project looking at feasibility of implementing cabled seas observatories in European waters. We are developing programmes with Glider technology and with ARGO floats. Present and near future developments of the oceano-meteorological network of the Basque Country (A Morais, J Mader)

1.5 Present and near future developments of the the operational oceanography system in the Basque Country region (A Morais, J Mader)

One of the main objectives of the Operational Oceanography is to obtain organised and long-term routine measurements of the seas, oceans and atmosphere, and provide their rapid interpretation and dissemination (Dahlin et al., 2003; Flemming et al., 2002; Behrens et al., 1997). Variables such as marine currents, sea temperature and salinity, wave height and period, wind stress, heat fluxes between atmosphere and ocean, evaporation and precipitation, and river runoff, are fundamental to get an accurate description of the marine and atmospheric environment, and therefore, the working of an efficient Operational Oceanography System. This information can be obtained by means of appropriate instrumentation together with numerical models (Fig. 1).

The oceano-meteorological instrumentation network in the Basque Country region consists of: 1) six coastal oceano-meteorological stations located at Bilbao, Bermeo, Ondarroa, Getaria, Pasaia, and Hondarribia; 2) two offshore buoys (Wavescan), moored off Matxitxako and off Pasaia, at 550 m and 450 m water depth, respectively, which provide real time data of the main oceanic and meteorological variables at fixed points, giving reference information for the Basque coastal and oceanic regions (WEBS: http://www.azti.es); 3) drifting buoys. These instruments are used to characterise pollutant trajectories at the sea surface or along the water column. Their use during the Prestige catastrophe demonstrated the complexity of sea surface currents in the Bay of Biscay and their efficiency to describe oil drift trajectories from the sinking area (near the Galician Bank) to the western and northern affected coastlines of the Iberian Peninsula (Portugal and Spain, respectively) and western France; 4) coastal video monitoring systems, located at Anglet and St. Jean de Luz (France), and Mundaka (Bizkaia). These areas have high natural and anthropogenic impacts and therefore are subject of special care. The analysis of the images (among others) provides continuous information of sea waves, coastline and bathymetric evolution, and human activities (www.kostasystem.com); 5) satellite images allow a large scale view of variables such as the sea surface temperature, chlorophyll, and the location and sizes of fresh water discharges from the main rivers or pollutant sources; and 6) further mobile or fixed systems such as current meters, acoustic doppler profilers, tide gauges, CTDs, XBTs, etc. are used for specific data acquisition. The system will be implemented in brief with the acquisition of a high frequency radar system, which will provide information of wave parameters (at several locations) and the current field, with a resolution of 6 km.

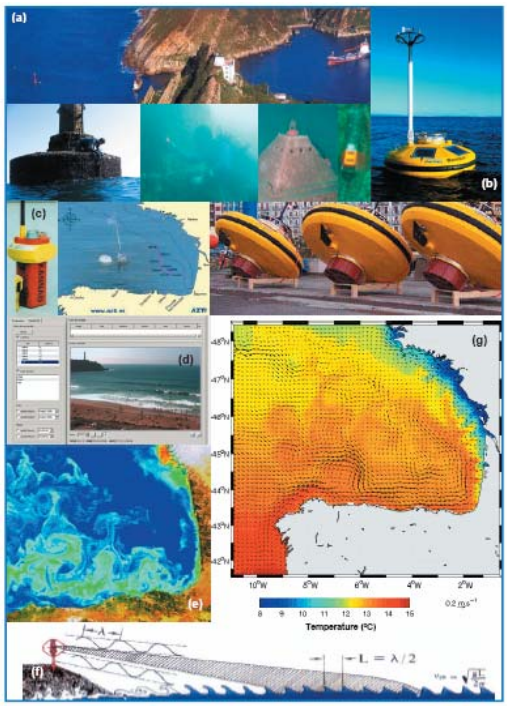
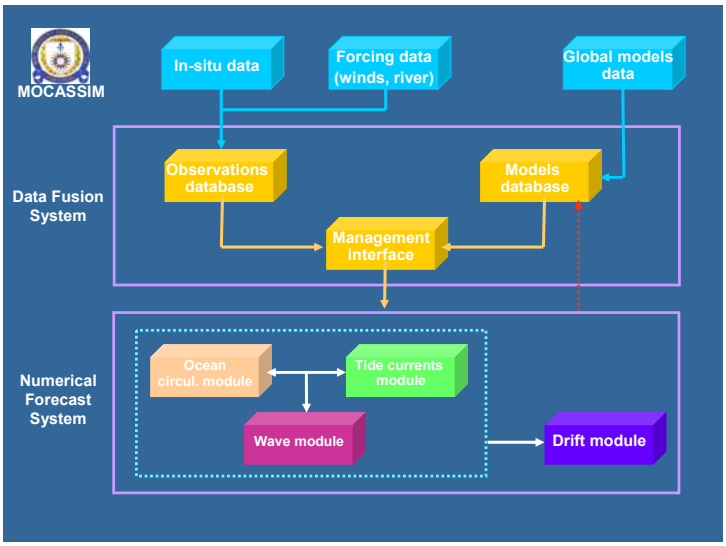


Figure 1. a) Oceano-meteorological station located at Pasaia; b) Wavescan buoys located offshore in front of Matxitxako and Pasaia; c) drifting buoy during the Prestige event in the Bay of Biscay; d) video monitoring in the coastal area of Anglet (France); e) satellite (SEAWIFS) image of the Bay of Biscay (chlorophyll a concentrations); f) high frequency radar to estimate current and wave fields; and g) numerical model output obtained with mean typical atmospheric forcing and climatology for the month of January.

With respect to the numerical models, two hydrodynamic models are used in the Basque Country: TRIMODENA and ROMS (developed using finite elements and finite differences techniques, respectively). These models, fed by appropriate atmospheric forcing, provide daily forecasts of current, temperature and salinity fields (http://www.azti.es and http://www.eseoo.org/servicios/azti), as well as hindcasts of past events. Their results are input to dispersion models (Eulerian or Lagrangian type), which allow the transport description of particles or individuals (sediments, oil spills, containers, fish eggs and larvae, etc.). These models have been validated and calibrated with the field data from the afore mentioned instruments. In shallow waters and harbours, these tools are fundamental from the technical viewpoint (management and design of dredging activities, maritime traffic, structure design, etc.) as well as for environmental management.

1.6 Operational Oceanography in Instituto Hidrografico in Portugal (C Ventura Soares, J Onofre)

The Portuguese Hydrographic Institute (IH) operates a network of oceanographic sensors, with the permanent network having 21 tide gauges and 5 wave buoys, but on an occasional basis the network is reinforced with ADCP's and current meters.
One of the reasons to operate this network is to provide real time data for the operational modelling system, financed by the Portuguese Science Fundation (FCT) in 2001. The system is called MOCASSIM and was completed in 2004 with three core models of circulation, waves and tide.



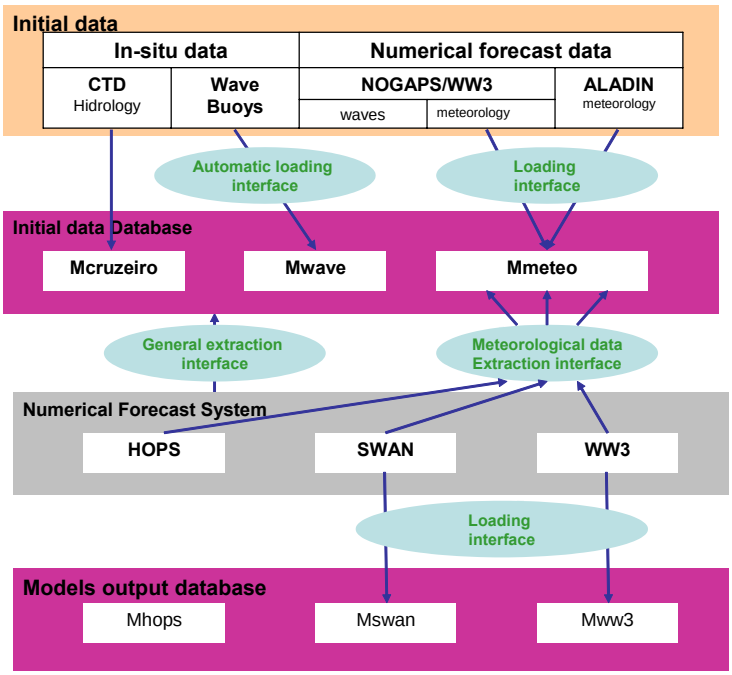
MOCASSIM system is divided in two components, the Data Fusion System and the Numerical Forecast System.

Numerical forecast system

The Numerical Forecast System gathers a collection of models used in numerical forecast on the interest geographic area. System central core aggregates the following modules:

- Ocean Circulation
- Tide Currents
- Waves

These modules interact between each other giving a numerical forecast that describes the dominant hydrodynamics processes in coastal areas. Ocean Circulation module gives operational forecasts of the sub-inertial dynamics promoted by the several forcing agents (winds, rivers, global ocean circulation, etc), for the continental margin and near-shore coast and other areas of national interest. The Wave module consists in the numerical forecast for the North Atlantic and Portuguese regional domains. The results obtained by model in North Atlantic domain are used in the regional domain to characterize the wave conditions especially in the Portuguese coast.
After 2004 some more models were added to the system and today, MOCASSIM has sediment transport models, acoustic models, drift and a oil spill model, increasing the capabilities of the system.



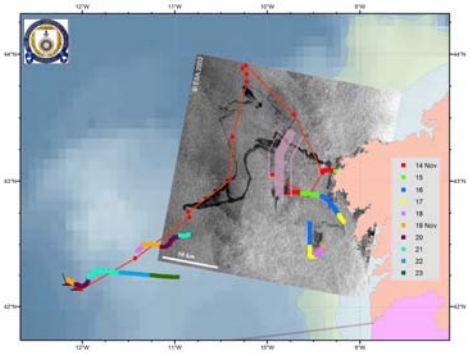
Data fusion system

The Data Fusion System works like a platform that permits the access and management of the information available in external sources and the information given by the models outputs.

This system permits the integration of the several types of data, their management, and dissemination through the different users and finally the numerical forecast data inclusion. The management of all these elements was made implementing databases, adapted to the different types of data and sources (research vessels, external models outputs, etc). Data sources are classified in two categories: historical and dynamical. Historical data are the data collected by IH and that could characterize a geographical area due to its temporal extension. Dynamical data is considered the observations collected in NRT or daily data from external sources (models forcing data).
Each numerical system element requires a certain type of data therefore needs to collect data from different databases. Initial data as different databases, depending on the type of data: in situ or numerical forecast data. In situ data can have its origin in CTD profiles, collected in research vessels, and in wave buoys (automatic loading). Numerical forecasted data is essentially models forcing fields and are provided by FNMOC (NOGAPS) for the North Atlantic domain and by Meteorology Institute (ALADIN model) for the Portuguese regional domain.
The same happens with models output, each model as a different database, one for each model used (HOPS, SWAN and WW3)
The results of the wave forecast models are updated daily in the website of the IH, while the other models are activated when they are needed in case of an accident, pollution, save and rescue operation or Navy exercise.

The first operational use of the system was during the PRESTIGE accident in 2002, and the results were very important to support the national authority responsible to fight pollution.

Oil spills trajectories produced by Instituto Hidrografico during the first days of Prestige-Nassau accident in November 2002. The evolution of the ship prior to sink is represented by the red dotted line. Forecasts up to 5 days obtained with IH oil spill drift model forced only by wind and wave conditions are presented for different locations of the spill and different days



2 The European Context and European projects linked with IBI-ROOS

2.1 EuroGOOS - a GRA with ROOSes. ((H Dalhins) (15mn)

Hans Dalhins presented the two international organisations to which a ROOS (Regional Operational Observing System) such us IBI-ROOS is connected :

- The UN-System is composed of :
    - GOOS which is the intergovernmental design and decision making system (under IOC,WMO,UNEP)
    - I-Goos(decision making body),
    - Jcomm (steering body for implementation)
    - Coastal Goos a desgn panel
    - the GRA (like Eurogoos,..) coordinating regional implementation
    - ROOSes which are the regional operational unit in the global system)
    - Nations that commit to do activities and provides funding
- Political system:
    - Geo/Geoss: define the political goals
    - GMES is the EU contribution to Geoss
    - Regional conventions : intergovernmental operating bodies to protect marine environment and living resources
    - Roos: future multipupose multinational operating systems to satisfy user requirements, financed nationally, but also through the EC

ROOSes are where the expertise is and were the operational systems are set up. They must have the capability to satisfy known requirements timeliness with best available knowledge and practice, to initiate developments they need, to support the national systems in order to increase efficiency and justify national contributions . They also co-ordinates the national contribution to larger systems

2.2 ECOOP: How do we organize the IBI-ROOS contribution (D Obaton)

ECOOP is an FP6 Integrated project that aims to integrate operational oceanography from regional to coastal. It started in February 2007 for 3 years with a Targeted Operational Phase from November 2008 to April 2009. It involves 72 partners. Even if ECOOP has been designed to rely on EUROGOOS Task Teams, the IBI-ROOS team contribution has not really been organized at the IBI-ROOS level. However the IBI-ROOS community is pretty well represented in a significant number of WPs.

We agreed that we should try to get as much benefit as possible from the ECOOP funding to build or improve the system in our region. Therefore it implies that the different IBI-ROOS partners involved in ECOOP should act as representative of the IBI-ROOs network and not only as their institute representative each time it's possible.

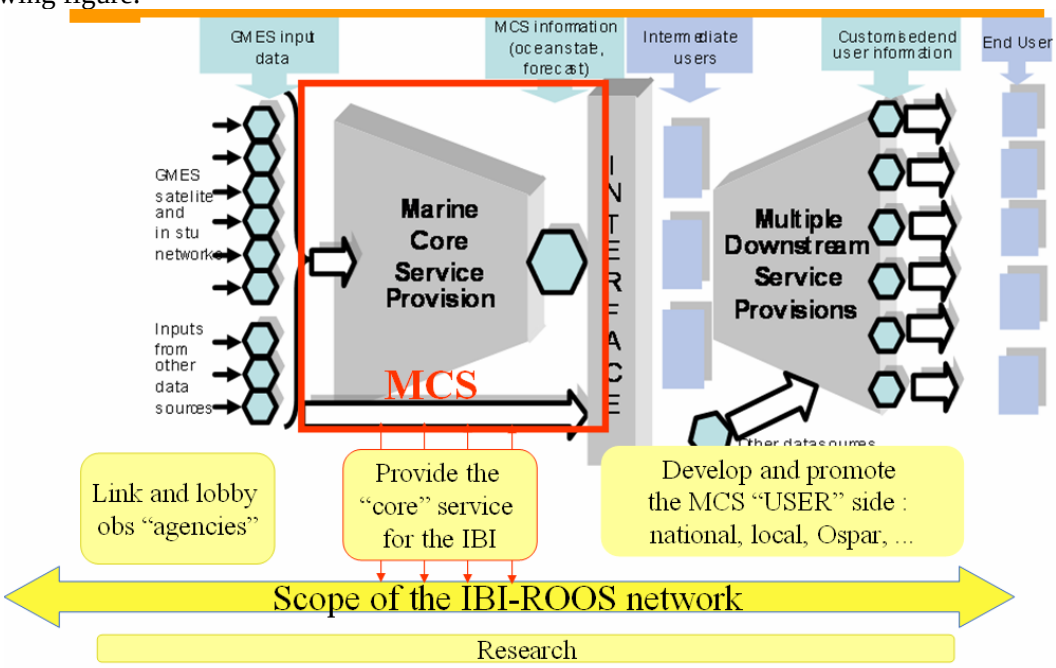
D Obaton has reviewed the different WPs and we have clarified the IBI-ROOS goals in each WP by making the links between the WPs activities and the IBI-ROOS project that were discussed later in the meeting

	ECOOP		IBI-ROOS
In-Situ Obs system	WP1	• Historical physical data for 2004-2006)	• Data Exchange in Delayed mode
	WP2	• In-situ observing system inventory	• Observing system Design
		• River Runoff	• River Runoff
		• Data quality	• Data Exchange
		• In situ Portal	• IBI-ROOS portal

	WP7	• Provision of Analysis or Climatology • Advanced Technology	• Observing System Design
Satellite	WP2 WP3	• SST and Color Regional products	• Regional Satellite products provided by Ifremer
Model	WP1 WP4 WP5 WP6	• Inventory of existing systems • System development • System demonstration • R&D activities in downscaling, ecosystem, HAB	• Done in the strategic plan • Downscaling • HAB
Information System	WP8	• European Portal • Catalogues, Discovery, viewing & download services	• Need to build an IBI-ROOS portal • Data Exchange
Applications	WP6 WP9	• HAB IBI-ROOS Marine safety application	• HAB • Oil Spill application

2.3 Marine Core Service (S. Pouliquen)

S. Pouliquen presented on the behalf of P. Bahurel the GMES context, the Marine Core Service definition as defined by the GMES Implementation group in the report approved by the commission and that was distributed to the IBI-ROOS partners prior to the meeting.
She then presented the link between the IBI-ROOS network and the MCS that is summarized in the following figure.



The scope of the IBI-ROOS is wider than the MCS : it goes from setting up the observing systems up to providing the downstream services to the end users. Only a limited number of IBI-ROOS partners will contribute to the integration and the operations of the MCS for the IBI area; they will have to commit to provide the European value-added service that is not fund at individual national level. In order to prove the benefit of operating and Marine Core Service in the area , IBI-ROOS network has to ensure the usefulness and connection with the IBI-ROOS application side: national services, OSPAR, coastal, public/private services, ...which means to organize the connection, provide the user requirements and prepare the "downstream services" EC call to come

She finally presented the status of the proposal that is under preparation and should be submit for the 19th June under MERCATOR-Ocean coordination . The preparation is done in three steps

- Step 1 (jan-feb) : A drafting team in place, composed at the starting point, of the main MERSEA "production units" operators, to set up the project foundations on the existing "core" (Mersea heritage)
- Step 2 (mar-apr) : Involvement of MCS "stakeholders" (providers, users, partners), to tune the project lines. Member states representation through EuroGOOS/ROOS.
- Step 3 (may-jun) : proposal finalization

The proposal aims to set up a European Core Service :

- a EUROPEAN service which means a service providing a real European added-value
  - *It is not : competing with national services, but serving them (subsidiarity)*
    - ⇨ Priority : A new Service adding value compared to the "before-GMES" situation

- a CORE service which is a service providing a common information to a wide range of specialized services (called "downstream")
  - *It is not : competing with downstream services, but serving their "operators"*
    - ⇨ Priority: serve "big" and important Users that are Member states and European Union service providers

- an OPERATIONAL service under operational commitments (SLA signed with GMES authorities)
  - *It is not : a demonstration of feasibility*
    - ⇨ Priority: set up a European organization with operationally-committed Operators

The next step is for the IBI-ROOS network to check that the IBI-region is clearly considered in the MCS service production units (both TACs and MFCs), to add-value to the IBI-ROOS systems. Check that the targeted organization will ensure operational service. Its also to identify the IBI-region **users**, both at Member States level and EU level, to provide a list and organize ourselves that their user needs is defined and known by MCS .

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The participants have been pleased to get all these information and were positive on the way the MCS setting up was proposed.

It was agreed that the Forecasting service in the IBI area will be provided by Mercator-Ocean in collaboration with ESEOO represented by Puertos Del Estado until the Oficina is set up

It was also agreed that Coriolis represented by Ifremer and ESEOO represented by Puertos Del Estado will coordinate the In-Situ Tac service in the IBI area and gather the data from the IBI-ROOS data providers first in real-time and then in delayed mode for the variables for which it makes sense. A lot of the delayed mode data in the IBI area are provided by national data centres (Sismer, IEO, Instituto Hidrografico, BODC) that are building a European service through the FP6 SeaDataNet project. The In-Situ TAc will rely on this infrastructure and MCS should encourage the sustainability of such an infrastructure that will provide funds to the data providers to facilitate access to their data.

If there is a need to provide an in-situ service for CHL data , CEFAS could ensure such a service probably for the IBI-ROOS and NOOS area, this has to be confirmed by Liam.

Partners felt comfortable with the proposed Satellite TACs organisation for the IBI area

Finally IBI-ROOS network will propose demonstration(s) of the usefulness of the MCS in connection with the national systems in the IBI area for the proposal.

The question of the limit between the NW-Shelves and SW-Shelves area was raised and an overlap was highly suggested in order offer choices to the users concerned by the two areas.

2.4 Concerted Specific Action of In-Situ Observing system : (H. Dahlin)

The In-situ observing system on which relies the MCS is at present funded at national level, and - GMES has not considered at present the funding of the pan-European part. This has been identified by the GMES implementation group and it has been proposed at last GAC to EEA to coordinate such in-situ activities at European level. They declined the proposal and therefore it was suggested that the EUROGOOS office should take on board this coordination and proposed a Concerted Specific action to the FP7 Space call to work on this issue.

The purpose of this CSA should be to identify gaps in the existing observing system and find way to fill them, identify the required technology development. It will also provide a design the observing systems at European and regional level (different scenarios and funding estimation) and the data accesses requirements.

It should be built on Eurogoos OOS/N and the Working groups (Datameq, technological group …)
It should fund (partial) regional coordination.

3 Work plan for next two years

Prior to the meeting, volunteers has drafted proposal of actions that are important to implement the IBI-ROOS strategic plan and presented it to the groups. The actions were reviewed and discussed and technical ad-hoc working group were set up to progress on these issues and report periodically to IBI-ROOS partners.

3.1 Data exchange S Pouliquen/Marta De Alfonso

S Pouliquen and M De Alfonso prepared a document that presented the rational of improving data exchange within IBI-ROOS in order to provide an enhanced in-situ dataset to forecasting system both in real-time and delayed mode for assimilation and validation purposes

Coriolis and ESEOO represented respectively by Ifremer and Puertos Del Estado agreed to set up an IBI-ROOS assembly centre, mirroring each other, that will assemble the IBI-ROOS data for the benefit of the IBI-ROOS community.

The following activities have to be carried out :

- Identify the potential IBI-ROOS data providers for real-time and delayed mode data stream, first for physical parameters then for biogeochemical ones.
- Define a common strategy to offer services and common standards for sharing of data and metadata compatible with MCS ones.
- Move towards a common data policy which will follow the EuroGOOS data policy, implying free exchange of data among IBI-ROOS partners ; The possibility of setting up IBI-ROOS data-exchange agreement, in which data providers would commit to provide their data

according to delivery schedule they committed to, to the partners that would sign the agreement will be studied.

- Set up an information system that will provide an integrated access to these data to GMES MCS both in real-time and delayed mode
- Implement advanced quality control and validation systems taking into account the large volume of collected data in order to ensure the data consistency

More details can be found in annex 3

The following working group was formed to work on this issue: S Pouliquen/Ifremer, **Marta De Alfonso**/Puertos Del Estado, Elena Tel Perez /IEO , Glenn Nolan/ IMI, UK (TBD with UK) , Carlos Santos Fernandes/ Instituto Hidrgrafico (santos.fernandes@hidrografico.pt)

3.2 Model Downscaling D Obaton/E Alvarez

D Obaton has summarized the progress made in the past two years :

- An inventory of existing systems has been made with a nesting between regional and coastal
- The group as made a joined contribution to the ECOOP project where a demonstration downscaling from Regional to three coastal models will be set up in real time during a 6 month period (TOP)
- Moreover the Easy project which aims at building a polycentric infrastructure for operational coastal modelling was funded by InterregIII and started in January 2007 for 18 months. It's coordinated by Ramiro Neves/IST/Portugal

The possible following activities were identified for future common work:

- Contribute to the IBI regional system part of the European operational Marine Core Service
- Contribute to ongoing projects and integrate the results into IBI-ROOS framework

Ideas:

- Develop an IBI-ROOS forcing database (river run off, bathymetry, high res atmospheric forcing)
- Propose/coordinate a project on downscaling techniques (interpolation library, open boundary conditions, initialisation techniques)
- Propose/coordinate a project on indexes (coastal indexes, ecological indexes ...

Improving HAB alarm studying physical condition from high res coastal models nested in the regional model: this could be a good demonstration candidate for MCS demo

The following working group was formed to work on a HAB demonstration proposal for MCS: **Glenn Nolan**/IMI, Beatriz Reguera/IEO; Manuel Villareal/IEO, Pedro Montero/Intecmar, Paulo Chambel/IST

The following working group was formed to work on other issues: **Dominique Obaton**/Mercator Ocean**, Enrique Alvarez**/Puertos del Estado, Glenn Nolan/IMI, Marcel Cure/IMI, Paulo Chambel/IST, Pedro Montero/Intecmar, Vicente Perez Muñuzuri/MeteoGalicia, Carlos Ventura Soares/IH, Jose Onofre/IH, Yann Herve De Roeck/Ifremer, Julien Mader/AZTI, Manuel Villareal/IEO

3.3 IBI-ROOS Observing system Design A. Lavin / J. Legrand

The present observing system in the IBI-ROOs area is the sum of independent national contributions and could be improved by putting in common some of our national resources:

We agreed that the IBI-ROOS observing system is a network of long term permanent, continuous automatic instruments that provide measurements to feed the data exchange system

We first need to have a permanent common knowledge of what is operating (id description, characteristic, Data Management, contact person). We agreed that we should extract from the European observing

system Database (EDIOS managed by Seadatanet) the IBI-ROOS platforms, update it and set up a periodic (6 month to 1 year) update of this catalogue. We need to optimize coverage , identify and fill the gaps and share the cost if possible

The IBI-ROOS observing system is composed of :

- Shore station (sea level, water station)
- Shallow/deep Buoys
- Repetitive hydrographical section (Xbt ,CTD)
- Ferry Lines
- Argo
- CPR

And could be complemented in the future by

- Shelves profilers
- Glider
- VOS (fish net)
- HF radar

The following working group was formed to work on this issue: **Jacques Legrand**/Ifremer, Glenn Nolan/IMI , Alicia Lavin/IEO, Carlos Fernandes/IH, Liam Fernad/Cefas, one representative of Morrocco (TBD)

3.4 River Discharge G. Nolan , YH. De Roeck

Both YH De Roeck and G Nolan presented example showing thaht it was important to take into account river discharge in our models and that the influence of some rivers was going far the country they belong to.

France , Ireland, Portugal has started to assemble river runoff information in real-time, very few are available in real-time in Spain. All have the information in delayed mode but with limited national access in some cases.

The activities to be carried out are:

- Inventory of important rivers in IBI-ROOS and data availability :
- Look relation between discharges and nutrients
- FTP to share the data for Operational modelling or Forecast of River discharge …

The following working group was formed to work on this issue: **Glenn Nolan/IMI, Yann Herve De Roeck/Ifremer,** Manual Ruiz/IEO, Antonio Silva/IH , Liam Fernand /Cefas(TBC)

3.5 HAB detection B Reguera /P Gentien

B Reguera presented nicely what was HAB and why it was important to predict them. The ultimate goal is to develop hydrodynamic-biological model from these harmful species of interest.

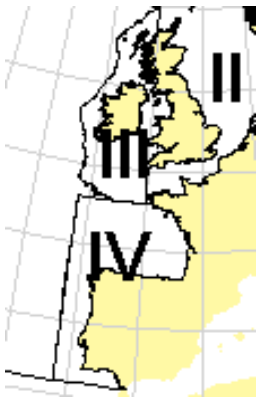
Some HAB (dynophisis, and some others) are not visible from satellite in IBI-ROOS area (not red tides..) . But some physical conditions (anti-cyclonic eddies, river plumes, up welling nutrients, beginning to pynocline …) are good conditions for possible HAB development. The behaviour of the species change depending from their age

These activities are at present carried out within the FP6 integrated project HABIT that relies on specific cruises and national monitoring systems.

Beatriz and Patrick propose to set up a new project on HAB in the FP7 program call end 2007 involving biologist and modellers from the countries involved in IBI-ROOS.

The following working group was formed to work on this issue: **Beatriz Reguera/IEO, Patrick Gentien/Ifremer,** Pascal Lazure,/Ifremer, Glenn Nolan, Marcel Cure/ IMI, Manuel Ruiz Villareal, Jose M. Cabanas/IEO Leitao, T. Moita/IPIMAR , Y. Pazos, Angeles Moroñho, P. Monteiro/Intecmar , A. Morono,

3.6 Link with Ospar YH De Roeck



The Ospar convention aims at protecting the marine environment on the north east Atlantic (http://www.ospar.org). IBI-ROOS network are concerned by 2-3 zones defined by OSPAR. Some ROOS have link with convention (Boos and Helcom, MOON and Unep-map) . Moreover the European Directive on Marine Strategy stresses the role of regions.

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Two quality status were issued (1993, 2000) for OSPAR and we could contribute to the "geography, hydrography and climate" (current variability , T& S, sea-state, freshwater input) and "biology" chapters (eutrophycation and HAb)

A report is planned for 2010 and it will not anymore based on region reports, but based on Topics…

We think that we could produce a periodic bulletin for the IBI-ROOS area based on data issued from Observations and models (list of variable to be defined), study of Hydro-dynamical, biochemical processes, monthly mean departure from climatology,…

H Dalhin advised us to get a sit as an observer in Ospar like Boos does with Helcom and NOOS is planning to in OSPAR. YH De Roeck accepted to contact OSPAR and play this role for IBI-ROOS network. A colleague of IEO will also collaborate in it.

D Obaton agreed to coordinate the elaboration of a periodic bulletin for the IBI-ROOS area.

We should also be aware of what is happening in the new group of ICES on Operational Oceanography products between ICES and Eurogoos for fishery management and environment protection. The institutes involved should keep the IBI group informed.

4 All Other Business

4.1 New members

Alicia Lavin and G Parrilla contacted with Karin Hilmi from INRH (Morocco) at the ECOOP meeting and he was interested and will come back to us after discussion in his institute.

The Instituto Canario de Ciencias Marinas will be approached by G Parrilla to know if would like to be involved in IBI-ROOS and what they can provide to the network.

The Basque Govt Meteorological and climatological Department asked to join the IBI-ROOS network and it was accepted. They will provide to the group access to the observing system they are operating.

It was agreed that institutes that want to join the IBI-ROOS should state what their intentions are and what they will provide to the group. Based on this, the group will decide whether or not to accept them.

It was decided to set up a steering committee for IBI-ROOS to coordinate the activities between annual meetings: This group is formed by the two chairs (A Lavin and S Pouliquen), Glenn Nolan, M De

Alfonso, C Ventura Soares, D Obaton and a representative of UK (TBD). They will be elected for 2years, can be re-elected once and the group will be changed by third every 2 years. The connection by end-users will be made through the partners of the IBI-Network, and via invitation (and presentations) at annual meetings.
The technical activities are handled by the ad-hoc committees that have been set up for the projects previously described. These groups have the lifetime of the projects.

S Pouliquen will resend the MoU and the mailing instructions to all partners.

Next annual meeting will be organized by Ifremer in Brest in a year from now (not 27th of Feb for Marta ;-)). IH proposed to organized the 2009 meeting in their new building Lisboa and IMR in Galway in 2010

The meeting ended at 1pm on the 28th February.

Name	Institute	Country	Attend.	E-mail
Hans Dahlin	Eurogoos		Yes	Hans.Dahlin@smhi.se
Sylvie Pouliquen	IFREMER	France	Yes	sylvie.pouliquen@ifremer.fr
Jacques Legrand	IFREMER	France	Yes	Jacques.Legrand@ifremer.fr
Yann-Hervé De Roeck	IFREMER	France	Yes	Yann.Herve.De.Roeck@ifremer.fr
Dominique Obaton	MERCATOR-Ocean	France	Yes	dominique.obaton@mercator-ocean.fr
Marcel Cure	IMR	Ireland	Yes	marcel.cure@marine.ie
Glenn Nolan	IMR	Ireland	Yes	Glenn.Nolan@marine.ie
Carlos Ventura Soares	Instituto Hidrográfico	Portugal	Yes	ventura.soares@hidrografico.pt
José Mesquita Onofre	Instituto Hidrográfico	Portugal	Yes	mesquita.onofre@hidrografico.pt
Paulo Leitão	Hidromod	Portugal	Observer	paulo.chambel@hidromod.com
Julien Mader	AZTI	Spain	Yes	jmader@pas.azti.es
Adolfo Uriarte	AZTI	Spain	Yes	aduriarte@pas.azti.es
Alicia Lavin	IEO	Spain	Yes	alicia.lavin@st.ieo.es
Jose Manuel Cabanas	IEO	Spain	Yes	jmanuel.cabanas@vi.ieo.es
Manuel Ruiz Villareal	IEO	Spain	Yes	manuel.ruiz@co.ieo.es
Luis Valdés	IEO	Spain	Yes	luis.valdes@gi.ieo.es
Beatriz Reguera	IEO	Spain	Yes	beatriz.reguera@vi.ieo.es
Elena Tel Pérez	IEO	Spain	Yes	Elena.tel@md.ieo.es
Gregorio Parrilla	IEO	Spain	Yes	Gregorio.Parrilla@md.ieo.es
Pedro Montero	INTECMAR	Spain	Yes	pmontero@intecmar.org
Garbiñe Ayensa	INTECMAR	Spain	Yes	gayensa@intecmar.org
Silvia Torres	MeteoGalicia	Spain	Yes	silvia.torres@meteogalicia.usc.es
Vicente Perez-Munuzuri	MeteoGalicia	Spain	Yes	uscfmvpm@cesga.es
Adolfo Morais	Meteorology & Climatology Dept. of the Basque Gov.	Spain	Observer	dir-meteo@ej-gv.es
Marta de Alfonso	Puertos Del Estado	Spain	Yes	mar@puertos.es
Enrique Alvarez	Puertos Del Estado	Spain	Yes	enrique@puertos.es
Marcos G. Sotillo	Puertos Del Estado	Spain	Yes	marcos@puertos.es
Susana Pérez	Puertos Del Estado	Spain	Yes	sperez@puertos.es
Begoña Pérez	Puertos Del Estado	Spain	Yes	bego@puertos.es
Vicente Fernández	Puertos Del Estado	Spain	Yes	vfernandez@puertos.es
Andrés Alonso-Martirena	Qualitas Remos Company	Spain	Observer	andres.alonso-martirena@qualitasinstruments.com
Javier García	Qualitas Remos Company	Spain	Observer	javier.garcia@qualitasinstruments.com
Laura Pederson,	Qualitas Remos Company	Spain	Observer	laura@codar.com