EUROFLEETS Newsletter - Issue 1, January 2010

CONTENT

EDITORIAL

The marine environment, although holding a great potential in terms of natural resources and economic development, is costly to access, highly variable and unpredictable.

Around 50% of the total running costs of marine exploration are attributed to the marine research infrastructures, such as research vessels, satellites, observing networks, data centers, computing and experimental facilities, since they a large variety of specialized and expensive facilities.

Of particular importance are research vessels as they are necessary to maintain observation systems, monitor oceanographic parameters, to implement sophisticated equipments and to collect rare and sensitive biological samples.

However, these vessels considered as a unique distributed infrastructure, are expensive to maintain and operate.

As stated in the *Lund declaration*, adopted on 8 July 09, fragmentation, together with a lack of cohesion and strategic vision is still the greatest weakness of European marine research. Therefore, a coherent pan-European approach to infrastructure policy with enhanced partnership in investment, development and use is required to deliver solutions to meet the diverse needs of European marine research :

•(*Aberdeen declaration, EurOCEAN 2007 conference:* "...shared use, planning and investment of critical infrastructure on a European-wide basis"*;*

•EC Communication *"A European Strategy for Marine and Maritime Research", COM(2008) 534:* "support for pan-European RIs… optimal use of existing RIs").

EUROFLEETS which concept is based on the recommendations of the ESF-Marine Board Position Paper 10: "European Ocean Research Fleets – Towards a Common Strategy and Enhanced Use" (March 2007), aims at the networking of European vessels, underwater vehicles and embarked equipment, the reception of European scientific teams on board modern research vessels and common technological development of software and innovating sensors.

Thus EUROFLEETS, that brings together a significant group of key research actors in Europe covering all eco-regions, will pave the way for an 'eco-system' of research infrastructures.

Jacques Binot
Project Coordinator

EUROFLEETS IN BRIEF

EUROFLEETS, a European Union 7th Framework Programme (FP7) Research Infrastructures project, operates from 2009 to 2013. It involves 24 marine institutes, universities, foundations and SME's from 16 European and Associated Countries, covering all eco-regions and is coordinated by the French Research Institute for Exploitation of the Sea (Ifremer).

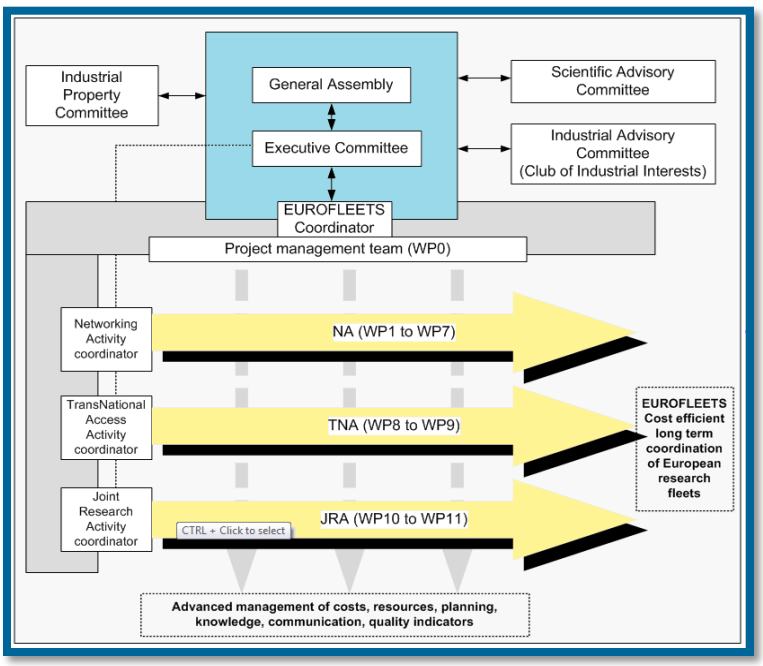
Project Name: Towards an alliance of European research fleets
Project acronym: EUROFLEETS
Funding scheme (FP7): Integrating Activities (IA)
EU financial contribution: €7.2 million
Duration: 48 months
Start date: 01 September 2009
Completion date: 31 August 2013

EUROFLEETS's overall objective is to:

Bring together the European Research Fleets' operators and/or owners to enhance their coordination and promote the cost-effective use of their facilities in order to support the efficient provision of essential research services for monitoring and sustainable management of the Regional Seas and Ocean and allow access to all European scientists.

BENEFICIARIES:

- **French Research Institute for Exploitation of the Sea (Ifremer), France – Coordination**
- Alfred Wegener Institute for Polar and Marine Research (AWI), Germany
- National Institute of Oceanography and Experimental Geophysics (OGS), Italy
- Spanish Institute of Oceanography (IEO), Spain
- Hellenic Center for Marine Research (HCMR), Greece
- Natural Environment Research Council (NERC), UK
- Foundation for Science and Technology (FCT), Portugal
- Max Planck Institute for Marine Microbiology (MPIMM), Germany
- National Research Council (CNR), Italy
- Institute of Marine Sciences - Middle East Technical University Turkey (IMS-METU), Turkey
- National Institute of Marine Geology and Geo-ecology (GeoEcoMar), Romania
- Marine Institute (MI), Ireland
- Institute for Marine Resources & Ecosystem Studies (IMARES), The Netherlands
- Spanish National Research Council (CSIC), Spain
- Royal Belgian Institute of Natural Sciences (RBINS-MUMM), Belgium
- Institute of Oceanology of the Polish Academy of Sciences (IOPAS), Poland
- French Polar Institute Paul-Emile Victor (IPEV), France
- Institute of Oceanology - Bulgarian Academy of Science (IO-BAS), Bulgaria
- University Bremen - Center for Marine Environmental Sciences (MARUM), Germany
- Marine Information Service (MARIS), The Netherlands
- EurOcean Foundation (EurOcean), Portugal
- Tallinn University of Technology (TUT), Estonia
- Flanders Marine Institute (VLIZ), Belgium
- Institute for Marine Research (IMR), Norway



NETWORKING ACTIVITIES

To meet the challenge of making the infrastructures and human resources available to as many European nations, research institutes and marine researchers as possible, and to ensure that "best practices" are implemented in Europe, the Networking Activities of the EUROFLEETS Project will address, with the available resources, all key aspects of: information sharing; knowledge; vessel time; large instruments, technical experts.

Per W. Nieuwejaar
NA Coordinator

European Virtual RV Platform

The European Virtual RV Platform aims to improve information sharing on planned, current and completed cruises and details of ocean-going research vessels and specialized equipment. It also aims to enhance awareness of opportunities among the project beneficiaries, and to durably improve cost-effectiveness of cruises by:

- Developing an integrated information portal;
- Implementing the European Virtual Infrastructure in Ocean Research (EVIOR);
- Implementing a generic cruise planning system as part of the projects portal.

Common and Sustainable Use of RV

The overall aims of the Common and Sustainable Use of RV are:

- To support European research vessel operators in managing the environmental footprint arising from their vessels, equipment and research operations at sea in accordance with the legal duties embodied in national, European and international legislation and applicable policies.
- To define the minimum and high-end functional operational demands of the future European Regional research vessels regarding the technical and management issues.
- To enhance and develop better coordination of European research vessels and large-scale equipment to ensure maximum use of available infrastructure and assist in the development of a coordinated rapid response capability and series of standardize operational procedures and protocols for vessel operators.

Training and Education

The main objectives of the Training and Education component of the EUROFLEETS Project are to:

- Develop initiatives and programmes that involve the access to world-class infrastructure and practical ship-based training initiatives in areas such as scientific instrumentation, collection and processing of samples, data analysis and quality control;
- Investigate opportunities for transnational cross-training and exchange of technical personnel for the development of a shared management of human resources;
- Intensive use of sophisticated equipment on a trans-European basis;
- Fostering the development of transnational deployment teams for co-invested equipment.

TRANSNATIONAL ACCESS ACTIVITIES

A central aim of EUROFLEETS is to provide homogeneous access to research vessels for all European oceanographic community on the sole condition of scientific excellence and, in return, give support to environmental and biodiversity protection, coastal zone management, geodynamics and climate change research, thus improving substantially the coordination and efficiency of the European research vessel operations.

To pursue this aim, fully funded ship time on a range of European research vessels and equipment will be available to support outstanding research projects, through an unprecedented transnational upstream process of evaluation, selection of the cruise project and cooperation for the decision of the corresponding ship time allocation.

As such, the Transnational Access Activities of the EUROFLEETS Project will act as a "real-scale" demonstration attempt for a future coordination of scientific cruises and the multi-annual programming of the European research fleets.

The EUROFLEETS project will provide ship time on 5 Global/Ocean research vessels (see figure 2) as well as on 13 Regional vessels (see figure 3) operating around Europe from the Baltic to the Black Sea, mobile equipment (as ROV, submersibles, corers, AUV) and sensors (as echosounders, sonars, Automatic Doppler Current Profilers).

Although the opening of calls for a full proposal submission is expected to be on the 1st of March 2010, scientists will be shortly invited to submit an "Expression of Interest" until the 15th of January 2010, in order to pre-estimate the demand for ship time.

The successful projects are expected to start their cruises at the earliest in Spring 2011.

A detailed description of the research vessels participating in the EUROFLEETS project, their technical capabilities, available scientific instrumentation and equipment, completed by a brief description of the obtainable ship time and area of operation, as well as the call regulations will be found at the Project's portal at www.eurofleets.eu.

Dimitris Georgopoulos
TNA Coordinator

EUROFLEETS Accessible Ocean and Global Research Vessels

Celtic Explorer (MI), Ireland

Holland (MI), Ireland

OGS - Explora (OGS), Italy

L'Atalante (Ifremer), France

Nautile (Ifremer), France

Marion Dufresne (IPEV), France

Polarstern (AWI), Germany

EUROFLEETS Accessible Regional Research Vessels

Aegaeo (HCMR), Greece

Thetis (HCMR), Greece

Max Rover (HCMR), Greece

Super Achille (HCMR), Greece

Akademik + (IO-BAS), Bulgaria

PC-8B (IO-BAS), Bulgaria

Belgica (RBINS-MUMM), Belgium

Bilim 2 (IMS-METU), Turkey

Celtic Voyager (MI), Ireland

Dom Carlos I (FCT), Portugal

Garcia Del Cid (CSIC), Spain

Heincke (AWI), Germany

Mare Nigrum (GeoEcoMar), Romania

Oceania (IOPAS), Poland

Ramon Margalef (IEO), Spain

Salme (TUT), Estonia

Urania (CNR), Italy

JOINT RESEARCH ACTIVITIES

Although innovative technologies (ROVs, AUVs, submarines and other platforms) have been successfully installed by several Institutes across Europe in the last decade, they tend only to benefit the directly involved institutions.

As these technologies act as an enormous driver to start new scientific activities in different fields of research, and considering the rapidly growing demand of operational needs for crews, ships and infrastructures, EUROFLEETS Project will:

- Jointly develop an easy to install on every European research vessels, innovative and generic software packages, combining all necessary functionalities for cruise preparation, collection, linking, processing and display of scientific data acquired during sea cruises, and for export of data and information to the main marine data centers and networks;
- Develop a shared interoperable set of payloads and prototype of mission management software to operate these payloads on different underwater systems (ROV, AUV, or observatories);

thus tackling the EUROFLEETS goals of "sharing" and "interoperability".

The EUROFLEETS Project thus expects to create a positive impact on the marine research efficiency, especially on operational issues.

Gerrit Meinecke
JRA Coordinator

For more info:
http : //www. eurofleets.eu
Eurofleets

Season Greetings from the EUROFLEETS Project

Beneficiaries Logos:

Ifremer, AWI, OGS, Instituto Español de Oceanografía, Natural Environment Research Council, FCT Fundação para a Ciência e a Tecnologia, Max Planck Institute for Marine Microbiology, Consiglio Nazionale delle Ricerche, GeoEcoMar, Marine Institute, IMARES Wageningen UR, CSIC UTM, IPEV, marum, MARIS, euroOcean, Tallinna Tehnikaülikool Tallinn University of Technology, Institute of Marine Research Havforskningsinstituttet

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