

Towards an alliance of European research fleets

EUROFLEETS Strategic Issues

by Karin Lochte (Director, Alfred Wegener Institute,
Helmholtz Centre for Polar and Marine Research)



Eurofleets

BACKGROUND

Strategic importance for marine research:

Despite the development of satellites and floats, **research vessels and associated equipment are still irreplaceable** in providing access to the sea water column and the sea floor, for monitoring, sampling, service of the seabed observatories that will play a key role in marine sciences in the future.

Coordination is important:

Fragmentation, together with a **lack of cohesion and strategic vision**, is still an important weakness of European marine research infrastructures.

EUROFLEETS has been designed to overcome this fragmentation.

A project in coherence with the EU policies:

Aberdeen Declaration - A New Deal for Marine and Maritime Science - 22nd June 2007: *«Support for other key infrastructures, including for example ... research fleets which, because of their size and complexity, can only be operated and sustained on a partnership basis»*

Action Plan for a Maritime Policy (EC, Com1278/2, 2007) proposes *«to take into consideration the need for supporting specialised infrastructures, research vessels, etc.»*

European Strategy Forum on Research Infrastructures (ESFRI): the EUROFLEETS consortium has the ambition to contribute to the concepts risen by the European Research Area and promoted by the ESFRI.

BACKGROUND

Findings of the Ocean Research Fleets Working Group (ORFWG) in 2007

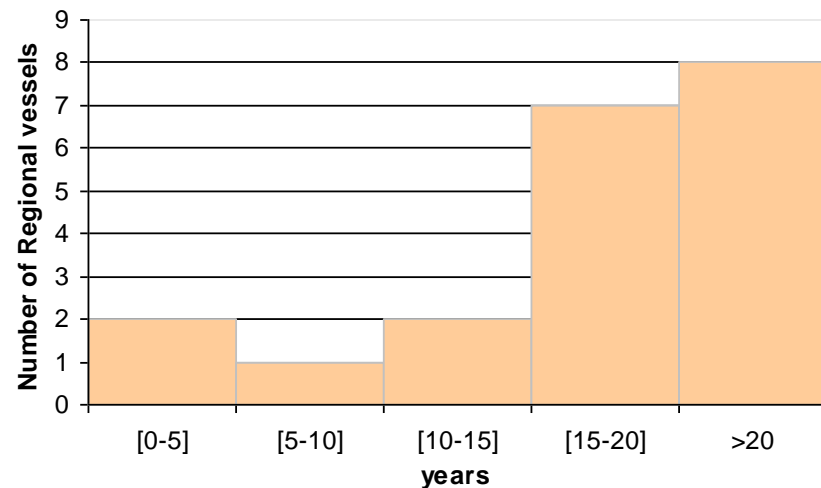
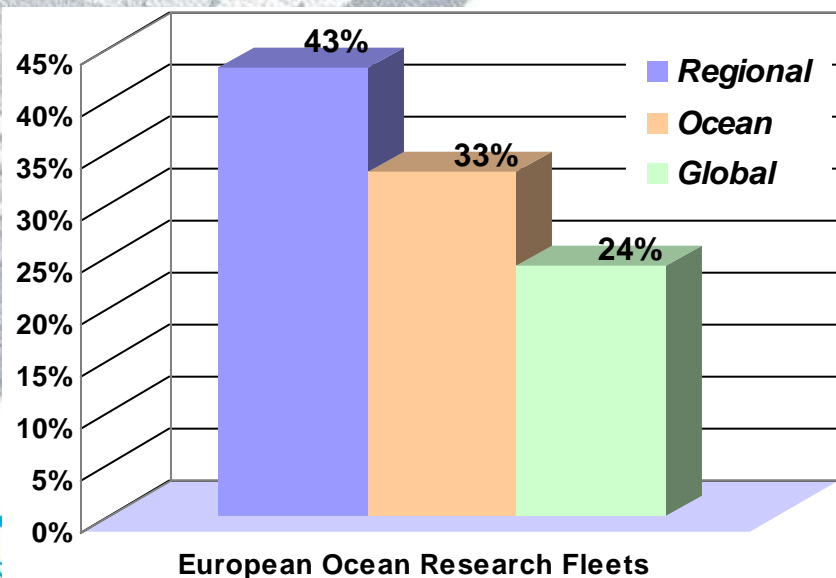
- Current ocean research **requires a variety of high technology vessels** and tools which can be assembled only on the European scale (and only on a world scale for specific large vessels);
- Current ocean research issues are frequently addressed by **large teams using a variety of instruments**, or through the coordinated operation of several vessels; such operations are often feasible only by relying on teams from all over Europe;
- **New instruments are increasingly complex**, specialised and expensive and can frequently be developed only in partnership;
- The **present fleets are ageing**, and long-term plans for their replacement are required; shared investment is an option for some of these new vessels.

BACKGROUND

Findings of OFWG in 2007 (cont.)

European
multipurpose
research vessels
accessible for
academic (basic)
research outside
coastal regions

CLASS	Europe		US	
	Number of vessels	%	Number of vessels (from UNOLS)	%
GLOBAL	11	24%	10	38%
OCEAN	15	33%	8	31%
REGIONAL	20	43%	8	31%



The average age of the Regional class ships in 2005 was 19 years

BACKGROUND

Recommendations of OFWG in 2007:

- **Joint cruises:** are an excellent integrating instrument and would give access to large, well-equipped vessels to scientists from not so well equipped countries
- **Rare Systems:** The European Fleet includes a number of unique rare vessels and/or types of equipment that are owned and run by only one country at the European level, a few on a world scale. Enhancing the use of these rare systems is very important, as it valorizes European investment and widens the user community.
- **New Member States access:** In order to facilitate access by scientists from new Member States to the European Fleet, they should be incorporated into national cruises (joint cruises) or to offer them to propose full cruise projects involving well-equipped European infrastructures.

OBJECTIVES:

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), and developed in the frame of the **MarinERA ERANet** project (Oct. 2007) EUROFLEETS aimed at:

- define a **common strategic vision** for European research fleets and associated heavy equipment (e.g. underwater vehicles as ROV and AUV);
- **use more efficiently** the existing European Ocean/Global and Regional fleets, and develop their **interoperability capacities**;
- **facilitate a wider sharing of knowledge** and technologies across fields and between academia and industry.

OBJECTIVES (continued)

- promote **greener and sustainable** research vessel operations and eco-responsibility;
- open to all European researchers access to high performing research fleets on **sole condition of scientific excellence**;
- foster the **coordinated and joint development** of European fleets in terms of capacity and performances.

The EUROLLEETS Research Vessels and Equipment



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Towards an Alliance
of European Research Fleets





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EUROFLEETS Successes – the TNA Example –:

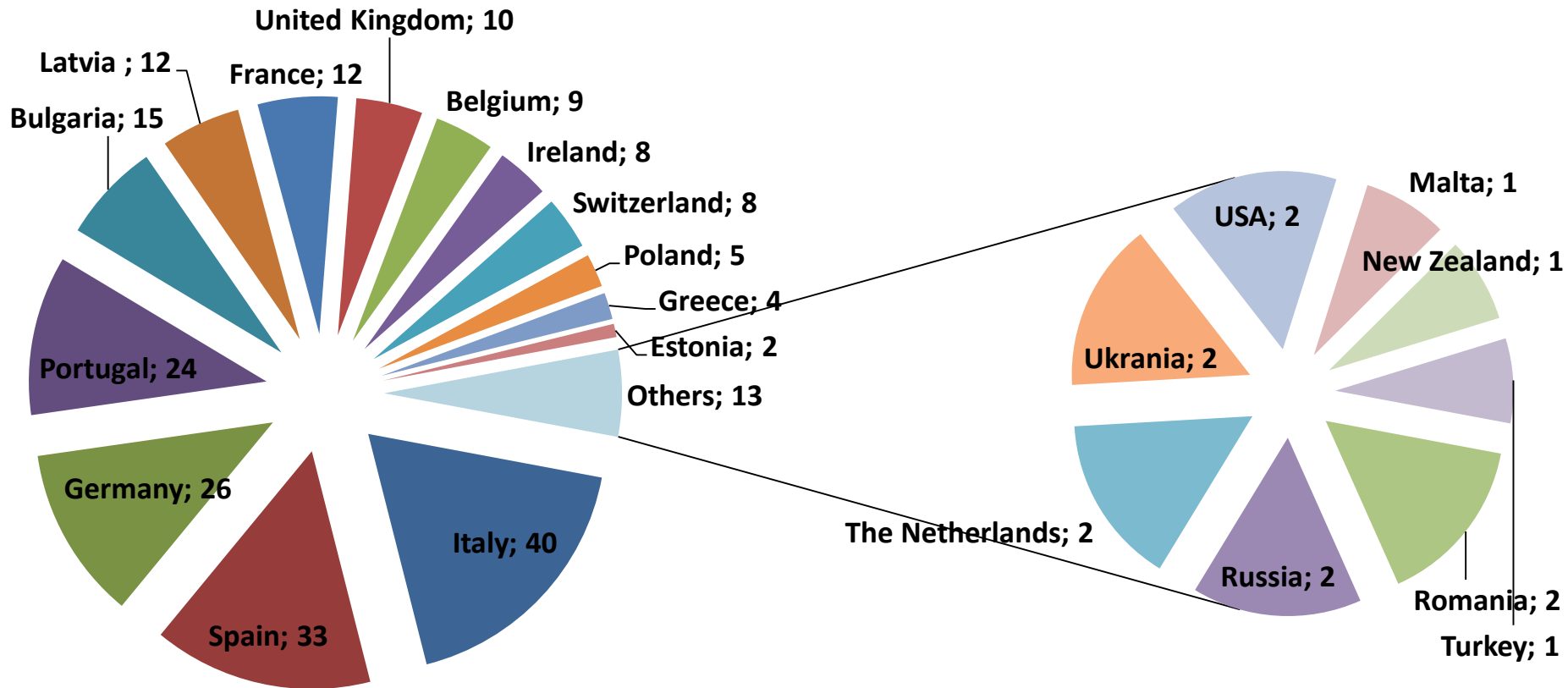
- The first **European-wide Evaluation System** for ship-time proposals has been implemented;
- **Call + Evaluation process** has been consolidated and can be adapted for EUROFLEETS2;
- EUROFLEETS funding has attracted also additional **third party funding**;
- **Multi-team cruises** have taken place on RV L'Atalante and RV Marion Dufresne, which have proven to be very successful and an option for future European cruises;
- **Onboard training of young scientists** has been carried out on most of the EUROFLEETS cruises.

EUROFLEETS Successes – the TNA Example –:

- **54 proposals** for ship-time on Global / Ocean and Regional Research Vessels have been submitted in two separate calls,
- **4 cruises** on Global / Ocean Research Vessels have already been carried out, the fifth EUROFLEETS cruise with two projects on “Marion Dufresne” is currently taken place,
- **12 cruises** on Regional Research Vessels have been carried out. All Research Vessels have been requested except the German “Heincke”
- PIs came from all over Europe and International Collaborators from US, Australia, New Zealand etc. have been involved in the cruises as well.
- All cruises have been successful and all cruise reports have been delivered

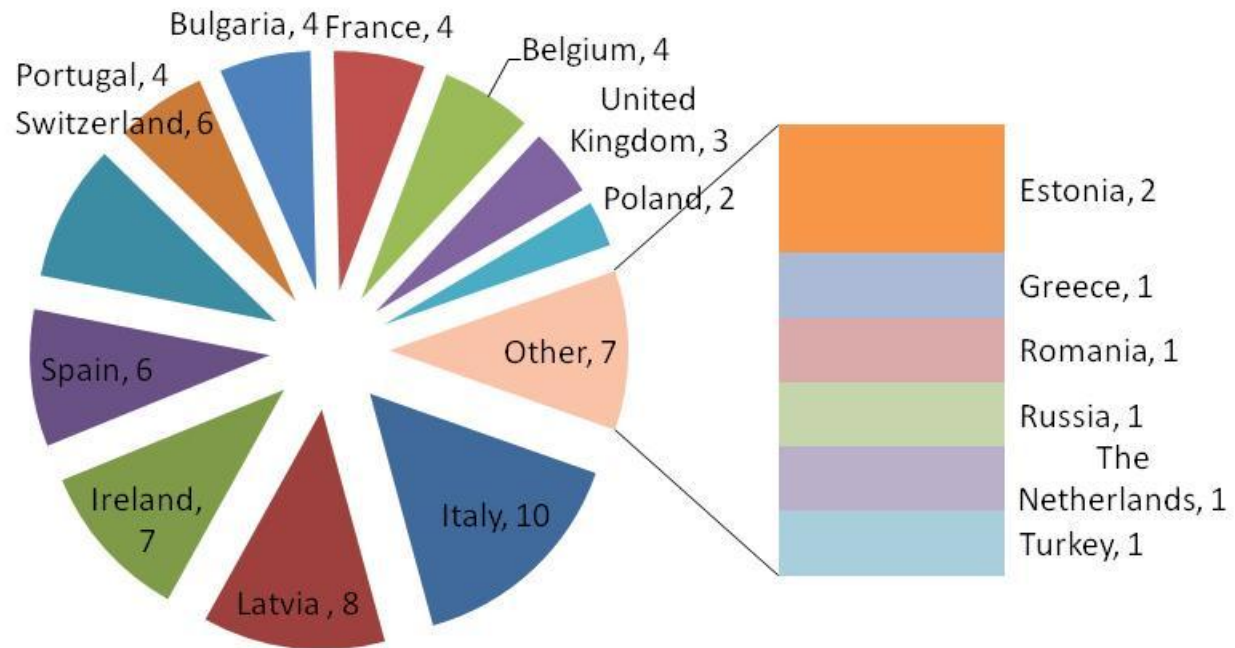
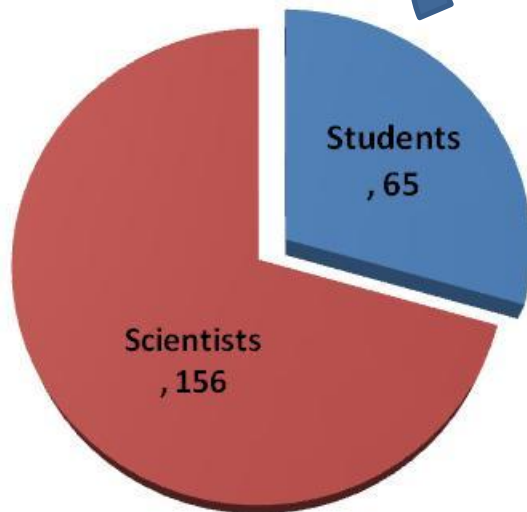
EUROFLEETS Cruise participants

TOTAL: 221 cruise participants
22 Nationalities



EUROFLEETS Cruise participants

65 students
17 Nationalities



Is there anything you especially liked about the EUROFLEETS call for ship-time?

Well, I like that the program exists, I think it provides unique opportunities.

Availability of infrastructure that enables me to conduct research in the open ocean

the pool of research vessels and equipment on offer

Yes, the promotion of international cooperation and the inclusion of 'new scientists', and the possibility to include non-EU partners.

The fact that it is available. I hope this initiative may be prolonged or even become long-lasting.

Good start for the first European-wide ship time call. I liked the electronic submission form.

It is really important for the small countries with difficulty to access large ships or equipment, this program provides great opportunities!

The whole project is a great idea.

EUROFLEETS Successes – the Advanced Training and Education Example –

Four training courses have been carried out that included of on-board training for young scientists and technicians:

- 2 days on *RV Oceania*, organized in Sweden by Nordic Network for Aquatic Remote Sensing (NordAquaRemS) and IOPAS;
- 2 consecutive multidisciplinary courses each of 2 days were carried out on *RV Celtic Voyager* with support of the Marine Institute in Galway;
- 3 days of ship-based multi beam training course on *RV G.O. Sars* from the Institute of Marine Research (Bergen);
- 4 days on practical oceanography on the *RV Salme* with the support of Tallinn University.

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Despite the very limited funding, about 60 students from 19 different countries have successfully participated in training courses within EUROFLEETS. The training courses have been carried out by voluntary contributions.



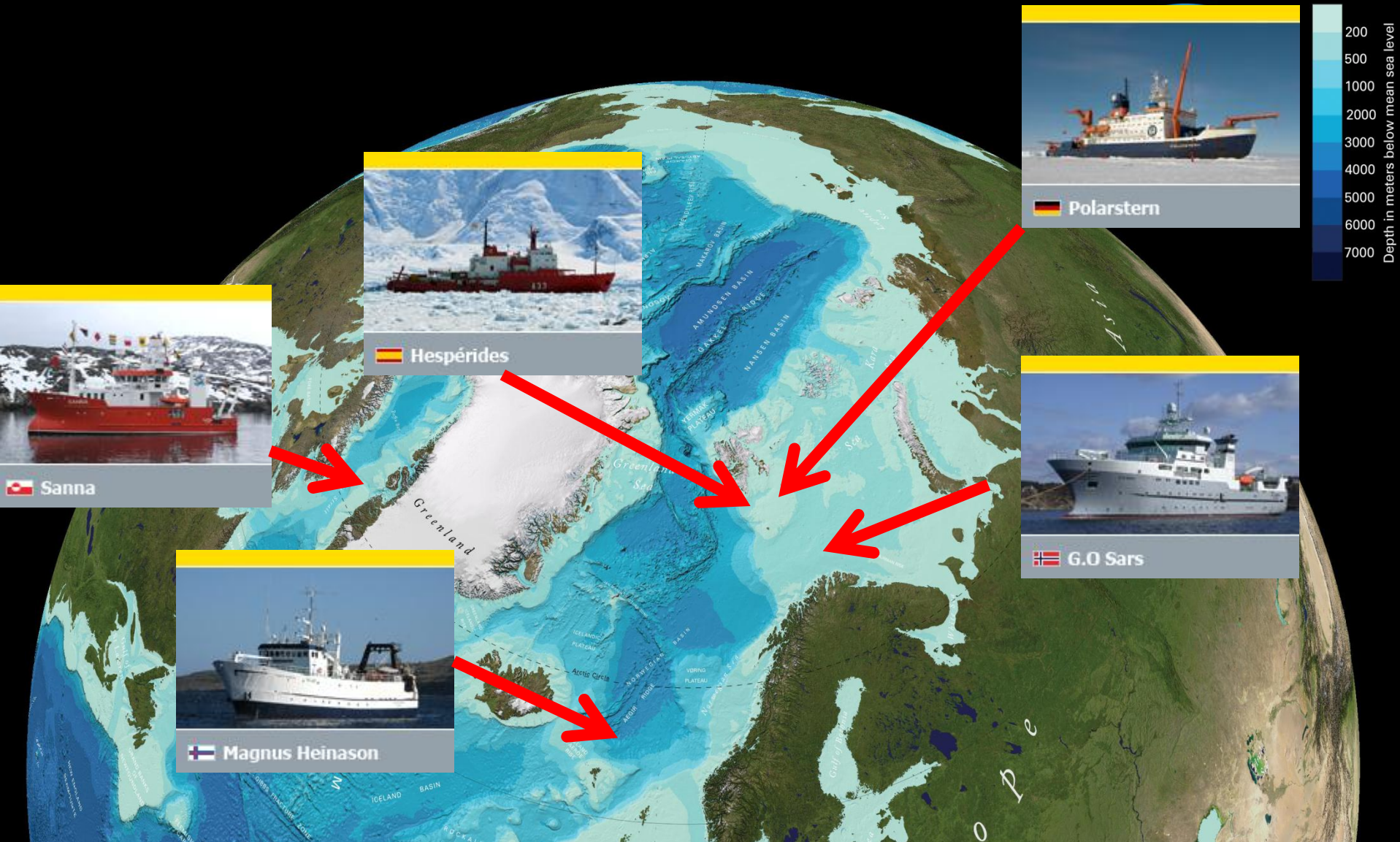
EUROFLEETS Impacts:

- **Common strategic vision** for the European research fleets and its heavy equipment,
- **Joint European scientific cruises** and wider access for not so well equipped countries to research vessels;
- **Training of young scientists** and especially young scientists from New Member States,
- New **European Virtual Infrastructure in Ocean Research (EVIOR)** portal, providing up-to-date information about research vessels (RV) for better coordination of the fleet,
- **Interoperability** of equipment and data,
- **Eco-design** construction of new vessels

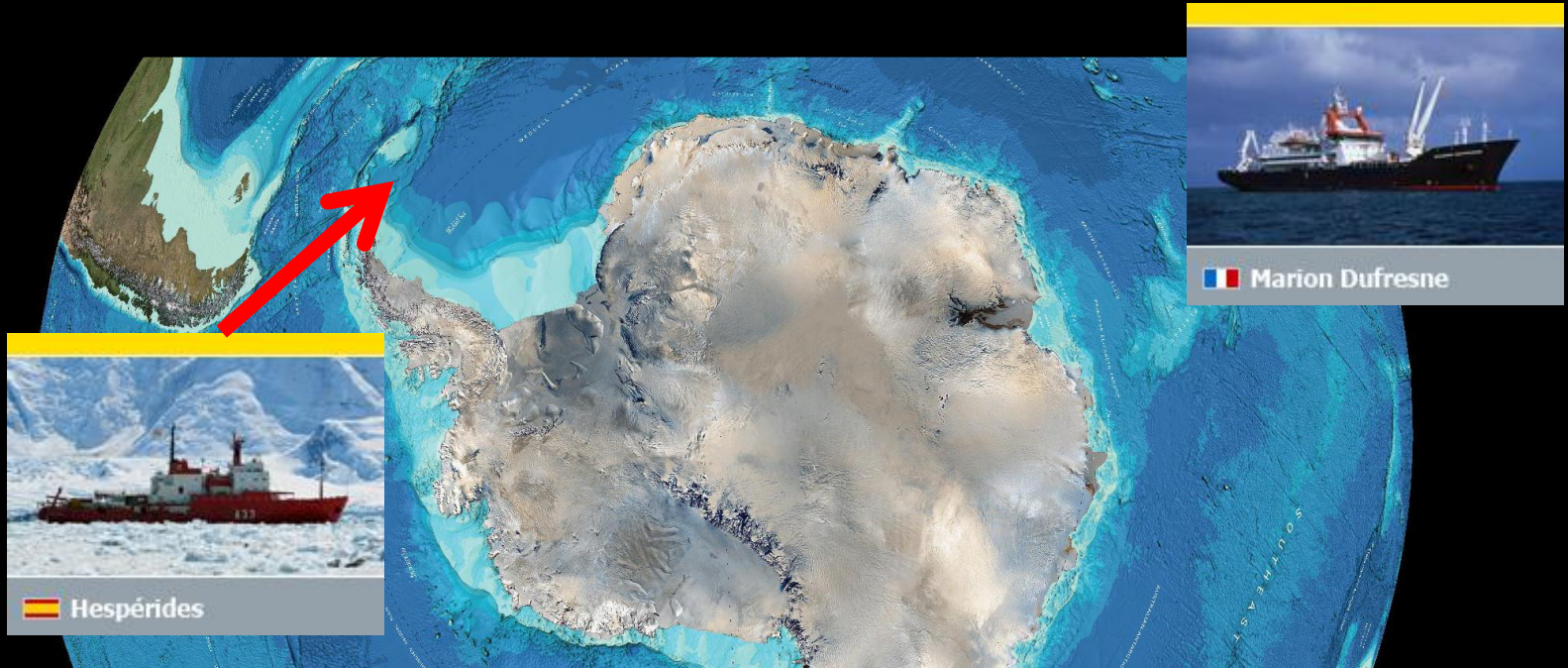
The EUROFLEETS future: An outlook on EUROFLEETS2

- EUROFLEETS2 has already started in March 2013,
- Consortium has been enlarged to **31 partners from 20 European** countries including Greenland and the Faroe Islands;
- The first **calls for ship-time in the Polar Oceans** have been opened and additionally, EUROFLEETS 2 includes a WP to develop a **vision for the coordination of the European Icebreaking Vessels**;
- Super Integration, Embarked Equipment and Regional “geographic” calls will be opened;
- **Training of students and technicians** will be improved and extended;
- A **proposal to ESFRI** for the insertion of a group of Regional Research Vessels into the roadmap will be prepared.

EUROFLEETS2 Vessels offered for the Polar & Subpolar Call for ship-time - Call closed 24th of May



EUROFLEETS2 Vessels offered for the Polar & Subpolar Call for ship-time - Call closed 24th of May



**Thank you very much
for your attention!**