



Call for Flagships and Foresight Workshops proposals – June 2009

1 Background: EUR-OCEANS objectives, flagships and foresight workshops

The overall objectives of the EUR-OCEANS Consortium are to promote and coordinate across the European Research Area: (1) top-level scientific research on the impacts of anthropogenic and natural forcings on ocean ecosystems, (2) optimal use of shared technical infrastructures and scientific facilities, and (3) activities to spread excellence that include training of scientific personnel and students, and dissemination of knowledge to a large public and to socio-economic users.

The EUR-OCEANS Consortium builds on the legacy of the EUR-OCEANS Network of Excellence (NoE), which contributed over the 2005-2008 period of time to the scientific expertise and dissemination of knowledge on marine ecosystems in a context of global change. Progress in the fast-moving field of marine sciences is revealing new challenges in the basic science needed to assess, project, and manage flows, services and changes of marine ecosystems. While nourishing those fast-moving scientific progresses, the EUR-OCEANS Consortium is also aiming at the improvement of the science-policy interface which should use existing relevant assessments and the best available multidisciplinary scientific knowledge (encompassing physics, ecology, biology and natural, social and economic sciences).

The Consortium will focus its funding effort on EUR-OCEANS 'Flagships'. One or two flagships will be awarded competitively and annually, for a period of one or two years, to the institute/university (or cluster of the latter) which coordinates the Joint Programme of Activities (JPA) of a set of institutes/universities acting together to allow significant advances on an important topic of marine science. The JPA of a cluster that competes for a flagship notably comprises: (1) the writing of science key-note/synthetic manuscripts on the selected hot topic, to be submitted to high-impact international journals; these papers are preferably prepared by confirmed young scientists appointed by the EUR-OCEANS Consortium, whom will work together with senior scientists of members organisations of the cluster; and (2) the dissemination of new knowledge resulting from the JPA, notably through the organisation of one or more of the following activities: summer school, EUR-OCEANS conference, workshops. The EUR-OCEANS Consortium and/or its member organisations will support logistically these activities. It will fund or co-fund the different activities of the JPA. It will also possibly fund or co-fund the selected cluster to cover post-doc salaries linked to the writing of target papers, and extra expenses linked to computer time or new experiments.

The Consortium will also fund EUR-OCEANS 'Foresight workshops' focussed on emerging and important topics in marine ecosystem studies, which address the EUR-OCEANS scientific themes or priorities and require European-wide coordination, with the purpose of establishing a scientific vision or a roadmap at the scale of a decade. The format of foresight workshops is flexible; it may be different and more informal and interactive than that of standard conferences or workshops. Small groups (~10 persons) are envisioned. Foresight workshops might notably be used upstream of flagships or conferences, e.g. to pave the way for EUR-OCEANS calls. They might also be used for punctual prospective/coordination exercises whose output would be directly useful (i.e., which would not necessarily lead to a subsequent EUR-OCEANS flagship or conference).

The scientific perspective of the Consortium is that of *Building scenarios for marine ecosystems under anthropogenic and natural forcing in the XXI Century*. Priority topics already identified by the Consortium Council include (a) the *elaboration of scenarios to better quantify the impacts of global change on marine ecosystems* and (b) the *influence of meso- and sub-mesoscale ocean dynamics on the global carbon cycle and marine ecosystems*. The Executive Committee has since determined a third priority topic (c) *global change and polar systems*.

In June 2009, as a complement to already planned activities, the EUR-OCEANS Consortium opens two calls:

- (1) EUR-OCEANS Flagships: two flagships will be awarded, respectively on topics (a) and (b) above.**
- (2) EUR-OCEANS Foresight Workshops: three foresight workshops will be selected, one on topic (c) above, and two among freely determined topics.¹**

¹ A permanent forum will open on the EUR-OCEANS website to collect / let emerge future flagship topics or other suggestions.

2 June 2009 Flagship call

Two flagships will be awarded in 2009, each on a topic pre-determined by the Consortium Council. The Joint Programme of Activities (JPA) of these flagships should follow the general guidelines outlined in Section 1 above.

2.1 Topic (a): Elaboration of scenarios to better quantify the impacts of global change on marine ecosystems

Within the EUR-OCEANS NoE, several groups have achieved significant progresses in the development of data and models allowing forecast simulations for marine ecosystems under different global change scenarios and the effect of combined climate drivers and fishing pressure has been explored at regional scales. Several ongoing projects prolong and expand this effort. For instance, the FP7 MEECE project (<http://www.meece.eu>) will produce scenarios for the response of several ecosystems to combined climate drivers (following IPCC climate change scenarios) and direct anthropogenic drivers (pollution, fishing pressure, and introduction of invasive species); the ECOSUPPORT project (Advanced tool for scenarios of the Baltic Sea ECOsystem to SUPPORT decision making; <http://www.baltex-research.eu/ecosupport/>) focuses on the Baltic Sea. The Consortium intends to award a flagship to a JPA which would add significant value to existing projects (following the subsidiarity principle) by proposing further coordination and extension of their geographical coverage, and/or by proposing a roadmap to achieve decisive progresses on some of the open questions listed in the [Consortium scientific perspective document](#) (see Section 2 therein).

2.2 Topic (b): Influence of meso- and sub-mesoscale ocean dynamics on the global carbon cycle and marine ecosystems

Accumulating evidence shows that the ocean is much richer than anticipated in mesoscale structures such as eddies and fronts, and that these structures have strong effects on physical and biological processes which influence biogeochemical cycles and determine habitat, population dynamics and ecosystem productivity. The importance of resolving the processes occurring at the sub-mesoscale (<10km) in climate studies was recently identified as part of the 'The next big climate challenge' by an editorial in Nature.² Sub-mesoscale structures become observable through acoustics and also have important effects on habitat, behaviour, schools distribution, size and patchiness, prey availability, predator-prey spatio-temporal matches, fish recruitment, plankton production, etc. Progresses in observation, automatic detection of features, and modelling, make it possible to study sub mesoscale features and revisit fisheries sciences concepts and frameworks (e.g., Bakun's 'fundamental triad' of production, concentration and retention) resolving processes at multiple appropriate spatio-temporal scales. Mesoscale structures and their role have already been explored within the context of EUR-OCEANS (e.g., during two ICES events – WKIMS and WKAMF – that were endorsed by EUR-OCEANS and during sessions of several EUR-OCEANS workshops or conferences). A EUR-OCEANS conference on meso- and sub-meso-scale structures and ecosystems, bringing together complementary disciplines and expertises, experiments and theories, observation and modelling, will take place in 2010 (see the [Consortium scientific perspective document](#) and Section 4 therein).³ The intention in awarding a flagship on this topic is to foster coordination and progress beyond the planned conference.

2.3 Eligibility criteria and selection procedure

The leading institution (or cluster) should preferably be (or include) a EUR-OCEANS Consortium member. However, proposals put forward by former EUR-OCEANS NoE members or other institutions will also be considered provided (a) a EUR-OCEANS Consortium member participates in the JPA and (b) the leading institution applies to join the Consortium as a core member⁴ in case it is awarded a flagship.

A scientific panel (comprising scientists belonging to member organisations as well as external experts) will evaluate and rank the proposals. The Executive Committee will award the flagships after this evaluation.

2.4 Budget and level of funding

There is no constraint imposed on the JPA overall cost. It is estimated that the JPA of a flagship (e.g. comprising a EUR-OCEANS conference, a summer school, a workshop and costs linked to the writing of

² 453, p257, 2008.

³ This activity was selected by the EUR-OCEANS Consortium Council after the December 2008 call.

⁴ Core membership implies an in-cash and/or an in-kind annual contribution.

key outputs) might typically amount to 150 k€. The Consortium contribution to the budget of a flagship, however, will only be partial. It is thus an integral duty of the proponents of a flagship to seek additional funds to carry out planned activities. It is currently estimated that EUR-OCEANS would contribute around 55 k€ to each flagship (this sum is indicative and might vary with the overall Consortium budget, the number of flagships, the amount actually requested by each flagship, etc.).

2.5 Timeline

Application deadline: Thursday 10 September

Publication of results: Tuesday 10 November

2.6 Application

Please follow the template provided in [Appendix 1](#) and return your application to the project office (ipo@eur-oceans.eu) by the above deadline.

3 June 2009 Foresight workshop call

Three Foresight workshops (FSW) will be selected: one on the predetermined topic of global change and polar systems, and two among freely determined topics. The proposed WS should correspond to the FWS concept described in Section 1 above.

3.1 Topic (c): Global change and polar systems

The polar systems, most susceptible to climate change and to subsequent increased pressure of anthropogenic drivers, has drawn considerable attention of the scientific marine community, with a significant contribution of the EUR-OCEANS NoE, within the context of the International Polar Year (IPY) and the ICED Project (Integrating Climate and Ecosystem Dynamics in the Southern Ocean). The polar system FSW is intended to impulse a new dynamics at European level, covering both the Arctic and the Antarctic.

3.2 Open topics

No constraint (beyond general alignment with EUR-OCEANS objectives).

3.3 Eligibility criteria and selection procedure

The organising institution should be (or apply to become) a EUR-OCEANS Consortium member.

A scientific panel (comprising scientists belonging to member organisations as well as external experts) will evaluate and rank the proposals. The Executive Committee will select FWS proposals after this evaluation.

3.4 Budget and level of funding

The Consortium will fund each FSW with up to 12 k€ (which could fully cover expenses for a small WS).

3.5 Timeline

Application deadline: Monday 20 July

Publication of results: Friday 21 August

Note: FSW aiming at the preparation of a future EUR-OCEANS flagship (and thus a strategic orientation of the Consortium) should preferably be held by the end of the year, which would let the Council approve the new flagship principle during its January 2010 annual meeting.

3.6 Application

Please follow the template provided in [Appendix 2](#) and return your application to the project office (ipo@eur-oceans.eu) by the above deadline.

4 Contact

Please do not hesitate to contact the EUR-OCEANS project office for information or assistance in the production of a proposal.

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5 Further references

- [1] Website: www.eur-oceans.eu and its consortium section
www.eur-oceans.eu/project/EUR-OCEANS_Consortium.php
- [2] Scientific perspective document (also containing a list of planned activities):
http://www.eur-oceans.eu/project/Documents/EOC/EOC_perspective_doc.pdf
- [3] EUR-OCEANS Consortium agreement
- [4] [List of Consortium members](#)

6 Appendix 1: Flagship proposal template

Please feel free to include any additional relevant sections to the proposed template and return application to the project office at po@eur-oceans.eu

1. Contact person(s)
2. Leading institution (or institution cluster) and scientists
3. Other participating institutions and scientists
4. Topic, focus, objectives
5. Joint programme of activities
 - a. Requested duration; start and end dates for flagship
 - b. Planned activities, tentative timeline and foreseen venues/facilities/attendance
 - c. Key outputs (e.g. articles, special issues, books, status report...)
6. Relevance of proposed JPA to EUR-OCEANS objectives
7. Links / synergies / added value with respect to existing programmes or projects
8. Tentative budget and funding level requested from EUR-OCEANS
(please indicate: foreseen expenses for each of the main activities (also including costs that would not be charged but considered as in-kind contributions to the budget of the Consortium; and other potential sponsors/resources)

7 Appendix 2: Foresight workshop proposal template

Please feel free to include any additional relevant sections to the proposed template and return application to the project office at po@eur-oceans.eu

1. Contact person(s)
2. Organising institution(s) and scientists
3. Other institutions and scientists
(please indicate the likely/target number of participants and whether participation would be upon invitation only or open to applications)
4. Topic, focus, objective (please specify whether the FSW aims, beyond its own output, at the preparation of a future EUR-OCEANS flagship or other activities)
5. Output(s)
6. Relevance to the Consortium objectives
7. Links / synergies / added value with respect to existing programmes or projects
8. Tentative date, venue and host
9. Tentative budget and funding level requested from EUR-OCEANS