Call for proposals

in the Atlantic and Mediterranean regions

2012

Introduction

The ERA-net scheme is an innovative component of the European Union's Framework Programme, which supports co-operation and co-ordination of national research activities to strengthen the European Research Area (ERA). The EU does not provide financial support for the research activities themselves, for which the ERA-NET members' funding agencies are expected to use their own national resources.

The SEAS-ERA network supported under the ERA-net scheme has set the ambitious goal to establish a transnational funding programme in the field of marine and maritime science, transcending national boundaries, as efficiently as possible and with minimal bureaucracy.

SEAS-ERA aims to address complexity, reduce fragmentation and possible duplication, while increasing transparency, productivity and efficiency within marine research funding. SEAS-ERA aims to network its partner organizations to develop a durable collaboration in research funding, thereby creating added value in high quality marine research across national boundaries.

SEAS-ERA Partners

The SEAS-ERA Network of 21 partners consists of 19 national public funding organizations from 18 European countries, and the Marine Board-ESF.

The SEAS-ERA network consists of the following organizations:

- Ministry of Economy and Competitiveness (MINECO), Spain
- Belgian Federal Public Planning Service Science Policy (BELSPO), Belgium
- Ministry of Education and Science (MEYS), Bulgaria

- Agence Nationale de la Recherche (ANR), France
- Institut Français de Recherche pour l'Exploitation de la Mer (IFRPLLM), France
- Marine Board - Fondation Europeenne de la Science (MB-ESF), EU
- Forschungszentrum Juelich Gmbh (JüLICH), Germany
- Geniki Grammatia Erevnas Kai Technologias, Ypourgio Paidias, Dia Viou Mathisis & Thriskevmaton (GSRT), Greece
- The Icelandic Centre for Research (RANNIS), Iceland
- Marine Institute (MI), Ireland
- Ministero Dell'istruzione, Dell'universita' E Della Ricerca (MIUR), Italy
- Norges Forskningsrad (RCN), Norway
- Malta Council for Science and Technology (MCST), Malta
- Fundaçao para a Ciencia e a Tecnologia (FCT), Portugal
- Nederlandse Organisatie Voor Wetenschappelijk Onderzoek (NWO), Netherlands
- Turkiye Bilimsel Ve Teknolojik Arastirma Kurumu (TUBITAK), Turkey
- Natural Environment Research Council (NERC), United Kingdom
- Unitatea Executiva pentru Finantarea Invatamantului Superior, a Cercetarii, Dezvoltarii si Inovarii (UEFISCDI), Romania
- Kyiv State Center for Scientific, Technical and Economic Information (KyivCSTEI), Ukraine
- Shota Rustaveli National Science Foundation (SRNSF), Georgia

SEAS-ERA announces herewith a joint call for transnational research proposals in the Atlantic and Mediterranean regions that should cover one of the three following topics:

A - Ecosystem approach and ecosystem models for the North Atlantic Ocean

This area will focus on better understanding the functioning of North Atlantic marine ecosystems and providing new knowledge and modeling tools for the sustainable management of these ecosystems. To achieve this goal, it is vital to understand the nature, interactions and synergies between physical, biogeochemical, chemical and biological processes, being also important to understand how human activities impact the marine ecosystems.

Marine ecosystems are not only affected by marine and maritime activities which are developed in coastal and deep-sea areas, but also are affected by human land based activities, particularly in the coastal areas, where these activities frequently lead to eutrophication, harmful algal blooms and pollution. Therefore, the key aspects are to understand how these ecosystems function and the influence of anthropogenic factors on them. Taking into account the wide range of human activities that can impact the marine environment, an integrated approach is crucial to develop a better understanding of the accumulative effects of all these human activities on marine ecosystems and their living resources.

This approach, known as “the ecosystem based approach”, integrates ecosystems function, dynamics and also the related socioeconomic aspects, to move towards a sustainable management of marine living resources and maritime activities, while preserving the integrity and the good environmental status of marine ecosystems.

The application of the ecosystem approach requires improved knowledge, models and methodologies for the integration of all these interdisciplinary aspects. Therefore, the call will be focused on the development of new knowledge to cover the existing gaps in our understanding on the functioning and dynamics of marine ecosystems, their food webs and the interactions between natural processes and human activities. The improved knowledge will be essential to develop modeling approaches to provide support to the underlying management principle set out in the Marine Strategy Framework Directive (MSFD) and in the Reform of the Common Fisheries Policy (CFP).

Even though the call is focused on the North Atlantic, Mediterranean case studies can also be considered, as the “Ecosystem Approach Process” starts to take form in this region and scientific and technical support is also needed. Therefore, the development of comparative studies between the different regional approaches is advisable.

B - Risk assessment of invasive alien species - changes in marine biodiversity.

This area will focus on risk assessment of the introduction and distribution of invasive alien species (IAS) in the North Atlantic Ocean and the Mediterranean Sea, and how these species affect the distribution and abundance of native species (i.e. flora and fauna) and their impact on marine biodiversity.

The introduction of IAS is considered to be one of the greatest environmental and economic threats and, along with habitat destruction, the leading cause of extinctions and resultant biodiversity decreases worldwide. In the marine environment, biological invasions are frequent in coastal communities, and the rate of inventoried invasions has significantly increased in the last two decades. By far the greatest proportion of marine invasions has been facilitated by the international commercial shipping industry through two major vectors: ballast water and fouling. As most commercial shipping ports are located within harbours, bays and estuaries, the ballast that is loaded in these waterways inadvertently uptakes and later discharges both adult and larval stages of local marine species. It is assumed that species from these habitats are adapted to natural fluctuations of various factors (i.e. salinity, temperature) and are thus pre-adapted for establishing in new regions of similar habitat. In addition, shipping is also a major vector of change for the introduction and spreading of IAS as some species stick to ship hulls and other artificial substrates in a process known as 'biofouling'. Algae, molluscs and other marine organisms settle and grow these on ship hulls where they can be transported to other regions in the globe. Furthermore, IAS can be introduced through additional vectors such as aquaculture, live bait and aquaria.

In addition, recent studies have shown that the increase of seawater temperatures and related changes in ocean currents are also favouring the spread of species from tropical and subtropical regions towards temperate areas. A better understanding on the relationship between these two variables – climate change and invasive species – is crucial because they are among the most critical pressures to biodiversity.

Human activities are major responsible for the introduction and spreading of IAS, both directly, acting as vectors for the introduction of such IAS, or through climate change. In addition, environmental changes driven by climate change can favor the spread of species out of their distribution range. However it remains unknown the proportion of introduced species accounted for by these two major factors. Thus, whether the growing spread of IAS can be explained only by climate change and human activities or if also involves evolutionary processes implying genetic adaptations of the IAS to new environmental conditions still remains relatively unexplored.

In order to assess and prevent the harmful impact of IAS on autochthonous flora and fauna and the biodiversity of marine ecosystems it is necessary to map the current

abundance and distribution, conduct a risk assessment of species already introduced, and increase the knowledge about how these species affect the marine ecosystems, specifically the autochthonous fauna and flora, as well as their impact on the biodiversity in North Atlantic Ocean and the Mediterranean Sea. In order to prevent further introduction and spread of IAS it is necessary first to identify the main vectors responsible for the introduction of these species (ballast waters, hull fouling, aquaculture activities, etc.) and formulate effective measures to prevent its introduction. Moreover, it is recommendable to analyse up to what point environmental changes induced by anthropogenic climate change can favour these processes, as well as the expansion of tropical or subtropical species to northern latitudes. Timely identification of vectors of change and detection of new introduced species will facilitate the initiation of countermeasures to hinder its spread and limit its damaging effects.

C- Development of indicators and science support and management tools for the determination of Good Environmental Status in the Mediterranean Sea.

The Marine Strategy Framework Directive (MSFD), which came into force in July 2008, is designed to deliver “Good Environmental Status” (GES) in European marine waters by 2020. This ambitious Directive requires that Member States with marine territories put in place a series of measures to achieve and maintain GES within a defined timeframe and according to eleven key descriptors of environmental status. For each descriptor, environmental objectives with associated indicators and targets need to be developed, in order to provide a tool to measure the progress made towards achievement of GES. A total of 56 indicators have been initially proposed by the Commission (COM Dec. 2010/477/UE), recognizing that this set of indicators may be revised in the future following the progress in scientific knowledge.

This requires the best available scientific knowledge about the ecosystem and its dynamics, the assessment of the environmental quality as well as an analysis of human activities as drivers that lead to pressures on the environment. This should be carried out in an integrated ecosystem-based way, a process starting to take form in the Mediterranean as the “Ecosystem Approach Process” of the Mediterranean Action Plan (Barcelona Convention), which needs deeper scientific and technical support. Therefore, there is a substantial need to develop in the region additional scientific understanding for assessing good environmental status in a coherent and holistic manner.

In this respect, the call will deal with the development of State indicators for the assessment of environmental quality of Mediterranean coastal and marine waters, put forward in the MSFD, and hence the definition of links between targets and management measures. Taking into account the experience existing in the Atlantic region, the comparison of methodologies and the transfer of knowledge between both regions will be valued.

Key science support and management tools are also considered, including, for example:

- the development of tools to assess in an integrated manner the state of the marine environment based on the information available
- the development of automated, real time, multidisciplinary observing networks and the development of data assimilation tools;
- the provision of broad-scale physical and habitat mapping of the marine environment;
- the development of tools to integrate environmental information and data on human pressures, in order to understand, predict and manage impacts on the marine environment

The improved knowledge should be essential for the implementation of the MSFD, notably the:

- determination of good environmental status (GES);
- establishment of environmental targets;
- establishment of monitoring programmes

The research should be complementary and take into account national and EU funded research projects currently being implemented.

Eligibility

The call is open to research proposals that meet the following criteria:

- Researchers who are eligible to apply for financial support from the participating funding partners are eligible to apply for funding in joint transnational projects.

Information on the Partners eligibility requirements shall be made available on the respective national official websites;

- Language of the call and the applications is English;
- Researchers from non-partner countries can participate in project proposals as associated project partners on the condition that they are proven financially covered;
- The lead principal applicant must be from one of the SEAS-ERA call funding partners;
- The scope or scale of the proposed research should exceed a single country;
- The work involves a minimum of three research groups from at least three funding countries;
- No maximum number of partners is specified;
- Cooperation with projects of SEAS-ERA partners not participating in the call is stimulated;
- Partners who are not from one of the funding partners should be able to guarantee their own funds in order to be eligible;
- Funding Period: Project duration should be minimum two years and maximum three years;
- Funding should preferably begin in October 2012 (no later than January 2013).

Application procedure

The procedure for joint applications consists of one stage. A full proposal application form should be completed per project (to be downloaded from http://www.seas-era.eu) and submitted by the project coordinator who represents the project externally and is responsible for its internal management.

A full proposal must contain:

- Administrative details per applicant;
- Project description;
- Milestones and deliverables;
- Requested budget details (breakdown of costs for each project partner);
- ”statement of commitment” for heads of applicant institutions;
- CV’s of each applicant (2 pages maximum);
- For associated project partners: proof of own funding via official declaration undersigned by head of their funding institution.

Each applicant may request funding, for example, for scientific co-worker, consumables, small equipment and travel costs. The needs for each temporary position and/or scientific equipment should be comprehensively substantiated. Overheads and VAT will be handled according to the national rules. **Please contact your national funding agency for more details about the eligible costs.**

The projects will be funded for minimum two years and maximum three years, starting by October 2012 (no later than January 2013).

Completed full proposals must be submitted online through SEAS-ERA website (http://www.seas-era.eu/np4/7/)

Reviewing of the submitted proposals

A two-stage review procedure will be applied. In a first step, all full proposals will be checked by the Call Secretariat with respect to general formal requirements:

- Applicants (researchers/institutions) are eligible to apply for financial support;
- Minimum number of partners (3) and funding countries (3) respected;
- Application Forms duly completed in correct language (English);
- Topics(s) met;
- Given deadline met.

Full proposals not meeting the general requirements will be rejected by the Call Secretariat, following consultation with the JMC, and will not be further evaluated.

Full proposals that meet all formal requirements will be forwarded to the review panel. The international reviewers will evaluate these full proposals according to the following assessment criteria:

A - Scientific Aspects:

1. Scientific quality of the proposed research
2. Relevance to the call topic
3. Novelty, originality and innovation of the project
4. Potential impact and expected results
5. Quality of applicants and suitability of the consortium

B - Project management and added value:

6. Added value of transnational cooperation
7. Quality of project management
8. Feasibility and risk (adequate workplan, budget, resources and time schedule, cost effectiveness, risk and assumption)
9. Dissemination activities

The Scientific Evaluation Committee (SEC) as a whole will make a final ranking of the scientific excellence of the evaluated proposals. The SEC ranks the full proposals based on the results of the peer-review procedure (review reports). The SEC recommends the top-ranked proposals for funding, indicating a cut-off point below which proposals are considered of insufficient quality given the assessment criteria.

The funding Partners decide jointly on funding of the top-ranked proposals based on the ranked list and the recommendations of the SEC.

The SEC will consist of international experts in marine sciences. The composition of the SEC will be given after the decision of funded projects is made at www.seas-era.eu.

During the entire procedure, strict confidentiality is maintained with respect to the identities of applicants and the contents of the proposals. Upon the final decision by the partner organizations, a list of funded projects will be published on the SEAS-ERA website.

Programme Structure and Management

Programmatic activities

The funded projects are considered to form part of an international research programme for which a workshop will be organised. Participants of funded projects are expected to participate in this workshop and should include the relevant costs in their proposal budget.

Project management and reporting

Funded projects are required to report to their national funding agency under the administrative rules of the relevant funding organisation, with the exception that an

English summary will be required. These reports should be written in the context of the project as part of a collaborative initiative and reference should be made to the progress of the other partners.

The project coordinator will be responsible to submit a final report, in English, within three months of the end of the project. This report should cover the work undertaken by all of the project partners.

Funding

A total amount of **4.4 M€** has been provisionally reserved by the funding partners for this call. In principle, each participant in a funded project will be funded by his or her national participating organisation(s). The participating organisations will attempt to ensure that the top ranked proposals are funded to the maximum extent possible.
Indicative budgets for each organisation are given below:

Country	Funding Partner	Indicative budget €
Belgium	BELSPO	500.000 for all topics*
France	ANR	1.200.000 for all topics
Greece	GSRT	800.000 for all topics
Iceland	RANNIS	250.000 for topics A and B*
Norway	RCN	750.000 for all topics*
Portugal	FCT	300.000 for all topics
Turkey	TUBITAK	600.000 for topic C

*BELSPO and RCN will only fund proposals if the studies include the Atlantic. RANNIS will do the same for topic B.

Eligible costs are governed by national regulations. Specific questions should be addressed to the national contact points, in advance of application submission.

Further information

Potential applicants are advised to consult the general funding requirements of the national organizations participating in the call. In case of specific questions, please contact the national contact persons, especially with regard to eligible costs and other country-specific aspects of the call.

Call Secretariat

The call will be run by the Spanish Ministry of Economy and Competitiveness (MINECO). The secretariat is responsible for organizing the procedure and for all communication with applicants.

Submission of proposals - Deadlines

Full proposal Application Form can be downloaded on SEAS-ERA website. **Full proposals** must be submitted in electronic form to the SEAS-ERA website (http://www.seas-era.eu) not later than

May 24th, 2012 05.00 p.m. GMT

If you need additional information please ask the Joint Call Secretariat or your national funding organisation (contacts may be found on the SEAS-ERA website). In case of technical questions, please contact the call secretariat,

Call Secretariat:

Ministry of Economy and Competitiveness (MINECO)

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Website: www.mineco.es

Email address: eradtma@mineco.es

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National contact persons:

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