

IFREMER Position Paper on Horizon 2020

Pillar 1 «Scientific excellence»

- Ifremer regrets that marine sciences do not benefit from a better visibility within the discipline areas of the European Research Council (ERC). The panel "Earth System Science" for example could be renamed "Earth and Ocean System Science."
- Ifremer is pleased to note the simplification and increased visibility of the Marie Curie Programme. The effects of the key actions of this programme are indeed essential for the construction and the development of researchers' careers, as well as for the partnerships between European and international research institutes.
- Ifremer shares the consensus in favour of a budget increase for the Marie Curie Actions (the analysis of the proposed H2020 budgets reveals that the share of such actions decreases compared to the 7th Framework Programme). It is important to maintain a balance between the increase devoted to the ERC (European Research Council: +75%) and the Marie Curie Actions one.

Recommendations:

- To strengthen the visibility of marine sciences in the ERC project calls: the evaluation panel for FP7 "Earth System Science" could be renamed "Earth and Ocean System Science" in 2020;
 - To consolidate the mobility of researchers through the Marie Curie programme by significantly increasing its budget.
- Concerning Research Infrastructures (RIs), Ifremer:
 - Supports the development, on a sustainable basis, of research infrastructures of pan-European interest, particularly the new ESFRI RIs or existing RIs which meet the criteria of excellence and openness and which, moreover, make the effort of setting up a coordination structure at the European level;
 - Approves the support to e-infrastructure giving "online" access to data, to powerful tools for calculation and numerical modeling, and to scientific knowledge;
 - Supports the goal of opening 1000 Research Infrastructures through the Transnational Access ("Performance Indicators" - Annex II of COM (2011) 811/3) with a rate significantly close to 20%. This dual objective requires a specific increased budget compared to the FP7 budget;
 - Supports the proposal to mobilize Structural Funds through an explicit line of call for projects for the development and access (e.g. young researchers, SMEs) to the research infrastructures of regional dimension.

Recommendations:

- To consolidate and to increase the budgets specifically related to transnational access in order to:
 - o Facilitate the access by scientists to the infrastructure that best fits their research;
 - o Catalyze a genuine European coordination in this field (launch of calls, evaluation and planning processes);
 - o Achieve the dual objective of opening 1000 research infrastructures and a transnational access rate of 20%;
- To establish a common policy for RIs:
 - o Promoting coherent roadmaps (ESFRI and national);
 - o Developing synergies and promoting complementarities between the various financing tools (H2020, Structural Funds, National and Regional Funds) according to a simple and unified procedure.

Pillar 2 « Industrial leadership »

- Ifremer develops innovative technologies which are intrinsically coupled to excellence in marine research (exploration, knowledge and sustainable use of ocean resources). The following technologies have been identified as key in advances made in marine research:
 - o “**Blue Biotechnologies**”¹ and particularly the use of « omics » techniques;
 - o Information and Communications Technologies (ICT) and more particularly “Cognitive systems and robotics” for **marine robotics**, required to explore extreme environments;
 - o Instrumental systems and “Smart sensors”;
 - o The development of embarked systems on self-powered submarine vehicles;
- Ifremer requests that the funding of GMES "Core Services" (including MyOcean for the "Marine Core Services") be included again in the EU budget 2014-2020. Furthermore, it is normal for pillar 2 to keep supporting the actions of improvement and interfaces of these "Core Services" for the development of downstream services by SMEs.
- Ifremer requests that the rules of participation for SMEs be flexible and attractive enough in order to mobilize them effectively and constructively in future consortia.

Recommendations:

- To reinforce the visibility of "blue biotechnologies" generated by marine sciences;
- To suggest attractive rules of participation to SMEs.

Pillar 3 « Societal challenges »

- Ifremer is pleased to note that marine and maritime research is recognized as a societal challenge in Horizon 2020. The identification of this specific objective in the new framework programme reflects the huge potential of the maritime economy which contributes to 5% of the EU economic activity; EU marine regions accounting for at least 40% of its GDP.
- Nevertheless, Ifremer wishes that the transverse nature of marine and maritime research be more widely taken into account through various specific objectives of the "societal

¹ “Marine Biotechnology: A New Vision and Strategy for Europe” (Marine Board-ESF Position Paper 15)

challenges", particularly "Fight against climate change, efficient use of resources and raw materials" and "Secure, clean and efficient energy".

- Ifremer requests to complement in particular the specific objective "Fight against climate change, efficient use of resources and raw materials" so that environmental pressures other than climate change (eg. contaminants in marine environments) and natural hazards are taken into account. In that respect, Ifremer wonders about the relevance of keeping the notion "raw materials" linked to the climate change issue, the two topics being separate from each other.
- Due to the transverse nature of marine and maritime research, Ifremer supports the setting up of a common mechanism for strategic planning allowing a better identification of the funds dedicated to marine sciences and technologies. Such a mechanism would enable the development of the EU Integrated Maritime Policy in relation to research activities and industrial competitiveness. The principles of such a mechanism are proposed by the Commission².

Ifremer mentions the conclusions of the Competitiveness Council of 6 December 2011 inviting the Commission, while fully acknowledging that Joint Programming Initiatives (JPI) are processes controlled by Member States, to support the implementation of the JPI "of healthy and productive seas and oceans " while promoting complementarity with other relevant programmes and initiatives, especially the current 7th Framework Programme and the future programme "Horizon 2020".

Recommendations:

- To promote the transverse nature of marine sciences within each "Societal challenges" through specific activities lines.
- To create a link between these activities lines, through the launch of calls labeled "Oceans of Tomorrow" following the FP7 practice.
- To ensure the proper coordination and complementarity of future calls "Oceans of Tomorrow" with the Strategic Research Agenda of the Joint Programming Initiative " Healthy and productive Seas and Oceans" which will be implemented from 2014.

Rules of participation

- Ifremer supports the efforts of simplification initiated by the Commission. However, in the absence of detailed financial regulations, Ifremer already expresses its concern and its wish to have the following suggestions reviewed: (1) the coverage rate of indirect costs (20%) is very/too low and (2) the flat rate per project will no longer enable to make coordination attractive. Ifremer suggests to maintain a rate of 100% for management activities linked to the coordination of projects.

Recommendations:

- **To increase the coverage of indirect costs for non-profit research organizations (like Ifremer): the proposed flat rate of 20% is too low, a 60% rate would be much more realistic and convincing;**
- **To keep the 100% coverage of the project management costs (in accordance with FP7 rules).**

² COM/2011/811, Annex I

General remarks

- Ifremer emphasizes that excellence must remain at the core of Horizon 2020 but that the research in support of public policies should also be taken into account thanks to suitable instruments and criteria.
- Ifremer supports the initiatives and recommendations that call for integrated and coordinated actions to recognize the gender dimension in research and innovation in Horizon 2020, for gender equality and the promotion of female scientists³.
- Ifremer is satisfied with the vertical opening of Horizon 2020 to the international dimension and with its introduction in strategic priorities such as "Energy" and "Climate". Nevertheless, Ifremer regrets that the tools suggested for international cooperation are only mentioned in "Inclusive, innovative and secure societies", which affects both the consistency related to this challenge and the international visibility of Horizon 2020. Ifremer, therefore, suggests the following improvements:
 - To identify a specific budget line for international cooperation,
 - To take into account the international dimension in the priority "Food security, sustainable agriculture, marine and maritime research and bioeconomy", thus recognizing the inherent international dimension of marine research,
 - To reintegrate the Outermost Regions (OMR) in Horizon 2020, in order to sustain their contributions to the EU international strategy.

Recommendations:

- **To promote research for the development of public policies (eg. Common Fisheries Policy, Integrated Maritime Policy) with suitable instruments and criteria, as well as excellence,**
- **To promote the gender dimension in research and innovation,**
- **To promote the international dimension of marine sciences in all societal challenges,**
- **To include the Outermost Regions in Horizon 2020 with themes and rules relevant to their specificity.**

³ «GenSET Consensus Report: Recommendations for Action on the Gender Dimension in Science » (FP7 project genSET) ; « European Commission EUR/24905 - Structural change in research institutions: Enhancing excellence, gender equality and efficiency in research and innovation »