A greater element of responsive mode funding (research community and SME initiated) should be introduced to operate within a strategic framework set by the EC. This would be particularly suitable for smaller projects and SME-driven research and could be coupled to an expanded role for the European Research Council and RIs (see answers to questions 1 & 6).

I emphasise that support for excellent basic, curiosity-driven research is essential to provide the underpinning for strategic and applied programs. The main criterion for funding basic research in strategic areas should be scientific excellence. It should especially be directed to foster ideas and careers of junior, bright scientists, rather than senior academics, as most of the historical scientific breakthroughs were achieved by scientists early in their careers.

To achieve a whole chain approach to research and innovation An important addition to the diversity of funding would be specific programmes for innovation projects dedicated to the translation of research results into commercial products. Thus a tiered system from research to innovation should be incorporated into the FP to achieve the whole chain approach. Follow-up funding should be built into the budget of programs to provide a path for the commercial exploitation of research findings e.g. funds for patenting discoveries, developing business strategies and finding appropriate industrial partners across national boundaries. The production of patents, licensing agreements, joint ventures, commercial funding and spin-out companies should be used as metrics to evaluate the success of innovation projects (see answers to questions 2 & 7). EMBRC recommends the EC specifically to provide instruments to:

• Stimulate the private sector to co-invest in marine RTD and Innovation to foster rapid translation of scientific achievements into marketable products;
• Support start-up SME’s and young entrepreneurs to carry scientific achievements into marketable products, for example through support for start-up SME’s in science-parks close to the marine institutes to foster synergy;
• Support trans-national field-training programmes at EMBRC partner stations to breed future generations of End-Users with hands-on experience in marine biological resources (the Erasmus and Marie Curie Programmes).

To use EU-funding as a leverage to achieve strategic EU objectives EU funding is appropriate in cases where a pan-European scale or interactions across national boundaries are required to achieve strategic objectives. In this respect RIs should have a pivotal role in the CSF because they provide European academia, SMEs and industry with state-of-the-art infrastructure, research services and training. RIs also provide a mechanism for leveraging National Research Funds by funding access. Given their critical role in the CSF, innovative mechanisms need to be devised to increase the sustainability of the RIs (see answers to questions 3, 4 & 8).
• Ensure that the Common Strategic Framework (CSF) contains EC instruments for the sustainable funding of RIs in their operation phase through funding of:
  o RI-upgrading, -innovation and -maintenance;
  o Large scale capital equipment subject to short update cycles due to rapid technological innovation; e.g. genome sequencing;
  o Competitive trans-national user access to RIs; Specifically, ensure funding for RTD and Innovation to attract End-Users from academia, SME’s and Industry (especially young entrepreneurs) to utilize RI facilities
• Develop instruments for the leverage of trans-national sustainable funding from Member States for pan-European RI implementation;
• Maintain Structural Funds for economically underdeveloped regions across the ERA, as many coastal marine stations are situated in such regions;
• Device mechanisms to foster interactions among the RIs to stimulate synergies, standardization, and user-friendliness and avoid unnecessary duplication.
• Ensure the long-term storage and accessibility of data within Europe
• Provide instruments for global collaborations of European RIs with sister organizations in third countries. This will establish European leadership in tackling global issues, in standardization, etc. Moreover, it will give European End-Users access to resources on a global scale. These measures are essential for achieving the European dimension of the RIs. EC funding will counter the prevalence of national interest and will ensure an effective open access of RIs to the European RTD and Innovation community, also to those End-Users whose member state has not contributed to the RI-construction phase.