

Proposal to include

**Our Blue Future - The Integrated and Sustainable Development of the Seas and Oceans**

as a new KIC topic in the Decision on the Strategic Innovation Agenda of the EIT COM(2012)822

**Note:** for a justification of the following amendment, see fact sheet below.

<b>AMENDMENT 1</b>	
<b>Page 16 EIT Strategic Innovation Agenda Section 2.1.2. Creating new KICs</b>	<b>Proposed amendment</b>
<p>The following thematic areas have been identified as those where the establishment of a new KIC has greatest potential to add value to existing activities and bring about a real boost to innovation:</p> <ul style="list-style-type: none"> <li>• Added-value manufacturing</li> <li>• Food4future - sustainable supply chain from resources to consumers</li> <li>• Innovation for healthy living and active ageing</li> <li>• Raw materials – sustainable exploration, extraction, processing, recycling and substitution</li> <li>• Smart secure societies</li> <li>• Urban mobility</li> </ul> <p>More details on the individual themes are provided in the factsheets at the end of the document</p>	<p>The following thematic areas have been identified as those where the establishment of a new KIC has greatest potential to add value to existing activities and bring about a real boost to innovation:</p> <ul style="list-style-type: none"> <li>• Added-value manufacturing</li> <li>• Food4future - sustainable supply chain from resources to consumers</li> <li>• Innovation for healthy living and active ageing</li> <li>• Raw materials – sustainable exploration, extraction, processing, recycling and substitution</li> <li>• Smart secure societies</li> <li>• Urban mobility</li> <li>• <b>Our Blue Future – the integrated and sustainable development of the seas and oceans</b></li> </ul> <p>More details on the individual themes are provided in the factsheets at the end of the document</p>
<b>AMENDMENT 2</b>	
<b>Page 16 EIT Strategic Innovation Agenda Section 2.1.2. Creating new KICs</b>	<b>Proposed amendment</b>
<p>For the second wave in 2018, the remaining themes (urban mobility, added-value manufacturing and smart secure societies) will be considered, while taking into account new and unforeseen challenges which may arise in the future.</p>	<p>For the second wave in 2018, the remaining themes (urban mobility, added-value manufacturing, <del>and</del> smart secure societies <b>and our blue future</b>) will be considered, while taking into account new and unforeseen challenges which may arise in the future.</p>
<b>AMENDMENT 3</b>	
<p>Factsheets</p>	<p>Add New: <b>Factsheet 7: Our Blue Future – the integrated and sustainable development of the seas and oceans</b></p> <p>⇒ See below</p>

## **Factsheet 7: Our Blue Future: The integrated and sustainable development of the seas and oceans**

### **1. THE CHALLENGE**

**The seas and oceans present a grand societal challenge as they are essential for the well-being and wealth of our present and future generations.** First, the fast growing global population and land scarcity will increase human dependence on marine food sources. Second, oceans and seas offer a large potential from underexploited renewable, mineral and biological resources as well as marine energy sources. Third, the oceans and seas are crucial to a number of economic activities (such as maritime transport, tourism, shipbuilding and maritime industries).

**The EU-institutions have recognized the healthy state and the productive use of Europe's seas and oceans as a major societal challenge.** In 2011, the European Council established the Joint Programming Initiative Healthy and Productive Seas and Oceans. Similarly, the legal framework for Horizon2020 includes reference to the seas and oceans as a societal challenge.

**Europe needs to overcome its 'maritime paradox'.** Today, European universities and research institutions make cutting-edge contributions in almost all fields of the global maritime economy. At the same time, the maritime economy in Europe is very diverse and highly decentralized. Many economic sectors are in a starting phase resulting in many gaps in the value-added chains. There remains enormous innovative and technological potential in the EU's maritime economy. At the same time, millions of jobs have already been created mainly in SMEs across Europe.

**"The EU has excellent academic and scientific capacities in the [marine/maritime sectors] analysed, but considerably less commercial potential to embark on these.** Especially activities in the developmental stage are mostly carried out by small companies, spin-offs or suppliers which are strapped for cash, wary to share knowledge, and unable to control the value chain. EU-players tend to linger in this developmental stage longer than strictly necessary, while non-EU players (often backed by their governments) tend to invest more and faster in these developmental stages."<sup>1</sup>

**Europe needs a flagship initiative to develop a more integrated maritime economy.** The EU is well-placed to support more research and technology development, better training and education, more detailed impact assessments, as well as commercialization. However, in order to make the most of its support programmes regarding marine resources, Europe needs to explore its options and act in a proactive and coherent manner. For example, value-added chains could be strongly improved by linking existing, but isolated, activities in different parts of the EU or by making use of maritime spaces more efficiently. The KIC model of the EIT offers a visible and structured means of promoting commercially-oriented activities, education and RTD services.

**Europe needs to promote a maritime economy based on the best available knowledge and highest environmental standards.** The reality is that the seas and oceans are being exploited at an increasing rate around the world. Many maritime economic activities are environmentally unsustainable. The Deepwater Horizon case and the ensuing debate on banning deep-sea drilling illustrate this problem. Public investment can offer a valuable kick-start to a maritime economy that contributes to preserving our seas and oceans while promoting jobs and growth.

---

<sup>1</sup> Ecorys, Deltares and Oceanic Development, *Blue Growth Scenarios and drivers for Sustainable Growth from the Oceans, Seas and Coasts Third Interim Report*, 13 March 2012. This report is currently in development and available as part of a public consultation being held by the European Commission's DG Maritime Affairs and Fisheries.

### **Some facts about the European maritime economy ...**

- The EU's maritime regions account for around 40% of its GDP and the maritime economy for as much as 5%.
- Approx. 5.6 million employees are directly involved in the maritime economy, which generates a gross value added of approx. €495 billion. (Ecorys, Deltares & Oceanic Dev 2012)
- In 2007, the French marine economy had an added value of nearly €28 billion and encompassed 485,000 jobs. (Ifremer 2009)
- Business directly and indirectly connected to the oceans accounts for 11% of Portugal's GDP - some €17 billion, but it could be double that ... A look at the 20 largest domestic companies involved in the seas and related activities suggest that with proper strategic policy this sector could easily double its contribution to GDP to 22% within 25 years ... The economy of the sea represents a potential 60,000 new jobs. (Portuguese Hypercluster of the Sea Economy and Portuguese Prime Minister, 2011)
- The German maritime technology sector encompasses over 500 companies and almost 200 scientific institutions ... [It] has a turnover of more than €1 billion annually with high growth rates that reach up to 20% annually, depending on the individual sub-sectors. (German National Maritime Technology Masterplan 2011)
- For 2005-2006, direct marine-related activities comprised 4.2% of the total UK GDP, at basic prices, to a total value of £46 billion. Of the total UK employment, 890,000 jobs (2,9 %) were marine-related. This gives a total direct and indirect contribution of marine activities to the UK economy of between 6.0% and 6.8%. (The UK Crowne Estate 2008)

### **... its future potential:**

- Aquaculture continues to be the fastest-growing animal-food-producing sector and to outpace population growth, with per capita supply from aquaculture increasing from 0.7 kg in 1970 to 7.8 kg in 2008, an average annual growth rate of 6.6 percent. (FAO 2010)
- The offshore wind energy sector contributed €32 billion to EU GDP in 2010 creating 30% more jobs from 2007 to 2010 to reach nearly 240,000. By 2020, there should be 520,000 jobs in the sector. (European Wind Energy Association 2012)
- Deep water capital investments in oil and gas activities are set to reach \$140 billion over the next 5 years. (Douglas Westwood 2010)
- World seaborne trade in 2010 bounced back from the contraction of the previous year and grew by an estimated 7%, taking the total of goods loaded to 8.4 billion tons, a level surpassing the pre-crisis level reached in 2008 (UNCTAD 2011)

### **... and the value of taking an integrated approach:**

- According to a conservative estimate, the yearly value of non-market ecosystem services in Galway Bay (Ireland) amounted to approximately €634 million in 2007. The most valuable ecosystems per hectare were coastal lagoons and beaches and the highest valued services were eutrophication mitigation, sediment retention and recreation. (SEMUR Galway 2010)

## **2. RELEVANCE AND IMPACT**

The combination of economic diversity as well as excellence in education and RTD offers a strong basis for European-level public investment to kick-start a more focused and strategic approach to strengthening maritime economic development. **A marine KIC offers an ideal opportunity to link upstream and downstream initiatives existing at EU-level;** that is, to promote value-added activities along the entire value chain from precompetitive RTD, skills and education activities to

competitive commercial ones.

**A marine KIC also offers a commercial dimension to the implementation of the Marine Strategy Framework Directive.** The EU's marine environmental legislation sets a clear political goal that standards need to be established for the environmentally-sustainable production, extraction, transport and use of resources from the oceans and seas. **A marine KIC could link the economic and ecologic dimensions and consequently strengthen Europe's leadership in marine environmental standards and green technologies,** in a world where most maritime activities to date are unsustainable.

**The development of a sustainable maritime economy comprises a strong regional dimension.** A marine KIC will provide a critical means for implementing the Europe 2020 goals of smart, sustainable and inclusive growth. A strong and diversified maritime economy is an essential factor for job availability and economic growth in maritime regions across the EU. This must include making established industries (e.g. shipbuilding and fisheries) more innovative and strengthening new economic sectors with high-growth potential (e.g. energy, biotechnology, multi-use maritime technologies).

Often faced with structural difficulties, a strategic approach to promoting high-level training/education and advanced technologies offers a path to fostering the innovative diversification and differentiation of maritime industries and to making European maritime regions more competitive. Against this background, **the EU Committee of the Regions unanimously recommended that a marine KIC** be set-up

“...in the near future on protection and sustainable use of marine resources. Such a KIC could cover a broad spectrum of scientific, technological, economic and educational activities in the spheres of biological and mineral resources, as well as energy, while taking account of environmental protection issues.”<sup>2</sup>

### **3. SYNERGIES AND COMPLEMENTARITIES WITH EXISTING INITIATIVES**

With the goal of ensuring a good upstream/downstream coordination of EU-level marine and maritime activities, marine KIC will take account of and coordinate its activities with the following important initiatives:

#### **JPI Oceans**

A marine KIC will develop a close working relationship with the Joint Programming Initiative Healthy and Productive Seas and Oceans (JPI Oceans). The JPI Oceans is a coordinating and integrating long-term platform, open to all EU Member States and Associated Countries who invest in precompetitive marine and maritime research. While bringing together the interested Member States and Associated Countries the JPI Oceans aims to add value by:

- avoiding fragmentation and unnecessary duplication
- planning common and flexible initiatives
- facilitating cooperation and foresight
- establishing efficient mechanisms for interaction and knowledge transfer between the scientific community, industry & services, and policy makers at high level in order to solve

---

<sup>2</sup> Committee of the Regions, *Opinion on the Development of an Integrated Maritime Policy and Marine Knowledge 2020* (Nat-V-007) paragraph 26.

the grand challenges more effectively.

### **Smart Specialisation within the Cohesion Policy 2014-2020**

The smart specialisation strategy being proposed for the new Cohesion Policy 2014-2020 provides a useful link between structural policy-making at regional level and the development of competitive maritime economic activities. Specifically, a marine KIC will contribute to the processes of developing a vision, identifying competitive advantages and setting strategic priorities for maritime economic development in participating regions. For this reason, the choice of strong regional nodes in a marine KIC will be of particular importance.

### **The proposed European Maritime and Fisheries Fund**

The current proposal for the Regulation on European Maritime and Fisheries Fund (EMFF) aims at achieving the objectives of the reformed Common Fisheries Policy (CFP) and of the Integrated Maritime Policy (IMP). It is based on these objectives, re-defined in terms of funding:

- promotion of sustainable and competitive fisheries and aquaculture;
- fostering the development and implementation of the Union's IMP, in a complementary manner to cohesion policy and to CFP;
- promotion of balanced and inclusive territorial development of fisheries areas (including aquaculture and inland fishing);
- contribution to the implementation of the CFP.

### **Blue Growth Strategy**

"Blue growth" is a long-term strategy that is now being developed by the European Commission to support growth in the maritime sector as a whole. It aims to:

- identify and tackle challenges (economic, environmental and social) affecting all sectors of the maritime economy
- highlight synergies between sectoral policies
- study interactions between the different activities and their potential impact on the marine environment and biodiversity
- identify activities with high growth potential in the long term and support them by:
  - removing the administrative barriers that hamper growth
  - fostering investment in research and innovation
  - promoting skills through education and training

### **Cooperation with other KICs**

The marine KIC will cooperate closely with the existing KICs InnoEnergy and Climate as well as the proposed KICs on raw materials and food4future. The value-added of an independent marine KIC lies in taking an integrated approach to developing the maritime economy. The aim is both to balance growth and sustainability as well as overcome the challenge of overlapping geographic space facing many maritime economic sectors. The latter is particularly important in European waters, where intense use patterns mean that competition for limited maritime space hampers growth prospects. Furthermore, the marine KIC also aims to promote technology transfer between markets, thus increasing market potential for smaller companies. This is of particular importance in the maritime sector since it boasts many areas of great economic potential, but has today only few established, sector-overarching industries.

## **4. CONCLUSIONS**

The KIC “Our Blue Future - The Integrated and Sustainable Development of the Seas and Oceans” meets the criteria put forward for the selection of KIC themes in the EIT Strategic Innovation Agenda:

- Both European Council and European Commission have recognized that healthy and productive seas and oceans are a major economic and societal challenge for Europe.
- The EU Committee of the Regions has endorsed the idea of a marine KIC as a means to promoting environmentally sustainable economic growth in European regions. As such, it can directly contribute to the delivery of the Europe 2020 Agenda;
- A marine KIC will address the “European maritime paradox”, where Europe has a strong research base but a weak innovation performance.
- As a cross-cutting initiative, a marine KIC can offer a unique commercially-driven umbrella for various EU-level initiatives on marine environmental protection, economic growth, education and RTD;
- A marine KIC is primarily about establishing new and future-orientated markets;
- A marine KIC offers an incentive-based means of promoting synergies between research, education and innovation stakeholders spread across various regions in Europe;
- Most new maritime economic sectors would profit from an integrated, trans-disciplinary approach to education, training, technology development & application as well as research.