

## The Ocean Economy and Innovation

### Promoting sustainable seas and oceans with innovation

The world's seas and oceans are under increasing pressure, both from a growing range and intensity of economic activities, as well as from climate change. The OECD Directorate for Science, Technology and Innovation (STI) is leading an original programme of work on the Ocean Economy and Innovation with the objective to provide decision-makers with an improved toolbox to foster innovation for harnessing the ocean economy's potential in a responsible and sustainable way.

#### Why a focus on innovation and the ocean economy?

The ocean economy makes a very significant contribution to the economy – over USD 1.5 trillion in value added in 2010 – and in meeting global concerns. The ocean economy represents the sum of the economic activities of emerging ocean-based industries (i.e. renewable energy) and established ones (i.e. capture fisheries), together with the goods and services of marine ecosystems (Figure 1). Many economic activities are growing around the world (e.g. ports, shipping), and by 2030, the ocean economy is likely to more than double. However, commercial ocean-based activities add to already existing pressures, such as climate change and growing terrestrial pollution that are impacting the health of essential marine ecosystems. The situation is not sustainable.

The ocean economy's long-term potential in terms of growth and job creation cannot be fully realised unless more effective steps are taken to improve integrated ocean management, including ecosystem preservation, at local, regional, national and international level. That in turn will require significant progress in innovation and new thinking in many areas: science, technology, R&D, manufacturing, infrastructural design, consultation and decision-making processes, institutional co-operation and, last but not least, in the policy mix that governments implement to support and encourage innovative capacity in the ocean economy more broadly.

#### The Ocean Economy in 2030

*The Ocean Economy in 2030* analyses the economic perspective of the Ocean Economy while meeting the goals of a more sustainable development, and provides policy recommendations to support such national and international efforts. The report puts forward a number of recommendations to enhance the sustainable development of the ocean economy, including:

- Foster greater international co-operation in maritime science and technology as a means to stimulate innovation and strengthen the sustainable development of the ocean economy.
- Strengthen integrated ocean management, at local, regional, national; and international levels to take into account the development of activities increasingly having to compete for space (e.g. ports, marinas, wind farms, fishing; aquaculture).
- Improve the statistical and methodological base at national and international level for measuring the scale and performance of ocean-based industries and their contribution to the overall economy, while improving the valuation of crucial marine ecosystems.



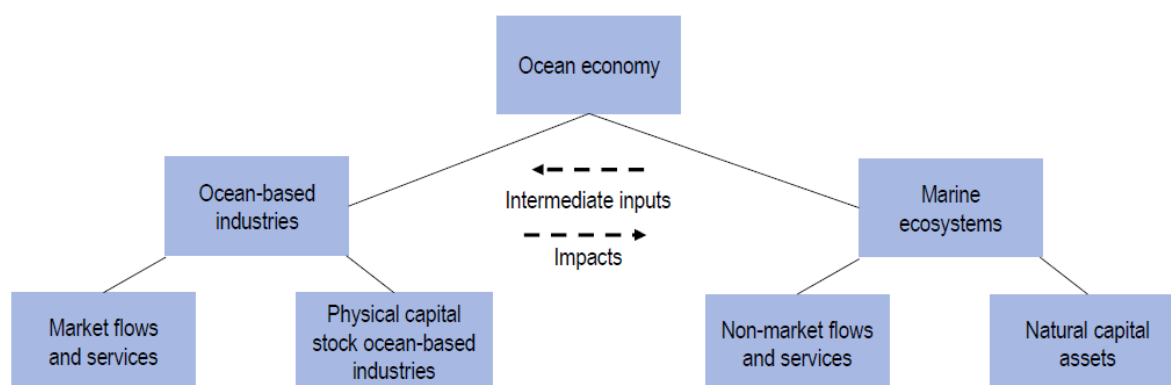
## Activities of the OECD ocean economy group

The activities build on the OECD report *The Ocean Economy in 2030* findings with the aims to provide evidence-based information to improve the innovation policy mix for sustainable ocean management. This is undertaken through a series of expert workshops, research on new OECD indicators and innovation policy discussions with ocean-related communities around the world. In cooperation with stakeholders from a range of ocean communities from different sectors, including research centres, academia, industries, and with the support of voluntary and in-kind contributions from ministries and other administrations of OECD member economies, the strands of work are organised around four major themes:

- Explore the role of scientific advances and enabling technologies in driving innovation in the ocean economy.
- Investigate emerging patterns and platforms of collaboration in innovation among different marine and maritime actors in ocean R&D around the world.
- Extend the frontiers of the use of economic valuation, analysis and tools further into areas of ocean-related activities.
- Analyse the role of the public sector and the impacts of policy mix in boosting innovation in the ocean economy.

The activities contribute to the broader priorities of the OECD Committee on Science and Technology Policy (CSTP) (e.g. digitalisation, emerging technologies for addressing grand challenges) and are managed by the IPSO Unit (Innovation Policies for Space and Oceans) in the Science and Technology Policy Division.

**Figure 1.** Scope of the ocean economy



Source: OECD (2016), *The Ocean Economy in 2030*, <http://dx.doi.org/10.1787/9789264251724-en>.

## Further reading

### Publication

OECD (2016), *The Ocean Economy in 2030*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264251724-en>.

### Website

The Ocean Economy and Innovation on the OECD Innovation Policy Platform:

<https://www.innovationpolicyplatform.org/ocean-economy-and-innovation>

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