

## Foreword

The OECD report *Rethinking Innovation for a Sustainable Ocean Economy* emphasises the growing importance of science and technology in managing the economic development of our seas and ocean responsibly. Marine ecosystems sit at the heart of many of the world's global challenges: food, medicines, new sources of clean energy, climate regulation, job creation and inclusive growth. But we need to safeguard and improve the health of these ecosystems to support our ever-growing use of marine resources. Innovation in science and technology will play a key role in reconciling these two objectives.

In this context, new thinking and fresh approaches are required in many areas, placing innovation at the heart of society's response to the challenges facing the development of a truly sustainable ocean economy. This publication sets itself four objectives:

- Offer a forward-looking perspective on scientific and technological innovation across a range of marine and maritime applications, with a particular focus on some of the innovations already in the pipeline (Chapter 2);
- Contribute to the growing body of evidence suggesting that, with the help of innovation, the development of economic activity in the ocean and sustainability of marine ecosystems can often go hand in hand with one another, and provide a number of in-depth case studies that illustrate the potential for generating such win-win outcomes (Chapter 2);
- Investigate the emergence of new forms of collaboration in the ocean economy among research communities in the public sector, the academic world and a diverse range of private-sector stakeholders, using the example of innovation networks that have sprung up in recent years around the world (Chapter 3);
- Highlight new approaches to measuring the ocean economy, notably by exploring the use of satellite accounts for its twin pillars – ocean-based economic activities and marine ecosystem services – and by examining ways to better measure the benefits that important sustained ocean observations provide not only to science, but also to the economy and society more generally (Chapter 4).

Based on this original study, three priority areas for action are presented: 1) approaches that produce win-win outcomes for ocean business and the ocean environment across a range of marine and maritime applications; 2) the creation of ocean-economy innovation networks; and 3) initiatives to improve measurement of the ocean economy via satellite accounts of national accounting systems.

This publication is based on research and analytical work conducted by the OECD STI Ocean Economy Group in the Science and Technology Policy Division, within the Directorate for Science, Technology and Innovation (DSTI). The *Innovation and the Ocean Economy* programme of work, which will continue in 2019-20, builds upon six years of original OECD work on the ocean economy, featuring in particular the ground-

breaking report *The Ocean Economy in 2030*. These activities fit into the broader programme of work of the OECD Committee for Scientific and Technological Policy (CSTP).

The *Innovation and the Ocean Economy 2017-18* programme of work was kindly supported by voluntary financial and in-kind contributions from a wide variety of government departments, agencies and research institutions, who constitute the project's Steering Board. Their contributions are acknowledged with sincere thanks. The report also benefited from contributions from many other experts, both internal and external to the OECD, and our sincere thanks go also to them. All such organisations and individuals are listed in the Acknowledgements.

This publication was supervised by Claire Jolly, Head of the Innovation Policies for Space and Ocean (IPSO) Unit, and of the OECD STI Ocean Economy Group, with research and analysis conducted by James Jolliffe, Economist, and Barrie Stevens, Senior Advisor, both of the OECD STI Ocean Economy Group. Julia Hoffman, Economist, conducted research on ocean observations, and was seconded to the OECD by the Christian-Albrechts-University zu Kiel, Germany, through the kind contributions of the Marine Research Consortium (KDM), Germany, the European Union AtlanOs Project, and the Exzellenzcluster "Future Ocean" Kiel Marine Science (KMS). Editorial assistance for the publication was provided by Chrystyna Harpluk, Project Coordinator in IPSO. Anita Gibson, who held the position of Project Coordinator until retirement in August 2018, organised the workshops for this project.

## *Acknowledgements*

The Ocean Economy Group within the OECD Directorate for Science, Technology and Innovation (STI) wishes to acknowledge with sincere thanks the substantive support and funding provided to the *Innovation and the Ocean Economy* work programme from the following organisations, which formed the Steering Board of the 2017-18 project: the Department of Economy, Science and Innovation of Flanders, Belgium; the Danish Maritime Authority, Denmark; the Marine Research Consortium (KDM), Germany, with the European Union AtlantOS project; the Marine Institute, Ireland; the Stazione Zoologica Anton Dohrn, Italy; the Korea Maritime Institute (KMI), Korea; the Research Council of Norway, Norway; the Directorate-General for Maritime Policy (DGPM) and the Fundação para a Ciência e a Tecnologia (FCT), Portugal; the Oceanic Platform of the Canary Islands (PLOCAN), Canary Islands, Spain; Marine Scotland, Scotland, United Kingdom; and, the National Oceanic and Atmospheric Administration (NOAA), United States.

We also acknowledge, with particular thanks, the efforts of the individual members of the Steering Board and their colleagues, who have provided valuable guidance and kind support throughout the programme, including through the co-organisation and participation in OECD workshops, provision of original material, and detailed reviews of background papers that were used for this publication.

The Steering Board Members, both past and present, include: Gert Verreet, Policy Advisor (Department of Economy, Science and Innovation of Flanders, Belgium); Rikke Wetter Olufsen, Head of Division (Danish Maritime Authority, Denmark); Mogens Schrøder Bech, retired Director of Maritime R&D (Danish Maritime Authority, Denmark); Jan-Stefan Fritz, Managing Director (Marine Research Consortium, KDM, Germany); Niall McDonough, Director of Policy, Innovation and Research Support Services (Marine Institute, Ireland); Eoin Sweeney, Senior Adviser (ITO Consult Ltd, Ireland – who recently passed away and is keenly missed by many friends and colleagues); Marco Borra, Head of Research Infrastructures for Marine Biological Resources and Director of International Cooperation and Strategic Partnership (Stazione Zoologica Anton Dohrn, Italy); Jeong-In Chang, Head of Ocean Economy Research Department (Korea Maritime Institute, Korea); Christina Abildgaard, Director of Marine Bioresources and Environmental Research (Research Council of Norway, Norway); Conceição Santos, Head of Strategy Department (Directorate-General for Maritime Policy, DGPM, Portugal); Sofia Cordiero, Coordinator, Ocean Programme (Foundation for Science and Technology, FCT, Portugal); Cornilius Chikwama, Senior Economist and Head of the Marine Analytical Unit (Marine Scotland, United Kingdom); José Ignacio Pradas, Deputy Director General of Competitiveness and Social Affairs (Ministry of Agriculture, Fishing, Food and Environment, Spain); Josefina Loustau, Project Manager, Socioeconomic Unit (Oceanic Platform of the Canary Islands (PLOCAN), Canary Islands, Spain); and, Monica Grasso, Chief Economist (National Oceanic and Atmospheric Administration, United States).

We also thank members of the OECD Committee for Scientific and Technological Policy (CSTP) and other national delegates for their support in this project, particularly Tiago Santos Pereira (Foundation for Science and Technology, FCT, Portugal); Fulvio Esposito (Ministry for Education, University & Research MIUR, Italy); and Isabella Maria Palombini (Scientific Attaché, Permanent Delegation of Italy).

The drafting and final wording of *Chapter One* owe a great deal to the comments of Dominique Guellec (Head of the Science and Technology Policy Division, OECD), and remarks from Gert Verreet, Rikke Wetter Olufsen, Marco Borra, Niall McDonough, Christina Abildgaard, Cornilius Chikwama, and Danielle Edwards (Department of Innovation, Science and Economic Development, Canada).

Beyond the many experts that were approached (with work referenced in the text), we also wish to acknowledge several OECD colleagues for their reviews of *Chapter Two*, which was mainly researched and drafted by Barrie Stevens, Senior Adviser in the OECD STI Ocean Economy Group. Firstly, Laurent Daniel, Head of the Shipbuilding Section of the Structural Policy Division of Directorate for Science, Technology and Innovation (OECD) for comments on the case study concerning ballast water management. Also, Claire Delpuech (Policy Analyst), James Innes (Policy Analyst) and Roger Martini (Senior Policy Analyst), all of the Fisheries Section of the Natural Resources Policy Division of the Trade and Agriculture Directorate (OECD), for comments on the case study concerning aquaculture.

Concerning *Chapter Three* on innovation networks, the respondents to the OECD Innovation Networks Questionnaire kindly devoted a large amount of time from their busy schedules to answer the survey, follow-up questions and provide comments on the corresponding background paper, prepared by James Jolliffe, Economist in the OECD STI Ocean Economy Group. Sincerest gratitude is extended to all of the following and their colleagues: Wendy Watson-Wright (Ocean Frontiers Institute, Canada); Simone La Fontaine (Offshoreenergy.dk, Denmark); Pieter Jan Jordaens (IBN Offshore Energy, Flanders); Jeremie Bazin (Campus mondial de la mer, France); Peter Hourihane (Centre for Marine and Renewable Energy, Ireland); Hans Bjelland (EXPOSED Aquaculture, Norway); Jose Guerreiro (MARE Start-Up, Portugal); Heather Jones (Scottish Aquaculture Innovation Centre, Scotland); Josefina Loustau (PLOCAN, Spain); and Kevin Forshaw (National Oceanography Centre, UK). The research also benefited greatly from an initial concept note drafted by Cornilius Chikwama (Marine Scotland, United Kingdom).

The sections of *Chapter Four* regarding ocean economy measurement issues, mainly researched by James Jolliffe, received kind input and detailed reviews from Peter Van de Ven, Head of National Accounts Division of the Statistics and Data Directorate (OECD), and Pierre-Alain Pionnier, Head of Composite Leading Indicators (CLI), Prices and Environmental Accounts Section of the National Accounts Division (OECD). The sections on ocean observations data rely heavily on the content developed in the forthcoming OECD STI Policy Paper “Valuing Sustained Ocean Observations”, drafted by Julia Hoffman, Economist (Christian-Albrechts-University zu Kiel, Germany), under the supervision of Claire Jolly, with inputs from Barrie Stevens, and James Jolliffe, while she was on secondment at the OECD in 2018 and hosted by the Intergovernmental Oceanographic Commission of UNESCO, through the kind contributions of the Marine Research Consortium (KDM), Germany, the European Union AtlanOs Project, and the Exzellenzcluster “Future Ocean” Kiel Marine Science (KMS). This research also includes aggregated data on users of ocean observations kindly provided by Mercator Ocean

International and by the European Marine Observation and Data Network (EMODnet). The OECD Secretariat is very appreciative of these unique inputs and warmly thanks Pierre Bahrel, CEO, and Cécile Thomas-Courcoux, Head of Marketing, Communications and Partnerships, from Mercator Ocean, and Nathalie Tonne, Project Officer, from EMODnet. The background paper itself benefited from extensive reviews and advice from Ralph Rayner, Professorial Research Fellow (London School of Economics, United Kingdom); Carl Gouldman, Director (Integrated Ocean Observing System Program Office, NOAA, USA); Jan-Stefan Fritz, Managing Director (KDM, Germany); Albert Fischer, Head of Ocean Observations and Services Section, and, Emma Heslop, Programme Specialist, both of the Intergovernmental Oceanographic Commission of UNESCO.

In addition to the efforts of the organisations and individuals noted above, the drafting of this publication benefited from three OECD workshops. The first workshop, held in October 2017 and kindly hosted at the Stazione Zoologica Anton Dohrn in Naples, Italy, was titled “Linking Economic Potential and Marine Ecosystem Health Through Innovation”. We warmly thank our hosts, Professor Roberto Danovaro, President, Marco Borra, Director of International Cooperation and Strategic Partnerships, Margherita Groeben, Administrator, and their team. The Naples workshop was influential in shaping Chapter Two of this publication. The second workshop, “New Approaches to Evaluating the Ocean Economy”, was held in November 2017, at the OECD in Paris, in coordination with the Center for the Blue Economy, Monterey, CA, United States. We particularly thank Charles Colgan, Director of Research, and, Judith Kildow, Director of the National Ocean Economics Program (NOEP). Both have been instrumental in promoting international discussions on ocean economy measurement. Many experts from around the world participated in the workshop, and we kindly thank them for their inputs referenced in this publication. Finally, a workshop on “Valuing Ocean Observations” was held in May 2018 at the OECD in Paris, and we particularly thank Jean-Louis Etienne, Head of the Polar Pod Project; Richard Lampitt, Professor (National Oceanography Centre, Southampton, UK); Shubha Sathyendranath, Merit Remote Sensing Scientist (Plymouth Marine Laboratory, UK); and Glenn Nolan, Secretary General (EuroGOOS) for their inputs. The OECD STI Ocean Economy Group would like to thank all those who contributed to these events, providing original substance and valuable comments.



**From:**  
**Rethinking Innovation for a Sustainable Ocean Economy**

**Access the complete publication at:**  
<https://doi.org/10.1787/9789264311053-en>

**Please cite this chapter as:**

OECD (2019), "Foreword", in *Rethinking Innovation for a Sustainable Ocean Economy*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/81bb16c3-en>

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