

TERMS OF REFERENCE

Marine Research Programme	
Research Area:	Policy Support
Research Programme:	Marine Socio-Economics
Project Type:	Defined Applied Policy Support
Project Title:	Valuing and understanding the dynamics of Ireland's Ocean Economy

BACKGROUND

Progress in Valuing Ireland's Ocean Economy

In 2007, the Marine Institute funded a seven-year research programme in Marine Socio-Economics under the Beaufort Award Scheme aimed at addressing a gap in research capacity and capability in the area of marine socio-economics¹. The award led to the establishment of SEMRU – Socio-Economic Research Unit – in NUI Galway. Working in partnership with Teagasc, Rural Economy Centre, and the Marine Institute, a key element of the award was to develop a sustainable approach to the ongoing collection of data, monitoring and reporting on Ireland's Ocean Economy (direct value & employment and related downstream impacts).

To date four reports valuing Ireland's ocean economy have been published, an initial briefing document published by the Marine Institute in 2005, followed by three further reports published by SEMRU under the Beaufort Award in 2010, 2013 and 2015. The reports are available on the Marine Institute's website (references provided below).

The methodology used to value Ireland's ocean economy has been refined over the series of the reports. Following extensive data collection and analysis over the period of the Beaufort Award, issues related to time-lag in availability of data, particularly data collected by the Central Statistics Office (specifically data from the Census of Industrial Production, Annual Services Inquiry and Building and Construction Inquiry), have been examined as part of the award. Where gaps exist in data, targeted enterprise surveys have been carried out as required. Details of the methodology used by SEMRU is available in the published reports.

Part-funded under the Beaufort award, working in collaboration with Teagasc, an input-output model has been developed for the marine. This important research infrastructure looks at the linkages between sectors providing an estimate of indirect impact of Ireland's ocean economy. The model can also be used to undertake economic impact assessments of targets set out in national policy documents such as Harnessing Our Ocean Wealth.

It is anticipated that this project will build on the outputs of the Beaufort Marine Award.

¹ Further details on the objectives and key outputs of the programme are available via the Marine Institute's [Research Information Management System \(RIMS\)](#).

Ireland's Ocean Economy (Direct and indirect value)

Ireland's ocean economy has been defined as *the economic activity that directly or indirectly uses the sea as an input – sea-specific activity – as well as any economic activity that produces an input from a sea-specific activity in their production process (SEMRU, Ireland's Ocean Economy Report, 2015).*

The latest report on Ireland's Ocean Economy, published by SEMRU at the 2nd Annual Our Ocean Wealth Conference in July 2015, provided trends across 13 marine sectors over the period 2010 – 2012 and estimates for 2014.

The report showed that Ireland's ocean economy is performing on average better than the general economy with up to 9% growth over the last five years. Spread across established and emerging marine sectors, SEMRU reported that Ireland's ocean economy:

- contributes an estimated €1.4bn to GDP,
- has a turnover of €4.5bn, and
- employs approximately 18,500 Full-Time Equivalents.

In addition to the direct impacts of Ireland's ocean economy, research carried out under the Beaufort award examined the significant linkages and associated knock-one effects experienced in the broader economy. To estimate the indirect economic impact, Beaufort funded researchers, working in collaboration with the Rural Economy and Development Programme of Teagasc, developed an Economic Impact Assessment Model, the Bio-Economy Input Output Model (BIO)². The model provided an indication of the overall indirect impact of Ireland's marine sectors. Analysis of the data showed that further 13,000 people are employed across the wider economy, providing an additional €3.3bn in turnover.

BIO has been developed as a tool for also assessing the output and employment multipliers of public policy initiatives such as *Harnessing Our Ocean Wealth*, and *Agri-Food 2025* strategy. Based on *Harnessing Our Ocean Wealth* specific targets to expand the Irish Marine Sector to a total of €6.4bn in 2020, the model has shown that the achievement of these targets will also have additional 'knock-on' economic impacts with additional growth of €2.7bn anticipated in the wider economy. Based on the results of running this scenario through the Bio-Economy IO model, it is estimated that 29,300 new jobs could be created if the Ocean Wealth targets are achieved with 16,100 of these coming directly from within the Marine sector itself. An additional 13,200 jobs are estimated to be created indirectly through increases in demand for products and services required by the marine sector.

Full details of the model, including methodology used, its application and initial findings are outlined in the final published report (reference provided below).

Ireland's ocean economy also includes non-market values such as vital environmental services. It is important to note that non-market evaluation is not covered in this specific call.

PROJECT RATIONALE:

Ireland's ocean economy has received increasing policy attention in recent years as an economically active and commercially viable sector contributing to Ireland's economic recovery. The publication and ongoing implementation of Ireland's Integrated Marine Plan, *Harnessing our Ocean Wealth*, has been instrumental in driving a whole of Government approach to sustainably develop Ireland's marine resource and related marine products and services. A target to double the value of Ireland's ocean wealth to 2.4% of GDP by 2030, exceeding the global average of 2% of GDP and moving towards the EU average of 3-5% is outlined in the Plan. *Harnessing Our Ocean Wealth* also sets a 2020 target of exceeding €6.4bn in annual turnover, drawn from a diverse range of marine sectors.

² A report on the Economic Impact of the Irish Bio-Economy was launched in September 2015 by Teagasc.

The importance of valuing and understanding Ireland's Ocean Economy was recognised in *Harnessing Our Ocean Wealth*. Action 24 of the Plan identifies the need to *strengthen the collation of marine socio-economic data to ensure the timely availability of marine socio-economic statistics, providing an evidence –base for policy and decision-making, economic forecasting and scenario planning*.

Internationally, at EU-level and broader, research into valuing and understanding the dynamics of ocean economies is also becoming increasingly important (as seen in recent EU Blue Growth communications and associated reports, initiatives from the OECD, and across North America and Asia).

As outlined in the Call Guidelines, Project-Based Awards funded by the Marine Institute will provide assistance for appropriate research activities that support the goals of *Harnessing Our Ocean Wealth*. This call for proposals will address two of the three goals set out in the Plan; namely: Goal 1: Thriving Maritime Economy, and Goal 3: Increasing Awareness of Ireland's Ocean Wealth.

PROJECT AIMS:

This project aims to strengthen the valuation of Ireland's ocean economy, ensuring the timely availability of marine economic statistics, providing an evidence–base for policy and decision-making, economic forecasting and scenario planning.

The project also aims to support the implementation of a national research programme of marine socioeconomics. It is envisaged that personnel on the project will advise the Marine Institute on the further development of applied research in the area.

RESEARCH OBJECTIVES:

The Marine Institute wishes to invite research proposals to address the following objectives:

- Strengthen the collection, reporting and monitoring of Ireland's Ocean Economy across traditional resource based sectors and also new emerging areas. This includes liaison with national organisations who have responsibility for the collection and analysis of sectoral economic information such as BIM, SFPA, IMDO and the CSO, as well as carrying out targeted surveys of sectors where little / no data exists;

Given the ambitions that have been set in *Harnessing Our Ocean Wealth*, two such activities that will require targeted surveys include tourism & leisure in marine and coastal areas and also maritime commerce³;

- Build an understanding of the dynamics of the sector(s) across areas relating to competitiveness, changing supply and demand needs, supply chain and life cycle analysis, regional disaggregation of data and other inter-related activities (direct, indirect & induced);
- Develop a better understanding of impact (social and economic) of national and international strategies, regulation and development policies in order to maximise Ireland's marine resources, expertise and future potential; and
- Benchmark the performance of the Irish marine economy on a sector by sector basis with other high performing marine economies.

³ Maritime commerce includes ship finance and leasing, shipping funds, insurance, professional services, chartering, brokerage, agency, ship management, tonnage tax activities etc.

It is envisaged that personnel on the project will also work closely with the Marine Institute in further developing a national socio-economic research programme required to support a number of national strategic initiatives such as Maritime Spatial Planning and the establishment of an integrated Marine Development Team.

PROJECT DELIVERABLES:

- Annual update on Ireland's Ocean Economy which include analysis of trends and changing dynamics in the sector using appropriate and usable marine socio-economic indicators. It is anticipated that the update will build on existing reports published to-date.
- Database of marine-related enterprises.
- Sector specific briefs, identifying trends, opportunities and barriers to growth.
- Analysis of key national and international policy initiatives and research into the impact on Ireland's marine sectors.
- Analysis and preparation of sectoral targets as required.
- Update and develop further the Input-Output Bioeconomic model in order to carry out research related to marine sector value chains.

It is expected that the project will also result in a number of peer-reviewed articles and peer-reviewed conference papers.

ADDITIONAL SPECIFIC REQUIREMENTS FOR THIS PROJECT:

- The successful research group will also work closely with the Marine Institute. It is envisaged that personnel from the Group will spend a significant amount of time interacting and collaborating with Marine Institute staff. The Marine Institute is headquartered at Rinville, Oranmore, Co. Galway and also has offices at Wilton Park House, Dublin 2. Project proposals should outline how the research team propose to maximise this cooperation e.g. including the option of placing personnel in the Marine Institute's offices during the lifetime of the award.
- Throughout the lifetime of the award, it is also anticipated that the researcher(s) will actively seek additional sources of other funding (national and international), continuing to build links with other research groups and organisations, continuing to strengthen Ireland's capacity and capability in the area of marine socio-economic research.
- The project will include working closely with the Marine Institute and other collaborative partners including BIM and Teagasc over the lifetime of the award.
- It is likely that the researcher(s) will collaborate with national and international groups.

INTENDED IMPACT:

The outputs of the project are intended to strengthen the understanding of the dynamics of Ireland's ocean economy, including its embeddedness in other sectors of the economy and the impact it has on GDP growth and job creation at a national level.

The outputs of the project will also feed into a number of national strategic initiatives such as Maritime Spatial Planning and the establishment of an integrated Marine Development Team.

More broadly, the successful research group will provide the economic analysis required to inform and facilitate the delivery of the Government's integrated plan for the marine, as set out in *Harnessing Our Ocean Wealth*.

PROJECT STRUCTURE AND FUNDING:

Funding up to a maximum of 600,000 Euro will be provided for a three-year project.

The project should be managed by a project coordinator, which will be responsible for ensuring that project management formalities as well as research outputs are delivered in a

timely and presentable manner. Effective coordination is preferable at a senior level and this should be reflected in the proposal.

The proposal should clearly outline time commitment of existing and any additional researchers.

ADDITIONAL INFORMATION/REFERENCE MATERIAL:

Reports:

Government of Ireland. (2012). Harnessing Our Ocean Wealth. An Integrated Marine Plan for Ireland

Grealis, E. & O'Donoghue, C. (2015). The Economic Impact of the Irish Bio-Economy: Development and Uses - Joint report issued by the Teagasc Rural Economy Development Programme and the Socio-Economic Marine Research Unit, NUI Galway

Morrissey, K., Hynes, S., Cuddy, M. & O'Donoghue, C. (2010). Ireland's Ocean Economy: Reference Year 2007. SEMRU, NUI Galway

O'Connor, J., O'Leary, J. & Shields, Y., (2005). Ireland's Ocean Economy and Resources. Marine Institute

Vega, A., Hynes, S. & Corless, R., (2013). Ireland's Ocean Economy: Reference Year 2010. SEMRU, NUI Galway

Vega, A., Hynes, S. & O'Toole E., (2015). Ireland's Ocean Economy: Reference Year 2012. SEMRU, NUI Galway

Web-links

- Harnessing Our Ocean Wealth: www.ouroceanwealth.ie
- EU Integrated Maritime Policy: http://ec.europa.eu/maritimeaffairs/policy/index_en.htm
- Central Statistics Office: <http://www.cso.ie/en/index.html>
- EU Scientific, Technical and Economic Committee for Fisheries: <https://stecf.jrc.ec.europa.eu/reports/economic>
- Bord Iascaigh Mhara: www.bim.ie
- Irish Maritime Development Office: www.imdo.ie