



Ambitious new research programme aims to assess the health of deep Atlantic ecosystems

UNDER STRICT EMBARGO UNTIL 06.00 BST, TUESDAY 18 JUNE 2019

Marine scientists from countries bordering the north and south Atlantic Ocean have joined forces to assess the health of ecosystems in the deep sea. They hope to determine the resilience of both the animals that live there, and their habitats, to threats such as temperature rise, pollution and human activities. The new iAtlantic project aims to deliver knowledge that is critical for responsible and sustainable management of Atlantic Ocean resources in an era of unprecedented global change.

Funded by a €10.6M grant from the European Union's Horizon 2020 programme, the ambitious iAtlantic project will - for the first time - undertake an ocean-wide approach to understanding the factors that control the distribution, stability and vulnerability of deep-sea ecosystems. Work will span the full scale of the Atlantic basin, from the tip of Argentina in the south to Iceland in the north, and from the east coasts of USA and Brazil to the western margins of Europe and Africa. Central to the project's success is the international collaboration between scientists throughout the Atlantic region, with sharing of expertise, equipment, infrastructure, data and personnel placed at the forefront of iAtlantic's approach.

To assess the status of ecosystems, scientists need to know more about how they are connected and distributed, what functions they perform and how stable they have been over time. All this requires the collection of new data, but also innovative approaches so that observations taken at local and regional levels can be scaled up to address questions at ocean basin scale.

To do this, iAtlantic will align deep-ocean observing capacities in the north and south Atlantic, which will provide accurate and detailed insights into ocean circulation in the past, present and future at a range of spatial and temporal scales. The latest marine robotics and imaging technology will be used to develop predictive mapping tools to advance understanding of deep-sea habitat distribution across the ocean. Combined with genomic data and ecological timeseries data, all this new information will provide an unprecedented view of the impacts of climate change on Atlantic ecosystems, allowing scientists to identify key drivers of ecosystem change and determine which areas of the Atlantic Ocean are most vulnerable to the effects of sustained, increasing and multiple pressures.

To generate the enormous quantities of data required to achieve this, iAtlantic is underpinned by an extensive field programme comprising some 32 research expeditions that collectively span the length and breadth of the Atlantic Ocean. Drawing on a multinational fleet of research vessels and the latest marine technology and instrumentation, efforts will focus on 12 locations in the deep sea and open ocean that are of international conservation significance and of interest to Blue Economy and Blue Growth sectors. These expeditions will not only probe the most remote corners of the Atlantic but will also provide invaluable opportunities for enhancing human and technological capacities, driving forward cooperation between science, industry and policymakers in countries bordering the Atlantic.

Ultimately, the results from the iAtlantic project will be used to stimulate dialogue with stakeholders, generate increased capacity for effective marine spatial planning, and inform ocean policy development at national, regional and international levels.

NOTES

Project: The Integrated Assessment of Atlantic Marine Ecosystems in Space and Time (iAtlantic) project is funded by the European Union's Horizon2020 programme, grant agreement 818123. The project will launch on 18 June 2019 and will run for 4 years.

Funding: iAtlantic is supported by a funding contribution of EUR 10.6 million from the EC's Horizon 2020 programme. The associated expedition programme, involving a fleet of research vessels and cutting-edge equipment funded by national research/infrastructure programmes, will contribute an estimated further EUR 27 million.

Context: iAtlantic is one of a suite of research projects funded by the European Union to further the implementation of the South Atlantic Research and Innovation flagship initiative and the [Belém Statement](#), signed by the European Union, Brazil and South Africa in 2017 to upscale research and innovation cooperation within the Atlantic basin, from Antarctica to the Arctic.

Partnership: A multidisciplinary consortium of 33 partner institutions from Europe, Argentina, Brazil, South Africa, Canada and the USA, complemented by a wider network of associated partners.

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Online resources: Project website at www.iatlantic.eu, twitter handle [@iAtlanticEU](https://twitter.com/iAtlanticEU)