Creating partnerships for capacity building in ecosystem assessment at ocean basin scale – Case studies from the Atlantic

J Murray Roberts

ATLAS project coordinator, University of Edinburgh

Two-day multi-stakeholder dialogue and capacity-building partnership event
United Nations, New York, 24-25 January 2019
Ocean Warming

Ocean Acidification

Reduced oxygen

Harmful Fishing Practices

Invasive species

Deep-sea Mining

Plastics & Pollution

Hydrocarbon Exploitation

Bioprospecting
A trans-Atlantic assessment and deep-water ecosystem-based spatial management plan for Europe
At a Glance

A trans-Atlantic assessment and deep-water ecosystem-based spatial management plan for Europe

**Call:** EU Horizon 2020: BG-2015-2 (Unlocking the potential of seas and oceans)

**Duration:** May 2016 – April 2020 (48m)

**Consortium:** 24 partners +1 linked 3rd party, from 12 countries

**Budget:** €9.3M

**Coordinator:** University of Edinburgh (UK)

**Focus:** Providing essential new knowledge of North Atlantic ecosystems through data gathering and synthesis

**Impact:** Discoveries and outputs will inform and facilitate stakeholder agreement on marine policy and regulation and spur Blue Growth

**Core activities:** 25+ research cruises investigating 12 case studies across the Atlantic
Galway Statement on Atlantic Ocean Cooperation
Launching a European Union - Canada - United States of America Research Alliance
The Signatories of this Statement meeting on the occasion of the high level event
The Atlantic – a Shared Resource, held on
23 and 24 May 2013
at the Marine Institute, Galway, Ireland

Signed in Galway on 24 May 2013 in three originals in the English language.

For the European Union
Máire GEOGHEGAN-QUINN
Commissioner for Research, Innovation and Science

For the Government of Canada
Edward FAST
Minister of International Trade and Minister for the Asia-Pacific Gateway

For the Government of the United States of America
Dr Kerri-Ann JONES
Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs

Maria DAMANAKI
Commissioner for Maritime Affairs and Fisheries
Multidisciplinary Approach
• 46 ATLAS publications with 85 in preparation
• https://www.eu-atlas.org/resources/atlas-library
Expected Impacts

• Improve **resource management** (ecosystem approach) and governance
• Improve **cooperation** within EU and transatlantic
• Contribute to the **EU Integrated Maritime Policy**
• Strengthen international **agreements to conserve** Vulnerable Marine Ecosystems and Ecologically & Biologically Significant Areas
• Engage with UN process developing an international legally binding instrument under UNCLOS on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction

*Please visit the ATLAS stand for more info*
Belém Statement on
Atlantic Research and Innovation Cooperation
Conference in Lisbon on 13-14 July 2017

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<tr>
<td>Carlos Moedas</td>
<td>Naledi Pandor</td>
<td>Gilberto Kassab</td>
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<td>Commissioner for Research, Science and Innovation</td>
<td>Minister of Science and Technology</td>
<td>Minister of State for Science, Technology, Innovations and Communications</td>
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**TOPIC:** All Atlantic Ocean Research Alliance Flagship

<table>
<thead>
<tr>
<th>Topic identifier:</th>
<th>BG-08-2018-2019</th>
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<tr>
<td>Publication date:</td>
<td>27 October 2017</td>
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<td>Types of action:</td>
<td>CSA Coordination and support action</td>
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<td>DeadlineModel:</td>
<td>single-stage</td>
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<td>Planned opening date:</td>
<td>31 October 2017</td>
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**Deadline:** 13 February 2018 17:00:00

| Types of action:  | RIA Research and Innovation action |
| DeadlineModel:    | two-stage                         |
| Planned opening date: | 31 October 2017                 |

**Deadline:** 13 February 2018 17:00:00

| Types of action:  | RIA Research and Innovation action |
| DeadlineModel:    | two-stage                         |
| Planned opening date: | 16 October 2018                  |

**Deadline:** 23 January 2019 17:00:00

**2nd stage Deadline:** 04 September 2019 17:00:00

Time Zone: (Brussels time)

iAtlantic project selected for funding and currently in Grant Agreement Preparation
iAtlantic Objective 01
Ocean Observation

Standardise South and North Atlantic Ocean observations to enable short, medium and long-term assessments of Atlantic Ocean circulation and its physico-biogeochemical environment.
Map deep and open-ocean ecosystems at basin, regional and local scales.
Assess the stability, vulnerability, and any tipping points of deep and open-ocean Atlantic ecosystems to changes in ocean circulation, and effects of single and multiple stressors.
iAtlantic Objective 04
Capacity Building

Align and enhance human, technological and data inter-operability capacities for cost-effective cooperation and planning across the Atlantic.
Define requirements for sustainable management with industry, regulatory and governmental stakeholders to reflect societal needs and inform policy developments that ensure and encourage a sustainable Blue Economy.
iAtlantic

Concepts

- Accelerating & cumulative rates of change
- Resilience depends on ecosystem status & dynamics
- Multiple drivers of ecosystem change & tipping points
- Sustainable exploitation & capacity building

Actions

- Climate-based ocean projections WP1
- Ecosystem mapping & status WP2
- Observations of ecosystem change WP3
- Ecosystem impacts of multiple stressors WP4

- Integrated ecosystem assessments & planning WP5

- Capacity & multi-stakeholder dialogue WP6
- All-Atlantic ocean observing community WP7
iAtlantic

- 34 partners
- €10.6M budget
- 11 international associate partners
- €27M programme of 32 cruises

*Figure 2:* Chart illustrating the density of ARGO floats (grey circles) and positions of transatlantic monitoring arrays (black lines) providing oceanographic data to iAtlantic. Dashed white lines illustrate tracks of iAtlantic cruises with the two S Atlantic Demonstrator Capacity Building cruises iMirabilis and iCorsage shown in red. Led by the Spanish Institute of Oceanography (IEO) and named for iconic plants of W Africa and S America, these cruises are dedicated to the iAtlantic consortium. iMirabilis targets Regions 6–9 and will bring the UK Autosub6000 AUV equipped with the MAPS eDNA sampler and the Portuguese Luso ROV to the S Atlantic for the first time. The iCorsage cruise primarily targets Region 11 where it will conduct extensive mapping of the Vitória-Trindade Seamounts and provide training in the latest shipboard mapping approaches. iAtlantic will run a third Demonstrator Capacity Building cruise on a UK vessel in Region 2. Equipped with Autosub6000 and science-class ROV, this cruise will be open to iAtlantic fellows with dedicated berths for S Atlantic researchers.
Take home messages

• Deep & open ocean remains largely unexplored but human activities are expanding rapidly
• Ocean monitoring & ecosystem assessment technologies improving at exponential rate
• Need to work closely with Blue Economy stakeholders from data gathering to sustainable management
• Vital to **invest in the human element** throughout the science-to-policy process
Many thanks!

Please visit the ATLAS stand for more information

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Image credit: BGS
- UK Global Challenge Research Fund
- £20M budget
- 2019-2024
- 8 UN partners
- 4 regional bodies
- 7 Government Depts
- 4 NGOs
- 3 Think Tanks
- 5 Private sector

- Research team from UK, S Africa, Ghana, Namibia, Kenya, S Pacific, Caribbean
- Led by University of Strathclyde (Scotland)