Science, Policy & Blue Growth: Industry reactions to ATLAS recommendations

About the ATLAS Project
The EU ATLAS Horizon 2020 Project is a four-year project with partners from multinational industries, Small and Medium Enterprises (SMEs), governments and academia. Together, these partners are assessing Atlantic deep-sea ecosystems to create the integrated and adaptive planning products needed for sustainable Blue Growth. ATLAS is coordinated by the University of Edinburgh and you can find out more about the Project on our website: https://www.eu-atlas.org/.

Industry reactions to ATLAS recommendations survey
This survey is a component of Work Package 7: Policy Integration to Inform Key Agreements led by Seascape Consultants Ltd. To obtain industry reactions, we would like to share ATLAS scientific findings with you and discuss how findings may impact your Blue Economy sector. Understanding industry perspectives will help to shape the way we incorporate industry needs in scientific research and policy, to support the sustainable growth of the Blue Economy. The survey will consist of seven questions posed during a questionnaire, the survey will take approximately 15 minutes. Participation is strictly voluntary, and you may withdraw at any time.

Privacy notice
The data collected will be used for research purposes only and you may request a copy of your responses. Data collected will be stored by Seascape Consultants Ltd. in an anonymised random number-generated format on a password-protected computer system and will remain accessible to only the researchers involved in the project. Information on your industry sector & sub-sector, institution type and country will be retained alongside your survey responses to enable us to group responses for analysis. Your responses will not be individually or institutionally identifiable. In the unlikely event that evidence of abuse or criminal activity is uncovered during this survey we will be obliged to report it.

We would like to retain your name and email address for 18 months after the survey date, so that we are able to send you the outcomes of our survey. We will not share your contact information with third parties. You are entitled to view any data that we hold on you and you may opt out at any time by contacting the research team: rachel.boschen-rose@seascapeconsultants.co.uk.

This survey complies with the General Data Protection Regulations (GDPR) (2018) and has been scrutinised and granted Ethical Approval through the University of Edinburgh School of GeoScience’s ethical approval process. If you have ethical concerns about this survey or the conduct of the researchers involved, you may contact the University of Edinburgh School of GeoScience’s Research Ethics and Integrity Committee: ethics.geos@ed.ac.uk.

I confirm that I am over 18 years of age, have read and understood the Privacy Notice, and consent to participate in this survey ☐

Name: ___________________________ Signature: ___________________________ Date: ___________________________

Email address: ___________________________

This project has received funding from the European Union’s Horizon 2020 research and innovation programme, under grant agreement No 678760 (ATLAS). This output reflects only the author’s view and the European Union cannot be held responsible for any use that may be made of the information contained therein.
North Atlantic Ocean temperature, pH and currents are changing, which will impact Blue Growth

- Ocean change will alter the suitability of marine areas for certain species, including Vulnerable Marine Ecosystem (VME) indicator taxa, such as corals and sponges. Some areas designated as VMEs for fisheries may become unsuitable, whilst others not currently designated may require protection.
- Location of commercial fish species may change, including breeding grounds, nursery areas and feeding grounds.
- The suitability of sites for aquaculture could change, as could the location and availability of wild stocks used to seed aquaculture.
- Climate change could open up the North-West Passage for Blue Economy activities, such as shipping, tourism, cables & pipelines and biotechnology.
- Changes in faunal distribution will alter the location of Marine Genetic Resources (MGR), which are essential to the developing biotechnology sector.

Interactions between Blue Economy sectors and the marine environment will impact biodiversity

- Complicated interactions between environmental impacts could occur across Blue Economy sectors.
- Synergies between sectors, such as co-location, sharing of infrastructure and co-operative working could help reduce environmental impacts of Blue Growth.
- Colonisation of artificial structures, such as wind turbine foundations and oil & gas rigs by corals and sponges may help maintain regional connectivity and resilience of these species.
- Spatial exclusions around offshore installations could provide refuge to commercial fish species.
- Water column dynamics and food supply are important to the biodiversity of VME indicator taxa, which may need to be considered by sectors that could impact these dynamics, such as tidal & wave.

New policy instruments, such as the legally binding instrument for the conservation and sustainable use of biodiversity beyond national jurisdiction (BBNJ) could shape how Blue Growth interacts with the environment

- BBNJ may alter environmental approval processes, or introduce additional environmental monitoring requirements for sectors operating in marine areas beyond national jurisdiction.
- Large offshore Marine Protected Areas (MPAs) proposed within BBNJ could impact some sectors.

ATLAS scientific contributions to support Blue Growth

ATLAS research is helping to understand North Atlantic Ocean change and the implications for Blue Growth

- ATLAS is contributing to greater understanding of habitat suitability and biogeography of commercially important fish species and species of interest for their MGR.
- ATLAS research on ocean circulation changes, habitat suitability, biogeography and connectivity will help inform the siting of future MPAs. Some Blue Economy activities may be permitted in proximity to existing or future MPAs, whilst others may need to locate away from MPAs.
- Environmental data collected by ATLAS researchers could help inform Strategic and Regional Environmental Assessments, and Environmental Impact Assessments, for Blue Economy sectors.
- ATLAS is improving environmental data-sharing opportunities between science and industry to support better understanding of environmental baselines and impacts, particularly at the basin-scale.
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Industry reactions to ATLAS recommendations Survey

**About you**

1. What is your Blue Economy sector? (please select)

<table>
<thead>
<tr>
<th>Cables &amp; pipelines</th>
<th>Oil &amp; gas</th>
<th>Mining</th>
<th>Fishing</th>
<th>Shipping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tidal &amp; wave</td>
<td>Wind</td>
<td>Tourism</td>
<td>Biotechnology</td>
<td>Aquaculture</td>
</tr>
<tr>
<td>Other (please state):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. What is your subsector (if applicable)? .................................................................

3. What is your institution type? (please select)

<table>
<thead>
<tr>
<th>Regulatory body</th>
<th>Private company</th>
<th>Research institute</th>
<th>Consultancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other (please state):</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. What country is your institution based in? ...........................................................

**Survey Questions**

1. Do you envisage new or expanded activities in the North Atlantic before 2030? (please select)

   Yes  No  Unsure

If yes, what sort of activities and where? ...........................................................................
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2. Do you have any plans to work collaboratively with other sectors to address your business challenges?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
</tr>
</thead>
</table>

If yes, how and with which sectors? ........................................................................................................
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3. What are your main business drivers moving towards 2030? (please select)

<table>
<thead>
<tr>
<th>Technology developments</th>
<th>Climate change</th>
<th>Brexit</th>
<th>Legislation developments</th>
<th>Other</th>
</tr>
</thead>
</table>

If other, what are your main business drivers? ........................................................................................................
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4. How will the key findings of ATLAS influence your plans? (please select)

<table>
<thead>
<tr>
<th>Create new opportunities</th>
<th>Modify existing plans</th>
<th>Have no influence</th>
<th>Unsure</th>
</tr>
</thead>
</table>

If new opportunities will be created or existing plans will be modified, please provide more detail:
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5. What type of scientific information could help you plan for your business heading towards 2030?

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6. Are there any current or anticipated technology developments in your sector that may help address some of the issues ATLAS has identified?

Yes  No  Unsure

If yes, what are these technology developments?

If no, are there any barriers to finding/using technological solutions?

7. Do you anticipate that the development of a new legally binding instrument for the conservation and sustainable use of biodiversity beyond national jurisdiction (BBNJ) will influence your sector’s business plans?

Yes  No  Unsure

If yes, how will BBNJ influence your plans?

END OF SURVEY. THANK YOU VERY MUCH FOR YOUR PARTICIPATION -