atlas

UNDERSTANDING DEEP ATLANTIC ECOSYSTEMS

Talking to Industry: Results of D7.5 and D7.7

Final ATLAS General Assembly, Edinburgh, March 2020

M. Adelaide Ferreira[1,2*], David Johnson[1], Rachel Boschen-Rose[1*], Rob Tinch[3], & Matt Gianni[4]

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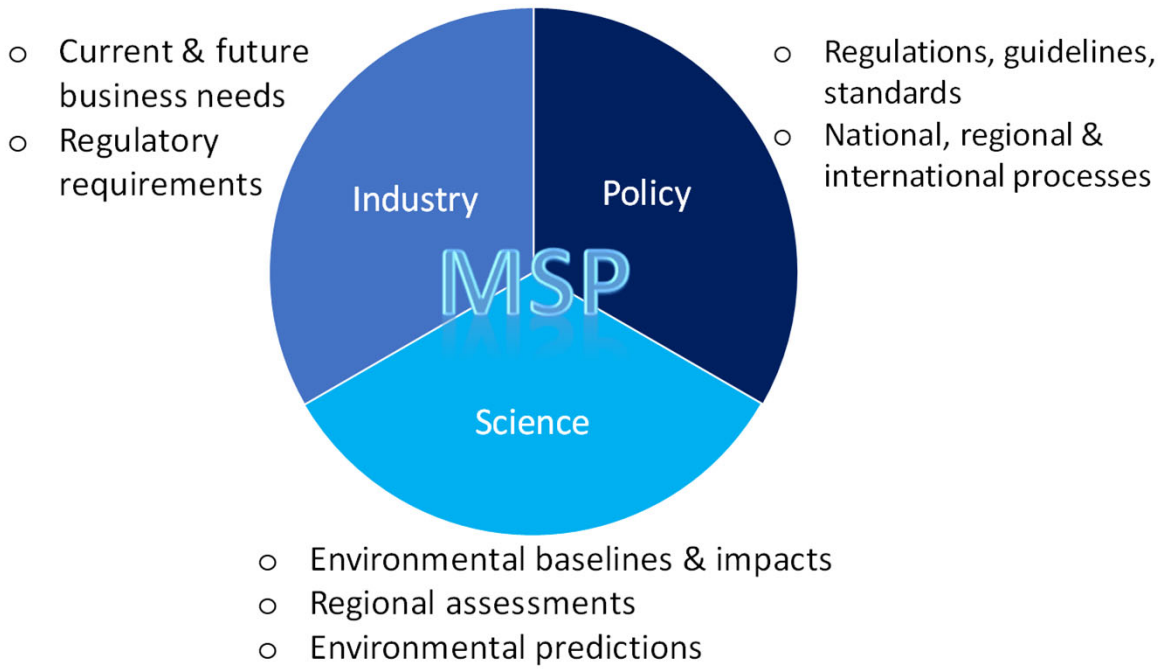
WP 7. Policy integration
to inform key agreements

Ensure that policy makers and stakeholders have access to ATLAS findings, thus allowing improved scientific knowledge to encourage innovation in maritime industries and promote a sustainable exploitation of Atlantic marine resources



WP 7. Interfacing science and policy to inform key agreements

- D7.5 – Industry reactions to ATLAS recommendations
- D7.7 – Policy Brief

ATLAS

Deliverable 7.5

Deliverable 7.5

Industry reactions to ATLAS re

Project acronym:	ATLAS
Grant Agreement:	678760
Deliverable number:	D7.5
Deliverable title:	Industry reactions to
Work Package:	WP7: Policy integrati agreements
Date of completion:	30 August 2019
Authors:	Matthew Gianni, Ma Boschen-Rose, David

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Engaging with industry to spur Blue Growth

Rachel E. Boschen-Rose,[1]* Maria Adelaide Ferreira[2], David E. Johnson[1] and Matthew Gianni[3]

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ABSTRACT

Boschen-Rose, R.E., Ferreira, M.A., Johnson, D.E. and Gianni, M., 2020. Engaging with industry to spur Blue Growth. *In:* Malvárez, G. and Navas, F. (eds.), *Proceedings from the International Coastal Symposium (ICS) 2020* (Seville, Spain). *Journal of Coastal Research*, Special Issue No. 95, pp. x – x. Coconut Creek (Florida), ISSN 0749-0208.

Improving marine resource management and governance requires marrying science and socio-economics, which is key to the development of the Blue Economy. For sustainable growth of the Blue Economy (Blue Growth) to occur, there needs to be robust scientific information on the marine environment, detailed knowledge of activities occurring within ocean space, and comprehensive understanding of environmental impacts. To ensure Blue Growth is sustainable into the future, information is also needed on how the marine environment, activities and impacts may change with time, and at relevant spatial scales. ATLAS, a trans-Atlantic assessment and deep-water ecosystem-based EU H2020 Project, has undertaken pioneering research to understand the environmental status of the North Atlantic deep sea, and the interaction between Blue Growth scenarios and the marine environment. ATLAS research into North Atlantic Ocean circulation, species and habitat connectivity shows that the North Atlantic is changing, which will impact Blue Growth. As marine industries move progressively offshore, ATLAS work on defining elements of Good Environmental Status for deep-water ecosystems will improve the understanding of Blue Growth interactions with the deep-sea. Potential trade-offs to maintain ecosystem services at a sea-basin scale have also been explored through a selection of 12 ATLAS case studies. ATLAS interactions with industry have highlighted opportunities and challenges for Blue Economy sectors, particularly in the context of marine spatial planning. Through interviews, questionnaires and workshops, ATLAS has discussed key scientific findings and Blue Growth scenarios with 10 major Blue Economy sectors and many supporting sectors. This work illustrates the complexities of Blue Growth in the North Atlantic, including spatial needs, synergies and conflicts, and data sharing opportunities. ATLAS-industry dialogue also highlights differences in Blue Economy sectoral expectations, and levels of understanding relating to new policy instruments.

ADDITIONAL INDEX WORDS: *Blue Growth, Blue Economy, North Atlantic, marine spatial planning*

INTRODUCTION

The Blue Economy concept can be summarized as the sustainable use of ocean resources for economic growth, improved livelihoods and ocean ecosystem health. Sustainable use implies balancing the need for resource exploitation with resource conservation and addressing any trade-offs that may be required, which can be a real challenge in busy ocean regions.

If managed sustainably, the Blue Economy offers the potential to contribute towards multiple United Nations Sustainable Development Goals (SDGs) (UN, 2015), the most pertinent being SDG 14: Life Below Water (World Bank and UNDECA, 2017). Sustainable bioeconomy sectors (fisheries, aquaculture and biotechnology) could also contribute towards SDG 2: Zero Hunger (Day, *et al.*, 2016), whilst marine renewables (offshore wind, tidal and wave energy) could support SDG 7: Affordable and Clean Energy. The contribution of the global Blue Economy could surpass $3 trillion by 2030 (OECD, 2016), providing more than 40 million jobs worldwide and so contributing to SDG 8: Decent Work and Economic Growth. However, supporting sustainable growth of the Blue Economy (Blue Growth) presents multiple challenges and requires detailed knowledge of the marine environment and multiple ocean uses in an area.

The North Atlantic is a particularly busy region for the Blue Economy, with multiple sectors seeking space and resources for their activities. Greater connectivity between science and industry is being actively fostered through several ongoing and newly-established multi-year projects, such as AORA (AORA, 2019) and iAtlantic (iAtlantic, 2019). New financing options are also available for sustainable ocean projects, through initiatives such as the Blue Sustainable Ocean Strategy by the European Investment Bank (EIB) (EIB, 2019). Several important political milestones occurred in 2019 to help progress towards international commitments regarding the ocean, including a regional workshop to facilitate the description of Ecologically or Biologically Significant Marine Areas in the North-East Atlantic (CBD, 2019) and two sessions of the Intergovernmental Conference on an international legally binding instrument (ILBI) under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond nation jurisdiction (BBNJ) (UN,

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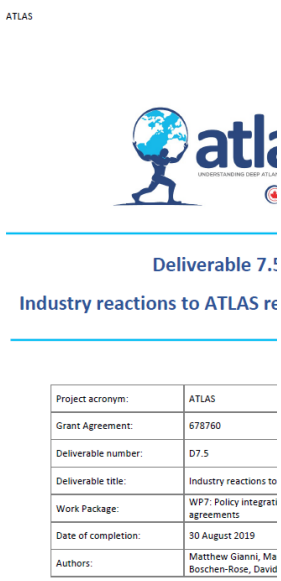
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Conference on an international legally binding instrument (ILBI) under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond nation jurisdiction (BBNJ) (UN,

Blue Growth sectors

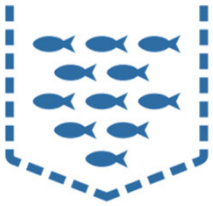
The expanding but sustainable use of ocean resources for economic growth, improved livelihoods and ocean ecosystem health

Fisheries

Shipping/Cargo

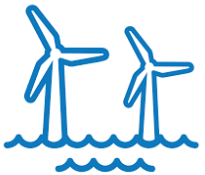
Mining

Oil & Gas



Aquaculture

Tourism (Cruise, whale watching)



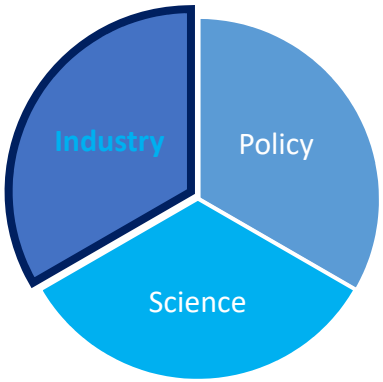
Marine renewables

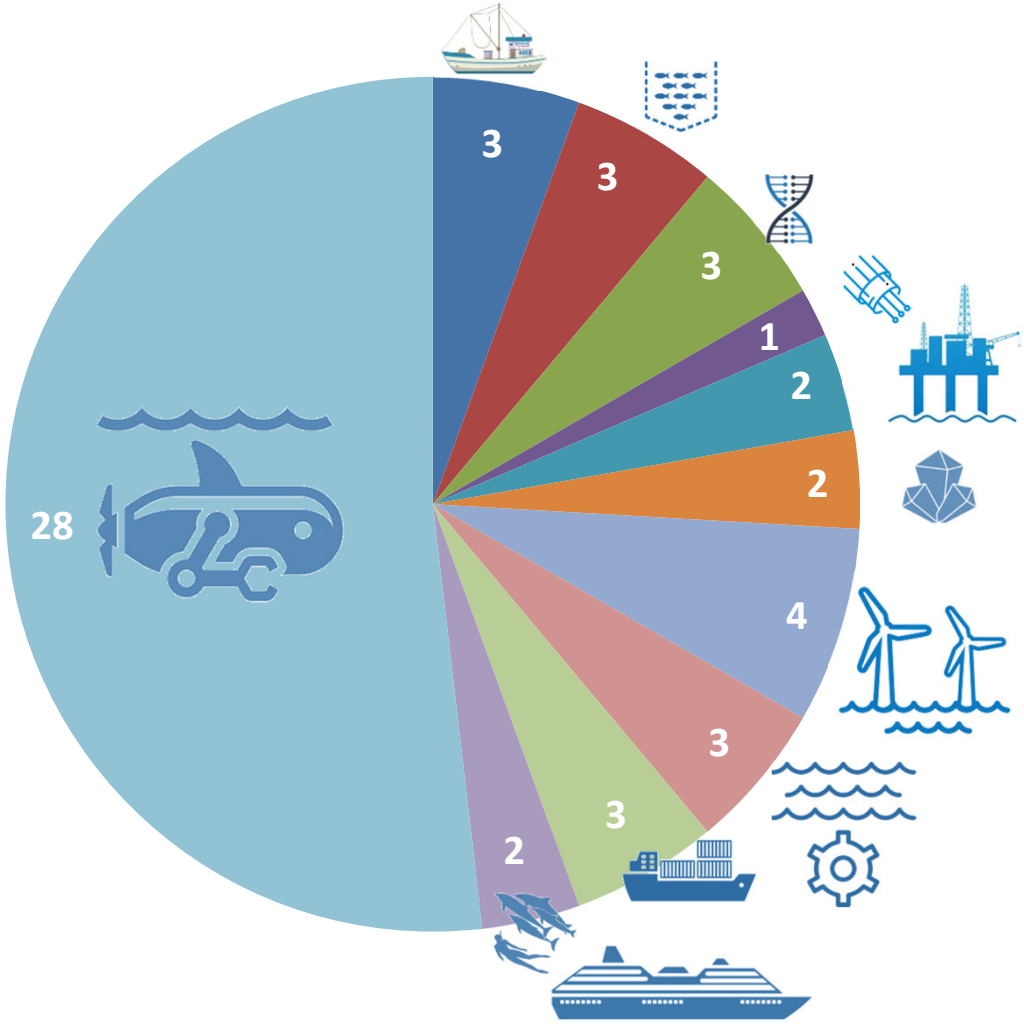
Biotechnology

Cross-cutting
(Underwater Tech., Big data, Automation)

Cables

Engaging with Industry (Feb-Jul 2019)





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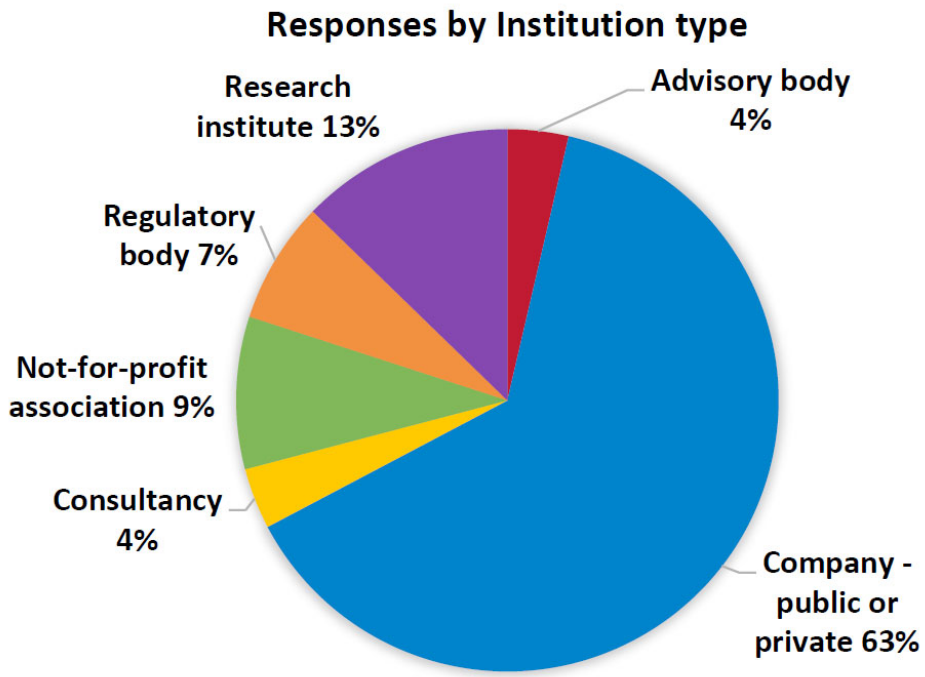
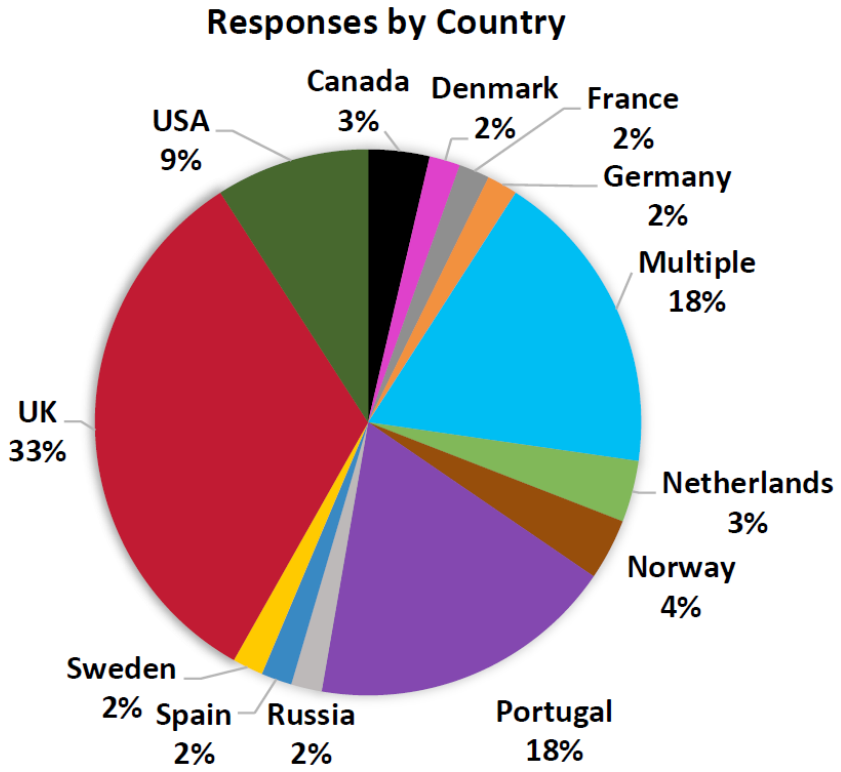
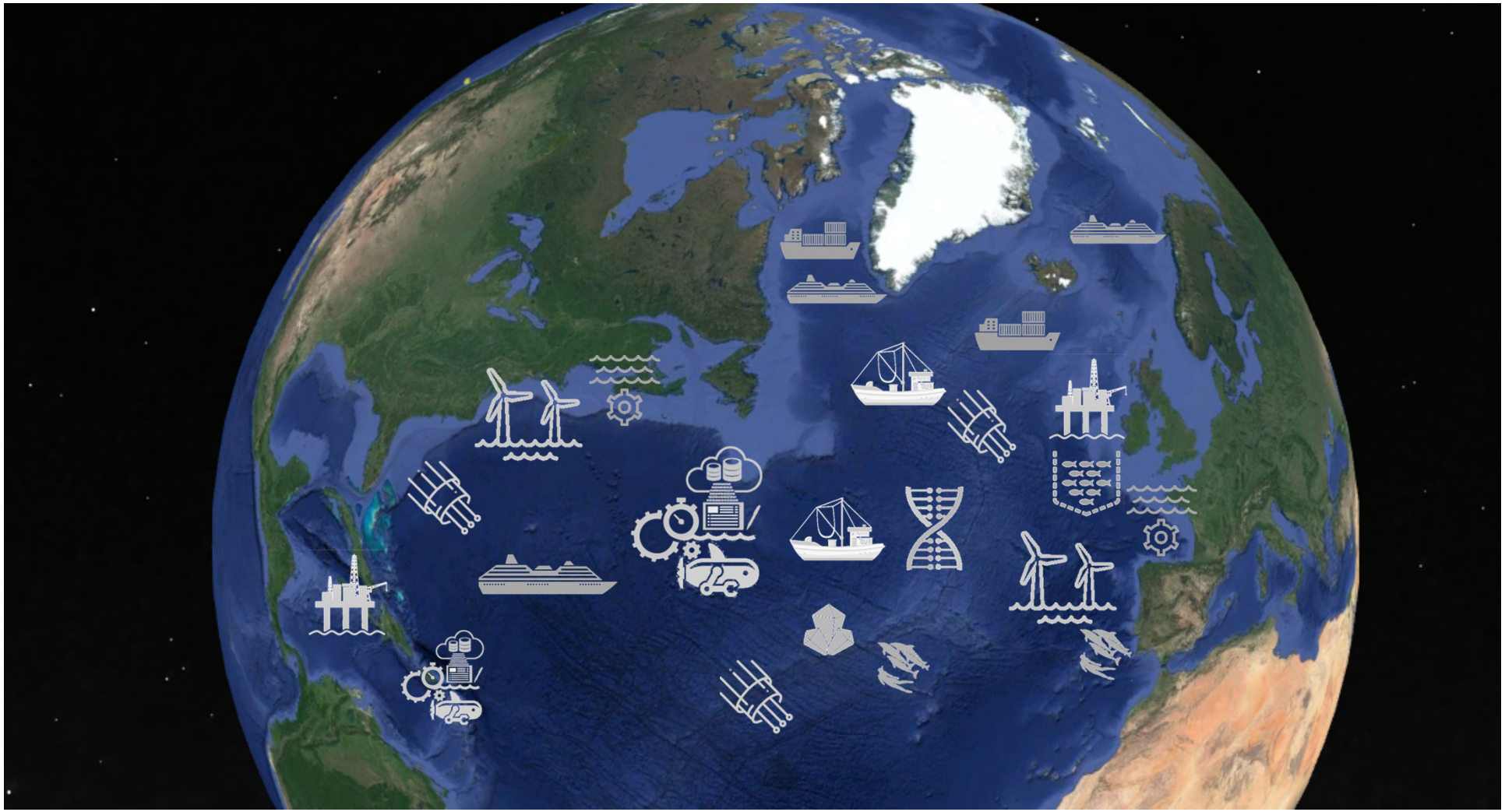




N ATLANTIC: BG PROSPECTS

Expected to expand across all sectors in the next decade



N ATLANTIC: BG OPPORTUNITIES

- Growing demand for resources

- Geopolitical considerations

- New and cheaper technologies

- Cleaner technologies

- Global SDG progress

N ATLANTIC: BG CHALLENGES

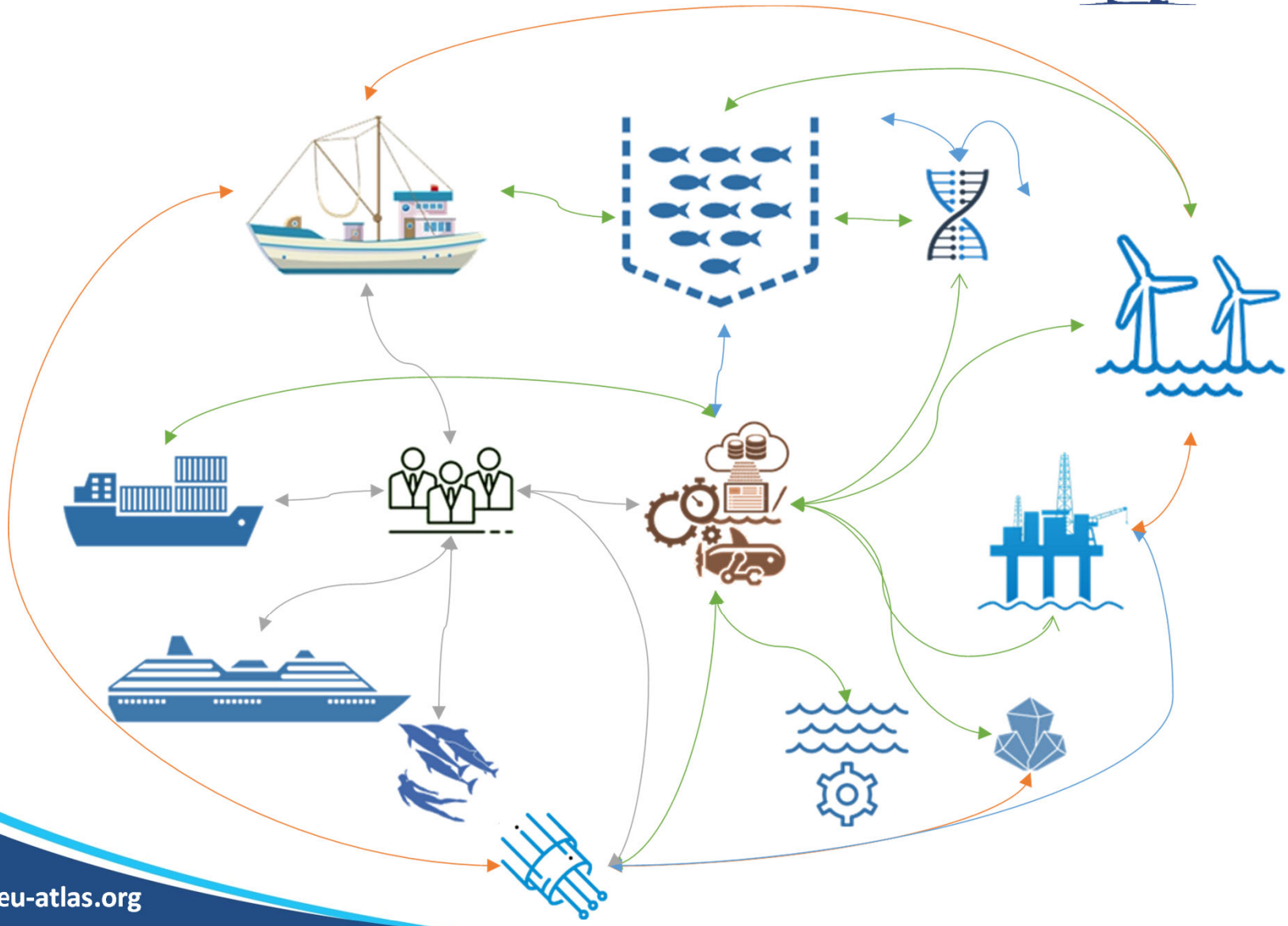
- Harsh ocean environment

- High costs of technology development

- Regulatory uncertainty

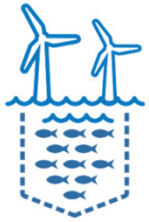
- Science and technology
  - 2021-2030 UN Decade of Ocean Science for SD

COLLABORATION & COORDINATION

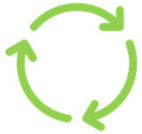


COLLABORATION & COORDINATION

- Commercial arrangements



- Shared infrastructure



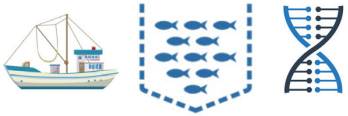
- “Circular economy” initiatives

- New financing initiatives

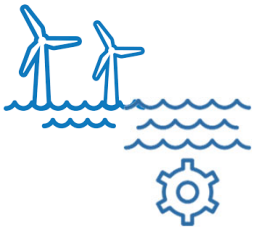
CLIMATE CHANGE AND BG

Multiplying effect for the challenges and the opportunities for sustainable BG

- Effectiveness of existing MPAs could be threatened by CC



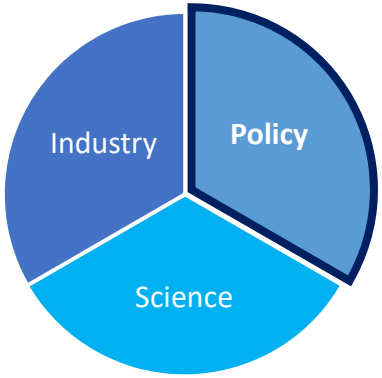
- Direct impact on several marine sectors

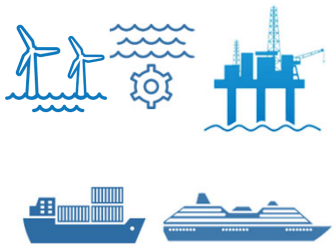


- Economic driver

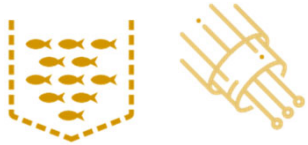
- New opportunities for shipping and tourism

POLICY NEEDS – ILBI for BBNJ





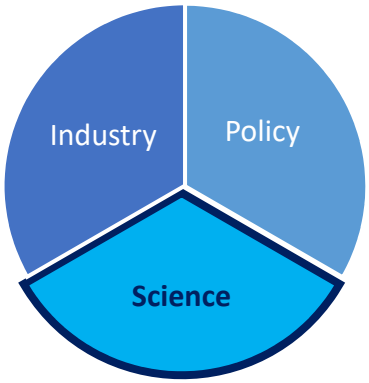
- May not *directly* influence business plans for some Blue Economy actors in N Atlantic



- Possible *indirect* impacts

- Potential opportunities

RESEARCH NEEDS



- Knowledge
- Coordination and collaboration
- Environmental Impact Assessments
- Monitoring
- Climate change adaptation strategies

ATLAS contribution to BG research needs

- Increasing basin scale scientific knowledge, to inform policy and management.
- Scientific knowledge base can inform development of international policies to ensure deep-sea Atlantic resources are managed effectively.
- Contribution to EC's long-term BG strategy
- Key role in supporting MSP for effective use of marine space and enhanced collaboration/reduced conflict between BG sectors.
- Basin-scale resolution of environmental data collected by **ATLAS** may not provide the information needed for specific decisions on infrastructure placement (site scale).
- Important insight into environmental considerations/challenges that will need to be assessed in the move to deeper waters.
    - Scientific findings at the basin scale (currents, circulation, habitat suitability and biogeography), are important in the context of the REMP for the northern Mid-Atlantic Ridge being developed by the ISA for polymetallic sulphide mining activities.

Acknowledgements

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Thank You

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