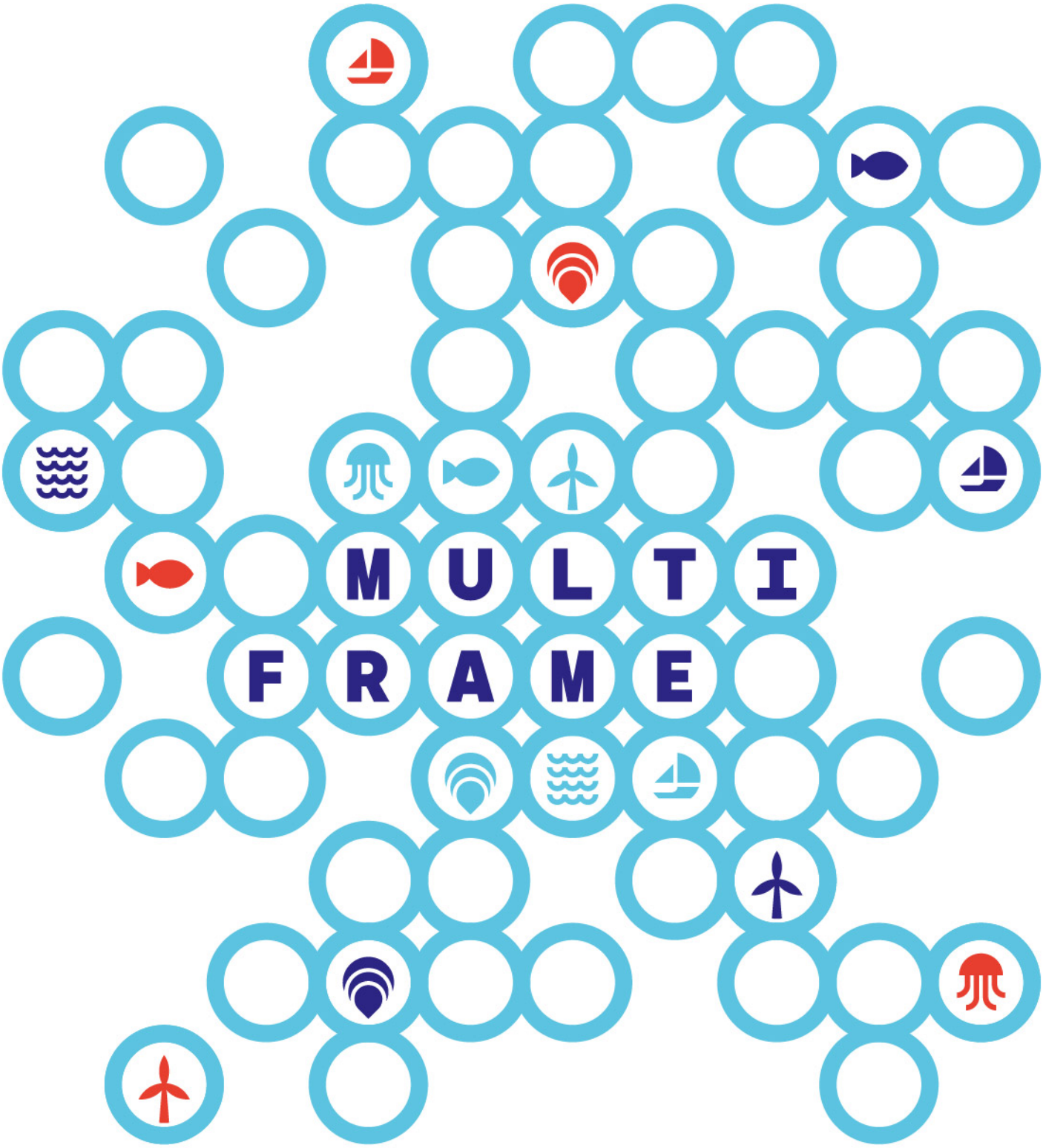

MULTI-USE CASE STUDY: United States Scenario 1

Offshore Wind and Recreational Fishing

RESULTS OVERVIEW BRIEF

This case study emphasizes the potential for multi-use between offshore wind energy and tourism (recreational fishing). Multi-use is already successfully occurring in near-shore offshore wind demonstration projects. Multi-use in the case study area provides the opportunity to design OWE projects with the broader ecosystem in mind, ensures early involvement of the recreational fishing sector in the decision-making process, and requires advanced research and monitoring efforts to enhance biodiversity and effectively measure net-zero impact goals.

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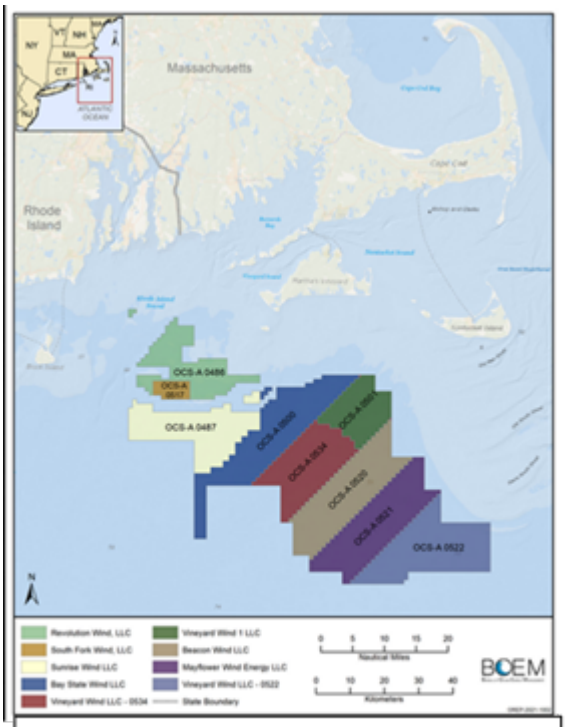
Introduction to the United States: Scenario 1 Case Study

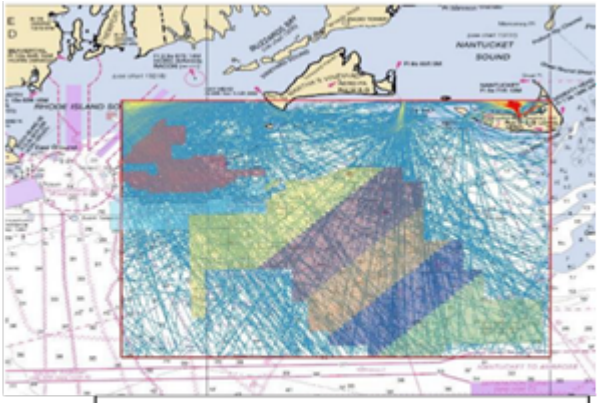
Location and main characteristics



BOEM lease blocks off Rhode Island and Massachusetts (2018). Bay State Wind in dark blue.

Off the coast of Rhode Island and Massachusetts is a swath of ocean that contains more than 8 offshore wind energy lease blocks from 25 miles (40 km) off the southern mainland coast of Massachusetts to 84 miles east of Montauk Point (NY). These lease blocks have been purchased by international companies including Orsted, Vineyard Wind, Eversource, Equinor, Avangrid, and others in response to the Biden Administration's priority to respond to the climate emergency and, more specifically, the northeast states' demand for clean energy and blue economy investment. Energy produced by the proposed 500+ turbines within these lease blocks is being procured by Massachusetts, Rhode Island, Connecticut, and New York. By 2030 this development would potentially provide clean energy to more than 3 million households.

These lease blocks are in waters that are recognized for its rich, environmentally sensitive marine ecosystem and abundance of natural resources. Recreational boating is one of the most popular uses within state and federal waters, attracting recreational fishermen to recreational fish and increasingly to engage in fishing tournaments. Recreational fishing (which includes recreational fishing aboard private boats and party and charter boats) is one of the most popular recreational boating activities in state and federal waters. In additional to recreational boating and fishing, this area is used extensively by other blue economy sectors including defense, maritime transportation, and other recreational activities (e.g. diving).



Recreational Boating (USCG 2020)

Key drivers/rational for multi-use

According to both resource users, the development of offshore wind energy (OWE) is a needed step to combat climate change. It is also viewed as an opportunity to enhance positive biodiversity impacts, potentially leverage other industries, and provide coastal communities with jobs. With the growth of offshore wind energy there is a commitment from many offshore wind energy developers towards net positive as a strategy to mitigate potential environmental impacts from development and to proactively contribute to enhancing the productivity and biodiversity of the natural environment. While some developers have established formal goals to protect and, in some cases, enhance biodiversity, others are seeking opportunities towards restoration of the broader natural environment. During an initial June 2022 workshop, subsequent interviews, and a January 2023 workshop, group members expressed desire to create forums and opportunities through which they and other ocean and coastal resources users could more directly and consistently engage with these developers on shared, multi-use planning that could benefit both the natural and cultural environments, inclusion and access, and the economy. As such, group members, including developer representatives, participating in this action will work collaboratively to communicate this concept to a broader audience, with a special emphasis placed on envisioning how such approaches can be measured, standardized, and replicated.

Multi-use scenario

Description of the MU development scenario: Offshore Wind and Recreational Fishing

A productive relationship between offshore wind and recreational fishing is already taking place at the Block Island Wind Farm (BIWF), located off the coast of Rhode Island and not in this Case Study. Most recreational anglers who fish within the BIWF have experienced how the OWE platforms serve as artificial reefs, aggregating species commonly targeted by recreational anglers. The OWE developer and the US Coast Guard do not limit access to these sites unless maintenance requires the establishment of a temporary safety zone around the turbines. This BIWF experience can be a starting place for achieving multi use within the larger lease blocks identified in this case study. While both resource users believe that these uses could function at the same time in the same location within this larger case study area, sharing services and core infrastructure would not necessarily be realistic. There are, however, other mechanisms that would enhance trust and collaboration which could contribute to enhanced learning and communication amongst the 2 sectors – a steppingstone towards multi use. Specifically, for this scenario anglers would envision decision-making being based on the best available science and adequate monitoring and considerate of diverse stakeholder needs – specifically that the recreational anglers thoroughly be integrated into the offshore wind decision-making process - to ensure sustainable fisheries and healthy marine ecosystems. Many anglers go as far as stating that co-existence will depend on the commitment to balance the pace of development with the pace of the research and peer review process, coupled with meaningful stakeholder engagement throughout. Anglers and OWE developers both agree that symbiotic use of this area would be enhanced by proactively committing to building a sense of community and ocean stewardship through the investment of a comprehensive communication and outreach strategy that shares and improves stakeholder involvement and understanding of ongoing research and findings. This scenario also includes the implementation of OWE developers taking actions to enhance their artificial reef abilities as well as maintain and/or increase their biodiversity footprint within the lease block is seen as a good will intent to enhance this synergy, increase biodiversity, and bolster the recreational fishing and tourism experience. Many developers are already working to achieve this. With recreational anglers supporting OWE, the OWE will gain a strong and influential constituent for this new blue economy sector.

Key actors

For this Scenario, key actors include the private sector, research institutions, and government.

Tourism (recreational fishing) Representatives: Rhode Island Saltwater Anglers Association (RISSA), American Salt Water Guides Association, National Association of Charter Boat Operators.

Offshore Wind Energy: Orsted, Vineyard Wind, Eversource, Equinor, Avangrid; Responsible Offshore Science Alliance (ROSA).

Government: National Oceanic and Atmospheric Administration (NOAA) Fisheries; Massachusetts Department of Fisheries Management; Rhode Island Department of Environmental Management; Massachusetts Office of Coastal Zone Management; Rhode Island Coastal Resources Management Council

Supporting Organizations: Northeast Regional Ocean Council; Regional Wildlife Society; The Nature Conservancy (TNC)

The relationships of these above actors are demonstrated below by degree of trust. Low trust indicates that there is often conflict or a lack of willingness to cooperate; medium trust is associated with a neutral relationship, these entities may work together but there may be some tensions in this collaboration; a high level of trust indicates that these actors work together often and work well together (view Table 1 below).

	Developer	Recreational Fishing	Commercial Fishing	State Government	Federal Government	Support organizations
Developer						
Recreational Fishing						
Commercial Fishing						
State Government						
Federal Government						
Supporting Organizations						

Low	
Medium	
High	

Risks, constraints, and opportunities for multi-use development

> **Multi-Use Vision**
>
> By employing adaptive management strategies that reflect sound science and scalability, the Northeast will establish a rich learning exchange and dialogue that fosters synergistic management of recreational fishing and offshore wind that strives towards creating and implementing no-harm/net-positive opportunity and productivity for the environment and society.

One major barrier to multi-use implementation is that the US regulatory process does not require or even encourage multi-use strategies and most of the time, the government does not have the authority or the processes to strive for multi-use in ocean development. Often multi-use conversations between OWE developers and recreational anglers rely on good-will intent when implementing solutions. In addition, it is likely that most of the Case Study area and future offshore wind projects will be far enough offshore that many anglers will choose not to travel that far to fish. While relationships between actors are generally positive, there is some distrust as a result of a lack of transparency in the planning of previous projects and perceived ecological costs associated with turbine and cable installation. With multi-use as a priority, the decision-making process may encourage collaboration and implementation of innovative solutions, especially when it comes to mitigating environmental risk/costs. Risks resulting from this scenario are minimal but without more science, the potential for overfishing of recreationally targeted species and the overall biodiversity enhancement are unknown. Specific opportunities that may result from multi-use between recreational fishing and offshore wind are:

- Establishment of cooperative research, monitoring, and decision-making opportunities towards understanding and minimizing habitat change and maintain the vibrancy and balance of a healthy ecosystem.
- The authentic and relevant engagement of diverse communities that results in a broader, represented informed constituency and ensures that the expertise, innovation, and creativity of historically disadvantaged communities and others contributes to more holistic and benefit from the implementation of sustainable solution-based decision-making.
- Physical access and economic opportunity development and training (e.g., tourism opportunities) leads to a diverse community enjoying (e.g., recreational), thriving (e.g., food source), and economically (e.g., charter boat fishers) benefiting from a healthy coast and ocean.

Policy/ legal/ regulatory

The regulatory process is compartmentalized by agency purpose and jurisdiction and as a result, the current governance system cannot require multi-use approaches to planning and development.

RISK – Lack of any incentives to site and/or construct infrastructure so that multi use can be enhanced.

CONSTRAINT – If co-existence is not a priority at the initial phases of development, then it is harder to achieve.

OPPORTUNITY - By planning for multi-use at the initial phases of offshore wind energy planning, more stakeholders will support this ocean use. Development will be more equitable and face fewer litigation challenges.

Environment

OWE developers are committing to enhancing biodiversity and ensuring a net-positive impact in response to the potential effects that construction and operation may have on natural environment. However, recreational anglers feel that they are only receiving passive benefits of offshore wind construction (potential increased catch from the reef effect, which is currently naturally occurring and not intentional design) and that there is not enough data to accurately determine true, long-term costs and benefits.

RISK – While biodiversity may be enhanced, there is not enough data to understand what the actual impacts are/will be. Therefore, recreational anglers do not feel like they are getting benefits and they are fearful that a lack of data may result in the overfishing to recreationally targeted species.

CONSTRAINT – There are no acceptable methods to measure or monitor this biodiversity change. Recreational anglers want more power in the distribution of costs and benefits.

OPPORTUNITY – Investment in restoration and or enhancement of the natural environment – not necessary within the specific lease block – could result in ocean and coastal habitat enhancement. Increased fish monitoring could bolster successful fisheries management for the future.

Economics

The aggregation or increased population of recreationally targeted fish in the area around offshore wind turbines offer a reliable fishing trip option for recreational anglers and charter businesses. They may also provide opportunities for new fishing tournaments.

RISK – There are no economic risks in this scenario.

CONSTRAINT – Reducing the biodiversity of the region will have local and global environmental and economic implications on endangered species and other blue economy sectors. The distance from shore might reduce the number of angers participating in this multi-use.

OPPORTUNITY – The turbines are “safe bets” when it comes to having a successful fishing trip. Therefore, they can ensure that captains can meet charter guests’ catch expectations and offer a sightseeing experience if the fish are not biting.

Social

Fishing near the turbines contributes to curiosity and an interest in how OWE impacts the local ecosystem and potentially the role OWE place in responding to the climate emergency.

RISK – Misinformation to angler groups about the effects of OWE on fish and the natural environment may contribute to poor decision making.

CONSTRAINT – Limited targeted information about this topic is being related to this stakeholder group.

OPPORTUNITY – An informed recreational angler community can effectively contribute to informed decision making.

Solutions and actions

In a January 2023 workshop, recreational anglers, state and federal regulators, environmental organization representatives and others met to discuss and establish the potential for multi-use in the Northeast, specifically solutions and actions for the successful implementation of the multi-use scenario of working together towards net-zero biodiversity impact. The group identified a comprehensive goal to ensure that this scenario is achieved sustainably and equitably.

Scenario 1 Goal - Establish a vibrant multi-use framework for the synergistic management of recreational fishing and offshore wind that strives towards creating and implementing no-harm/net-positive opportunity and productivity for the environment and society. By employing adaptive management strategies that reflect sound science and scalability, this framework encourages rich learning exchange and dialogue that responds to the economic, environmental, and social needs and goals for a broad and diverse coastal constituency, including historically marginalized groups. Ensuring such recognition and procedural equity is achieved, this framework prioritizes establishing and strengthening diverse participation in decision-making for ocean resources, while also supporting resource access, including both physical and financial support to historically marginalized groups.

The below table summarizes the long-term outcomes prioritized by the workshop participants and the early actions they identified to ensure achievement of these outcomes. Each action pertains to the desired outcomes as a whole.

Table 1. Overview table:

Solution/Action	Key action and responsible actor	Level of urgency
Policy: Ensure the saltwater anglers authentically engage in integrating their local knowledge of the ecosystem during initial OWE siting discussions and throughout the process.	Government insist that anglers have authentic engagement in the process, which will result in avoiding impacts and identifying synergistic solutions.	🔴
Environment: Research and monitoring not only enhances the understanding of recreational use within the lease block areas, but results are used to adapt operations and maintenance.	Government/Congress revises permitting process so that adaptive management (e.g., research and monitoring results can alter O&M activity.	🔴
Economics: Physical access and economic opportunity development and training (e.g., tourism opportunities) leads to a diverse community enjoying (e.g., recreational), thriving (e.g., food source), and economically (e.g., charter boat fishers) benefiting from a healthy coast and ocean.	Rhode Island Saltwater Anglers (RISAA) establishes a recreational fishing mentoring program that offers opportunities for Rhode Island youth to both learn about the enjoyment of recreational fishing and offers training on engaging in the charter and party boat tourism industry.	🟡
Social: Build the capacity and understanding of the saltwater anglers about MU and climate change so they may serve as informed advocates for sound decision-making	URI and OWE developers partner with the Rhode Island Saltwater Anglers to engage in citizen science and cooperative research to secure a shared learning and identify/implement MU solutions	🟡

Legend:

High urgency	🔴
Medium urgency	🟡
Low urgency	🟢

Support mechanisms and enabling conditions

While through the project, this scenario has bolstered its abilities towards achieving the enabling conditions necessary to respond the issues described in this scenario. Through this process a better understanding of what multi use is and many of the trade, academic and environmental organizations are taking action to engage in the conversation about multi use and move it forward. In addition, multi-use solutions are being discussed and some funding organizations, including Sea Grant and the Northeast Fisheries Science Center, among others, are funding programs towards co-existence. These actions demonstrate, that while not mature, the commitment and constituencies are building. Concerning commitment, additional funds and innovation must be invested in finding these solutions, as well the political will to achieve them. There are goals to minimize and mitigate impact from the OWE on the environment and co-existence solutions are a means to minimize this impact. Co-existence goals should be more defined and the engagement of the recreational fishing industry in these conversations needs to be authentic and transparent. With additional funds and opportunity, the capacity will grow.

Viability of the scenario: Net-zero biodiversity impacts is a priority of recreational anglers and a goal of offshore wind developers. As a result, synergistic and collaborative conversations are already happening, and many groups have committed to expanding research and monitoring initiatives to explore uncertainties and mitigate negative impacts.

Final remarks

Society is faced with the need to accelerate its sustainable response to local and global concerns about climate change, clean energy, food security, and biodiversity. For the recreational fishing and the offshore wind industries, multi-use strategies are considered an important method to ensuring the health and sustainability of our ocean ecosystems. Achieving a net-zero impact cannot be just the responsibility of the anglers or the wind industry representatives. These solutions will require expertise and will from politicians, regulators, researchers, and civic organizations. It will require everyone to listen to each other, to compromise, and to recognize the need to work together towards a more sustainable and equitable future for our communities and our coasts and oceans.

Imprint

Title: MULTI-USE CASE STUDY: United States Scenario 1-Offshore Wind and Recreational Fishing

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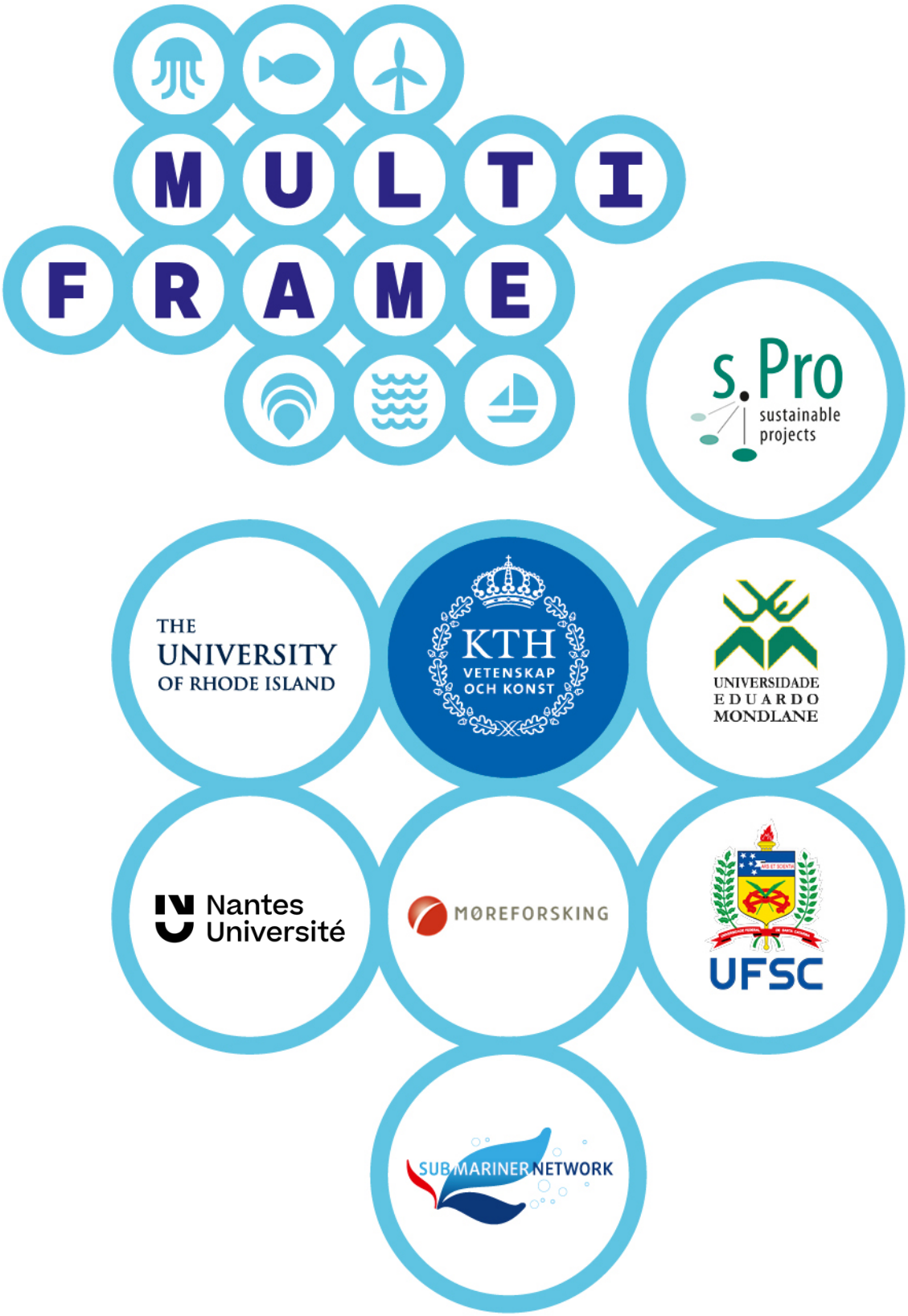
DOI 10.5281/zenodo.8162919

Date published: July 2023 @MULTI-FRAME project.

Funded by the National Science Fund (NSF) and the Bureau of Ocean Energy Management (BOEM); FAIN: 2022355. This research has been done as part of the Multi-Frame project – Assessment Framework for successful development of viable ocean multi-use systems.



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