MULTI FRAME

Developing Synergies Between Offshore Wind Energy and the Fishing Community

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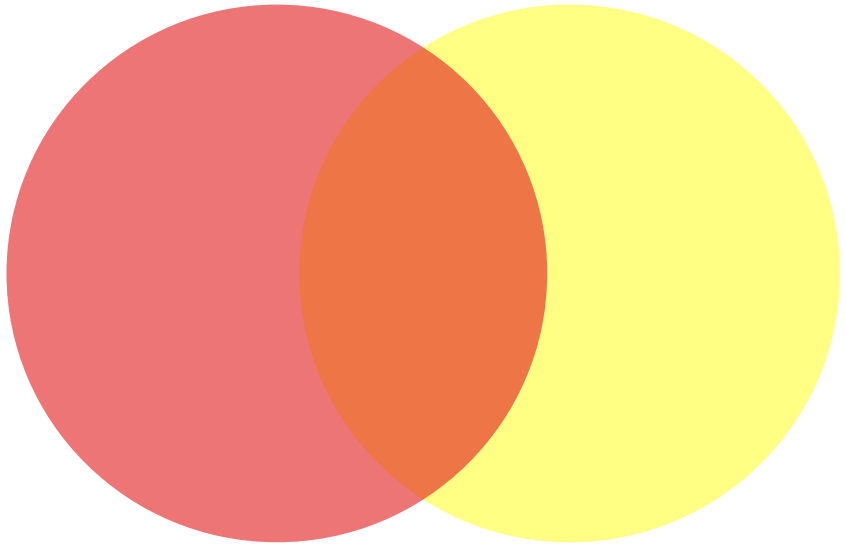
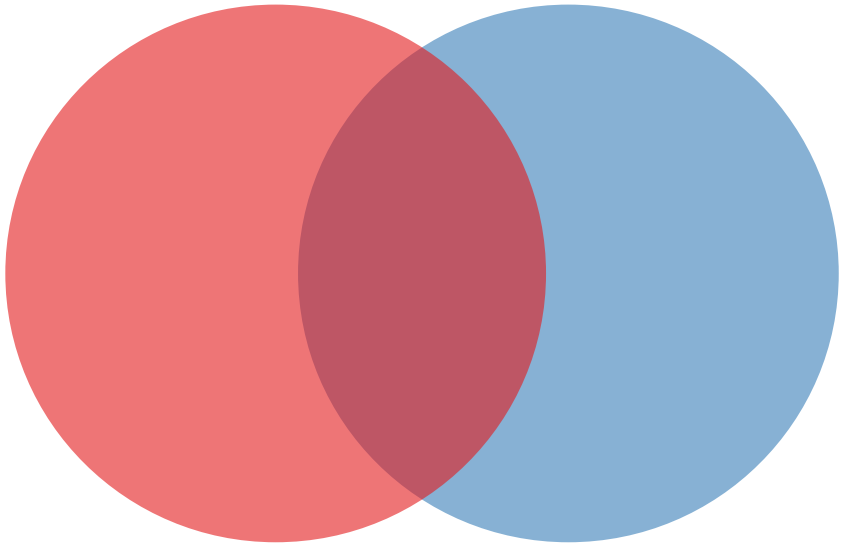
MULTI-USE SCENARIOS THE USA

USA - SHORT TERM



USA - LONG TERM

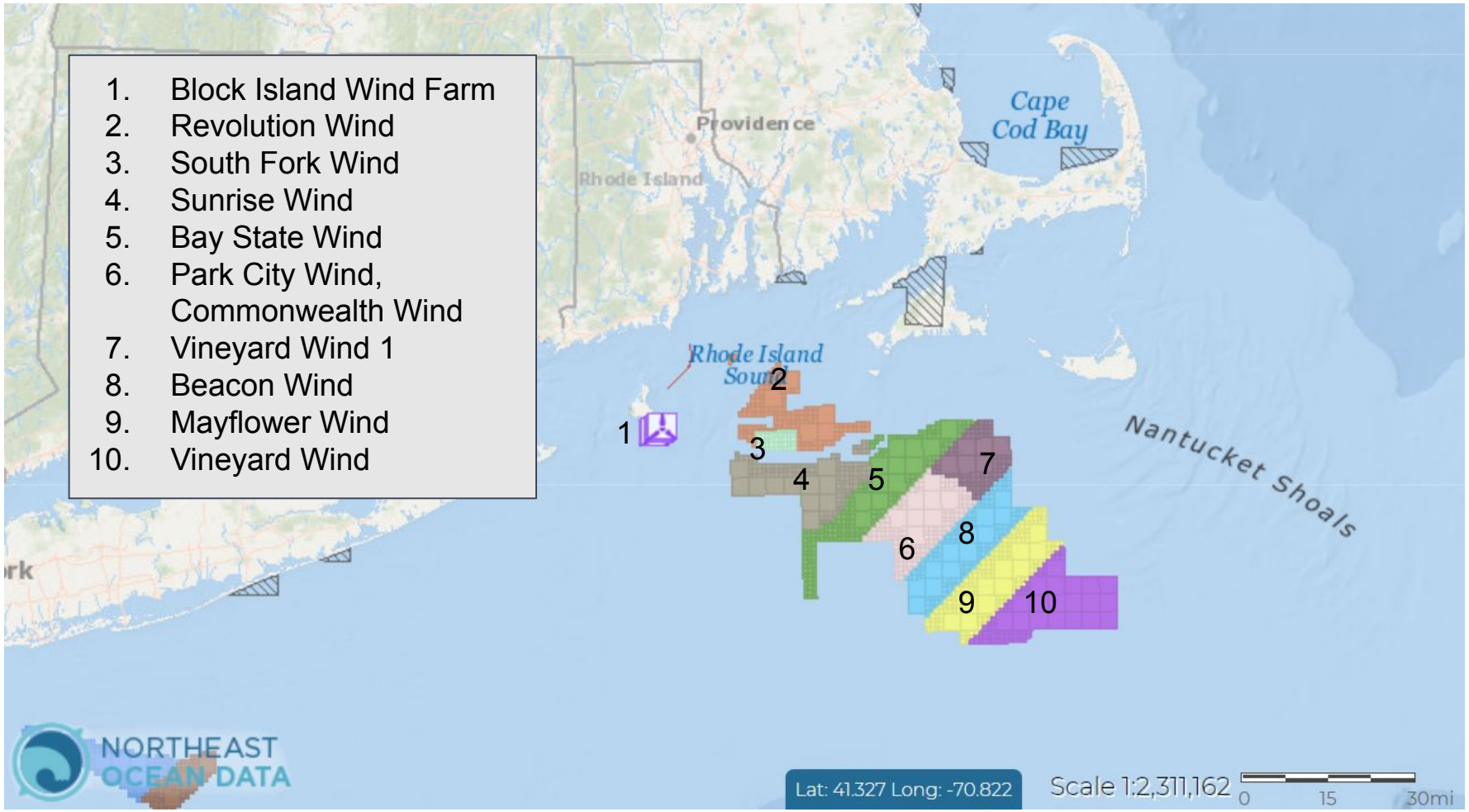


Tourism

Offshore wind

Fishing

US Short and Long Term Case Study Area



Scenario 1: Tourism and Offshore Wind: Background Information

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. As such, Scenario 1 will focus on Recreational Fishing and Offshore Wind in the Southern New England Offshore Wind Lease Area.

- There are approx. 240 Charter and Party boats registered to operate out of Rhode Island alone.
- Recreational fishermen target a variety of species including striped bass, bluefish, summer flounder, tautog, black sea bass and large pelagic fish.
- According to Rhode Island's OceanSAMP, it is estimated that during 1999-2008, an average of nearly 385,000 people participated in recreational ocean fishing in RI each year (including state and federal waters). This number is expected to have grown significantly since then.

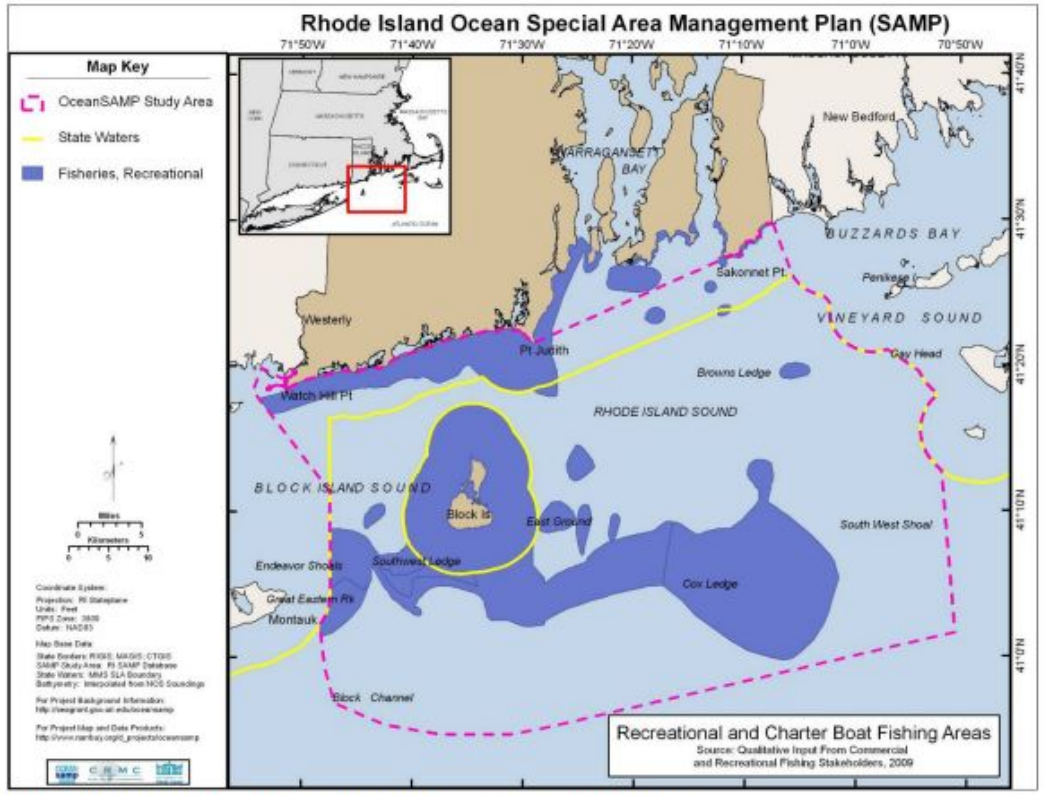


Figure 5.35. Recreational and charter boat fishing areas based on qualitative input.

Scenario 1: Tourism and Offshore Wind: MU Overview

According to both users, offshore wind is a needed step to fight climate change. A productive relationship between offshore wind and recreational fishing already exists at the Block Island Wind Farm (BIWF) where fishermen have been experiencing increased fishing success in the areas around each turbine due to the reef effect. In general, fishermen have fears of the uncertainties surrounding offshore wind but they are excited for the potential positive impacts on the recreational fishery (reef effect). The theme of proceeding with offshore wind energy development with “good-will intent” came up frequently.

Scenario 1: Tourism and Offshore Wind

Risks

- OWE development will impact the long-term fish monitoring and ocean data collection from government sources (EN).
- Increased pressure in one area may have unknown negative impacts on fishery.
- As offshore wind energy production increases, the number of subsea cables will proliferate along with associated electromagnetic field (EMF) emissions, which may significantly impact the behavior and maturation of many fish species (EN and T).
- In response to the global climate emergency, the Biden Administration has set aggressive OWE goals (30GW by 2030), which is not allowing the time for thoughtful discussion and effective compromise to take place (P).

Constraints

- While OWE developers are establishing goals towards enhanced biodiversity (net-zero impact), measuring enhanced biodiversity has not been developed and enhancing biodiversity within lease blocks will alter the local habitat and ecosystem. This alteration may remove critical habitat for some species (e.g., scallops) as uniformity in habitat takes place (EN).
- The regulatory process does not require multi use strategies and most of the time the government does not have the authority or the processes to strive for multi-use (P).
- The Southern New England Offshore Wind Lease Block might be beyond the distance traveled by many recreational fishermen. (S)

Opportunities

- Setting a more balanced and diverse “negotiating table” will result in the sustainable use of our oceans and opportunities for existing and future resource users (S and L).
- Data gathered by OWE developers that is shared with other resource users and government entities will contribute to a better understanding of the ocean and the sustainable management and development of our oceans and coasts (S, L and EN).
- Wind turbines as an attraction can offer an alternate revenue stream or can “save the trip” when the fish are not biting
- Greater likelihood of catching fish in an area can increase recreational fishermen satisfaction and increase charter success/opportunity.

Benefits

- Easier to find fishing spot for less experienced fishermen.
- Workforce, Port infrastructure and Blue Economy investment.
- Reef effect

Identified Opportunity for Scenario 1 Solutioning and Next Steps Working Group Session

Net Zero Biodiversity Impacts: How do we measure this?

Scenario 2: Commercial Fishing and Offshore Wind: Background Information

The Southern New England Offshore Wind Lease Area is of significant importance to commercial fishermen who use this area for mobile gear (e.g., squid, herring, whiting, mackerel, butter fish, cod, winter flounder and scallops) and fixed gear (lobster, Jonah crab (traps) and monkfish (gillnets)) activities. The economic value of commercial fishing within these lease block areas is more than $78.8 million and the value of essential fish habitat and spawning grounds significantly increases the economic and cultural importance of this area.

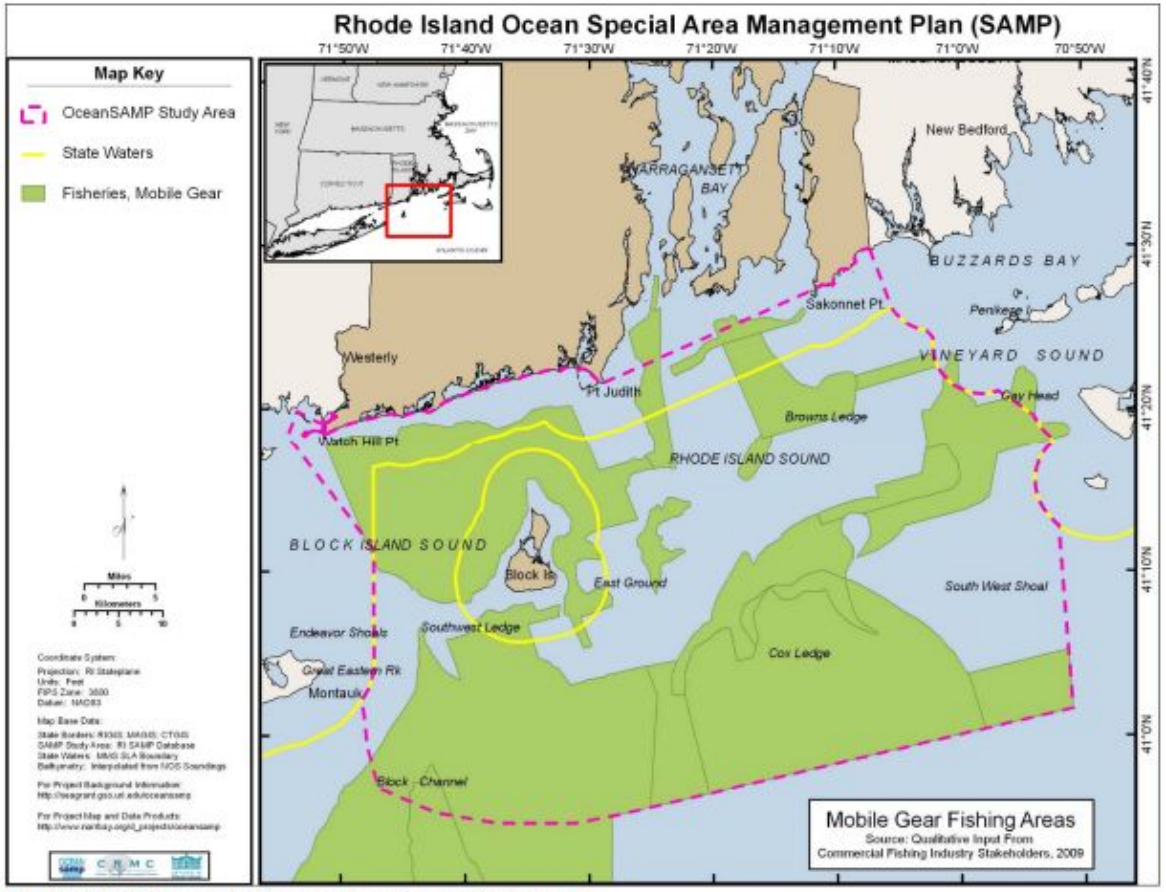


Figure 5.19. Mobile gear fishing areas based on qualitative input.

Scenario 2: Commercial Fishing and Offshore Wind: MU Overview

While both commercial fishermen and offshore wind energy developers recognize the need to find ways to share this ocean area, infrastructure, and workforce during the same timeframe, identifying acceptable solutions has been difficult and often frustrating. Neither sector trusts the other and in fact some from the commercial fishing industry are suing the offshore wind industry. Regulations and guidelines that require and encourage OWE developers to minimize impact on the commercial fishing industry exist, however the demand and desire for OWE by federal and state government and the private sector for economic and environmental reasons are driving the accelerated growth of the OWE industry. Many believe that coexistence is the only option for the commercial fishermen to continue to fish in these areas, recognizing it will likely be at a reduced effort and/or using new gear types. Early and transparent engagement of fishermen in the development process came up frequently as a way to encourage MU from the beginning, ideally siting the offshore wind arrays in less important areas and reducing initial conflict.

Scenario 2: Commercial Fishing and Offshore Wind

Risks

- The thriving and diverse commercial fishing industry supply chain will likely see a decline as commercial fishing activity potentially declines (EC).
- Commercial fishing mitigation will not cover the significant economic and cultural costs and impacts from OWE development (EC, S).
- Traditional port uses including commercial fishing may be pushed out or experience limited space due to the OWE demand for working waterfronts (S).
- As offshore wind energy production increases, the number of subsea cables will proliferate along with associated electromagnetic field (EMF) emissions, which may significantly impact the behavior and maturation of many fish species (EN and T).
- In response to the global climate emergency, the Biden Administration has set aggressive OWE goals (30GW by 2030), which is not allowing the time for thoughtful discussion and effective compromise to take place (P).

Benefits

- Many commercial fishermen are integrating cooperative research and monitoring into their business plans (EC).
- Some commercial fishermen are being hired to act as liaisons between the offshore wind developers and the commercial fishermen.
- Workforce, Port infrastructure and Blue Economy investment.

Constraints

- While OWE developers are establishing goals towards enhanced biodiversity (net-zero impact), measuring enhanced biodiversity has not been developed and enhancing biodiversity within lease blocks will alter the local habitat and ecosystem. This alteration may remove critical habitat for some species (e.g., scallops) as uniformity in habitat takes place (EN).
- The regulatory process does not require multi use strategies and most of the time the government does not have the authority or the processes to strive for multi-use (P).
- OWE development will alter commercial fishing practices as it is very likely that mobile gear fishing will lose these areas to fish due to safety and navigation concerns. Insurance companies will either not cover or will significantly increase fees for commercial fishermen who choose to fish within the lease blocks (S, EC).
- Tensions and conflict between OWE developers and the commercial fishing industry is high and trust is declining, creating an environment that does not encourage collaboration and implementation of innovative solutions (S).
- Commercial fishing industry has taken legal action against the government and OWE industry (L).

Opportunities

- Setting a more balanced and diverse “negotiating table” will result in the sustainable use of our oceans and opportunities for existing and future
- resource users (S and L).
- Investment in both greening the fleet and offering offshore charging at wind farms will enhance economic activity and allow commercial fishing industry more offshore fishing opportunities (EC and EN).
- With OWE developer and government investment, new gear type technologies will allow for commercial fishing industry to respond to the food security issues (EC, T, S).
- Maritime services stimulated by OWE development, such as research and monitoring and crew transport, may assist some commercial fishermen to voluntarily transfer out of commercial fishing and continue to work on the water (EC and S).

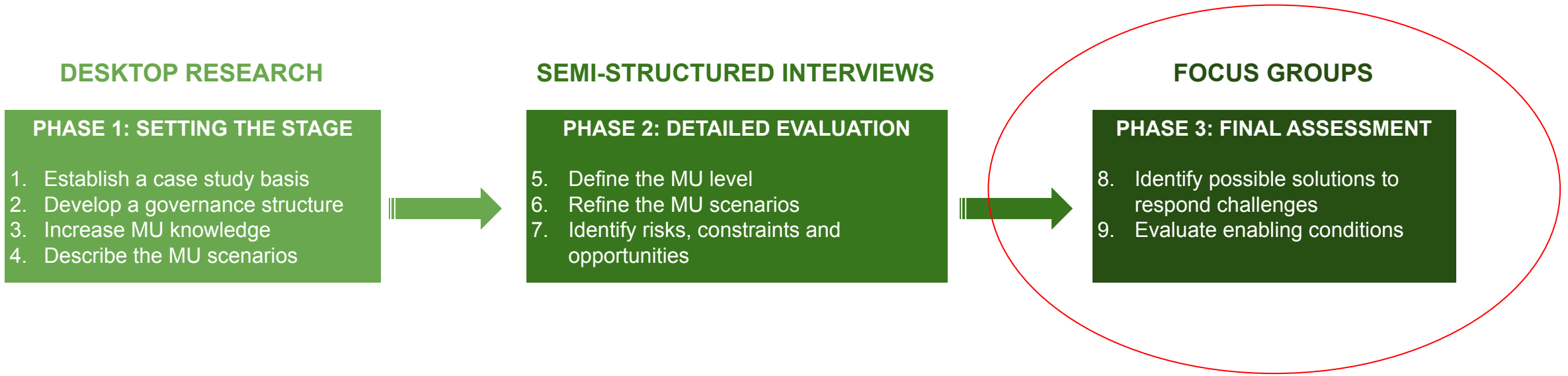
Identified Opportunity for Scenario 2 Solutioning and Next Steps Working Group Session

MultiFrame Panel Process Agenda

Title: *Validating Opportunities and Identifying Next Steps to Implement Synergies Between Offshore Wind and Commercial Fishing*

Purpose: Commercial fishermen are extremely concerned with the potential of losing their livelihood as offshore wind is developed in Southern New England. These concerns are broadly related to uncertainties about the impacts of offshore wind development on fisheries and safety/navigation challenges that may exclude fishermen from fishing in the lease areas. Mechanisms to move coexistence forward, such as gear type innovations and cooperative research are being implemented, however, need to be solidified and more broadly supported by OWE developers, policy makers, environmental managers and other relevant stakeholders.The purpose of this panel is to facilitate holistic conversations amongst a variety of stakeholder and experts in order to validate and expand upon MU solutions/strategies and empower fishermen to take advantage of identified opportunities.

MULTI-FRAME ASSESSMENT FRAMEWORK: US STATUS



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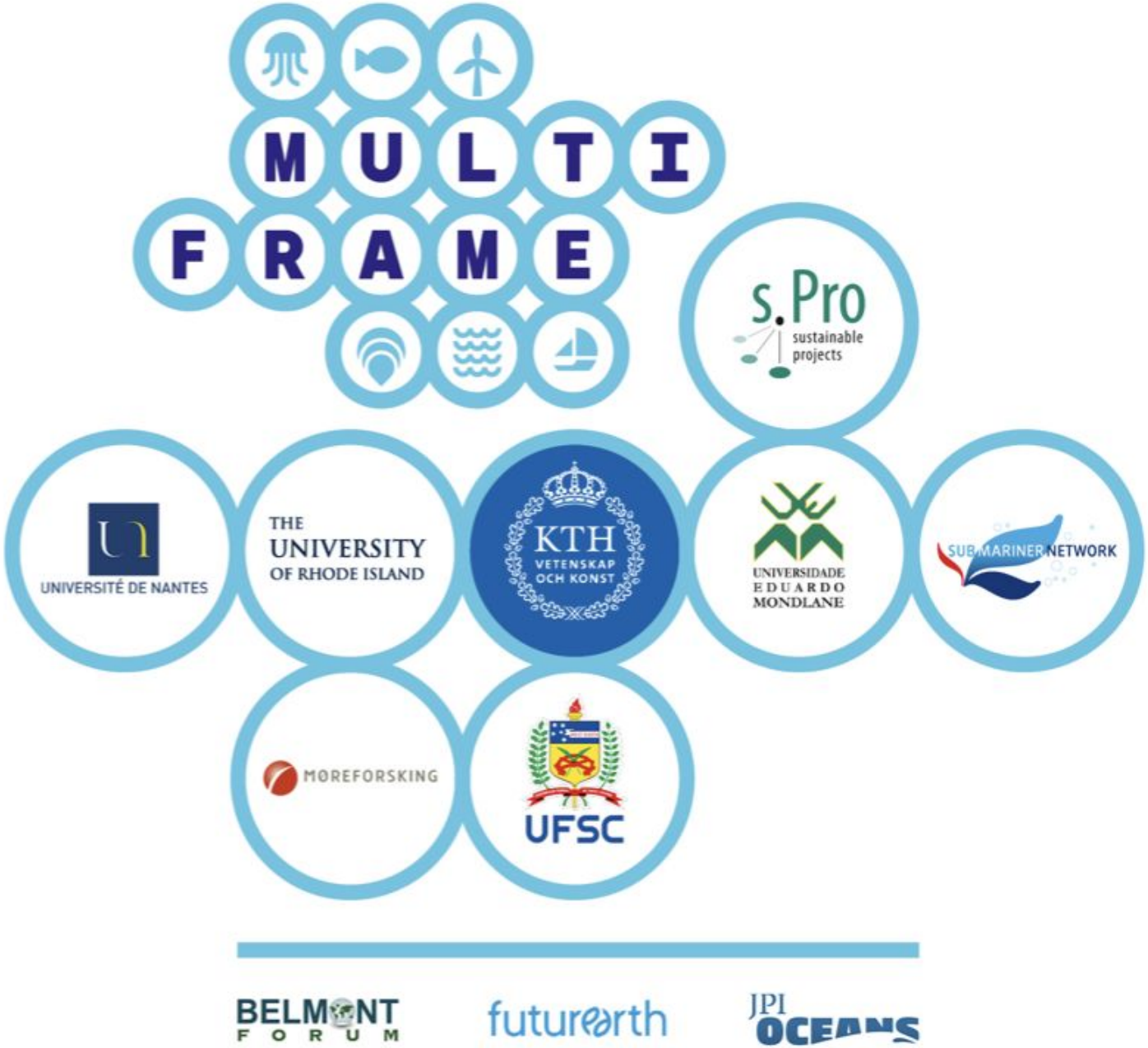
MULTI
FRAME
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sustainable
projects
UNIVERSITÉ DE NANTES
THE
UNIVERSITY
OF RHODE ISLAND
KTH
VETENSKAP
OCH KONST
UNIVERSIDADE
EDUARDO
MONDLANE
SUBMARINER NETWORK
MØREFORSKING
UFSC
BELMONT
FORUM
futureearth
JPI
OCEANS