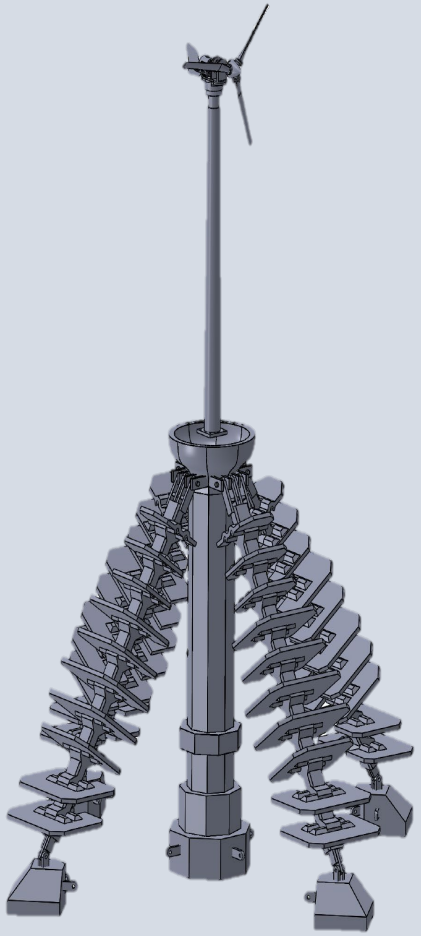
U.S. Offshore Wind Development and Artificial Reefs: Artificial Reef Jacket and Ecosystem Restoration

Ashley Schrader[1], Emily Higgins[2], Melody Brenna[2], Laura Trilles[1]
1: Lynker Technologies, LLC, 2: IntelliReefs



ABSTRACT

Increased momentum behind U.S. offshore wind development provides an opportunity to prioritize an ecosystem-based management approach.

The development and widespread implementation of a jacket structure that doubles as artificial reef substrate may accelerate ecosystem response while amplifying and diversifying ecosystem restoration outcomes which provide economic benefits:

Increasing offshore wind's carbon offset

Fisheries enhancement

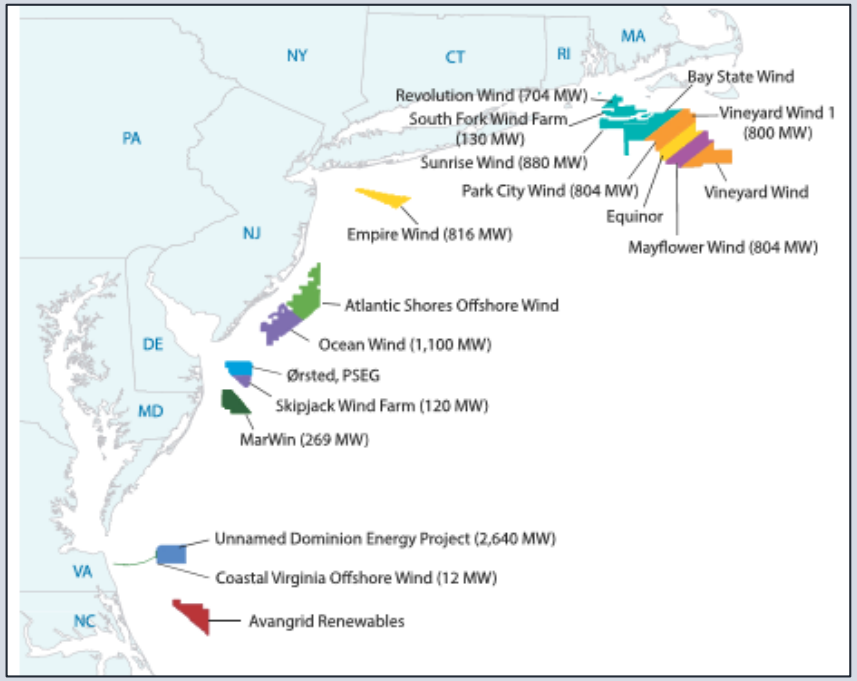
Habitat banking or nature-based offset

All contributing to coastal communities and the ocean economy.

BRIEFING ROOM

FACT SHEET: Biden Administration Jumpstarts Offshore Wind Energy Projects to Create Jobs

MARCH 29, 2021 • STATEMENTS AND RELEASES



Offshore Wind Lease Areas off the Northeast Coast of the U.S.
https://energymonitor.ai/joe-biden/with-joe-bidens-backing-us-offshore-wind-poised-for-breakthrough

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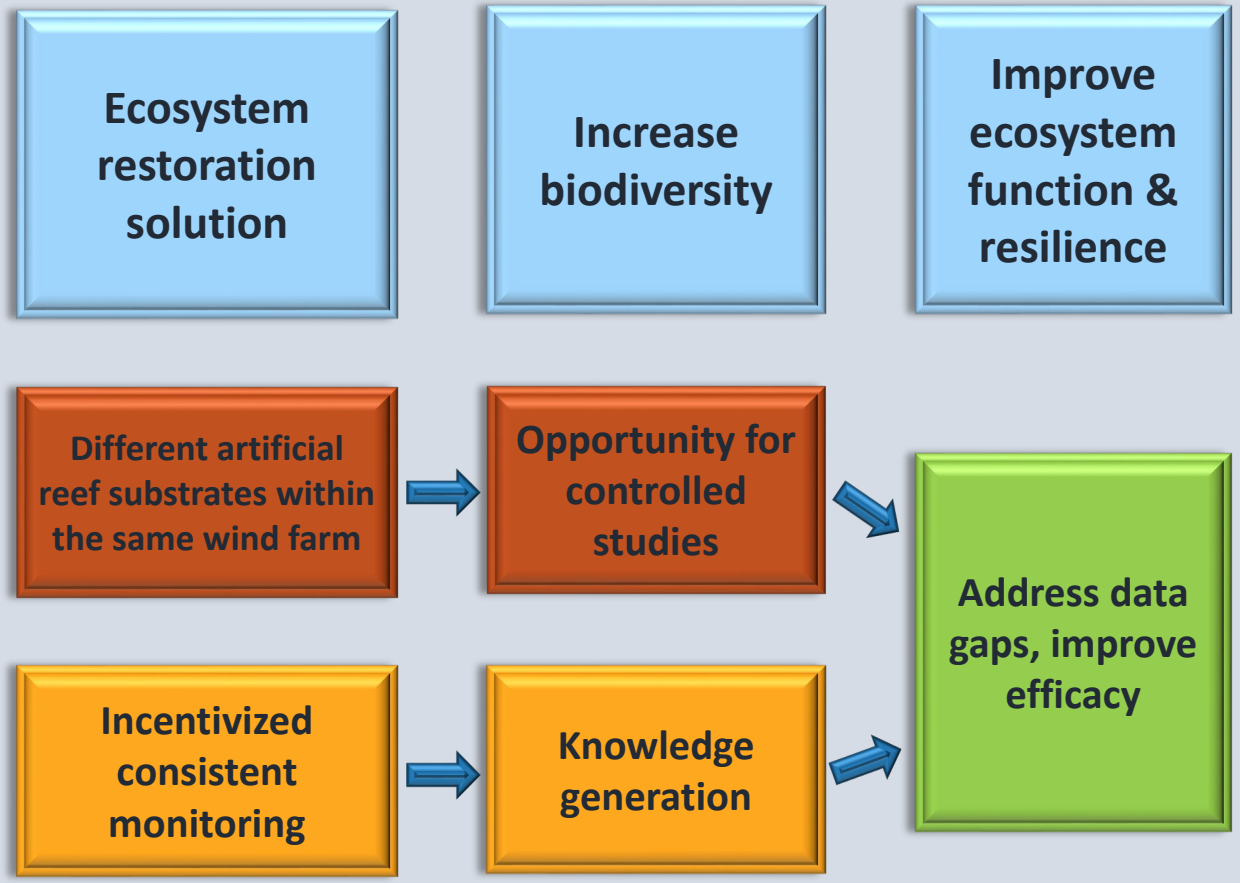
ADDRESSING U.S. OCEAN DECADE CHALLENGES

Challenge 2:

Understand the effects of multiple stressors on ocean ecosystems, and develop solutions to monitor, protect, manage and **restore ecosystems** and their **biodiversity** under **changing environmental**, social and **climate conditions**.

Challenge 4:

Generate knowledge, **support innovation**, and develop solutions for equitable and sustainable **development of the ocean economy** under changing environmental, social and climate conditions.



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VISION

U.S. Offshore Wind:

- Sustainable energy solution
- Ecological restoration site
- Permanent sub-surface reef site after wind farm decommission

Accelerate ecological response

Diversify and amplify offshore wind benefits

Concerted, long-term monitoring

Foster public, private, and government synergy

Shape policy

Set a global precedent for ecologically sustainable offshore energy development

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CONNECTIONS WITHIN EXISTING INFRASTRUCTURE

Extensive collaboration with offshore wind developers and additional public and private entities is required to incorporate the jacket into the turbine's sub-structure and implement it on an ecologically viable scale.

Collaboration & Partnerships to Achieve:

- **Realizable technological development**
- **Data collection & analysis**
- **Development of assessment criteria & long-term monitoring plan**
- **Lobby Policy**

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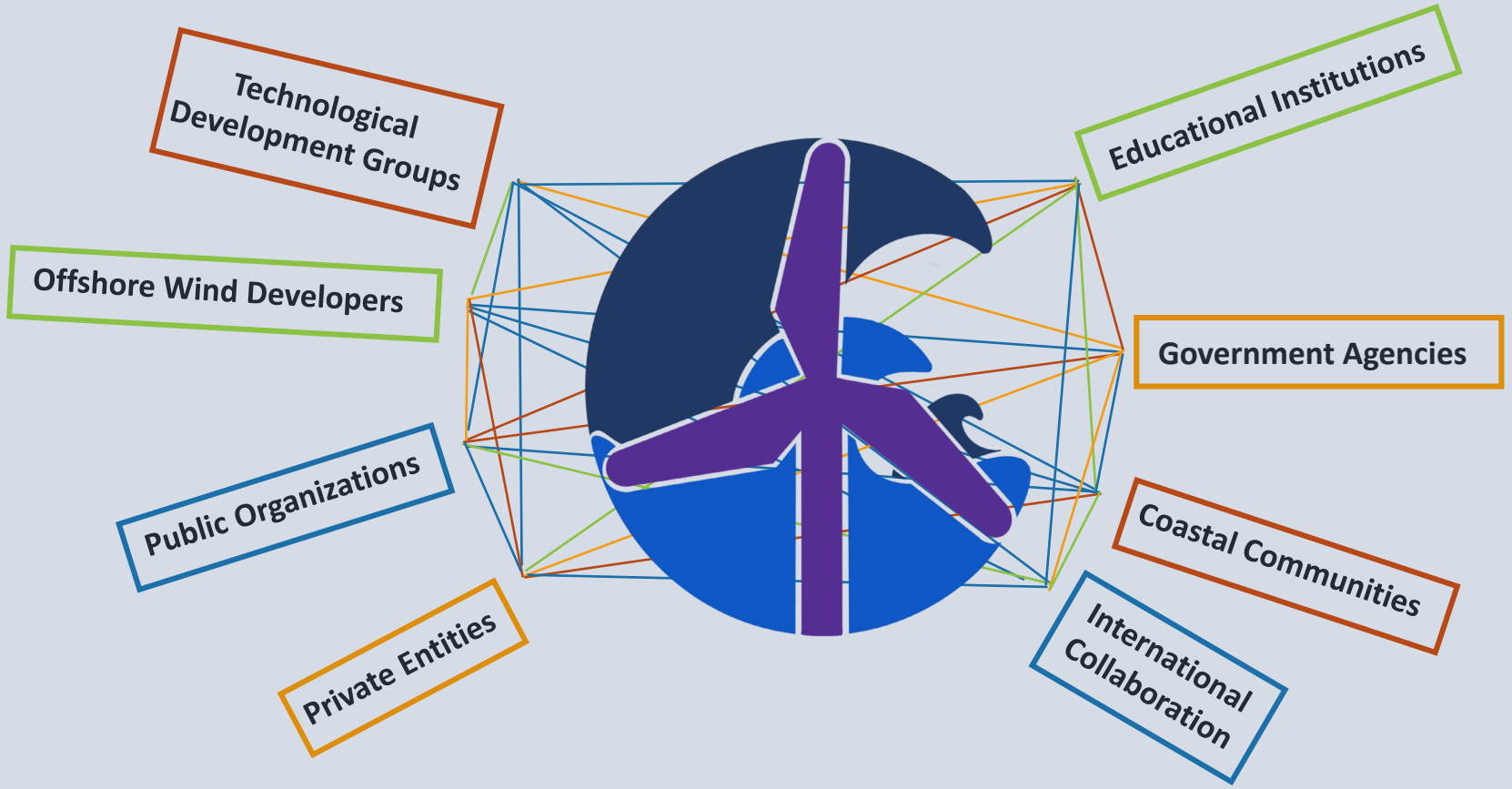
CONNECTIONS OUTSIDE TRADITIONAL OCEAN SCIENCE

Achieving the project's visions will require a variety of interdisciplinary partners and collaborators from a network of public, private, and government institutions.

A comprehensive approach calls for the engagement of engineers, social and political scientists and educators.



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CONNECT & COLLABORATE

For project details, connection and collaboration inquiries, or other questions/comments, contact Ashley Schrader.

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