




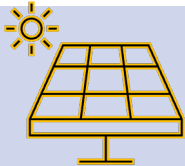
# From Benefits to Business: Strategizing commercialization of ocean multi-use with UNITED

Socio-Economic benefits and business plans

THEME: **UNITED Economic and Business Analysis**

# Business Analysis Results

*What activities in place?*

	Activities			
Pilot				
BE	X	X		
DE	X	X		
EL	X		X	
NL	X	X		X
DK		X	X	

# Business Analysis Results

Multi-use motivation not always the same:

- Legal reasons: BE pilot
- Historical event: DK pilot
- Social reasons (e.g. increase social acceptability): EL pilot
- Environmental reasons: NL pilot
- Need to optimize the use of marine space: North Sea.
- Increased planning application for OWF.

**Synergies**: a strenght (BE, DE, EL), but not a motivation?

# Business Analysis Results

## What external factors influencing development of pilots?

Opportunities	Threats
Political support (BE, DE, DK, NL, EL)	Unclear and lack of regulations (requirements) (BE, DE, EL, NL)
Growing market for sustainable and locally produced products and renewable energy (BE, DE, DK, NL)	High entry and operational cost and difficulties to access funding (BE, DE, NL)
Innovative environment (BE, DK, EL)	Lack of public awareness (DE, EL, NL)

# Business Analysis Results

Similar activities

Pilot	Targeted Segment	Value Proposition
BE	Macro-to niche segment depending on customer preferences and location of the activities	Same value proposition: offering locally produced aquaculture and green energy, and ecosystem restoration (BE, NL)
DE		
NL		
EL	Macro-to niche segment depending on the activity	Offering local safe recreational activities and seafood.
DK	Macro-segment	Raising awareness of future OWF projects

# Business Analysis Results

- Financial benefits not always the only motivation for multi-use
- Political incentives and requirements are important for future development of multi-use activities
- Facilitating access to funding opportunities will encourage the development of future multi-use projects

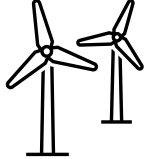
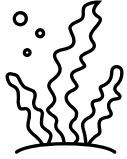
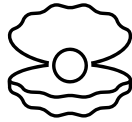
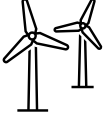



# Economic Impact Assessment Results

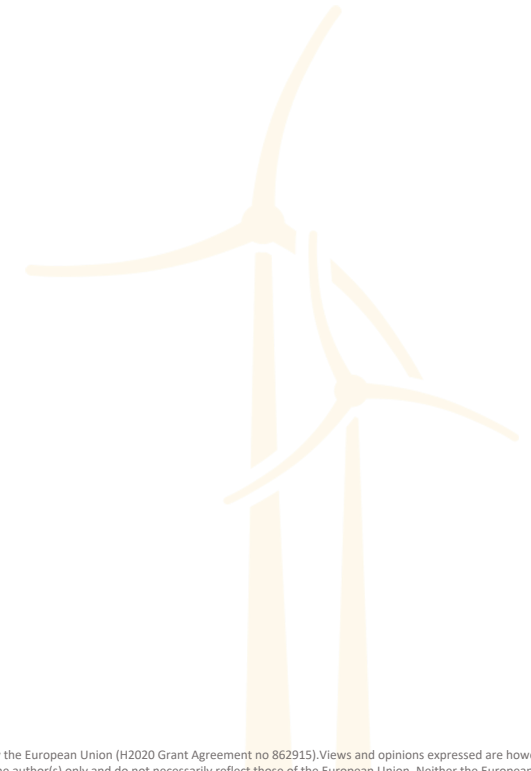
Recap: Two blocks:

- Block I: pilots including OWF and aquaculture activities (BE and DE)
- Block II: pilots relying on existing infrastructures (DK and EL)

# Economic Impact Assessment Results

## Identification of relevant economic impacts

BLOCK I pilots OWF + AQUACULTURE			BLOCK II pilots OWF/AQUACULTURE + TOURISM			
						
BE		DE	DK		EL	
<p><i>Substitution of non-renewable energy, and energy provision, independence, and security</i></p> <p><i>Reduction in GHG and carbon sequestration</i></p> <p>Local sustainable food provision</p> <p><b>Habitat and fish stock improvement</b></p>		<p><b>Acceptance of developments offshore</b></p> <p><i>Fish stocks and fisheries yields</i></p> <p>Diversification of incomes</p> <p>Added value creation</p> <p><b>Substitution of non-renewable resources</b></p>	<p><i>Substitution of non-renewable energy, energy provision, independence, and security.</i></p> <p><i>Reduction in GHG</i></p> <p><b>Benefits for local economy</b></p> <p><i>Habitat and fish stock improvement</i></p>		<p><b>Improved diving experience in fauna rich area</b></p> <p>Increased education environmental protection of the area</p> <p>Marine citizen science (MCS) supporting aquaculture and biodiversity monitoring and marine conservation.</p> <p><b>Increased local acceptance of aquaculture</b></p>	





# Economic Impact Assessment Results

## Key findings Block I:

- **Synergy Benefits:** Combining offshore wind energy with aquaculture in the North Sea's UNITED pilots yields significant environmental, social, and economic benefits.
- **Key Impacts:** Notable impacts include more efficient marine space use, added value creation, local food production, GHG reduction, non-renewable resource substitution, carbon sequestration, and habitat and fish stock improvement.
- **Ecosystem Pressure Reduction:** Multi-use Offshore Wind Farms (OWF) and aquaculture reduce ecosystem pressure by maximizing marine space and collectively contributing to GHG emission reduction. OWFs alone have the potential to reduce 270,000 tonnes of CO2 annually.
- **Renewable Resources:** Aquaculture plays a role in the Blue Bioeconomy, offering renewable resources.
- **Local Benefits:** Harvested seaweed and mussels from offshore operations can create high-value markets for local areas, especially for material and fuel applications, although efforts to promote them as sustainable, nutritious local food need enhancement.

# Economic Impact Assessment Results

Key findings Block II:

- **Synergy of Marine and Tourism Activities:** Combining marine activities with tourism creates mutually beneficial outcomes.
- **Positive Impacts:** The assessment reveals several environmental, social, and economic advantages, with the following being the most significant:
  - **Greek Pilot: Enhancing Local Aquaculture Acceptance**
    - Goal: Increase local acceptance for aquaculture operations.
    - Strategy: Reduce negative resident opposition by improving transparency about operations and potential environmental and quality impacts.
  - **Danish Pilot: Economic Benefits through Tourism**
    - Local economy gains from increased tourism using existing marine infrastructure, particularly Offshore Wind Farms (OWF).

# Economic Impact Assessment Results

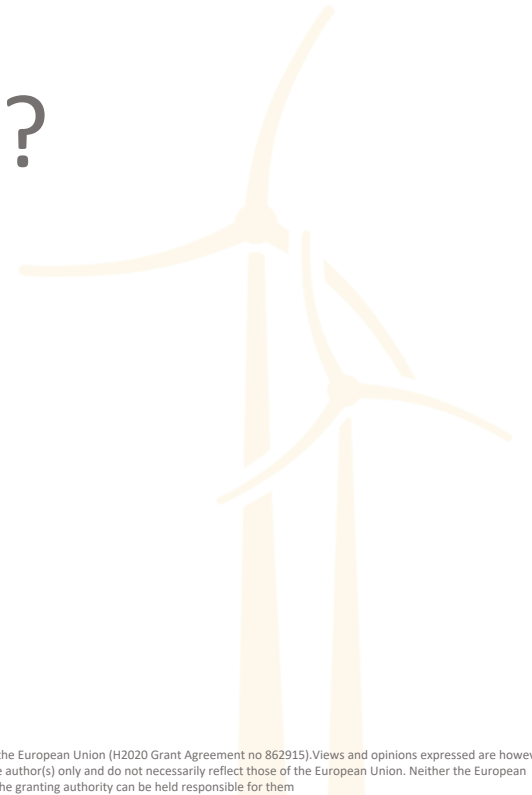
- **Streamlined Regulatory Frameworks:** To promote multi-use in the Offshore Wind Farm (OWF) sector, clearer and more comprehensive regulatory frameworks are essential. Early-stage planning should be encouraged to integrate multi-use activities into initial OWF designs, as demonstrated by the Belgian initiative prioritizing licenses for integrated multi-use activities.
- **Political Support for Multi-Use:** Stronger political support is needed for multi-use initiatives, which often align with strategic EU policies related to climate change mitigation and the blue economy. Decisive political backing can provide incentives for multi-use project development.
- **Maritime Spatial Planning:** Ensure consistency and long-term regulatory vision in Maritime Spatial Planning, particularly for touristic activities using existing marine infrastructure, such as aquaculture and OWF. Openly allowing combinations like aquaculture and scuba diving in Greece is essential.

# Economic Impact Assessment Results

- **Financing Opportunities:** Create new financing opportunities, like dedicated grants, to support emerging multi-use businesses in competitive markets.
- **Role of Policy Makers:** Policy makers play a crucial role in fostering trust between marine activities, facilitating collaboration, and streamlining multi-use implementation. The Dutch experience showcases the community's practice created with policy support.
- **Economic Growth of Coastal Aquaculture:** Multi-use combinations can be a policy tool for supporting the economic growth of coastal aquaculture in Europe. This approach, especially with touristic activities, may help address local acceptability barriers, particularly in the Mediterranean. Further research is needed to quantify the potential positive impact.

# Thank you

## Questions?





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**Youssef Zaiter (ACTeon); Manuel Lago (Ecologic)**

**[y.zaiter@acteon-environment.eu](mailto:y.zaiter@acteon-environment.eu)**

**[manuel.lago@ecologic.eu](mailto:manuel.lago@ecologic.eu)**