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Viable business models for a sustainable blue economy:

How can we improve interaction between research, public sector and the business community?

2nd MISSION ARENA 25-26 April 2024 Riga - Latvia

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METHODS AND TOOLS FOR MISSION OCEAN & WATERS

PREP4BLUE's objective is to support the R&I goals of the 'Mission: Restore our Ocean & Waters' and facilitate its successful implementation, especially during this first phase (2022-2025). Through a series of pilots at the Mission's demonstrator or 'Lighthouse' sites, PREP4BLUE will develop tools, guidelines and methodologies to be used by stakeholders on all Mission funded projects. This co-creation approach will optimise and create synthesis across Mission activities and solutions, ensuring cohesion and connectivity across sectors, and between European citizens and stakeholders.

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EU MISSIONS RESTORE OUR OCEAN AND WATERS

EUROPEAN UNION

Viable business models for a sustainable blue economy:

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PROTECT AND RESTORE MARINE AND FRESHWATERS ECOSYSTEMS AND BIODIVERSITY

PREVENT AND ELIMINATE POLLUTION OF OUR OCEANS, SEAS AND WATERS

MAKE THE BLUE ECONOMY CARBON- NEUTRAL AND CIRCULAR Reduce by at least 50% plastic litterReduce by at least 30% microplastics

Restore 25.000 km free flowing rivers

• Reduce by at least 50% nutrient losses, chemical pesticides

• Protect at least 30% and strictly protect 10% EU's sea areas

Marine nature restoration targets (incl. degraded seabeds, coastal ecosystems)

• Net zero maritime emissions

- Zero carbon aquaculture,
- · Low carbon multipurpose use of marine space

ENABLERS

Digital Ocean and Waters Knowledge system

Public mobilization and engagement

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Supporting Mission Ocean through Business and Policy Support

25 April 2024

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A 'Mission Restore our Ocean and Waters' initiative.



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17 partners from8 European countries



Research Institutions and Universities RÉPUBLIQUE FRANÇAISE Liberté Égalité Fraternité SDU 🎓 Ifremer University of Southern Denmark **Fraunhofer** IGD VLIZ Institut de Ciències del Mar CETMAR CENTRO TECNOLÓGICO DEL MAR UCC University College Cork, Ireland Coldiste na hOllscolle Corcaigh [©]MaREI NORDLANDSFORSKNING NORDLAND RESEARCH INSTITUTE Consiglio Nazionale delle Ricerche SMEs s.Pro **ØERINN** sustainable **Research Networks** ΙΝΝΟΥΔΤΙΟΝ projects International Organisations OCEANS CPMR CRPM

Outcomes

Synergies between Mission governance & stakeholders Inspiring and innovative communication to engage stakeholders with Mission

Database of projects & innovative solutions & AI digital tools to create a Knowledge management system for the Mission

Recommendations for the creation of an enabling regulatory and financial environment for the Mission Online tools, guidelines, trainings, helpdesk and four pilots to test methodologies for co-creation and coimplementation of knowledge with citizen and stakeholders



Key recommendations for Interregional

- financhargspecta finated in Stille (1988) can unlock blue
 - Sustainable Blue Economy Platform: Regions can create Thematic Smart Specialisation Partnerships (TSSP) to collaborate on a specific topic to support their S3.
 - Regional authorities can apply to be associated regions to Mission Ocean-funded projects, learning from pilot regions and receiving grants to conduct actions that tackle challenges linked to Mission Ocean's objectives.
 - The Interregional Innovation Investments Instrument (I3) is specifically designed to promote the creation and development of interregional value chains based on S3.

Full report available <u>here</u>!

Funding models for Mission Ocean



FUNDING MODELS FOR MISSION ROLL-OUT



Milestone M5.3 prepared by the University of Southern Denmark identifies ten funding models for Mission roll out. A funding model is an **instrument or modality** for funders to support innovation and for researchers and entrepreneurs to finance an idea that is not yet commercially mature.

Donations or Grants	Concessional finance	Equity financing	Pre-commercial procurement	Crowdfunding		
Can be made available by any type of entity and are characterized by the funder having no expectation of financial repayment or profit of the investment made. Recipients of donations and grants are typically expected to report on adherence to any requirements related to the funding and on results achieved.		An investor receives ownership in return for an investment. There are different ways of providing equity financing, typically depending on the maturity of the company invested in. Founder, Friends and Family (FFF)- funding, angel investors, venture capital, and Initial Public Offerings are examples of subcategories pertaining to the increasing maturity stages of a company.	used by public authorities to address societal challenges and meet public needs through the acquisition of innovative solutions that are not yet commercially available. It involves a series of competitive procurement phases from solution exploration and design to validation/testing of a limited set of first products.	an approach to other funding models where capital is raised through relatively small contributions from a relatively large number of individuals. This can be in the form of donations, loans, or equity financing.		
Cascade financing	Blended finance	Debt financing	Public procurement of	It could be argued that also project finance is more of a		
A sub-form of grants in which large funders make funding available for re-granting in the form of smaller grants by consortia that are delegated the responsibility for the selection and monitoring of such smaller grants.	A model in which concessional capital is provided, typically by public institutions, to reduce the risk and thereby attract commercial capital.	Raising capital by borrowing funds to be repaid, typically supplemented by interest payments. Public or private financial institutions may make capital available for borrowing at preferential terms for specific purposes. There are several subcategories of debt financing, including various forms of bonds, which is debt in the form of tradable securities.	The phase when a product, service or process has been developed, but is not yet available on a large- scale commercial basis. It is thus complementary as a possible next step to PCP.	asparate funding model, as funding needs to be raised with one of the other funding models, such as grants, debt or equity. A separate legal and commercially self-contaminated entity is then established to separate a project from the balance sheet to protect a firm's other assets.		

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Funding sources

JPI Oceans conducted an exploration of the funding landscape based on input from partners in PREP4BLUE and a non-exhaustive desktop review, including consultation of earlier or ongoing mappings. This has resulted in the following list of notable funding sources of relevance to the Mission, with an overview of the funding models they use.

Funding sources		Type of funding model									
		Grants	Cascade	Concessional finance	Blended finance	Equity financing	Debt financing	Pre- commercial procurement	Public procurement of innovative solutions	Crowd- funding	Project finance
Cohesion Policy Tools	Cohesion Fund	0									
	European Regional Development Fund	>									
	European Social Fund Plus	0									
	Interregional Innovation Investment (I3) Instrument										
	Just Transition Fund	0									
Conn	ecting Europe Facility (CEF)	0		\bigcirc							
	Digital Europe										
E	EA and Norway Grants										
	EU Innovation Fund			\bigcirc							
Europe [an Agricultural Fund for Rural Jevelopment (EAFRD)			\bigcirc							
Europea	n Bank of Reconstruction and Development (EBRD)										
E	uropean Defence Fund										
Eu	ropean Investment Bank										
Europ Aq	ean Maritime, Fisheries, and uaculture Fund (EMFAF)										
	European Innovation Council										
Horizon	European Research Council										
Europe	Innovate SMEs / EUROSTARS										
	Sustainable Blue Economy Partnership										
InvestEU	InvestEU Blue Economy Instrument										
Joir	t Programming Initiatives	 									
	LIFE										
Sir	igle Market Programme	\diamond					\bigcirc				

Sustainable Business Model Blueprints

- Accessing Funding: Sustainable startups often face difficulties in attracting traditional financing due to perceptions of high risk. Clear communication of sustainable business models is key to securing investment.
- Navigating Regulations: Regulatory intervention can improve the conditions for sustainable startups, fostering an ecosystem more conducive to mission-driven innovation.
- Scaling Sustainably: Focus on out-scaling expanding the reach and impact of sustainable solutions - rather than simply upscaling operations.

Full report available soon: Deliverable D5.2 Business model blueprints and derisking recommendations, Jochen Theis and Dennis van Liempd

Regulations and Policy – Enablers, Barriers and Recommendations

- ✓ Policy Heatmap
 - ✓ Map existing policies/regulations with link to Mission Ocean
- ✓ Interviews, surveys and workshops with experts
 - ✓ Identify supporting and hindering effects of existing policy on the implementation of the Mission Ocean objectives
- ✓ Outcome
 - ✓ Examples of key enablers and obstacles
 - ✓ Overview of solutions and recommendations
 - ✓ To address barriers/obstacles
 - ✓ To reinforce incentives/enablers
- \rightarrow Create a roadmap to success for future Lighthouse projects









WaveLinks.eu





A 'Mission Restore our Ocean and Waters' initiative.



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What is it ?

WaveLinks is an application that maps the research and innovation landscape of the <u>Mission Ocean</u>, fosters collaborations between projects and reinforces links between academia, industry and society.

Our mission is to ensure that valuable insights and discoveries no longer remain isolated but instead become catalysts for innovation and progress.



Wave Links	Dashboard Welcome back, SDU RIO	I						•
🖄 Dashboard	My dashboard PF	REP4BL	UE Blue	MissionAA B	BlueMissionBANOS			
	My contacts 45	•	Pledge 79	es :	Events Some people from	your network are going to	o these events	
Networking	Linda Yenn IFREMER Steve Rob IFREMER	×	5 4 3 2		25 - 26 April 24 - 26 May	BANOS Lighthouse		Hamburg (DE) Brest (FR)
✓ Monitoring	Tom Evans ATBS		1 0 Jan Feb I	Mar Apr Mai Jun Jul	14 - 17 Nov	BANOS Arena		Gothenburg (SE)
	You may be interested in these pro	ojects		:	Corganisa You may be interes	itions sted in these organisation	S	
	Title	сс	Objective	Lighthouse	Name	сс	Objective	Lighthouse
	The impact of education in building a better future	DK	1, 2, 3	Baltic & North Sea	SeaC	AT	1, 2, 3	Mediterranean
	The impact of citizens living near the ocean	PT	1	Atlantic & Arctic	Eversea	DE	1	Mediterranean Danube
	Best approaches to engage with ocean stakeholders	FR	1, 2	Mediterranean	Air Center	PT	3	Atlantic & Arctic
	Make the sea a priority to all citizens	IT	1, 2, 3	Mediterranean	FLTA	NO	1	Baltic & North Se
3 Settings	Using games as a way to educate society	SE	2	Baltic & North Sea	IFREMER	FR	2	Mediterranean
? Help								
Contact us	Funded by the European Union under Grant Ag and opinions expressed are however those of the European Union. Netther the European Union	reement ID 1010 he author(s) only or the granting a	93845, 101093962 and 101056 and do not necessarily reflect uthority can be held resoonsit	957. Views those of the le for them.			UE BLUEN	



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RESTORE OUR OCEAN & WATERS Concrete solutions for our greatest challenges



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Bio-based revitalisation of local communities

Blue Bioresource Valorization Challenges And New Business Models

BLUE MISSION BANOS

2nd Mission Arena in Riga, Latvia

April 25th-26th 2024



Objectives

- Social and economic barriers and potentialities for blue biomass valorization and collaboration along the bio-based value chain
- New business models and local capacities and innovation actors for impacts and performance of pilot region
- Environmental footprints
- Training for new jobs opportunities and SME capacity building





Local challenges

- Lack of awareness
- Underutilization
- Lack of human resources
- Infrastructure challenges
- Limited ability to develop and bring niche products to export markets
- Potential resource constraints for increase of production volume
- Bureaucracy related to environmental permits and planning of facilities at the sea

Opportunities



- Local product development capacity increase with new laboratory
- Exploration of other uses and by-products for additional application and valorization in other industries and markets
- Energy efficient and modern technologies for more circular production;
- The unused potential for business model innovation, incl.
 - Co-location of seaweed and off-shore wind farming
 - Models for nutrient removal
 - Macroalgae farming







Blekinge – a region on a mission

Small and smart

Blekinge - a region on a mission



Smart specialization







Reality touch base 4- Interaction between business, policy, and local communities for offshore wind installations, the cases of Lithuania.

The Lithuanian offshore wind stakeholder management strategy is a sector-tailored strategy aiming to ensure the **happy coexistence** between the OWF, local businesses, the local community, and established maritime activities such as fisheries, shipping, military operations, aquaculture, tourism, and nature.

We aim to create a comprehensive system that allows all relevant parties to express their thoughts and feedback, ensuring a thorough and inclusive approach.

We also use a communication toolkit that includes various time-based, provisional, and functional integrations customized to meet each stakeholder's specific requirements.

By joining Table 4, we will explore what possible business models for community-inclusive and environmentally sound offshore wind can look like. Our aim is not just to include local communities but to empower them to actively participate and benefit from these initiatives.









Cities as innovation hubs: the Baltic Sea Challenge



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The Baltic Sea Challenge - what and why?

- Initiative that **invites all organizations to do concrete and voluntary actions** for the wellbeing of our waters founded in 2007 by the cities of Turku and Helsinki.
- Network of 350 international partners
- Aims:
 - 1. Bringing every organization to **join the effort** in a way that is the most suitable for them
 - 2. Strengthen the role of **the cities as pioneers** in Baltic Sea conservation







Multiple roles of cities in a blue network

Facilitator spaces, events, discussions



Co-creator

other cities and municipalities, research facilities C C

Client for businesses, pilots







Initiator innovation companies



Viable business models for a sustainable blue economy:

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Thank you For your kind attention

Caecilia Manago

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Group work:

Business interaction for Mission Ocean Scale-up

Viable business models for a sustainable blue economy:

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TABLE TOPICS:

Table 1: Cities and regions: how can they be hubs for blue innovation in support of Mission Ocean? (Facilitator/Notetaker: Lottie Dal Ryde, Outi Seppälä, Natalie Helenius)

Table 2: Business Models for innovative, sustainable macroalgaeapplications (Facilitator: Tarmo Pilving / Note-taker: Anne Pöder)

Table 3: Business models for Ocean Restoration (Facilitator: CaeciliaManago Matthias Sandra / Note-taker: Silvia Tosatto)

Table 4: Viable business models for community-inclusive and environmentally sound offshore wind (Facilitator: Vaiva Indilaitė-Girtzė / Note-taker: Katharina Kurzweil)

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Table 3:

Business models for Ocean Restoration

Facilitator: Caecilia Manago Matthias Sandra

Note-taker: Silvia Tosatto

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EU Mission Implementation Plan (2021):

- Lighthouses will act as hubs and platforms for the development, demonstration and deployment of transformative innovations of all forms – technological, social, **business**, governance – in order to reach the three specific Mission objectives.
- The Mission will deliver a core of scalable and replicable, excellent and impact-driven research and innovation solution: technological, business, social and governance.
- **Business innovation:** know-how and new business models for generating revenue from restored ecosystems and from blue carbon sequestration, including blue biotechnologies, new carbon farming' business models of aquaculture, near-shore restoration actions, tidal area management, and inland waters.

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Barcelona Statement:

The UN OCEAN DECADE Conference, in Barcelona in April 2024, discussed and identified the following **future priorities** for ocean knowledge and science generation and uptake that could be fulfilled via the Ocean Decade framework. These include the **co-design and co-delivery of science and knowledge** to:

- Strengthen sustainable aquatic food production and innovation for new frontiers with a focus on developing countries and strengthened public-private partnerships.
- **Develop economic models**, policies, and innovative financial instruments to diversify and accelerate investment in ocean science, including for enhanced digital representation of the ocean and sustained and sustainable ocean observing and infrastructure.

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Key Questions:

- In your experience, what have the most successful interactions between the public/research sector and the business sector been? Can you tell us a bit more about your practical experience with that?
- In which sector do you see the highest potential for on-the-ground actions that contribute to Mission Ocean?
- Have these examples led to funding?
- What models supporting the blue economy would you like to see more of (E.g. innovative business/funding models)?
- What are the main obstacles or gaps, also in terms of policy?

Final questions in the tables to wrap up:

- What are low-hanging fruits?
- What should we wish for in the long run?