



i34BLUE GROWTH

green innovation for blue growth

Deliverable 2.5

Action Plan - Improving the Regional Ecosystem Support System

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Executive Summary

This document outlines an action plan aimed at enhancing the sustainable blue economy in Europe, a critical initiative for addressing climate change, promoting economic growth, and ensuring food security. The I3-4-BLUE-GROWTH project focuses on two key value chains: sustainable seafood and aquaculture, and marine renewable energy and decarbonization. The plan serves as both an immediate roadmap and a long-term strategic framework for interregional cooperation and investment.

Objectives of the Action Plan

The action plan sets out to improve regional ecosystem support systems, particularly in less-developed regions, by providing the necessary infrastructure, knowledge, and resources for sustainable economic activities. It aims to strengthen specific ecosystems through targeted initiatives that foster resilient growth, promote interregional cooperation for knowledge transfer, innovation, and investment, and identify future opportunities for continued collaboration beyond the project's scope.

Methodology

The action plan was developed through a comprehensive methodology implemented in Deliverable 2.4, including stakeholder workshops, a literature review on sustainability and innovation in the blue economy, and data analysis to identify needs, challenges, and innovation investment priorities.

Action Plan Initiatives

To address the significant challenges within the blue economy that were identified in Deliverable 2.4 (such as complex regulatory frameworks, high initial investments for sustainable practices, and fragmented policies across regions challenges) this action plan proposes several initiatives:

- Upgrading infrastructure and technology in less-developed regions;

- Implementing training programs for stakeholders on sustainable marine management;
- Facilitating access to funding, technology, and expertise for sustainable activities;
- Launching projects to restore habitats, manage fisheries, and control pollution;
- Introducing strategies to enhance ecosystems' resilience;
- Establishing monitoring systems to assess the effectiveness of these initiatives;
- Creating platforms for knowledge sharing and best practices between regions.

Strategic Goals

The action plan emphasizes the role of public policy in the success of these initiatives. Key strategic goals include streamlining regulations, harmonizing standards across regions, strengthening the interregional ecosystem within the EU, and enhancing cooperation through effective governance and strategic investments.

Conclusion

The action plan concludes with a call for coordinated and innovative approaches to the challenges within the blue economy. By focusing on sustainability, technological advancement, and regional cooperation, the proposed initiatives aim to streamline regulatory processes, boost public investment, and support the development of green technologies and sustainable practices. This comprehensive framework aligns policy recommendations with project objectives, ensuring meaningful progress towards a sustainable, innovative, and cohesive blue economy that benefits all stakeholders across the EU.

1. Introduction

A sustainable blue economy is vital for the future prosperity and environmental health of Europe. It represents a pivotal component in addressing climate change, fostering economic growth, and ensuring food security. The I3-4-BLUE-GROWTH project specifically targets two critical value chains within this economy: sustainable seafood, aquaculture, and the valorization of blue resources (value chain 1), and marine renewable energy and the decarbonization of the maritime sector (value chain 2). These sectors hold immense potential for innovation and development, and their advancement is essential for achieving a sustainable and smart green and blue economy.

The primary objective of this report is to present an action plan (D2.5) that aims to enhance the regional ecosystem support system in the participating regions. This action plan is not only a roadmap for immediate actions, but it is also a strategic framework for long-term interregional cooperation and investment. More specifically, this action plan aims to:

- **Improve regional ecosystem support systems**, ensuring that less-developed regions have the necessary infrastructure, knowledge, and resources to foster sustainable economic activities within the blue economy. This includes enhancing local capacities to manage and utilize marine resources sustainably and effectively;
- **Strengthen specific ecosystems** by identifying targeted initiatives within the two value chains that will help in building robust, resilient ecosystems that can drive sustainable growth;
- **Foster interregional cooperation** between more developed and less developed regions for knowledge transfer, innovation, and investment. This will lead to the scaling-up of successful projects and the creation of new opportunities across regions;

- **Identify and design future opportunities** by proposing potential projects and initiatives that can extend the benefits of interregional cooperation beyond the project's lifetime.

The data for the development of this action plan was collected in the stakeholder workshops conducted as part of the project (see Deliverable 2.4). The action plan is divided into four main parts: General and Specific Goals, Domains of Intervention and List of Projects, Strategic Prioritization and Regional Relevance of Actions in the Innovation Ecosystem, and Policy Recommendations.

2. General and Specific Goals

The needs and challenges, as well as the innovation investment priorities analysed in the previous deliverable (D2.4) were the foundational base to develop the action plan. This action plan delineates a series of initiatives to be implemented throughout the project's lifecycle. These initiatives are designed not only to improve local ecosystem support but also to promote interregional cooperation and knowledge-sharing. By fostering stronger ties between diverse stakeholders - from academia and industry to community and government - the plan seeks to create a robust ecosystem network capable of sustainable growth and resilience. Importantly, strategies for extending collaborative efforts beyond the project's duration were also explored, ensuring lasting impacts and continuous advancement in sustainable blue economy.

The primary goal of the action plan is to enhance the regional ecosystem support systems across participating regions, focusing on the two value chains outlined in the project. This involves developing and implementing a strategic framework that improves infrastructure, strengthens ecosystems, fosters interregional cooperation, and identifies future opportunities for sustained collaboration beyond the project's duration.

Specific objectives include:

1. Upgrade infrastructure and technology for marine resource management in less-developed regions.
2. Implement training programs for local stakeholders on sustainable marine management and environmental impact assessment.
3. Facilitate access to funding, technology, and expertise for sustainable economic activities.
4. Launch targeted projects to restore habitats, manage fisheries sustainably, and control pollution.
5. Introduce strategies to improve ecosystem resilience to environmental pressures.
6. Establish monitoring systems to track and assess the effectiveness of ecosystem strengthening initiatives.
7. Create platforms for knowledge sharing and best practices between regions.
8. Promote and support joint projects involving stakeholders from different regions.
9. Develop strategies to attract investment into less-developed regions and optimize investment opportunities.
10. Design new projects and initiatives that extend the benefits of interregional cooperation beyond the project's duration.
11. Develop strategies to ensure the long-term sustainability of the action plan's results.
12. Establish enduring institutions or initiatives to support ongoing regional collaboration and impact.

These specific goals are aligned with the main domains of intervention that support the development of innovation ecosystems in the sustainable blue economy, specifically in the targeted value chains.

3. Domains of Intervention and List of Projects

To effectively address the needs in the value chains, the action plan incorporates insights from the theoretical framework of innovation ecosystems (Pinto, 2021) in the sustainable blue economy (interaction, resources, and governance dimensions). By aligning the specific goals with these dimensions, we ensure a comprehensive approach: **a) Interaction Dimension** by building robust stakeholder partnerships and fostering cross-regional research collaboration; **b) Resource Dimension** to enhance financial support and infrastructure; and **c) Governance Dimension** through developing and harmonizing regulatory frameworks and engage local communities to build public support and address concerns, ensuring the sustainability and legitimacy of the initiatives presented here.

Based on cross-referencing the needs identified in the diagnostic phase with the three main dimensions of innovation ecosystems (see Deliverable 2.4), a set of potential projects/actions were created for each. Although the projects are presented by dimension, it should be noted that their creation was developed considering the potential for them to strengthen more than one dimension simultaneously and to be associated with both value chains.

Figure 1 – List of Projects by Domain

Interaction	Resources	Governance
<ul style="list-style-type: none"> •SBE Int001: Interregional Staff Exchange Initiative •SBE Int002: Interregional Knowledge Exchange Visits Program •SusF Int003: Sustainable Fisheries and Aquaculture Collaboration Network •ME Int004: Marine Energy and Decarbonization Innovation Network •ME Int005: European Consortium for Green Energy Ships 	<ul style="list-style-type: none"> •SBE Res001: Sustainable Fisheries and Marine Energy Innovation Challenge •SBE Res002: Interregional Innovation and Collaboration Grant Program •SBE Res003: Young Researchers International Fellowship Program •SBE Res004: Innovation Fund for Sustainable Blue Economy Initiatives •SusF Res005: European Fisheries Innovation Hubs •SusF Res006: Circular Aquaculture Innovation Acceleration •ME Res007: Enhancing Connectivity of Small Ports for Innovation and Sustainability •SusF Res008: Smart Aquaculture Parks •SusF Res009: Blue Accelerator Program 	<ul style="list-style-type: none"> •SBE Gov001: Blue Governance Innovation Lab •SBE Gov002: Community-Led Governance Pilot Projects

Source: Own Elaboration inspired by Pinto (2021)

In total, there are 16 projects and ideas distributed across three dimensions².

Under the **Interaction** dimension, there are 5 initiatives:

Interregional Staff Exchange Initiative: aims to bolster regional collaboration and knowledge transfer by facilitating staff exchanges among organizations working in Sustainable Fisheries, Aquaculture, and Marine Energy. The program will develop a framework for staff exchanges, identify participating organizations, and manage the application, matching, and logistics processes. This initiative seeks to enhance staff skills, strengthen regional networks, and foster innovation through

² In Annex 1, there are detailed project sheets for each initiative, offering comprehensive insights into the objectives, activities, and expected outcomes of the projects. Each sheet outlines the key dimensions covered, including the project goal, main activities, needs and challenges addressed, necessary partners and functions, estimated resources, and next steps.

collaborative learning by promoting the sharing of expertise and best practices across regions.

Interregional Knowledge Exchange Visits Program: The program intends to foster cross-regional learning and collaboration by organizing study visits where stakeholders from the sustainable fisheries, aquaculture, and marine energy sectors can share and observe best practices and innovative solutions. The program will develop a structured framework, coordinate visit logistics, and engage with host organizations across different regions. By facilitating these visits, the program will enhance knowledge exchange, strengthen inter-regional partnerships, and promote the adoption of successful models and practices. The program will also gather feedback and disseminate insights through reports and workshops to maximize its impact.

Sustainable Fisheries and Aquaculture Collaboration Network: aims to create a collaborative network among EU countries to enhance cooperation and optimize resource use in sustainable fisheries and aquaculture. By developing a dedicated platform for communication, facilitating cross-border collaboration, and organizing workshops and stakeholder engagement events, the project will address challenges such as overfishing and resource depletion. The network will also focus on implementing digital solutions to improve supply chain management and resource optimization, ultimately accelerating the adoption of best practices and innovations in these sectors

Marine Energy and Decarbonization Innovation Network: seeks to establish a collaborative network among EU countries to advance marine renewable energy technologies and maritime decarbonization efforts. The network will create a platform for sharing technological innovations, organize workshops for stakeholders, and utilize digital tools for project management and supply chain optimization. The network aims to address challenges related to carbon emissions and energy transitions, enhance

resource efficiency, and drive technological advancements in marine energy.

European Consortium for Green Energy Ships: focused on accelerating the adoption of green ships in European waters. This consortium will bring together ship owners, technology developers, port authorities, and government agencies to promote the integration of hydrogen-powered ships. Key activities include conducting feasibility studies, implementing pilot projects, and supporting SMEs and startups in the hydrogen technology sector. This project will also engage with local communities to build public support for green shipping technologies and infrastructure.

For the **Resources** dimension, there are 9 projects:

Sustainable Fisheries and Marine Energy Innovation Challenge: aims to drive innovation in sustainable fisheries management, aquaculture technologies, and marine renewable energy by focusing on decarbonization and resource valorization. This project seeks to address critical challenges in sustainability, technological gaps, and resource efficiency through a unified competition. Innovators are invited to submit ideas, which will undergo evaluation by a panel of industry experts. Selected projects will receive awards, funding, and development support, including mentorship and technical assistance. The initiative culminates in a showcase event, promoting cross-sector collaboration and highlighting advancements in marine energy and sustainable fisheries.

Interregional Innovation and Collaboration Grant Program: is designed to promote and support innovative projects within the Sustainable Fisheries, Aquaculture, and Marine Energy value chains by facilitating regional collaboration. The program will launch an open call for proposals from regional stakeholders, offering financial grants and technical assistance to selected projects. By addressing regional challenges, fostering innovation, and enhancing cooperation, the initiative aims to strengthen local capacities and bridge gaps in knowledge and funding. Through

workshops and networking events, the program will also encourage knowledge sharing and collaboration across regions to ensure impactful project outcomes.

Young Researchers International Fellowship Program: aims to support recent PhD graduates by offering short-term fellowships for collaborative research and internships with companies abroad. Focused on the Sustainable Fisheries, Aquaculture, and Marine Energy sectors, the program seeks to enhance early-career researchers' industry experience, foster international collaboration, and strengthen practical skills. Through a structured application process, selected fellows will be matched with host organizations aligned with their research interests. The program will also provide financial support and monitor the progress of the fellowships, ensuring meaningful career development and international exposure for participants.

Innovation Fund for Sustainable Blue Economy Initiatives: is designed to stimulate private sector investment in sustainable projects within the fisheries, aquaculture, and marine by-products valorization sectors across Europe. This fund aims to catalyze innovation by providing financial support to SMEs, startups, and research institutions working on projects that focus on sustainability, technological innovation, and scalability. Through grants, loans, or equity investments, selected projects will receive funding, mentorship, and networking opportunities to ensure success. A robust monitoring framework will evaluate the environmental, economic, and social impacts, driving sustainable growth and technological advancements in the blue economy.

The **European Fisheries Innovation Hubs** aims to establish regional innovation hubs in key maritime regions such as the North Sea, Mediterranean, Baltic Sea, and Atlantic Ocean. These hubs will serve as platforms for fostering collaboration, knowledge exchange, and innovation in sustainable fisheries. By connecting industry stakeholders,

researchers, and policymakers, the hub will support the adoption of new technologies, practices, and regulatory frameworks, ultimately driving sustainability in fisheries management across Europe. The program will include collaborative projects, policy dialogues, and cross-regional workshops to address fragmentation, innovation challenges, and capacity-building needs.

The Circular Aquaculture Innovation Acceleration initiative focuses on promoting sustainable aquaculture practices through circular production processes and commercializing subproducts. It encourages aquaculture farms to adopt technologies like recirculating aquaculture systems (RAS) and integrated multi-trophic aquaculture (IMTA) to minimize waste and optimize resources. This initiative also aims to identify markets for aquaculture subproducts such as algae and marine invertebrates, targeting sectors like food, cosmetics, and pharmaceuticals. This program addresses key challenges related to waste reduction, market diversification, and environmental sustainability.

The **Enhancing Connectivity of Small Ports for Innovation and Sustainability** initiative aims to develop strategies and recommendations to enhance the connectivity of small ports with regional activities, fostering innovation and sustainability by 2030. The project will address connectivity gaps and environmental impact challenges through baseline assessments, stakeholder engagement, and innovative project calls. The program will involve industry, government, and academic partners to ensure policy alignment and the successful integration of small ports into regional economic and innovation activities.

Smart Aquaculture Parks is a program that seeks to establish integrated aquaculture parks powered by renewable energy and equipped with advanced technologies like IoT sensors and AI-driven management systems. These parks aim to optimize resource efficiency, sustainability, and productivity while reducing environmental impact. The initiative will

pilot projects in select regions, provide training for aquaculture staff, and monitor the performance of the integrated systems to support long-term scalability.

The **Blue Accelerator Program** aims to support startups in the fisheries, aquaculture, maritime energy, and decarbonization sectors through an accelerator program. Startups will gain access to mentorship, funding, and facilities via a rotating residency model across regional innovation hubs. The program will support business development, facilitate investor partnerships, and create a platform for startups to scale their innovative solutions. The program addresses the need for innovation stimulation, funding access, and market entry support in these critical sectors.

Lastly, the **Governance** dimension includes 2 initiatives:

Blue Governance Innovation Lab: aims to develop and test new governance models for the blue economy, focusing on inclusivity, transparency, and effectiveness. The lab will establish both physical and virtual infrastructure, conduct research to improve current models and implement pilot projects in various regions. It will engage stakeholders through workshops and digital platforms and support local authorities' adoption of successful governance strategies.

Community-Led Governance Pilot Projects: focuses on empowering local communities to manage blue economy activities through inclusive, community-led governance models. The initiative will identify and support pilot regions, engage community members in governance processes, and provide training to enhance local capacity. The goal is to test and refine governance models that address community needs and improve the management of local blue economy sectors.

The governance dimension is more challenging to suggest projects for because it is independent of the partnership, and therefore, the number of suggestions in this area is lower. However, this dimension is crucial, so a

set of public policy recommendations has been created. The following section presents the project sheets and this list of policies.

4. Strategic Prioritization and Regional Relevance of Actions in the Innovation Ecosystem

The three dimensions of innovation ecosystems - interaction, resources, and governance - are deeply interrelated, with each influencing the effectiveness and outcomes of the others. Understanding these interrelationships is critical to the success of initiatives promoting a sustainable blue economy.

Interaction and resources:

The interaction dimension is fundamental to build partnerships and fostering collaboration between stakeholders such as academia, industry and government. These interactions are a mechanism for exchanging ideas and a key driver for identifying and securing resources. Solid and collaborative networks can attract financial investment, technological support and infrastructure development by demonstrating a unified and strategic approach to sustainable innovation.

For example, stakeholders from different sectors can more effectively advocate for funding and policy support by working together. This collaboration can lead to more significant investment in technology and infrastructure, which strengthens these stakeholders' capacity to engage in more meaningful interactions. Thus, the strength of the interaction dimension directly impacts the availability and effective use of resources.

Resources and Governance:

The resource dimension, which includes financial investment, technology, and infrastructure, is critical in supporting the development and enforcement of governance frameworks. Adequate resources allow the

implementation of comprehensive governance systems that can effectively guide and regulate stakeholder interactions.

For example, financial resources enable the establishment of robust monitoring and evaluation systems that ensure compliance with sustainability standards. These systems, supported by technological advances, can provide real-time data and insights that enable governance bodies to make informed decisions and adjust regulations as needed. Conversely, resource constraints can limit the scope and effectiveness of governance, leading to weaker enforcement and less coordinated efforts across regions.

Governance and interaction:

The governance dimension establishes the rules, norms and structures that govern stakeholder interactions within the innovation ecosystem. Effective governance ensures that these interactions are productive, equitable and aligned with the overarching goals of sustainability and innovation.

Governance frameworks that are well-designed and harmonised across regions can increase stakeholder trust and cooperation, leading to more effective and comprehensive interactions. For example, standardised regulations can reduce the complexity and friction often accompanying cross-border cooperation, making it easier for stakeholders to collaborate and share resources. In addition, government policies that incentivise collaboration - such as grants, tax breaks or intellectual property protection - can stimulate further interaction between stakeholders, creating a virtuous circle in which governance and interaction are mutually reinforcing.

Interdependence of all dimensions:

The relationship between interaction, resources, and governance is dynamic and cyclical. Effective interactions lead to better resource mobilisation and strengthening governance structures. Strong

governance then facilitates more effective interactions, creating a feedback loop that enhances the overall resilience and sustainability of the innovation ecosystem.

For example, a region that successfully leverages its interactions to secure resources can then use those resources to develop advanced governance frameworks. These frameworks, in turn, ensure that interactions continue to be fruitful and aligned with the region's long-term sustainability goals. Conversely, weaknesses in one dimension can undermine the others. Poor governance can misallocate resources, reducing the quality and effectiveness of stakeholder interactions and ultimately weakening the entire ecosystem.

Each dimension supports and enhances the others, creating a robust innovation ecosystem capable of driving sustainable growth and resilience in the blue economy. By strategically leveraging these interrelationships, the action plan can ensure meaningful and lasting impacts across the participating regions. The successful achievement of the 12 specific objectives of this action plan depends on the effective integration and interplay of the Interaction, Resources, and Governance dimensions, as showed in table 1.

Table 1 - Integration of Dimensions in Achieving Strategic Goals

Goal	Dimension			Action
	Resources	Interaction	Governance	
Upgrade infrastructure and technology for marine resource management in less-developed regions	providing the financial support, technology, and infrastructure necessary to upgrade marine resource management systems	Collaboration between regional stakeholders and technology providers can accelerate the transfer and adaptation of advanced technologies	Policies that prioritize funding and regulatory support for infrastructure development can facilitate these upgrades.	Enhancing Connectivity of Small Ports for Innovation and Sustainability Smart Aquaculture Parks

Implement training programs for local stakeholders on sustainable marine management and environmental impact assessment	Adequate funding and technological resources are needed to develop comprehensive training modules and tools	Effective stakeholder partnerships and knowledge-sharing platforms are essential for the successful design and delivery of training programs.	Establishing standards and certifications for training programs ensures their quality and alignment with broader sustainability goals.	Interregional Staff Exchange Initiative Blue Accelerator Program
Facilitate access to funding, technology, and expertise for sustainable economic activities	This dimension is central to mobilizing the financial and technological resources required for sustainable initiatives.	Networks and partnerships can help connect stakeholders with the expertise and funding opportunities they need.	Policies that streamline access to funds and incentivize sustainable practices can enhance the impact of these efforts	Regional Innovation and Collaboration Grant Program Innovation Fund for Sustainable Blue Economy Initiatives
Launch targeted projects to restore habitats, manage fisheries sustainably, and control pollution	Resource allocation for these projects is critical, particularly in terms of funding, technology, and human capital.	Collaborative efforts among stakeholders can ensure that projects are well-coordinated and address local needs effectively.	Regulatory frameworks that support environmental restoration and pollution control are essential for project success	Sustainable Fisheries and Marine Energy Innovation Challenge Sustainable Fisheries and Aquaculture Collaboration Network
Introduce strategies to improve ecosystem resilience to environmental pressures	Investments in research, technology, and infrastructure are needed to develop and deploy resilience-enhancing strategies	Stakeholder engagement ensures that resilience strategies are informed by local knowledge and supported by those who are most affected	Strong governance is required to implement and enforce strategies aimed at enhancing ecosystem resilience	Circular Aquaculture Innovation Acceleration Community-Led Governance Pilot Projects
Establish monitoring systems to track and	Investment in monitoring technologies and systems is	Collaborative monitoring efforts can leverage	Effective governance frameworks ensure that	Blue Governance Innovation Lab

assess the effectiveness of ecosystem strengthening initiatives	necessary to track progress accurately.	diverse expertise and resources, improving the accuracy and relevance of assessments	monitoring is consistent, transparent, and aligned with broader sustainability goals	European Fisheries Innovation Hubs
Create platforms for knowledge sharing and best practices between regions	Funding and technological support are required to develop and maintain these platforms.	This dimension is central to the creation and success of knowledge-sharing platforms, facilitating collaboration and innovation across regions	Policies that encourage open access and participation can enhance the effectiveness of knowledge-sharing initiatives	Interregional Knowledge Exchange Visits Program Marine Energy and Decarbonization Innovation Network
Promote and support joint projects involving stakeholders from different regions	Adequate funding and resource allocation are necessary to support joint projects	Cross-regional collaborations are at the heart of this objective, requiring strong networks and partnerships	Harmonized regulations and policies can facilitate collaboration across regions and ensure that joint projects are successful	European Consortium for Green Energy Ships Young Researchers International Fellowship Program
Develop strategies to attract investment into less-developed regions and optimize investment opportunities	Attracting investment requires a strong resource base, including financial incentives, technological readiness, and infrastructural support	Partnerships between local stakeholders and external investors can help align investment strategies with regional needs	Favorable policies and regulatory frameworks are essential to create a conducive environment for investment	Regional Innovation and Collaboration Grant Program Enhancing Connectivity of Small Ports for Innovation and Sustainability
Design new projects and initiatives that extend the benefits of interregional cooperation beyond the	Continued resource allocation, including funding and technical support, is necessary to maintain	Sustained collaboration and partnership-building are key to ensuring long-term	Long-term governance structures must be established to support ongoing collaboration and project continuity	Blue Accelerator Program Blue Governance Innovation Lab

project's duration	momentum beyond the project's official end	interregional cooperation		
Develop strategies to ensure the long-term sustainability of the action plan's results	Sustainable resource management, including financial planning and technological innovation, supports the longevity of the action plan's impact	Ongoing stakeholder engagement and collaboration help maintain commitment to the action plan's objectives over time	Governance is crucial for establishing and enforcing policies that ensure the sustainability of project outcomes	Community-Led Governance Pilot Projects Circular Aquaculture Innovation Acceleration
Establish enduring institutions or initiatives to support ongoing regional collaboration and impact	Adequate funding and infrastructure are necessary to establish and sustain these institutions or initiatives	These institutions should be built on the foundation of strong partnerships and networks that ensure their relevance and effectiveness	The creation of institutions requires strong governance frameworks that define their roles, responsibilities, and operational procedures	European Fisheries Innovation Hubs Sustainable Fisheries and Aquaculture Collaboration Network

Source: Own Elaboration

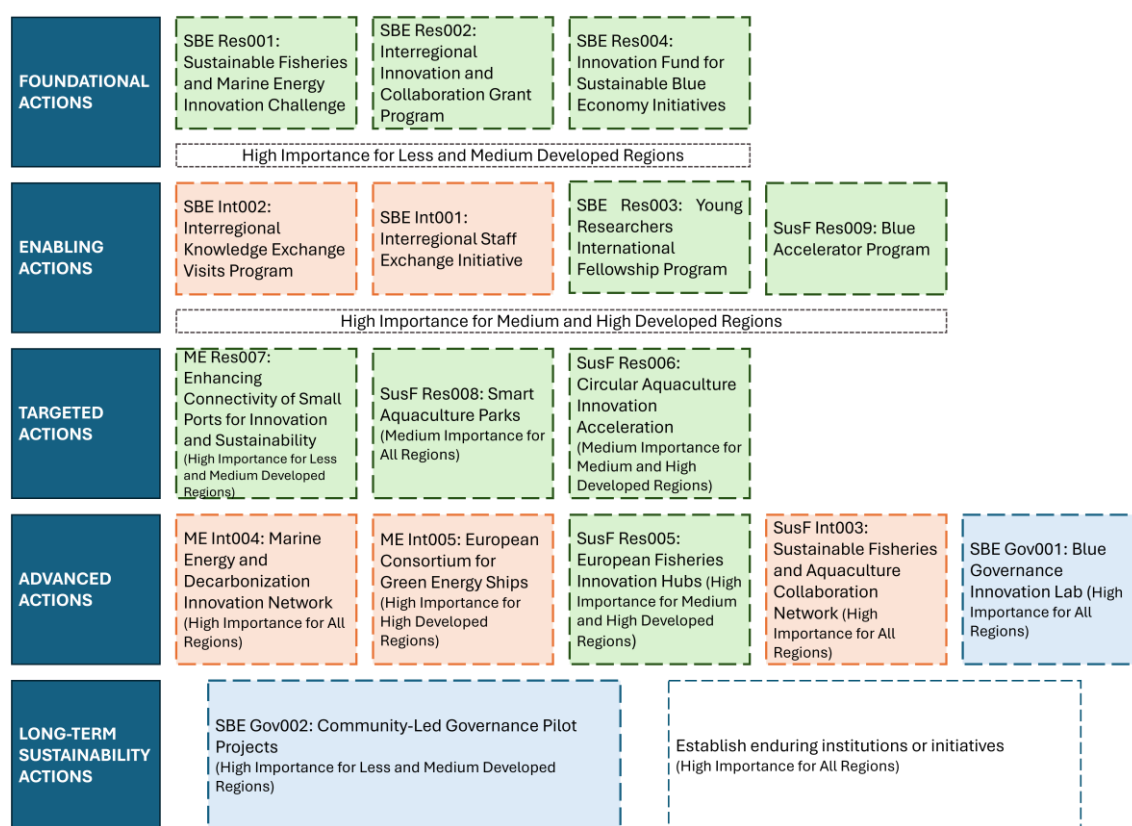
Although Table 1 provides examples of actions aligned with each specific objective, it is important to emphasize that this division is not rigid. The proposed actions have been intentionally designed in an integrated manner to contribute to multiple objectives simultaneously. The underlying vision is to strengthen the innovation ecosystem within the targeted value chains, and this analysis reflects an ecosystem-based perspective of interdependence, where each action reinforces and complements others to achieve a cohesive and sustainable impact.

Following the discussion on the integrated nature of the proposed actions, it is crucial to delve into their prioritization and sequencing to maximize their effectiveness. The actions outlined, while interconnected, should be

strategically prioritized based on their foundational role, enabling capacity, and potential for advanced innovations. Higher priority actions typically include those that establish essential infrastructure and funding mechanisms, as they pave the way for subsequent initiatives. These foundational actions often need to be implemented first, creating the necessary conditions for more complex and targeted projects. Enabling actions, which support capacity building and knowledge exchange, follow to prepare regions for advanced innovations. Advanced actions, focusing on high-impact innovations, should be undertaken once the foundational and enabling conditions are in place. Additionally, long-term sustainability actions ensure that the benefits are maintained beyond the project's lifecycle.

The importance of these actions varies by type of region. Less developed regions, for instance, will benefit significantly from foundational and enabling actions that provide the necessary support and infrastructure for initial development. In contrast, more developed regions might prioritize advanced actions and long-term sustainability measures to push the boundaries of innovation and maintain ongoing impacts. Interregional cooperation is also critical; actions that enhance collaboration and knowledge sharing are vital for bridging gaps between regions of varying development levels. These cooperative actions foster mutual growth and can lead to innovative investments that benefit both similar and disparate regional contexts. The diagram presented below visually represents this strategic prioritization and sequencing, highlighting how each action aligns with regional needs and interregional cooperation goals.

Figure 2 – Action Prioritization, Implementation, and Regional Relevance



Source: Own Elaboration

In order to prioritise and implement the proposed actions effectively, it is essential to consider their different importance for different types of regions and the order in which they should be implemented.

Foundational Actions are crucial for laying the foundations in less and medium-developed regions. These actions, such as the Sustainable Fisheries and Marine Energy Innovation Challenge, the Regional Innovation and Cooperation Grant Programme and the Innovation Fund for Sustainable Blue Economy Initiatives, provide the necessary financial support, infrastructure and initial innovation. They are essential for less-developed regions, which need strong start-up support to kick-start development, and intermediate-developed regions, which want to improve their capabilities.

Enabling Actions support and complement the Basic Actions by promoting cooperation and knowledge exchange. Examples include the

Interregional Knowledge Exchange Visits Programme and the Interregional Staff Exchange Initiative. These actions are essential for less developed regions to build capacity and establish links. In contrast, medium and highly-developed regions use them to refine their existing capabilities further and facilitate more advanced innovation.

Targeted actions focus on specific innovations and improvements, such as improving the connectivity of small ports for innovation and sustainability, as well as smart aquaculture parks. These actions address immediate infrastructure needs for less developed regions and support innovation in critical areas. They build on existing infrastructure in medium and highly-developed regions to implement advanced projects and drive sector-specific progress.

Advanced Actions are designed to drive significant technology and innovation breakthroughs, including the Marine Energy and Decarbonisation Innovation Network and the European Consortium for Green Energy Ships. These actions are of universal relevance but they are particularly effective in medium and highly-developed regions where the infrastructure and capacity to implement complex projects are already in place. Less developed regions may need to focus on foundational and enabling actions before taking full advantage of advanced initiatives.

Long-term sustainability actions ensure the continued effectiveness and viability of earlier actions, such as the pilot projects on community-led governance and establishing sustainable institutions. These actions are essential in all regions to sustain progress, encourage ongoing collaboration and support the long-term development of innovation ecosystems.

5. POLICY RECOMMENDATIONS

5.1 Standard Policies for Both Value Chains

Harmonize Regulations Across Regions and Countries:

Developing a harmonized regulatory framework is essential for facilitating seamless collaboration across borders. This framework should align environmental standards, safety regulations, and operational procedures to ensure consistency. To achieve this, it is necessary to establish a regional regulatory body responsible for overseeing and coordinating regulatory standards related to the blue economy. Collaborating with stakeholders to draft and implement uniform regulations will address critical areas such as marine resource management and pollution control. Regular cross-border consultations should be conducted to review and update regulations, addressing emerging challenges and opportunities. A harmonized regulatory framework will reduce barriers to cross-border collaboration, simplify compliance processes, and enhance the effectiveness of collective efforts.

Develop User-Friendly Compliance Systems:

An integrated compliance management platform should be developed to support stakeholders in meeting regulatory requirements. This platform will streamline the process of compliance reporting, monitoring, and enforcement. Creating a centralized online platform that integrates compliance tracking, reporting, and communication tools is crucial. Providing resources and training for stakeholders to effectively use the platform and understand regulatory requirements will further support compliance. Ensuring the platform is user-friendly and accessible to many stakeholders, including small and medium-sized enterprises (SMEs), will facilitate greater engagement and adherence to regulations. Simplifying compliance processes through such a platform will reduce administrative burdens, improve transparency, and enhance efficiency.

Implement Robust Monitoring and Evaluation Systems:

Robust monitoring and evaluation systems are fundamental for assessing the effectiveness of blue economy initiatives. Establishing a regional monitoring and evaluation framework will standardize monitoring practices and facilitate data sharing. Developing standardized indicators for tracking progress and assessing impact across regions will provide a consistent basis for evaluation. Implementing real-time data collection technologies, such as remote sensing and IoT, will enhance the accuracy and timeliness of data. Promoting data sharing among regions and stakeholders will improve collective knowledge and decision-making. A standardized framework will support evidence-based policy adjustments and improvements, enhancing the overall effectiveness of initiatives.

Simplify Legal and Administrative Procedures:

Administrative procedures should be digitized and simplified to reduce bureaucratic delays and streamline project approvals. Implementing e-government solutions, such as digital platforms for submitting applications and managing permits, will enhance efficiency. Standardizing administrative processes across regions will ensure consistency and reduce complexity. Improving communication channels between regulatory bodies and stakeholders will facilitate faster resolution of issues. Simplifying legal and administrative procedures will accelerate project implementation, reduce costs, and enhance overall efficiency.

Increase Public Investment and Develop Strategic Policies:

Public investment is critical for supporting innovation and infrastructure development. Establishing a regional innovation fund will prioritize and finance critical initiatives. Allocating funds to high-priority areas, such as advanced technologies and infrastructure projects, will maximize impact. Developing detailed investment plans that outline funding priorities, expected outcomes, and performance metrics will guide resource allocation. Encouraging public-private partnerships will leverage

additional resources and expertise. Increased public investment and strategic funding will enhance the capacity to implement innovative projects and drive sustainable development.

Foster Public-Private Partnerships for Innovation:

To accelerate innovation and technology adoption, fostering public-private partnerships is crucial. Establishing innovation hubs and collaborative platforms that bring together public institutions, private companies, and research organizations will enhance knowledge exchange and technology transfer. Providing incentives for joint ventures and collaborative projects will drive innovation and investment. Creating shared risk and reward frameworks will encourage private sector involvement in high-risk, high-reward projects. Public-private partnerships will leverage diverse expertise and resources, accelerating the development and deployment of innovative solutions.

Enhance Regional Capacity Building and Training Programs:

Building regional capacity is essential for the successful implementation of blue economy initiatives. Developing comprehensive training programs focusing on critical skills, such as project management, technical expertise, and regulatory compliance, will enhance regional capabilities. Offering specialized training for emerging technologies and practices will ensure stakeholders are well-equipped to address current and future challenges. Establishing regional centres of excellence to provide ongoing support and training will foster local expertise and leadership. Enhanced capacity building will improve the effectiveness of initiatives and ensure long-term sustainability.

Promote Sustainable Investment Practices and Green Financing:

Encouraging sustainable investment practices and green financing is critical for supporting blue economy projects. Developing green financing mechanisms, such as green bonds and sustainability-linked loans, will fund

projects with positive environmental impacts. Offering tax incentives and subsidies for green investments will attract private sector participation. Implementing environmental, social, and governance (ESG) criteria for investment decisions will ensure alignment with sustainability goals. Promoting sustainable investment practices will drive capital towards projects that support environmental and economic objectives.

Strengthen Regional Cooperation and Knowledge Sharing:

Regional cooperation and knowledge sharing are vital for addressing common challenges and advancing innovation. Establishing regional forums and networks for knowledge exchange will facilitate collaboration among stakeholders. Promoting joint research initiatives and collaborative projects will address shared challenges and opportunities. Encouraging interregional visits and exchanges will enhance mutual understanding and cooperation. Strengthening regional cooperation will foster innovation, improve resource utilization, and support collective progress towards sustainability goals.

Support Innovation in Data and Technology Integration:

Advancing data and technology integration is essential for improving decision-making and operational efficiency. Investing in data infrastructure and technology platforms will enhance data collection, analysis, and utilization. Using big data, artificial intelligence (AI), and machine learning in decision-making processes will improve predictive capabilities and efficiency. Supporting research and development in data technologies and their applications will drive innovation and improve outcomes. Enhanced data and technology integration will support more informed and effective management of blue economy resources and initiatives.

Encourage Community Involvement and Public Awareness Campaigns:

Engaging communities and raising public awareness are crucial for the success of blue economy initiatives. Developing community engagement strategies involving local stakeholders in decision-making will enhance buy-in and support. Implementing public awareness campaigns to educate communities about the benefits of sustainable practices and innovations will foster broader support. Providing community feedback and participation platforms will ensure initiatives are responsive to local needs and concerns. Encouraging community involvement and public awareness will build support for blue economy initiatives and drive positive environmental and social outcomes.

5.2 Specific Policies for Sustainable Fisheries, Aquaculture, and Valorisation of Blue Resources

Develop Effective Crisis Management Strategies:

A well-coordinated crisis management system is essential for addressing emergencies in fisheries and aquaculture. Establishing a regional crisis response network will enhance preparedness and response capabilities. Forming a crisis management task force with representatives from key sectors and regions will help develop and implement crisis management plans. Developing early warning systems for detecting and mitigating potential crises, such as disease outbreaks or environmental disasters, will improve readiness. Providing financial and logistical support mechanisms for affected stakeholders during crises will mitigate impacts. A regional crisis response network will improve coordination and readiness, reducing the impact of emergencies on fisheries and aquaculture operations.

Invest in Advanced Technologies for Sustainable Production:

Investment in advanced technologies is crucial for enhancing sustainability in fisheries and aquaculture. Launching a technology innovation initiative will support research and development. Grants and subsidies for research projects focused on sustainable technologies, such

as eco-friendly feeds and disease-resistant species, will drive progress. Facilitating the transfer of advanced technologies from research institutions to operational settings will accelerate adoption. Offering incentives and support for stakeholders to implement new technologies will further promote sustainability. Investing in advanced technologies will improve production processes, contributing to long-term resource management.

Provide Targeted Support for Aquaculture Investments in High-Cost Regions:

A targeted support program should be introduced to address the challenges high-cost regions face. This program will provide financial and technical assistance to promote aquaculture development. Offering subsidies, tax breaks, or low-interest loans will support aquaculture investments in high-cost regions. Providing technical support and expertise to help stakeholders overcome barriers and optimize operations will enhance development. Establishing centres of excellence to provide training, resources, and support for aquaculture projects will further promote growth. Targeted support will help overcome financial barriers and encourage investment, fostering aquaculture development in challenging regions.

Address Administrative Issues, Including Licensing:

Administrative and licensing issues can hinder aquaculture development. Simplifying these processes will facilitate investment and operational efficiency. Developing a fast-track licensing process for projects that meet specific criteria will reduce approval times. Publishing comprehensive guidelines outlining licensing requirements and procedures will provide clarity. Improving coordination between regulatory agencies will streamline approvals and reduce duplication. Simplifying licensing and permitting processes will accelerate project implementation and reduce stakeholder administrative burdens.

5.3 Specific Policies for Renewable Energy and Maritime Decarbonization

Establish National Strategies and Regulatory Frameworks for Alternative Fuels and Renewable Energy:

National strategies should outline objectives and regulatory frameworks for alternative fuels and renewable energy. Developing comprehensive national action plans will guide the transition to sustainable energy. Setting national targets for emissions reductions and renewable energy adoption will provide direction. Creating regulatory incentives, such as tax credits or subsidies, will encourage using alternative fuels and renewable energy. Investing in research and development to advance technologies and reduce costs will support these efforts. National strategies and regulatory frameworks will provide a clear direction for sustainable energy transitions, fostering innovation and investment.

Harmonize Shore Power and Infrastructure Standards Across Europe:

Standardizing shore power and infrastructure across Europe can enhance efficiency and facilitate deploying renewable energy solutions. Developing a European shore power standardization initiative will ensure compatibility and interoperability. Establishing standard specifications for shore power infrastructure will provide a common technical basis. Promoting cross-border cooperation will enhance the implementation of standardized infrastructure. Supporting infrastructure development through funding and support will facilitate widespread adoption. Harmonized standards will improve operational efficiency, reduce costs, and support renewable energy solutions.

Simplify the Regulatory Environment for Marine Renewable Energy Projects:

The regulatory environment should be simplified to accelerate the development of marine renewable energy projects. Creating a unified permitting process for marine renewable energy projects will integrate all

necessary approvals. Providing clear and concise guidelines for project developers will support compliance. Engaging with stakeholders early in the permitting process will address concerns and streamline approvals. Simplified regulations will reduce barriers to project development and accelerate the deployment of marine renewable energy technologies.

Invest in Efficient Ship Development and Coordinate Sustainability Regulations for Alternative Fuels:

Investment in efficient ship development and coordination of sustainability regulations are essential for maritime decarbonization. Launching a green shipping innovation program will support these efforts. Providing grants and subsidies for research and development of green shipping technologies will drive progress. Coordinating sustainability regulations for alternative fuels will ensure consistency and support innovation. Developing policies to integrate offshore energy with aquaculture will promote synergies between sectors. Investing in efficient ship development and coordinating regulations will support maritime decarbonization and enhance sustainability.

6. CONCLUSIONS

The strategic initiatives outlined in this plan aim to address the needs, challenges, and innovation investment priorities identified in the summary report (see Deliverable 2.4) by fostering regional cooperation, knowledge sharing and technological innovation. By focusing on these areas, the actions aim to streamline regulatory processes, increase public investment, and support the development of green technologies and sustainable practices.

Public policy has a vital role in shaping these initiatives' success. Streamlining regulations, harmonising standards across regions and simplifying administrative procedures are essential to creating an environment conducive to growth and innovation. Such policies will

facilitate the adoption of new technologies and practices and strengthen the value chains by ensuring consistency and reducing barriers to progress.

Furthermore, strengthening the interregional ecosystem within the EU is crucial for building a more resilient and integrated blue economy. Enhanced cooperation between regions, effective governance models and strategic investments will drive collective efforts towards sustainable growth and innovation.

In summary, the proposed Action Plan provides a comprehensive framework for addressing the needs of the blue economy, aligning policy recommendations with project objectives to drive meaningful progress. By focusing on these priorities, we can ensure a more sustainable, innovative, and cohesive blue economy that benefits all stakeholders across the EU.

7. REFERENCES

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ANNEX 1 – PROJECT SHEETS

A - INTERACTION DIMENSION

Name: Interregional Staff Exchange Initiative	
Acronym: RSEI	
Domain: Interaction	
Number: SBE Int001	
Value Chain: Applicable for both	
Goal	Enhance regional collaboration and knowledge transfer by facilitating staff exchanges among organizations involved in Sustainable Fisheries, Aquaculture, and Marine Energy sectors.
Main activities	<p>Program Design: Develop the framework for the staff exchange program, including objectives, guidelines, and duration of exchanges.</p> <p>Partner Identification: Identify and engage organizations across regions that are interested in participating in the staff exchange.</p> <p>Application Process: Set up an application process for organizations to apply for participation and staff members to apply for exchange opportunities.</p> <p>Matching and Coordination: Match staff members with suitable organizations based on their expertise and the needs of the host organization.</p> <p>Exchange Implementation: Facilitate the exchange process, including logistics, accommodation, and integration into the host organization.</p> <p>Evaluation and Feedback: Monitor the exchanges, gather feedback from participants, and assess the outcomes to improve the program.</p>
Needs/Challenges that the Idea Can Help Solve	<p>Knowledge Transfer: Facilitate the exchange of expertise and best practices between regions.</p> <p>Capacity Building: Enhance the skills and capabilities of staff in regional organizations.</p> <p>Collaboration: Strengthen regional networks and partnerships through staff interaction.</p> <p>Innovation Sharing: Promote the sharing of innovative approaches and solutions across regions</p>
Identification of Necessary Partners/Functions to Fulfill	<p>Participating Organizations: To host and exchange staff members and provide on-the-job training.</p> <p>Regional Authorities: To promote the program and support logistical arrangements.</p> <p>Training Providers: To offer supplementary training and orientation for exchanged staff.</p>

	<p>Program Coordinators: To manage the program, including matchmaking, logistics, and support</p>
<p>Estimated Resources Needed</p>	<p>Funding for program management, staff stipends, travel expenses, and logistical support. Program manager, exchange coordinators, administrative support. Marketing for promoting the program and recruiting participants. Logistics for arranging travel, accommodation, and other exchange-related cost</p>
<p>Next Steps</p>	<p>Develop Program Framework: Define program objectives, guidelines, and procedures for the staff exchange. Identify Partners: Reach out to and engage organizations willing to participate in the program. Launch Application Process: Set up and promote the application process for organizations and staff members. Coordinate Exchanges: Match staff with appropriate organizations and manage the logistical aspects of the exchanges. Implement Exchanges: Facilitate the staff exchanges, ensuring smooth integration and support. Monitor and Evaluate: Collect feedback from participants, evaluate the program's effectiveness, and make necessary improvements.</p>

Name: Interregional Knowledge Exchange Visits Program	
Acronym: RKEVP	
Domain: Interaction	
Number: SBE Int002	
Value Chain: Applicable for both	
Goal	Facilitate cross-regional learning and collaboration by organizing study visits for stakeholders to share best practices and innovative solutions in Sustainable Fisheries, Aquaculture, and Marine Energy sectors.
Main activities	<p>Program Design: Develop the framework for the study visits program, including objectives, guidelines, and scheduling.</p> <p>Visit Planning: Coordinate logistics for visits, including itinerary development, travel arrangements, and accommodation.</p> <p>Partner Engagement: Identify and engage host organizations and stakeholders in different regions to participate in the program.</p> <p>Visit Execution: Organize and facilitate the visits, ensuring participants have the opportunity to learn from host organizations and engage in discussions.</p> <p>Feedback Collection: Gather feedback from participants and host organizations to assess the effectiveness of the visits and identify areas for improvement.</p> <p>Dissemination: Share insights and outcomes from the visits through reports, presentations, and workshops.</p>
Needs/Challenges that the Idea Can Help Solve	<p>Knowledge Exchange: Provide stakeholders with opportunities to learn from successful practices and innovations in other regions.</p> <p>Collaboration: Strengthen inter-regional relationships and partnerships by fostering direct interactions.</p> <p>Best Practices: Promote the adoption of best practices and innovative solutions by exposing stakeholders to successful models.</p> <p>Networking: Enhance networking opportunities for stakeholders across different regions.</p>
Identification of Necessary Partners/Functions to Fulfill	<p>Host Organizations: To provide insights, share best practices, and facilitate learning during the study visits.</p> <p>Regional Authorities: To coordinate and promote the program within their regions.</p> <p>Logistics Providers: To manage travel arrangements, accommodation, and on-site coordination.</p>

	<p>Program Coordinators: To design and manage the study visits program, including scheduling and participant support.</p>
<p>Estimated Resources Needed</p>	<p>Funding for organizing visits, travel expenses, accommodation, and program management. Program manager, logistics coordinators, and administrative support. Marketing for promoting the program and recruiting participants. Event Costs</p>
<p>Next Steps</p>	<p>Develop Program Framework: Define the objectives, guidelines, and procedures for the study visits program. Identify Partners: Engage with host organizations and stakeholders to participate in the program. Plan Visits: Coordinate logistics, including travel, accommodation, and visit itineraries. Execute Visits: Facilitate the study visits, ensuring participants gain valuable insights and networking opportunities. Collect Feedback: Gather and analyze feedback from participants and hosts to assess the program's impact. Disseminate Results: Share the outcomes and learnings from the visits through reports and workshops.</p>

Name: Sustainable Fisheries and Aquaculture Collaboration Network	
Acronym: SFACN	
Domain: Interaction	
Number: SusF Int003	
Value Chain: 1	
Goal	Establish a collaborative network among EU countries to enhance cooperation, address crises in fisheries and aquaculture, and optimize resource utilization in sustainable fisheries and aquaculture.
Main activities	<p>Network Establishment: Develop a platform specifically for sustainable fisheries and aquaculture to facilitate communication and collaboration across EU member states. Address challenges such as overfishing and resource depletion.</p> <p>Cross-Border Collaboration: Launch initiatives to share best practices and resources for sustainable fisheries management and aquaculture technologies. Facilitate access to research facilities and testing sites.</p> <p>Workshops and Stakeholder Engagement: Organize specialized workshops and forums to connect stakeholders from academia, industry, government, and NGOs focused on sustainable fisheries and aquaculture practices. Demonstrate successful biomass resource management and innovative aquaculture solutions.</p> <p>Digitalization and Supply Chain Optimization: Implement digital solutions to enhance supply chain management in fisheries and aquaculture, including logistics and traceability of seafood products.</p>
Needs/Challenges that the Idea Can Help Solve	<p>Crisis Management: Address challenges like overfishing, bycatch, and resource management.</p> <p>Resource Optimization: Improve efficiency in the use of marine resources.</p> <p>Innovation Acceleration: Speed up the adoption of sustainable practices and technologies.</p> <p>Stakeholder Engagement: Strengthen collaboration and information sharing among fisheries and aquaculture stakeholders.</p>
Identification of Necessary Partners/Functions to Fulfill	<p>EU Member States: Coordinate on fisheries and aquaculture policies and resource management.</p> <p>Research Institutions: Provide expertise and facilities for fisheries and aquaculture research.</p> <p>Industry Associations: Promote sustainable practices and technology transfer.</p>

	<p>Government Agencies: Support policy coordination and regulatory alignment.</p> <p>NGOs: Advocate for sustainable practices and community engagement.</p>
Estimated Resources Needed	<p>Platform Development and Maintenance</p> <p>Workshops and Conferences</p> <p>Digital Tools Investment</p>
Next Steps	<p>Platform Development: Design and launch a collaborative platform for fisheries and aquaculture stakeholders.</p> <p>Stakeholder Engagement: Organize workshops and forums to foster collaboration.</p> <p>Digitalization Implementation: Deploy digital tools for supply chain and resource management.</p> <p>Policy Alignment: Work with EU member states to ensure regulatory support.</p> <p>Monitoring and Evaluation: Track the network's impact on sustainable fisheries and aquaculture.</p>

Name: Marine Energy and Decarbonization Innovation Network	
Acronym: MEDIN	
Domain: Interaction	
Number: ME Int004	
Value Chain: 2	
Goal	Create a collaborative network among EU countries to boost innovation, address maritime decarbonization challenges, and optimize resource use in renewable marine energy technologies.
Main activities	<p>Network Establishment: Develop a platform dedicated to marine renewable energy and maritime decarbonization, facilitating collaboration and crisis management, such as reducing carbon emissions in shipping.</p> <p>Cross-Border Collaboration: Promote cross-border projects to share technological innovations, optimize energy resources, and access marine renewable energy testing sites and research facilities.</p> <p>Workshops and Stakeholder Engagement: Host workshops and forums to connect stakeholders from the energy sector, technology developers, and environmental agencies. Showcase advancements in marine energy technologies and decarbonization strategies.</p> <p>Digitalization and Supply Chain Optimization: Utilize digital solutions to improve project management, optimize supply chains for renewable energy components, and streamline the integration of green technologies in maritime operations.</p>
Needs/Challenges that the Idea Can Help Solve	<p>Crises Management: Address challenges related to maritime carbon emissions and energy transitions.</p> <p>Resource Optimization: Enhance the efficiency of renewable energy resource use.</p> <p>Innovation Acceleration: Drive technological advancements in marine energy and decarbonization.</p> <p>Stakeholder Engagement: Build a strong network of collaborators and stakeholders in the marine energy and decarbonization sectors.</p>
Identification of Necessary Partners/Functions to Fulfill	<p>EU Member States: Collaborate on energy policies and decarbonization strategies.</p> <p>Technology Developers: Innovate and develop marine energy technologies.</p> <p>Research Institutions: Provide technical support and research facilities.</p>

	<p>Industry Associations: Facilitate technology transfer and promote green energy practices.</p> <p>Government Agencies: Ensure policy support and regulatory alignment.</p>
Estimated Resources Needed	<p>Platform Development and Maintenance</p> <p>Workshops and Conferences</p> <p>Digital Tools Investment</p>
Next Steps	<p>Platform Development: Create and launch a network platform for marine energy and decarbonization.</p> <p>Stakeholder Engagement: Organize relevant workshops and forums.</p> <p>Digitalization Implementation: Introduce digital tools for enhanced project and supply chain management.</p> <p>Policy Alignment: Coordinate with EU member states on supportive policies.</p> <p>Monitoring and Evaluation: Assess the network's effectiveness in advancing marine energy and decarbonization efforts.</p>

Name: European Consortium for Green Energy Ships	
Acronym: ECHPS	
Domain: Interaction	
Number: ME Int005	
Value Chain: 2	
Goal	Establish a consortium to accelerate the adoption of green ships in European waters, ensuring seamless integration and efficient operations while promoting sustainability and innovation.
Main activities	<p>Partnership Establishment: Bring together ship owners, technology developers, port authorities, and government agencies across Europe to form a collaborative consortium.</p> <p>Stakeholder Engagement: Organize workshops, forums, and seminars to discuss the benefits of hydrogen-powered ships, share best practices, and develop joint strategies.</p> <p>Feasibility Studies and Pilot Projects: Conduct feasibility studies to determine optimal charging systems for hydrogen-powered ships, considering factors like infrastructure requirements and operational efficiency.</p> <p>Pilot Projects: Implement pilot projects in selected European ports to demonstrate the feasibility and benefits of hydrogen-powered ships, showcasing different charging systems and operational scenarios.</p> <p>Support for SMEs and Startups: Facilitate SME participation in international events, fairs, and projects focused on hydrogen technologies and sustainable maritime solutions.</p> <p>Incentives for Outermost Regions: Offer special incentives such as tax breaks, direct support, and access to funding for SMEs and startups operating in outermost regions to promote innovation and economic growth.</p> <p>Mapping Stakeholders and Roles: Map out the stakeholders involved in the adoption of hydrogen-powered ships, identifying their roles, responsibilities, and opportunities for collaboration.</p> <p>Public Engagement and Acceptance: Engage with local communities and stakeholders to build public acceptance and support for hydrogen-powered ships and offshore wind projects.</p>

Needs/Challenges that the Idea Can Help Solve	Technology Adoption Investment and Funding Public Acceptance
Identification of Necessary Partners/Functions to Fulfill	<p>Ship Owners: Provide vessels for pilot projects and contribute operational insights.</p> <p>Technology Developers: Develop hydrogen fuel systems, charging infrastructure, and onboard technologies.</p> <p>Port Authorities: Support infrastructure development and facilitate regulatory approvals.</p> <p>Government Agencies: Provide funding, policy support, and regulatory frameworks to promote hydrogen technologies.</p> <p>Community Stakeholders: Engage local communities and environmental groups to address concerns and build consensus.</p>
Estimated Resources Needed	<p>Budget for initial meetings, workshops, and consortium setup.</p> <p>Budget for research on charging systems, hydrogen infrastructure, and operational feasibility.</p> <p>Pilot Projects</p> <p>SME Support for international collaboration, event participation, and incentives for startups in outermost regions.</p> <p>Budget for community outreach, educational programs, and addressing concerns related to hydrogen-powered ships.</p> <p>Marketing and Promotion</p>
Next Steps	<p>Consortium Establishment: Form the European Consortium for Hydrogen-Powered Ships (ECHPS) and onboard initial members.</p> <p>Feasibility Studies: Initiate studies on charging systems and operational feasibility in collaboration with technology providers and port authorities.</p> <p>Pilot Implementation: Launch pilot projects in selected ports to demonstrate the viability and benefits of hydrogen-powered ships.</p> <p>SME Engagement: Facilitate SME participation through international events, funding opportunities, and incentives for startups.</p> <p>Public Outreach: Engage with local communities, environmental groups, and stakeholders to build support for hydrogen technologies and offshore wind projects.</p>

B – RESOURCES DIMENSION

Name: Sustainable Fisheries and Marine Energy Innovation Challenge	
Acronym: SFM-EIC	
Domain: Resources	
Number: SBE Res001	
Value Chain: Applicable for both	
Goal	Encourage and support innovative solutions for sustainable fisheries management, aquaculture technologies, and marine renewable energy, focusing on advancing decarbonization and resource valorisation.
Main activities	<p>Launch Competition: Design and launch a unified competition to solicit innovative ideas addressing sustainable fisheries, aquaculture, and marine energy.</p> <p>Application Process: Develop and implement a streamlined application process with clear guidelines and evaluation criteria for all participating projects.</p> <p>Selection Panel: Assemble a diverse panel of experts in fisheries, aquaculture, marine energy, and decarbonization to review and select the best ideas.</p> <p>Award and Support: Provide awards, funding, and development support to selected projects, including mentorship, technical assistance, and resources.</p> <p>Showcase and Dissemination: Organize an event to showcase the winning projects and facilitate networking among stakeholders from both sectors.</p>
Needs/Challenges that the Idea Can Help Solve	<p>Sustainability: Address the need for innovative practices to enhance sustainability in both fisheries and marine energy sectors.</p> <p>Resource Valorisation: Find new methods for efficiently valorising marine resources and by-products in fisheries and aquaculture.</p> <p>Technology Gaps: Bridge gaps in technologies related to sustainable fisheries management, marine energy, and decarbonization.</p> <p>Innovation and Decarbonization: Promote advancements in marine renewable energy technologies and strategies for maritime decarbonization.</p>
Identification of Necessary Partners/Functions to Fulfill	<p>Research Institutions: Provide scientific validation and technical support for all areas of the competition.</p> <p>Industry Experts: Offer practical insights and feasibility assessments across fisheries, aquaculture, and marine energy sectors.</p>

	<p>Funding Agencies: Supply financial support for competition management, awards, and project development.</p> <p>Technology Developers: Contribute innovative solutions and technologies for marine energy and decarbonization.</p> <p>NGOs and Environmental Groups: Ensure sustainability and community engagement.</p>
<p>Estimated Resources Needed</p>	<p>Funding for competition management, awards, project support, and showcase event.</p> <p>Project manager, competition organizers, evaluation panel members.</p> <p>Marketing</p> <p>Event Costs</p>
<p>Next Steps</p>	<p>Develop Competition Framework: Outline comprehensive rules, criteria, and processes that cover all focus areas.</p> <p>Secure Funding: Obtain financial backing from sponsors and partners for the unified competition.</p> <p>Launch Campaign: Promote the competition through targeted outreach to attract participants from both value chains.</p> <p>Open Applications: Start accepting and reviewing submissions from innovators across fisheries, aquaculture, and marine energy sectors.</p> <p>Select Winners: Evaluate and select the best ideas for awards and support.</p> <p>Provide Support: Offer resources, mentorship, and technical assistance to advance winning projects.</p> <p>Host Showcase Event: Organize a final event to present innovations, foster cross-sector collaboration, and build industry connections.</p>

Name: Interregional Innovation and Collaboration Grant Program	
Acronym: RIC-GP	
Domain: Resources	
Number: SBE Res002	
Value Chain: Applicable for both	
Goal	Facilitate and support the development of innovative projects led by actors from regions involved in the Sustainable Fisheries, Aquaculture, and Marine Energy value chains.
Main activities	<p>Open Call Launch: Announce an open call for project proposals from regional actors in the fisheries, aquaculture, and marine energy sectors.</p> <p>Application Process: Develop and implement a comprehensive application process, including submission guidelines, evaluation criteria, and deadlines.</p> <p>Evaluation and Selection: Form a panel of experts to review and select the most promising regional projects based on their innovation, feasibility, and impact.</p> <p>Funding and Support: Provide financial grants, technical support, and project development assistance to selected regional projects.</p> <p>Project Implementation: Monitor and support the implementation of funded projects, ensuring adherence to objectives and timelines.</p> <p>Knowledge Sharing: Facilitate knowledge exchange through workshops, networking events, and project showcases.</p>
Needs/Challenges that the Idea Can Help Solve	<p>Regional Innovation: Encourage innovative projects that address local challenges and opportunities in fisheries, aquaculture, and marine energy.</p> <p>Collaboration: Strengthen regional cooperation and collaboration among stakeholders.</p> <p>Funding Access: Provide financial support to overcome barriers to project initiation and execution.</p> <p>Knowledge and Skills: Enhance regional capacities through support and knowledge sharing.</p>
Identification of Necessary Partners/Functions to Fulfill	<p>Regional Authorities: To coordinate and promote the open call within their regions.</p> <p>Industry Leaders: To provide practical insights and validate project feasibility.</p> <p>Research Institutions: To offer scientific support and technical validation.</p> <p>Funding Agencies: To supply financial grants and resources for project development.</p>

	Technical Experts: To assist with technical support and implementation.
Estimated Resources Needed	Funding for grants, project support, and implementation. Program manager, application review panel, technical support team. Marketing Event Costs
Next Steps	<p>Develop Program Framework: Define rules, criteria, and processes for the open call.</p> <p>Secure Funding: Obtain financial backing and support from sponsors and partners.</p> <p>Launch Open Call: Announce the call for project proposals and promote it across regions.</p> <p>Open Applications: Begin accepting and reviewing project proposals.</p> <p>Select Projects: Evaluate proposals and select projects for funding and support.</p> <p>Support Implementation: Provide resources, funding, and assistance to ensure successful project execution.</p> <p>Facilitate Knowledge Sharing: Organize events to share insights, progress, and outcomes among project participants and stakeholders.</p>

Name: Young Researchers International Fellowship Program	
Acronym: YRIFP	
Domain: Resources	
Number: SBE Res003	
Value Chain: Applicable for both	
Goal	Support early-career researchers (recent PhD graduates) by providing short-term fellowships to undertake internships and collaborative research projects in companies abroad, focusing on Sustainable Fisheries, Aquaculture, and Marine Energy sectors.
Main activities	<p>Program Design: Develop the framework for the fellowship program, including objectives, duration, eligibility criteria, and application procedures.</p> <p>Partnerships: Establish partnerships with companies and research institutions abroad that are willing to host young researchers.</p> <p>Application Process: Create and implement an application process for recent PhD graduates and host organizations, including submission guidelines and selection criteria.</p> <p>Selection and Matching: Review applications, select candidates, and match them with suitable host organizations based on their research interests and the host's expertise.</p> <p>Fellowship Implementation: Facilitate the fellowship placements, including logistics, integration, and support for the researchers.</p> <p>Monitoring and Evaluation: Monitor the progress of the fellowships, gather feedback from participants and host organizations, and assess the program's impact.</p>
Needs/Challenges that the Idea Can Help Solve	<p>Career Development: Provide early-career researchers with valuable industry experience and professional development opportunities.</p> <p>International Exposure: Offer researchers exposure to international research environments and practices.</p> <p>Collaborative Research: Foster collaborations between academic researchers and industry professionals.</p> <p>Skill Enhancement: Equip researchers with practical skills and insights that complement their academic training.</p>
Identification of Necessary Partners/Functions to Fulfill	<p>Research Institutions: To promote the fellowship program and encourage recent PhD graduates to apply.</p> <p>Host Organizations: Companies and research institutions abroad that can provide internship opportunities and mentorship.</p>

	<p>Funding Agencies: To provide financial support for fellowships, including travel, living expenses, and research costs.</p> <p>Program Coordinators: To manage the fellowship program, including application processing, matching, and support.</p>
<p>Estimated Resources Needed</p>	<p>Funding for fellowships, travel expenses, living stipends, and program management.</p> <p>Program manager, application review committee, administrative support.</p>
<p>Next Steps</p>	<p>Develop Program Framework: Define the objectives, guidelines, and procedures for the fellowship program.</p> <p>Establish Partnerships: Engage with companies and research institutions to secure hosting opportunities.</p> <p>Launch Application Process: Open the application process for recent PhD graduates and promote the program.</p> <p>Select and Match Fellows: Review applications, select fellows, and match them with host organizations.</p> <p>Facilitate Fellowships: Manage the logistics of the fellowships and support researchers during their placements.</p> <p>Monitor and Evaluate: Collect feedback, evaluate the outcomes, and improve the program.</p>

Name: Innovation Fund for Sustainable Blue Economy Initiatives	
Acronym: IBEI	
Domain: Resources	
Number: SBE Res004	
Value Chain: Applicable for both	
Goal	Establish an Innovation Fund to catalyze private sector investment in innovative projects that promote sustainability in fisheries, marine by-products valorization, and aquaculture across Europe.
Main activities	<p>Fund Establishment: Create and launch an Innovation Fund dedicated to supporting sustainable blue economy initiatives; Define the fund's scope, objectives, and investment criteria focusing on innovation, sustainability, and scalability.</p> <p>Project Identification and Selection: Solicit project proposals from SMEs, startups, and research institutions working on innovative solutions; Evaluate proposals based on criteria such as environmental impact, technological innovation, scalability, and economic viability.</p> <p>Financial Support: Provide funding through grants, loans, or equity investments to selected projects; Offer financial incentives to stimulate innovation and accelerate the adoption of sustainable practices.</p> <p>Capacity Building and Mentoring: Offer technical assistance, mentorship, and networking opportunities to supported projects to enhance their success and impact; Facilitate partnerships with industry experts, research institutions, and accelerators to strengthen project development.</p> <p>Monitoring and Evaluation: Establish a robust monitoring and evaluation framework to track the progress and impact of funded projects; Measure outcomes in terms of environmental sustainability, economic growth, job creation, and community engagement.</p>
Needs/Challenges that the Idea Can Help Solve	Lack of Funding Limited Scalability Technology Adoption Knowledge Sharing
Identification of Necessary Partners/Functions to Fulfill	<p>Financial Institutions: Provide capital and expertise in managing investment funds.</p> <p>Industry Experts: Mentor and provide technical guidance to supported projects.</p>

	<p>Government Agencies: Collaborate on policy alignment and regulatory support.</p> <p>Academic and Research Institutions: Contribute scientific knowledge and innovation expertise.</p> <p>Non-Governmental Organizations (NGOs): Support environmental impact assessments and community engagement.</p>
<p>Estimated Resources Needed</p>	<p>Initial Fund Capitalization</p> <p>Operational Costs</p> <p>Budget for expert consultations, legal services, and marketing efforts.</p>
<p>Next Steps</p>	<p>Fund Establishment: Develop a detailed fund structure, governance framework, and investment strategy.</p> <p>Stakeholder Engagement: Secure commitments from potential partners and stakeholders.</p> <p>Project Solicitation: Launch a call for project proposals and begin the selection process.</p> <p>Capacity Building: Provide support and resources to selected projects to ensure their success and scalability.</p> <p>Monitoring and Evaluation: Implement a monitoring system to track project performance and impact.</p>

European Fisheries Innovation Hubs	
Acronym: EFIHubs	
Domain: Resources	
Number: SusF Res005	
Value Chain: 1	
Goal	Establish regional innovation hubs in the partnership maritime regions to foster collaboration, innovation, and knowledge exchange in sustainable fisheries
Main activities	<p>Hub Establishment: Establish physical hubs in regions like the North Sea, Mediterranean, Baltic Sea, and Atlantic Ocean, each focusing on regional challenges and opportunities in fisheries management.</p> <p>Innovation Showcases: Host annual or biennial innovation showcases where stakeholders can demonstrate and exchange ideas on new technologies, practices, and policies for sustainable fisheries.</p> <p>Collaborative Projects: Facilitate joint projects between local stakeholders, research institutions, and industry partners to pilot and scale innovative solutions such as selective fishing gear, aquaculture innovations, and integrated coastal management.</p> <p>Policy Dialogues: Organize policy dialogues and workshops involving EU policymakers, fisheries managers, and industry leaders to address regulatory challenges and promote adaptive management practices.</p> <p>Cross-Regional Workshops: Conduct workshops and study tours to enable cross-regional learning and transfer of best practices among European fisheries stakeholders.</p>
Needs/Challenges that the Idea Can Help Solve	<p>Fragmentation of Knowledge</p> <p>Lack of Innovation Adoption</p> <p>Data Accessibility and Integration</p> <p>Capacity Building</p>
Identification of Necessary Partners/Functions to Fulfill	<p>Institutions of Research and Academia: Conduct scientific research and develop innovative technologies. Provide expertise in data collection and analysis.</p> <p>Industry and Fisheries Sector: Implement new technologies and sustainable practices. Participate in collaborative research projects.</p> <p>European Union and National Regulatory Bodies: Harmonize regulations and policies across member</p>

	<p>states. Support funding and regulatory frameworks for innovation.</p> <p>Non-Governmental Organizations (NGOs): Advocate for sustainable fisheries practices. Facilitate public awareness and education initiatives.</p> <p>Regional Fisheries Associations: Represent regional interests and coordinate local initiatives. Participate in capacity-building programs.</p>
<p>Estimated Resources Needed</p>	<p>Funding for research projects, innovation hubs, and training programs.</p> <p>Human Resources.</p> <p>Infrastructure for data collection and sharing, as well as implementation of innovative technologies.</p> <p>Curriculum development for training programs and workshops.</p>
<p>Next Steps</p>	<p>Formation of EU-FishNet Consortium: Identify and engage key stakeholders from research institutions, industry, NGOs, and regulatory bodies; Establish governance structure and roles within the consortium.</p> <p>Development of Collaborative Projects: Initiate collaborative research projects on sustainable fisheries management and innovative technologies; Create platforms for sharing data and best practices among consortium members.</p> <p>Policy and Regulatory Alignment: Work with regulatory bodies to harmonize policies across Europe; Advocate for funding mechanisms to support innovation in the fisheries sector.</p> <p>Capacity Building and Education: Launch training programs for fishermen and industry professionals on new technologies and sustainable practices; Organize workshops and seminars to promote knowledge exchange and skills development.</p>

Name: Circular Aquaculture Innovation Acceleration	
Acronym: CAIA	
Domain: Resources	
Number: SusF Res006	
Value Chain: 1	
Goal	Promote sustainable aquaculture practices by implementing circular production processes and commercializing subproducts, thereby minimizing waste and enhancing resource efficiency.
Main activities	<p>Circular Production Processes: Encourage aquaculture farms to adopt circular production processes to reduce waste and optimize resource utilization; Invest in innovative technologies that support circularity in aquaculture, such as recirculating aquaculture systems (RAS) and integrated multi-trophic aquaculture (IMTA).</p> <p>Commercialization of Subproducts: Allocate funds for research aimed at commercializing subproducts derived from aquaculture, such as algae and marine invertebrates; Identify and develop markets for these subproducts in diverse industries including food, cosmetics, and pharmaceuticals; Promote the use of aquaculture subproducts through marketing campaigns and partnerships with industry stakeholders.</p> <p>Environmental Impact Reduction:</p> <p>Investment in Technologies: Invest in research, technologies, and practices that minimize the environmental footprint of aquaculture operations, including waste management and pollution control measures; Support research and development focusing on low-trophic organisms like marine invertebrates and algae, which have minimal environmental impact and high commercial potential.</p>
Needs/Challenges that the Idea Can Help Solve	<p>Waste Minimization</p> <p>Resource Optimization</p> <p>Market Diversification</p> <p>Environmental Sustainability</p>
Identification of Necessary Partners/Functions to Fulfill	<p>Aquaculture Farms: Implement circular production practices and provide access to facilities for pilot projects.</p> <p>Research Institutions: Conduct research on subproduct commercialization, environmental impact reduction, and low-trophic organisms.</p> <p>Industry Partners: Collaborate on market development and promotion of aquaculture subproducts.</p>

	<p>Government Agencies: Provide funding, regulatory support, and policy alignment to promote sustainable aquaculture practices.</p> <p>Consumer Goods Industries: Partner for market development and product innovation in food, cosmetics, and pharmaceutical sectors.</p>
<p>Estimated Resources Needed</p>	<p>Research and Development Funds into subproduct commercialization and environmental impact reduction.</p> <p>Budget for implementing circular aquaculture technologies.</p> <p>Marketing and Promotion</p> <p>Partnership Development</p>
<p>Next Steps</p>	<p>Research and Development: Initiate research projects on subproduct commercialization and environmental impact reduction.</p> <p>Technology Implementation: Pilot circular production processes and technologies on selected aquaculture farms.</p> <p>Market Development: Identify and develop markets for aquaculture subproducts, focusing on food, cosmetics, and pharmaceutical industries.</p> <p>Partnership Building: Establish partnerships with research institutions, industry stakeholders, and government agencies to support program objectives.</p> <p>Monitoring and Evaluation: Implement metrics to monitor the impact of circular aquaculture practices and subproduct commercialization on waste reduction and resource efficiency.</p>

Name: Enhancing Connectivity of Small Ports for Innovation and Sustainability	
Acronym: CONNEX	
Domain: Resources	
Number: ME Res007	
Value Chain: 2	
Goal	To develop strategies and recommendations for enhancing the connectivity of small ports with regional activities to foster innovation and sustainability by 2030.
Main activities	<p>Baseline Assessment and Gap Analysis: Conduct a comprehensive assessment of existing connectivity between small ports and regional activities; Identify gaps and barriers hindering effective integration and collaboration.</p> <p>Stakeholder Engagement and Needs Assessment: Engage with stakeholders including port authorities, local governments, industries, academic institutions, and community organizations; Conduct surveys and interviews to understand the needs, challenges, and opportunities for enhancing connectivity.</p> <p>Best Practices and Case Studies: Research and analyze best practices from other regions or countries where small ports have successfully integrated with regional activities; Develop case studies highlighting successful models of collaboration and innovation in small port settings.</p> <p>Innovative Solutions through Call for Tenders: Organize a call for tenders specifically targeting innovative projects that enhance connectivity and sustainability in small ports; Evaluate proposals based on their potential impact, feasibility, and sustainability.</p> <p>Policy and Regulatory Frameworks: Analyze existing policies and regulations affecting small ports and their integration with regional activities; Develop recommendations for policy reforms or new regulatory frameworks that facilitate innovation and sustainability in small ports.</p>
Needs/Challenges that the Idea Can Help Solve	Connectivity Gaps Innovation Adoption Environmental Impact Knowledge
Identification of Necessary Partners/Functions to Fulfill	<p>Port Authorities: Provide access to port facilities and infrastructure data.</p> <p>Regional Governments: Support policy development and regulatory reforms.</p>

	<p>Academic Institutions: Conduct research and provide expertise on connectivity and environmental impacts.</p> <p>Industry Partners: Participate in innovative project proposals and provide technical expertise.</p> <p>Community Organizations: Represent local interests and provide input on sustainability practices.</p>
<p>Estimated Resources Needed</p>	<p>Research and Development Budget</p> <p>Budget for surveys, workshops, and consultations.</p> <p>Innovative Project Funding (budget for grants and funding support for selected projects)</p> <p>Policy Development</p>
<p>Next Steps</p>	<p>Initiate Baseline Assessment: Start with a comprehensive assessment of current connectivity and integration levels of small ports with regional activities.</p> <p>Stakeholder Engagement: Engage with key stakeholders through workshops, surveys, and interviews to understand needs and challenges.</p> <p>Call for Tenders: Launch a call for tenders targeting innovative projects that enhance small port connectivity and sustainability.</p> <p>Research and Impact Assessment: Conduct research on the impacts of offshore energy on fish production and develop recommendations.</p> <p>Policy Development: Formulate policy recommendations based on research findings and stakeholder input to support sustainable development in small ports.</p>

Name: Smart Aquaculture Parks	
Acronym: SAP	
Domain: Resources	
Number: SusF Res008	
Value Chain: 1	
Goal	Develop integrated aquaculture parks that leverage advanced technologies such as IoT sensors and AI-driven management systems, powered by renewable energy sources, to enhance efficiency, sustainability, and productivity in aquaculture operations.
Main activities	<p>Design and Planning: Conduct feasibility studies and site selection for aquaculture parks. Develop detailed blueprints and integration plans for IoT sensors, AI systems, and renewable energy infrastructure.</p> <p>Technology Integration: Install IoT sensors to monitor water quality, temperature, oxygen levels, and fish health. Implement AI-driven management systems for optimizing feeding schedules, detecting diseases, and automating routine tasks. Set up renewable energy sources such as solar panels and wind turbines to power the parks sustainably.</p> <p>Pilot Programs: Launch pilot projects in selected regions to test and refine the integrated systems. Collect data and feedback to improve system performance and scalability.</p> <p>Capacity Building and Training: Provide training programs for aquaculture staff on the use of IoT and AI technologies. Develop online resources and workshops for ongoing education and skills development.</p> <p>Monitoring and Evaluation: Establish a robust monitoring framework to track the performance of the integrated systems. Conduct regular evaluations to assess the environmental, economic, and operational impact of the parks. Implement adaptive management strategies based on evaluation results.</p>
Needs/Challenges that the Idea Can Help Solve	<p>Efficiency Improvement: Optimize resource use and reduce waste in aquaculture operations.</p> <p>Environmental Sustainability: Minimize environmental impacts through real-time monitoring and management.</p> <p>Disease Management: Improve early detection and response to fish diseases.</p> <p>Energy Sustainability: Reduce carbon footprint by using renewable energy sources.</p>

	Data-Driven Decisions: Enhance decision-making through data collection and analysis.
Identification of Necessary Partners/Functions to Fulfill	<p>Technology Companies: Provide IoT sensors, AI software, and renewable energy solutions.</p> <p>Research Institutions: Conduct research and development and offer technical expertise.</p> <p>Local Governments: Facilitate regulatory approvals and support site development.</p> <p>Aquaculture Operators: Implement and manage the aquaculture parks.</p> <p>Environmental NGOs: Ensure sustainable practices and community engagement.</p>
Estimated Resources Needed	<p>Funding for technology installation, infrastructure development, and operational costs.</p> <p>Project manager, IT specialists, aquaculture experts, renewable energy technicians.</p> <p>Training and Capacity Building</p> <p>Monitoring and Evaluation</p>
Next Steps	<p>Secure Funding: Seek financial support from government grants, private investors, and international organizations.</p> <p>Form Partnerships: Establish partnerships with technology providers, research institutions, and local governments.</p> <p>Conduct Feasibility Studies: Identify suitable locations and develop detailed project plans.</p> <p>Launch Pilot Projects: Implement initial pilot projects and gather data for system refinement.</p> <p>Develop Training Programs: Create training materials and conduct workshops for aquaculture staff.</p> <p>Implement Full-Scale Projects: Roll out integrated aquaculture parks based on pilot project learnings.</p> <p>Monitor and Evaluate: Continuously monitor system performance and make necessary adjustments to optimize operations.</p>

Name: Blue Accelerator Program	
Acronym: BAP	
Domain: Resources	
Number: SusF Res009	
Value Chain: Applicable for both	
Goal	Launch an accelerator program to support startups focusing on innovative solutions in fisheries, aquaculture, maritime energy, and decarbonization. The program aims to provide access to mentorship, funding, and facilities, utilizing a rotating residency model for diverse regional innovation hubs.
Main activities	<p>Program Design and Planning: Develop the structure and curriculum of the accelerator program. Identify key innovation hubs across different regions to host the rotating residency model.</p> <p>Startup Recruitment and Selection: Launch a call for applications to attract startups with innovative solutions in both value chains. Evaluate and select startups based on criteria such as innovation potential, sustainability impact, and market feasibility.</p> <p>Mentorship and Training: Provide tailored mentorship from industry experts, business leaders, and academic researchers. Offer training sessions on business development, technology commercialization, and market strategy.</p> <p>Funding and Investment: Facilitate access to seed funding, grants, and venture capital for selected startups. Organize pitch events and investor meetings to connect startups with potential investors.</p> <p>Residency Program: Implement a rotating residency model where startups can work from different regional innovation hubs. Provide access to state-of-the-art facilities, laboratories, and testing sites during residencies.</p> <p>Networking and Partnerships: Host networking events, workshops, and conferences to foster collaboration among startups, investors, and sector experts. Build strategic partnerships with business incubators, research institutions, and government agencies.</p> <p>Monitoring and Support: Establish a monitoring system to track the progress and performance of participating startups. Offer ongoing support and resources to help startups scale and succeed.</p>

<p>Needs/Challenges that the Idea Can Help Solve</p>	<p>Innovation Stimulation: Drive the development of new technologies and solutions in fisheries, aquaculture, and maritime energy and decarbonization.</p> <p>Funding Access: Provide critical financial support to early-stage startups.</p> <p>Knowledge Sharing: Enhance the exchange of knowledge and expertise among startups and industry stakeholders.</p> <p>Market Entry: Assist startups in navigating market entry challenges and achieving commercial success.</p>
<p>Identification of Necessary Partners/Functions to Fulfill</p>	<p>Business Incubators: Provide facilities, resources, and support for startup development.</p> <p>Investors: Supply funding and investment opportunities.</p> <p>Sector Experts: Offer mentorship and technical guidance.</p> <p>Government Agencies: Support with regulatory advice and potential funding.</p> <p>Academic and Research Institutions: Contribute research insights and technological expertise.</p>
<p>Estimated Resources Needed</p>	<p>Funding for program operation, seed funding, and facilities.</p> <p>Program managers, mentors, trainers, and support staff.</p> <p>Facilities: Office space, laboratories, and testing sites across regional innovation hubs.</p> <p>Networking Events</p>
<p>Next Steps</p>	<p>Secure Funding: Obtain financial support from government grants, private investors, and international organizations.</p> <p>Form Partnerships: Establish collaborations with business incubators, investors, and sector experts.</p> <p>Develop Program Structure: Design the accelerator curriculum and identify regional innovation hubs for the residency program.</p> <p>Recruit Startups: Launch a call for applications and select promising startups for the program.</p> <p>Launch Accelerator: Begin the first cohort with selected startups, providing mentorship, funding, and residency opportunities.</p> <p>Host Events: Organize networking and pitch events to connect startups with investors and industry leaders.</p> <p>Monitor and Evaluate: Continuously monitor startup progress and provide ongoing support to ensure their growth and success.</p>

C – GOVERNANCE DIMENSION

Name: Blue Governance Innovation Lab	
Acronym: BGIL	
Domain: Governance	
Number: SBE Gov001	
Value Chain: Applicable for both	
Goal	Create a lab dedicated to developing and testing new governance models for the blue economy. The lab will focus on inclusivity, transparency, and effectiveness, utilizing participatory design and digital governance tools to enhance stakeholder engagement and policy implementation.
Main activities	<p>Establish the Lab: Set up the physical and virtual infrastructure for the Blue Governance Innovation Lab. Recruit a team of experts in governance, policy, technology, and community engagement.</p> <p>Research and Development: Conduct comprehensive research on current governance models and identify areas for improvement. Develop new governance models using participatory design and digital tools.</p> <p>Pilot Projects: Implement pilot projects in selected regions to test new governance models. Collect data and feedback to refine and improve the models.</p> <p>Stakeholder Engagement: Organize workshops, forums, and online platforms to engage stakeholders, including policymakers, industry leaders, community groups, and NGOs. Use digital tools to facilitate continuous feedback and collaboration.</p> <p>Policy Implementation: Develop strategies for the implementation of successful governance models. Provide support and guidance to local authorities and policymakers for the adoption of new models.</p>
Needs/Challenges that the Idea Can Help Solve	<p>Fragmented governance approaches across regions.</p> <p>Lack of stakeholder engagement and inclusivity in policy development.</p> <p>Inefficiencies and lack of transparency in current governance models.</p> <p>Need for innovative, adaptive governance strategies to address emerging challenges in the blue economy.</p>
Identification of Necessary Partners/Functions to Fulfill	<p>Academic Institutions: Provide research expertise and contribute to the development of governance models.</p> <p>Governance Experts: Offer insights into best practices and innovative governance strategies.</p>

	<p>Local Authorities: Implement and test new governance models in pilot regions.</p> <p>Technology Providers: Develop and deploy digital tools for participatory design and governance.</p> <p>Community Groups and NGOs: Ensure inclusivity and represent community interests in governance models.</p> <p>Policymakers: Collaborate on the development and implementation of new governance strategies.</p>
<p>Estimated Resources Needed</p>	<p>Funding for lab operations, research, pilot projects, and stakeholder engagement activities.</p> <p>Project manager, governance experts, researchers, technology specialists, community engagement coordinators.</p> <p>Digital platforms for participatory design, data collection, and stakeholder communication.</p> <p>Office space, meeting rooms, and online collaboration tools</p>
<p>Next Steps</p>	<p>Establish the Lab: Secure initial funding and set up the physical and virtual infrastructure. Recruit the core team and establish partnerships with academic institutions and local authorities.</p> <p>Develop Governance Models: Conduct research and develop initial governance models using participatory design and digital tools. Engage stakeholders in the development process through workshops and online platforms.</p> <p>Implement Pilot Projects: Identify pilot regions and implement new governance models. Collect data and feedback to refine and improve the models.</p> <p>Monitor and Evaluate: Establish monitoring frameworks and regularly evaluate pilot projects. Adjust and adapt governance models based on evaluation results and stakeholder feedback.</p> <p>Scale and Implement: Develop strategies for implementing successful governance models. Provide support and guidance to local authorities and policymakers for adoption.</p>

Name: Community-Led Governance Pilot Projects	
Acronym: CLGPP	
Domain: Governance	
Number: SBE Gov002	
Value Chain: Applicable for both	
Goal	Implement pilot projects in selected regions to test community-led governance models for managing local blue economy activities. These projects aim to empower local communities to take a leading role in sustainable management through inclusive governance structures. Empower local communities to manage and sustain blue economy activities effectively by implementing inclusive and community-led governance models.
Main activities	<p>Project Selection and Planning: Identify regions with active blue economy sectors and strong community engagement potential. Collaborate with local governments, community groups, and NGOs to plan pilot projects. Define specific goals, activities, and desired outcomes for each pilot project.</p> <p>Community Engagement: Conduct outreach and workshops to involve community members in the governance process. Establish local governance councils or committees comprising community representatives, local authorities, and stakeholders.</p> <p>Model Development: Develop community-led governance models tailored to the specific needs and characteristics of each pilot region. Incorporate best practices and insights from successful community-led governance initiatives.</p> <p>Implementation and Capacity Building: Implement the community-led governance models in selected pilot regions. Provide training and capacity-building programs for community members to enhance their governance skills and knowledge.</p>
Needs/Challenges that the Idea Can Help Solve	Lack of community involvement in local governance. Inefficient management of blue economy activities due to top-down governance approaches. Limited capacity and knowledge within communities to manage and sustain blue economy activities. Need for more inclusive and adaptive governance models.
Identification of Necessary	Local Governments: Collaborate on planning, implementation, and support for community-led governance initiatives.

Partners/Functions to Fulfill	<p>Community Groups: Actively participate in governance processes and represent local interests.</p> <p>NGOs: Provide expertise in community engagement, capacity building, and sustainable practices.</p> <p>Academic and Research Institutions: Contribute research and insights to develop effective governance models.</p> <p>Industry Stakeholders: Offer practical knowledge and resources for managing blue economy activities.</p>
Estimated Resources Needed	<p>Funding for project planning, implementation, training, and monitoring.</p> <p>Project manager, community engagement coordinators, trainers, researchers.</p> <p>Tools for communication, monitoring, and data collection.</p> <p>Meeting spaces for workshops, training sessions, and governance meetings.</p>
Next Steps	<p>Project Selection: Identify and select pilot regions based on criteria such as community readiness, blue economy potential, and support from local authorities.</p> <p>Community Engagement: Conduct outreach to engage community members and form local governance councils.</p> <p>Model Development: Develop tailored governance models with input from community members and experts.</p> <p>Implementation: Launch pilot projects and provide necessary training and support to community members.</p> <p>Monitoring and Feedback: Implement monitoring systems and collect feedback to assess progress and make adjustments.</p> <p>Evaluation and Scaling: Evaluate the effectiveness of the governance models and develop plans for scaling successful initiatives to other regions.</p>