



Multiregional collaboration schemes:

Funding

WP3.A5 Report
University College Cork



Table of Contents

Executive Summary.....	3
Introduction	4
Findings	5
Survey Findings	5
Accessing Funding for Marine-based Technologies	5
Opportunities and Challenges in the Marine Development.....	10
Summary and Brief Analysis	12
Online Session Findings.....	13
Summary and Brief Analysis	18
Recommendations	19

Executive Summary

ProtoAtlantic, an Interreg Atlantic Area funded project, aims to develop and validate a model for the prototyping and exploitation of innovative ideas in the maritime sector in the Atlantic Area. To support this model, ProtoAtlantic hosted multiregional collaboration schemes with the aim to reinforce cooperation and multisite-based action to support the development of innovative solutions in blue growth-related sectors. For each collaboration scheme a committee of experts and stakeholders belonging to the participating regions joined to discuss common opportunities and challenges. The ProtoAtlantic partner regions include Brest in France, Cork in Ireland, Porto in Portugal, Orkney in Scotland, and the Canaries in Spain.

The aim of this multiregional collaboration scheme was to gain a deeper understanding on **increasing the access to funding opportunities, new international markets, and business strategic partners**. The event was hosted by MaREI, University College Cork, and opened with a welcome from Jessica Giannoumis, project manager for the project in University College Cork. This was followed by a presentation by Dario Sosa, from Subsea Mechatronics, who discussed their experience of the ProtoAtlantic project and its valuable impact on his company. The event was facilitated by Dr. Lawrence Dooley, Principal Investigator and Senior Lecturer in Enterprise and Innovation at Cork University Business School.

The findings from the session on funding opportunities highlighted a need for more tailored support for early-stage technology developers. Funding opportunities, it was highlighted, should be tailored to industry need, i.e., better alignment across government, industry, and academia was highlighted. A need for capacity building also emerged, particularly in terms of submitting funding calls and for reviewers to assess the submitted proposals.

Report written by Jessica Giannoumis and reviewed by Dr. Lawrence Dooley.

Special thanks to Cathal Gannon for administrative support in the organisation of the event.

Introduction

The aim of this session was to gain a deeper understanding the challenges and opportunities that stakeholders across the Atlantic experience in accessing funding opportunities, new international markets, and business strategic partners. 40 attendees registered for the event with 35 attendees from across the Atlantic area actively participating in the event (figure 1). It should be noted that not every registered attendee attended the event and that not every active session participant was registered for the event. Thus, the findings of the online-session and open dialogue are not necessarily representative of the registered attendees.

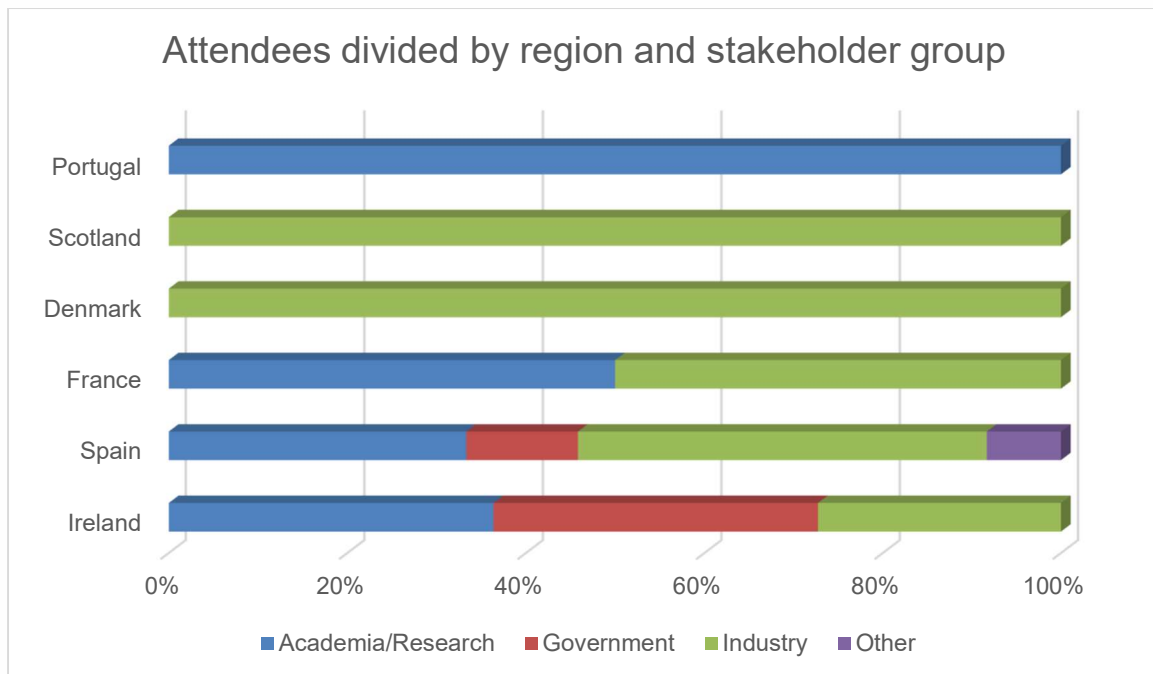


Figure 1 ProtoAtlantic session attendees divided by region (Atlantic area) and stakeholder group

Ireland and Spain had the most attendees with 11 and 24 attendees respectively. Furthermore, there was a large interest from industry and academia – 13 and 22 respectively. This indicates a large interest from industry and academia.

The following section will present the findings from session before presenting an analysis and recommendations based on the findings.

Findings

The findings are divided into two sections:

1. The first section presents the findings from a survey that the multiregional collaboration scheme attendees filled out to inform the topics and discussion for the interactive session.
2. The second section presents the findings from the online session which included multiple-choice questions that were asked during the multiregional collaboration scheme and open-ended discussion with the attending stakeholders.

Survey Findings

Prior to the session, attendees responded to a brief online survey to provide insights from a regional perspective on accessing funding for marine-based technologies. The findings from that survey are summarised and presented below followed by a brief analysis of common challenges and opportunities. The survey findings are indicative of registered attendees and are not necessarily capturing the views of the participants that attended the live event.

Accessing Funding for Marine-based Technologies

The attendees were asked to identify **opportunities and challenges in accessing funding for marine-based technologies**. The findings are presented per region below in tables 1-5.

Table Irish stakeholder feedback from on opportunities and challenges for accessing funding mechanisms across Europe, results from pre-survey

Stakeholder feedback from Ireland	
Opportunities	Challenges
We expect to be revenue-funded for this, but we are aware of numerous funding channels available (e.g.: BIM, Hatch, EI, Horizon Europe EIC, Marine Institute, etc.)	Regional specific funding instruments for marine based technology can have limitations. As a start-up it can be very difficult to raise the amounts for matched funding.
Atlantic region contains a vibrant marine R&I community and ecosystem	In Ireland there simply is not funding, whether public or private, to develop hardware. For perspective, SEAI's RDD call has a budget of €20M per year, and this covers everything from social research on the impact of energy price, to electric car charging and from grid development to smart metering in the home. Marine renewables barely feature, even though the offshore wind is likely to make the single biggest contribution to our emissions targets.
Contacting and networking with the local business support agencies, i.e. Cork County Council, ESA BIC, Enterprise Ireland etc.	Unfamiliar on who/what agency are best to approach to seek funding.

Table 2 Spanish stakeholder feedback from on opportunities and challenges for accessing funding mechanisms across Europe, results from pre-survey

Stakeholder feedback from Spain	
Opportunities	Challenges
There is a regional marine-based incubator and regional subsidies. Established marine development teams and close proximity to the ecosystem.	Amount availability for funding. Competition for fundings. Regulatory framework quite complicated
The Canary Islands are a special economic zone, which means that companies based on the islands can benefit from tax incentives, such as reduced corporate income tax rates, VAT exemptions, and customs duty exemptions. The Canary Islands is an outermost region of the European Union, which means that it has access to a wide range of EU funds and funding programs.	The regional opportunities in funding are several, but wider knowledge of these funding calls should be given so developers can access them.
Horizon Europe, with special interest on Pillar III and Cascade funding opportunities. In this sense, the support of the Enterprise Europe Network, which is represented in the Canary Islands by the ITC, among others, can be an interesting support to explore. It can be used to organize info days, assessment sessions, organize and participate in brokerage events, as well as specific training, both at regional and the international EEN Network level. EU funding, like EMFF. National funding, through Ministry of Science and Innovation. Local funding through Canary Islands government and institutions, like ITC.	Limited funding: Overlooked industry by average investors. Generally speaking, funding for technology transfer is almost non-existent in Canary Islands. Limited investor interest: Despite the potential of marine-based technology, investors may be hesitant to invest in this field due to perceived risks, such as regulatory uncertainties, technological challenges, and market demand. While there are various funding opportunities available, the competition for funding can be fierce, and the available funds may not be sufficient to meet the demand.
Pre-commercial public procurement (PCPP) in emerging desalination - DESAL+ STARTUPS - Society for the Economic Promotion of Gran Canaria (SPEGC). The Canary Islands Government, with the support of the SPEGC and ITC, launched an innovative initiative to acquire R&D services and test different emerging desalination solutions on the island of Gran Canaria aimed at obtaining desalinated water with higher efficiency and lower energy consumption.	At a regional level, we have no opportunities in accessing to funds. Right now there are some funding programmes in the national level, but not much focused on marine-based technology (just the Spanish RENMARINAS). At the EU level, we have some opportunities like the Innovation Fund Pilot call, but nothing focused just in marine technologies.

Table 3 Continued Spanish stakeholder feedback from on opportunities and challenges for accessing funding mechanisms across Europe, results from pre-survey

<p>The Canary Islands Government has established several funding programs to support the development of the blue economy, such as the Blue Innovation Program, which provides financial assistance for R&D&I projects related to marine renewable energies, aquaculture, and marine biotechnology</p>	<p>Access to expertise: Developing marine-based technology requires specialized knowledge and skills, which may not be readily available in the Canary Islands. This can lead to difficulties in attracting talent and may limit the potential for project success.</p>
<p>With the PLOCAN test bed we have the space to test technologies, funding can be raised and the maritime-port value chain is ready to support such technological deployment, but the challenge lies in being able to adapt to the timing of this type of project.</p>	<p>We must improve our ability to attract European funds and become more integrated into the European Research Area. It is necessary to create synergies with others. Regions (MAC Space and Outermost Regions).</p>
<p>Large renewable energy potential: The Canary Islands has a large renewable energy potential in its coastal waters, which offers opportunities for the development of offshore wind and solar energy projects.</p>	<p>Having a UK based parent company, Brexit usually does not help</p>
<p>The Canary Islands is a popular tourist region, which can be used to attract investment and funding for tourism-related marine technology projects such as aquaculture and underwater tourism.</p>	<p>Lack of infrastructure, high transportation costs and competition from other regions.</p>

Table 4 Portuguese stakeholder feedback from on opportunities and challenges for accessing funding mechanisms across Europe, results from pre-survey

Stakeholder feedback from Portugal	
Opportunities	Challenges
Strong research and academia ecosystem along the whole country and growing blue economy may attract funding for marine-based technology. Competition, and navigating complex funding frameworks and regulations may pose challenges in accessing funding for marine-based technology in Portugal.	Lack of information
Collaborative projects	Competitiveness

Table 5 French stakeholder feedback from on opportunities and challenges for accessing funding mechanisms across Europe, results from pre-survey

Stakeholder feedback from France	
Opportunities	Challenges
Regionally (in France) funding for MRE a more accessible now than a few years ago, but almost entirely for offshore wind.	The main challenge today is [accessing funding] for other MRE.

Table 6 Danish stakeholder feedback from on opportunities and challenges for accessing funding mechanisms across Europe, results from pre-survey

Stakeholder feedback from Denmark	
Opportunities	Challenges
Become innovative location, attract researchers from abroad, be part of energy transition, inspire others	High competition, open funding calls need to be aligned with company's development stage, lack of funding when it comes to TRL7+

Opportunities and Challenges in the Marine Development

The stakeholders were also asked to identify **other potential challenges and opportunities they have experienced in the marine development**. The findings are presented per region below in tables 6-9.

Table 7 Irish stakeholder feedback from on opportunities and challenges on general marine development across Europe, results from pre-survey

Stakeholder feedback from Ireland	
Opportunities	Challenges
Before Covid the world, and very much the EU, was reliant on goods from China. The greatest opportunities lie in the development of EU tech to be manufactured within the EU and distributed from the EU.	There must be a realisation that developing hardware for the marine environment is inherently capital intensive. It would appear that funding SaaS or even the expensive and slow Medtech development is must more attractive than hardware in the marine space. Perhaps we need to focus on educating and enthusing VCs into our area.
	In many cases the technologies for a sustainable blue economy exist but their deployment is slowed by policy and governance challenges
	Complex policy framework, polarised attitudes towards marine development. NIMBYISM. Tragedy of the commons.
	Costs are increasing as a result of the war in Ukraine, restart after Covid, supply chain issues especially from China.

Table 8 Spanish stakeholder feedback from on opportunities and challenges on general marine development across Europe, results from pre-survey

Stakeholder feedback from Spain	
Opportunities	Challenges
Innovation and entrepreneurship, like renewable energy, aquaculture. Collaboration between academia and industry. Growing demand for sustainable products and services	Gender imbalance: The lack of women in marine development is a well-known issue and there are several factors that contribute to this gender imbalance, including cultural and societal norms, limited access to education and training opportunities, and workplace biases and discrimination.
Technical support and consultancy for the development, up-scaling and demonstration under real conditions of innovative solutions using local desalination infrastructure at all scales for R&D purposes.	Most tech developers are in what is called the valley of death, meaning the technology is high risk while needing funding to survive. This involves that they can't compete against other technologies with a lower risk profile, reason why we need specific calls to develop and test our technologies.
Access to funding	Some regions with limited infrastructure and resources. Climate change and environmental degradation.
	Data sharing issues
	Challenges incorporating sustainability and digitization in the sector.

Table 9 Portuguese stakeholder feedback from on opportunities and challenges on general marine development across Europe, results from pre-survey

Stakeholder feedback from Portugal	
Opportunities	Challenges
	Difficult for start-ups and SMEs to engage

Table 10 Danish stakeholder feedback from on opportunities and challenges on general marine development across Europe, results from pre-survey

Stakeholder feedback from Denmark	
Opportunities	Challenges
	Slow processes, misconceptions of wave energy leading to no motivation to collaborate, lack of regional resources to accomplish their 2030 wave energy strategy, highly protected marine nature combined with fear about harmful wave energy, people need to understand that CO2 is harming their marine environment and wave energy is one out of many solutions to avoid and reduce CO2 to protect the oceans and reduce ocean acidification and deoxygenation

Summary and Brief Analysis

The summary highlights cross-regional common challenges and opportunities in accessing marine testing infrastructure.

A common theme across the regions that emerged in the survey on challenges and opportunities to accessing funding was that public funds were available but difficult to access. Additionally, the stakeholders identified that private investment was currently at a low level. This suggests that government and industry are not well-aligned in terms of supporting marine development and appropriate funding mechanisms.

The stakeholders noted that marine renewable energy (MRE) and more specifically offshore renewable energy (ORE) have received relatively more funding opportunities than other marine sectors. Additionally, companies with higher TRL have easier access to funding streams than lower TRL companies. This suggests a need for funding mechanisms to identify and potentially reconfigure existing funding opportunities.

The stakeholders recognised regional opportunities in the development of the entrepreneurial ecosystem and providing support to start-ups and SMEs. Yet that development is curtailed by a lack of common vision that aligns objectives of the regional stakeholders.

Online Session Findings

The first part of the online live session consisted of four multiple-choice questions. The first one was more general, whereas the latter three were bespoke to understanding opportunities and challenges of accessing funding for marine-based technologies.

The first questions concerned the current understanding of blue growth development across the regions. A word-cloud was created that presented all the findings with phrases or words that have been mentioned repeatedly being presented in bigger fonts and bolder colours (figure 2).



Figure 2 Results from the first session question, findings presented in word cloud where words/phrases that have been mentioned repeatedly are presented in larger font and bolder colours

The above set the precedence for the session. The second question of infrastructure development asked attendees of their awareness of marine funding mechanisms across Europe. Nearly half of the attendees noted that they were aware of marine funding mechanisms across Europe (figure 3).

☆ Q1a: How aware are you of marine funding mechanisms across Europe?

Rating Poll 21 votes 21 participants

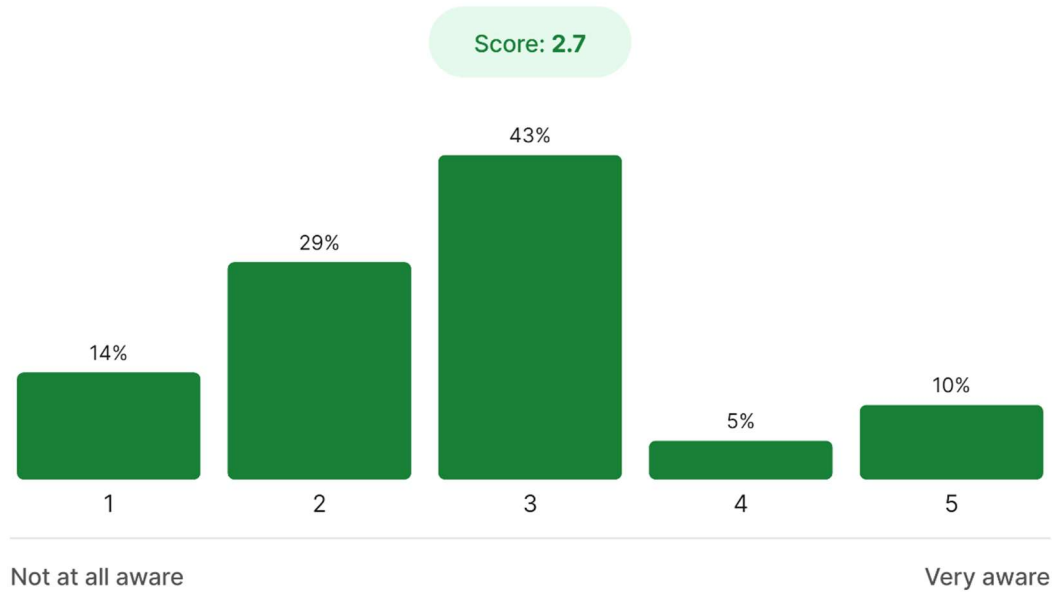


Figure 3 Respondents of awareness of marine funding mechanisms across Europe with 1 = not at all aware and 5 = very aware

The attendees were asked two open-ended questions to gain some more insight into accessing funding mechanisms across Europe (table 10 and table 11).

Table 11 First question of accessing funding mechanisms across Europe

Country	What sources of funding do you consider are most problematic for marine development?
IRL	Matched funding in Ireland can be an issue. Most national funding in Ireland is 50-70% funding so there is always a gap.
IRL	Funding for acceleration activities, pre-seed for impact, and private funding
IRL	Horizon Europe is great but its both competitive and requires significant investment to develop a good proposal
IRL	INTERREG funding – a bizarre administrative nightmare
SP	Public-private partnership funding
SP	Private equity funding difficult to attract for marine companies and lack of private funds, or access to them, public funds are very slow
SP	The transnational CEF programme
SP	Lack of early-stage funding and private investment
SP	The private funding is the most challenging as the market doesn't see R&D SME as a reliable tech to invest in
SCT	Brexit causing issues
N/A	ESA-IAP demonstrator funding is 50% funded, and specifically targets SMEs, so they are asking SMES to take on a huge risk for a demonstration of tech (a bit cheeky)
N/A	It depends because European funds are much more competitive, while regional funds are meant for several sectors and not specific for the blue one. So, each source of funds is tricky.

Table 12 Second question of accessing funding mechanisms across Europe

Country	What are some of the common reasons given in relation to unsuccessful funding applications?
IRL	Lack of matched funding
IRL	“Complex call” seconded – people need help just to figure out the scope
IRL	Obvious lack of basic sector understanding of the reviewer
IRL	Where is the market?
IRL	Insufficient evidence of impact
IRL	Lack of planning/project management credibility
IRL	Poor business plan for commercial-focused ones
IRL	Not addressing the scope of the funding call
SP	Proposals technology oriented but not business oriented
SP	Bad business model and out of scope (project – funding programme)
SP	El plan de negocio
SP	Complex calls, understandable only by the consultants but not by the business users
SP	Lack of solid business model, lack of own resources, lack of knowledge about how to submit a proposal
SP	Market impact
SP	Bad business development plan and lack of financial back-up
SP	Not well-designed business models, lack of systematisation in prototyping and testing
SP	Geographic scope too narrow
SP	Soundness of technology innovation
SP	Lack of own resources

Attendees were also asked which stage of funding they perceive as the most challenging to gain access to for funding (figure 4).

☰ Q2: What stages of marine technology development are most challenging in acquiring funding?

Multiple Choice Poll 18 votes 18 participants

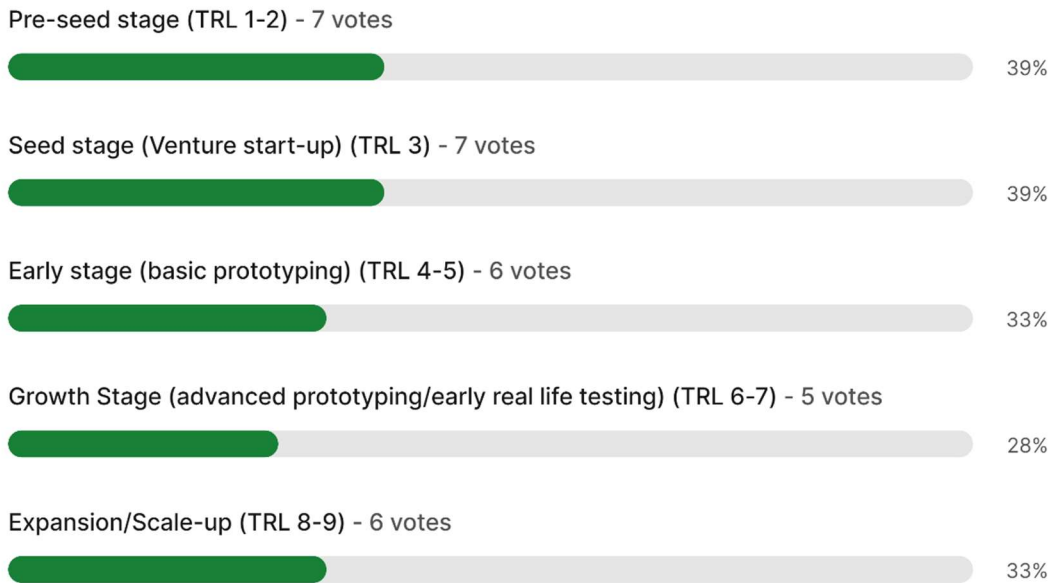


Figure 4 Attendees were also asked which stage of funding they perceive as the most challenging to gain access to for funding.

Figure 5 presents a screenshot of the opening session of the multiregional collaboration scheme.



Figure 5 Screenshot of the opening session of the multiregional collaboration scheme

Summary and Brief Analysis

The stakeholders were asked to discuss **the best practices in securing marine-based funding.**

The attendees noted a lack of available funding across all stages of technology development, but particularly in pre-seed and early stages of development. This suggests a need for better alignment between the funding calls and early-stage technology development. A lack of awareness of the funding calls and how to submit applications to the funding calls has also been noted as an ongoing challenge. There is a need to provide support mechanisms to enable entrepreneurial activities of start-ups, spin-offs and small-to-medium enterprises (SMEs).

The funding process for international funding such as INTERREG is complex and competitive which creates barriers to for industry in accessing the funding. The attendees noted a misalignment between public funding calls and industry needs, making it challenging for industry to access the funding. However, in some cases, the attendees recognised that business practices have started to emerge in public funding schemes which illustrates a move towards better alignment across the stakeholders.

A need for networking opportunities to enable better alignment across the regional stakeholders, particularly with other academic/research entities, and industry emerged. The attendees identified that a cross-regional strategic approach to funding calls could benefit all regions. This highlighted a lack of awareness of available support mechanisms within and across regions. In addition, the attendees identified that knowledge exchange across regional stakeholders needs to be nurtured to secure marine-based funding.

Application assessment was also noted as an issue, as reviewers were in some cases not aware of current marine trends or were unfamiliar with the subject matter. At the same time, applicants struggled with fully understanding and adequately addressing the *scope* of funding calls as they funding calls were too complex or convoluted.

Recommendations

The aim of this multiregional collaboration scheme was to gain a deeper understanding on increasing the access to funding opportunities, new international markets, and business strategic partners. The research findings highlighted that there is a correlation between funding mechanisms, technology development, and knowledge transfer and as such, each of these themes should be looked at in conjunction with each other rather than in isolation.

The multiregional collaboration scheme emphasised a need for political leadership in the marine spaces with a long-term vision for regional development, strong industry and research connections, and the need for private and public investment opportunities to nurture the development of marine sectors. Based on the results, some high-level recommendations at EU-level and cross-regional level can be made, these are presented below.

- **Need for better alignment of funding calls with early stage demands of marine technologies.**

There is a need to gain a better understanding of regional sectoral technology needs and opportunities for regional development. Early-stage marine technologies require attention and bespoke mechanisms that address their specific needs, this includes access to knowledge, access to technology development and infrastructure, and access to funding mechanisms that support technology development. This is currently not reflected in available funding calls, which may target more mature technologies and thus are not able to harness opportunities for technology development from early-stage technologies. Subsequently, effects of innovation and entrepreneurship are not effectively utilised through these funding calls.

- **Need to identify the regional and cross-regional needs of start-ups and SMEs and provide mechanisms for more support for SMEs at earlier stages of the pipeline.**

The results showed that the needs of start-ups and SMEs are not adequately met, i.e., the available support mechanisms, such as access to funding, access to business support, and mentorship are not sufficiently matching the needs of the market. Currently, there are early-stage enterprises struggling to develop their enterprises into sustainable ventures, as available support mechanisms are not tailored to their needs. The lack of support means that start-ups cannot support marine development or meet industry needs, which slows down regional marine development, as these SMEs are typically much better equipped to engage much quicker to technology development than large-scale industries. Funding mechanisms should be tailored to the needs of start-ups and SMEs, thereby supporting marine technology development.

- **Need to enable and support funding opportunities tailored to industry needs and promote this on a cross-regional scale.**

Coastal regions have access to different marine resources and assets, including regional expertise and knowledge, funding opportunities for industries should reflect this. Marine industry needs differ greatly, i.e., the marine renewable energy sector has different needs than coastal tourism or marine biotechnology sectors. To ensure sustainable development of these industries, there is a need to employ appropriate funding mechanisms to support the development of these regional industries, rather than targeting ‘generic’ marine development. This requires government and industry to have an understanding of potential regional opportunities and target their development by implementing funding mechanisms that nurture the development of regional sectors and opportunities. This should be promoted on a cross-regional scale, thereby enabling regions to realise their regional opportunities.

- **Provide networking opportunities for regional and cross-regional stakeholders to understand collaboration potential.**

Building on the above, to fully understand regional marine development potential, there is a need to support networking opportunities within and across regions. Enabling networking opportunities allows regional stakeholders to gain a comprehensive understanding of current challenges and potential development opportunities for the future. Subsequently, this allows stakeholders to develop funding mechanisms that future-proof regional marine development.

- **Need for more capacity building of reviewers who assess proposal calls ensuring that the funded projects support marine development that matches current and future marine technology.**

The results from the multiregional collaboration scheme revealed that the reviewing process remains to be a challenge in accessing funding for marine technology. Marine technology is developing rapidly and as such requires funding mechanisms that are aligned with these fast-paced changes, this requires funding application reviewers to have a comprehensive technical marine-based understanding of potential technology development, marine resources, and opportunities of marine development across Europe. Building capacity for reviewers will allow a more efficient investment of public spending as the reviewers will be able to assess the most efficient and promising technologies and projects that are best suited to deliver technology development for sustainable marine-based economies. Building capacity would thus also ensure that the funded projects are aligned with current and future marine technology.



Two overarching themes emerged, firstly funding mechanisms need to be addressed at an enterprise-level to support SMEs and start-ups, these need to be aligned with sectoral and industry needs to ensure that the support mechanisms are enabling sustainable regional economic development. Secondly, enabling funding support to ensure cross-regional development requires a full understanding of the current state of marine resources and opportunities, thus there is a need for better alignment across knowledge transfer mechanisms, infrastructure development, and funding mechanisms to ensure regional and cross-regional development.

Lead Partner



Main Partners



Associated Partners

