



# DEVELOPING BLUE GROWTH POTENTIAL

## Blue Actions Plan in Med

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**Blue Growth Community – 1st Capitalization event**

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# The PELAGOS Blue Energy Action Plan in Med

<https://www.enea.it/it/seguici/pubblicazioni/edizioni-enea/2019/publication-action-plan-MED>

- The Action Plan intends to provide recommendations to support the development of Marine Renewable Energies (MRE) in the MED area
- It has been addressed to organisation that has the authority to make decisions regarding energy policies, from national to local levels
- It is based on the 5 National Action Plans: Croatia, Cyprus, Greece, Spain and Italy

## Blue Energy Action Plan in Med

Promoting innovative nETworks and cLusters  
for mARine renewable energy  
synerGies in mediterranean cOasts and iSlands



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Project co-financed by the European  
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**6 key areas of intervention identified**

**15 recommendations given**

**34 actions prioritized**

## State of the art of Blue Energy in the Mediterranean

There is currently **no commercial development** of MRE in the MED, and the readiness level is low for most of the MED countries

The Mediterranean Sea has specific natural conditions with **lower wind, tide and current** as well as greater depths than Atlantic and North Seas



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Nevertheless, some of the MED countries perceived the development of MRE as **strategic and impacting** their economy with the creation of new companies and jobs.

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## The 6 key areas of intervention

- Marine Spatial Planning

*Explicit inclusion of MRE in MSP is a common priority*

- Research & Innovation

*R&I objective is to drive down the Levelized Cost of Energy (LCoE)*

- Awareness raising activities

*Policies should deal with the problem of social acceptance of MRE*

- Access to funding

*Substantial and stable public investment is needed - Risk reduction for investors*

- Simplification of procedures

*Procedures to implement MRE pilots and get authorizations should be simplified*

- Grid connection

*Grid construction, new energy networks design (from star to mesh), non-interconnected islands*



## The roadmap: recommendations and actions 1/3

	Recommendations	Actions	Priority
<b>MARINE SPATIAL PLANNING</b>	Minimization of potential spatial conflicts with other maritime activities	<ul style="list-style-type: none"> <li>Promote the use of multi-use platforms (MUP) to enhance synergies among different sectors (e.g. energy, aquaculture);</li> <li>Adopt policies of multi-use space where MRE installations may coexist with other maritime activities in MSPs;</li> <li>Promote suitable temporal and spatial allocation of maritime space access permission among different activities.</li> </ul>	***
	Development of technological tools (e.g. web portal) to support MSP	<ul style="list-style-type: none"> <li>Include preliminary detailed sea monitoring and analysis (habitat mapping, evaluation of BE potential, analysis of potential conflicts/synergies with other activities);</li> <li>Promote the development of Geographic Information System (GIS) based tools for data managing and decision making through multi-objective optimization procedures for the best selection of BE deployment areas.</li> </ul>	***
	Use of MSP to actively contribute to meet the decarbonisation targets	<ul style="list-style-type: none"> <li>Assessment of the MREs potential and quantification of its potential share in the energy mix to meet the EU obligations in decarbonisation targets (especially for islands).</li> </ul>	**
	Identification of potential/prioritised areas for the development of MRE in the BE	<ul style="list-style-type: none"> <li>Identification of areas suitable for real environment testing facilities for new devices (see also R&amp;I).</li> </ul>	***
<b>RESEARCH AND INNOVATION</b>	Encouraging cost-effective deployment of MREs	<ul style="list-style-type: none"> <li>Support Technology development aimed to reduce operation costs of MRE farms. For example, development of fewer large sized turbines and infrastructures with the same project capacity/ design tools (biofouling, behaviour of structure/ components in fatigue).</li> <li>Support the development of new technologies for floating wind turbines (floaters, anchors) capable to operate in deep waters and/or far from shore.</li> <li>Support to the development of energy storage (Hydrogen)</li> <li>Co-location of MRE infrastructures (Floating Wind Turbines, Wave Energy Converters, Solar panels). Substructure technologies supporting the new schemes</li> </ul>	***



## The roadmap: recommendations and actions 2/3

Recommendations		Actions	Priority
		<p>associated with deeper waters to be innovatively design with materials and geometries that simplify manufacturing and installation operations.</p> <ul style="list-style-type: none"> <li>Support R&amp;I projects aimed to lower manufacturing and/or installation and/or maintenance costs by adopting new materials and new design concepts;</li> <li>Support R&amp;I projects for the development of multi-use platform;</li> <li>Use of HVDC (high-voltage direct current transmission) grids that has much lower losses and improves the availability of the power. (<a href="https://cordis.europa.eu/news/rcn/129564/en">https://cordis.europa.eu/news/rcn/129564/en</a>)</li> </ul>	
	Strengthening of natural laboratories for testing marine energy devices	<ul style="list-style-type: none"> <li>Reinforce the role of existent natural laboratories for the testing of systems in operational environment;</li> <li>Promote the realization of a network of natural laboratories with same standards, for an optimal use of the resources;</li> <li>Adopt simplified procedures for short term deployment at sea of devices for testing/experimental purposes.</li> </ul>	***
	Support the upgrade of low TRL technologies to more advanced levels	<ul style="list-style-type: none"> <li>Support demonstration projects to accelerate the development of the sector;</li> <li>Support projects and activities in numerical modelling aimed to simulate the hydrodynamic properties of the new concepts in realistic operative conditions;</li> <li>Support the development of adequate informatics systems apt to gather, store and manage all the information obtained during tests in indoor laboratories, in natural laboratories, measurement campaigns in order to enhance the sharing and exploitation of the huge amount of data already available (Big Data, Data Mining).</li> </ul>	***
<b>AWARENESS RAISING ACTIVITIES</b>	Introduce the MRE concepts and advantages at the educational community and the public	<ul style="list-style-type: none"> <li>Increase awareness about the benefits provided from MRE exploitation through education, campaigns and public engagement in MRE processes</li> </ul>	***
	Introduce the MRE concepts and advantages at the regional and governmental authorities	<ul style="list-style-type: none"> <li>Introduction of the strategy for a Blue growth or inclusion of this concept in other national strategies like RIS3 or similar. The Ministry in charge for introducing RIS3 strategy for 2021-2027, should establish communication with all relevant stakeholders related to the Blue economy in order to produce an integrative, comprehensive document</li> </ul>	***

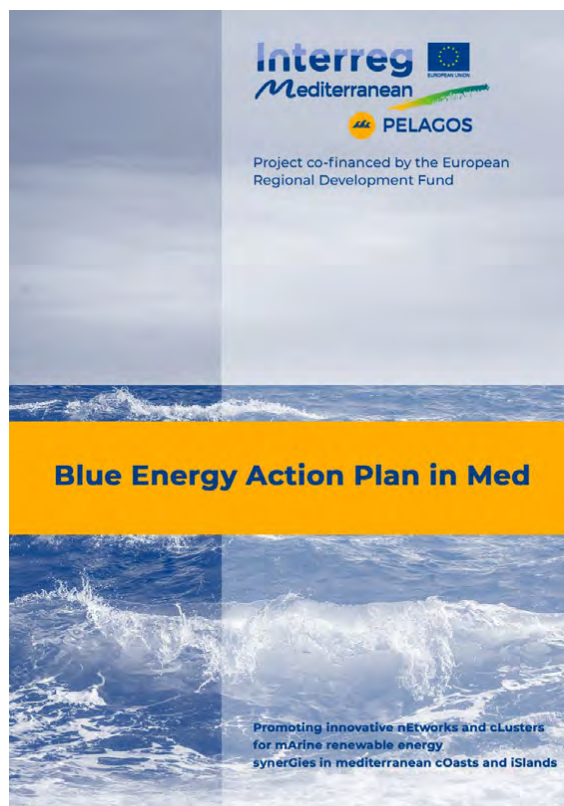


## The roadmap: recommendations and actions 3/3

	Recommendations	Actions	Priority
	Develop tools and methods for information dissemination and awareness raising support	<ul style="list-style-type: none"> <li>Study and improve the acceptability of MRE project through an enhanced knowledge of their environmental interactions and a throughout multidisciplinary evaluation including socio-economic dimension</li> <li>Identification of the public attitude before the initiation of the project using software platforms that are able to simulate various views and evaluate public reactions in order to minimize future public oppositions.</li> </ul>	***
<b>ACCESS TO FUNDING</b>	Support non-mature MRE projects development	<ul style="list-style-type: none"> <li>Creation of dedicated funding instrument for non-mature MRE to finance R&amp;D, demonstrator</li> </ul>	***
	Build an incentive policies and mechanisms	<ul style="list-style-type: none"> <li>Part of the tax on energy paid by the consumers to finance MRE development</li> <li>Tax rebates plan for MRE projects, granting of loans from banks.</li> <li>Issuance of power purchase agreements in order to avoid high upfront capital costs, systemic risks, complexity in designing and permitting processes</li> <li>Introduction of production-based incentives (PBIs) which exploits the electricity generated from offshore renewable energy sources</li> </ul>	***
<b>SIMPLIFICATION OF PROCEDURES</b>	Accelerate the processes to develop a MRE project	<ul style="list-style-type: none"> <li>Development of "one-stop-shops" to facilitate and accelerate the administrative processes, with a single organization responsible for providing guidance through the administrative, planning and consenting process.</li> </ul>	***
	Increase awareness on how to develop MRE projects	<ul style="list-style-type: none"> <li>Communicate in a clear and precise way the procedures and documents required to obtain needed permission for MRE projects</li> </ul>	***
<b>GRID CONNECTION</b>	Re-engineering of the electricity services industry	<ul style="list-style-type: none"> <li>Adaptation of the existing networks to the specificities of MREs</li> </ul>	***
		<ul style="list-style-type: none"> <li>Acceleration of grid construction/joint actions/infrastructures for the non-inter-connected Mediterranean islands</li> </ul>	***
		<ul style="list-style-type: none"> <li>Support clean islands sustainable solutions to reduce their dependency on imports</li> </ul>	***



# Thank you for your attention!



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