

2020 UNION FOR THE MEDITERRANEAN
STAKEHOLDER CONFERENCE ON THE BLUE ECONOMY
“Towards a Sustainable Blue Economy for the Mediterranean Sea basin”
Stakeholders online consultation contributions

Governance and future of the blue economy in the Mediterranean region: possible scenarios, opportunities and tools	
<i>What action is needed to further develop governance - policy, tools and actions - at regional/UfM level in the years to come? Feel free to make additional suggestions on ways and modalities of cooperation.</i>	
EMUNI	Political will to implement sustainable policies, Rigorous scientific work (not only meetings) to articulate clear recommendations and priorities.
IOC-UNESCO	Voluntary commitment from Member States is key to address the challenges of the Mediterranean basin altogether under the auspices of UfM.
FAO	Blue economy has the possibility to become circular blue economy by adopting policies at regional ecosystem level, and tools by stakeholders, to transform towards sustainability
CNR-INM (Italian National Research Council - Marine Engineering Institute)	Higher restrictions in GHG emission in the Mediterranean Sea (Mediterranean ECA's declaration), lower UW noise pollution due to the marine/maritime cluster and centralized UW noise monitoring system to be designed and established asap.



MED JS	trans-coastal cooperation; programmes for focused B2B-SME-development and clustering
INSTM - Tunisia	Blue Biotechnologies for remediation and innovative bioproduction under climate change and invasive pests
University of Bolognae	A Mediterranean-basin strategy for marine restoration and protection. This should include a definition of clear targets, standards, regulations and certifications. It should also include the establishment of a common moral basis for action: marine systems should not just be viewed as serviceable commodities as this could create conflicting restoration/conservation objectives, e.g., where benefits to species or ecosystems that are more profitable to humans are prioritized
CNR	Reinforce the cooperation and coordination between different ministries at national and international levels to spur environmental sustainable use of marine technologies
National Institute of Marine Sciences and Technologies	Integrate in efficiency way local actors to take the right development decisions
Ministry of Economy – Palestine	<ol style="list-style-type: none"> 1-Continue to hold international and local meetings and meetings annually 2-Setting a time plan for development and innovation in the field of tools and procedures used in development and follow-up 3-Make recommendations and take care of them 4-Networking with private sector organizations interested in green leadership, integrating with them and adopting recommendations 5-Developing a spreadsheet that cares about monthly and yearly problems, monitoring and following them, and setting solutions for immediate implementation and non-postponement. 6-Opening doors for all creative entrepreneurs to participate in setting the decision



Alma Mater Studiorum University of Bologna	Coordinate actions between the Barcelona convention and the European Union programs, and center them on science and innovation, monitoring and climate change, social transformation.
AMFORHT	It is important to reinforce the training courses focused on blue economy. Educate decision makers and future workers on this topic is quite important to get better governance within the next years. This could be done by encouraging universities, institutes to propose specific courses, sessions or summer schools open for Mediterranean countries (students). Also, It is essential to make the link (impact) between Blue economy and the other economic sectors (such as Tourism, industry, ...) States could offer special action plan focused on blue economy (agreements, collaboration, charts, ...) to improve this sector.
Presa Puente Estrecho de Gibraltar, SA	It is time for us all to take action to adapt the Mediterranean to the climate crisis we are experiencing. It is a joint problem that requires joint solutions such as supporting the preliminary project Presa Puente Estrecho de Gibraltar: Adapting the Mediterranean to sea level rise and the Union of Two Continents. https://youtu.be/9bbFyKE2DWw
Universidade de Évora, MARE	To make possible, implement and/or develop co-management of marine fisheries.
DynMed Alentejo - Association for Studies and Regional Development Projects Dese Projects	Create national or regional delegations, even informal ones if necessary, and promote decentralized events on a regular basis, for example every six months.
Tunisian Association of Coastal, Port and	Establishment of a Mediterranean observatory for the sea and coasts



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Maritime Engineering (ATIM)	
Cluster Maritime Tunisien	To make the best possible use of the potential of the Blue Economy to foster growth, employment and investment and to reduce poverty especially in the South-Med countries; while maintaining healthy seas in good condition and defining a clear vision for the sustainable and integrated development of the marine and maritime sectors at national level and in the Mediterranean basin.
UNIVERSIDAD DE MURCIA	Apply and promote information and communication technologies (ICTs) to improve access to information and increase effective participation of key users. Also, its application in the improvement of productive processes related to the blue bieconomy, such as blue biotechnologies, aquaculture, fisheries, management of marine protected areas, etc.
RAED - Arab Network for Environment and Development	Maintain the dialogue among and with the stakeholders through establishing a regional platform to ensure transparency and open channels for information exchange.
Direcció General de Pesca i Medi Marí. Govern de les Illes Balears (Spain)	In the case of fishing, support and strengthen the MEDAC and the GCFM.
Mediterranean Information Office for Environment, Culture and Sustainable Development (MIO-ECSDE)	Appropriate Governance for the promotion of Blue economy as a vehicle towards Sustainable Development should be both efficient and transparent. This, to a large extent could be secured through systematic information and awareness of all relevant stakeholders and balanced and meaningful participatory processes. Provisions for the latter are within the Aarhus Convention, which could and should be adopted and implemented by all Mediterranean countries.



	<p>Other considerations:</p> <ul style="list-style-type: none"> - Establish a light coordination mechanism of all governance frameworks, policies, and conventions concerning the Mediterranean Sea (UfM, Barcelona Convention, Bern Convention, ACCOBAMS, General Fisheries Commission for the Mediterranean, etc.) to facilitate enforcement and advance cross-policy synergies and coherence and their alignment with international commitments (post-2020 biodiversity framework). - Advance knowledge sharing and joint research programmes.
ECONCRETE	<p>Promotion of policies of sustainability and inclusion of innovative designs and materials into the general codes. Promotion of the advantages of such policies in development and maintenance of our coastlines and waterfronts</p>
BETA Tech Center, UVic/UCC - Interreg MED Green Growth	<ul style="list-style-type: none"> - To promote multifaceted and horizontal approaches in forthcoming projects while including a long-term perspective. - To promote the translation and adaptation of existing and emerging tools for the different regional contexts within the Mediterranean region. - To support quadruple helix approaches within transversal projects in order to address multi-stakeholder levels and multi-level governance. - To fund projects/initiatives that respond to Mediterranean challenges and can have a real impact at policy level - To encourage SMEs to engage in innovation networks and clusters and share knowledge and experiences on best practices and solutions to adopt sustainable approaches
WPD OFFSHORE FRANCE	<p>It could be interesting to use the Inter-Mediterranean Commission (attached to the Conference of Peripheral Maritime Regions) to create thematic WGs to address regional priorities.</p>
METU Institute of Marine Sciences	<p>Joint, international cooperative projects towards a clean, productive Mediterranean. Involve science as much as possible.</p>
MedCities	<p>Governance mechanisms for Blue Growth should be driven by an ecosystem-based approach that places coastal and marine ecosystem health at the core of any policies to assure the long terms sustainability of the services they</p>



	<p>provide. Especial attention should be given to land-sea interactions when applying Maritime Spatial Planning, assuring the engagement of all relevant actors, with a suitable knowledge base and applying the ecosystem based management approach. The principle of prevention must be applied to any planning approach to a coastal zone (i.e. coastal urbanization or coastal protection). Bioengineering must be prioritized when possible. These principles must be recommendations to local, regional, state rules. From a local perspective, supporting the current decentralization and metropolization processes must be enhanced as well as engaging coastal cities and metropolis in the governance mechanisms as key actors for Blue Economy. Vertical communications and horizontal decision-making are needed to assure the permeation of these works/reflections into the society.</p>
Fundacion Valenciaport	Create a multi-governance body including the main stakeholders
REGION WESTERN GREECE	<ul style="list-style-type: none"> - Regions should have the authority to produce local legislation framework in order to face demands in spatial planning or maritime clusters; sea basin strategies as appropriate; low-emission technologies; sustainable products and services - Harmonization in legal framework among Mediterranean countries could be the answer in the above challenges - A co-founded project among Mediterranean countries could be established in order to assess member countries legislation framework and strategies in use, point out differences and needs for harmonization
University of Siena	Adoption of a "Mare Nostrum" common policy among all countries
National Research Council of Italy	<ul style="list-style-type: none"> - Develop participatory approaches to take decisions building on dialogue mechanisms such as the BlueMed Platforms to implement a constellation in different countries by improving the dialogue with civil society,



	<p>considering its importance (e.g. awareness, inputs, transparency, participation, consensus and support) and its specific technicalities (e.g. engagement at local level, language, ambassadors).</p> <ul style="list-style-type: none"> - Empower Maritime Spatial Planning as governance tool by promoting further research on multi-level governance and management of multi-stakeholder processes, improving the dialogue with civil society, in a science to policy approach. Coordinate approaches addressing coastal management and conservation of anthropogenic villages/ecosystems involving local communities.
WWF	<ul style="list-style-type: none"> - Call on regional actors to develop a common strategic approach towards a Sustainable Blue Economy (SBE) aiming at achieving the SDGs in the Mediterranean region - Support the implementation of the Sustainable Blue Economy Finance Principles (EC, EIB, WWF, WRI) through the adoption of financial tools (such as Blue Bonds, for instance), that can enhance marine and coastal resilience - Commit to better implement existing policies and strengthen compliance mechanisms and infringement procedures within regional organisations (EU, GFCM, ICCAT and UNEP MAP) with binding commitments - Increase synergies and coordination between relevant regional and global conventions to improve regional ocean governance and achieve protection of biodiversity and effective management of marine resources. - Advocate for the adoption of an ambitious international legally binding instrument under the UN Convention on the Law of the Sea (UNCLOS) on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (BBNJ) in 2020.
Ministry of Agriculture, Maritime Fisheries, Sustainable Development, Water and Forests: Maritime Fisheries Department - Morocco	<p>Effective involvement of the populations during the framing of the actions, and also refer to public enquiries for all projects involving the indigenous populations. It is also necessary to strengthen the exchange of experiences between the riparian communities.</p>



Malta Maritime Forum	A common platform to all involved would assist.
MedPAN, the Mediterranean Marine Protected Areas Network	<p>Link is needed between actions on the ground (local level) and policy-making processes (at national and Mediterranean levels) ; intermediary structures/organizations can help to make this link such as networks of actors and institutions working at sea. By gathering stakeholders for an effective management of the Sea and creating linkages with actions on the ground, networks facilitate relevant decision-making processes, at different levels.</p> <p>Networks of marine stakeholders are also needed as they allow exchanges between actors with common issues in different regional and local contexts, and generate creativity, problem solving and resource sharing.</p> <p>Attention is also needed on marine and coastal biodiversity protection when speaking about maritime spatial planning or blue economy. Tools such as marine protected areas must be considered and reinforced. Specific recommendations were developed in the framework of Pharos4MPAs Interreg project (coordinated by WWF) that should be considered.</p>
Med Blue Growth community	<ul style="list-style-type: none"> - Exploit synergies amongst Blue Economy sectors and promote establishment of permanent clusters as strategic assets for sustainable Blue Growth. - Ensure rational use of funds and sustainable financial instruments to support all stages of Blue economy development – from Research and Development to market – preventing loss of accumulated knowledge and prioritizing environmentally sustainable solutions. - Promote a new paradigm for Blue Economy based on sustainability, developing a long-term vision and strategy and delivering concrete solutions to overcome environmental impacts. - Strengthen and enhance cooperation among all Mediterranean countries (EU and non-EU) ensuring data sharing, knowledge exchange, technology transfer, industrial cooperation, mobility of experts and professionals, with a shared environmental sustainability responsibility. - Promote the strengthening, alignment and integration of all the relevant strategies and initiatives capable of reinforcing multilevel governance and cooperation, towards a gradual and unique integrated long-term strategy for the Mediterranean or at least a solid coordination mechanism (not necessarily based on a governing board)



	<p>that could see the light in the decade after 2020, with a strong focus on sustainable blue economy, a key sector in the Mediterranean.</p> <ul style="list-style-type: none"> - Regular interaction and collaboration among the UfM and PANORAMED initiatives would certainly help increase the impact of governance actions undertaken and the capitalisation of relevant experiences of the Blue Economy in the Mediterranean. - The involvement of local and regional governments (EU and non-EU) is paramount in the governance of the Mediterranean. Coordination among themselves is also crucial to ensure coherent and true impacts of EU and Mediterranean policies on the ground, beyond being mere implementers. Initiatives such as the Mediterranean Cooperation Alliance, gathering, most networks of local and regional authorities in the Mediterranean, are key and should be consulted and considered when time comes to elaborate governance strategies at the basin level.
eco-union	<p>A good governance of the Blue Economy in the Mediterranean requires a solid, inclusive and active multi-stakeholders platform to assess state of play, discuss options and propose actions related to the promotion of specific Blue Economy sectors and actors.</p>
Green Community NGO	<p>Usually in the South Med. countries, local governance is handled by the municipalities, who receive huge budgets to serve their local communities, with no role given to the public or any decision-making power upon expenditure choices. This entitlement is exercised in a non-transparent, bureaucratic way. In order to develop governance and render it effective and target oriented, support in this regard should be addressed to independent experts, who design and develop good governance and policies (in dialogue and consultation with the local community), with whom local authorities (municipalities here) have to cooperate-with in order to adopt and implement. In other terms, developing governance - policy should be done from grassroots, not imposed on them, as the case is in the South Med countries.</p>
ECOCEAN	<p>To set up a group of independent international experts able to judge the effectiveness of the measures taken in favour of the environment (e.g. ecological restoration measures must be evaluated by their scientific validation, their real gains, the materials and processes used, etc.).</p>



<p>Community Assistance and Development (ASCOM)</p>	<p>Among the measures, we propose more coordination between the different stakeholders in the region; more exchanges (mail, meetings, etc.).</p>
<p>NOAH ReGen</p>	<p>We recommend the deployment of "regional headquarters", meeting points of the Blue economy (Blue Clusters), where the entire value chain is present and represented: project leaders, policy makers, experts, impact measurement agencies, media and that these headquarters are connected to a dedicated financial platform (Blended Finance).</p> <p>We have a project in this direction: NOAH ReGen (Network of Ocean Ambassadors Headquarters, ReGen for Regeneration). NOAH offers a holistic approach to structuring Sustainable Blue Growth on a global scale, through 3 joint initiatives:</p> <ul style="list-style-type: none"> - The deployment of Headquarters (NOAH's Arks) in the major coastal capitals. These NOAH's Arks are floating platforms on which Blue Hubs (incubators for innovative Start-Ups and Blue Labs that boost R&D and provide solutions for coastal capitals in terms of: food safety, energetic transition, waste & sanitary management, coastal & biodiversity conservency...) through the eco-responsible use of ocean resources. These NOAH's Arks (floating establishments) complement these Blue Hubs by adding hotels to enable the financing of these infrastructures, as the hotels provide a concrete economic model, efficient enough to include the financing of the Blue Hubs. - The creation of a dedicated "blended finance" platform: NOAH's BEIP (Blue Economy Investment Platform). This platform brings together private, public and philanthropic financial institutions and finances the "blue revolution": de-risking projects, managing technical assistance to structure the investment pipeline from project sourcing to bankability. This NOAH's BEIP will finance regional start-ups to incubate them in NOAH's Arks and put them in the ideal collaborative ecosystem, connected to the entire value chain. (Circular Economy).



	<ul style="list-style-type: none"> - Mediatization, digitalization, promotion of "best practices" to viralize solutions: NOAH Blue Digital Platform (Big Data) <p>To carry out this project, NOAH ReGen is in the process of creating a Blue Consortium, structured through a major bank. This Blue consortium invites the main players to develop their activities (internal and external growth), based on NOAH's Arks in order to increase economic growth, while increasing ecosystem regeneration. They are NOAH EcoReGion.</p> <p>NOAH ReGen, which is the "project leader" of this Blue Consortium, could thus assume the role of coordinator, representing the private sector within UfM and thus become a vector of growth and regeneration for the large coastal capitals.</p>
IMFMM	<p>Establishment of a charter in support of the blue economy in the Mediterranean:</p> <ul style="list-style-type: none"> - Multiplication of actions to raise the awareness of the various maritime actors in the region; - Creation of a Mediterranean maritime cluster; - Encouraging states to set up strategies to mobilise resources for the benefit of the blue economy in the Mediterranean.
Institut National de Recherche Halieutique	<p>Maritime spatial planning / Small-scale fisheries and aquaculture, using modern low-carbon technologies / Development of ecosystem products / Creation of an entity to coordinate integrated projects around the blue economy, including tourism, fisheries, aquaculture, equipment, environment, etc.</p>
Transport Study Centre for the Western Mediterranean (CETMO)	<p>The existence of homogeneous, harmonised, shared and quality information is the basis of all regional development. It is difficult to define, agree and analyse a common regional strategy in the different areas of the blue economy without a solid understanding of the current situation in the different Mediterranean areas. The degree of knowledge varies according to the field of study, but it is fundamental to define the basis of the party and to be able to monitor policies through the definition of objective monitoring indicators. By way of example and concerning the field of maritime transport, a review of the shared knowledge would be necessary. The strategic nature of the information is often the argument used by ports, transport managers and other actors to justify the confidentiality of their data,</p>



	<p>thus preventing a detailed knowledge of the sector in the region and the subsequent proposal of more precise regional policies and measures. On the one hand, the information on ports or flows that should be collected across the region as a whole in terms of operations, cargo, performance, regulations, among others, should be precisely agreed upon, as well as their definition, collection process and processing. On the other hand, the commitment of the actors involved would be necessary to ensure the correct application of the processes and the transfer of the data and indicators obtained.</p>
National Institute of Oceanography and Fisheries	<p>Sharing capacity, transfer state-of -art of S&T, developing entrepreneurship in sustainable ocean economy sectors, design joint education strategies and programs, science-policy and education are among the inputs related to one of the highest priority topics in the Mediterranean agenda: capacity building and technology transfer. Tailored university programmes and blue skills actions oriented to bridge employability</p>
INSTM	<p>Research-development project</p>
Center of Sea Sciences, University of Algarve	<p>Tools and actions are required. Solutions developed for central Europe will not work due to the environmental characteristics and socio-economic and socio-political differences. There is a common resource and so there needs to be common goals and standards to ensure environmental quality and safety is an objective of all. Common policies should be applied to blue economy development around the Med region. An "International Med region" should be identified and given special status, it should be a site that fosters and promotes common objectives, it should be an instrument to stimulate exchange of knowledge, training, translation for industry, ideas and ideals and cultural understanding. The mission (scientific, technology, monitoring, regulation for the Med) should be declared and should be undersigned by all. It should be transdisciplinary and aim to build integration across fields to maximise benefit for the blue economy (aquaculture, bio exploration, biomaterials, sensors, denomination of product origin, technology, socio-political, socioeconomic etc).</p>



Office National des Hydrocarbures et des Mines - Morocco	Directly involving the various stakeholders involved in the implementation of public policies: Ministries, Directorates, Departments, associations, the public, and selecting those likely to make an active contribution... - Promoting cooperative interdepartmental attitudes that encourage constructive competition and avoid duplication, overlapping, etc...
Lebanese University - Green Community	Governance is very important at UFM/Regional. I believe that Corona Virus pandemic showed the enhancement in the environment. In the future, we should apply policies and strategies that will lead to clean environment means less traffic, less pollution and less land abuse.
Barcelona Advocats i Assessors	A modern integrated maritime policy will need to manage jointly and in an integrated way, both the activities of the maritime sector and the environmental challenges, and aspire to sustainable economic growth with clear benefits for society. In this context, the adaptation of this strategy, its implementation and evaluation will require a specific governance mechanism to ensure its effectiveness. The scope has 3 strategic objectives: - Use of innovative management and co-management mechanisms fully developed and consolidated. - Excellent management advice. The use of maritime spatial planning as a tool to achieve an Integrated Maritime Policy
CIPPM	To promote collaboration between the Associations of Marinas of the Mediterranean countries and regions to exchange experiences for a new management model based on sustainable and environmental development, with the application of the Blue Economy and ICT.
Council of the Oriental Region	The development of decentralized cooperation between the regions of the North and South of the Mediterranean - The adoption of a strategy on the blue economy by the public authorities.
Emilia Romagna Region	Panoramed project financed by MED Programme is a good example of enhancing the governance in the Mediterranean area, in this matter all Mediterranean countries are involved in the ETC Programme MED are participating as partners to the implementation of the three years project.



	<p>Establishing shared, ambitious and positive long-term visions for the Mediterranean to facilitate the alignment of actors from different areas to advance towards common goals, in order to:</p> <ul style="list-style-type: none"> - Developing a common governance in priority themes to align better MED, national and regional policies towards the common challenges and to promote collaboration among MED R&I actors towards common objectives. - Raising awareness of the urgency to address MED challenges by providing evidence of the impact and costs of current practices. - Addressing the SDGs requires from governments a broad policy mix, aimed at enabling innovation, experimentation, dissemination and networking, as well as facilitating structural economic change. Therefore, a better governance of innovation policies is key to align efforts of diverse actors and to address the sustainable development goals in more effective ways. Two main elements are comprised in our understanding of better governance: a more inclusive directionality of innovation policies toward SDGs and improved coherence of action in a multilevel and open governance framework. <p>Orienting the calls for R&I towards MED priorities and challenges.</p>
<p>ASSOCIATION DE PROTECTION DU LITTORAL A MAAMOURA - APLM</p>	<p>Promote and encourage green jobs and insist that companies move towards the 0-paper strategy.</p>
<p>cedar organization Algeria</p>	<p>The promotion of the blue economy with regard to rational governance and management of resources aims to support the economies of the countries concerned and to guarantee the interests of their generations in the future the position of the MED region calling for the imperative to find financing mechanisms to enable developing countries to take charge of this issue within the framework of equitable international cooperation and to strengthen relations between the Mediterranean partners and to commit to the respect of the principles of good governance and to a more effective investigation of the opportunities for development of the blue economy offered in the region in a sustainable manner.</p>



Euroregion Pyrenees Mediterranean	It would be necessary to systematically involve the most representative networks of these local authorities, such as the MedCoopAlliance, in advance of major meetings between UfM member states and the local authorities of the Mediterranean region and to involve them in current affairs or debates.
Ministry of Energy, Mines and Environment/Department of the Environment	In order to develop good governance of marine and coastal areas at regional level and to promote the blue economy, it is necessary for Mediterranean countries to share their know-how, strategies, good practices and above all the lessons learned from unsuccessful experiences. At the national level, planning at the level of coastal areas according to the vision of integrated coastal zone management required by law must imperatively include marine spatial planning. Those responsible for this planning must be convinced.
NGO COMMUNITY ASSISTANCE and Development ASCOM	Advocate to governments to support initiatives that Promote the employability of youth and women through the blue economy.
Generalitat Valenciana	Concrete and specific funding programmes to develop the UfM's key policies, followed by a clear differentiation of the institution and its objectives.
DIRECTION DES PORTS ET DU DOMAINE PUBLIC MARITIME	<p>At the strategic level:</p> <ul style="list-style-type: none"> - Adopt a global strategy for the sustainable and inclusive blue economy, adapted to the vision of each Mediterranean country; - Put institutional consultation and coordination at the heart of the decision-making process and promote the convergence of policies affecting the coast; - Set up financing mechanisms for the blue and green economy at the coastal level; - Strengthen partnership between the administration, the private sector and civil society; - Reinforce the participatory process around integrated coastal management; - Adapt the training offer to the needs of the sectors involved in the implementation of the strategy. - Observe and monitor the maritime capital of Mediterranean countries; - Analyze the risks that arise around sea and coastal professions;



	<ul style="list-style-type: none"> - Invest in scientific research and innovation; - Promote cooperation and the exchange of expertise between Mediterranean countries and ensure coordination between the strategies of the blue economy. - Propose regional objectives and performance indicators by sector to assess the achievement of sustainable development objectives linked to the Blue Strategy. - Integrate the imperatives of preservation, protection and development in sectoral planning and investment programmes at the coastal level; - Ensure coherence between spatial planning instruments and the imperatives of integrated coastal management; - Ensure coherence between investment programmes at the coastal level by setting appropriate coherence indicators; - Develop and create new economic indicators in order to give decision-makers a more accurate picture of the health of an economy as a whole, beyond the narrow perspective of GDP alone. <p>Actions:</p> <ul style="list-style-type: none"> - Creation and development of new maritime lines promoting the overall strategy of the blue economy; - Encouraging the development of infrastructures; - Promoting new maritime professions to support the blue and green economy; - Promoting research and innovation for the sustainable development of the coast. - Pooling observation, surveillance and control systems. - Set up a coordination mechanism during the planning and implementation of public plans and strategies in order to promote the collective interest; - Complete the legislative and regulatory framework for the coast; - Carry out a study to assess the cost of adapting the coast and identify short, medium and long-term financing mechanisms;
<p>Legambiente Onlus</p>	<p>Further collaboration should be implemented at different levels: first, it would be important to bring together the knowledge by organizing working groups of experts, that could create a baseline for a transnational cooperation. Developing a comprehensive strategy and concrete actions at European level with an action plan to be then implemented at national/regional level could be another important step of the future scenario. Then, concrete</p>



	<p>actions, projects, initiatives etc., should be progressively rolled out at national and regional level, in cooperation with national and regional authorities, key stakeholders, and policy makers according to national/regional needs. The involvement of civil society organisations, especially in a North-South cooperation at basin level will be a key element for an actual and concrete Mediterranean cooperation able to tackle main challenges both at basin and at regional level. Promoting networking between CSOs could enforce the States action and make the achievement stronger. Enhance the civil society in Southern Mediterranean countries will allow to have allies for a better governance and lighter future of Mediterranean area. UfM direct or indirect funding for specific projects and on specific topics could make the difference in order to achieve good result in blue economy and in marine and coastal development.</p>
<p>Intermediterranean Commission of CPMR</p>	<p>Strengthening, alignment and integration of all relevant strategies and initiatives capable of reinforcing multilevel governance and cooperation is key (e.g. WestMed, EUSAIR, among others). Aim towards a gradual and unique integrated long-term strategy for the Mediterranean or at least a solid coordination mechanism (not necessarily based on a governing board) that could see the light in the decade after 2020, with a strong focus on sustainable blue economy. Coordination among local and regional governments (EU and non-EU) is crucial to ensure coherent and true impacts of EU and Mediterranean policies on the ground, beyond being mere implementers. Initiatives such as the Mediterranean Cooperation Alliance, are key and should be consulted and considered when time comes to elaborate governance strategies at the basin level. Potential for collaboration between the UfM and the governance platform of Interreg MED, namely PANORAMED, which has recently promoted dedicated strategic projects in the fields of Sustainable Tourism (SMARTMED & BEST MED), Maritime Surveillance (OSMoSIS and SHAREMED) and soon on Innovation. Regular interaction and collaboration among the UfM and PANORAMED initiatives would certainly help increase the impact of governance actions undertaken and the capitalisation of relevant experiences. The promotion of a new paradigm for the blue economy based on sustainability is of utmost importance to live safely and secure populations' futures, developing a long-term vision and strategy and delivering concrete solutions to overcome environmental impacts. Mediterranean countries, regional and local authorities should work together towards the alignment of stricter thresholds regarding impacts on the environment. Exploiting synergies amongst blue economy sectors and promote the establishment of permanent clusters as</p>



	<p>strategic assets for a sustainable blue growth is also key to further develop governance and could well respond the above point.</p> <p>To strengthen and enhance cooperation among all Mediterranean countries (EU and non-EU) ensuring data sharing, knowledge exchange, technology transfer, industrial cooperation, mobility of experts and professionals, with a shared environmental sustainability responsibility should be sought too.</p> <p>Ensuring the rational use of funds and sustainable financial instruments to support all stages of a sustainable blue economy development – from Research and Development to Market – preventing loss of accumulated knowledge and prioritizing environmentally sustainable solutions should come in priority.</p>
<p>National Aquaculture Development Agency</p>	<ul style="list-style-type: none"> - Foster cooperation between the North and South shores for the sharing of know-how and expertise; - Initiate regional R&D programs; - Create a regional aquaculture network for the sharing of know-how and the transfer of knowledge.
<p>UNEP/MAP Barcelona Convention</p>	<ul style="list-style-type: none"> - The Mediterranean Region is well developed in terms of governance, policies, and tools in relation to Blue Economy. There is a room to strengthen several dimensions of this set up and improve the coherence of actions undertaken by all stakeholders at all levels. In this respect, governments and policymakers shall re-affirm the importance of the Regional Dimension, in line with the 2030 Agenda, as a bridge between global processes and national policies, and strengthen the competent regional organizations with mandate to promote blue economy in the region; - Priority should be on further developing and implementing relevant approaches and tools such as Integrated Coastal Zone Management (ICZM), Marine Spatial Planning (MSP), monitoring and assessment of marine and coastal environment, and assessment of trends and impacts of blue economy sectors. The UNEP/MAP – Barcelona Convention system and its unique institutional, regulatory and implementation framework for the protection of the marine and coastal environment, and sustainable development of the Mediterranean Region, provide a strong contribution in implementing the above – its role and capacity should be further enhanced to scale up the enforcement of global and regional commitments, and to advance through common legal instruments, strategies and policies, as well as scientific and technical programmes, projects and initiatives;



- Increased cooperation between relevant organizations in the region will enhance efficiency. The MoU signed in 2013 between UNEP/MAP and the UfM Secretariat is a good framework of collaboration; updating the list of activities under the Appendix of the MoU to specifically address Blue Economy and Climate Change, will strengthen the complementarities of the two organizations;
- Acknowledge and strengthen efforts to support the implementation of existing forward-looking policies and strategic frameworks for enhancing collaboration among different organizations and achieve best results at both regional and national levels. For instance, the Mediterranean Strategy for Sustainable Development (MSSD) 2016-2025, adopted at COP 19 of the Barcelona Convention and its Protocols (Athens, Greece, February 2016), as a strategic guiding document for all stakeholders and partners to translate the 2030 Agenda for Sustainable Development at the regional, sub-regional and national levels, dedicates its Objective 5 to “Transition towards a green and blue economy”, which is complemented by the UNEP/MAP Regional Action Plan on SCP in the Mediterranean. Implementation of the strategic actions of the SCP Action Plan should be further supported in a blue economy context, in particular for Food, fisheries and agriculture (FFA) and Tourism.
- The current emergency situation originating from the Coronavirus pandemic is expected to have devastating consequences on the fragile economies of the Mediterranean region, as it is hitting in particular economic and productive sectors that are crucial for the region and central to Blue Economy (e.g. tourism) – this will require innovative, rapid, and coordinated interventions building on the strengths and mandates of the various actors;
- Promote participatory governance by building on long-standing cooperation and commitments with various partners and stakeholders, including the youth, and establish effective multi-stakeholder, public-private, cross-sectoral and interdisciplinary partnerships, including by accelerating the sharing of good practices. In that respect, the Mediterranean Commission on Sustainable Development (MCSD), which is the multi-stakeholder advisory body to the Contracting parties of the Barcelona Convention for ensuring interaction between environmental protection and sustainable development policies in the Mediterranean region, is a relevant forum for experience sharing. Gathering on an equal footing not only governments representatives but also stakeholders from various categories, the MCSD supports efforts in integrating environmental issues in socioeconomic programmes and, in so doing, promotes sustainable development policies in the Mediterranean region.
- Define forward-looking and innovative strategies, policies, and programmes to enhance Blue Economy in the context of sustainable development, taking into account the commitments of the Mediterranean countries under



	<p>the Barcelona Convention and its Protocols which lay down important obligations and advanced standards for the protection of the Mediterranean marine and coastal environment. Based on the Naples Ministerial Declaration, adopted at COP 21 in December 2019, Blue Economy is considered as a priority and this will be reflected in the UNEP/MAP 2022-2027 Medium-Term Strategy under preparation;</p> <ul style="list-style-type: none"> - Develop innovative financing solutions for the promotion of sustainable ocean- and sea-based economies, including through public-private partnerships and market instruments, and ensure rational use of funds and financial instruments to support all stages of the blue economy deployment, from Research and Development to market, preventing loss of accumulated knowledge and prioritizing sustainable solutions; Declaration, UNEP/MAP – Barcelona Convention, December 2019).
<p>Underwater Gardens International</p>	<p>There is the need to better engage the public and the private sectors. Additionally, all administrative necessary processes to get marine permits should be much quicker.</p>
<p>European Environment Agency</p>	<p>The Blue Economy is the Mediterranean faces different reality: UfM objectives, Barcelona Convention- UNEP/MAP regulatory activities system and the EU based on both socio-technical intelligence (Emodnet) and planning (MSP). While acknowledging this context and this interlinked governance dimension, the specificity and the intervention logic of the UfM/the region will need to be clarified and the implementation schema to put in place to articulate country and regional needs/projects that the UfM could promote and support precisely detailed. Bearing in mind this operative environment of the UfM, the key role of the SDGs to enable long-term vision and strategy delivering concrete sustainable solutions, the overall international legal package on marine and maritime affairs, the efforts for maritime planning (MSP), a set of key actions can be formulate to support the region/UfM governance aspects.</p> <p>The proposed set of actions relies on the knowledge gained on the conditions of Europe’s seas, in particular around the following 3 aspects:1 closing the implementation gap, 2 closing the knowledge gap, and 3 steer policy implementation efforts towards an operational systems approach.</p> <p>1. Closing the gap between institutional set-up and implementation process. Possible way forward to close this gap would be for the responsible public institutions across different policies (environmental protection, fisheries, maritime transport, agriculture, waste management, etc) to act in a truly coordinated manner and use the same</p>



	<p>information platform (e.g so that monitoring can properly inform on whether the use of the sea is sustainable). Such coordination supported by establishing a stronger integrative and participatory process for delivering across the policy objectives. It means measuring progress towards targets based strictly on scientific evidence; objectives and targets set within a realistic timeframe. And all these measures undergo a systematic and periodic evaluation of progress. This do not require new policy/legislation, but empowerment of public institutions so they adequately address politically agreed commitments. Increase empowerment would require adequate funding to deliver individual objectives within the agreed deadlines.</p> <p>2. Needs data and information for now and the future. This require both better use of existing data and also new data (includes use of novel ways for collecting, analysing and presenting information while ensuring gaps within existing efforts are closed), as well as better knowledge overall. Meaning becoming stronger in evaluating the measures put in place i.e check whether progress stay in line with expectations and to be able to react if not. A condition for this is to make evidence-based decisions for setting environmental targets and threshold values to determine“good”ecosystemcondition.</p> <p>3. Steer toward a systemic approach. Require acknowledging the various temporal and spatial scales involved to achieve current and future vision i.e recovery takes time. Full integration within and across policies is a key element that the UfM can support and facilitate, to achieve such integration cooperating at various geographical scale (local, national, regional) and across scientific disciplines, businesses, countries and with citizens is more relevant than ever.</p>
<p>Generalitat de Catalunya</p>	<p>One of the biggest challenges of the governance related to the Blue Economy is the diversity of economic sectors, research areas, administrations, and social entities involved. Coordination within each of these groups at regional/UfM level and among them is strongly needed and far from being achieved. Effective networks are crucial to identify cooperation and synergies to develop transversal projects exploiting the whole potential of the region in specific areas. Once achieved, duplication of efforts could be avoided, row materials concentrated if needed (circular economy), and investments optimized. The development of Maritime Strategies at national and subnational level could strongly support the governance mechanisms highly needed.</p>



<p>MCA - Mediterranean Cooperation Alliance</p>	<p>The importance of promoting multilevel governance and cooperation for the further develop governance of the blue economy in the Mediterranean. These dynamics should facilitate the integration of the basin through a gradual and long-term strategy progressively aiming towards a macro-regional approach. This framework would favor the synergies between western and eastern Mediterranean. In this process, the involvement of EU-MENA-MASHREQ local and regional governments has become necessary already since a very early stage.</p> <ul style="list-style-type: none"> - The Mediterranean Cooperation Alliance (MCA) can facilitate a space for governance promoting collaboration between the Mediterranean regional area by facilitating the exchange of experiences between networks already working at regional and local levels, and relevant institutions such as UfM and other governance platforms, such as Interreg MED's. These spaces will promote the capacity to increase the impact of multi-governance actions undertaken and the capitalisation of relevant experiences. - In this sense, the MCA claims for a support to all activities affected by the Covid-19 crisis, with a specific focus on supporting sustainable tourism, green and blue economy, sustainable mobility, and biodiversity protection that are key elements of the sustainable development of the basin. The MCA also reminds the need to quickly make available funds to the "ready to start" actions and projects – and bring no cuts to cohesion funds. - The MCA, gathering most networks of local and regional authorities in the Mediterranean, will be ready to be considered and consulted when time comes to elaborate governance strategies at the basin level working alongside the UfM, as already recommended in the ARLEM report on Mediterranean integration (2020).
<p>CCDRAlentejo</p>	<p>"Inter-governmental coordination of European foreign policy to ensure the efficiency of the measures and policies adopted, and effective institutionalization of the UfM to enable projects to be coordinated, otherwise their results will be scattered and meagre. Thus Euro-Mediterranean cooperation depends on two closely interrelated levels: on the one hand, the coordination of European foreign policies (the will of the states on the northern shore) with regard to cooperation within the UfM, which, in order to be consistent and produce more substantive results, need a genuine institutionalization of this Macro-region (the will of the states on the southern shore) in order to ensure the governance of the policies and projects to be developed.</p>



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	<p>A voluntary commitment on the part of the Member States is essential in order to meet the challenges of the Mediterranean basin'.</p>
<p>Egyptian Environmental Agency</p>	<p>With the availability of adequate support from developed countries to developing countries to enhance sustainable food from the sea, tourism, ports and ensure adaption to climate change impacts and minimization of marine litter threats, the following measures could be conducted at regional and national levels:</p>

Theme 1. Sustainable food from the sea: sustainable fisheries and aquaculture	
<i>Which actions are necessary to ensure that Mediterranean fisheries and aquaculture become sustainable in the near future, taking into account the environment, circularity, food security as well as employment issues?</i>	
EMUNI	Enhance the role of small-scale fisheries and small-scale aquaculture production with emphasis on environmental sustainability and social issues, rather than profitability & massive production (recall GFCM-RPOA). Foster the model of precautionary aquaculture. Enhance the capture of invasive species. Ambitious commitments for the region to revert the trend in the next year is needed.
INSTM - Tunisia	sustainable use of secure products to overcome problem of pathologies and overuse of antibiotics in aquaculture
IOC-UNESCO + INSTM TUNISIA	Regional agreement endorsed by Member States (competent authority of fisheries, aquaculture and finances) in line with Agenda 2030 SDGs and the work done by international and regional bodies in the region.
CNR-INM (Italian National Research Council - Marine Engineering Institute)	Offshore fish-farms organized as shared infrastructures to be cross-managed among neighboured countries
FAO	The harmonisation of policies of the kind nature-based in the region. Food systems have to be analysed in all latitudes



MED JS	Cradle-to-cradle design pilots
University of Bolognae	We need more research and pilot projects to develop urban aquaculture, similarly to what is done for urban production on land (green roofs, vertical farming). The exploitation of urban and periurban waterfronts for aquaculture can benefit from both advanced designs of caging systems and biotechnology that enhances food production, improves health or mitigates environmental stressors (e.g. aquapods, vertical aquaculture, smart farming) . For example, the City of Baltimore is using recirculating aquaculture systems (RAS) to prevent release of waste and improve the environmental practice of net-pen aquaculture. Crucial to these systems are the microbial biofiltration systems developed to improve nitrogen removal and maximize the re-use of saltwater in the RAS.
CNR	Promoting a better understanding of the pollution impact on economics, besides human and planet health
National Institute of Marine Sciences and Technologies	The MSP principle must be well reinforced during development
Ministry of Economy – Palestine	<ul style="list-style-type: none"> - Establish a law to limit violations of marine wealth and follow these laws, especially in developing countries - Determine the quantities caught from marine wealth and compare them every year in terms of continuity and productivity - Providing financial grants for mariculture and aquaculture - Sharing these projects with the private and governmental sectors in terms of support - Expanding participation with neighboring countries - Working to employ technological control among the countries of the Union
Alma Mater Studiorum University of Bologna	Convert fisheries toward offshore mariculture



AMFORHT	<p>Involving local population into sustainable aquaculture. Facilitate small loans and assist the several actors to identify the potential markets. Encourage the R&D in this sector to innovate in new technologies, smart production methods and equipment. Planning for protecting coasts and oceans on any negative impact of the aquaculture and sea fisheries</p>
Presa Puente Estrecho de Gibraltar, SA	<p>Above all, we must preserve from plastics and the dumping of toxic substances that affect marine flora and fauna.</p>
Universidade de Évora, MARE	<p>More monitoring of marine environments, more public information on environmental impacts.</p>
DynMed Alentejo - Association for Studies and Regional Development Projects Dese Projects	<p>Monitor developments very closely and maintain regular contact with the national and/or regional authorities to adopt restrictive measures if necessary.</p>
Tunisian Association of Coastal, Port and Maritime Engineering (ATIM)	<p>A quantitative and qualitative assessment (in-depth diagnosis) of what exists must take place before any strategic decision is made. Also, an international survey on the subject is necessary to take into account other experiences in advance.</p>
UNIVERSIDAD DE MURCIA	<p>As I said before, the application of ICT can make fisheries, aquaculture and other priorities of the blue bioeconomy, such as Marine Spatial Planning, more efficient, to carry out more circular economy processes and save energy and natural resources. In addition, this optimization would increase the benefits to the end users and improve the environment and natural resources management and governance.</p>



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<p>RAED - Arab Network for Environment and Development</p>	<p>ECZM protocol to ensure sustainability. Strong monitoring procedures to ensure the enforcement. Stakeholder engagement and capacity building is needed. Provide incentives for the SMEs and investment to encourage the sector to grow.</p>
<p>The-Marketer.net / HOMERe Permanent Secretariat South Shore Mediterranean</p>	<p>Sustainability requires two pillars to focus on: economic and environmental. Economic: by developing the capacity of fisheries and aquaculture industries management to run it in most effective way and optimized approaches to achieve financial ROI with continuous growth. Environmental, will require educating the fisheries and aquaculture industries management on the vital role they have to play in order to protect their business environment represented by the sea life. They could be engaged through CSR concept. In parallel, at educational entities, junior ambassadors units to be formed / created helping in spreading the concept and the culture of environment protection. All the above can be forged / planned via entrepreneurship concept, since today we have "Private entrepreneurs" and "Social Entrepreneurs"; the latter stands for group who work for social cause / issue largely impacting the community. Thus, the whole package can be designed through "entrepreneurship concept" tailored to suit the "fisheries and aquaculture industry".</p>
<p>Direcció General de Pesca i Medi Marí. Govern de les Illes Balears (Spain)</p>	<p>Sustainability cannot be based exclusively on maintaining fish stocks. The sustainability and subsistence of artisanal fisheries must also be ensured and EU policy has gone 30 years in the opposite direction. Much more should be invested in promoting the consumption of their catches, the only proximity ones and Km 0, and stop promoting the consumption of species from distant and extra-Mediterranean places. Regarding the management of fish stocks, it should be based on ecosystem and polyspecific models and not extrapolate the data from 4 or 5 main species that are not representative of the more than 150 species that are caught and marketed in the Mediterranean. Necessarily, recreational fishing must be included in these models. Finally, Atlantic-specific management instruments, such as Individual Transferable Quotas, the obligation to land discards or the prohibition of polyspecific commercial categories, must be eliminated as they are contrary to the subsistence of artisanal fishing in the Mediterranean.</p>



<p>Mediterranean Information Office for Environment, Culture and Sustainable Development (MIO- ECSDE)</p>	<p>We consider the following actions to be priority for the sustainability of the fisheries and aquaculture sector:</p> <ul style="list-style-type: none"> - Ensure the rights of small-scale fishermen, making sure that the quota system allows for fair allocations to short-distance fleets. - Ensuring cooperation amongst Mediterranean countries to set quotas and fisheries management measures that are fair to all countries and respect environmental boundaries. - Implement the ecosystem approach to fisheries management. - Appropriate marine spatial planning that takes into account sensitive habitats (such as deep-water coral reefs, coralligenous assemblages, Posidonia meadows, and other nursery habitats for commercial species) as well as allowing enough protected habitats to allow for spill-over effects. - Step up efforts for the expansion of the Natura2000 network into the marine environment, and the designation of new MPAs (marine protected areas). - Reinforce monitoring and law enforcement in Mediterranean waters regarding fishing activities, and step up efforts against IUU (illegal, unreported, and unregulated) fishing. - Develop harmonised standards relating to the circular design of fishing gear to encourage preparation for re-use and facilitate recyclability at the end-of-life. - Invest in R&D for the development of new kinds of fish-feed for aquaculture that do not use other fish products as a source (i.e.: insect-based, plant-based fish feeds), more selective fishing gears, and non-destructive fishing methods, as well as for valorization of bycatch. - Step up fleet-reduction incentives in order to have a smaller but year-round active fishing fleet, as well as incentives for aquaculture development
<p>ECONCRETE</p>	<p>Promotion of the activities that this industry does and the benefits that provides to society, giving numbers, data to the population. Promotion between young people at Universities and Schools to assure that current and future generations understand the importance of the industry and are aware of the job opportunities that it provides. Implement a scientific program which can provide general and specific data over fisheries and aquaculture relevancy.</p>



<p>BETA Tech Center, UVic/UCC - Interreg MED Green Growth</p>	<ul style="list-style-type: none"> - To promote dissemination, transfer and uptake of solutions and innovative tools for measuring and enhancing resource efficiency - To promote investments to support SMEs in responding to the growing customer demands for sustainable products and services by investing in eco-innovation and resource efficiency along the value chain - To address users' perceptions and to raise awareness among citizens to promote sustainable consumption patterns - To put in place policy and legislation to promote resource efficiency and sustainable consumption and production patterns - To implement the Product Environmental Footprint method across the agro-food systems with the aim of greening the supply chain, including a higher resource efficiency and the decrease of environmental impacts - To limit the production of organic and inorganic waste in the agrofood sector by applying innovative technologies - To optimise the use of bio-based packaging materials - To endorse horizontal and quadruple helix approaches and cooperation among stakeholders in forthcoming initiatives as a key to achieving circular agro-food systems
<p>wpd offshore France</p>	<p>We recommend considering the actions proposed within the framework of the Strategic Facade Document adopted on 04 October 2019 (cf. socio-economic objectives, indicators and targets, notably M. and N.) > http://www.dirm.mediterranee.developpement-durable.gouv.fr/la-strategie-de-facade-maritime-est-adoptee-a2892.html</p>
<p>METU Institute of Marine Sciences</p>	<p>Educate and train policymakers in countries first. Nurture a culture of co-design with stakeholders and scientists.</p>
<p>MedCities</p>	<p>Facilitating/supporting the transferring of the FLAG mechanisms -Fisheries Local Action Groups (FLAGs) as partnerships between fisheries actors and other local private and public stakeholders- outside the EU to reach all the Mediterranean. Those shall be linked to local economic development mechanisms, while promoting circularity. Supporting SMEs all through the value change in engaging in circular economy approaches with initiatives as the Interreg MED Project BLUEFASMA applied to a basin wide scale. States and public administrations have to put all the efforts in assuring the fulfillment of the rules upon seizures,</p>



	<p>species and fishing-excluded zones and periods. Tax policies must be created in order to favor/enhance the transition to new forms of fishing among companies. Increasing the number of Marine Protected Areas and the assurance of their implementation and management. Boosting covenants among public administrations and sustainable fishing companies. Boosting aquaculture by taxing policies upon both producers and consumers. Make the general public take notice of the sustainable companies that exist in the markets.</p>
Fundacion Valenciaport	Training and financing instruments
University of Siena	Ensure that all the activities do not diminish natural capital stocks and do not add pollutants
National Research Council of Italy	<p>Consumer oriented actions:</p> <ul style="list-style-type: none"> - Exchange best practices and dissemination among Mediterranean countries on Sustainable Food Consumption concept and good food practices for society (e.g. reduce consumption and tourism food waste, co-design new strategies to preserve and freeze products) leading to improved society behaviors and better consumer practices; - Promote fishing and aquaculture eco-label products; <p>Governance and capacity building:</p> <ul style="list-style-type: none"> - Develop innovative methods and tools for monitoring and governing Mediterranean aquaculture and fisheries, in line with existing policies. - Develop capacity building activity focusing on artisanal fisheries; <p>Innovative assessment and management:</p> <ul style="list-style-type: none"> - Improve adaptive planning and management scenarios by defining approaches and tools to identify the trade-offs between ecological dynamics and socio-economic needs, taking into account marine ecosystems goods and services and their environmental, economic and social value; - The Mediterranean way for Aquaculture: (i) study and evaluate the best processes to adapt and diversify aquaculture activities (species and systems) and capacities in a changing environment, including for small and



	<p>medium-scale farms; (ii) develop new management tools and ecosystem-based approach, tackling pathogens, (iii) develop conceptual models for Integrated MultiTrophic Aquaculture (IMTA);</p> <ul style="list-style-type: none"> - Assess Fish Stocks in a holistic frame taking into account climate change (and alien species diffusion); - Rethink the approach to the management of by-products and by-catch from fisheries and aquaculture in the production chain.
WWF	<ul style="list-style-type: none"> - Promote sustainable fishing techniques, particularly more selective and low impact gear and practices. Increase investments in those gears and practices to reduce bycatch and onboard sorting costs and create specialized manufacturing jobs - Support small scale fisheries by implementing co-management initiatives to achieve sustainable fisheries and compliance and support fishing communities by providing alternative livelihoods that can diversify fisher's revenue streams (fishing tourism etc.) - Adopt spatial and temporal closures, particularly for nursery areas, to allow for fish stocks to recover - Mediterranean States must strengthen compliance mechanisms within regional organisations (Regional Fisheries Management Organisations and Regional Seas Conventions) with binding commitments and infringement procedures to increase the accountability of Contracting Parties - Governments should increase investments in public research on sustainable aquaculture to support businesses in progressively enhancing sustainability and production efficiency
Malta Maritime Forum	Reduce pollution. Reduce plastic is definitely on the forefront to achieve this goal.
MedPAN, the Mediterranean Marine Protected Areas Network	<p>To ensure Mediterranean fisheries to become sustainable, effort must be put in particular on Marine protected areas and in particular on no-take zones. Indeed, MPAs, when they are effectively managed and with a sufficient part of fully protected zones (no-take/ no-fishing zones) are tools that can play a very crucial role in protecting key habitats for fish and supporting the "reserve effect".</p> <p>Co-management of fisheries is also essential by bringing together decision-makers, authorities and fishermen to take decision regarding fisheries management.</p>



	<p>Regarding aquaculture, please see the recommendations from the Pharos4MPAs Interreg project (coordinated by WWF): https://pharos4mpas.interreg-med.eu/fileadmin/user_upload/Sites/Biodiversity_Protection/Projects/PHAROS4MPAs/AQUACULTURE_31july_single_page.pdf</p>
Med Blue Growth community	<ul style="list-style-type: none"> - Fisheries & aquaculture shall implement the circular economy principles in order to lead and renew this blue growth sector to a more sustainable growth. - Funding opportunities are essential for sustainable innovation investments in the sector, which gathers many SMEs; - Common strategies related to fisheries and aquaculture in the Mediterranean shall be reached, including countries from all shores of the basin. To this end, existing clusters in the Mediterranean region should be empowered and involved in. - Maritime Spatial Planning and Integrated Coastal Zone Management shall include zones for coastal fisheries, for offshore aquaculture and other activities related to the fishing sector (e.g. recreational fishing). - The efficient use of waste and by-products in fisheries & aquaculture sector is not only an environmental issue but also an economic one. - Vocational education is also essential in this sector, as well as lifelong learning (e.g. in the form of living labs). It shall be implemented in coastal and insular areas where a big part of the population is involved in this activity. - Populations should be better informed on the provenance of the products they consume, as well as be made more aware about the benefits of a sound consumption for the maintaining of stocks.
eco-union	<p>Mediterranean fisheries and aquaculture should be monitored and regulated to avoid negative environmental impacts, respect ecological carrying capacity and insure fair revenues to fishermen and SMEs.</p>
Green Community NGO	<p>In this regard, any taken action should be fishermen-oriented. Fishermen are the backbone of sustainable fishing. Raising awareness among fishermen about the sustainable fishing benefits, not only to the marine ecosystem, but for their own catch (in quantity and quality), and how it becomes durable to sustain their own livelihood, guarantees the</p>



	<p>adoption and success of sustainable fishing practices. Also, given that most fishermen are among the most vulnerable and the poorest society members, alternative and/or complementary income-generating activities should be sought or taught to fishermen, as a support means during fishing low season (e.g. involving fishermen in sea-bottom cleaning activities by training them on diving to exert it; Or, Capacity building on fish- preserving during the market low season, to be able to sell during the market high season.... and other income generating activities). Finally, creating and supporting existing fishermen Coops could help in adopting sustainable fishing endeavors.</p>
ECOCEAN	<p>Involve artisanal fishermen (and/or their local representative, fisheries committee) in the renewal of their resources by promoting restocking actions. This is what we are currently doing in two ongoing projects (ORREA in Toulon and CASCIOMAR in Marseille).</p>
Community Assistance and Development (ASCOM)	<ul style="list-style-type: none"> - Inform, train and raise awareness among stakeholders (plant managers, fishermen and consumers) on respect for the environment and the quality of the fish to be caught; - Raise awareness among fishermen on the dangers associated with the waste they throw into the sea
Agence nationale des ports Maroc	<p>Raising fishermen's awareness / Strengthening scientific knowledge of the state of fishery resources</p>
NOAH ReGen	<p>75% of the world's population lives close to the coasts and mainly in the coastal capitals, which will be home to nearly 6 billion citizens by 2050. It is obvious that "off-shore farming" solutions are mandatory for these coastal mega-cities, which will no longer be able to rely on land to meet their needs.</p> <p>Off-shore farming / vertical farming, combined with aquaponics 2.0 must be organised (smart farming & fishery). We recommend the installation of "off-shore farm factories" resulting from the recycling of old cargo ships and set up in EEZ (post 12 miles from the coast).</p> <p>Local, organic, self-sufficient and combined production in a controlled atmosphere. The production must then be connected to a network of decarbonated "short shipping" (LNG or hydrogen) which recovers the goods directly from the floating farms and transports them to the heart of coastal cities, without land transport. These short-shippers must also serve as a local market place to eliminate intermediaries and control the</p>



	<p>distribution chain by avoiding handling and packaging: "direct farm to customers". This will reduce the cost to the consumer, while increasing the quality of fresh and organic products. This short shipping/floating market-place will also bring dynamism to small ports which will also be able to accommodate these new activities.</p> <p>These initiatives need to be connected to local authorities as EEZs are regulated and require prior agreement. Moreover, it would be useful to consider attractive taxation (social charges and taxes, customs and VAT...) for its farms in EEZs more than 12 miles from the coasts.</p>
IMFMM	<ul style="list-style-type: none"> - Strict application of the relevant conventions in force to combat marine pollution (international and regional conventions such as the Barcelona Convention) - Strengthening of capacities and transfer of skills, experts and expertise between the northern and southern Mediterranean countries - Effective implementation of Annex VI of the Marpol Convention 73-78
Institut National de Recherche Halieutique	<ul style="list-style-type: none"> - Implementation of management plans for the different fisheries, based on the ecosystem approach, taking into account economic, social, ecological and environmental considerations, etc. - Strengthen control of the management measures provided for in these management plans - Involve the communities concerned in decision-making, - Consider integrated scientific research (biology, ecology and socio-economics) as a main axis in the implementation of the various strategies - Set up specific management plans for aquaculture, favouring small-scale aquaculture - Improve marketing channels, aiming more at enhancing the value of sea products and at affordable prices. - All seafarers will have to be registered in the social security system.
Department of Maritime Fisheries	<ul style="list-style-type: none"> - Establishment of socially and economically equitable and responsible fisheries governance; - Establishment of a fisheries management plan based on scientific advice; - Encouraging ecological certification;



	<ul style="list-style-type: none"> - Reducing fishing effort; - Promoting the traceability of fishery products; - Combating illegal, unreported and unregulated fishing; - Prohibiting discards at sea; - Promote the use of sustainable fishing gear; - Support the implementation of maritime spatial planning based on an ecosystem/area approach; - Transition to a circular economy based on innovation; - Establish a network of connected MPAs; - Implement the FAO guidelines on artisanal fisheries; - Accelerate the implementation of the targets of SDO14. - Put in place a plan for the prevention and management of invasive alien species - Diversify fishermen's incomes by setting up income-generating activities.
<p>Global Network</p> <p>Footprint</p>	<p>Several major shifts are necessary to ensure a transition towards sustainable Mediterranean fisheries as well as a sustainable seafood consumption by Mediterranean residents. First of all, measures on the sustainability of food production side must be coupled with measures dealing with sustainable food choices from consumers. This means that, from the production side, there is a need to financially support regional fisheries in the process of certification so that more producers can actually secure a sustainable seafood supply. Similarly, financial support is necessary for small scale fisheries so that their products can see an increase in their market penetration. Support of Small Scale Fisheries (SSF) can then also contribute to increase in job creation. In line with this, no take zones might be necessary as well as the banning of certain environmentally harmful fishing practices and gears. Co-management practices in MPAs (between fishermen and the management authority) also needs being strengthened. On the other side of the coin, and realizing that most of the Mediterranean residents demand for seafood insists on a limited number of fish and seafood species, thus causing excessive pressure on certain fish stocks, a need is felt to favor diversification of the baskets of fishes and seafood being consumed by Mediterranean residents. Such diversification could positively contribute to generating a market for fish species that usually gets discarded because of perceived no commercial value, thus contributing to reduction in food waste. This could be achieved through regional awareness campaigns as well as national dietary guidelines.</p>



National Institute of Oceanography and Fisheries	Development of compliance standards and targets for sustainable fishing of Mediterranean. New spatial management tools to support decision making processes such as e.g. evaluating conflicts and synergies, single and cumulative impacts, scenario building and analysis, evaluating suitability for specific uses; Promoting integration of MPA in MSP processes and coastal management
INSTM	Using new tools for sustainability of the aquaculture sector: <ul style="list-style-type: none"> - Elaboration of Carrying capacity models and using remote sensing tool in aquaculture within the context of spatial planning for its efficient insertion and social acceptability” - improving fish feed and feed management using last advanced technology - implementation of biosecurity in aquaculture production systems areas
Spanish Institute of Oceanography	To promote offshore aquaculture, Recirculated aquaculture systems and low impact species aquaculture to decrease the global environmental impact of aquaculture To promote research on health and welfare To improve feasibility of companies by promoting breeding techniques, fast growing species aquaculture and synergies with another industries To anticipate climate change by researching on resilience ability of cultured species
Regional Cluster "North-East"	Protection of susceptible species and habitats, maintenance of all types of species at acceptable levels, use of selective fishing methods, maintenance of biodiversity, reduction of energy and chemical products used, social, and economic responsibility and justice and the awareness of the origin of catches at all times throughout the chain. Promotion of “responsible buying”. The transition towards a sustainable fisheries model will improve the situation of vulnerability that currently exists in fishing communities, by contributing more employment to the fishing sector, more employment to other activities related to leisure and tourism services and more employment opportunities for young people, women, and people with medium and high qualifications.



<p>Center of Sea Sciences, University of Algarve</p>	<p>There has to be common rules for all Med countries to make the "playing field" the same. It is essential to keep the engagement with companies through RDI projects to provide the tools and guidance and change the mind-set towards circular. The field of aquaculture is still fragmented and dissociated from all the other sectors that make up the "circle". Realistic goals for sustainability at the different parts of the the circle need to be established as the current sustainability status is quite different. The goals should be built as short, medium and long. The demands for the blue economy and sustainability should take into account the relative "youth" of this are relative to terrestrial farming that has been developing under very different scenarios over hundreds of years. The unique characteristics of the food from the sea should be acknowledged and the need for much more RD&I and stimulus for the industry, supply, product development and actions for public acceptance cannot be overstated.</p>
<p>Institut National de Recherche Halieutique (INRH)</p>	<p>In order to ensure sustainable food from the sea through fisheries and aquaculture, sustainable management of these activities is crucial. To this end, and since any management plan is based on the results of scientific studies in this field, the importance of fisheries research to achieve the objectives is unavoidable. Certain measures are considered important in terms of scientific and technical research and expertise in the fields of fisheries and aquaculture:</p> <p>FOR FISHERIES:</p> <p>Action 1: The introduction of a system for the traceability of fishery products through the correct identification of the species caught and the precise quantification of catches and discards at sea for a better evaluation of stocks. Indeed, and so far, a large number of species are misidentified or several species are designated under the same common name; a significant proportion of catches are not declared and pass through the informal circuit without any control; and discards of fishing catches are not specifically identified and evaluated.</p> <p>Action 2: Assessment of the sensitivity of marine ecosystems in relation to the different pressures for effective management of the marine environment. This will allow the assessment of the risks of impact linked to different activities by mapping the sensitivity of habitats, and highlighting habitats and/or pressures for which data and knowledge are limited, in order to better guide future research projects.</p> <p>Action 3: Establish diagnoses on the state of fish stocks, determine their levels of biological exploitation and study the factors governing their evolution.</p> <p>Action 4: Promote the creation of Marine Protected Areas to ensure the sustainable protection of natural and</p>



	<p>cultural resources. These MPAs constitute ecological niches for the protection of biodiversity by ensuring the sustainability of fishery resources.</p> <p>Action 5: Assess the impact of climate change and marine litter pollution on marine ecosystems. The impact of climate change and the intensive and uncontrolled use of waste is currently visible throughout the Mediterranean and the problems generated are of an ecological, economic and social nature. To this end, the study of the impact of these factors on ecosystems has become a necessity for the preservation of resources and the sustainability of fishing activities.</p> <p>FOR AQUACULTURE :</p> <p>Action 1: Establishment of research infrastructures dedicated to aquaculture</p> <p>Action 2: Identification, evaluation of potentialities and monitoring of the functioning of aquaculture sites and contribution to the elaboration of development plans</p> <p>Action 3: Environmental monitoring and sanitary and zoo-sanitary classification of shellfish growing areas</p> <p>Action 4: Conducting Research, Development and Innovation (RDI) in terms of Aquaculture Technology and Engineering (techniques), in terms of Zootechnics (species) and nutrition (feed)</p> <p>Action 5: Valorisation of products and co-products from aquaculture</p>
Starfish	<p>Improve port facilities to facilitate proper waste management, reduce the pollution load of waste-water, reduce the environmental impacts related to the repair of vessels and fishing gear.</p> <ul style="list-style-type: none"> - Provide assistance for fleet renewal by replacing old fishing vessels with more energy efficient ones. - Encourage the development of sustainable fisheries certification schemes. - Develop research and development programmes to obtain more selective fishing gear. - Develop research and development programmes to take advantage of communication technologies in order to optimise the movements of fishing vessels. - Carry out awareness-raising and information campaigns on good environmental practices for fisheries and aquaculture enterprises located in port areas in order to: reduce energy consumption, reduce water consumption, reduce polluting discharges into the sea, reduce the amount of waste produced, improve waste management, reduce polluting emissions into the atmosphere.



	<ul style="list-style-type: none"> - Carry out environmental awareness campaigns and inform fishing vessels about good environmental practices: reduce energy consumption, reduce polluting discharges into the sea, reduce the amount of waste produced, improve waste management, reduce polluting emissions into the atmosphere. - Promote the implementation of environmental management systems in fisheries and aquaculture enterprises.
Lebanese University - Green Community	The actions to ensure sustainable Mediterranean fisheries and aquaculture are the control in using the sustainable tools by fishermen and make sure that the Governments are implementing the fishery law and the fishermen respect the period of fishing.
Council of the Oriental Region	Development of maritime transport with respect for the maritime environment to combat maritime and environmental pollution gg2. Development of solidarity and coastal tourism.
EMILIA-ROMAGNA REGION	<ul style="list-style-type: none"> - Fishing in the Mediterranean on the European coasts has been considerably reduced in recent years, and in particular this reduction in numbers has resulted in a reduction in the fishing fleet on the coasts of the Western Adriatic of around 60% fewer vessels than those present and operational 15 years ago. - However, this reduction has not fully brought about all the expected benefits, and fishermen still complain of a reduction in certain fish stocks. - These difficulties are probably changing more attributable to the reasons of climate change and non-organic sources of pollution than to fishing efforts. - This means that a policy of containment of fishing effort is completely ineffective in reducing the number of vessels, without taking into account other important factors affecting fish stocks. - In particular, the environmental policy that led to the installation of wastewater treatment plants in all the major cities of the Adriatic has not taken into account the eutrophic aspects of organic inputs, which, if in the past were exaggerated, are currently too rare and have made the risk oligotrophic Adriatic, with serious damage to the breeding of molluscs and crustaceans which is, for this region, the main aquaculture activity. - With regard to fishing, however, it is necessary and appropriate to orient policies towards a greater focus on the policies of brands and labels which identify the traceability of the product, in particular if it is accompanied by



dissemination policy which lead to greater local consumption of the captured product in order to facilitate the reduction of passages and to make the supply chain as short as possible. It is therefore above all aquaculture products which will have to play this role for the processing industry formerly played by wild fish.

- Aquaculture also needs new impetus from European policies by identifying standard sustainable production systems and intervention in Member States which make it less difficult and bureaucratic to set up farms, especially in continental areas.
- All this is absolutely necessary, accompanied by a bonus for processing companies using livestock products from their areas of establishment and, above all, accompanied by a credit support policy which makes these investments attractive.
- Farmed and caught fish products are also the greatest resource of animal protein which can be obtained at much lower cost than those from other animal sources.
- Only in this way it will be possible to recover part of the jobs lost by the reduction in the fishing fleet and to better develop the breeding of quality fish products thanks to a policy of support for all these agricultural systems, not very environmental-friendly which are above all oriented towards a lesser use of drugs.
- In particular, it is underlined in this sector how extremely important are the European territorial cooperation policies which, through the financing of INTERREG projects, have allowed the exchange of knowledge and good practices and the construction of various hypotheses of district governance, i.e. areas homogeneous seas or lagoons both from the point of view of shared fish resources and for the social and economic similarity of coastal populations.
- In this context, the experience of the Northern Adriatic fishing district and the Adrifish, Adriblu, Ecosea, Dory, AdriSmartFish and Prizefish projects are highlighted, which through the participation of many regional administrations and many Italian marine Adriatic research centres, Slovenians, Croats, Montenegrins and Albanians have allowed the creation of a large community still engaged in the search for shared governance solutions for the sustainable management of marine fish resources but also for innovative eco-compatible aquaculture systems.
- Finally, it is absolutely important that the European Commission and Parliament continue the policy of structural financial subsidies for fisheries and aquaculture production and service companies, through the



	<p>EMFF, which, however, must necessarily be made simpler and more effective in its mechanisms, financial and bureaucratic, also providing measures and mechanisms tailored in a more compatible way with the Mediterranean marine conditions, ichthyic resources specificities and sector operators realities.</p> <p>In particular, concerning the EMFF stream of funding, showing big problems related to its implementation impacting the Mediterranean/Adriatic Sea areas (as well as other EU sea basins), in many ways, Emilia-Romagna Region together and in collaboration with other Regions and local authorities located in the Northern Adriatic and Mediterranean sea basins, is claiming for new rules, starting from a more proper management set of rules in the EMFF funding (which is the sole within the ESI Funds not to be programmed at a regional level, thus lacking of the local and regional dimension), and continuing with more adapted measures supported by other financial sources / programs (ex. ETC funding or Research funding) also to comply with the requirement of better policy integration.</p>
<p>ASSOCIATION DE PROTECTION DU LITTORAL A MAAMOURA - APLM</p>	<p>To guarantee the respect and the application of the specifications in an integral way.</p>
<p>cedar organization Algeria</p>	<p>Fish farmers fully claim a mission to offer consumers the fish they want, while respecting the environment, animal and human welfare. It is necessary to engage in a dialogue with all stakeholders (professionals, supervisory ministries, scientists...) on the basis of sustainable development in order to be aware of their responsibilities and to draw up a plan to prevent or eliminate overcapacities that threaten the conservation and sustainable use of resources</p> <p>The strategic actions of fisheries and aquaculture governance are: Ensuring the sustainable management of fisheries and aquaculture and the viability of fisheries. Satisfying regional demand for fishery products. Developing inland fishing in favourable hydro-geographical areas Improving and modernising the conditions for small-scale fishing Strengthening sub-regional cooperation</p>



	<p>Improving the conditions for small-scale processing Promote research and development of products with higher added value Awareness raising and training of all professionals Discourage the export of whole frozen products Develop a sustainable system of financing for maritime and continental artisanal fisheries Strengthen bilateral, sub-regional, multilateral and international sustainable and advantageous cooperation in the field of fisheries and aquaculture.</p>
Euroregion Pyrenees Mediterranean	Maintain permanent exchange and negotiation tables between stakeholders in the sector and share data and issues in a common observatory,
NGO COMMUNITY ASSISTANCE and Development ASCOM	<ul style="list-style-type: none"> - Advocate against overexploitation of fisheries resources. - Establish standards and corrective measures to reduce the impact of marine debris on fisheries resources. - Establish relationships with CSOs to implement beach clean-up awareness projects.
DIRECTION DES PORTS ET DU DOMAINE PUBLIC MARITIME	To offer efficient ports with the best conditions for landing fishery products.
CTN - Marine Technology Centre	Promoting the development on innovative technologies that can be deployed at the fish farms and allow the fish farmers to reduce the waste produced by the activity (e.g. non-eaten food, dead fish, etc.) in order to minimise the environmental impacts.



<p>Legambiente Onlus</p>	<p>The uncontrolled increase in fishing effort in many Mediterranean areas has led to chronic overfishing. So, effort reductions to control fishing mortalities, the adherence to the scientific advice, and effective implementation of national management plans would be the first steps to put in place.</p> <p>Furthermore the damage done by overfishing goes beyond the marine environment. A cross work with all relevant stakeholders to reform fisheries management globally, focusing on sustainable practices that not only conserve ecosystems, but also sustain livelihoods and ensure food security would be needed.</p> <p>The national and sub-national control and enforcement systems are generally weak. Poor controls and enforcement are translated into a low level of compliance with fisheries regulations. It would be important to challenge the Illegal, Unreported and Unregulated fishing (IUU), which seriously undermines sustainable fishery management objectives.</p> <p>Regarding the lack of transparency, it should be important to promote the Fishing Authorisation Regulation standards and transparency on access agreements. Then, the increasing cooperation between the EU and non-EU countries to reinforce fisheries monitoring, control and surveillance systems to secure sustainable and transparent fishing practices need to be reinforced. An important tool to ensure high quality fishery products could be the implementation of eco-labelling standards, consistent with the international FAO requirements.</p> <p>Finally, we must promote a culture of responsibility, accountability and compliance among fishery stakeholders by increasing public awareness as an essential step towards making fisheries sustainable. The promotion and exchange of best practices could contribute to achieve results in that sense.</p>
<p>Cartagena Oceanographic Research Institute</p>	<p>Open sea aquaculture structures can be use as bases where deploy oceanographic instrumentation. In that way we will: decrease the deployment cost, increase the safety of the instrumentation, obtained long time series data, retrieve an information useful for the aquaculture. In order to do so, aquaculture companies should stablish collaboration with oceanographic research institutions.</p>
<p>Universidad Politécnica de Cartagena</p>	<p>Improve the environmental impact studies related with the impact of the open sea fish farming on the water column due to increase of nutrients from the fish disposals.</p>



	<p>Phytoplankton are the marine organism that offer higher potential for blue biotechnology, such as providing primary compounds for the pharmaceutical, food and cosmetic industries. We need to be able to develop new methods to aquaculture it on large scales in a sustainable and secure way</p>
<p>Intermediterranean Commission of CPMR</p>	<p>It is critical to ensure a sustainable management and use of natural resources. This should be based on an ecosystem-based management approach, understanding the reciprocities between natural resources on the one hand and the needs for economic growth on the other.</p> <p>The Interreg Med Biodiversity protection community (https://backend.interreg-med.eu/fileadmin/user_upload/Sites/Biodiversity_Protection/horizontal_project/5-Deliverables/WP3_CommunityBuilding/3-5_AnimationOfCommunity/3-5-4_ThematicSynthesisReports/Policy_Paper_WG2_PANACeA_v10_FINAL.pdf).</p> <ul style="list-style-type: none"> - Filling the data gap and ensuring updated, more harmonised and exhaustive data from the fishing and the scientific community to support evidence-based decision-making at European/national and local level. Funding and financing research on Biodiversity shall be facilitated by national authorities. - Supporting the maintenance, development, transferability and upscaling of co-management models for natural resources in small-scale fisheries, wetlands and marine habitats. - Promoting the role of Fisheries Local Action Groups (FLAGS) to support the development of a structured dialogue among fishing stakeholders and MPA representatives, to develop a governance system for MPAs – involving fishermen and other stakeholders in the management committee – through active participation towards joint decision-making (co-management structure) and co-design of management measures. - Build up participatory multi-stakeholder/multi-level governance to ensure the sustainable use of natural resources in the Mediterranean. Biodiversity shall be “mainstreamed” in governmental initiatives and protection and conservation measures shall be considered at the same level as societal and economic objectives. - Engaging all stakeholders – not only those working in Biodiversity should be involved. Local communities, the private sector, the civil society shall be engaged in the responsible use of natural resources. When local



communities are given shared governance and legal rights to protect their own resources, the goals of biodiversity conservation tend to be reconciled with the needs of local communities.

- Raising awareness production and ensuring that consumers are aware of the environmental and social benefits of buying sustainable seafood products from small-scale fishing communities (source: PHAROS4MPAs, 2019), will promote the local economy, but will also empower consumers to make informed choices.
- In this sense, populations should be better informed on the provenance of the products they consume, as well as be made more aware about the benefits of a sound consumption from their end for the maintaining of stocks one the one hand, and their proper health on the other hand.
- Ensuring the capacity of MPA managers to address management and monitoring activities and to be empowered to rise to the challenges entailed by the emerging blue economy.
- Supporting transboundary governance schemes to better link regions together and address regional issues to reduce impacts on the Mediterranean ecosystems.
- Blue economy shall be guided by environmental policies principles and application of viable solutions to maintain and protect ecosystems' health and therefore populations' health.
- In terms of MSP, informed-decision making is crucial in terms of climate change, biodiversity loss, conflicts at sea. To which extend are the policymakers and ministerial planners taking into account the researchers and scientists' communications for planning activities? This question remains essential; Biodiversity should not be compromised, thus fostering the link between science and policy is a priority action.
- In this sense, MSP and ICZM shall include zones for coastal fisheries, for offshore aquaculture and other activities related to the fishing sector (e.g. recreational fishing), considering as well the activities performed in all shores of the Mediterranean.
- Funding opportunities are essential for sustainable innovation investments in the blue economy sectors, which gathers many SMEs lacking the resources to adapt their infrastructures to more sustainable practices.
- Common strategies in the Mediterranean shall be reached, including countries from all shores of the basin. The organizations and clusters - already existing in this sector in Med – shall be empowered and shall be involved in building common and co-owned strategies.



	<ul style="list-style-type: none"> - The efficient use of waste and by-products in fisheries & aquaculture sector is not only an environmental issue but also an economic one. More efficiency and common strategies should be commonly developed at the whole Mediterranean level. - Vocational education is also essential in this sector, as well as lifelong learning (e.g. in the form of living labs). It shall be implemented in coastal and insular areas where a big part of the population is involved in this activity.
<p>National Aquaculture Development Agency</p>	<ul style="list-style-type: none"> - Integrate the circular economy into the aquaculture production approach (development of co-products); - Exploiting the potential of artificial intelligence in the management of production and farming; - Diversify aquaculture production through testing and mastering new commercial species; - Integrate the populations of fishermen into aquaculture activities; - Move towards usage savings approaches (pooling of equipment and operating infrastructures); - Capacity building of operators in good aquaculture practices and disease diagnosis.
<p>Association "Forum"</p>	<p>The impacts of activities such as oil drilling, energy installations, coastal development and construction of ports and other coastal infrastructures, dams and water flow management (especially for inland fisheries), etc. It has tremendous impacts on aquatic productivity, on habitats that sustain resources (e.g. erosion and pollution), or on the livelihoods of fishing communities (e.g. through denial of access to fishing grounds or displacement from coastal settlements). Conservation activities and the establishment of Marine Protected Areas can also impact on the livelihoods of local fishing communities. Climate change impacts are already visible, with modifications of the geographic distribution of species and warmer water species moving towards the poles, ocean acidification and changes in coastal conditions that affect habitat. Inland fisheries and aquaculture may face higher mortality due to heatwaves, water scarcity and competition for water. Climate change impacts on fish-dependent populations will depend on the evolution of fishing opportunities (evolution of resources available, entitlements and capacities to fish, evolution of operational costs in production and marketing) and the evolution of prices. Impacts of extreme events are increasing, with more risks of damage or loss of infrastructure and housing. Sea level rise might lead to the relocation of communities.</p>



<p>UNEP/MAP Barcelona Conception</p>	<ul style="list-style-type: none"> - Promote and apply in the Mediterranean of the FAO Ecosystem Approach to Fisheries (EAF) and the FAO Code of Conduct for Responsible Fisheries (CCRF), as well as the obligation to maintain good environmental status in line with the respective ecological objective adopted by the Contracting Parties to the Barcelona Convention; - Taking into account the highest level of overfishing worldwide (over 80% in the Mediterranean), Combat illegal, unreported and unregulated (IUU) fishing and minimize waste, by-catch and causes of discards through appropriate measures in order to restore fish stock to levels that allow the regeneration of marine ecosystems functionality and the regular replenishment of their hosted resources; - Act on the commitments made under the Naples Ministerial Declaration to ensure sustainable and integrated uses of marine and coastal areas and resources, as well as circular economy and innovative tourism products and services, by identifying, sharing and investing into innovative solutions contributing to sustainable management of fisheries and aquaculture and ensuring food security. For instance, promote the use of ICZM and MSP as an effective measure/tool for decision-makers for sustainable management of fisheries and aquaculture areas; - Strengthen and support data collection and the implementation of monitoring and assessment efforts of commercially exploited fish and shellfish, such as the efforts of the General Fisheries Commission for the Mediterranean (FAO-GFCM) and of the UNEP/MAP – Barcelona Convention system through the Integrated Monitoring and Assessment Programme (IMAP), in order to enable science-based fisheries and aquaculture management for the benefits of the local communities; - Assess the impacts of climate change on fisheries and aquaculture industries and on food security and supply chain in the Mediterranean, and propose adaptation measures to protect this sector and ensure its sustainability. - Improve knowledge on the incidental catch of the vulnerable species and fisheries and support setting of national observation programmes/networks related to the incidental catch and stranding of the vulnerable species based on the Regional GFCM data collection protocols and the UNEP/MAP-SPA/RAC Regional Action Plans. Set a regional post 2020 bycatch mitigation strategy based on the SPA/BD Protocol of Barcelona Convention, GFCM recommendations, and the recent findings related to the bycatch in the Mediterranean; - Science and technology: Promote the use of technology for the most selective, efficient and cost-effective fishing gears which provide the most sustainable marine resources exploitation; Widely implement and improve the use of technological tools for monitoring and tracking (VMS, Satellite tracking, etc.); Implement science-based fisheries and aquaculture management for the benefits of the local small-scale fisheries communities, and with their practical involvement;
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	<ul style="list-style-type: none"> - Protect the remaining most vulnerable critical areas for fishing resources through implementation and effective management of area-based management tools like marine protected areas (MPAs) through SPAMIs, no-take zones (NTZs) and temporal fishing closures through Fishery Restricted Areas (FRAs), based on both ecological and socioeconomic data; - 9. Promote and take action to implement the measures related to fisheries and aquaculture of the SCP Action Plan, e.g. Sustainable Fishing Practices, innovative technologies based on the Life Cycle Approach; quality control, traceability, standards harmonization and certification schemes; Sustainable Public Procurement (SPP) schemes, etc.
Underwater Gardens International	Providing information about the resource origin and extraction methodology should be a must, so consumers are able to choose if they want to buy that product or not.
European Environment Agency	Policy integration
CCDRAlentejo	<p>"Rethinking fishing effort in a sea with high levels of environmental stress caused by pressure on fish stocks, marine pollution and population pressure. Creation of ecological safeguard zones for the main indigenous species and containment in fishing of migratory species threatened by overfishing. Creation of protective measures and further development of aquaculture, with a view to the future supply of markets, in order to create young and specialised jobs. This sector is particularly stimulating and consuming of R&D activities that university centres have been developing, and good practices in the SME and SME sector should be taken into account, with emphasis on environmental sustainability and social issues".</p>
Egyptian Environmental Agency	<p>At Regional Level:</p> <ul style="list-style-type: none"> - Cooperate in ensuring the protection of living aquatic resources and their environments through reducing illegal, unsustainable fishing activities (i.e.: fry fishing, over exploitation, etc.).



- Support the adaptation of sustainable fishing methods to keep fish stocks in a healthy condition and avoid over exploitation and over fishing of fish stocks.
 - Encourage circular economy in fishing industries and improve fish value chains.
 - Encourage science-policy interface for minimizing possible negative impacts of climate change on food security and nutrition of most vulnerable zones and implementing the necessary actions.
 - Develop guidelines and environmental standards for regulating coastal aquaculture and promoting their environmental management at regional and national level.
 - Enhance monitoring and management practices of plastic marine litter and micro-plastics that could cause fish mortality and affect fish quality and encourage “fishing for litter” activities.
 - Improve environmental management systems in fishing ports and enhance their reception facilities for minimizing their negative environmental impacts.
 - Encourage the application of Water, Food, and Energy (WFE) Nexus approach to ensure the sustainability these important sectors.
 - Support regional collaborations to encourage sharing and learning experiences in the field of fishing and aquaculture management and exchanging of best practices and know how.
- At National Level:
- Ensure the preparation of national environmental impact assessment (EIA) studies for new fishing activities and fishing ports to minimize their negative environmental impacts.
 - Raise angler’s awareness about the impact of negative and illegal activities on fish stocks and empower their participation in fisheries management.



Theme 2. Sustainable maritime transport and ports	
<i>Which actions, including solutions and mitigation measures, would you propose to: 1) reduce marine pollution (oily wastes and leaks) and air-polluting emissions from the maritime transport sector; 2) facilitate the transition to digitalization; 3) adapt skills to the new emerging employment needs?</i>	
EMUNI	Devote much more attention to the recreational boating, especially motorised. Local pollution originating from those boats is big, but unaccounted for. Set higher environmental standards for the region in terms of safety and polluting emissions.
IOC-UNESCO	<ol style="list-style-type: none"> 1. In other regional seas, the Regional Convention has been successful addressing solutions to reduce marine pollution, the cases of HELCOM and OSPAR provide good lessons learnt to define a regional strategy for the future of the Mediterranean. 2. The majority of non-European countries in the Mediterranean are far to accomplish the objectives for open access and digitalization, a first step will be to ensure national commitment to understand the importance of open data, information and transparency. Once this is done, the work at regional scale will be easier, without this first step, all efforts will be useless. 3. Regional agreement with National authorities (with competences in Education and Professional Education) to adapt national curricula attending the needs of new emerging employment needs, to define a mechanism to ensure mobility of students, professional internships in private companies located in the Mediterranean, etc.
CNR-INM (Italian National Research Council - Marine Engineering Institute)	<ol style="list-style-type: none"> 1. Mediterranean ECA's rules. 2. New skilled human resources to be identified and trained (5G, IoT, etc.). 3. Is strictly necessary to plan and produce strategic visions because probably 50% of the typologies of jobs needed in the following 15 years from now in all the Maritime clusters are still inexistent nowadays!



FAO	Long term investments in sustainable energy provision to maritime transport cannot wait any longer.
INSTM - Tunisia	<ul style="list-style-type: none"> - Introduction of bioenergetic and less wasting sources instead of oil and petroleum. - Enhance technical capacity building of digitalization skills around the Mediterranean basin. - Technical practice and encouraging blue start-ups and spin offs implementation for blue jobs.
University of Bolognae	More research and pilot studies should focus on bioremediation of pollution (including bioaugmentation and bio stimulation) using both macro-organisms (e.g. filter-feeders) and micro-organisms. There is also need for more research on how to get bio-secure maritime structures. Most maritime structures, as currently designed, offer particularly favorable substrata for many invasive species, an issue which increases the already high risks of species invasions in harbors, marinas and ports. Currently we have no effective solutions to redress this issue
CNR	Education and higher education are essentials for achieving the second and the third objectives. Coordinated or twinned training involving many partners of the Mediterranean area could be useful
Cyprus Chamber Shipping	<p>In general, we need to incentivize the modal shift in transport from roads and air to ferries and short sea shipping. There is a need for an ambitious strategy. Maritime transport is the most efficient mode of transport resulting in low CO2 emissions. Compared to road transport short sea shipping is two to four times more fuel-efficient. Passenger transport by sea emits less than one-tenth of that from air transport. Shifting passengers and goods to inland waterways, ferries, and short sea shipping will reduce CO2 emissions.</p> <p>A UfM strategy for a clean and competitive shipping industry must involve all segments of the maritime cluster, as the shipping industry is dependent on the relevant bunker infrastructure, ports, fuels, engines and ship designs.</p> <p>Port call optimization shows that substantial CO2 reductions can be achieved by optimizing the access of ships to ports in a planned schedule. Ports must also comply with their requirements to provide segregated reception facilities for all substances discharged from ships, including plastics.</p>



	<p>UfM should evaluate the roll-out of infrastructure for the delivery of alternative (non-fossil) fuels in key Mediterranean network ports, including electricity (shore power). Shore-side electricity is one of many solutions.</p> <p>Digitalization can fall within the facilitation of port call optimization efforts and one aspect can be the proper implementation of the IMO maritime single window. A maritime single window enables all information required by public authorities in connection with the arrival, stay and departure of ships, people and cargo, to be submitted electronically via a single portal, without duplication. This type of system is recommended by IMO's Facilitation Convention, the treaty which aims to reduce administrative burdens and make shipping and trade by sea more efficient.</p> <p>Skills onboard are already covered by IMO training requirements for seafarers. Skills ashore again will arise from the developments on the port call optimization for ships and a better understanding of ship operations.</p>
<p>National Institute of Marine Sciences and Technologies</p>	<ol style="list-style-type: none"> 1. Reduce pollution <ul style="list-style-type: none"> - Good governance; - Strengthen the production circuit of the factories to reach the international standard; - Optimizing maritime transport in the Mediterranean - To reduce air pollution, we must follow the principles of sustainable development - Generalize the principle of circular economy in all industrial activities. 2. Develop online monitoring of emissions and strengthen the building capacity of stakeholders 3. Building capacity of local authorities
<p>Ministry of Economy - Palestine</p>	<ul style="list-style-type: none"> - Networking with business incubators - Putting these problems through competitions and conferences, and selecting the best participating participants - Implementing the initiatives submitted by entrepreneurs and caring for them - Involving educational institutions in developing solutions to these problems by presenting them to students of various disciplines



	- Share experiences between local and international business incubators and coordinate with each other to find solutions to these problems
Alma Mater Studiorum University of Bologna	Impose regulations for maritime traffic emissions, reduce land sources of pollution enforcing water treatment plants for all activities on the coasts, make use of the Copernicus data at large for the digital transition
AMFORHT	All the mentioned alternatives are important, and they seem complementary, but I think that the most urgent is to reduce marine pollution. New Technologies should be very useful to reach this goal.
Presa Puente Estrecho de Gibraltar, SA	Let the polluter pay.
Universidade de Évora, MARE	More and better surveillance, improve self-surveillance.
DynMed Alentejo - Association for Studies and Regional Development Projects Dese Projects	Promote port authorities for the adaptation of hydrogen as a fuel for load movement vehicles in ports.
Tunisian Association of Coastal, Port and Maritime Engineering (ATIM)	Initiate a study with clear objectives in this regard. I recommend that it be carried out by the Blue Plan.



<p>Cluster Tunisien</p> <p>Maritime</p>	<p>Collaboration and dissemination of the results to all Mediterranean countries developing commercial port infrastructure and encouraging countries to install quayside electrification networks, especially in the South-Med countries where commercial ports are mostly located in city centres. The capacity to respond to man-made and natural disasters, bearing in mind that we are faced with a fact that has become a matter of great concern in our Mediterranean basin by the dumping of 600 Tonnes/day of marine waste, in particular plastic waste, which has become "a sea of rubbish", and also the prevention of pollution from ships, in cooperation and within the legal framework agreed with the regional organisations concerned and through regional initiatives such as the Mediterranean Regional Framework for Emergency Response to Accidental Marine Pollution.</p>
<p>UNIVERSIDAD DE MURCIA</p>	<p>Actions and solutions and mitigation measures, would you propose to:</p> <ol style="list-style-type: none"> 1. reduce marine pollution (waste and oil spills) and air pollution emissions from the shipping sector; Application of management platforms (based on Internet of things) to obtain different sources of information and data: from sensors, open sources, field work, etc. to be able to correlate data with marine pollution and establish early responses and strategies to fight marine pollution. 2. facilitate the transition to digitalization; I would propose dissemination and training actions aimed at policy makers and managers on how to integrate new technologies into their practices. 3. adapt skills to new emerging employment needs Promote the digital transformation in the sector through concrete guidelines and capacity building actions
<p>RAED - Arab Network for Environment and Development</p>	<p>Enforce laws of national and international environmental protection. Strong Monitoring systems. Facilitate technology transfer to southern countries to support the reduction and the monitoring. Strong capacity building programs for all stakeholders.</p>
<p>The-Marketer.net / HOMERe Permanent Secretariat South Shore Mediterranean</p>	<p>Actions suggested are in response to the " 3) adapt skills to the new emerging employment needs?". Actions will require conducting: study for the fisheries and aquaculture industries to assess their current and foreseen skills required. Then, to review the current / future graduates to the market. Based on the identified gaps, skills match-making program can be designed in cooperation with the fisheries and aquaculture industries where they can announce the vacancies they have more technical competencies required. Accordingly, vocational training</p>



	programme will be designed "Training for Hiring" directly linked to the fisheries / aquaculture institution offering the vacancy. To ensuring stability and sustainability; hiring can be using same "HOMERe - www.homere-med.org" platform to identify potential candidates, then the institution will conduct the interview to select the candidate(s) to hire. Once the decision is made, the candidate will be receiving the required training, then, at the end to be hired by the institution.
ECONCRETE	<ol style="list-style-type: none"> 1. Further investigation on other non-petrol-depending engines (electrical, solar, wind, hydrogen, others). Optimize routes and optimize spaces in the ships; 2. Implement a program of benefits to promote that transition. Disseminate the results and benefits; 3. New programs at school and universities. Many young people are not aware of these new opportunities and neither of the great possibilities that the Blue industry can provide. Again education, communication, dissemination and promotion from administrations
BETA Tech Center, UVic/UCC - Interreg MED Green Growth	To implement a monitoring system for measuring air-pollution and controlling emissions, such as the so-called 'sniffer' sensor that has been used on-board the Belgian Coast Guard aircraft to check for environmental and nautical violations.
wpd offshore France	Cf. Facade Strategy Document: http://www.dirm.mediterranee.developpement-durable.gouv.fr/la-strategie-de-facade-maritime-est-adoptee-a2892.html
METU Institute of Marine Sciences	<ol style="list-style-type: none"> 1. Sustained observing and data-driven emergency responses.
MedCities	<p>MedCities strongly supports the roadmap agreed at UNEP MAP Cop 21 for the possible designation of the Mediterranean as an Emission Control Area for Sulphur Oxides in line with the terms of Annex VI of the International Convention for the Prevention of Pollution from Ships (MARPOL).</p> <p>From a local perspective we recognize the complexity of the multiple layers of competence for the management of a space and activity that being of crucial economic important it is also a huge pressure in terms of pollution,</p>



	<p>mobility, occupation and impact on sensitive ecosystems among others. Advancing and sharing of best practices with transferability potential for the management of the relation of ports and cities could be of high benefit Mediterranean wide. www.mediurbantools.com might play that role as a repository.</p> <p>States and port authorities can legislate to prevent polluting ships from entering their facilities. On the opposite they can boost for responsible companies.</p> <p>International funds must open calls for funding energy transitions to ports.</p>
Fundacion Valenciaport	Promotion of clean fuels and technologies to measure the pollution emission impacts
University of Siena	Rapid transition to non-diesel engines with increasing carbon taxes
National Research Council of Italy	<p>1. Reduce marine pollution</p> <ul style="list-style-type: none"> - Implement multidisciplinary integrated methodologies to evaluate the impact of ships and harbours on the environment at transnational level, exploit new technologies and tools to monitor pollution. - Towards zero emission ships and harbors: support the use of LNG, methanol, hydrogen, biofuels, the electrification of ships and ports, the use of fuel cells, the design of solar and wind power generation, the optimization of energy management, the research on new materials and technologies for drag, biofouling and noise reduction. - Develop new vessel concepts, i.e. flexible, modular and high efficiency ships, using new materials (e.g. high strength, reduced weight, smart, etc.) and advanced design and production techniques, with lower manufacturing, construction, installation, dismantling and recycling costs from the perspective of the circular economy. - Design and develop innovative green infrastructure solutions and tailored software to improve the sustainability of logistics and ports. - Develop innovative solutions to reduce the environmental footprint of commercial as well as tourism-oriented maritime transports and port infrastructures in line with the European Commission's long-term strategy for a climate neutral society by 2050 and the Marine Strategy Framework Directive. - Monitor the effectiveness of the implemented strategies and contribute to the proposal of new regulations.



	<ol style="list-style-type: none"> 1. and 2. reduce marine pollution & facilitate the transition to digitalization <ul style="list-style-type: none"> - Conduct in situ measurements and develop modelling (including Big-Data modelling) tools to understand the distribution, intensity and sources of underwater noise, as well as its effect on marine species. 3. Adapt skills to the new emerging employment needs <ul style="list-style-type: none"> - Implement a trans-Mediterranean training course on green technologies for shipping
WWF	<ul style="list-style-type: none"> - Achieve full ratification and implementation of pollution-related conventions and protocols, in particular the IMO MARPOL Convention, the Ballast Water Convention, the Anti-fouling Convention and the Barcelona Convention associated protocols - Invest in sustainable energy provision in maritime transport (wind, solar) and increase funding for the electrification of Mediterranean ports and port operations - Set science-based sustainability targets, including science-based de-carbonisation targets, for the maritime transport sector in the Mediterranean region and urge large companies in the sector to do the same - Support a joint and coordinated proposal for the designation of the Mediterranean as a Sulphur Emission Control Area to the IMO by 2022.
Ministry of Agriculture, Maritime Fisheries, Sustainable Development, Water and Forests: Maritime Fisheries Department - Morocco	<ol style="list-style-type: none"> 1. It is proposed that all member countries should be able to ratify the MARPOL annexes and those dealing with marine pollution in general. 2. The transition requires logistical and theoretical support to countries with less means for digitalization 3. Need for an exchange of know-how between UfM member countries
Malta Maritime Forum	Education is primary and communication involved in the whole Mediterranean in a common policy will certainly assist in finding solutions and mitigation measures.



<p>MedPAN, the Mediterranean Marine Protected Areas Network</p>	<p>Please see the recommendations of the Pharos4MPAs Interreg project (coordinated by WWF) related to maritime transport: https://pharos4mpas.interreg-med.eu/fileadmin/user_upload/Sites/Biodiversity_Protection/Projects/PHAROS4MPAs/MT_POLICYBRIEF_A4.pdf</p>
<p>Med Blue Growth community</p>	<ul style="list-style-type: none"> - Accelerate the process for the possible designation of the whole Mediterranean Sea as an Sulphur Oxides Emission Control Area for (MED-SECA), survey possibilities to extend it into Nitrogen Emission Control Area (NECA) and define socio-economic and technical supporting measures in close cooperation with the private sector (cruise and ship companies), Marine Protected Area managers and local and port authorities. - Authorities should implement speed restrictions as an important and effective measure to mitigate collision risk. In addition, lower speeds reduce potential acoustic impacts and emissions. - Short-Sea Shipping for goods should be encouraged to help cut down emissions on land; it should however observe sustainable dynamics, i.e. using more carbon neutral energy/fuels. - Maritime Spatial Planning and transit regulations are key to preventing accidents during vessel navigation and consequent environmental impacts. Marine Protected Areas managers must be part of the formal MSP process, where they can play an important role in promoting initiatives to public authorities, such as the establishment of Particularly Sensitive Areas (PSSA), Areas To Be Avoided (ATBA), or Traffic Separation Schemes (TSS). - Small and Medium sized Ports (SMP) are a key factor of competitiveness in the MED area. They shall (i) optimize their operation and management by adopting new Information Communications Technology tools and telematic services, (ii) promote eco-innovation and (iii) implement circular economy activities. - A more efficient logistics chain in the ports and an improved accessibility and connectivity to the territories/in-land should be sought in order to enhance sustainability and to avoid bottlenecks. Using railways should be encouraged for both goods and passengers.
<p>eco-union</p>	<p>The implementation of Emissions Control Area (ECA) is critical to reduce air pollution and promote greener ships and ports.</p>



ECOCEAN	Concerning sustainable ports; we have demonstrated that port infrastructures (marinas and commercial ports) can play a positive ecological role (nursery) for the surrounding environment if their water quality is suitable and if their managers agree to engage in eco-design actions.
Agence nationale des ports Maroc	Investing in port reception facilities
NOAH ReGen	<p>NOAH is currently working on the development of a Blue Credit based on the Carbon Credit model. This Blue Credit could be adopted by the authorities and ports to allow collection from shipowners, while creating a new dynamic for the future.</p> <p>This Blue Credit could be intended to:</p> <ul style="list-style-type: none"> - offset old ships for eco-responsible dismantling or recycling (in floating farms for example, or in the production and storage of renewable energy...) - support R&D to de-carbonise maritime transport- support R&D to boost digitalisation (particularly in terms of control and protection of maritime spaces, optimisation, big data...). <p>Such a blue credit adopted jointly by UfM members (and the European Commission, with whom we are already discussing it) could kick-start this transition, while creating a competitive "bottom to top" market. Many start-ups would be formed with innovative solutions to address these issues and hope to receive funding from Blue Credit.</p>
GRAND MARITIME MARSEILLE PORT DE	<ol style="list-style-type: none"> 1. Uniformity of regulations, criteria and identification of technical and human means of control, elimination of HFO in the Mediterranean 2. Uniformity of data and formats, following the example of the EMSW 3. Free distance learning programme allowing for permanent upgrading.
IMFMM	<ul style="list-style-type: none"> - Effective implementation of all international and regional conventions on marine pollution,



	<ul style="list-style-type: none"> - the immediate implementation of Annex VI to Marpol Convention 73-78 and the relevant directives of the International Maritime Organization in this field, - the creation of a platform bringing together experts and the various players operating in the maritime field;
Institut National de Recherche Halieutique	<ul style="list-style-type: none"> - Using the least polluting energy in maritime transport - Ensuring North-South exchange regarding the transition to digital - Ensuring high level training for employees in the maritime transport industry
National Institute of Oceanography and Fisheries	Marine Spatial Planning and maritime clustering
CETMAR	Improve forecast systems and data management systems. Both tools are useful for decision makers. Besides, underwater noise will be an important challenge: monitoring and measurement of its impact will be necessary.
Regional Cluster "North-East"	<p>Across all job functions soft skills will become increasingly important, especially so for high skilled professional job functions.</p> <p>Emerging competences of higher skilled jobs mostly refer to how to learn, communicate, interact and adapt to changing environments in addition to a high quality education.</p> <p>Skill needs can be identified at various levels, ranging from assessments at the national or even European sector level to more precise assessments at the regional and company level.</p> <p>Improve the information provision on skill needs and job requirements: essential for improving training and education.</p>
Center of Sea Sciences, University of Algarve	We need some "blue sky" approaches to stimulate the identification of new solutions for pollution for monitoring and mitigation. There is vast capacity in Europe for digitalization, so what is blocking it in the maritime sector? The advantages of digitalization suggest that there are concrete bottlenecks to overcome by special programs.3) mobility



	and training through consortium building with Universities and creation of training positions similar to ERASMUS+ /da Vinci but at the level of companies in the transport sector.
Office National des Hydrocarbures et des Mines - Morocco	On the question of waste and oil spills, the use of dissuasive taxes could have a mitigating effect; <ul style="list-style-type: none"> - Equip ships likely to pollute with clean-up vessels or floating booms - to counter the effect of oil slicks; Strengthen existing legislation.
Lebanese University - Green Community	Adopt litter control policies, increase funding for marine pollution prevention and control, strengthen laws on marine litter and monitor marine pollution in a systematic way. As for digitalization, smart ships should change and shape the shipping industry and should be environmentally sound, energy efficient and safe. Moreover, training and awareness sessions on sustainable maritime transport should be often organized.
Barcelona Advocats i Assessors	The maintenance and improvement of ecosystem services is a key pillar in supporting the blue economy. A good state of the marine environment is a prerequisite for a robust maritime economy. In this sense, climate change presents itself as a cross-cutting challenge to the conservation of the marine environment and economic sectors. In marine ecosystems, the high concentration of activities and people in coastal areas exacerbates this fact and also increases the number of people exposed to the impacts associated with them. These human pressures are associated with pollution (direct, indirect, timely and/or diffuse), changes in use (coastal infrastructure and new activities) and overexploitation of natural resources (professional, recreational or tourist).
EMILIA-ROMAGNA REGION	<ol style="list-style-type: none"> 1. Promoting incentives to shipowners for the efficiency upgrade and gradual replacement of ship engines for the use of green or eco fuels (see electric and LNG engines) Moreover, considering actions for reduction of the impacts of port structures on the environment and on the coasts, we suggest: 2. Promote research and development and application of new technologies for the sustainable management of sediments in ports and maritime passes in order to reduce the use of traditional dredging (having several



	impacts on environment and management and high administrative costs) paying also particular attention to the possibility of reuse of the material for littoral nourishment to contrast coastal erosion.
ASSOCIATION DE PROTECTION DU LITTORAL A MAAMOURA – APLM	<ol style="list-style-type: none"> 1. Replace plastic fishing nets and equipment with others made from environmentally friendly materials Adopt a paperless strategy Include a significant section on environmental protection in the candidate selection process
Euroregion Pyrenees Mediterranean	Priority should be given to innovation in technologies, in particular for new modes of energy for maritime transport, with a marshall plan for maritime transport equipped with less polluting technologies and a plan to support training in emerging technologies for the maritime sector.
Ministry of Energy, Mines and Environment/Department of the Environment	<ol style="list-style-type: none"> 1. Strengthening the National Household Waste Management Programme to include marine waste management on beaches and sea surfaces. Strengthen the prevention and control of marine oil pollution.
NGO COMMUNITY ASSISTANCE and Development ASCOM	<p>Set up monitoring systems to reduce pollution of the oceans and the atmosphere through the fight against fishing boats for industrial use.</p> <p>To set up training programmes on the techniques of transformation and valorisation of fish resources in order to reduce unemployment and encourage local consumption.</p> <p>Integrate training on industrial cleaning techniques for fish factories.</p>
Generalitat Valenciana	The participation of the UfM in the negotiation of direct management programmes of the European Union and then of the European Structural and Investment Funds, in order to make these objectives present.
DIRECTION DES PORTS ET DU	<ul style="list-style-type: none"> - To encourage the Mediterranean States to promulgate texts on the illegal discharge of waste from ships at sea and the application of sanctions for any case of violation of laws and regulations in territorial waters;



<p>DOMAINE PUBLIC MARITIME</p>	<ul style="list-style-type: none"> - To strengthen the monitoring and surveillance of ships crossing the Mediterranean coast, particularly those carrying dangerous materials; - To monitor the achievements of shipping companies crossing the Mediterranean for the use of marine diesel or alternative energies in accordance with the new IMO "Low Sulphur" regulation which came into force on 1 January 2020. - Measuring and Monitoring air and sea water quality in Mediterranean ports. - Encouraging the establishment of port reception facilities and providing funding mechanisms to this effect; - Identifying places of refuge for ships in distress in the Mediterranean; - Generalizing the establishment of one-stop shops in commercial ports; - Improving the digital connectivity of Mediterranean ports, through the dematerialization and homogenization of procedures;
<p>CTN - Marine Technology Centre</p>	<p>1) and 3)</p> <ul style="list-style-type: none"> - Including underwater noise as a key pollutant derived from maritime transport. - Capacity building actions to facilitate the acquisition of knowledge needed for: underwater noise monitoring, signal processing, implementation of propagation and prediction models, etc. in order to adapt skills to new emerging employments and filling the technical gaps between EU and non EU countries in the Mediterranean Region. - Engagement of ports in the management of underwater noise issues. - Management consulting for digital change. - Implementation of IoT and GIS for monitoring the movement of goods. - Implementation of Big Data for analysis of situations, improving decision making (SMART DATA) - Web applications that improve the mobility and efficiency of port personnel.
<p>Cartagena Oceanographic Research Institute</p>	<p>Develop propulsion system with low noise pollution. During the vessels design it should be taking into account the capability to install oceanographic sensor aboard letting them be use easily as ships of opportunity.</p>



<p>Universidad Politécnica de Cartagena</p>	<p>In certain restricted areas as the coastal lagoons, we must to ensure that all the recreational boating fulfill the required environmental standards</p> <p>Use port structures designed as life spots, allowing easily to be colonized by the local communities organism.</p>
<p>Intermediterranean Commission of CPMR</p>	<p>The development of common reflections concerning governance of ports should be considered from all Mediterranean countries, in a concerted way. Future cooperation projects on governance level should be promoted, aiming at mitigating air pollution due to maritime transport and related communication networks and infrastructures, strengthening, and enhancing networking between Ports, Local Environmental Authorities and Scientific Institutions.</p> <p>Promote technical projects and initiatives that address the monitoring and management of the environmental risks in an integrated perspective and in particular, foster the development of integrated monitoring networks on air pollution. These networks would use harbour activity information, territorial data, and air quality measurements, and through the use of modelling tools would allow a better air quality assessment both in space and in time.</p> <p>Targeted investments in favour of innovative tools and/or procedures should be ensured, notably for: waste management and/or reduction, water and electricity consumption reduction, etc.</p> <p>The acceleration of the process for the possible designation of the whole Mediterranean Sea as an Sulphur Oxides Emission Control Area for (MED-SECA), survey possibilities to extend it into Nitrogen Emission Control Area (NECA) and define socio-economic and technical supporting measures in close cooperation with the private sector (cruise and ship companies), MPA managers and local and port authorities.</p> <p>MSP and transit regulations are key to preventing accidents during vessel navigation and consequent environmental impacts. MPA managers must be part of the formal MSP process, where they can play an important role in promoting initiatives to public authorities, such as the establishment of Particularly Sensitive Areas (PSSA), Areas To Be Avoided (ATBA), or Traffic Separation Schemes (TSS).</p> <p>Authorities should implement speed restrictions as an important and effective measure to mitigate collision risk. In addition, lower speeds reduce potential acoustic impacts and emissions.</p> <p>A more efficient logistics chain in the ports and an improved accessibility and connectivity to the territories/in-</p>



	<p>land should be sought in order to enhance sustainability and avoid bottlenecks. Using railways should be encouraged for both goods and passengers.</p> <p>Small and Medium sized Ports (SMP) shall optimize their operation and management (need of adoption of new ICT tools and telematic services), stimulate eco-innovation and implement circular economy activities.</p> <p>Short-Sea Shipping for goods should be encouraged to help cut down emissions on land; it should however observe sustainable dynamics, i.e. using more carbon neutral energy/fuels, speed control measures, etc.</p>
<p>UNEP/MAP Barcelona Convention</p>	<ul style="list-style-type: none"> - Acknowledge the importance and continue effective implementation of the Barcelona Convention, in particular the Prevention and Emergency Protocol, IMO-MARPOL Convention and relevant EU directives, with support of REMPEC. Note: A new strategy to combat pollution from ships until 2030 is under negotiation by the Contracting Parties to the Barcelona Convention. - Provide political support, with cooperation with relevant sectors at national level, to the process for the possible designation of the whole Mediterranean Sea as an Sulphur Oxides Emission Control Area for (MED-SECA) in the framework of the UNEP/MAP – Barcelona Convention system, including survey possibilities to extend it into Nitrogen Emission Control Area (NECA), and define socio-economic and technical supporting measures in close cooperation with the private sector (cruise and ship companies) and local and port authorities; - Coordinate regional efforts to contribute effectively to the implementation of the IMO Strategy on the reduction of greenhouse gas emissions from ships, and support measures to decarbonize international shipping, including the use of alternative fuels and renewable energy, technological measures to improve energy efficiency of ships, port solutions to reduce GHG emissions, such as green port fees, alternative energy/clean burning fuels incentives, green procurements or shore power facilities.; - Maritime Spatial Planning (MSP) and transit regulations are key to preventing accidents during vessel navigation and consequent environmental impacts. MPA managers must be part of the formal MSP process, where they can play an important role in promoting initiatives to public authorities, such as the establishment of Particularly Sensitive Areas (PSSA), Areas To Be Avoided (ATBA), or Traffic Separation Schemes (TSS); - Sustain efforts to control the illicit oil ship pollution discharges through the Mediterranean Network of Law Enforcement Officials relating to MARPOL within the framework of the Barcelona Convention (MENELAS) and increase regional cooperation for ship surveillance, data sharing, prosecution and port state control;



	<ul style="list-style-type: none"> - Strengthen regional and national efforts to control and manage ships' ballast water and sediments, through investment from shipowners to equip their ships with a ballast water treatment system, from ports to provide adequate port reception facilities and authorities to inspect and enforce regulations. Encourage and support the good will of countries and the industry to control and manage ships' biofouling to minimize the transfer of invasive aquatic species; - Enforce the polluter pay principle and coordinate the prevention and reduction of ocean-based sources of marine litter by involving the primary source of pollution (i.e. merchant ships, ferries and cruise liners, fishing vessels, pleasure craft, offshore oil and gas platforms, and aquaculture farms). Support ports to provide incentives for ship-generated waste to be discharged at ports rather than at sea, in particular by adopting the No-Special-Fee system for the use of port reception facilities. At regional level explore synergies between the UNEP/MAP Regional Plan on Marine Litter Management in the Mediterranean and the IMO Action Plan to address marine plastic litter from ships. - Relevant authorities should implement speed restrictions as an important and effective measure to mitigate collision risk. In addition, lower speeds reduce potential acoustic impacts and emissions;
CCDRAIentejo	<p>Establishing higher environmental standards for the region in terms of safety and pollutant emissions. Greater monitoring of recreational boating, taking into account its impacts on air and water quality. Launching the debate within the UpM on the need to develop new energy sources that can replace the current heavy fuels used in marine transport, of which green Hydrogen seems to be a good example".</p>
Egyptian Environmental Agency	<p>At Regional Level:</p> <ul style="list-style-type: none"> - Support the improvement of ports infrastructure and enhance relevant facilities with smarter, more intelligent designs using Internet of Things (IoT) technology, intelligence to improve productivity and energy efficiency. - Encourage sustainable and Green Ports (smart) initiatives, which is an innovative solution to balance economic development and environmental protection in port sector. - Support the identification of number of criteria and key performance indicators (KPIs) related to: Environmental management - Water resources optimization – Energy efficiency – Pollution minimization (air - water - solid – hazard - noise – accidents) - Level of automation.



- Cooperate in building a clear and comprehensive framework for sustainable and smart port development by integrating concerns and interests from all relevant sectors (i.e. port sector, environment sector, planning sector and local communities)
 - Support the enhancement of port facilities to receive and treat ballast water, in order to control the spread of invasive species.
 - Promote effective oil spill contingency planning and regional cooperation on oil spill preparedness and response.
 - Support the enhancement of marine litter collection and safe disposal through improving port facilities and environmental management.
 - Promote technical cooperation, sharing best practices and capacity development in the field of green and sustainable ports (smart).
- At National Level:
- Enhance the implementation of environmental management systems for ships and coastal ports to minimize their negative environmental impacts.
 - Ensure the preparation of environmental impact assessment (EIA) studies for new ports and enhance their compliance through regular inspections.
 - Improve existing integrated monitoring systems in national ports (e.g. water quality – air emission – noise).



Theme 3. Sustainable tourism	
<i>What should be done to position the Mediterranean as a truly 'green' touristic destination and maximize its potential for young entrepreneurship, SME growth and overall sustainable local development? How should we ensure public and private investments for sustainable infrastructure, business, product diversification in terms of seasonality and access to new markets, as well as use of big data?</i>	
EMUNI	First of all, the problem of over-tourism in some places should be acknowledged (here it doesn't seem to be) and tackled. One issue is to stop, as a policy measure, promoting "fast tourism" (2-days getaways on plane), big cruise boats landing in small ports that do not have adequate capacities. More knowledge & genuine experience-based tourism should be promoted. Business travels, when not needed, should be replaced by online meetings, rather than travelling to some touristic destinations. Big data should be used to disperse tourism pressures and channelling them to the under-used areas. Entrepreneurship should be encouraged (also via public resources) but clear sustainability impact demanded.
IOC-UNESCO	The Mediterranean lack common policies on environmental issues but the private sector for the case of tourism is adapting much better to the needs of potential clients than National Authorities. The seasonality aspects represent a pending subject for the touristic sectors and all other sectors related to them (e.g. transport, gastronomy (agriculture, fisheries, aquaculture), energy, etc).
FAO	Fiscal policies, premium and discount on financing as well as employment incentives must be linked to sustainability. Tourism will be no longer if is not sustainable. Zero km or integrating production high level high quality with tourism consumption is one approach in viol ING the food systems. Environment iOS paramount. For all this metrics exists and it is available through the SDG indicators. FAO is custodian of 21 of them



MED JS	Additional points could be: sustainable resource management, spatial impact assessment of infrastructure
INSTM - Tunisia	Reinforce competitiveness for sustainable environment safe tourism and diversification of touristic new products by implementation of original and safe products.
University of Bolognae	<p>We should involve insurances, which are a key sector, partly because of the magnitude of resources invested and partly because insurance can incentivize actions by individuals, businesses and governments. A notable example is the insurance policy for nature that was developed for the Mesoamerican Coral Reef in Mexico, which is fully based on an ecosystem service. The business case is built on ensuring that the reef reduces exposure to coastal flood risk from tropical storms and stabilizes beaches to protect a \$10 billion per year tourism industry for the towns of Cancún and Puerto Morelos. These local economies heavily depend on tourism related to the Mesoamerican Reef and the beaches behind it.</p> <p>Another opportunity is research on bioactive maritime infrastructure, to design biodiversity-rich maritime infrastructure as open air hubs for recreational, educational and outreach activities</p>
National Institute of Marine Sciences and Technologies	<ul style="list-style-type: none"> - Apply the approach of the MSP / ICZM during development in the Mediterranean, - involve the stakeholders into the decision - Raised awareness of stakeholders in green tourism - Try to change the mentality of the stakeholders to move towards green tourism
Ministry of Economy - Palestine	<ul style="list-style-type: none"> - Exhibitions at an international level of entrepreneurs - Opening the door for investors to invest in these ideas - These exhibitions are organized annually in the countries participating in the Union for the Mediterranean - Organizing regional competitions to select the best green youth initiatives - Participation of these initiatives in international conferences and symposium as success stories



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Alma Mater Studiorum University of Bologna	Streamline the legal frameworks to facilitate new business, enforce the green enterprise with low carbon footprints and use incentives
AMFORHT	<p>Hotel Groups and Tour operators should contribute into international institutions efforts to protect Mediterranean Sea (a percentage from their overall, implementing sustainable development certifications...). Moreover, Governments should work more on transparency via data coming from tourism sector and how we are exploiting the seas and the beaches in order to get a better knowledge about the actual situation, the future achievements. Investing in innovative products and diversified including rural areas away from coasts could be an efficient way to protect and reconstitute costal destinations.</p> <p>This could be accompanied by searching new markets and promoting new products. Reviewing curriculums, training of trainers' programs and opting for corporate social responsibilities as vectors to develop new tourism educational programs.</p>
Presa Puente Estrecho de Gibraltar, SA	To have a 'green' Mediterranean we must adapt it to the rise in sea level and prevent the beaches from disappearing.
Universidade de Évora, MARE	Improve education and actions towards adequate use and discover of nature.
DynMed Alentejo - Association for Studies and Regional Development Projects Dese Projects	Launch a worldwide advertising campaign - territorial marketing - for the whole Mediterranean to highlight the virtues of MED ecotourism and at the same time implement a support programme for SMEs and young entrepreneurs in the environmentally friendly "green" tourism sector.



<p>Tunisian Association of Coastal, Port and Maritime Engineering (ATIM)</p>	<p>http://planbleu.org/fr/publications/recommandations-politiques-elaborees-par-la-communaute-mediterraneenne-du-tourisme</p>
<p>UNIVERSIDAD DE MURCIA</p>	<p>1. Promote the use of environmentally sustainable activities and enable companies to be more innovative socially, economically and environmentally through the creation of a system of social, participatory, legal, economic and knowledge-based incentives to facilitate the process. 2. The collaboration and participation of key users in the formulation of business and growth lines in tourist areas should be encouraged. And give options to diversify tourism activities by promoting other activities for times of lower visitor number.</p>
<p>RAED - Arab Network for Environment and Development</p>	<p>Build business models that take all the above into consideration. Disseminate the knowledge, raise the awareness and develop the capacities of the beneficiaries. Ensure updated legislations to facilitate the implementation while establishing a strong incentive scheme to encourage the different stakeholders to get involved.</p>
<p>The-Marketer.net / HOMERe Permanent Secretariat South Shore Mediterranean</p>	<p>Kindly review my previous answers since most approaches will require anticipating by studies and / or programme designing. For this one, I believe the ILO can play a vital role since they have programme designed for helping potential entrepreneurs to establish their businesses, in addition to other programme that can help growing / improving existing businesses: Start & Improve Your Business (SIYB) - more information can be found at the following link: https://www.ilo.org/empent/areas/start-and-improve-your-business/lang--en/index.htm</p>
<p>Mediterranean Information Office for Environment, Culture and Sustainable Development (MIO-ECSDE)</p>	<p>Our suggestions are:</p> <ul style="list-style-type: none"> - Reinforce technical and vocational training for the hospitality sector with environmental and sustainable development components. - Introduce tax incentives to tourism-related companies that introduce environmental management schemes into their businesses. - Reinforce environmental protection legislation to achieve good environmental status.



	<ul style="list-style-type: none"> - Limit development of infrastructure and buildings in coastal areas. - Any approach taken should be the result of a truly participatory process involving all stakeholders from the design phase. - Gazette marine protected areas. - Tax incentives to young entrepreneurs creating tourism-oriented enterprises and businesses models. - Promotion of MPAs as models of sustainable local development. - Promotion of small-scale fisheries. - Promotion of nature-based tourism. - Promotion of underwater heritage. - Promotion of payments for ecosystem services for blue carbon (coastal wetlands, Posidonia meadows...). - Promotion of green-blue infrastructure.
ECONCRETE	<p>Respect for local nature, flora and fauna is also fundamental. Private investments should respect and foster both local craftsmanship and traditions and nature. Development must show that is compatible with traditions and nature. Any public and private investment must ensure that is taking care of the local environment and local people by contracting local people, involving them in the project and communicating and assuring that it will not damage in any way neither the nature nor the people. While otherwise it will promote and enhance local businesses and nature.</p>
BETA Tech Center, UVic/UCC - Interreg MED Green Growth	<ul style="list-style-type: none"> - To promote eco-tourism in alternative destinations such as protected areas. See the example of the MEET Network. - To encourage sustainability assessment of touristic packages considering the environmental, economic and social pillar. - To offer capacity building activities for SMEs, young entrepreneurs, enterprises to make their activities more sustainable - To promote community-based tourism in rural areas
wpd offshore France	NSPP (non compétent)



<p>METU Institute of Marine Sciences</p>	<p>Again, train and educate policymakers and sectoral representatives.</p>
<p>MedCities</p>	<p>Sustainable Tourism must be understood as a responsible tourism rather than “green” tourism. Tourism is not just an economic sector but also a crosscutting reality affecting "the whole of society and its economic, social, cultural and territorial life" therefore; it has to be responsible with the needs of the territory that holds this activity.</p> <p>The aspiration is using tourism to make better places for people to live in. This challenge has to be dealt, mostly by local authorities, as they have the responsibility to ensure and promote the quality of life of their citizens, and because local authorities are assuming the environmental, social and economic costs associated with tourist visits. Local authorities have a key role on tackling this vital challenge: shifting from traditional tourism model to a sustainable tourism model. Local authorities should assume an integral tourism management system, including areas not traditionally linked with tourism as mobility, security, accommodation, or urban design in their tourism policies. This integral vision facilitates the coexistence between tourism and daily life activity in a destination, making tourism a sustainable activity. One essential step to shift from the traditional tourism model to a sustainable tourism model is that tourism policies has to be built as a collective project, because it is a collective issue, and local authorities has to lead this process ensuring a participatory framework where private sector and social and community players can discuss while the destinations’ general interest is ensured.</p> <p>It becomes clear that Mediterranean Regions need strategies to reinforce the public leadership of tourism governance.</p> <p>The Mediterranean region should shift into a sustainable destination by:</p> <ul style="list-style-type: none"> - Reducing the carbon footprint of transport (reduce the distance of the journey and increase the number of overnights) - Fostering a sustainable and circular economy consumption - Reducing the overcrowding - Ensuring the best social return on the economic activity generated from tourism. - Boosting Knock-on effect to promote new strategic and sustainable tourism business.



	<ul style="list-style-type: none"> - Turning tourism into a lever of change for launching other non-extractive activities. - Ensuring tourism model responds to the needs of the territory. - Fostering the people participation in the creation of their tourism model. - Avoiding destinations standardization and preserving the identity values - Creating new inland tourist destinations linked to identity, art and natural heritage to reduce the print on the coastal territories. - Stablishing slots or quota for maximum number of persons for certain destinations. <p>There is a need to shift from the logic of tourism policies that for many years has been only concerned with attracting tourist, to build a sustainable tourism strategy that reinforce the leadership of public and local authorities, involving the private sector and community to create a long-term responsible vision that guarantees the destination sustainability. It is crucial to build consensus and joint work on the city's tourist policies with the entire actors involved; convincing all the actors that today sustainability and responsible criteria is the only way to ensure destinations' competitiveness.</p> <p>The sustainable tourism strategy has to define a local economic development strategy that ensures to foster local resources, facilitate investment and innovative, responsible, tourism business projects, and boost quality employment with long-term vision and a minimum territorial impact</p>
Fundacion Valenciaport	Technologies should play an important role to measure the impact of tourism and to predict tourism flows. The implementation of sustainable tourism models to decongest the flow of tourists
University of Siena	a strong taxes-benefits policy to tax more and more unsustainable practices (including over tourism) and finance the transition to sustainable ones
National Research Council of Italy	A regional pilot action on “digital ecosystems for coastal tourism destinations to support the design of policies: from opportunities’ mapping to intelligence production” should be built. Indeed, to develop sustainable and low environmental footprint solutions as precondition for preserving the natural and cultural heritage in the long term, the transition towards a more sustainable tourism should be implemented with the support of socio-economic research



	<p>and the exploitation of prospects offered by the digitalization to support decisions making. In particular, the following set of actions, oriented towards multiple-targets, need to be addressed:</p> <ul style="list-style-type: none"> - Beyond commodities: exploit tourism as vehicle for environmental-friendly behaviours; - Develop monitoring and evaluation systems of tourism flows, assessing carrying capacities of destinations, to support an efficient management of tourism flows and impacts leading to an effective governance of a greener and sustainable tourism industry; - Develop methodology, tools and systems for assessing environmental impacts of tourism and its drivers in the Mediterranean area focusing on coastal urbanization trends (tourist ghost cities) and related pressures to improve protection of coastline ecosystems; - Focus on big data analytics and ICT technologies and services to strengthen access to sustainable development policies, more efficient use of natural resources and cultural heritage, and management of infrastructures in coastal and marine areas; - Train a new generation of marine technicians/scientists to conduct research on the protection and valorization of the marine cultural heritage, including 3D and 4D rendering and augmented observation.
WWF	<ul style="list-style-type: none"> - Develop and implement comprehensive national strategic frameworks for sustainable tourism, defining clear national objectives and including training programmes for entrepreneurs, in sustainable circular economy approaches and technologies. - Promote the wide adoption of standards (such as the Global Sustainable Tourism Council ones) in mass tourism businesses and destinations. - Strengthen regulatory frameworks and associated penalties to curtail unsustainable tourism practice and enhance national fiscal and funding incentives to promote sustainable tourism. Adopt the approach of «Reduce, Reuse, Recycle» also in tourism investments. - Within marine and coastal planning processes (MSP, ICZM) achieve better integration of planning of tourism developments with natural protection (especially focusing on coastal and MPAs) - Promote initiatives aiming to decrease the footprint of tourism in mass tourism areas, and to increase the added value of the sector for local communities and stakeholders.



<p>Ministry of Agriculture, Maritime Fisheries, Sustainable Development, Water and Forests: Maritime Fisheries Department - Morocco</p>	<p>It will be necessary to set up integrated projects where populations can have pro-environmental alliterative measures to reduce the pressures on ecosystems, particularly marine and coastal ecosystems;</p>
<p>Malta Maritime Forum</p>	<p>Ensuring the ports are fully equipped to cater for cold ironing and availability of bunkers with 0.5% sulfur in most if not all ports in the Med.</p>
<p>MedPAN, the Mediterranean Marine Protected Areas Network</p>	<p>Recommendations from the MEET (Mediterranean Experience of Eco-Tourism) network (coordinated by IUCN Med) would have to be taken into account.</p>
<p>Med Blue Growth community</p>	<ul style="list-style-type: none"> - Accelerate the energy investment in Mediterranean Tourism Industry. Regional and local authorities should support the investment in energy efficiency travel and tourist facilities, by ensuring funding opportunities and supporting Research & Innovation activities. In this framework, public sustainable procurement for innovation in the Blue economy sector can be an effective catalyzer for the market entry of promising ITCs, fundamental for the better management of tourism related resources. - Strengthening the governance framework that promotes sustainable tourism. Notably, by agreeing upon a coherent common policy framework at the local, regional, and European level by means of an inclusive and structured consensus process involving all stakeholders. - Plan and manage tourism sustainably. Local and Regional authorities should apply means for planning and managing tourism areas sustainably, for instance, the Integrated Coastal Zone Management Protocol, Maritime Spatial Planning, the Ecosystem-Based Management principles.



	<ul style="list-style-type: none"> - Reduce seasonality by promoting alternative offers. Local and regional authorities, as well as private sectors, should promote alternative destinations, such as rural tourism, hinterland, slow tourism and cultural tourism, especially during summer months, when tourism flows are concentrated in crowded coastal areas. - Build effective collaboration among tourism stakeholders, through the medium of new networks to diffuse and disseminate policies, project results, and good practices gathered within the framework of ecotourism to achieve multiplier effect. - Preserving and Promoting Mediterranean Maritime Natural and Cultural Heritage. By increasing social and environmental performance through certifications, labels and ethical codes to promote quality products, responsible services and transparent business, or by communicating resident's and tourists' collective responsibility to preserve destinations' natural and cultural assets. - Citizens' awareness raising on the environment and sustainable tourism. Local communities, as well as, NGOs, schools and research centers, should develop tourism awareness activities within the scope of sustainable tourism. - Use of methodologies, as the 3-PBM methodology (iBLUE Interreg MED project), that are based on the iterative use of Business Model Canvas (BMC) and Resources-Processes-Values (RPV) framework, during which companies of the yachting sector gradually increase knowledge and management capability of their economic, social and environmental performance and impact.
eco-union	<p>Coastal and Maritime tourism around the Mediterranean should be carefully monitored and managed to avoid negative environmental impacts, economic leakages and social conflicts. In particular, voluntary and regulatory instruments should be combined to involve tourism industry, travellers and destinations towards a greener and more responsible tourism.</p>
Green Community NGO	<p>To foster sustainable tourism across the Med., the creation of a "green blue-tourism label" followed by a network of labeled sites for coordination and experience sharing, planning and co-development, complementing each other, could be a tool fostering the adoption of green practices and design of sustainable blue tourism projects/activities. Also, the communication and coordination with green-listed coastal/marine parks and nature reserves, would serve as a road-map or role-model, to learn from and get support through capacity building and experience sharing, creating thus a sustainable, mutually beneficial partnership.</p>



ECOCEAN	<ul style="list-style-type: none"> - Promote on a European scale local authorities engaged in "green and blue" initiatives (e.g. clean port active in biodiversity) - Promote on a European scale the territories engaged (MPAs, underwater trails, ecological engineering actions, etc.) => type of label "territory committed to nature" - Verify that the measures/actions implemented are not greenwashing and/or measures that have no scientifically validated ecological benefits (see point 8).
Agence Nationale des ports Maroc	Encouraging niche tourism
NOAH ReGen	<p>Again, this is exactly the initiative of NOAH ReGen. Our business model (NOAH's Arks) is based on a new hotel offer: NOAH AH (Augmented Hospitality). This brand will be floating (value creation through the creation of floating surfaces without land), 100% self-sufficient, zero waste, modular.</p> <p>The power of the hotel output in the heart of the major coastal capitals makes it possible to absorb in the financing, the Blue Hubs which are dedicated to industrial growth, R&D, incubation of start-ups. These Blue Hubs would not otherwise be fundable, as neither private equity nor private debt would be interested in an uncertain economic model of support for maritime R&D. The idea is therefore to use the tourism sector to support the industrial sector in the initial financing model.</p> <p>Thus, the business plans of the floating hotels allow the financing of NOAH's Arks, which offer the infrastructure of these Blue Hubs: headquarters of Blue Growth. From these headquarters, the incubated strat-ups and Blue Consortium partners bring solutions and industrial growth, new markets...</p> <p>All we need is permission from the local authorities to set up these NOAH's Arks in the heart of the city, so we can launch this Blue Revolution by NOAH.</p>



<p>Institut National de Recherche Halieutique</p>	<ul style="list-style-type: none"> - The nature, landscape and beaches of the Mediterranean allow for the development of ecotourism, on a small scale, to be developed. - Encouraging SMEs to invest in the ecotourism and rural tourism sector, hitherto considered high risk
<p>AVITEM</p>	<p>Tourism is one of the most fragile and crucial sectors for the Mediterranean area. The sanitary crisis actually going on will have very important consequences on tourism and both public institution and private companies will need to engage seriously for supporting the sector, but also for proposing new products and services. Stakeholders will need to tackle several great old and new challenges: rebuild the sector, facing climate changes, responding to the new needs of travelers and tourists after the crisis (ex: need to escape, strengthening social links...) facing over-tourism phenomenon.... It is too early to make a serious analysis, but we think stakeholders will need above all to encourage creativity and innovative approaches to imagine efficient solutions to face such an exceptional situation.</p>
<p>National Institute of Oceanography and Fisheries</p>	<p>Build an active public-private Platform. Ensure all Ocean business are involved</p>
<p>arco latino</p>	<p>The COVID-19 pandemia is having devastating effects on the tourism sector, including hospitality and travels. It is demonstrating how fragile delicate and vulnerable the tourism sector is. After the pandemia probably the worlds won't be the same, and so tourism. We will need to prepare to big changes in our life and in our way of travelling, visiting, using our free time. So we, the Sustainable Tourism community of the Mediterranean (funded by the INTERREG MED ERDF programme) believe that the next UFM position on blue economy should put at the front the quick recovery of the tourism sector, wich should start with a stronger support to the sustainable tourism. The concept of sustainability applying to economic, environmental and social aspect. Some inputs: Availability of recovery-funds for actions ready to be implemented "ready to start" in these sectors:</p> <ul style="list-style-type: none"> - marketing towards consumers



- diversification and de-seasonalitation of the offer
- infrastructures
- mobility
- local economy

Some examples:

- investment on greening the infrastructures: such as zero-energy buildings; water savings ; zero waste services;
- investment on local chains of food: encouraging the local supply of food, encouraging local productions and typical productions;
- investment in green transports both for tourists and for services related to tourism and related infrastructures
- quick funds for local SMEs dealing with sustainable activities and employment

Empowerment of multilevel governance schemes for:

Funds to projects to improve the sustainable coastal management and the biodiversity protection

funds to projects that are developing "Low impact" and diversified tourism: cycle tourism, eco-itineraries, underwater activities, sports, sustainable events.

- funding of new business and management models
- subventions tourism and hospitality sector
- loans and postponements of payments for SMEs,
- funding for diversification of tourism industry
- implementations of new tools to monitor consequences of global events on tourism
- education and transfers of best practices on crisis management in touris

With regards to the points of the questionnaire:

Use of big-data

- Advocate at EU level for a Common Methodological Framework to measure and monitor tourism sustainability in the Mediterranean aligned with existing tools within the European policy framework.



- Incorporate tailor-made indicators for destination types that capitalise on existing indicator systems at EU and international level.
- Allocate additional financial resources to measuring and monitoring sustainability adapted to regional and national government commitments to include measuring and monitoring activities in their action plans, with specific indicators and in the pursuit of concrete results.
- Design specific training on measuring tourism and its sustainability for SMEs, destination management organizations and statistics producers.
- Establish collaboration mechanisms between data producers and users to increase dissemination and build a multi-level critical mass of information on a wide range of tourism issues.
- Review the methods used to build official statistics to provide end-users with user-friendly data.
- Facilitate knowledge and information sharing between stakeholders while building their big data capacity to promote knowledge-based policy decisions.

To maximize its potential for SME growth and overall sustainable local development

- Apply economic instruments (e.g. taxes, pricing systems, incentives, etc.) to promote changes in citizen and business behaviour in Mediterranean tourist areas.
- Assess local tourism supply/demand to spot strengths and challenges and optimise the chain through solutions that increase productivity and improve resource efficiency to generate higher local profits and reduce pressures.
- Promote stable and qualified jobs to increase destinations' competitiveness through quality products and services, which require well trained, better paid, workers.

How should we ensure public and private investments for sustainable infrastructure, business,

- Set up quantitative/qualitative thresholds above which natural or cultural assets cannot sustain additional visitors and activities without losing value and appeal.
- Recognize the value of the ecosystem services on which most tourism activities and local livelihoods and well-being depend, to campaign for their sustainable use.



	<ul style="list-style-type: none"> - Enforce legally binding instruments, such as the Integrated Coastal Zone Management Protocol, Maritime Spatial Planning, the Ecosystem-Based Management principles and the Zoning approach for planning and managing tourism areas. - Communicate residents’ and tourists’ collective responsibility to preserve destinations’ natural and cultural assets. - Ensure local communities benefit when investing in tourism facilities, services or goods, as they make essential contributions to the tourism industry (e.g. mobility services, food, traditions, crafts, etc). <p>Product diversification in terms of seasonality</p> <ul style="list-style-type: none"> - Propose innovative off-season products and services (cycling, eco-itineraries, culinary experiences, underwater museums and archaeology) - Promote hinterland destinations (e.g. through quality standards) and alternative tourism models (e.g. ecotourism and slow tourism) while offering low-carbon mobility solutions from the coast to inland territories. - Evolve from all-inclusive or low-cost “Sun, Sea, Sand” offers to more added value products and services by investing in quality infrastructures and emphasizing site-specific environmental and social peculiarities to increase differentiation from other destinations. <p>Access to new markets</p> <ul style="list-style-type: none"> - Incentivize quality products and services through clear and easily implementable certificates and labels endorsed by residents. - Ensure destination access for all, including visitors with physical or mental disabilities. This is an opportunity to extend the market and a principle of social responsibility. - Build a common Mediterranean identity, value and vision by using unique historic, culinary or cultural heritage to achieve a competitive advantage in the global market.
<p>Center of Sea Sciences, University of Algarve</p>	<p>Tourism should be funding and reinforcing buy-back of land to return to natural state. The hotels built in inappropriate locations should eventually be phased out to return as much land as possible to a European ecological park. Land should be set-aside/tourist to really have the necessary investment in the organizations that have key roles in</p>



	<p>protection of Natural parks and unique resources. Water use is a priority those resources that are scarce and of key importance should be factored into realistic calculations of sustainability. If ecotourism is to be a reality then impacts on the natural countryside and resources have to be minimised, buffer zones expanded and a true "green vision" developed. This should include biodiversity, natural resources, countryside but also tradition (not cost effective) but truly sustainable - it is necessary to add value to the traditional skills and resource utilization so that people take up career in dying traditional sectors.</p>
<p>Universidad de Murcia</p>	<p>As an answer to the first question, the big challenge faced by the Mediterranean tourism industry in their potential shift towards a more sustainable activity is convincing the main actors to work and invest in that direction.</p> <p>One way of making them aware of the relevance of this change is awarding them for their activities related to Corporate Social Responsibility activity. Rewards act as incentives that will take them to dedicate more effort and resources to these activities.</p> <p>If Public institutions and industry associations orient those rewards toward activities contributing to the “blue economy” and the Mediterranean Region, tourism companies will shift to greater efforts in this direction.</p> <p>Moreover, the greater relevance consumers associate to responsible brands and the experience of ethic and responsible tourism services will be another incentive for the change in the industry.</p>
<p>Lebanese University - Green Community</p>	<p>A strong sustainable tourism plan and strategy is a requirement to a better Mediterranean future. Focus and investments should be on rural tourism, eco-tourism, use of less vehicles and tourism energy efficiency.</p>
<p>Barcelona Advocats i Assessors</p>	<p>The coastal municipalities are characterized by a dynamism strongly encouraged by tourism. However, this sector can have effects such as the seasonality of work, the increase in housing prices or the loss of cultural values. Therefore, in order to create a diversified economic fabric that offers stable opportunities for young people and dignifies traditional professions, such as fishing, and new ones, such as those related to aquaculture and emerging sectors, measures must be taken in different areas.</p>



	<ul style="list-style-type: none"> - strengthening and supporting the local role of the blue economy in development, as a catalyst for synergies between local maritime actors - Identification of the needs for qualified personnel in the maritime sector and facilitation of their training - Creation of training and procurement mechanisms ensuring generational importance in fisheries. - Support to small enterprises in the maritime sector. - National and international promotion of local tourism initiatives
<p>CIPPM</p>	<p>In Europe, there are more than 40 million water sports enthusiasts. Collaboration between marinas in the Mediterranean, North-South, East-West, will allow for sustainable development and the creation of tourist and industrial infrastructures (shipyards) with a strong socio-economic impact, particularly in the South and East Mediterranean. It will also help to reduce pressure on the coastline, the implementation of common measures against climate change and reduce seasonality.</p>
<p>EMILIA-ROMAGNA REGION</p>	<ul style="list-style-type: none"> - Competent authorities should adopt a “co-evolutionary approach” in tourism and coastal planning, taking into account the social, economic and environmental impacts of Coastal and Maritime Tourism; - Taking stock, put in value and build on experiences, results and models coming from the MED Sustainable Tourism Community (Interreg MED programme): Strategic integrated planning, Tourism Sustainability toolkit and models for develop “green” touristic destinations (with reference to Co-Evolve, Mitoded+, Castwater and other Interreg Med ST projects as InHerit); - Launch a dedicated campaign to communicate and promote EU and other environmental label to raise awareness for greater use especially in the touristic businesses in the Med area; - Address the lines of financing towards the upgrading of tourist facilities with investments that have a minor impact on the environment, and promoting sustainability in all its forms, matching with UN Sustainable Development Goals (A2030): - Sustainability in terms of social, environmental, economic, aspects: good work conditions, adequate salaries, respect of rights / limit resources consumption, reduce – remove causes of water, air and soil pollution, ban any



	<p>single-use plastics, operate a correct waste management / adequate prize of the services, adequate distribution of the incomes, to guarantee the wider benefits for the territory (maintenance, protection, etc.) and the local communities (welfare, education, wellness, etc.);</p> <p>Design touristic offers following further than sustainability, also principles of Inclusivity and Diversification, making proposals looking to and matching with UN Sustainable Development Goals (A2030):</p> <ul style="list-style-type: none"> - Inclusivity in terms of valorising local traditions, involving local communities in co-design of the touristic offers (participatory approach), valorising local skills and competences, arrange and support local networks in interacting with national and international touristic operators; - Diversification in terms of promoting coasts, sea, as well as the inland areas, alternative targeted/specific offers (cultural, historical, archaeological, traditional, gastronomic, cycling, trekking, etc.) suitable for different periods of the year, govern and regulate de-seasonality.
<p>ASSOCIATION DE PROTECTION DU LITTORAL A MAAMOURA - APLM</p>	<p>Through the integration of all stakeholders in each project and the involvement of civil society. Similarly, data sharing will remain the most effective tool.</p>
<p>Euroregion Pyrenees Mediterranean</p>	<p>Territorial actors are best placed to develop a new form of tourism with the support of public and private investment. To do this, destinations should be given both fiscal and promotional advantages for players playing the green tourism card, and tourism cooperation and seasonal adjustment initiatives should be encouraged by giving them financial support in their communication and labelling campaigns.</p>
<p>NGO COMMUNITY ASSISTANCE and Development ASCOM</p>	<p>Develop modern and ecological infrastructures to attract the attention of tourists.</p> <p>Develop green spaces and use endangered species that will help protect the barrier beach and protect cities from coastal erosion.</p>



Generalitat Valenciana	The participation of the UfM in the negotiation of direct management programmes of the European Union and then of the European Structural and Investment Funds, in order to make these objectives present.
DIRECTION DES PORTS ET DU DOMAINE PUBLIC MARITIME	<ul style="list-style-type: none"> - Identify, protect and restore vulnerable and degraded ecosystems in the coastal, marine and terrestrial areas of the Mediterranean; - Identify, enhance and protect maritime cultural heritage, local identity and traditional knowledge with a view to promoting the position of the Mediterranean as a tourist destination. - Launching of regional projects for the labelling of clean beaches, clean marinas and green ports, green ships. - Promote nautical sports and cruise tourism along the Mediterranean coasts. - Develop training programs that are strategic, technical and operational. - Develop ecotourism in wetlands, for a better valorisation of the coastal zone. - Strengthen the synergy between tourism activities and other coastal activities; - Set up projects to enhance the value of coastal ecological sites as part of the promotion of ecotourism; - Develop the sites while respecting their fragility and meeting the expectations of visitors or users, in particular by setting up educational infrastructures and providing space for people with reduced mobility.
IUCN Med	<p>Greater investment in the assessment of direct and indirect impacts caused by tourism on ecosystem services in the coastal areas. The results of which should then act as a baseline to guide intervention and investment in Mediterranean coastal regions.</p> <p>Destination management and marketing organizations have to make a better use of direct field observations and knowledge of local actors as proxies to reconstruct visitors' spatial behavior. They ought to use data as a means to an end focused on the development of sustainable products and services, rather than understand data as an end in itself.</p> <p>On a policy level there should be greater efforts placed on aligning the agendas of the environmental and tourism sectors, so that these sectors strategies complement one another instead of working towards contradictory goals. (IUCNMED)</p>



<p>MEET Network</p>	<p>Diversify the types of tourism currently on offer, with a focus on moving towards more opportunities for ecotourism activities in low season and a move away from traditional sun, sand and sea tourism.</p> <p>Offer tutoring and economic contributions to companies and aspiring entrepreneurs in the tourism chain (start-up) at a Mediterranean level through initiatives and projects financed with the aim of creating innovative, sustainable, experiential products and services and new business models;</p> <p>Align the marketing and promotion campaigns to the needs of sustainability of the territory;</p>
<p>Legambiente Onlus</p>	<ul style="list-style-type: none"> - To create a sort of online toolkit that can be easily consulted, with results and tools created in the various European projects on sustainable tourism; over the years many projects have been carried out on the theme of sustainable tourism (es: LIFE Sutour, InterregMed Consumeless, InterregMed MITOMED+, and so on), each of which has led to the creation of tools and protocols for SME'S or destinations; if there was a way to see them all, everyone could choose the one that best suits their needs; - to use the San Gallo method (use of big data) to understand tourist flows within destinations and plan activities accordingly; - to work on the development of community-based tourism to encourage sustainable tourism development in small destinations; - to promote training on accessible and inclusive tourism to tackling seasonality issues and to enhance the development of new markets; - to increase resources for "green innovation" and make them easier to access also for small businesses, through training courses, including webinar, interactive application, and free consultations; - to enhance the capacity building and cooperation among key stakeholders (such as public and private bodies, civil society, SMEs, tourist support facilities) in supporting a tourist market based on the sustainable management of natural resources;



	<ul style="list-style-type: none"> - to promote the adoption of good practices, among tourist operators, such as water and energy consumption as well as waste management in the tourist structures. To show this virtuous behaviour to the tourists through a catalog or similar to build a customer loyalty and at the same time, to raise their awareness.
<p>Cartagena Oceanographic Research Institute</p>	<p>We need to develop the tools needed to increase the value of underwater heritage.</p>
<p>Intermediterranean Commission of CPMR</p>	<p>Better position the Mediterranean as “greener” touristic destination and driver for sustainable, cultural and economic development, notably through:</p> <ul style="list-style-type: none"> - The strengthening of governance frameworks that promote sustainable tourism. More particularly, by agreeing upon a coherent common policy framework at the local, regional, European and Mediterranean level by means of an inclusive and structured consensus process involving all stakeholders. - The planning and managing tourism sustainably through local and Regional authorities’ application of means for planning and managing tourism areas sustainably, for instance, the Integrated Coastal Zone Management Protocol, Maritime Spatial Planning, the Ecosystem-Based Management principles. - The stimulation of performance and competitiveness, favoring the sustainability/environmental quality element: encouraging an extension of the tourist season, public-private dialogue as well as developing the necessary skills, promoting R&D and new ICT solutions. - More precisely, the reduction of seasonality that could be implemented by promoting alternative offers. Local and regional authorities, as well as the private sector and local communities, should promote alternative destinations, such as rural tourism, hinterland, slow tourism, and cultural tourism, especially during summer months, when tourism flows are concentrated in crowded coastal areas. - Besides, the development of ecotourism as well has been identified as a solution to mitigate tourism dynamics that are yet to be rendered more sustainable, and/or in areas of the basin presenting an economic and cultural potential.



- The improvement of knowledge, by complementing the lack of comparable data and common indicators on sustainable tourism as well as promoting certifications/labels.
- To that end and beyond, the building of effective collaboration among tourism stakeholders, through the medium of new networks to diffuse and disseminate policies, project results, and good practices gathered within the framework of ecotourism to achieve multiplier effect.
- See to citizens' awareness raising on environmental and sustainable tourism. Local communities, as well as, NGOs, schools and research centers, should develop tourism awareness activities within the scope of sustainable tourism.
- Further actions and initiatives should be developed to foster youth entrepreneurship for the sector, such as adapted tools (e.g. platforms) to foster networking between young people interested in starting their own business and more experienced people/mentors. Other actions could be that of specific trainings/modules to assist young entrepreneurs starting their business.
- Preserving and Promoting Mediterranean Maritime Natural and Cultural Heritage. By increasing social and environmental performance through certifications, labels and ethical codes to promote quality products, responsible services and transparent business, or by communicating resident's and tourists' collective responsibility to preserve destinations' natural and cultural assets.
- Transversally, the acceleration of clean energy investments in Mediterranean Tourism Industry is key to accompany the transition towards a more sustainable tourism sector. Regional and local authorities should support the investment in energy efficiency travel and tourist facilities, by ensuring funding opportunities and supporting R&I activities. In this framework, public sustainable procurement for innovation in the blue economy sector can be an effective catalyzer for the market entry of promising ICTs, fundamental for the better management of tourism related resources.
- Overall, the mainstreaming of sustainable tourism, for example by supporting advocacy actions towards EU relevant DGs on coastal and maritime tourism within the blue economy and emerging basin strategies, and towards the UE COSME programme; reflecting on a future agenda on coastal and maritime tourism in the Med, in parallel with the reflections on macro regional and maritime basin strategies (like EUSAIR and West Med). As in many other sectors of the Blue Economy, any of these actions should foresee the necessary involvement of



	<p>local and regional authorities to be more effective and adapted to the different contexts. In addition, strong synergies among actors, initiatives and programmes dealing with this topic (e.g. UfM, IMC-CPMR, Sustainable Tourism Community of the Interreg MED, ENI-CBC-MED Programme, BLUEMED, EUSAIR, WESTMED, the Mediterranean Cooperation Alliance, etc.) would contribute to develop impactful joint actions and mobilise the necessary dedicated investments. To conclude, given the current situation, an important additional reflection as regards (sustainable) tourism should be made, in light of the devastating impact on this sector of the actual COVID19 outbreak, which is seriously affecting global economy, and notably the EU and the MED.</p>
<p>Association "Forum"</p>	<p>Tourism is one of the most dynamic economic sectors in many countries, developed but also developing ones, with a wide range of upstream and downstream effects on other economic activities thanks to a very large and diversified supply chain. Many countries do have assets of enormous value to the tourism sector, such as culture, art, landscape, wildlife and climate, and are very well positioned to develop tourism as a key sector contributing to economic growth. A further elaboration of sustainable tourism refers to the need for it to: Make optimal use of environmental resources that constitute a key element in tourism development, maintaining essential ecological processes and helping to conserve natural heritage and biodiversity, Respect the socio-cultural authenticity of host communities, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance, Ensure viable, long-term economic operations, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities, and contributing to poverty alleviation.</p>
<p>UNEP/MAP Barcelona Convention</p>	<ul style="list-style-type: none"> - Develop and promote circular economy and innovative tourism products and services, sharing experiences and information at all levels between institutions, programmes and projects, in particular through the implementation of the provisions of the ICZM Protocol of the Barcelona Convention towards integrated uses of marine and coastal areas and resources;



- Plan and manage tourism development as a part of a broader strategic planning framework and ensure that a mix of other sectoral policies is taken into consideration
- with regard to both tourism impact on these sectors and their capacity to support tourism development. That would ensure that tourism stays within the carrying capacity of recipient territories, resources and populations;
- Develop a framework of specific indicators for assessing the impact of marine and coastal tourism on destinations and for promoting ecotourism and agritourism in coastal areas, and anchor tourism developments to sustainability indicators and equitable distribution of costs and benefits;
- Promote innovative products and services to reduce seasonality and territorial imbalance between coastal and inland areas within the concept of “maximum threshold”;
- Ensure solid collective capitalization and dissemination mechanisms across coastal and maritime tourism actors and innovation support programmes, to scale-up environmentally beneficial innovations in maritime and coastal tourism sectors (including cruise and recreational boating);
- Support and disseminate labels of sustainable/smart ports and marinas, with monitored and increasingly ambitious standards, and facilitate mainstreaming by working with local governments, local authorities’ networks and port authorities.
- idely communicate on sustainability innovation feasible in large and growing sectors (e.g. hotels, cruise...) to impact public demand & expectations.
- Promote and take action to implement the measures related to tourism of the SCP Action Plan, e.g. eco-efficiency of tourism activities and the use of environmental management systems (e.g. ISO 14001); destination management model and network of sustainable destinations; local sustainable tourism training; diversification of the tourism offer from mass tourism to alternative forms of tourism (e.g. ecotourism, cultural tourism, rural tourism, off-season tourism); tourism legislation; eco-taxes, eco-charges or fees as an effective instrument to internalize externalities (e.g. tax relief of tourism activities during the low season); Tourism Carrying Capacity Assessment (TCCA) approach as a mandatory analysis for the preparation of national and local tourism planning and for the approval of new tourism investment; tourism eco-labels with robust environmental criteria based on a standards scheme verified by an independent organization (e.g. EU Ecolabel, Green Key, Nordic Swan, etc.); marketing and communication activities focused on promoting the Mediterranean sustainable destinations, etc.



Underwater Gardens International	Underwater Gardens International is a company who has designed a business model which combines sustainable tourism, local economic growth, marine and coastal habitats regeneration and marine science research.
CCDRAlentejo	<p>To identify, map and promote exemplary projects and good practices of sustainable gastronomic tourism experiences existing in MED regions.</p> <p>Identify destinations that are being stressed with excess tourism and redirect the supply, creating quality niches that reducing the pressure on resources does not take away value from billing.</p> <p>Promote Gastronomic Tourism based on the Mediterranean Cultural Heritage, reinforcing territorial cohesion, as a way of creating new tourist attractions that escape seasonality and boosting areas within countries, rehabilitating knowledge and traditions that are cultural heritage, seeking to decongest the coastal areas that are increasingly in demand.</p> <p>To involve SMEs and other business organisations and centres of entrepreneurship in the creation of these local dynamics, in order to create and promote more knowledge and genuine tourism based on experience (creation of gastronomic, built, environmental heritage routes...).</p>
Egyptian Environmental Agency	<p>At Regional Level:</p> <ul style="list-style-type: none"> - Promote sustainable tourism to enhance economic and social growth, through achievement of development requirements, while minimizing negative social, cultural and environmental impacts. - Cooperate in enhancing the process of planning, controlling and integrating tourism operations with other economic, social and ecological activities. - Support proper policies and actions to conserve cultural and natural assets and biodiversity, through the expansion, effective management and conservation of protected areas. - Support instruments to improve sustainability of tourism businesses (i.e. planning controls, impact assessment, certification and financial incentives). - Improve minimizing of negative impacts of tourism industry on the environment (i.e. litter, wastewater, erosion and climate change threats).



- Promote sustainable use of natural resources in nature-based tourism and enhance eco-infrastructure and public services in protected parks.
 - Encourage sustainable production and consumption in tourism sector, including reduction of resources utilization (i.e. water and energy).
 - Support the identification and monitoring of tourism sustainability through quantitative and/or qualitative indicators for accurate assessments of the ‘real’ impacts of tourism.
 - Collaborate to encourage technical support and share best practices and experiences in sustainable and eco-tourism industry.
- At National Level:
- Encourage the implementation of “green hotel” initiative and enhance regional and national policies and actions for green growth.
 - Raise local community awareness about the importance of nature protection of touristic sites (holistic, recreational, protected areas, etc.).

Theme 4. Marine renewable energies	
<i>What actions are needed to capture the potential for marine renewable energies (offshore wind including floating, wave and tidal energy) in the Mediterranean?</i>	
EMUNI	It is much needed to test the societal acceptance of so-called clean energy and explore the resilience against it. Take society's concerns seriously rather than just impose policies. Present transparently (with info and visuals) challenges associated with the so-called clean energy, then seek adequate solutions to expand them, in accordance with the societal views.
IOC-UNESCO	National authorities have the final mandate and competence to provide licenses for marine renewable energy initiatives to be implemented. Projects and activities at regional level should focus in "demo" sites which might be more effective and real than theoretical research. Member States must understand the importance of marine renewable energies in the short and the long term.
MED JS	the development of a reliable framework for planning and funding
INSTM - Tunisia	Several marine renewable energies exist and should be enhanced as solar energy and green energy from micro and macroalgae with tidal and wind energy. Biogas production by marine micro-organisms represent a highly new source for renewable energies.
National Institute of Oceanography and Fisheries (NIOF), Egypt	network of tide-gauges around the Mediterranean, specially for the countries of north Africa



University of Bolognae	We need more research and pilots on multifunctional-concept offshore infrastructure, such as floating breakwaters combined to wave energy converters, or floating breakwaters combined to urban aquaculture
CNR	Optimising device design to achieve low-cost energy production
National Institute of Marine Sciences and Technologies	<ul style="list-style-type: none"> - Raise awareness of authorities to use the marine energy, - Invest prototypes in Mediterranean cities, - Identify the regions which are characterized by high potential of marine energy
Ministry of Economy - Palestine	<ul style="list-style-type: none"> - Benefiting from the surface area of the seas and oceans, by utilizing solar energy - Developing a marine turbine system by making full use of wave water energy - Utilizing the energy of the ocean's internal waves - Create artificial islands equipped with all the tools needed to generate energy - Networking with neighboring countries to adopt a policy of transmitting electric energy according to the need among them - Investing in entrepreneurial ideas to improve the quality of energy resources generated from the marine sector
Alma Mater Studiorum University of Bologna	Streamline the legal frameworks for implementation of offshore farms give incentives
AMFORHT	Encourage the investment on this kind of industry: taxation policy, financial facilitation for firms and new investors
Presa Puente Estrecho de Gibraltar, SA	Clean renewable energies are essential and their production and use should be encouraged.
DynMed Alentejo - Association for Studies and Regional Development Projects Dese Projects	To sensitize governments and other authorities to launch projects and programmes to engage in renewable energy in a consistent manner.



<p>Tunisian Association of Coastal, Port and Maritime Engineering (ATIM)</p>	<p>It is necessary to start by taking stock of the situation and setting up concrete objectives.</p>
<p>UNIVERSIDAD DE MURCIA</p>	<p>To facilitate the generation of scientific knowledge and the promotion of participatory policies to develop these activities</p>
<p>RAED - Arab Network for Environment and Development</p>	<p>More real North South cooperation. This covers technology, finance and capacity development. Southern countries to establish national strategies to cope with the challenge.</p>
<p>Mediterranean Information Office for Environment, Culture and Sustainable Development (MIO-ECSDE)</p>	<p>The needed actions to create and apply the enabling conditions for a large scale promotion of renewable energies in the Mediterranean region include a series of interlinked interventions involving different settings and disciplines. Apart from institutional settings and instruments for financing and appropriate physical planning, it is essential that the relevant installations respect stringent environmental / nature protection and social criteria in order to minimize and mitigate the environmental and aesthetic disturbances and to make these investments truly sustainable and acceptable by the society. Cooperation between companies and local communities and systems of external “management auditors” could greatly facilitate these approaches which are most needed for making the Mediterranean an important source of clean energy.</p>
<p>ECONCRETE</p>	<p>Research, investigation and promotion of StartUps and scientific centers. Involvement of the private sector in supporting those StartUps and scientific research. Universities and Research Centers should be linked to private companies specialized in the sector to involve from a very early stage young researchers and students to make the most of the educational public system and the powerful private companies to get the best results. In addition administrations should promote electrical bonuses and savings to companies that provide clean energy to the regional/national/statal electric system.</p>



<p>wpd offshore France</p>	<p>Governments should set ambitious maritime spatial planning:</p> <ul style="list-style-type: none"> - Policies to provide 450 GW by 2050. - Set ambitious targets for renewable energy in the Climate Plans (NCCPs) up to 2030 and beyond - Specify detailed policies to achieve these objectives, starting immediately in 2020, including the timing of tenders and support mechanisms in place. - Coordinate to ensure the robustness of aggregated national targets - Coordinate National Energy and Climate Plans (NECPs) with the - European Commission with regard to the rapid availability of sites using - Maritime Spatial Plan (MSP) of each country - National Spatial Marine Plans should be aligned with the objectives of the NCEPs. - Coordinate at the international level, share national plans and coordinate - decisions at basin level to optimise the use of marine space - Establish regional forums for planning discussions - Design a regulatory framework to allow the co-use of wind farms with other users of the sea, including aquaculture, fisheries, other energy sources and defence activities. - Explore and promote the coexistence of wind farms and protected natural parks, exploiting the potential of wind energy for restoration and conservation purposes. - Increasing the rental area for offshore wind energy from 2025 onwards to achieve the 2050 vision - Accelerate the implementation of the environmental strategy Assessments (SEA) - Harmonize methodologies for carrying out environmental impact studies - Create an open source repository to collect and share information and data from environmental impact assessments. <p>Governments should ensure that authorities have the necessary expertise and resources to oversee licensing processes.</p> <ul style="list-style-type: none"> - Studying good practices and sharing information between authorities - Establish one-stop-shops for projects and work on the simplification of authorisation procedures in line with the recast of the Renewable Energy Directive. - Explore open-shop authorisation procedures, and allow manufacturers to initiate development work.
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Governments should accelerate the expansion of on and offshore network infrastructure.

- Allow developers to create their own network connections
- onshore for offshore wind projects in order to continue cost reductions
- Coordinate between countries and Regional TSOs the tendering schedules and network development plans to allow the connection of the parks to the interconnections.
- Coordinate a long-term vision with clear milestones for integration based on radial, hybrid and mesh, storage and power-to-x connections.
- Speeding up the authorisation and construction of projects of common interest
- Coordinate and share best practices for grid optimization and management of the operation of systems integrating large amounts of renewable energy
- Increase funds to develop and strengthen electricity infrastructure at the national level
- Increasing interconnectivity between countries to 15% by 2030
- Update the network modelling results for TYNDP-2018 with the 2030 volumes to identify the work and reinforcements needed and implement them in national plans.

The EU should develop a clear regulatory framework for offshore hybrid projects, including.

- The compatibility of offshore hybrid assets with Article 16 of the EU Electricity Regulation which establishes 70% of transmission capacity in all interconnectors for commercial purposes.
- Compliance with capacity allocation and congestion management rules
- Income stabilization mechanisms applicable to offshore hybrids
- including the value of flexibility technologies such as storage and power-to-x
- Consistency with the separation rules in the third energy package
- in respect of the ownership, construction and operation of offshore hybrid assets

Governments should accelerate the electrification of transport, heating and industrial processes.

- This process must be adapted in national energy and climate plans. (NECP) in view of the potential identified for MRE, offshore wind and grid technologies
- Set clear electrification targets in national energy and climate plans (NECP)



	<p>Governments should ensure visibility and confidence in funding volumes and mechanisms.</p> <ul style="list-style-type: none"> - Designing income stabilization models and auction mechanisms to promote competitiveness - Updating the mechanisms for selling energy and grid services nationally to provide stable revenues - Technical standards need to be harmonised to improve techniques by promoting innovation. The implementation of these standards must be coordinated throughout Europe.
METU Institute of Marine Sciences	Need to invest in fundamental research and capacity development
MedCities	<p>Approving rules that establish quota for the mix of energy generation in every state according to each territorial reality in order to both boost renewable sources and stucck the fossile ones.</p> <p>Combining natural sanctuaries with energy sanctuaries so the MPA can become also, when possible, renewable energy generation reserves.</p>
University of Siena	Start supporting the implementation of such solutions in all the countries according to potentials. Involve architects in contests for "beautiful" solutions. Up to now many of them are not really nice since they are in the development phase
National Research Council of Italy	<ul style="list-style-type: none"> - Increase the competitiveness of MREs with respect to other consolidated forms of renewable energy also by studying and improving the acceptability of MRE projects through an enhanced knowledge of their environmental interactions and a thorough multidisciplinary evaluation including socio-economic dimension; - Define and launch awareness-raising actions among industries, research sector and civil society to increase public understanding and facilitate the acceptance of MRE projects; - Encourage governments to provide regulatory frameworks and clearly evaluate available marine renewable resources to support the development of MREs; - Analyse potential co-activities of MREs for designing integrated multi-purpose platforms that can serve both energy and other maritime sectors, combining green energies production and storage (hydrogen, etc.) with fishing



	<p>and aquaculture, tourism, offshore research, marine life and environmental monitoring, maritime surveillance and pollution monitoring;</p> <ul style="list-style-type: none"> - Modelling of economic impacts and MREs' interactions with other maritime uses and activities; - Strengthen capacity building and the development of specialised skills to increase the fraction of installed MRE power plants.
WWF	<ul style="list-style-type: none"> - Planning of offshore wind farms should reflect conservation priorities and aim to avoid ecologically valuable and protected areas and involve a comprehensive stakeholder consultation process - Impact assessments of offshore wind farms projects should promote the exemplary nature of the avoid-mitigate-compensate approach and take into account cumulative impacts - Data collection, research on species and ecosystem functioning should be widely promoted to achieve a better evaluation of the impacts of offshore wind farms
Ministry of Agriculture, Maritime Fisheries, Sustainable Development, Water and Forests: Maritime Fisheries Department - Morocco	<p>There is a need to have energy potential maps for all member countries and to adapt opportunities to the means available.</p>
Malta Maritime Forum	<p>Research and Development projects in sustainable renewable energies. Funding in Wind and wave energy projects are certainly in the right direction.</p>
MedPAN, the Mediterranean Marine Protected Areas Network	<p>Please see the recommendations from the Pharos4MPAs Interreg project regarding the wind energy sector: https://pharos4mpas.interreg-med.eu/fileadmin/user_upload/Sites/Biodiversity_Protection/Projects/PHAROS4MPAs/OWF_POLICYBRIEF_17j_une_single_page.pdf</p>



<p>Med Blue Growth community</p>	<ul style="list-style-type: none"> - Maritime Spatial Planning and ICZM implementation and enforcement should accelerate the development of Marine Renewable Energy (MRE) by (i) identifying potential areas for MRE development and regulating co-existence between Marine Renewable Energy and other economic sectors; and (ii) considering multi-use opportunities deriving from joint use of marine space by different Marine Renewable Energy typologies or coupled with other maritime activities (e.g. aquaculture, nature protection, tourism). - Funding and financial authorities should ensure support to all phases of Marine Renewable Energy development by providing stable mobilization/allocation of public funds/resources for all-stage research, optimizing the use of funds for the Marine Renewable Energy sector and typology of enterprises, and concentrating efforts on a limited number of promising technologies. - Sub-national, regional and local administrations should be more actively engaged in the consultation process prior to the development of MRE projects and able to participate in final decision-making while evaluating true socio-economic impacts on local communities and the environment. It should facilitate the social acceptance of Marine Renewable Energy. - The important environmental benefits of Marine Renewable Energies need to be highlighted in emerging and future policy, especially with respect to climate change mitigation. - Blue Energy Cluster platforms (e.g. PELAGOS Interreg MED projects’s platform) can solve gaps in the lack of innovation and cooperation regarding the rising field of blue energy. In particular, these platforms may offer organisations cooperation opportunities in the field of Marine Renewable Energy, as well as showcase innovative technologies and services in this field. - National webgis platforms (e.g. MAESTRALE’s Interreg MED geodatabase), that are open access can provide information on marine renewable energy potentials, existing technologies (in the form of case studies) and stakeholders maps, and may be really useful in a Mediterranean level. They can be, also, widely used as a supporting tool for training students in the field of blue energy. - Creation and adoption of educational schemes (e.g. BLUE DEAL Interreg MEd project with its BLUE DEAL labs), through participative processes and use of concrete outputs, concerning feasibility studies of pilot projects. These “Blue Energy Plans” will target large coastal areas in Med regions and will support actions of mainstreaming in national/regional policies, in order to foster entrepreneurial initiatives in the Blue Energy sector.
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eco-union	Marine renewable energies should be carefully but surely developed by investing massively in Research & Development, ensuring transparent dialogue with local communities, involving local and national governments as well as engaging with RE industry.
ECOCEAN	<ul style="list-style-type: none"> - Continue their deployment - Help operators obtain operating authorizations upstream of the RFPs to avoid wasting too much time - Use these MRE areas to develop joint activities (R&D, eco-design, seaweed farming, etc.)
Agence nationale des ports Maroc	Working on pilot projects and communicating results
NOAH ReGen	<p>There are many opportunities for the production and storage of renewable energy from maritime and coastal resources: there is offshore wind (floating or anchored), tidal, wave, floating solar, biomass, hydrogen, a combination of several of these solutions. In terms of storage, the high pressures at depths must also allow for the implementation of efficient and safe solutions, and there are many technologies that can be discovered.</p> <p>It all depends on financing. The initiatives exist, the existing technologies must be able to be improved and tested. Lack of access to funding is the main obstacle.</p> <p>Here again, it seems important to build on the creation of a "blended finance" investment platform, as proposed by NOAH's BEIP.</p> <p>Each prototyping should be able to be "de-risked" at most by several phases of investment from different sources:</p> <ol style="list-style-type: none"> 1. R&D must be covered by tax schemes such as the Research Tax Credit (CIR). The CIR must be levied by philanthropy. 2. Once these sources of funds are secured, the commitment of international (GCF, EIF, World Bank, AFD, KFW...), national, regional... public funds is needed to invest in "junior debt, first lost" in order to de-risk the projects.



	<p>3. with (1) + (2), we finally have a very attractive pipeline for private investments (private equity + private debt) and thus obtain the bankability of innovative projects.</p>
IMFMM	<ul style="list-style-type: none"> - Strengthening of capacities, exchanges of experts and expertise; - Setting up of initial training programmes at professional and university level (Engineer); - Reception of calls for projects in this sector; - Prevision of aid and subsidies for young promoters who launch themselves in this field of activity.
Institut National de Recherche Halieutique	<p>Wind energy is a great opportunity at the level of the Mediterranean rim, moreover in several countries there are national strategies for the development of this energy.</p>
National Institute of Oceanography and Fisheries	<p>Ensuring a sustainable harvested and productive Mediterranean Sea will depend on the development of a sustainable economy, management of resources, and on the integration of marine spatial planning with coastal management. Define science-based safe and sustainable thresholds for economic operations in the Mediterranean Sea driving the sustainable exploitation of non-renewable resources and the resources based on the Mediterranean Sea natural and cultural heritage.</p>
Center of Sea Sciences, University of Algarve	<p>It is essential to have pilots demonstrating cost effectiveness. This is in conflict with ecological integrity as it frequently involves large unsightly objects that can be a danger at a number of levels. The sun in itself could deliver through solar energy but also through harnessing the algae cyanobacteria etc. This is in my opinion were money should go. I am not convinced that this limited area which is already under fierce pressure from tourism and commercial activities (shipping, leasure, aquaculture etc) should also be seen as a location for energy infrastructure. Why not use the sun and reserve maritime for other specific actions.</p>
Office National des Hydrocarbures et des Mines - Morocco	<p>Promote the development of skills in this still little-known sector and the strengthening of skills at the local level. Assess the real potential of marine renewable energies and their impact... Establish a regulatory framework defining their use...</p>



Lebanese University - Green Community	Wind, Solar and waves energy are techniques in sustainable energy sources. Mediterranean regions are rich in such resources and we should elaborate policies and strategies to use it.
EMILIA-ROMAGNA REGION	<p>The marine renewable energies (MRE) refer to all renewable energies generated from the marine environment; they include energies produced using offshore wind, waves, current, tidal or sea water salinity and temperature. At this stage the different types of MRE are limited or at very early stages of development in Mediterranean area. This development can be done with some conditions:</p> <ul style="list-style-type: none"> - a very good knowledge of the natural and environmental conditions with which MRE are directly linked to it; - further efforts to reinforce research and development to get energy from the oceans; - coordination of governments schedules of deployment and supporting policies for MRE in order to maximise regional cooperation also with stakeholders to increase investments - additional funding instruments to provide access to low cost financing for pilot projects and to increase the funding for research and innovation focusing on cost-competitiveness - training courses to develop “topic - related” specific skills; - soft competences to enable the dialogue between the stakeholders and facilitate the decision and awareness to implement MRE projects - public funds also to improve the public acceptance as well tax incentives - clear legislative, regulatory and administrative framework regarding all the procedures to approve the construction and management of MRE parks; - to tackle different difficulties in the market development like: <ul style="list-style-type: none"> - energy production costs, - operating life of equipment, - logistics, - energy storage, - interconnection with onshore energy grids.
Cedar organization Algeria	When we talk about marine renewable energy (MRE), we are talking about technologies that can produce electricity by harnessing the energy of the sea. And these are diverse. Nevertheless, marine renewable energy has two



	<p>advantages over other renewables. They are more predictable and pose fewer land-use problems.</p> <p>In the short term, an initial multi-scenario planning for MRE should also be developed, with the following actions:</p> <p>Raising awareness among new industrialists of the advantages of MRE and motivating them to make a long-term commitment to this sector. Having an updated map linking industrial demand and the supply of initial and continuing training;</p> <p>Strengthen the international strike force.</p> <p>Promote the offer of the MED region's port in order to set up industrial sites;</p> <p>Develop test sites related to wave and floating wind technologies;</p> <p>Encourage partnership between the countries of the MED region in the field of R&D;</p>
Euroregion Pyrenees Mediterranean	To set up a large-scale public financing platform with the support of the main European and African development banks to have a pool of collective projects (notably offshore wind turbines or floating energy).
Ministry of Energy, Mines and Environment/Department of the Environment	For Morocco, it is necessary to start by initiating pilot projects to exploit marine renewable energies.
NGO COMMUNITY ASSISTANCE and Development ASCOM	It is necessary to make available training programmes on the exploitation of renewable energies through the application of environmental impact studies.
Generalitat Valenciana	The participation of the UfM in the negotiation of direct management programmes of the European Union and then of the European Structural and Investment Funds, with the aim of making these objectives present, followed by better coordination with the European Commission (DG MARE, DG REGIO and others).
DIRECTION DES PORTS ET DU	- Encouraging research into wave and tidal energy;



<p>DOMAINE PUBLIC MARITIME</p>	<ul style="list-style-type: none"> - Financing pilot projects for the use of this type of energy in ports and offshore installations; - Broadening the basic knowledge of maritime institutes and engineering schools in this field;
<p>CTN - Marine Technology Centre</p>	<p>Promoting the development of an offshore test site in the Mediterranean sea in order to facilitate the scale-up of marine renewable energy prototypes adapted to the Mediterranean sea conditions. Promoting the collaboration between energy developers and stakeholders such as harbours, marinas, holidays resorts, desalination plants, etc. in order to deploy marine renewable energy devices to produce energy at low scale, e.g. power supply for a marina.</p>
<p>Legambiente Onlus</p>	<p>The Mediterranean is today at the centre of a battle for the control of oil and gas resources with projects of new platforms and grids. There is no shared vision of the transition to renewable sources or of the environmental protection needed. This situation must be changed or the impact of climate change can't be stopped. The first action is an agreement to stop new oil and gas explorations, that is why we ask to keep fossil fuels under the sea and in the ground. The second action is to create joint research and development of offshore windmills projects, particularly floating for the important production that it could guarantee. Collaboration between States is needed, because of the complexity of interventions that need resources and knowledge, new grids and infrastructures. But the potentiality are really important, both for energy security and for economic development.</p>
<p>Intermediterranean Commission of CPMR</p>	<ul style="list-style-type: none"> - Maritime Spatial Planning and ICZM implementation and enforcement should accelerate the development of MRE by (i) identifying potential areas for MRE development and regulating co-existence between and other economic sectors; and (ii) considering multi-use opportunities deriving from joint use of marine space by different MRE typologies or coupled with other maritime activities (e.g. aquaculture, nature protection, tourism). - Funding and financial authorities should ensure support to all phases of MRE development by providing stable mobilization/allocation of public funds/resources for all-stage research, optimizing the use of funds for the MRE sector and typology of enterprises, and concentrating efforts on a limited number of promising technologies. - Sub-national, regional and local administrations should be more actively engaged in the consultation processes prior to the development of MRE projects and able to participate in final decision-making while evaluating true



	<p>socio-economic impacts on local communities and the environment. It should facilitate the social acceptance of MRE.</p> <ul style="list-style-type: none"> - The important environmental benefits of MRE need to be highlighted in emerging and future policy, especially with respect to climate change mitigation. This, while ensuring that MRE are included in Climate mitigation policies as potential solutions. - E.g. PELAGOS Interreg MED project’s platform can solve gaps in the lack of innovation and cooperation regarding the rising field of blue energy. These platforms may offer organizations cooperation opportunities in the field of MRE, as well as showcase innovative technologies and services in this field. - National WebGIS platforms (e.g. MAESTRALE’s Interreg MED geodatabase) that are in open access can provide information on MRE potentials, existing technologies (in the form of case studies), and stakeholders maps. They may be really useful in a Mediterranean level and could also be widely used as a supporting tool for training students in the field of blue energy. - Creation and adoption of educational schemes (e.g. BLUE DEAL Interreg MED project with its BLUE DEAL labs), through participative processes and use of concrete outputs, concerning feasibility studies of pilot projects. These “Blue Energy Plans” will target large coastal areas in Med regions and will support actions of mainstreaming in national/regional policies, in order to foster entrepreneurial initiatives in the MRE sector. <p>As a more general cross-cutting reflection, policies have been identified as a catalytic key player to develop MRE in the basin, which need to be further highlighted in emerging and future policy especially with respect to climate change mitigation (EU Green Deal, EU Climate Law, the new EU strategy on adaptation to climate change, the sustainable EU investment plan).</p> <p>In addition, reinforcing Euro-MED cooperation on MRE should be ensured, finding and encouraging strong synergies among actors, initiatives and programmes dealing with this topic (e.g. UfM, IMC-CPMR, Blue Growth/Renewable Energy Communities of the Interreg MED, ENI-CBC-MED Programme, BLUEMED, EUSAIR, WESTMED etc.) would contribute to develop and implement impactful joint actions and mobilize the necessary dedicated investments.</p>
<p>UNEP/MAP Barcelona Convention</p>	<ul style="list-style-type: none"> - ICZM and MSP implementation and enforcement should accelerate the development of Marine Renewable Energy (MRE) by (i) identifying potential areas for MRE development and ensuring co-existence with other economic sectors (multi-use opportunities);



	<ul style="list-style-type: none"> - IFIs should ensure support Marine Renewable Energy development by providing resources for all-stage research and concentrating efforts on a limited number of promising technologies; - Putting in place consultation process prior to the development of MRE projects, supporting public participation in decision-making while evaluating socio-economic impacts on local communities and the environment; - The environmental benefits of Marine Renewable Energies need to be highlighted in emerging and future policy, especially with respect to climate change mitigation.
Underwater Gardens International	There is the need to design all management plans of these projects in an holistic point based on an Ecosystem Approach (described by COP in 2000) and accomplishing the full 12 Malawi Principles.
CCDRA lentejo	<p>Launch a broad debate within the UfM on the need to increase Renewable Energy, particularly wind and photovoltaic, in order to enhance its use also in the production of Green Hydrogen, in order to bring the UfM in line with the European Union's Green Deal initiative.</p> <p>To create a macro-regional cluster that gathers the maximum scientific technical knowledge in the production of green H₂, to support concrete actions to increase and an experimental production network in the countries of the UpM, seeking to accelerate the industrial process of creation and dissemination of this alternative energy source.</p>

Theme 5. Adaptation to climate change	
<i>What should be done to face the alarming impacts of Climate Change on Mediterranean ports, coastal cities and infrastructures as well as on wetlands, coastal dunes, cliffs and beaches, and related habitats? Any additional suggestion on crucial aspects to be taken into account can be addressed</i>	
EMUNI	Adapt to them in a least harmful way and communicate the impacts to the society and policy makers. When the impacts can be avoided low-cost, do so. Encouraging tourism (business travel, frequent travel, meetings non-stop) is part of the CC problem so avoid it.
IOC-UNESCO	Climate change impacts cannot be addressed in the same way for affected metropolitan areas and coastal ecosystems. Rehabilitation of coastal ecosystems with the implementation of nature-based solutions could be a good start but the results will not be effective if major infrastructures (in land, river basin districts and coastal areas) continue being developed without the proper environmental impact assessment. We do not need additional research here, we need a better understanding of national authorities of their own responsibility mitigating the impacts of climate change in coasts and marine areas of the Mediterranean.
FAO	Agriculture and fisheries, aquaculture and forestry, wildlife and urbanisation are part of the same integrated approach. We need to push up the trade-offs towards sustainability.
MED JS	Enforced maritime protection, coastal protection, sustainable river basin management of Med rivers, strategies for the conservation of cultural landscapes and urban heritage, development of resilience strategies to climate change



INSTM – Tunisia	Reduction of carbonic gaz emission in different ways and minimize terrestrial wastes
National Institute of Oceanography and Fisheries (NIOF),Egypt	Governments need to implement adaptation options such as cost effective coastal protection measures, resilient infrastructures and utilities, coastal and marine spatial planning, regulations/legation and controls for marine pollution and sustainable development. Mediterranean African governments need to promote the existing opportunities and partnership for the private sector engagement in the implementation of adaptation measures in coastal and urban zones.
University of Bolognae	We need to invest more research and funding in nature based solutions. Many intertidal and shallow subtidal habitats (including oyster reefs, saltmarshes, seagrasses) can attenuate local currents, dampen wave energy and accrete and stabilize sediments, thereby acting as effective buffer against flooding and erosion. These nature-based defenses are more sustainable and cost-effective than conventional coastal engineering and offer additional benefits, as restored ecosystems can support an array of other critical services, including water purification, carbon sequestration, nursery for fisheries, and space for wildlife and recreation. Also nature-based solutions have greater potential to self-maintain and face change than traditional engineered approaches. In some countries forward-looking policies have begun to encourage pre-disaster spending (both public and private) that explicitly supports the use of natural infrastructure for risk reduction driving innovation towards new solutions for both preventative and recovery efforts.
National Institute of Marine Sciences and Technologies	<ul style="list-style-type: none"> - Launch studies to assess the effect of CC on coastal regions, - Sensitize governments to launch anticipatory actions to combat the effect of CC
Ministry of Economy – Palestine	<ul style="list-style-type: none"> - Activating the penal code for violators and those who cause environmental pollution - Adopting entrepreneurial ideas to solve these problems - Financial plans to implement reform projects annually - Activating the services policy between the countries of the Union in facing these challenges through cooperation among them by forming teams to determine the size of these problems and cooperation in facing them



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Alma Mater Studiorum University of Bologna	Increase scientific knowledge on specific climate change impacts in the Mediterranean coastal areas and propose nature based solutions as much as possible
AMFORHT	Elaboration of recent studies about impact of climate change on Tourism coastal activities
Presa Puente Estrecho de Gibraltar, SA	The Mediterranean, due to its strategic position, is the only sea we can protect from the rising waters of the Atlantic Ocean as a result of the polar thaw. With this project, 24 countries can benefit at the same time and so will not have to do so individually (See MOSE in Venice); moreover, there are more than 15,000 islands and thousands of km of coastline that can be protected.
DynMed Alentejo - Association for Studies and Regional Development Projects Dese Projects	Protect what we already have and prepare people and places for the effects of the changes that are known at this time.
Tunisian Association of Coastal, Port and Maritime Engineering (ATIM)	Set up a system of prediction and numerical modelling to evaluate the impacts of the solutions to be implemented
UNIVERSIDAD DE MURCIA	Promote actions such as smart cities but in other areas and sectors: smart MPAs, smart ports, smart wetlands and coastal habitats management. Our research group is working on this (Smart marine protected areas)



<p>RAED - Arab Network for Environment and Development</p>	<p>Very clear timetabled realistic adaptation measures for the coastal zones including MPAs. This is again to be joined with very clear cooperation mechanism between the north and south and a robust stakeholder engagement.</p>
<p>ECONCRETE</p>	<p>Scientific research and confidence in the scientific experts should be addressed. Ecological engineering of shorelines schemes is an evolving discipline with the aim of building more inclusive, resilient, and safe coastal and marine structures for people and nature that maximize benefits for ecosystems, society, and economies. To achieve a significant ecological uplift in urban waterfronts and coastlines there is a need for large-scale implantation, calling for practical solutions that can be simply and cost-effectively implemented by the conservative construction industry. In an era of accelerated coastal development, we must promote innovative ways for developing more productive urban coastlines: “Living” urban/hard waterfronts that generate thriving habitats, instead of barren concrete seascapes. The application of innovation, new technologies and designs that include and adapt to natural ecosystems and marine habitats is revealed as indispensable to face Climate Change.</p>
<p>BETA Tech Center, UVic/UCC - Interreg MED Green Growth</p>	<ul style="list-style-type: none"> - To implement nature-based solutions when possible - To conserve natural coastal zones, or to promote the restoration of them, and to avoid urbanization with sustainable urban planning - To apply a Circular Economy approach in the process of transforming the way we produce and consume goods and manage waste in coastal cities
<p>METU Institute of Marine Sciences</p>	<p>Invest in science and capacity development</p>
<p>MedCities</p>	<p>Coastal protection strategies and plans should overcome the overlapping competences as and become really integrated, based on the best available knowledge and considering the complexity of marine, costal and terrestrial</p>



	ecosystems. Coastal protection strategies must go hand in hand with river basin ones. We need to pass from “holding the line” to assume quite a degree of variability in our coastline , accept managed retreat as an option and explore the full potential of nature based solutions investing on the restoration of crucial coastal habitats as dunes systems and wetlands. The location of all types of infrastructures needs to also reconsider in territorial and city planning, maintaining at the coastline only those which cannot be elsewhere. According to this, a directive seems to be needed in order to make the member states to preserve their shores from extreme urbanization (housing, ports, etc.). Non-MPA dunes, wetlands and coastal ecosystems must be protected by urban and territorial plans and laws. A Mediterranean inventory must be created in order to protect those areas.
REGION WESTERN GREECE	Targeted projects for stakeholders on coastal erosion and other imminent threats as a result of climate change in which best practices will be adopted and share among partners.
University of Siena	First of all act for mitigation!
National Research Council of Italy	Launch an integrated Programme on climate adaptation and mitigation strategies coupling Climate Change and Blue Growth activities. The Programme shall target the Mediterranean coasts tackling the impact of global change on Mediterranean marine ecosystems (food webs, biodiversity, habitats) and therefore on the following key social and economic drivers: fisheries and aquaculture, tourism, transport routes. Exploit appropriate observing systems (coastal-monitoring, early warning, platforms, etc.), adopt MSP tools to support management policies and share good practices and awareness raising of the populations among “maritime” cities to finally define a new green-blue strategy for the sustainable development of coastal cities, towards a zero emission circular economy, a reduction of pollution in adjacent shallow or deep seas, a wiser use of fresh water reservoirs, a preservation of fragile ecosystems and a mitigation of the impact of accelerating sea level rise.
WWF	- Ensure ecosystem resilience to climate change by protecting key functional habitats and species and by achieving sustainable development within the limit of marine ecosystem



	<ul style="list-style-type: none"> - Support the development of new Green/Blue infrastructures to achieve an interconnected network of managed areas able to deliver ecosystem services - Integrate and mainstream Nature-Based Solutions (NBS) within National Action Plans, climate actions and initiatives, and climate policy-related instruments - Increase international and national, and public and private funding into NBS - Develop new efficient restoration plans for degraded coastal and marine habitats such as seagrass meadows, macroalgal forest, coralligenous assemblages, and coastal wetlands and develop new technological solutions in coastal infrastructures (i.e. eco-engineering as artificial nursery areas) - Support ecosystem-based ICZM and ensure it includes measures to enhance carbon sequestration and/or to protect carbon sinks.
Ministry of Agriculture, Maritime Fisheries, Sustainable Development, Water and Forests: Maritime Fisheries Department - Morocco	Each country must have a national strategy to deal with climate change. But the strategies must be complementary.
Malta Maritime Forum	Land reclamation and underwater mining should be monitored to ensure that they follow set rules to safeguard the environment.
MedPAN, the Mediterranean Marine Protected Areas Network	<p>The role of Marine protected areas must be considered as a marine spatial management tool in supporting ecosystem-based adaptation and mitigation to climate change (see recommendations from the 2020 Mediterranean MPA Roadmap / axis 5 - 2nd edition of the Mediterranean MPA Forum in Tangier in 2016).</p> <p>Interesting recommendations from the MPA-Adapt Interreg Med project (coordinated by IUCN Med).</p>



Med Blue Growth community	<ul style="list-style-type: none"> - Mainstream Nature-based solutions into national plans related to climate mitigation and adaptation, such as the NDCs (Nationally Determined Contributions) and NAPs (National Adaptation Plans) required under the Paris Agreement and DRR (Disaster Risk Reduction) plans in accordance with the Sendai Framework. - Sustainably manage coastal and marine ecosystems, including wetlands, to enhance their capacity as carbon sinks and climate buffers, restore depleted fish stocks and protect marine biodiversity.
eco-union	Climate change impacts should be well assessed and shared to regional, national and local policy and decision makers in order to promote adequate policies and actions of mitigation and adaptation, based on Nature and Ecosystem Approach.
Green Community NGO	Climate change as a global threat couldn't be faced in a reactive response, but rather through proactive measures, where the big polluter countries should abide by the recommendations of international treaties (The Paris Agreement, The Kyoto Protocol) in a compulsory way, not to be a choice! Otherwise, the impact of isolated, localized interventions at the national level, even consolidated, couldn't reach the desired results of mitigating the repercussions of the climate change. The outbreak of COVID-19 pandemic and the global freezing of airplanes navigation, cars traffic and factories' emissions, a clear decrease in air pollution has been noticed, which will reflect positively towards mitigating the effects of climate change, shows that globally synchronized measures is the only way to reach plausible results in this regard. This time was compulsory, we hope that we continue adopting it with free will!
ECOCEAN	I don't see how we can fight rising sea levels. Ports need to be able to reduce their emissions. Ports need to electrify their infrastructure in order to militate against emissions at quayside.
Community Assistance and Development (ASCOM)	<ul style="list-style-type: none"> - Reforestation of trees for the fixation of the dune barrier; - Prohibit all digging activities on the coastal dune; - Ensure regular maintenance of the infrastructures;



<p>Agence nationale des ports Maroc</p>	<p>Raise awareness among designers of new projects and adapt existing projects</p>
<p>MedWet</p>	<p>The Mediterranean Basin has lost about 50 % of its coastal wetlands over the last 50 years due to uncontrolled coastal infrastructure developments and intensive water abstraction, both for tourism, agriculture and industry. But what is less known and not enough recognised is that healthy wetlands are among the best available and cost-effective nature-based solutions to mitigate and adapt to climate change effects that are already drastically affecting Mediterranean coastal communities, local economies and natural ecosystems.</p> <p>The many services provided by wetlands, and in particular coastal wetlands, to fight climate change include:</p> <ul style="list-style-type: none"> - Absorption and sequestration of carbon: Wetlands are among the world’s most significant carbon sinks (estimates show they store up to 40% of the global carbon emissions) - Contribution to mitigate temperature rise during hot waves - Flood defences: coastal wetlands disperse and absorb excess water in case of floods due to extreme weather conditions and prevent soil erosion - Protection from sea level rising: along the coast, wetlands buffer the land from waves and wind in case of coastal storms and protect cities and other coastal settlements from flood, farmland, drinking water supply and fresh water ecosystems from salty water intrusion. - Water provision and purification: while climate change reduce the quantity and the quality of water and demand continue to rise, wetlands store and clean our drinking water - Protecting a very rich biodiversity (countless of bird, fish, flora species, etc.) that ensures better resilience of coastal areas to climate change - Food provision: sustainable aquaculture and coastal fisheries can both provide important low carbon sources of nutrition while reducing net carbon emission <p>To ensure that coastal wetlands continue to provide such positive responses to climate change and benefit the well-being of future generations of people and nature, the following measures have to be put in place and effectively implemented in all the Mediterranean countries:</p> <ul style="list-style-type: none"> - Forbid the conversion of all protected and non-protected coastal wetland ecosystems into farmland, urbanised, touristic or any other artificial coastal developments



- Encourage increased public and local stakeholder awareness of the importance and values of coastal wetlands as an efficient and cost-effective tool to tackle climate change for coastal human well-being, local economies and natural ecosystems
- Enhance local governance and stakeholder participation for their sustainable management, conservation and restoration (in Oristano Sardinia, effective local community governance structures are in place to ensure sustainable management of the coastal wetlands)
- Strengthen national legal and policy arrangements to conserve existing coastal wetlands and their enforcement. (For instance, In Morocco and Algeria national wetlands strategies are in place and developed, new Ramsar sites have been designated as recommended under the Ramsar Convention)
- Fully integrate coastal wetland conservation into coastal land-use planning and management with the involvement of all relevant national and local stakeholders
- Apply targeted and inclusive economic and financial incentives for coastal communities and businesses to safeguard and restore coastal wetlands
- Develop and implement management plans with nature-based solutions for all coastal Ramsar site and other protected coastal wetlands (in Oristano, for instance riparian areas of lagoons/ponds and wetlands are restored with native plants, buffer strips using natural vegetation are used to replace old concrete cladding to mitigate impacts of farming run-off, reduce erosion, alien species are removed, etc.)
- Ensure connectivity of marine and terrestrial coastal systems integrating conservation measures on land and sea to preserve natural environmental processes
- Ensure water flow from inland watersheds to coastal wetlands and reduce water abstraction
- Carry out or update national inventories of coastal wetlands
- Recall Mediterranean countries' commitments vis à vis the Ramsar convention, the Barcelona convention, the Paris Agreement on Climate change, the global biodiversity strategy and in achieving the Sustainable Development Goals in 2030
- Ensure coordinated actions at the regional level to ensure enhanced conservation, sustainable management and restoration of coastal wetlands and exchange of good practices between Mediterranean countries.



NOAH ReGen	<p>NOAH ReGen proposes to create NOAH EcoReGions to provide a holistic response to this issue.</p> <p>1) we deploy NOAH's Arks, the headquarters of Blue Growth2</p> <p>) we invite members of the NOAH Blue Consortium and incubated start-ups, supported by the financial platform Blended NOAH's BEIP, to deploy from NOAH's Arks, innovative solutions (off-shores) for major themes (food safety, wast management, energetic transition, coastal & biodiversity conserency)....)</p> <p>3) NOAH Blue Consortium members and incubated start-ups, supported by the Blended NOAH's BEIP financial platform, are invited to deploy from NOAH's Arks, solutions for the regeneration of coastal lands and rivers (wetlands): agroforestation, river clean-up, coral regeneration. Indeed, marine pollution, which causes cascading reactions, is unfortunately impossible to treat once at sea. It is easier and cheaper to operate upstream, on land.</p> <p>For the "blended finance" part, it is necessary to rely on a "financial revolution" and to create adapted tools: Blue Credits, Blue Bonds, Blue Crowdfunding, Blue stock exchange, Blue coins...</p> <p>Such tools connected with impact measurement agencies will also be able to rely on carbon credit to de-risk investments and mobilize the private sector.</p>
IMFMM	<p>To programme awareness-raising measures for maritime actors, port users, local residents, etc.; - To provide a framework for maritime activities in coastal towns (tourism, fishing, water sports, port activities, etc.); - To strengthen measures to monitor the exercise of these activities by local State authorities; - To establish an appropriate legal framework to reduce the impact of climate change on ports and coastal towns.</p>
INSTM - Tunisia	<p>Reduction of carbonic gaz emission in different ways and minimize terrestrial wastes</p>
Regional Cluster "North-East"	<p>The increase in economic activities, high urbanization, increased resource use and population growth is continuously increasing the vulnerability of the coastal zone. This vulnerability is now further raised by the threat of climate change and accelerated sea-level rise.</p>



	<p>Adaptations may reduce negative impacts and in some cases can even enable some systems to take advantage of the new conditions induced by climate changes. Human-induced stresses and non-sustainable management options can greatly influence the vulnerability, sensitivity and adaptability of a system. In addition, the economic and institutional context influences the capacity of the system to adopt suitable responses to climate change.</p>
<p>Centro de Ciências do Mar, Universidade do Algarve</p>	<p>It is clear that more land needs to be returned to its initial state by allowing the development of more extensive dunes and wetlands. Unfortunately, savage occupation of a large area of the Mediterranean coast has led to the current situation due to unbridled economic interests. There is no buffer zone between wetlands and buildings. Mega developments are still ongoing in Spain and Portugal despite the obvious threats from the sea. Legislation, perceptions and council land management need to be in step. It is not feasible to think of sea protection for all cities at risk. New planning and retreat will be necessary. In some places it may make sense to build defences but in others the land should be returned to the sea to build defences. It is important to create a buffer zone and not spend millions and millions on fighting a battle we are going to lose. Clearly, new developments planned for coastal regions (plenty more around) should be stopped, there should be proof that the area under development is outside the risk region. Public interest declaration is used to overcome all laws and sense to permit large building projects to advance. Incentive schemes for councils/countries that take protective steps.</p>
<p>CETMAR</p>	<p>A good response always needs good evaluation and knowledge of the situation. As a consequence, long time series of data will be needed to validate models, so Ocean Observation Systems must be fostered, including in-situ and satellite data.</p>
<p>Lebanese University - Green Community</p>	<p>Less Carbon dioxide emissions, green energy strategies and massive campaigns of reforestation even though it won't be on coastal zone areas.</p>
<p>CIPPM</p>	<p>Climate change means that current port infrastructure is severely affected (e.g. the Gloria storm in Catalonia and Occitania, January 2020) and no longer serves as protective works. This has led to a climate emergency. A new business model is needed, planning for joint actions, exchange experiences, generate climate prediction models,</p>



	<p>emergency plans, training of workers, etc. The sector needs to move towards a more sustainable management model, applying new technologies and based on the Blue Economy.</p>
<p>Council of the Oriental Region</p>	<p>Rationalise seaport policies to preserve the environment-preserve coastal heritage</p>
<p>EMILIA-ROMAGNA REGION</p>	<ul style="list-style-type: none"> - In Governance and management of coastal areas a change of paradigm is needed: the littoral and the beach must be considered as the “first protection structure” for the inland against climate change effects (sea level rise, increase frequency of severe sea storms, salt water intrusion, etc.), beyond its business and recreational function traditionally considered. - Actions on the littorals (beaches, low and high cliffs) should be driven firstly by the concept that we are managing and intervening on the main protection structure for the inland (human settlements, infrastructures, habitats, natural protected areas, etc.); - The inland protection function represented by littorals, must be considered in the evaluation of the ecosystem service of beaches and cliff systems; - For climate change adaptation, the inland protection function of the littorals must be managed and enhanced in an integrated way, taking into consideration interactions between human activities and infrastructures and interactions between these and the environment, (ecosystems, habitats, natural protected areas) and the effective cost-benefit of the different possible solutions; - The value of inland protection function of the littorals, must be considered properly (giving proper weight, with scientific methods) in the cost-benefit evaluation of the different solutions, for the human being itself, for ecosystems, habitats, etc, as well as also coastal interventions should be made accountable; - In order to give an effective System-Response at Mediterranean level to the challenges of the climate change along the coasts, they should be promoted and supported new and existing initiatives, as the Bologna Charter initiative (www.bolognacharter.eu) sharing common strategy, creating synergies, exchanging practices and technologies, enhancing the cooperation between the Authorities (today 29 Authorities in the Med area



undersigned plus the CPMR-IMC), of different government level, competent on coastal protection and management. The Bologna Charter policy paper and its Joint Action Plan indicate measures and lines of action that would be encompassed in a effective strategy for Adapting to climate change the coastal areas and human settlements, infrastructures, natural protected areas along with:

- deepening knowledge on phenomena, modelling, territory response, support technology;
- enhance/restore the resilience of the coastal systems in terms of restore opportune spaces in order to let the natural processes develop and “be absorbed” without directly affecting the elements of interests;
- move back settlements, infrastructures, habitats that have to be protected; settlements and infrastructures can be also -or in alternative- raised up according with climate change effect scenarios, sea level rise, high waters, storm surges, etc.;
- adopt early warning systems based on forecasting modelling, coupled with civil protection plans, protection devices, measures, or evacuation plans;
- reach and dynamically maintain -according with changing scenarios- opportune quota of the littorals in relation to expected sea level rise, higher winter waters -highly probable- or severe storm surges - less probable-, salt water intrusion, etc. (i.e. with beach nourishment, “sand motor” systems, dune systems restoration, etc.);
- consolidate low and high coastal cliffs subjected to erosion or landslide/rockfall threatening specific elements of interests;
- restore river solid transport to re-activate the natural nourishment processes of the littorals;
- reduce the withdrawal of fluids from the underground (water, gas, etc.) to reduce subsidence in the coastal areas and/or activate fluid re-injection operations in the reservoir rocks underground;
- Nature-based solutions should be preferred, normally, despite to hard works, anyway always according with evidence of cost-benefit evaluation, including costs of maintenance and of monitoring of effectiveness and, for hard works also including its reversibility and the relative costs;



	<ul style="list-style-type: none"> - Moving backwards (of settlements, infrastructures, habitat, etc.) and “no intervention” should be options always taken into consideration in evaluation of actions and impact assessment, both at large and local scale interventions or in overall strategies.
ASSOCIATION DE PROTECTION LITTORALE MAAMOURA – APLM	<p>Prepare a list of recommendations/adaptations to deal with the negative effects of climate change. Carry out proactive actions on the ground to strengthen the resilience of existing infrastructure.</p>
Euroregion Pyrenees Mediterranean	<p>Priority must be given to allowing the restoration of anthropised areas (dunes, beach edges...) and having neutral buffer zones of buildings or concrete or sparsely populated areas capable of absorbing the major climatic crises that are becoming more and more frequent.</p>
Ministry of Energy, Mines and Environment/Department of the Environment	<p>Measures to be implemented to address the impacts of climate change on coastal cities - the Coastal Law needs to be strengthened through its implementing legislation and to ensure the implementation of the Coastal Law and the National Coastal Plan.</p>
NGO COMMUNITY ASSISTANCE and Development ASCOM	<p>Protect coastal dunes and promote initiatives such as dune fixation to reduce coastal erosion.</p> <p>Prohibit developments that cause pollution and prohibit the collection of sand for construction purposes close the gaps to mitigate flooding and marine incursions from which several countries suffer.</p> <p>Conduct awareness campaigns on the impacts of climate change and establish projects on mitigating the effects of climate change through beach clean-up.</p>



<p>Generalitat Valenciana</p>	<p>The participation of the UfM in the negotiation of direct management programmes of the European Union and then of the European Structural and Investment Funds, in order to make these objectives present, followed by better coordination with the European Commission (DG CLIMA, DG ENVE, DG REGIO and others).</p>
<p>DIRECTION DES PORTS ET DU DOMAINE PUBLIC MARITIME</p>	<ul style="list-style-type: none"> - Establish vulnerability maps of the Mediterranean coasts; - Set up financing mechanisms for the protection of the various coastal zones according to the level of their vulnerability to climate change; - The need for scientific data (climatic, biological, chemical, physical, etc.), making it possible to achieve sustainable and integrated management of coastal zones and the marine environment; - Integrate vulnerability maps into development maps in order to define sensitive areas and ensure the sustainability of development. - The adaptation of port infrastructures to climate change, notably through the raising of the coastline of port protection works. - Integrating climate change and environmental sustainability into existing and future plans, policies and laws on the blue economy; - Designing and strengthening the framework for the promotion of climate-proof and environment-friendly infrastructures (green ports, use of renewable energy technologies, etc.); - Developing and strengthening the framework for the promotion of climate-proof and environment-friendly infrastructures (green ports, use of renewable energy technologies, etc.); - Developing and strengthening the framework for the promotion of climate-proof and environment-friendly infrastructures (green ports, use of renewable energy technologies, etc.). - To improve disaster risk reduction through the establishment or strengthening of early warning systems (knowledge platforms, training and capacity building, identification of the most exposed areas, information campaigns, etc.); - To strengthen the capacities of member countries for the preparation of innovative financial packages for infrastructure resilience projects to climate change;



<p>Université Mohammed V de Rabat</p>	<ul style="list-style-type: none"> - Promote research and scientific cooperation on climate change and improve the availability and use of reliable data, information and tools to ensure better informed decision-making. - Support the implementation of effective, efficient and sustainable adaptation measures, promoting nature-based solutions, including for wetlands, by rehabilitating their ecosystem services. - Strengthen the resilience of the most vulnerable coastal populations, protecting the ecosystems on which they depend for their livelihoods. - Create education-industry-government (hubs) networks at the Mediterranean level to map existing educational activities, enable the pooling and sharing of best practices, develop joint training programmes with the support of the MedECC and promote transnational mobility of learners and teachers. - Promote institutional, policy and legal reforms for the effective integration of climate change adaptation measures - Leverage existing and emerging climate finance mechanisms, including international and national instruments
<p>Legambiente Onlus</p>	<p>The impacts of climate change in the Mediterranean area, particularly on coastal cities and beaches, could be terrible if no action will be taken as soon as possible. There is no shared policy between states to fight this situation. What we need is to agree on policies to protect the coastal areas from new infrastructures and buildings, and to take action on adaptation policies in all countries. We need to share best practices and policies, measures to defend people and urban spaces from the impact of flooding and heat waves, and to put resources to finance these interventions.</p>
<p>Cartagena Oceanographic Research Institute</p>	<p>Perform local outreach campaign to involve the society on the climate change problem, how it affects locally and make them part of the solution</p>
<p>Universidad Politécnica de Cartagena</p>	<p>We need better local forecast model merging oceanographic, meteorological and ecological model to help us to understand better the consequences of the climate change on the coastal areas.</p>



<p>Intermediterranean Commission of CPMR</p>	<ul style="list-style-type: none"> - Climate neutrality should be achieved by all EU territories by 2050 without excluding any region and without threatening the accessibility of peripheral regions, only accessible by airway and seaway. - The Regulation(s) that would guide the transition should ensure a certain level of flexibility allowing different energy sources and modal mixes depending on territorial characteristics. - Peripheral maritime regions should be considered as innovation labs to develop and test new and innovative transport solutions, while a fitted transport investment Plan towards climate neutrality by 2050 should be drafted. - The inclusion of the Motorways of the Sea in the TEN-T Regulation as part of the Green Deal should be sought too. - In this sense, successful practices could be explored for transfer between all shores of the Mediterranean so that the whole of the basin can keep evolving towards more climate neutral economies. It is important that threshold be increasingly aligned, investments accordingly performed depending on national situations, and potentially the idea of a Mediterranean “Green Deal” co-developed and co-owned for implementation by all Mediterranean countries. <p>Energy efficiency & CC: (ENERMED, MARIE, ELIHMED, SHERPA Interreg Med projects). Some recommendations advised for a more centralised and integrated approach regarding the supervision of local energy agencies and private stakeholders, the coordination of financial and administrative instruments and procedures and the establishment of energy strategies at the regional levels. Other innovative options using energy could be applied to agriculture in Mediterranean territories facing the effects of climate change, using solar/photovoltaic irrigation infrastructures (H2020 SolAqua project). Transnational cooperation is a clear added value in this sense, mainly in terms of capitalisation, communication and exchange of practices.</p> <p>Biodiversity and climate: New Marine Protected Areas (MPAs) should be designated and the management of existing ones should be strengthened.</p> <ul style="list-style-type: none"> - Pressures from various economic sectors in the Mediterranean Sea should be reduced to allow the preservation of its biodiversity, mostly of its existing MPAs. It is important to consider pressures by sectors, but also that being accumulated from sector to the other, their impacts are much higher than when only studies then sectorally.
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	<ul style="list-style-type: none"> - Local and regional governance and transborder cooperation are key tools for the efficient implementation of strategies regarding the protection of biodiversity, while the elaboration of regionally accepted ecoregional planning units and platforms designed upon geopolitical and scientific consensus are essential. - Mainstream nature-based solutions into national plans related to climate mitigation and adaptation, such as the NDCs (Nationally Determined Contributions) and NAPs (National Adaptation Plans) required under the Paris Agreement and DRR (Disaster Risk Reduction) plans in accordance with the Sendai Framework. - Sustainably manage coastal and marine ecosystems, including wetlands, to enhance their capacity as carbon sinks and climate buffers, restore depleted fish stocks and protect marine biodiversity.
<p>UNEP/MAP Barcelona Convention</p>	<ul style="list-style-type: none"> - Define an ambitious strategy of adaptation to climate change, as per the specificities of the Mediterranean sea and coasts, building upon the mechanisms developed in the UNEP/MAP – Barcelona Convention decisions, projects and initiatives, such as inter alia the Regional Climate Change Adaptation Framework for the Mediterranean Marine and Coastal Areas and the Common Regional Framework for ICZM; - Evaluate the environmental, economic and social impacts of sea level-rise and coastal hazards, as well as increase of sea temperature, acidification of sea and non-indigenous species proliferation associated with climate change, with a view to ensure mitigation measures, integrated coastal zone management, marine spatial planning and appropriate infrastructure development; - Boost capacity building and involvement of the scientific community, the private sector and civil society in designing and implementing adaptation strategies, and mobilizing funding resources through inter alia subsidies’ reforms and efficient green tax collection; - Consider Nature-based Solutions (NbS) as effective measures for ecosystems function preservation, climate change adaptation and mitigation. Bottlenecks in implementing and scaling-up nature-based solutions should be identified at national and local levels, including administrative and behavioral aspects, and substantial effort invested in relieving these bottlenecks. - 5. Strengthen the socio-economic and science-policy interface components of Mediterranean Experts on Climate and environmental Change (MedECC).



<p>Underwater Gardens International</p>	<p>There is the need to make society understand that having healthy coastal ecosystems is the key to "fight" climate change consequences. Policy makers should also integrate the idea that no development is sustainable and profitable (in long terms) if ecosystem functions and services are at risk. Holistic business models that integrate habitats conservation, economic growth and environmental education should be promoted.</p>
<p>European Environment Agency</p>	<p>Applying the knowledge available for decision-making under uncertainty, e.g. through science-policy dialogues; Improving the climate resilience of long-term infrastructure; better integration of the strategy's actions with each other and with the international dimension of adaptation; Better monitoring of the implementation and effectiveness of national adaptation strategies and plans; Encouraging the establishment of local adaptation strategies in countries; Improving the analysis of the distributional effects of climate change impacts and adaptation measures. Areas for improvement include, among others, exploiting synergies between climate change adaptation, climate change mitigation and disaster risk reduction; facilitating ecosystem-based adaptation; better mainstreaming into the EU maritime and fisheries policy; reinforcing the links between public health and adaptation; and better adaptation support to investors and insurers, including private investors.</p>
<p>Generalitat de Catalunya</p>	<p>To not increase vulnerability of coastal areas by exposing them to climate change impact. In order to decrease the exposure to this impact and save these zones, building up of any infrastructure must be forbidden and put into an end.</p> <p>Buildings and /or infrastructures with an elevated risk due to the impact of climate change have to be removed from the coastal areas and therefore placed somewhere else in the hinterland.</p> <p>In order to not waste money and keep its natural cycle, beaches must not have any maintenance after being stroked by a storm (like Gloria). Ecosystems follow their own natural cycle of cleaning and maintenance so human aid is barely needed in most cases. It is key to boost on natural defenses: One of the notables natural improvements to reduce the impacts of storms in</p>



	<p>beaches are the beds of poseidonia oceanica that help the cleaning of the bottom of the sea and increase the marine life of the ecosystem. Moreover sand dunes work as shields to prevent the erosion caused by waves. Marine Protected Areas are key in this sense.</p>
<p>CCDRAlentejo</p>	<p>To support actions to disseminate to the public the global and regional impacts already unequivocally associated with ongoing climate change, so that it becomes clear that climate change is there and is as real as terrestrial gravity.</p> <p>Produce more heat-resistant agricultural crops, replace business trips with video conferences wherever possible, eat less meat and dairy products, reduce food waste, consume local and seasonal products.</p> <p>Think about policy measures to mitigate and contain the effects on coastal areas with a high risk of flooding, and introduce them in planning and land-use planning instruments. Change depends on the willingness of citizens and governments to engage in this necessary transformation.</p>
<p>Egyptian Environmental Agency</p>	<p>At Regional Level:</p> <ul style="list-style-type: none"> - Support the identification of coastal vulnerabilities for different coastal regions using different scenarios (i.e. climate and socio-economic). - Develop a common knowledge of climate change's impacts on coastal ecosystems, and recognize the role of ecosystems in mitigating and adapting to climate change. - Cooperate in improving education, awareness-raising, human and institutional capacity on climate change adaptation, impact reduction and early warning. - Encourage nature-based adaptation of climate change (soft structures) rather than manmade structure that affect coastal shoreline. - Support the implementation of a capacity-development programs on climate change risk and shoreline management for hotspots and vulnerable coastal areas. - Support capacity development and technical assistance in the field of recent monitoring, assessing and management tools of climate change threats.



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- Encourage experiences sharing and best practices related to developing, maintaining and improving observation systems, data analysis systems, numerical simulation and forecasting models.

At National Level:

- Establish an integrated national system for coastal climate observation and prediction.
- Support the integration of climate change measures in national policies, strategies and planning as a cross cutting issue.
- Enhance national policies and actions for mitigating negative impacts of climate change (i.e. salt water intrusion – sea level rise – etc.) in vulnerable areas.
- Encourage the implementation of adaptation projects for local communities in vulnerable areas including economic diversification activities to enhance their adaptive capacity.



Theme 6. Blue skills (re-skilling and upskilling), careers and employment	
<i>What are the best modalities for upskilling and reskilling in the blue economy sectors to increase employability and entrepreneurship substantially, to bridge and to empower women and youth entering labor markets, while fighting against brain drain? How can public and private sectors' partnerships work in operational terms and how can local authorities play a stronger role? Suggestions on how the Med Blue Economy Stakeholder Platform could be used to exchange training tools and promote mobility programs, would be welcome.</i>	
EMUNI	An evidence-based study is needed for where the needs in terms of skills are. A lot of statements are based on impressions and anecdotal. Give the youth an ambitious policy goal to work towards it (a model sustainability region). Shorter trainings on topical issues that complement more substantive studies are a good tool.
IOC-UNESCO	The private sector at local scales understand better the opportunity to interact with other sectors than at the larger scales. Diversification of traditional maritime sectors could be a start. The development of marine protected areas, the declaration of historical sites to promote the common culture in the Mediterranean could be useful. Mobility programs for local leaders and stakeholders to share experiences and lessons learnt amongst maritime private sectors have shown its utility in other parts of the world. Having National Authorities on board and providing full support to these initiatives and incentive the development of new ones at local scale is the best recipe, replication of good practices. The majority of these initiatives do not require major financial investments.
FAO	FAO can offer extensive e-learning to all blue economy sectors linked to food. E-learning for maritime staff, passengers, and people linked to the value chains are essential to spread the awareness. Sustainable Food Systems platform in the Mediterranean Region can offer an approach to mainstream good practices. The Food summit in 2021 could take this platform (FAO UfM CHIEAM) as an example.



INSTM - Tunisia	Enhancement of blue strategies with links between environmental NGO's and socio-economy enterprises and reinforcement the role of local authorities for public sensibilisation about the circular blue economy importance.
National Institute of Oceanography and Fisheries (NIOF),Egypt	Workshops and regional conferences and Training programs
University of Bolognae	Mediterranean marine science must reinforce its position by building a greater knowledge base, by training the next generation of practitioners to think across disciplines, by breaking down traditional barriers across sectors and countries, and by communicating a wider awareness of the seas to the general public. We need to educate the next generation of marine urban designers and engineers, resource managers, and scientists in development and application of eco-engineering and nature-based solution for marine infrastructure and spatial planning
CNR	Incentives to startup in this field.
National Institute of Marine Sciences and Technologies	<ul style="list-style-type: none"> - Training of young people in the EB sector, - Governments must encourage the creation of new jobs in the EB sector
Ministry of Economy - Palestine	<ul style="list-style-type: none"> - Create a platform and permanent members of the blue economy - Activating the role of members on this platform in every conference and symposium locally and internationally - Add other sectors to this platform by listening to their opinions and involving them in decision-making - Presenting pilot projects to governmental and private institutions and providing them with job opportunities - Providing scholarships for entrepreneurial ideas and benefiting from their experiences and experiences
Alma Mater Studiorum University of Bologna	Better connect with EU research platforms such as Copernicus, EMODnet, BlueCloud, etc. Focus a large postdoctoral training (Marie Curie) for the Med students, create networks, etc.



AMFORHT	Yes, indeed a platform which allow the private and public actors contributing to Educational process, courses and alternate trainings will be very useful to upskilling and reskilling in the blue economy
Presa Puente Estrecho de Gibraltar, SA	Education and awareness is key to improving climate change adaptation and mitigation (Climate Crisis)
DynMed Alentejo - Association for Studies and Regional Development Projects Dese Projects	A true partnership between higher education institutions, experts in this scientific subject and local actors directly related to the key issues of the circular economy.
Tunisian Association of Coastal, Port and Maritime Engineering (ATIM)	At this stage, I think that the blue economy needs to be popularized among all the peoples of the Mediterranean and especially among students. Also, it is important to disseminate the existing platform among young people and the general public.
Cluster Maritimen Tunisien	<p>The importance of arriving at a common definition of the blue economy, which may include, among other things, all human activities dependent on the sea and/or affected by land/sea interactions in the context of sustainable development, considering that the sea is the future of the earth, and encouraging national and regional authorities to change and develop the mentality of young citizens towards seafaring occupations, including industrial and service sectors such as aquaculture, fishing and blue biotechnology; coastal and maritime nautical tourism, maritime transport, shipbuilding, ship architecture and repair, ports, energy, waves and swells and renewable marine energy, including offshore wind energy, which represent the main traditional and emerging maritime economic sectors in the Mediterranean basin.</p> <p>The importance of human capacity building and the mobility of students, researchers and workers in order to encourage the creation of blue jobs, the establishment of one or more networks and/or the strengthening of existing networks between education, training and research institutions concerned with maritime and marine professions</p>



	that meet the needs of dedicated professions; would be beneficial for the creation of new curricula, curricula and professions in the blue economy, for example in the fields of new technologies (shipbuilding and naval architecture and the nautical and fishing industries...), maritime safety and seafarers' safety and blue intelligence, and to stimulate skills and employability in the Mediterranean basin.
UNIVERSIDAD DE MURCIA	The creation and strengthening of alliances among stakeholders should be encouraged and an interesting way to do this would be to use the platform and create 3 forums: one for training, one for information exchange and participation, and another for generating joint initiatives among actors who may have similar ideas or projects and facilitating their implementation.
RAED - Arab Network for Environment and Development	Regional NGO networks can play an important role in upskilling and reskilling the sector. Strong awareness raising and capacity building campaign. NGOs has an important role to play to achieve this goal. The MedBlue Economy Stakeholder Platform is the right place to discuss and agree on this campaign. There should be enough resources to enable the active committed partners to get involved in the campaign. PPP is needed to ensure sustainability.
The-Marketer.net / HOMERe Permanent Secretariat South Shore Mediterranean	For fighting the Brain Drain; allow me to suggest consulting the HOMERe Programme: it is designed for helping youth employability and retaining skills inside the Mediterranean region through designed approach that engage: educational entity, student, business association and private sector. Again, to "upskill" and "reskill"; this will require to assess through studies / research on ground to understand the current situation and circumstances and required skills to exist inside the institution. The institution can tell more about their future needs. Concerning the training, it might be advisable creating an online platform for training - supported by Multilanguage - allowing usage cross Mediterranean. Still to re-emphasize, training expected outcomes should be directly related to the required skills and competencies to gain.
Mediterranean Information Office for Environment, Culture and	Enhancing employability and particularly of women and youth does not start with upskilling and reskilling but with education "per se". The lack of awareness is not limited to the existence of tools on reskilling, etc., but on blue economy within the sustainable development concept itself and on the needed conditions and tools to achieve them.



<p>Sustainable Development (MIO-ECSDE)</p>	<p>Then comes, of course, the inadequacy of current Mediterranean Higher Education and vocational training systems to satisfy the needs not only of enterprises but also of public institutions, local authorities and CSOs to support appropriate Governance.</p> <p>The Mediterranean Strategy for Education for Sustainable Development (MSESD) endorsed in 2014 by the Ministers of Environment of the UfM and its Action Plan adopted by Ministries of Education in 2016 offer a useful guide framework for specific activities addressing the above issues. There is a need for rapid adaptation of the curricula and the culture of Mediterranean Educational Institutions. The latter should be revisited following consultations with regional (Mediterranean), national and local institutions and stakeholders at all levels. In this exercise the Med Blue Economy Platform may play a useful role.</p>
<p>ECONCRETE</p>	<p>There should be an exchange program similar to Erasmus Mundus or Leonardo which enhances exchange of students and workers of different regions of the Mediterranean to raise awareness of differences and similarities between all the areas of the Mediterranean and strengthen links between countries and people. The MedBlue Economy Stakeholder Platform can be the perfect institution to manage and address such a program.</p>
<p>BETA Tech Center, UVic/UCC - Interreg MED Green Growth</p>	<ul style="list-style-type: none"> - To integrate blue economy in educational programmes (e.g. schools, universities, etc.) - To offer specialized training courses on specific topics of the blue economy sector - To support quadruple helix approaches within transversal projects in order to address the needs of private and public sectors - MED Blue Economy Stakeholder Platform: it should collect the most relevant results of past and existing projects on blue economy; it should give support in the translation of documents, tools, etc. in order to reach a wider audience in the MED region; a "find your partner" section could be developed where needs and offers of users could be posted.
<p>REGION WESTERN GREECE</p>	<p>The Mediterranean Blue Economy Stakeholder Platform could host a “web hub” in which affiliated stakeholders (public sector, institutes, universities, private sector) could announce needs for networking and participation on joined projects addressing all blue economy themes</p>



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University of Siena	Involve schools (especially high schools) in all the projects developed in the area
National Research Council of Italy	<p>The human element is a crucial factor to responsibly unlock the Blue Growth potential of the Mediterranean Sea. The skills gap between the education on offer and the labour market need to be closed by increasing cooperation between academia and industry. The attractiveness of the blue sectors shall be increased too, including towards women, and by means of ocean literacy. A massive exploitation of digital technologies for training purposes, including virtual or augmented reality, can serve these purposes. As far as concern the academia, building on the experiences of existing networks, the following aims can be pursued to prepare the next generation of blue-economy scientists, technologist and entrepreneurs: further promote the alignment of high-education curricula, design joint MSc, PhD programs, short-term scientific exchanges. The Med Blue Economy Stakeholder Platform can serve from one side to integrate and make accessible the educational offer in the area. From the other, to connect incubators, startups, investors, accelerators, entrepreneurs, corporate networks, universities for increasing innovative blue ecosystems. In addition, the development/integration of an electronic platform for e-mentoring of young start-uppers in blue growth acting like a virtual incubator to create a lively ecosystem of entrepreneurs of innovation, can be explored.</p>
Ministry of Agriculture, Maritime Fisheries, Sustainable Development, Water and Forests: Maritime Fisheries Department - Morocco	There is a need to focus on the sustained involvement of women in decision-making gender mainstreaming, and to better encourage the private sector to contribute to support actions and skills training
Malta Maritime Forum	Exchange of educational experiences in different countries assists in understanding cultural differences and enhance unity and direction to common goals in the blue economy.



<p>MedPAN, the Mediterranean Marine Protected Areas Network</p>	<p>sharing of best practices and knowledge must be enhanced especially through regular virtual and presential meetings (annual technical workshops for large groups, regular technical exchange visits in small groups).</p> <p>A permanent training mechanism could also be set-up (see for example the training mechanism for MPA managers coordinated by MedPAN with MPAs playing the role of "training centers" as they will host regular trainings and benefit from tailored training cursus).</p>
<p>Med Blue Growth community</p>	<ul style="list-style-type: none"> - Invest in education and awareness-raising, creating opportunities to develop new Blue Skills at all educational levels, and bridge the gaps between sectors' demands and labor skills by upgrading skills as well. - Public authorities should establish new employment programmes based on the cooperation between industry and education. - Strengthening the sense of Mediterranean community belonging is a precondition to motivate people to contribute with their expertise to the sustainable development of Mediterranean areas, and thus a good means to fight against brain drain. - Filling the skills gap in blue economy sectors. Local and regional authorities should encourage the creation of new "Blue careers" based on key demanding sectors in the Mediterranean such as sustainable tourism at all levels of education, and should promote worker's digital, linguistic, managerial, and ecological skills carrying out tailored vocational training. - Integrated educational programs, taking in consideration the different sectors of the blue economy shall be implemented (e.g. InnoBlueGrowth Horizontal Interreg MED project's Summer School - Kotor - 2019), observing a more global approach for what regards Mediterranean territories as a whole. The blue economy sectors are not independent one from another, most of the times intersect or even converge.
<p>Green Community NGO</p>	<p>I'd suggest that making a non-conclusive list of skills as a prerequisite to be listed among "green blue tourism" labeled destinations, as an incentive to seek upskilling and reskilling. Fostering this incentive with a subsidizing program for trainings and capacity building to obtain these new skills, would also guarantee this trend among the blue economy sector's operators.</p>



ECOCEAN	<ul style="list-style-type: none"> - Providing new skills to port personnel such as waste and pollution management, but also measures in favour of biodiversity. - Implementing actions whose ecological and financial efficiency is almost entirely in the territory concerned (jobs, etc.).
Community Assistance and Development (ASCOM)	<ul style="list-style-type: none"> - Train young entrepreneurs on the economy - Train women and young people on blue economy jobs that allow them to earn a living - Give tax advantages to companies that focus on the blue economy;
NOAH ReGen	<p>Again, NOAH's Arks are designed to meet this. These headquarters offer: start-up incubators, Blue labs, Blue CleanTecs showroom, event and training platforms. In addition, they offer multi-budget hotel accommodation capacity. Based on these NOAH's Arks, it seems necessary to organize regular, thematic and mobile Blue Economy trainings (R&D, industries, finance, politics, best practices...).</p> <p>It would be conceivable to create 4 or 5 specific modules led by experts and players in these themes, encouraging the participation of women and young graduates. These modules would be delivered in turn in each of the NOAH's Arks of the Mediterranean basin with the same facilitators.</p> <p>For example, for each NOAH's Arks, 5 modules, 5x1week alternating with internships in the start-ups incubated for a diploma at the end of the course (such as a master's degree in Applied Blue Economy).</p> <p>The young people would also benefit from the creation of a network of entrepreneurs, experts, BlueCleanTec and would be connected to the financial platform. All the ingredients for the successful creation of new companies or the support of already incubated companies.</p>
IMFMM	<ul style="list-style-type: none"> - Creation of a website or a discussion forum managed by professional entities (public or private to be identified) or by associations with the participation of all the institutions that offer training courses related to the sectors of activity of the blue economy in the Mediterranean where you will find all the training offers, admission criteria, available scholarships, internship opportunities, opportunities for mobility for teachers and students...



	<ul style="list-style-type: none"> - Set up a strategy to popularize blue jobs; - Harmonize training programs as much as possible; - The adequacy between the supply of skills and the demand of the market for blue jobs
Institut National de Recherche Halieutique	<p>Already, in government policies, it is necessary to start considering the blue economy as a priority axis. Allocate a significant budget for continuing education in sectors related to the blue economy</p>
National Institute of Oceanography and Fisheries	<p>The Platform of UN Decade of Ocean Science for sustainable Development</p>
Regional Cluster "North-East"	<p>Adapt and modernise vocational education and training (VET) and general education systems, but do this on a national basis rather than for the EU as a whole. Improve the information provision on skill needs and job requirements. Collaborate with all relevant stakeholders and intensify co-operation in education and training. Strengthen co-operation in sector-specific training measures to provide flexible and up-to-date training offers. Facilitate training co-operations between SMEs - to be supported by national training bodies and sectoral social partner organisations and supported by public funding, along with dissemination of best practices. Enhance flexibility through modularisation of education and training and forms of blended learning, i.e. a mixture of different learning media, learning methods and forms supporting decentralised, self-directed and efficient learning more independently in time and space Conclusions.</p>
Setap Tunisie Gérant	<p>MED-SATT, « ACCÉLÉRATEUR DU TRANSFERT DE TECHNOLOGIES POUR L'ESPACE EURO-MÉDITERRANÉEN »</p>



	<p>This initiative, in active partnership with the CMT - Tunisian Maritime Cluster, is part of the theme "Blue Skills (reskilling and upskilling), careers and jobs".</p> <p>The aim is to set up an interface structure between the world of research and the economic actors operating in the sectors of the blue economy;</p> <p>As a link between academic research and economic markets in the Euro-Mediterranean region, MED-SATT aims to maximise the socio-economic impact of academic research results and promote job creation by simplifying, accelerating and facilitating the transfer of technology and knowledge from public and private research to companies of all sizes. In concrete terms, MED-SATT protects inventions and the results of research and innovation created by various structures (universities, research laboratories, innovation centres, etc.), and promotes the results of research programmes (patent applications, licences, creation of start-ups, etc.) to meet the specific needs of businesses.</p> <p>The aim of MED-SATT will be to simplify and professionalise the transfer of innovations stemming from research to socio-economic markets. It will intervene throughout the transfer chain, in particular through :</p> <ul style="list-style-type: none"> - Exploring potential avenues for cooperation with national technology acceleration and transfer agencies, and coordination among the various stakeholders. - The setting up of an innovative networking platform bringing together companies, clusters and research laboratories operating in the Euro-Mediterranean area and in the various sectors of the blue economy. - Identification of innovative projects with added value, and positioning in relation to the competition and market needs. - The protection of research results through the filing and maintenance of intellectual and industrial property titles. - MED-SATT will also have the task of promoting research and development concepts to economic operators, who create scientific and technological added value.
<p>Lebanese University - Green Community</p>	<p>Give more attention to vulnerable people mainly women and youth. Empower artisanal and food industry that embraces mainly women. Also, youth can be trained to be guides in rural and ecotourism activities and artisan Mediterranean culture.</p>



CIPPM	<p>With the initial support of the Union for the Mediterranean, a forum for debate and collaboration between all Mediterranean countries. will be created. The national and regional marina associations, supported by the administrations of the countries and regions Mediterranean countries, will make it possible to implement policies for generating socio-economic impact based on the Mediterranean economy. Blue and development of the nautical sector, particularly in the countries of the southern region.</p>
Council of the Oriental Region	<p>the creation of job-creating activities for young people and women. -exchange of experiences in the Mediterranean area.</p>
EMILIA-ROMAGNA REGION	<p>In Med Area firstly by MED Programme, Emilia-Romagna Region is working by participating at European network such as Bluemed initiative, wet med initiative and CRPM. We think that it is very important:</p> <ul style="list-style-type: none"> - To optimise the use of MED R&I infrastructures, creating comprehensive maps of existing projects and R&I capacities in the MED Area (especially regarding pilot plants and prototyping) and developing MED platforms and protocols to visualise the relevant information about funding, strategies, programs, actors, projects, results, possibly complemented with open data. Prioritising R&I infrastructures that respond to the challenges and the needs of the territories and promoting networks of R&I infrastructures with a MED logic, guaranteeing the capillarity in the territory. Promoting new forms of governance and new business models for R&I infrastructures and equipment, facilitating access to SMEs, promoting open innovation and optimising their use. Considering technological projects the potential impact on vulnerable groups and territories. Researchers must work closer with users, communities and public administration in order to anticipate the impacts of technological solutions and their potential to respond to social needs. - To recognise and enhance the contributions from local communities to MED challenges: working and learning with and for them. Promoting technological and social experimentation at the local level through living labs and other open spaces encouraging citizens' engagement. Developing and adopting new



quantitative and qualitative indicators, indicators and evaluation methodologies for social impact of research and innovation.

- To articulate MED mechanisms for transnational clusters to identify opportunities and new business opportunities generating social and environmental value, should be done in collaboration with other MED actors working at the local, regional, national and MED levels.

Blue bioeconomy will play a strategic role in meeting MED challenges since it can improve food security, food safety and people's wellbeing as well as contribute to non-food applications relevant for a more sustainable lifestyle. Blue bioeconomy is also a promising area in terms of research breakthrough and highly-skilled employment, but to reach its potential it needs significant support in both research and market development and changes in legislation and regulations.

It is important to strengthen the blue bioeconomy innovation ecosystem in the MED area by promoting the MED smart specialisation in the blue bioeconomy:

- To promote a pan-Mediterranean innovation roadmap considering existing strategies and programs;
- To promote the collaboration and the exchange of knowledge and practices among actors across the MED area to address MED common challenges. To develop common tools, favouring visibility, transparency and networking within the MED blue bioeconomy ecosystem;
- To develop mechanisms to enhance synergies with on-going projects and initiatives dealing with innovation in blue bioeconomy sector (e.g. Bluemed Initiative, S3 platforms, CTE projects, H2020, RIS3, Vanguard Initiative, etc.).
- To map R&I infrastructures in the MED area and facilitate transnational access using the already available European network and To map technological solutions to address MED challenges and to identify and elaborate case studies demonstrations of blue biotechnology potentials on specific sectors and products that promote blue bioeconomy.
- To promote knowledge transfer from research to business through living labs and regional hubs and other forms of interaction between science, companies, policy makers and society.



	<ul style="list-style-type: none"> - To promote new value chains and business opportunities related to the blue bioeconomy contributing to MED challenges. For example, the sustainable production and valorisation of blue bio-resources for the wellbeing of society (functional food, pharmacological and nutraceutical applications, etc.). - To increase and improve the funding mechanisms to support start-ups and SMEs developing new business models and value chains from marine bio-resources, especially in the phases of proof of concept and of upscaling (including transnational investment). - To support knowledge creation and the development of capacities and skills required for the development of the blue bioeconomy sector. - To support the generation of new knowledge about marine biomass and the exploration of marine environment;
ASSOCIATION DE PROTECTION LITTORALE MAAMOURA - APLM	Start-up events in the field of the blue economy need to be launched and good initiatives strengthened by making a wide range of expertise available to them.
Euroregion Pyrenees Mediterranean	Enable the installation of antennas of major world research centres on the Mediterranean coast in southern countries and attract brains by offering interesting installation conditions and by promoting the training of local qualified personnel around these international research hubs.
NGO COMMUNITY ASSISTANCE and Development ASCOM	It is essential to share experience between the countries of the Mediterranean. Integrate ecological actions that can serve as an example for others Support entrepreneurship for the empowerment of women and youth. Establish partnerships with the private sector and community actors for better collaboration.



Generalitat Valenciana	The participation of the UfM in the negotiation of direct management programmes of the European Union and then of the European Social Fund Plus, in order to make these objectives present and to promote blue skills, and then better coordination with the European Commission.
DIRECTION DES PORTS ET DU DOMAINE MARITIME ET DU PUBLIC	<ul style="list-style-type: none"> - To create training and educational institutions with the aim of providing human resources to the blue economy; - To accompany the transition to a blue belt by developing specialized skills and defining the nomenclature of maritime trades.
Intermediterranean Commission of CPMR	<p>A strong participatory multi-level approach should be used to support the necessary development and upgrade of skills, careers and employment in the field of Blue Economy and bridge the gaps between sectors' demands and labour skills.</p> <p>Local and regional actors can help in this process (e.g. Regional Youth Councils), contributing to promote the potential of blue skills, adapting specific actions to the different contexts and sectors of the Mediterranean. For example, local and regional authorities should encourage the creation of new “Blue careers” based on key demanding sectors in the Mediterranean such as sustainable tourism at all levels of education, and should promote worker’s digital, linguistic, managerial, and ecological skills carrying out tailored vocational training. Dedicated integrated educational programs, taking in consideration the different sectors of the blue economy shall be implemented, observing a more global approach for what regards Mediterranean territories as a whole. Good examples of transnational trainings and summer schools (e.g. Vasco da Gama, Interreg MED Blue Growth Community, etc.) allowed fruitful exchanges and learning processes among a variety of stakeholders coming from different backgrounds.</p> <p>From these experiences, one can see that ensuring a mix of actors during trainings is also a way to create networking and environments for the youth to interact with professionals that can represent potential employment opportunities. Foresting these kinds of mixed-actor trainings over the Mediterranean is essential to keep building a common understanding of the Mediterranean socio-economic tissue, while promoting the diversity of blue jobs. In this sense, strengthening the sense of Mediterranean community belonging is a precondition to motivate people to contribute with their expertise to the sustainable development of Mediterranean areas, and thus a good means to</p>



	<p>fight against brain drain to non-Mediterranean countries (and therefore for the better development of the basin itself).</p> <p>Equally, it is important to foster the attractiveness of blue economy employment opportunities for young people and women, which also implies a further promotion of the sector, including financial provisions to create opportunities and investments in education at all levels, with the support of public-private partnerships.</p>
<p>Association "Forum"</p>	<p>The most relevant drivers of change refer to demographic factors (ageing, declining population, social diversity), income situation, increasing global competition and market segmentation, global and regional production networks, labour and environmental regulations new services and technological innovation. Across all job functions soft skills will become increasingly important, especially so for high skilled professional job functions. The general trend of upskilling across job functions is bound to continue in the coming years. Certain knowledge – notably e-skills – will become more important. Emerging competences of higher skilled jobs mostly refer to how to learn, communicate, interact and adapt to changing environments in addition to a high-quality education. Emerging competences in medium-educated job functions that mostly execute defined tasks and processes refer mostly to specific knowledge sets that can be taught through learning. Rather than focusing on one single solution, a set of linked strategic choices will in most cases be the best strategy to follow. Prioritising both in time (what first, where to follow up) and in allocation of resources (including budgetary focus) followed by further fine-tuning is a clear necessity to guarantee that skills needs are targeted and solved.</p>
<p>UNEP/MAP Barcelona Convention</p>	<ul style="list-style-type: none"> - Support the United Nations Decade of Ocean Science for Sustainable Development (2021-2030) to generate and use knowledge for the action needed to achieve a healthy, safe and resilient oceans and seas for sustainable development. - Empower women, as they play critical role in progressing towards a sustainable ocean- and sea-based economy and are key to achieving SDG 14; - Ensure that children, youth and adults are empowered with relevant knowledge and skills that enable them to understand the importance of and the need to contribute to the health of the Mediterranean Sea through



	<p>promoting and supporting quality education and life-long learning for ocean literacy, as well as specialized ocean science curricula and training and related employment opportunities;</p> <ul style="list-style-type: none"> - Ensure solid environmental education at all levels in maritime training sectors, in both traditional and emerging fields, and invest in education and awareness-raising, creating opportunities to develop new Blue Skills at all educational levels, and bridge the gaps between sectors' demands and labor skills. - Ensure that new blue skills are spread to smaller stakeholders, including small and medium businesses, individual entrepreneurs and young people, and promote synergies between research/innovation and entrepreneurs to develop new blue skills;
CCDRAIentejo	<p>"Being able to take advantage of experiences and projects already consolidated in these themes that have their development in the countries of the Mediterranean basin, seems to be the best way forward.</p> <p>The mapping of regional initiatives, projects and programmes developing in the region should be one of the desiderata to be considered within the scientific technical institutions of the UTM. Perhaps a good example to take into account could be the city of Piraeus which created the Piraeus Blue Growth Initiative (BGI) which addresses the issues of structured entrepreneurship and promotes a competition for innovation that focuses on the marine and maritime economy".</p>

Theme 7. Marine Litter	
<i>What further actions are needed to ensure that: 1) circularity principles are applied to the economic processes, we re-shape our way of producing and consuming goods, and citizens/consumers change their behavior/habits accordingly; 2) ML be tackled both on land and at sea 3) regional cooperation, which has already kicked off, be further enhanced/scaled up.</i>	
EMUNI	Stop pollution from all rivers. Make and popularise a study about the scope of the issue in the Med. In the second step, demand higher environmental standards for discharges. Monitor and quantify the BLuemed Plastic Pilot.
IOC-UNESCO	Regional cooperation, public and private stakeholders' exchanges, interactions and mobility, food security and sustainability, including respectful working conditions, health and legal certainty are key.
FAO	Beyond policies (I do not intend to develop here on them) I believe we need to mainstream tools, concrete achievable and applicable to economic actors (fishermen, ports operators, food systems actors, from sustainable fishing to transformation, from logistic to consumption from consumer l'attitude to waste management. SDG compliance tools can and should be offered to economic actors.
MED JS	implement cradle-to-cradle design, set framework for creative micro re-use solutions on company/ community/ local scale to be tested and scaled up
INSTM - Tunisia	Implementation of regional networking group with different blue actors to evaluate the efforts and big data construction and statistical studies for different activities and their progress.
University of Bolognae	We need to change perverse policies that prevent what comes form the sea to be re-used. For example each year significant damage comes form the aquaculture industry from macroalgal blooms, which currently are disposed as



	<p>special litter with very high costs. These products could be recycled in local agriculture. Similarly we should explore ways to reuse shells within the maritime industry (e.g. more sustainable concretes). About marine litter, we need:</p> <ol style="list-style-type: none"> 1. a comprehensive dataset of distribution and impacts of ML and Microplastics MPs in Mediterranean marine ecosystems; 2. a modelling-based tool to visualize distribution and dynamics of MPs across boundaries, to assist decision-makers; 3. novel analytical tools for detecting MP impacts on marine organisms and ecosystems, and vulnerability indicators.
CNR	Awareness campaigns, regional networks on science and technologies, EU-MPC cooperation on biodegradable plastics
National Institute of Marine Sciences and Technologies	<ul style="list-style-type: none"> - Strong awareness of stakeholders and populations - Creation of laws for the application of EB principles
Ministry of Economy - Palestine	<ul style="list-style-type: none"> - Reducing products that contain harmful additives to humans - Activating awareness campaigns and educating the public about these products and how to deal with them and their importance - Activating the customer follow-up system after sales services in terms of achieving confidence and safety with customers - Determining the list of merchants who deal with money laundering and holding them accountable - Interest in regional and international cooperation to control money laundering and illegal business - Attention to every entrepreneurial, voluntary, private or governmental work in order to cleanse the sea and beaches from the pollution - Attention to publishing and media education about the accomplishments that are being achieved and the importance of supporting and financing these achievements for their continuity



Alma Mater Studiorum University of Bologna	Interface with EU programs
AMFORHT	Regional cooperation, which has already kicked off, be further enhanced/scaled up.
Presa Puente Estrecho de Gibraltar, SA	We must all be aware that our individual actions have a significant influence on the environment of the Mediterranean and of the whole earth in general.
DynMed Alentejo - Association for Studies and Regional Development Projects Dese Projects	Administrative control and raising awareness among economic operators.
Tunisian Association of Coastal, Port and Maritime Engineering (ATIM)	Let's start with the proper implementation of the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities (adopted in 1980, amended in 1996), which entered into force in 2011: http://wedocs.unep.org/bitstream/handle/20.500.11822/7096/Consolidated_LBS96_ENG.pdf?sequence=5&Allowd=y .
UNIVERSIDAD DE MURCIA	<ol style="list-style-type: none"> 1. use of ICT in process improvement fighting marine litter 2. to improve the techniques to obtain data related to marine litter and to put in common these data in an open platform to fight in a more effective way 3. strengthen cooperation at local, regional, national and international levels to combat the problem of marine litter facilitating direct contact between them



<p>RAED - Arab Network for Environment and Development</p>	<p>There should be a political will to tackle the ML challenge. There is enough knowledge and. capacity to meet the challenge. An enabling environment including legislations and alternatives are needed to make the change.</p>
<p>Direcció General de Pesca i Medi Marí. Govern de les Illes Balears (Spain)</p>	<p>The fight against plastics has to be at source, ceasing to produce and use many unnecessary plastics. Every day more perishable products (vegetables, fruits, meats, even fish) are sold in plastic packages, when they could be perfectly sold in bulk. The only reason for its existence and increase is the suppression of personnel in large supermarkets and the increase in profits. Here the European Commission can do a lot, just as it did with plastic cups, ear buds, etc.</p>
<p>Mediterranean Information Office for Environment, Culture and Sustainable Development (MIO-ECSDE)</p>	<p>With regard to circular economy and reshaping our ways of producing and consuming goods:</p> <ul style="list-style-type: none"> - Legislative changes are needed in order to extend the sustainability aspects of products on a mandatory level...These aspects should address: enhancement of product durability, reusability, upgradability and repairability; increase in the resource efficiency of products; increase in the recycled content in products; enable remanufacturing and high-quality recycling of products; reduce products environmental footprint; etc. <p>Regarding citizens and consumers and changing their behaviors: In addition to setting up effective awareness raising campaigns -that should deliver high-caliber and reliable information towards informed decisions- citizens and consumers should be empowered through appropriate product labelling, the establishment of a ""new right to repair"", availability of repair services, etc.</p> <p>With regard to marine litter tackled at land and at sea:</p> <ul style="list-style-type: none"> - Targeted and tailor-made measures should be implemented based on sound scientific evidence and coupled and/or driven by ambitious marine litter targets. - Single-use items, including specific types of fishing gear should be phased out and replaced by more 'sustainable' options as a priority action.



	<ul style="list-style-type: none"> - The misconceptions and uncertainties related to certain measures should be tackled in order to avoid 'false' solutions that will worsen the marine litter problem (i.e. to-date there are no plastics that can biodegrade in the marine environment; thus, this shouldn't even be discussed as a potential solution). <p>With regard to regional cooperation:</p> <ul style="list-style-type: none"> - Effective capitalization and mutual learning mechanisms should be put in place to facilitate structured cross-regional exchange of hands-on experiences with regard to the operationalization of measures. - Operational regional guidelines should be developed to support the effective setup of targeted marine litter prevention and mitigation measures.
<p>ECONCRETE</p>	<p>Education, information and dissemination are essential to raise awareness to general population and to specialized and related dependent workers.</p> <p>Adoption of innovative materials and technologies are indispensable to tackle this problem.</p> <p>More cooperation both between private and public sector and between regions plus the dissemination of the outcomes of that cooperation are also very relevant.</p> <p>The prohibition of the use of (non-short-term renewable) plastics and other materials in a certain horizon should be strongly considered and finally implemented.</p>
<p>BETA Tech Center, UVic/UCC - Interreg MED Green Growth</p>	<ul style="list-style-type: none"> - To promote dissemination, transfer and uptake of solutions and innovative tools for measuring and enhancing resource efficiency in different sectors - To promote investments to support SMEs in responding to the growing customer demands for sustainable products and services by investing in eco-innovation and resource efficiency along the value chain - To address users' perceptions and to raise awareness among citizens to promote sustainable consumption patterns - To put in place policy and legislation to promote resource efficiency and sustainable consumption and production patterns - To launch initiatives to reduce litter on land, before it reaches rivers and later on the sea - To invest in recycling mechanisms and plants in those countries where it is not implemented



METU Institute of Marine Sciences	Invest in science, develop capacity, co-design robust, doable actions addressing the problem at source.
MedCities	<p>Whereas it is clear that the priority lays on prevention, through a change of paradigm of our current production and consumption patterns, we cannot forget the huge importance of a proper waste collection, management and treatment system to prevent litter and other pollutants entering the environment.</p> <p>There is still a huge need to invest on the modernization of waste management Mediterranean wide, the elimination of dumpsites and uncontrolled landfills. Enhancing waste collection, separation and proper management of the organic fraction is still a top priority for Mediterranean coastal cities.</p> <p>Regarding wastes generated by sea-based activities, there is a need to increase control of the fulfilment of conditions set by MARPOL Annex V – aiming to eliminate and reduce the amount of garbage being discharged into the sea from ships – stressing also the control of leisure navigation. Adequate port reception facilities should apply to all ports and Mediterranean wide .</p> <p>Regarding fisheries support the adoption of sound waste management practices and initiatives and regulations to prevent “abandoned, lost or otherwise discarded fishing gear “–ALDFG.</p> <p>The Responsibility of the Producer Principle must be established by laws or commitments among the Mediterranean States.</p> <p>Waste Devolution Return Systems must be boosted.</p> <p>Tax policies to favor good practices in waste management (firstly prevention) must be extended.</p>
University of Siena	<ol style="list-style-type: none"> 1. Strong and increasing tax on plastics, especially for single use 2. Clean the rivers' Banks
National Research Council of Italy	<ol style="list-style-type: none"> 1. circularity principles are applied to the economic processes, we re-shape our way of producing and consuming goods, and citizens/consumers change their behavior/habits accordingly: <ul style="list-style-type: none"> - Define distribution, concentration and provenance of all forms of garbage at the sea surface, within the water column, the sea floor and the coastal-estuarine environments; rise awareness through literacy and citizen-science;



	<ul style="list-style-type: none"> - Quantify impact of plastic waste in terms of economic activities, jobs, well-being of citizens and ecosystems; reduce its generation, prevent littering and exploit opportunities from collection and recycling; - Develop regional e-training courses on marine litter for increasing knowledge and awareness. <p>2. ML be tackled both on land and at sea:</p> <ul style="list-style-type: none"> - Measure and identify emerging chemical compounds from terrestrial sources, determining contaminant dispersal in all marine matrices; characterize sources, pathways and effects on marine ecosystems; Fill gaps in understanding the Mediterranean Sea dynamics, biogeographic patterns, biodiversity, and ecosystem functions using novel monitoring, e.g. satellite, marine drones, molecular/genetic tools to develop new end-to-end models forecasting the carrying capacity of the Mediterranean ecosystems. Take into full consideration of long-lasting effects of historical human interventions on coastal systems including river diversions, damming, digging of canals, and construction of hard structures for coastal defense, landfills with toxic materials and spread of pollution through time. <p>3. Regional cooperation, which has already kicked off, be further enhanced/scaled up: From regional to global: upscale the BlueMed Pilot Action on Healthy Plastic-free Mediterranean Sea as overarching regional initiative, also in the perspective of implementing the UN-Decade of Ocean Science for Sustainable Developments Clean Ocean societal objective.</p>
WWF	<ul style="list-style-type: none"> - Acknowledge the need for further action to address the plastic pollution issue at national, regional and international levels, in particular by developing a new international legally binding agreement to combat marine plastic pollution on a global level in an integrated manner, and in accordance with the EU new Circular Economy Action Plan; - Enhance synergies with the EU new Circular Economy Action Plan and EU Plastic Strategy to ensure a coherent approach to circular economy in the Mediterranean region; - Support the process to upgrade UNEP MAP's Marine Litter Action Plan, including binding targets for waste collection and recycling, in order to eliminate all plastic leakage by 2030;
Ministry of Agriculture, Maritime Fisheries,	<p>1. There is a need to review waste management methods and the re-use of materials consumed, particularly those that are non-biodegradable</p>



<p>Sustainable Development, Water and Forests: Maritime Fisheries Department - Morocco</p>	<p>2. There is a need for an integrated approach to waste management and handling so that communities can better manage pollutants.</p> <p>3. Twinning between border municipalities is also a means to ensure synergies between countries</p>
<p>Malta Maritime Forum</p>	<p>Reduction on plastics or eliminating it completely in consumer goods will assisting in a sensible reduction of pollution of our seas. Other initiatives in a reduction of certain packaging materials which pollute just as much as plastics.</p>
<p>MedPAN, the Mediterranean Marine Protected Areas Network</p>	<p>Please see recommendations from ACT4LITTER Interreg project and Plastic Busters Interreg project.</p>
<p>Med Blue Growth community</p>	<p>- Putting the theory of Citizen Science into practice. Citizen science is a process where citizens can become an integral part of the sharing of results and findings within the wider community and the interaction is very much a two-way process. Involving citizens in marine science can offer several advantages such as enhanced monitoring capabilities, empowerment of the citizens and environmental awareness.</p>
<p>Green Community NGO</p>	<p>Efforts exerted by different projects, programs and stakeholders should be consolidated to identify and characterize the types and origins of ML. Once done, the list of main types of ML and their origins could lead to tackle each major type in a scientific and organized methodology.</p> <p>Second, incentivizing and training fishermen and fishing companies on re-collecting (training on diving and sea bottom cleaning) their lost nets, could be a win-win intervention, whereby the problem of ghost nets (and other ML) becomes mitigated, and fishermen redeem their main asset: the nets.</p> <p>The third suggestion, is to deal with coast-originated ML. For this, training on and incentivizing upcycling of trash and unwanted items, leads to creating jobs, recycling a huge amount of trash meant to become ML, a source</p>



	of income generation to selected marginalized people, and an added value to items adopted at green-listed blue-tourism destinations.
ECOCEAN	<ul style="list-style-type: none"> - Sustain research on new materials that are truly biodegradable. -Tackle as a matter of priority the discharge of cities into rivers rather than trying to clean up the sea. - Prohibit the use of plastics in the sea (including biosourced plastics)
Agence nationale des ports Maroc	Raising awareness of the impacts of human activities on the environment and biodiversity
NOAH ReGen	<p>NOAH proposes that NOAH's Arks platform be used as a vehicle for awareness and education. It is mandatory to change consumption patterns, but even more so, individual behaviors.</p> <p>The economy linked to the collection and recovery of plastics is not efficient enough to really mobilize the funds needed to clean up plastic pollution, when this is still possible.</p> <p>Once at sea, most plastics sink and turn into microplastics that can no longer be processed or extracted.</p> <p>The only effective way out is to inform individuals of the damage and irreversible consequences generated by this plastic pollution, so that they become aware of the importance of modifying their individual behaviour. NOAH's Arks must offer fun awareness events, a travelling exhibition that goes from NOAH's Ark to NOAH's Ark, that all regional schools, from the youngest ages, must come to visit, hear and understand so that these students never generate plastic pollution.</p> <p>These exhibitions must be open to the general public to raise awareness among non-student citizens and must be relayed through the media to reach as many people as possible.</p> <p>Finally, I think it would be worthwhile for governments to propose an offset for different categories of citizens to take part in a major plastic depollution campaign:</p> <ul style="list-style-type: none"> - recipients of aid and social benefits who have been out of work for x number of months - criminals sentenced to light sentences



	<p>- those with financial penalties who prefer to convert them to plastic depollution.... Governments and regional cooperations could offer alternative solutions (mandatory for some categories and discretionary for others) and send these individuals for x days of plastic waste collection. This would make it possible to clean up the most polluted areas at a lower cost.</p> <p>Once again and as a complement, financial initiatives such as Blue Credit could also offer new ways of production for industries, using plastic derivatives from R&D and marine resources that NOAH's Arks and NOAH's BEIP can help to develop.</p>
GRAND PORT MARITIME DE MARSEILLE	2. Increasing awareness of sorting, facilitating collections, support for innovative projects
Institut National de Recherche Halieutique	<ul style="list-style-type: none"> - Set up a major awareness programme on the dangers of marine pollution caused by waste - Find the best solutions for waste on land and try out solid waste dumping at sea - Further develop research programmes on marine waste, how to recycle it, etc. - Develop a programme of research on the dangers of marine pollution caused by waste - Find the best solutions for waste on land and try out solid waste dumping at sea - Further develop research programmes on marine waste, how to recycle it, etc. - Set up a major awareness programme on the dangers of marine pollution caused by waste - Find the best solutions for waste on land and try out solid waste dumping at sea - Further develop research programmes on marine waste, how to recycle it, etc. - Finding alternatives for products used at sea, so that they are as biodegradable as possible, such as designing fishing nets with biodegradable materials.
Center of Sea Sciences, University of Algarve	The multi-Nationals that are allowed to package everything in layers and layers of plastic and cardboard need to be levied a charge. Alternative means of packing and preservation are needed. Why is the sea full of plastic, waste but also personal hygiene - ban the micro and nanoplastics. Do not treat the sea like a waste dump, give people the



	<p>perspective of controlling output. More attention to sewage and urban waste treatment and chemical release, develop and improve systems, bring in wetlands as retention points of waste and sludge. Put the science into practice, but it needs real investment. Set up screening, engage the public buyt outreach , advertising about sources of waste and marine pollution. Fund projects directed at reutilisation of minimisation of plastic waste (eg. innovative projects), we need to develop new idea, create an ecosystem for testing with companies before moving out to real life testing. The later process needs to be facilitated as it is bureaucratic and so complex companies are just not interested and dont have the people to spare to catalyze change.</p>
Lebanese University - Green Community	<p>Plastic pollution is a main problem and source of waste in Mediterranean Sea therefore we should ban single use of plastic and this is a main request from UFM to elaborate a policy on Mediterranean level banning the single use of plastic. Also, on activity level, we can organize one day for all Mediterranean countries to clean up beaches.</p>
Council of the Oriental Region	<p>Take initiatives between regions in the framework of regional cooperation to raise awareness among the local population.</p>
EMILIA-ROMAGNA REGION	<ul style="list-style-type: none"> - Promote the design and production of plastic products that fully respond to reuse, repair, recycling needs; - Reduce and prevent the dispersion of plastic waste environment, particularly in the seas, in waterways and in protected areas; - Promoting action to involve plastics manufacturers in responsibility for the subsequent management of plastic waste; - Measures needed to reduce the use of single-use plastic products for food distribution drinks in public establishments and events, starting with those organized in sensitive areas; - Possibility of reaching an agricultural supply chain agreement fishermen's and fishermen's associations aquaculture farmers to introduce forms of simplification of the management of their waste;



	<ul style="list-style-type: none"> - Support research and experimental projects leading to eco-friendly solutions to replace current plastics or the use of plastics particularly in the agricultural sector, agri-food and aquaculture farming; - Measures to reward companies that experiment with plastic solutions free for their products or processes, or that intend to promote the replacement use of materials or plastics eco-friendly.
Euroregion Pyrenees Mediterranean	Mainly communication, raising the awareness of the general public, final consumers but also of the main producers in the sector, also financially supporting the results obtained.
Ministry of Energy, Mines and Environment/Department of the Environment	<ol style="list-style-type: none"> 1. Pilot projects are needed to highlight the economic benefits of recycling and behavioural change and to raise awareness of the need to change habits in order to reduce waste and in particular plastics, which in most cases are found in marine environments. 2. Strengthen systems for the management of household waste, which makes up a large part of the waste on beaches. Integrate the management of marine waste into the specifications of domestic waste managers. Involve associations, fishermen, and other partners in the collection of waste at sea on the surface or on the seabed 3. Implement more cooperation projects on marine waste management and focus on concrete projects with tangible results on the ground
NGO COMMUNITY ASSISTANCE and Development ASCOM	<p>It is necessary to draw everyone's attention to the fact that resources are depletable and that if action is not taken we may not use them in the future. So we must act before it is too late. We must raise awareness and draw the attention of communities to the sustainable and rational management of fisheries resources.</p> <p>Installing waste processing plants for fishing plant usuals</p>
Generalitat Valenciana	Regional cooperation must take account of initiatives and networks such as WestMed, CPMR, the Anna Lindh Foundation and others, and then take advantage of European Union instruments such as ENICBCMED or INTERREG.



<p>DIRECTION DES PORTS ET DU DOMAINE PUBLIC MARITIME</p>	<ul style="list-style-type: none"> - Ratification of the MARPOL Convention and its Annexes and any subsequent amendments; - The need to establish at each commercial port / group of ports a port reception facility appropriate to the type of ship-generated waste. - Need to establish at each port reception facility a plan for the reception, treatment and disposal of waste; - Redesign of the charging and cost recovery system for port reception facilities. - Removal of marine wrecks;
<p>Legambiente Onlus</p>	<p>On the basis of the economic processes an ecosystem-based management approach is needed, especially in the maritime socio-economic sectors that should consider the marine conservation as a priority. Transposing the recent Circular Economy Packages, SUP and Plastic Strategy directives, and convey their principles to the non-EU Mediterranean countries is necessary. Furthermore the practice of reuse needs an harmonized legislation at European level, at least, and its practice should be promoted at Mediterranean level. Further support and investments in industrial technologies 4.0, products innovation and improved design; very important is to renew also the logistics and distribution systems of the products, developing new skills and jobs. In the meantime awareness-raising measures and consumption reduction through school and citizen education are necessary. Participatory science initiatives should be used for gathering data and sensilize people (without forgetting the accuracy required in this practice).</p> <p>Above all, waste production reduction and good waste management politics are needed, both on coastal and internal agglomerations. It is necessary focusing on rivers and on waste-water treatment plant efficiency. On coastal area is necessary to enlarge the presence of marine protected areas and provide administrators tools to identify the most effective measures to tackle marine litter in their MPAs, sharing good practices among existing networks of MPAs and projects, also consistently with the target 14 of the UN Sustainable Development Goals. Projects are instrument to streamline best practices and recommendations into management and policy instruments, they must be encouraged and addressed awarding the initiatives among EU and non-EU countries. Is important to support the research on marine litter fluxes, impacts ML on maritime socio-economic sectors and on biota and on human health in all the Mediterranean basin and sub-basins, but is necessary to promote the</p>



	<p>necessity for harmonised monitoring protocols; give tools and knowledge to tackle marine litter specifying and define baselines and reduction targets to measure trends and progress.</p> <p>To get results in important to ensure effective cross-border cooperation and coordination, especially with non-EU countries, in the sharing of good practices and good waste management but also encouraging the implementation of existing policies promoting the construction of specific networks. An example of this is gave by the Common project, led by Legambiente, focused on Italy, Tunisia and Lebanon. In the project the cross-border cooperation is one of the bases for tackling marine litter and is focused not only to politicians but also to other groups of stakeholders. Building a Network of Coastal cities against marine litter and a Permanent Network for Sea Turtles rescue Centers for marine litter studies are foreseen.</p>
<p>Universidad Politécnica de Cartagena</p>	<p>We need to develop new techniques and methodologies that allows us to: perform quantitative and qualitative microplastic concentration on water column and sediments in a fast and secure way, and retrieve the marine litter placed on the sea bottom.</p>
<p>University of Siena</p>	<p>Currently, projects and activities are ongoing in the Mediterranean region dealing with the monitoring of ML impacts on the marine ecosystems and on the biota inhabiting them. These activities must first be strengthened (by favoring connection and exchange of data and information among them) and then prolonged over time to ensure our knowledge of the full impacts of ML is increased. While political and governance processes are present in the north of the Med (e.g., UNEP/MAP and MSFD), they are somehow lacking in the south of the region and thus UfM could play a key role in ensuring engagement of North African countries as well as engagement in this issue from the League of Arab States. In general, ensuring ML is tackled as a regional wide issue is essential and for this UfM can act as a fundamental player and platform. A connection and collaboration among funding authority is also necessary to ensure activities are jointly implemented across both the north and the south of the Mediterranean (to also favor north-south and south-south exchange of knowledge and best practices).</p> <p>Then, a need is felt to strengthen the connections between activities (again ML) at sea with those inland. To this</p>



	<p>end, further work is needed to tackle the point sources of ML pollution through regional approaches on mitigation measures, such as complete banning of single use plastics (not just in the north side of the Med), banning of particularly harmful fishing gears and regional wide awareness campaigns. Studies connecting daily human activities with the plastic waste they contribute too should also be favored to increase consumer/people awareness about the ML pollution consequences of their daily activities.</p>
<p>Intermediterranean Commission of CPMR</p>	<p>Interreg MED Biodiversity Protection Community</p> <ul style="list-style-type: none"> - https://backend.interreg-med.eu/fileadmin/user_upload/Sites/Biodiversity_Protection/horizontal_project/5-Deliverables/WP3_CommunityBuilding/3-5_AnimationOfCommunity/3-5-4_ThematicSynthesisReports/panacea_ml_policy_report_wg1_1_1_20190408_gd.pdf ; - https://biodiversity-protection.interreg-med.eu/fileadmin/user_upload/Sites/Biodiversity_Protection/horizontal_project/5-Deliverables/WP3_CommunityBuilding/3-5_AnimationOfCommunity/3-5-4_ThematicSynthesisReports/PAN_report_Mediterranean_biodiversity_and_marine_litter_LowRes2.pdf. <ol style="list-style-type: none"> 1. Enhancing the coordination between conservation and socio-economic sectors, especially maritime, by including the Ecosystem-Based Management principles into other policies (Circular Economy Package, Plastics Strategy), and by fostering a coordinated approach between Protected Areas (PA) managers and other sectors. <ul style="list-style-type: none"> - The civil society should be further engaged and connected to projects to raise awareness of local communities and to involve local and regional authorities, by developing participatory science initiatives on marine/ land litter, monitoring and assessment, etc. - Further support to local authorities, PA managers and local communities should be performed, with effective instruments to monitor and manage marine/land litter. This could be done by improving their administrative coordination, capacity building, and technical support, and prioritising upstream solutions in keeping with the waste management hierarchy. 2. Moreover, support further research to close current knowledge gaps on marine/land litter fluxes, on the impacts of marine/land litter on land-sea socio-economic sectors, on the impacts of marine litter on biota and on human



health, especially at sea on the occurrence of Abandoned, Lost or otherwise Discarded Fishing Gear (ALDFG), and on the degradation mechanisms of marine and land litter in the environment, including the consideration of “biodegradable” materials with enhanced degradation properties, as there is the concern that they may break down into non-degradable fragments.

- The development and employment of common protocols and standardised methods for marine and land litter assessment respectively in the Mediterranean should be supported, especially in relation to different size categories, sampling procedures, and reference values. Specifically, new protocols should be developed to monitor micro-litter, the entanglement of marine species, the effect of litter colonisation by small species, and deep-sea areas on a Mediterranean scale.
 - Further support is needed for scientific research towards a clearer definition of baseline values and reduction targets against which to measure progress in tackling marine litter.
 - In this respect, the Biodiversity Protection community, in its policy paper recommends considering the use of the new “Marine Litter Beach Accumulation Index”, and further investigating the use of animal forests as indicators of entanglement, so as to establish clearer baselines and reduction targets in the context of both the EU MSFD and the UNEP/MAP IMAP. Supporting projects that address sea-based sources of marine litter like shipping, fishing, offshore installations, or dumping of refuse at sea, could be an efficient action to tackle the dissemination of litter reaching the Mediterranean sea and impacting its ecosystem.
3. This integrated approach should target common species or groups of species in MPAs and in the Mediterranean ecoregions, since it is still majorly lacking. This would enable the consolidation of a regional cooperation mechanism to properly monitor and assess transboundary pressures in the Mediterranean Sea and its trends over time, as partial solutions and actions taken only at local and country level have proved not to be fully effective.
- Ensuring the creation of a permanent link between the Community outcomes and the existing, Mediterranean-wide knowledge platforms on marine litter, so as to foster the accessibility to available resources, the transferability of the knowledge and tools generated, and the replicability of the solutions tested. Further support should be granted for cross-border cooperation and coordination actions in the Mediterranean, by sharing the knowledge and tools developed by the Interreg MED community for marine litter, especially with partners from non-EU countries.



<p>Association "Forum"</p>	<p>Preserving and enhancing natural capital by controlling finite stocks and balancing renewable resource flows. Optimizing resource yields by circulating products, components and materials at the highest utility. Fostering system effectiveness by revealing and designing out negative externalities. The circular economy refers to an industrial economy that is restorative by intention; aims to rely on renewable energy; minimises, tracks, and eliminates the use of toxic chemicals; and eradicates waste through careful design. The term goes beyond the mechanics of production and consumption of goods and services in the areas that it seeks to redefine (examples include rebuilding capital, including social and natural, and the shift from consumer touser). Building a common understanding of both the sources and impacts of plastic pollution incentivizes cooperation between upstream and downstream actors, as well as coordination across sectors. Engaging a broader set of stakeholders and prioritizing investments that drive changes in behaviour from individual to global levels will help break the cycle of inadequate resources at the local level and prevent plastics from reaching the oceans. Stopping plastic waste before it enters waterways and the ocean is the most cost effective. The immediate need is to direct resources to radically improving the capability of local waste and wastewater managers to gain control of, reduce and capture waste plastics. Invest in developing methods to characterize the types, sources and behaviours of plastics in riverine and marine environments in order to drive focus toward behavioural change.</p>
<p>UNEP/MAP Barcelona Convention</p>	<ul style="list-style-type: none"> - Fully commit and implement the Regional Plan on Marine Litter Management in the Mediterranean (2013), complemented by the Regional Action Plan on Sustainable Consumption and Production (SCP) in the Mediterranean, and empower the regulatory framework for reducing single-use plastic products, setting ambitious quantitative targets, and incorporating reduction measures including on microplastics in national marine litter agenda; - Prevent and significantly reduce plastic leakage in the Mediterranean Sea by 2025 with clear commitments to reduce plastic consumption, support eco-design and innovation, resource efficiency and effectively improved waste management, as well as enhanced control and prevention measures such as bans, incentives, taxes and extended producer responsibility schemes;



- Promote prevention measures and circular approaches to open green economy opportunities, supporting long-term viable recycling targets, adopting national plans to progressively achieve 100% plastic waste collection and recycling by 2025, and addressing the private sector to minimize plastic packaging.
- Make the Integrated Monitoring and Assessment Programme-based marine litter monitoring in the Mediterranean fully operational, providing an assessment of the impacts of marine litter in the Mediterranean Sea and coastal areas on a regular basis;
- Further promote Extended Producer Responsibility (EPR) schemes towards engaging private companies into recycling schemes, and introduce eco-design and eco-innovation in priority single-use plastic items, elaborate economic incentives to encourage manufacturers to develop innovative designs, and further engage plastic industry and plastic manufacturers in those processes;
- Further supported effective management in ports, enhance awareness-raising campaigns targeting shipping companies, and reinforce port reception facilities and procedures for the delivery of waste from ships, particularly through the implementation of two guidelines recently adopted in the context of the MAP – Barcelona Convention: i.e. Provision of Reception Facilities in Ports and the Delivery of Ship-Generated Wastes; and Application of Charges at Reasonable Costs for the Use of Port Reception Facilities.
- Undertake detailed assessments of wastewater treatment plants for identifying sources of wastes diverted to these treatment plants with the aim to examine their contribution on marine litter and microplastic generation;
- Further assess and monitor riverine inputs of marine litter through common standards and methodologies;
- Undertake material flow analysis assessment for plastics in all Mediterranean Countries to identify types of plastics used in each country and main purposes/uses;
- Further strengthen and expand regional/international cooperation, in particular existing platforms such UNEP/GPML and UNEP/MAP's Regional Collaboration Platform on Marine Litter in the Mediterranean to promote coordinated action by all regional partners;
- Reduce marine pollution, including marine plastic litter and nutrient pollution, contributing to comprehensive life-cycle approaches that include improved waste management and developing new, biodegradable materials that can reduce additional marine plastic litter, including microplastics;
- Implement the action plans and decisions of the pollution-related Multilateral Environmental Agreements and of the G7 and G20 to combat marine litter in synergy with the Regional Seas Conventions, as a global momentum towards the long-term elimination of discharges of litter and microplastics to the oceans and seas;



	<ul style="list-style-type: none"> - Apply circularity principles to the economic processes, re-shape way of producing and consuming goods, further promote the lifecycle and waste hierarchy approach, resulting in reduction (e.g. addressing over-packaging and discouraging “on-the-go” consumption) and prevention (e.g. design products, particularly those made up of plastic, for greater durability and reuse); - Further support efforts on other land-based sources, sectors and pathways, including the release of microplastics (in particular form textile), which remains poorly known in the region; - Following the EU Plastics Strategy, develop measures to reduce loss or abandonment at sea of fishing gear (e.g. including recycling targets, EPR schemes, recycling funds or deposit schemes) and to limit plastic loss from aquaculture (e.g. possible Best Available Techniques Reference Document); - 16. Further support the implementation of Marine Litter prevention/mitigation measures within MPAs in the Mediterranean.
Underwater Gardens International	<p>Cradle to cradle principle should be empowered by international governments and it should be applied to all sectors. International platforms and institutions should be enhanced to face the issue in a global scale. Additionally, private and public sector need to work together to find solutions.</p>
European Environment Agency	<p>Dedicate adequate resources to enforce the ban of single-use plastics and proper disposal of vessel garbage at sea linked to use of port facilities Ensure the REACH system, and WFD surface water monitoring cover micro plastics Reduce direct discharges into the sea - banning micro/nano plastic in hygiene, cosmetic and other relevant consumers products, intercepting plastic at river mouth, and improving waste water treatment</p>
CCDRA lentejo	<p>The UpM must mobilize all efforts to reduce the ecological footprint of products circulating in the markets. Produce locally by focusing on indigenous products and respecting the seasonality of their production cycles. Re-industrialisation of national economies to avoid excessive dependence on third countries, particularly those to which European industrial production has been relocated for years.</p>



	<p>Encouraging cooperation networks between local regional players and countries in order to take advantage of the resulting synergies.</p> <p>In the case of maritime waste, a good example to follow could be the ongoing project in the Atlantic Area called CleanAtlantic http://www.cleanatlantic.eu".</p>
<p>European Environment Agency</p>	<ol style="list-style-type: none"> 1. NGOs are essential in awareness rising for action and changing the usage habits of the citizens. Their efforts push the policymakers and plastic sector to act on marine litter. They are excellent facilitators in the emergence of new ideas and initiatives. There are hundreds of NGOs working on different fields of marine protection in the pan-European scale. However, the value and use of NGO marine litter data collection efforts have been discussed in the scientific domain. The decision-makers supported the emergence of citizen science efforts. However, it has been only appreciated as “awareness-raising activities” by the scientist as they are not using advanced monitoring methodologies and applying proper guidelines. The quality assurance of the citizen science data is not easy since the metadata or the qualifications of the survey owners are limited in many cases. NGOs perform clean-ups and monitoring either under marine litter initiatives as European Environment Agency Marine Litter Watch (MLW) (citizen/community science) or their monitoring data might be used as official monitoring by some of the European countries. We should give more focus on persuading the citizens and the NGOs that their efforts in contributing the shape policies are taken seriously. We should make them feel they are the part of the action and solution. 2. We should be able to monitor ML both at the source and its pathways and the sink (the seas) in order to assess the status and the solutions of the problem effectively. Currently, assessments of plastic pollution tend to focus on the marine domain, i.e. on the state and impact of ML per se. Given the current limitations on monitoring of ML and the complexity of factors affecting the distribution of litter in the sea, trends on the state of pollution say very little on the effectiveness of preventive measures, at least in the short-term. Making use of socio-economic information related to waste prevention and management will enable a more holistic picture of the issue of plastic pollution, “from sources-to-sea”. In addition, rivers are major vehicles of transport of plastic waste into the coastal and marine environments. Therefore, developing monitoring efforts on rivers will generate important data on inputs of waste from land-based sources and therefore on measures



implemented to prevent them.

Sources, drivers and impacts of litter must be analysed and monitored with a common methodology. Currently, the monitoring units and detail on waste do not allow deriving meaningful information on marine litter. They can only be used to get indirect information on the sources and pathways. Once waste and marine litter indicators are tailored to feed each other, we will be able to understand better the sources, drivers, pressures, pathways of marine litter and establish more effective solutions.

3. UNEA resolutions are building blocks through the construction of a binding international agreement. A binding international marine litter agreement can accelerate the global efforts for the solution as it can help to harmonise country and regional scale methodology and approaches and regulate the integration of international environmental legislation in regards with to litter.

A fair approach to achieving a global circular economy is necessary. Economic differences between north and south countries should be considered. Developed countries must help developing countries to build their practices on especially proper waste management. Besides, developed countries must stop using developing countries (where uncontrolled waste dumping percentage is high and recycling capacity is so low) as their dumpsites for plastic waste. Recent amendment of BASEL Convention, which sets out control for the plastic waste trade, should be taken to a further step to ban the waste trade. If one looks at the magnitude of the plastics trade, it is easy to understand the important of BASEL decision: recycled plastic is a globally traded commodity. 78 % of the exports are done by the top ten countries, which are high income at the same time.

Regional sea conventions are key institutions for the development and implementation of marine litter legislation, regional action plans, and monitoring. Inclusion of marine litter provisions to RCSs existing regulations and protocols has already started. All RCSs produced marine litter action plans recently, covering pan-European seas. Their efforts on regional monitoring of litter is essential to define the status, impacts and trends, which set the basis for policymaking. RCSs communication and cooperation should be strengthened.



	<p>Besides the RCSs with low resources should be supported financially by their contracting parties and international funding mechanisms.</p>
<p>Egyptian Environmental Agency</p>	<p>At Regional Level:</p> <ul style="list-style-type: none"> - Further technical support is needed for monitoring, assessing and management of micro-plastics. - Encourage marine litter studies and scientific researches concerning transboundary issues at national and regional levels. - Cooperate in combating the usage of single use plastics, promoting environmentally sound alternatives, and encouraging waste to energy initiatives. - Support the harmonization of the existing marine litter monitoring and management activities at regional and national level and enhancing communication and coordination of relative initiatives. - Enhance the implementation of environmental management systems in ports to ensure proper disposal of ship-generated wastes. - Support the development of material flow analysis of single use plastic wastes to identify the root cause of their generation through (production, consumption and waste management (i.e. collection and transportation, recycling, disposal, etc.)). - Support extended producer responsibility (EPR) and recycling activities for minimizing single use plastic litter. - Support fishing for litter programs through active contribution of anglers through their regular trolling. <p>At National Level:</p> <ul style="list-style-type: none"> - Support the implementation of marine litter monitoring and assessing programs at the national level. - Develop national awareness campaigns for anglers about threats of marine litter on environment, economy and health. - Enhance engaging of local communities, local authorities, NGOs, primary and secondary schools, civil society, volunteers etc. in beaches clean-up activities.



Theme 8. Maritime Security and Surveillance	
<i>What actions are needed to enhance maritime safety and security in the Mediterranean in the coming years? Which actions would you propose to ensure that relevant cooperation amongst UfM countries is improved?</i>	
EMUNI	Enhance safety, surveillance and defend the rule of law, while defending a humanitarian approach. The rule of law must be upheld and strengthened in the region.
IOC-UNESCO	Regional coordination and a clear commitment of National Authorities to implement and to actively participate in all type of agreements, actions, joint trainings, exchanges, etc. Collaboration amongst National navies, National Coast Guards and FRONTEX. Sharing key data and information on real time to create the best context to collaborate to fight against pollution, illegal immigration, piracy, smuggling, etc.
INSTM - Tunisia	Several studies and research work still done but results weren't considered thus these studies have to be considered to resolve so many problems.
National Institute of Marine Sciences and Technologies	<ul style="list-style-type: none"> - Establish real-time monitoring and data exchange between governments, - Improve the capacity building of the stakeholders, - Governments must ensure the application of laws to all users of the sea
Ministry of Economy - Palestine	<ul style="list-style-type: none"> - Create a joint list between member states and define tasks and responsibilities - Follow up on the implementation of these responsibilities and evaluate them by specialized committees - Raise recommendations for each member and pay attention to them - Activating a control team accredited by several local and international agencies and adopting the team's decisions - Publish and expose every violation and lack of interest in security and safety of the marine sector through various media



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	<ul style="list-style-type: none"> - A fine for every person who contributes to destroying the marine environment, by activating the police services system and cooperating with the Mediterranean organization - Development and adoption of all that is new and serves the marine sector
Alma Mater Studiorum University of Bologna	Create an alliance of technical national agencies and provide open and free data on maritime traffic
AMFORHT	Crossroader initiative, joint actions and programs, mobility programs
Presa Puente Estrecho de Gibraltar, SA	To carry out the Preliminary Project Presa Puente Estrecho de Gibraltar to unite Europe and Africa and to save the coasts of the Mediterranean from disappearing. https://youtu.be/9bbFyKE2DWw
DynMed Alentejo - Association for Studies and Regional Development Projects Dese Projects	Strengthen the role and actions carried out by the UfM and implement other WestMed, equipped with effective means of action.
Tunisian Association of Coastal, Port and Maritime Engineering (ATIM)	Setting up a Mediterranean Sea and Coastal Observatory
Cluster Maritime Tunisien	The improvement of maritime safety, in accordance with IMO conventions. The European Maritime Safety Agency and the SAFEMED initiative and recently in 2019 the ECAMED initiative for the establishment of an ECA zone in



	the Mediterranean (Emissions control AREA) on the emissions of blast oxides (SOX) and nitrogen oxide (NOX) from maritime traffic are reduced compared to the regulations in force.
UNIVERSIDAD DE MURCIA	<ol style="list-style-type: none"> 1. To facilitate and homogenize data collection in the Mediterranean region and to create tools to be able to use these data (in a safe way for citizens) in the coordinated management between governments. 2. Capacity building of stakeholders and promote sharing of visions to obtain a participatory diagnosis to be applied by all countries
RAED - Arab Network for Environment and Development	A special regional task force among the UfM on safety and security to ensure the cooperation and the information exchange.
ECONCRETE	Promotion and implementation of education and training of the less developed Mediterranean countries. Promotion of fair trade with local and traditional manufacturers who are environmentally sensitive. Creation of an Institution that can coordinate all of it with its own resources coming from public/private sector.
National Research Council of Italy	<ol style="list-style-type: none"> 1. Technical actions: <ul style="list-style-type: none"> - Develop new cybersecurity-based solutions for securing data and communications in complex and critical maritime systems such as ports and vessels (positioning systems, communication systems, access control systems,...) - Develop integrated solutions based on autonomous and unmanned (marine and air) drones/robots for surveillance around the vessel and in port areas, enhanced by advanced (surface and underwater) target detection and tracking systems - Develop advanced Alert Management Systems able to provide a continuously updated situational awareness about the safety and security conditions of a vessel and improve crisis management, in line with international standards in the subject matter, particularly those stipulated by The International Maritime Organisation instruments;



	<ul style="list-style-type: none"> - Develop new concepts and protocols with private companies and maritime operators to maximize the use of infrastructure, ships and platforms for scientific and environmental monitoring, safety and security purposes; - Develop systems for security of ports based on the integration of sensing technologies from multi-observational platforms (airborne, drones, on-ground, surface water and underwater) for the control of the persons and goods (containers, vehicles, ...). <p>2. Actions to ensure improved regional cooperation:</p> <ul style="list-style-type: none"> - Enhance awareness at both civil and political levels of the degradation of the marine environment, which presents crucial security challenges in terms of disruption of national economies, displacement of people, degeneration of national identities and loss of lives. - Examine the possibility of developing regional directives regarding the safety of fishing ships and the protection from marine pollution generated by these units; - Create the legislative, technological and infrastructural conditions to promote a highly connected and automated sea transportation system to improve safety and efficiency of shipping; Join efforts to ensure security in the seafood production and consumption value chain; - Improve Mediterranean training centres and capabilities to carry out projects for safety in oil & gas offshore operations, including environmental risk and new technologies; - Strengthen and reinforce maritime search and rescue cooperation and coordination in the Mediterranean.
WWF	Adopt satellite surveillance strategies to detect illegal discharges from ships in the region.
Ministry of Agriculture, Maritime Fisheries, Sustainable Development, Water and Forests: Maritime Fisheries Department - Morocco	VMS semaphore chains should be generalised at the level of member countries and better coordination between neighbouring countries should be ensured.



Malta Maritime Forum	Information exchange and data exchange is certainly a priority.
Med Blue Growth community	<ul style="list-style-type: none"> - A full-fledged Maritime Surveillance approach for the Mediterranean region must address a multilevel perspective, involving EU, multinational, regional, and local levels of intervention. It is essential to involve public, and private bodies, universities, local authorities and citizens to intervene more efficiently on strategic issues and guarantee better efficiency and success in maritime surveillance; - The large diversity of actors and sectors require to build up voluntarist approaches based on the needs of users' communities addressing maritime surveillance issues, including the convergence of their road maps. The development of clusters from citizens up to Multinational institutions can play a key role to build trust between different levels, but also to strengthen transnational cooperation in view of stimulating innovation, knowledge transfer and boosting the economic value of the sector. - Sharing data shall make surveillance more effective offering more affordable and accessible systems tackling integration and organizational issues. Data exchange should be favored by (i) harmonizing the different national legislative frameworks and relevant competent institutions for Maritime Surveillance, while envisaging an increased role of local and regional authorities in supporting these processes; (ii) by identifying the entities and agencies at national level with responsibilities of law enforcement in the maritime environment able to carry and promote the interstate exchange of information and (iii) by promoting the definition of a regional framework dedicated to maritime information sharing, endeavoring the possibility of a mixed public-private agreement to handle the question of property on commercial data deriving from the private sector; - Policy can help unlock the development potential of the Maritime Surveillance sector by providing suitable and harmonized legal frameworks for the use of confidential data (between different countries) . - Funding and financial authorities should ensure support to all phases of Maritime Surveillance development and particularly (i) help financial sustainability of Maritime Surveillance clusters ensuring trust, openness, stability, accountability and positive external impacts on the territories and (ii) provide funds and resources for Maritime Surveillance (e.g. back loans, public grants, monetary funding schemes, venture capital, etc.). - Foster synergies and coordination among the UfM, the renewed MED Blue Growth Community and in particular the two PANORAMED dedicated strategic projects MED OSMoSIS and SHAREMED would help join forces for a greater impact of the above-mentioned actions to support the sector.



General Secretariat for the Sea	<ul style="list-style-type: none"> - Co-operation in the control of pleasure craft operating across the Mediterranean - Common rules on anchorages
Agence nationale des ports Maroc	Transposing international regulations into national law and ensuring enforcement of laws
NOAH ReGen	<p>It would be useful to set up a Blended Finance UfM mechanism to finance the development of autonomous UAVs for the protection of maritime spaces.</p> <p>In this case, it would be necessary to model a prototype of innovative energy autonomous amphibious and flying UAVs.</p> <p>For example, a UAV with a helium inflatable balloon (so that it consumes little energy in flight), equipped with a compressor to reduce the volume of helium in its balloon and thus control its altitude, equipped with a small wind turbine and a photovoltaic surface to ensure its energy autonomy.</p> <p>This type of UAV can thus remain in flight for long periods and travel long distances with simple propulsion propellers.</p> <p>Equipped with cameras, thermal sensors, anti-collision sensors and others, a network of UAVs could ensure effective surveillance of maritime space and acquisition/transmission of big data.</p> <p>In the event of a strong storm or lack of energy, the drone compresses its helium in a tank and reduces the volume of its balloon to bring it down to the surface of the water where it will go on standby and recharge. Once the conditions have been met, it reinflates its balloon by releasing the compressed helium in the tank and regains altitude for new surveillance and data acquisition/transmission missions.</p> <p>A financial and political cooperation of the UfM coastal nations for the deployment of such technology under local authority control and big data exchange agreement, could allow very efficient monitoring of sensitive areas as a priority, before extending to other less sensitive areas.</p> <p>CAPEX and OPEX of this type of solution should be reasonable compared to "human" or "satellite" solutions. This is a challenge that could be taken up by a collaboration between the start-ups incubated in NOAH's Arks.</p>



GRAND MARITIME MARSEILLE	PORT DE	Sharing knowledge and experience, the more we share the same vision of the objectives, the easier it will be to meet the commitments.
IMFMM		<ul style="list-style-type: none"> - Implementation of a common strategy between the various Mediterranean countries which includes the exchange of information and the pooling of means and equipment to be deployed for the reinforcement and monitoring of maritime safety and security. - Capacity building - Effective implementation of international and regional instruments relating to maritime safety and security.
Institut National de Recherche Halieutique		Creation of a regional academy on continuous collaboration in monitoring Continuing education on high technologies used in monitoring
National Institute of Oceanography and Fisheries		Enhance capacity building in the developing countries and enforce the conventions
CETMAR		Forecast systems, GIS tools and big data analysis will be key aspects for security
Center of Sea Sciences, University of Algarve		The migrant issue is a shocking humanitarian issue that shames the World. Integration has to happen; Europe has an aging population young people are needed migrants are a source. They need to be trained so that they can have a meaningful life and contribution. Isolation or rejection is not the solution. This is Europe's biggest welfare issue, so much legislation about animal rights and welfare but this is a black hole! Crime thrives where there is human misery and loss of hope, that is all kinds of crime - Europe needs to embrace these new European citizens. Train, bring them into the work force, integrate them into society.



<p>Universidad de Murcia</p>	<p>Existing disputes over the delimitation of marine areas pose a challenge to maritime safety. This lack of borders prevents clear and forceful action by State authorities, but a rapid solution to all the delimitation problems that exist in the Mediterranean is not possible.</p> <p>It is essential to find a solution that reconciles the lack of clear boundaries with maritime safety, and cooperation is the way.</p>
<p>Lebanese University - Green Community</p>	<p>A common plan among all Mediterranean countries and platform to communicate challenges and opportunities in order to develop our area and people as one community on different levels as Education, technology, economy and others.</p>
<p>Council of the Oriental Region</p>	<p>The organization of a conference between the IMC member regions on this theme.</p>
<p>ASSOCIATION DE PROTECTION DU LITTORAL A MAAMOURA - APLM</p>	<p>Develop an interactive and intelligent platform to bring together all the connected players.</p>
<p>NGO COMMUNITY ASSISTANCE and Development ASCOM</p>	<p>Set up area surveillance systems to prevent overfishing and intercept vessels that are a source of pollution.</p> <p>Establish a coordination programme and a platform to register all actors working in the environmental fisheries sector to reflect together on priorities and bring about better collaboration.</p>
<p>Generalitat Valenciana</p>	<p>Regional cooperation must take account of initiatives and networks such as WestMed, CPMR, the Anna Lindh Foundation and others, and then take advantage of European Union instruments such as ENICBCMED or INTERREG.</p>



<p>DIRECTION DES PORTS ET DU DOMAINE PUBLIC MARITIME</p>	<ul style="list-style-type: none"> - Improve the coordination and exchange of maritime safety information between port and coastal VTS through the establishment of a regional maritime information centre. - Pool efforts at the regional level in terms of monitoring and surveillance - Review and adopt legislation and policies to combat criminal activities at sea and other threats to the marine environment.
<p>Legambiente Onlus</p>	<p>The Central Mediterranean route has become the most used itinerary to the EU in recent years, turning into a huge cemetery for drowned migrants. Only in the five years from 2014 to 2018, IOM's (UN International Organization for Migration) Missing Migrants Project has documented over 30.900 deaths -women, men and children losing their lives in trying to reach other countries. In this period, the Mediterranean Sea has seen the highest number of deaths, claiming the lives of at least 17.919 people, from which 64% have not been recovered from the sea (World Migration Report 2020). Also, according to the IOM report, in the current year we are facing 219 deaths of migrants recorded in the Mediterranean Sea (https://missingmigrants.iom.int/region/mediterranean). While the total number of deaths recorded in 2019 in the Central Mediterranean has decreased in comparison to 2018 (https://www.iom.int/news/mediterranean-migrant-arrivals-reach-76558-2019-deaths-reach-1071), the mortality rate (the number of fatalities as a proportion of attempted crossings) is rising. This indicates that the conditions of the migrants' journeys have worsened.</p> <p>EU policies, like the externalisation of European border controls, do not represent the right answer to this complex and dramatic phenomenon. NGOs complain about unacceptable infringements of the principle of international law by non-respecting asylum seekers and refugees in their right of asylum provided in the Constitutions and in the Nice Charter. Similarly, EU directives on international protection have been violated. To face this crisis, it is necessary to endorse a better collaboration between EU Member States and other Mediterranean countries, as well as a review of the Dublin Regulation, and broader admission policies particularly for labour migrants. Furthermore, for a greater and more effective involvement of NGOs in rescuing migrants at sea, a deeper cooperation between them and the coast guards of the involved Mediterranean countries is essential. New migratory policies have to think of ways of how to manage environmental migration and present concrete strategies. Still today, people migrating due to environmental reasons do not fall squarely within any of the particular categories provided by the existing international legal framework. IOM posits that the scale of international migration is</p>

	<p>increasing in line with recent trends. We are witnessing worldwide a growing number of international migrants that is estimated to be at nearly 272 million, with about two thirds being labour migrants. This number already surpasses some projections made for the year 2050, having predicted a total of globally 230 million migrants (World Migration Report 2020). Consequently, we are calling for the urgent recognition of climate refugees by national and international policies, to better face the increasing challenge and cooperate more successful on a broader scale.</p>
<p>Intermediterranean Commission of CPMR</p>	<p>MSS must address a multilevel perspective, involving EU, multinational, regional, and local levels of intervention. It is essential to involve public, and private bodies, universities, local authorities and citizens to intervene more efficiently on strategic issues and guarantee better efficiency and success in MSS.</p> <p>The large diversity of actors and sectors require to build up voluntarist approaches based on the needs of users' communities addressing MSS issues, including the convergence of their roadmaps. The development of clusters from citizens up to multinational institutions can play a key role to build trust between different levels. The creation of a Mediterranean maritime cluster (e.g. Interreg MED's PROteuS project) to strengthen transnational cooperation between key Med actors should be exploited. This, to stimulate innovation and knowledge transfer, while boosting the economic value of the sector.</p> <p>National authorities responsible for R&D+i should support the developments and harmonisation of experiences among Med countries (e.g. stimulating the development of innovative ICTs; encouraging transformation of technologies into real sharing data systems; supporting multilevel governance; increasing the participation of all MED countries in EU research projects).</p> <p>Sharing data shall make MSS more effective offering more affordable and accessible systems tackling integration and organizational issues. Data exchange should be favored by (i) harmonizing the different national legislative frameworks and relevant competent institutions for MSS, while envisaging an increased role of local and regional authorities in supporting these processes; (ii) by identifying the entities and agencies at national level with responsibilities of law enforcement in the maritime environment able to carry and promote the interstate exchange of information and (iii) by promoting the definition of a regional framework dedicated to maritime information sharing, endeavoring the possibility of a mixed public-private agreement to handle the question of property on commercial data deriving from the private sector.</p> <p>Funding and financial authorities should ensure support to all phases of MSS development and particularly (i) help financial sustainability of MSS clusters ensuring trust, openness, stability, accountability and positive external</p>



	<p>impacts on the territories and (ii) provide funds and resources for MSS. Promote the sector by enhancing SMEs capacity (e.g. creation of clusters; international agreements for new trades; technology transfer; PPP; training of operators, etc.). A proper involvement of local and regional authorities and stakeholders in the decision and policy-making process should be yet foreseen for MSS, since they are often the first ones to experience issues related to pollution, migration, etc. The production and management of marine and maritime knowledge and data should be fully considered, e.g. based on the experiences of the Bologna Charter and the work carried out under the MAREMED and other Interreg Med projects like Med-IAMER and PANACeA. Fostering synergies and coordination among UfM, MED Blue Growth Community and Interreg MED OSMoSIS and SHAREMED projects would help join forces for a greater impact to support the sector.</p>
<p>UNEP/MAP Barcelona Convention</p>	<ul style="list-style-type: none"> - Increase the use of tools made available by IMO to enhance maritime safety and security, in the Mediterranean, including the further development of Particularly Sensitive Sea Areas (PSSAs) and Associated Protective Measures (APMs); - The large diversity of actors and sectors require to build up voluntarist approaches based on the needs of users' communities addressing maritime surveillance issues, including the convergence of their road maps; - Sharing data shall make surveillance more effective, offering more affordable and accessible systems. Data exchange should be favored by (i) harmonizing the different national legislative frameworks and relevant competent institutions for Maritime Surveillance, while envisaging an increased role of local and regional authorities in supporting these processes; (ii) identifying the entities and agencies at national level with responsibilities of law enforcement in the maritime environment able to carry and promote the interstate exchange of information; and, (iii) promoting the definition of a regional framework dedicated to maritime information sharing, endeavoring the possibility of a mixed public-private agreement to handle the question of property on commercial data deriving from the private sector.



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CCDRAIentejo	<p>Regional coordination and a clear commitment by national authorities to implement and actively participate in all kinds of agreements, actions, joint training, exchanges, etc. Collaboration between national navies, national coastguards and FRONTEX.</p> <p>Share important data and information in real time to create the best context to collaborate in the fight against pollution, illegal immigration, piracy, smuggling, etc. COI-UNESCO Improving maritime safety in accordance with IMO conventions. Think about the urgency of social and political PEACE in the Mediterranean basin.</p>
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