ROADMAP TO SET THE PATH TOWARDS THE IMPLEMENTATION OF THE 2021 UFM MINISTERIAL DECLARATION ON SUSTAINABLE BLUE ECONOMY

Advanced draft

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1 Introduction

1.1 Background and aim of this document

On the 2nd February 2021 the UfM Ministerial Declaration for a Sustainable Blue Economy was ratified, calling for a number of relevant actions to be implemented across the Mediterranean seabasins. Those actions addressed a number of different priorities, including some sectoral ones (fisheries and aquaculture; maritime transport and ports; coastal and maritime tourism; marine litter; maritime safety and security) and others of a more cross-cutting nature (governance and sea basin strategies; research and innovation; skills, careers and employment; maritime spatial planning and integrated coastal zone management; sustainable investments).

The UfM Ministerial Declaration was commonly welcomed as an ambitious Declaration on shared goals with an expanded scope in terms of areas of cooperation, principles and common actions. Its specific aim was to address the joint challenges for the future of the Mediterranean Sea and its region and thus set a basis for coordinated future support by the UfM and other relevant regional stakeholders. As agreed by the UfM Co-Presidency, UfM Secretariat and UfM Countries, in order to be fully operational, the UfM Ministerial Declaration should be backed by a clear prioritisation of the list of actions called by Ministries.

This document therefore reviews the proposed actions under the various priorities identified by the UfM Ministerial Declaration and on this basis provides a clear indication and prioritisation of the way forward towards its full implementation. It does so by offering an overview and analysis of the joint needs, gaps and opportunities for future support, with the final ambition of offering a clear Roadmap for the implementation of the thematic priorities set by the UfM Ministerial Declaration.

1.2 Analysis provided and main outcomes expected

The Roadmap proposed through this document is based on several steps which ensure its overall soundness and feasibility - such different steps are resumed in this section.

As a first step, a **large database of over 300 relevant initiatives** has been compiled. The database includes relevant regional, subregional and international/transnational initiatives including policy frameworks, projects, etc.) covering each priority area identified in the UfM Ministerial Declaration;

As a second step, building on this broad set of information, a **qualitative review has been provided** by matching each collected initiative with the relevant calls for action identified by the UfM Ministerial Declaration and the type of support being provided – i.e. offering regional or subregional policy framework for actions or a specific contribution in terms of support to cooperation amongst stakeholders, R&I advancements, capitalisation of previous initiatives, etc.;

As a third substantial step, the **state of the art in the implementation** of each priority and call for actions as formulated in the UfM Ministerial Declaration has been assessed, including **areas where greater support** is possibly needed and areas where good efforts should be continued.

As the result from this analytical groundwork, the main **potential avenues for future cooperation** (pathways, processes and actions) in implementing the UfM Ministerial Declaration have been sketched, as a basis for further discussion and endorsement by the UfM Working Group on the Blue Economy. Such avenues for cooperation provide the basis for a number of concrete initiatives that can be launched, scaled-up and promoted in the short, medium and longer term by the UfM Secretariat in partnership with relevant regional actors across the Mediterranean sea basin.

1.3 Structure of the Roadmap

The Roadmap is structured around five different chapters:

- 1. Introduction
- 2. Assessment of the UfM Ministerial Declaration: Sectoral Priorities
- 3. Assessment of the UfM Ministerial Declaration: Cross-cutting Priorities
- 4. Provisions for the monitoring system
- 5. Overview of shortlisted actions for a concrete follow-up

Chapter 1 describes the objectives of the document, the rationale and the outcomes expected to guide the midterm implementation of the UfM Declaration.

This is followed by an in-depth assessment of the UfM Ministerial Declaration priorities (both sectoral and cross-cutting) under **chapters 2** and **3**, respectively.

This in-depth assessment entails a description of the state of the art of the activities, including an overview of the on-going actions, an assessment of the regional coverage of those actions, information about the expenditure of the sector compared to other Sustainable Blue Economy sectors and for different types of projects

As a next step in the assessment the document gets back to the main priorities put forward by the UfM Ministerial Declaration for the sustainable development of each of the sector by including a table which provides further analysis on the state of the art in advancing with the specific UfM priorities, It does so by building on the reviewed initiatives (frameworks/processes and projects) and confronting those with each priority of the UfM Ministerial Declaration for the sector. The analysis allows for an assessment on the status of the implementation of each priority (a "visual check").

Finally, and building on the overall assessment provided, this section provides some insights on the type of actions (frameworks processes, projects) and related support to be foreseen as part of the UfM Roadmap, in addressing each sectors' opportunities across the Mediterranean. In this way, the actions presented in the Roadmap have been defined and developed based on the priority areas which present a higher number of gaps as emerged in the assessment, the ultimate goal being to support and further strengthen the work carried out by UfM.

Chapter 4 introduces a basic monitoring system to monitor overall progress of the UfM Ministerial Declaration, including some concrete tools, procedures and a compact system of initially proposed indicators (which will be further developed in finetuned).

As a way of conclusion, **chapter 5** includes a shortlist of 15 proposed actions for a concrete follow up. This list includes the description of the action proposed, the links to the specific Ministerial Priority and the relevant call for action within the Declaration, as well as the concrete steps envisaged to start their implementation.

2 Assessment of the UfM Ministerial Declaration: sectoral priorities

2.1 Overview of sectoral priorities

The sectoral priorities as included in the UfM Ministerial Declaration on Sustainable Blue Economy are the following:

- Sustainable food from the sea: Fisheries and Aquaculture
- Sustainable, climate-neutral and zero-pollution maritime transport and ports
- Interactions between marine litter and the blue economy
- Coastal and maritime tourism
- Marine renewable energies
- Maritime safety and security

As stated above, an in-depth assessment of each of the priorities -in order of appearance in the Ministerial Declaration- is elaborated in this section. For each of the sectors, the following structure has been developed with a cascade approach:

- Brief **introduction** on the current challenges of the sector
- Description of the state of the art of regional, subregional, and transnational cooperation in the sector, with a focus on geographical coverage of initiatives across Mediterranean countries and an analysis of project expenditure per sector.
- Stocktaking on the current status of implementation of the UfM SBE Ministerial Declaration
 (as of March 2022), with a focus on identifying possible gaps and opportunities for future
 cooperation. This assessment is based on the state-of-the-art section and is applied to all the
 concrete calls for action included in the Ministerial Declaration.
- Overview of proposed avenues for future cooperation based on the identified areas where additional UfM/regional support is considered to bring added value.

2.2 Food from sea: fisheries, aquaculture

2.2.1 Introduction

Fisheries have historically supported coastal communities and local economies in the Mediterranean, and are at the core of important socio-economic and cultural values across the region. The sector is key for the regions' food security and livelihoods, as over 300 000 persons are directly employed on fishing vessels in the Mediterranean, whilst many more indirect jobs also depend on the sector. However, it is widely acknowledged that the sustainability of fishing and aquaculture in the Mediterranean is currently at risk, with more than 85% of the scientifically assessed stocks are being caught beyond safe biological limits.

UfM Ministerial Declaration on Sustainable Blue Economy, 2nd February 2021:

- UfM member countries to "comply with the management recommendations adopted by the GFCM with the view to sustainably manage key stocks in the region and develop sustainable aquaculture"
- The adoption of an ambitious new GFCM strategy for the period 2021-2025 to further turn around fisheries governance in the Mediterranean towards increased sustainability
- The establishment and strengthening of marine protected areas and fisheries restricted areas
- The creation of initiatives for increased cooperation between the Mediterranean countries in the fight against Illegal, Unreported and Unregulated (IUU) fishing

2.2.2 State of the art of activities

Support to fisheries and aquaculture is a top priority for the Mediterranean region. To briefly describe the state of the art of Sustainable Blue Economy (SBE) frameworks, initiatives and actions related to sustainable fisheries and aquaculture in the Mediterranean, a selection of relevant actions is made (on the basis of a longer-list of collected initiatives and projects) and outlined in this section.

This selection aims to illustrate the variety of subjects being addressed and carried out based on a combination of criteria, including:

- a) Relevance with respect to the calls for action set for this UfM Ministerial Declaration priority, as presented above;
- b) Geographical coverage;
- c) In the case of projects, the incorporation of sustainability and innovation aspects in its approach;

An overview of main frameworks, processes and initiatives/projects is provided in the figure below and further described in this section.

Figure: Overview of selected regional frameworks, subregional processes, transnational projects per sectoral priority (based on the compiled database of SBE actions and initiatives in the Mediterranean)

Regional

- The UfM Sustainable Blue Economy Ministerial Declaration
- The General Fisheries Commission for the Mediterranean (GFCM) and particularly its 2030 Strategy for Sustainable fisheries and
 - The **MedFish4Ever Ministerial Declaration**
 - SFS-MED Platform
- The Regional Plan of Action for **Small-Scale Fisheries in the** Mediterranean (RPOA-SSF)
- The IUU Plan of Action (IPOA-IUU)
- The Strategy for the Sustainable **Development of Aquaculture**
- At international level, the UN Fish Stocks Agreement (UNFSA), and the Code of Conduct for **Responsible Fisheries**

Subregional

- EU Common Fisheries Policy (CFP)
 EU Guidelines for a sustainable and competitive aquaculture
 - EU4Algae initiativ
- **WestMED Technical Group on Sustainable Aquaculture** (AquaWest)

Transnational and multi-country projects

Regional

With the authority to adopt binding recommendations for fisheries conservation and management, the General Fisheries Commission for the Mediterranean (GFCM) established in 1949 within the framework of the Food and Agriculture Organisation of the United Nations (FAO) plays a crucial role in the regional governance of the sector. Currently, GFCM has 22 member countries plus the EU, and an additional 6 noncontracting parties who "actively participate in GFCM activities, attend the sessions of the Commission and commit to fully implement all GFCM recommendations"1. In sum, GFCM activities and decisions directly affect the vast majority of UfM countries, with the exception of Mauritania and Palestine.

Over the years, GFCM has promoted the adoption of a wealth of regulatory and strategic documents; contributed to data collection, knowledge building and sharing in the region and established collaboration frameworks for each of the sub-areas prioritised under this sector. Key examples include:

- The Regional Plan of Action for Small-Scale Fisheries in the Mediterranean (RPOA-SSF) is a political commitment setting forth an ambitious roadmap for the ten years from 2018-2028. It prescribes concrete and coherent measures to address challenges and reinforce opportunities for small-scale fisheries, including by giving fishers a voice in the decisions that affect their livelihoods, by safeguarding environmentally sustainable fishing practices and by providing economic, social and employment benefits.
- The IUU Plan of Action (IPOA-IUU) aims to prevent, deter and eliminate Illegal, Unreported and Unregulated (IUU) fishing by providing all States with comprehensive, effective and transparent measures by which to act, including through appropriate regional fisheries management organizations established in accordance with international law.

¹ https://www.fao.org/gfcm/about/membership/en/

The Strategy for the Sustainable Development of Aquaculture defines measures to ensure that
a level playing field in the Mediterranean aquaculture sector is achieved, as well as to increase its
competitiveness, sustainability, productivity, profitability and equity.

Moreover, the "MedFish4Ever" Ministerial Declaration (2017) was adopted by most² UfM countries with the objective of providing a comprehensive ten-year regional strategy, mainly focused on the socio-economic dimension in fisheries management and the sustainability of resources, based on best scientific advice and taking into consideration social-economic aspects.

In parallel to the GFCM, other regional initiatives such as the **SFS-MED Platform** are also active in the region. Supported by CIHEAM³, FAO and UfM, the SFS-MED Platform is a multi-stakeholder initiative aimed at promoting collaborative actions for the sustainable transformation of food systems in the Mediterranean, ultimately accelerating progress on the delivery of the 2030 Agenda for Sustainable Development.

Subregional

In parallel, a plurality of initiatives is observed -mainly at EU level- establishing sub-regional implementation policies. Notably, the European Union's has adopted the following legislative frameworks, strategies and/or initiatives to promote the sustainable development of fisheries and aquaculture:

- The Common Fisheries Policy (CFP), since its latest reform in 2013, introduces new instruments
 to guarantee the sustainability of the sector, including the Maximum Sustainable Yield (MSY)
 objective, minimum fish and mesh sizes, etc.
- Furthermore, the European Commission's Communication on "a new approach for a sustainable blue economy in the EU: Transforming the EU's Blue Economy for a Sustainable Future" (hereinafter referred to as EU Sustainable Blue Economy Communication 2021) called for responsible fishing to bring stocks to sustainable levels, sustainable aquaculture to complement the natural limits of wild captures and algae production as an alternative to agriculture.
- The EU Guidelines for a sustainable and competitive aquaculture⁴ aim to offer a common vision for EU Member States and all relevant stakeholders for the further development of the aquaculture sector in a way that contributes to the European Green Deal. Recently, the EU4Algae stakeholder platform has been launched to accelerate the development of a European algae industry and promote algae for nutrition and other uses among consumers and businesses in the EU.

Sub-regional maritime strategies in the Mediterranean sub-sea basins (EUSAIR, WestMED Initiative) also incorporate specific objectives and mechanisms related to the sustainability of fisheries and aquaculture in their Action Plans. A notable example includes the WestMED Initiative's "AquaWest" Technical Group⁵. Through this forum, WestMED stakeholders under the lead of Maghreb countries facilitate cross-national development by sharing best practices and guidelines to sustainably develop aquaculture. Participants in

² The Declaration has been adopted by 16 countries (Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, France, Greece, Italy, Malta, Monaco, Montenegro, Morocco, Slovenia, Spain, Tunisia and Turkey) as well as the European Commission. The following UfM countries have not adopted the Declaration: Egypt, Israel, Jordan, Lebanon, Mauritania and Palestine.

³ https://www.ciheam.org/

https://eur-lex.europa.eu/resource.html?uri=cellar:bab1f9a7-b30b-11eb-8aca-01aa75ed71a1.0022.02/DOC_1&format=PDF

⁵ https://www.westmed-initiative.eu/aquawest/

this group consist of high level policymakers at national level, researchers, as well as companies and entrepreneurs. The ultimate goal of this group is to establish a permanent platform for exchange and expertise sharing on aquaculture, with a focus on resource mobilization and project development.

Moreover, the OECD Committee for Fisheries (COFI), embedded in the Trade and Agriculture Directorate, was founded in 1961 to provide "timely, evidence-based policy analysis" of pressing global issues in fisheries, aquaculture and sustainable fisheries management.

Transnational and multi-country projects

A wide range of transnational cooperation projects can also be observed which are characterised by an innovative approach and with the objective of contributing to the sustainability and competitiveness of fisheries and aquaculture activities in the Mediterranean. The main outputs generated in the framework of these projects include knowledge building and sharing; innovation and technology demonstrations; development of strategies, guidelines or recommendations; establishment of stakeholder platforms and capacity building instruments.

A few relevant examples of projects (active or finalised) are briefly described as follows. Their selection is based on their alignment with the UfM Ministerial Declaration goals and calls for action, or their particular replicability potential across Mediterranean countries, which is further elaborated upon in the following sections:

- LabMAF Developing a Labelling Scheme for Mediterranean Small-scale and Artisanal Fish Products (Regional)⁶ explored the potential of markets to revive and support a socially, economically, and environmentally sustainable small-scale fishing sector in the Mediterranean. As a key result, a draft of holistic standard guidelines for Responsible Small-Scale Fisheries Products in the Mediterranean was elaborated, as well as a map of existing local and national SSF product initiatives in the Mediterranean.
- FISH MED NET Fishery Mediterranean Network for the Development of MSMEs, Technology Transfer and Innovation, Professionalisation of Youth and Women (Regional)⁷ trains fisheries micro, small and medium-sized enterprises (MSMEs) in increasing their diversification and integration potential and favouring the development of new products and services. As an important outcome, new business alliances are being created to fill the integration gap among MSMEs by fostering common business models and marketing activities. Also, the project develops public authorities' capacities to encourage both a sustainable and successful development of the fishing sector
- Med ByCatch I and II Development of a Common Standardised Methodology to Collect Data on the Incidental Catch of Vulnerable Species (Regional)⁸ During its first phase, the project supported Mediterranean countries to develop a common standardised methodology to collect data on the incidental catch of vulnerable species and test mitigation solutions that can be replicated at the regional level. In its second phase, this result is being complemented by pushing

⁶ LabMAF countries covered: France, Italy, Lebanon, Malta, Portugal, Slovenia, Spain

⁷ FISH MED NET countries covered: France, Italy, Tunisia, Lebanon, Palestine

⁸ MED ByCatch II countries covered: Morocco, Tunisia, Turkey, Croatia, Italy

forward to reduce bycatch in the Mediterranean, particularly by testing mitigation tools and techniques.

- BLUEFasma Integration of Circular Economy principles in the fishing and aquaculture sectors (North Med)⁹ integrates and implements Circular Economy (CE) principles in the key blue growth sector of Fisheries and Aquaculture. In this sense, it has developed a set of public tools that includes: a consolidated knowledge base; a "Circular Economy Readiness index"; the so-called "BLUEfasma e-network" and BLUEfasma Living-labs in order to promote stakeholder engagement and collaboration; a capacity building instrument and a series of systematized policy inputs.
- MED-AID Mediterranean Aquaculture Integrated Development (Regional)¹⁰ aimed to to
 enhance the competitivity and sustainability of the Mediterranean marine aquaculture sector,
 focusing on the two main species farmed, sea bass and sea bream. To do so, it generated
 innovative knowledge of the technical, environmental, economic and social issues faced by the
 sector and developed tools to improve the performance of the production systems, inter alia.
- MEDFISIS Mediterranean Fishery Statistics Information System (Regional)¹¹, coordinated by FAO, aimed at creating a Mediterranean Fishery Statistics and Information System, which contributes to the sound management of the fisheries exploiting the living resources of the Mediterranean Large Marine Ecosystem.

Assessment of regional coverage

Beyond the selected exemplary initiatives described so far, our analysis covered a wider number of projects (provided in the annexed "project database" tables). The main emerging findings with regards to the initiatives in place in this sector are as follows:

- There is currently an overall **good coverage of regional frameworks**, notably thanks to the policy and regulatory efforts accomplished in the framework of the GFCM and FAO.
- Subregional processes identified are mainly covering EU and south-west countries.
- A wide range of transnational cooperation projects exist, although less evenly distributed than frameworks amongst Med countries, except for projects establishing collaboration platforms, which appear to involve partners from a larger amount of countries.
- Capitalisation projects tend to concentrate in the north.
- · While there seems to be relative limited R&I and capacity building projects in the South-East.

Expenditure of the priority

The figures below show the expenditure of the sector compared to other SBE sectors and for different type of projects. Projects are divided depending on their main focus (Establishment of collaboration frameworks and platforms, Capacity Building, Research and Innovation, Capitalisation of good practices). We can observe in the figure, that Fisheries and Aquaculture accounts for 10% of the overall spending on SBE priority¹². The figure also indicates that almost half of the expenditure goes to Research & Innovation (45%), followed by capacity building (25%) and the establishment of collaboration frameworks and platforms (18%) while a smaller share (12%) is spent on capitalisation projects.

⁹ BLUEfasma countries covered: Greece, Italy, France, Spain, Portugal, Cyprus, Malta, Croatia, Montenegro

¹⁰ **MED-AID countries covered**: Croatia, Denmark, Egypt, France, Greece, Italy, Netherlands, Norway, Portugal, Spain, Tunisia, Turkey, United Kingdom

¹¹ **MEDFISIS countries covered**: Albania, Cyprus, Egypt, France, Greece, Israel, Italy, Jordan, Lebanon, Malta, Monaco, Montenegro, Morocco, Slovenia, Spain, Tunisia, Turkey

¹² Data unavailable for a number of projects

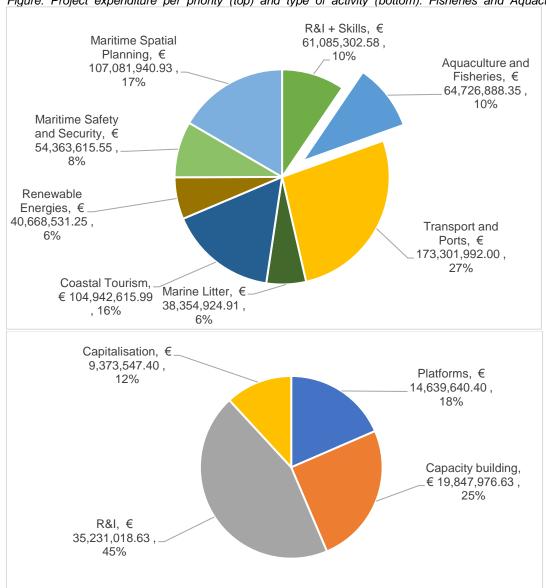


Figure: Project expenditure per priority (top) and type of activity (bottom): Fisheries and Aquaculture

Source: Database of projects compiled for the UfM State of the Art of the Mediterranean Sustainable Blue Economy report

Further details on the support provided

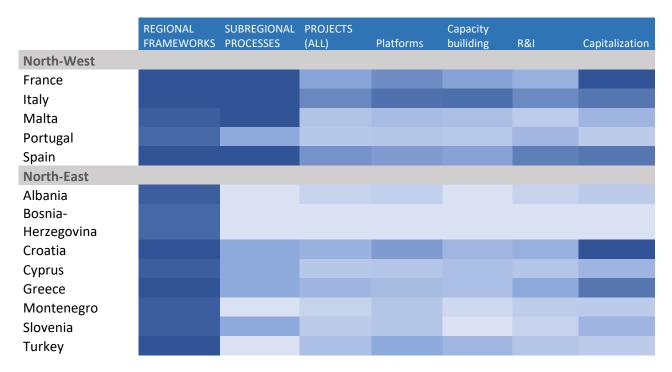
The figure below provides an overview of the distribution of the collected initiatives (frameworks, processes and projects) across the various UfM countries in the different areas of the Mediterranean. The darker the blue, the higher the coverage of the mapped initiatives for each country (i.e. dark blue indicates that a country is involved in all the initiatives mapped for the specific category and pale blue indicates a very limited percentage of the total initiatives mapped). It should be noted that the projects are also divided depending on their main focus (Collaboration, Capacity Building, Research and Innovation, Capitalisation of good practices). An analysis of the colour schemes provides some observations:

 A relatively homogeneous dark blue colour distribution in a column implies a general balance in the coverage of the initiatives mapped across all the Mediterranean, which is the case of Framework Initiatives in this sector. As acknowledged by Ministers in the UfM Sustainable Blue Economy Ministerial Declaration, the existence of GFCM at regional level constitutes a key pillar for the sectors' governance in the Mediterranean. Its extensive record of support, its acknowledged legitimacy based on its UN background, and its ability to adopt binding recommendations all together highlight the singularity of this cooperation mechanism, unparalleled to the status in other sectors. Two UfM countries (Mauritania and Palestine), however, are not part of the GFCM framework -neither as contracting nor non-contracting parties-, which heavily impacts their involvement in decision-making processes and access to regional support in this sector.

- The second column shows a diverse palette, whereby some countries seem to be much better covered than others, indicating some polarisation and leaving room for synergies and potential good practice exchange across countries involved in the different initiatives. Sub-regional projects in the north mainly focus on data collection and analysis, allowing for a better understanding of the sector and its evidence-based sustainable management. These include regular monitoring of fishing stocks and fleets in the Mediterranean and Black Sea, as well as an information system for the promotion of aquaculture (SIPAM), driven by the GFCM. Initiatives aiming at dialogue, coordination, and information exchange among stakeholders in the sector are also observed in the west, in particular in the field of sustainable aquaculture (WestMED Technical Group "AquaWest").
- A range of lighter shades of blue in the project-related columns implies that the initiatives are neither as
 many nor as equally spread across the region, hence also indicating relative polarisation of activities
 mapped within one or few countries. The consequence of this is a limited access of the paler blue
 countries to all types of project support, with the exception of collaboration platforms. Partners from
 three countries (Italy, Spain and Greece) seem to have a stronger presence in transnational projects in
 all areas -also in terms of project leading roles-, which may point toward further expertise transfer
 initiatives.

Legend of the table: the darker the blue, the higher the coverage of the mapped initiatives for each country (dark blue indicates that a country is involved in all the initiatives mapped for the specific category and pale blue indicates a very limited percentage of the total initiatives mapped).

Figure: Overview of existing actions per country/ sectoral priority



South-West				
Algeria				
Mauritania				
Morocco				
Tunisia				
South-East				
Egypt				
Israel				
Jordan				
Lebanon				
Libya				
Palestine				

Source: Database of processes, frameworks, initiatives and projects compiled for the UfM State of the Art of the Mediterranean Sustainable Blue Economy report

2.2.3 Stocktaking of the Ministerial Declaration: progress and opportunities

As a final step in the analysis, we get back to the main priorities put forward by the UfM Ministerial Declaration for the sustainable development of the tourism sector. The table below provides further analysis on the state of the art in advancing with the specific UfM priorities, as sketched in the introduction to this chapter. It does so by building on the initiatives (frameworks/processes and projects) as reviewed earlier in this chapter and confronting those with each priority of the UfM Ministerial Declaration for this sector. The analysis allows for an assessment on the status of the implementation of each priority (a "visual check") to be used as a basis for the future UfM Roadmap.

Figure: Identification of opportunities per sectoral priority

UFM MINISTERIAL DECLARATION CALL FOR ACTION	VISUAL CHECK OF CURRENT IMPLEMENTATION	JUSTIFICATION AND IDENTIFICATION OF OPPORTUNITIES AS PER THE MAPPING OF INITIATIVES
ACTION CURRENT		 Monitoring compliance with fisheries and aquaculture management recommendations is key to identify possible gaps between national legislation and relevant regional recommendations and to encourage countries to make progress in this regard. The GFCM itself established a Compliance Committee (CoC) in 2006, and there are currently some examples of monitoring initiatives such as the Mediterranean Legislation Project "GFCM-Lex"¹³, or the FAO National Aquaculture Legislation Overview (NALO)¹⁴, although they currently do not cover all UfM countries. Although the GFCM has competence for all marine waters of the Mediterranean and the Black Sea, challenges to monitor progress persist in those countries where GFCM rules and procedures do not apply (i.e. UfM member states who are non-contracting parties: Lebanon, Mauritania and Palestine. Jordan and Bosnia-Herzegovina have the status of "non-contracting cooperating parties"). The sustainable development of aquaculture is also relatively well covered at the level of regional frameworks in most UfM countries -e.g., the GFCM Sustainable Aquaculture strategy, GFCM Aquaculture working groups, SIPAM Aquaculture data and statistics platform, among others), as well as projects, which seem to focus mainly on developing and validating technologically-advances (NewTechAqua, EASY FEED), increasing

 $^{^{13}\,\}underline{\text{https://www.togetherforthemed.org/success-stories/identifying-legal-gaps-to-accelerate-fishing-sector-transition-8.html}$

¹⁴ https://www.fao.org/fishery/en/nalo/search

Adoption of an ambitious new GFCM strategy for the period 2021-2025 to further turn around fisheries governance in the Mediterranean towards increased sustainability	competitiveness of the sector (MedAid) and setting eco-friendly standards (InDAM, SHoCMed). • In terms of stock management, a wide array of relevant policy, regulatory frameworks and initiatives are currently in place covering most UfM countries. Notably, the UN Fish Stocks Agreement (focused on straddling and highly migratory species), the GFCM multiannual management plans and permanent working groups on demersal and small pelagic fish species - where stock data are regularly assessed and "priority species" and "shared stocks" lists are elaborated As a result of these efforts, according to SoMFi 2020 report data, fish stock exploitation ratios in the Mediterranean are decreasing for the first time in decades, showing some positive trends even though overexploitation of most fish stocks remains a reality 15. Projects tend to focus on data collection and the development of information sharing systems. • An ambitious GFCM 2030 Strategy 16 was adopted in July 2021 by GFCM's 22 contracting parties plus the European Union. The 2030 Strategy has clearly defined aims in line with existing policies and is rooted in practical actions.
Establishment and strengthening of marine protected areas and fisheries restricted areas	 At regional level, MedPAN actively promotes the establishment and operation of Marine Protected Areas in the Mediterranean. Moreover, 1,760,000 km2 of sea habitats are currently protected by the nine Fisheries Restricted Areas (FRAs) established by the GFCM. One project has addressed opposition from local fishermen to MPAs in the north-east (FishMPABlue), leaving room for capitalisation in other countries. Importantly, the GEF is in the process of approving its investment in the full-sized "Fisheries and Ecosystem Based Management for the Blue Economy of the Mediterranean" project, which covers most Mediterranean countries.
Initiatives for increased cooperation between the Mediterranean countries in the fight against	At the level of policy frameworks, the issue is properly addressed at regional level by the IUU Plan of Action (RPOA-IUU), established by the GFCM in 2020 as a comprehensive toolbox to combat IUU Fishing. It is also included in point 40 of the MEDFISH4EVER

¹⁵ https://www.fao.org/gfcm/news/detail/en/c/1364435/ https://www.fao.org/gfcm/2seas1vision/en/

Illegal, Unreported and Unregulated (IUU) fishing	Declaration. Moreover, in 2019, GFCM selected seven best practices from Mediterranean countries in fighting against IUU fishing across the region ¹⁷ . Civil society initiatives actively work on this topic as well, such as Oceana or the Global Fishing Watch organisation, which produces open-source datasets and analyses which can be further exploited to understand the extent of the IUU problem in the Mediterranean. • As compared to other sub-sectors in the area of Fisheries and Aquaculture, there seems to be a gap in IUU related projects mapped in most UfM countries. Existing ones tend to focus on training and knowledge sharing such as FIUUFRA, which was conceptualised during the first stakeholders hackathon organised in Algiers (2019) by the WestMED initiative, as well as the follow-up project E-FISHMED.
Further support to the GFCM's Regional Plan of Action for Small-Scale Fisheries in the Mediterranean and Black Sea (RPOA-SSF) as a vital political commitment to strengthen and support sustainable SSF in the region as well as their resilience to shocks	 Good advancements have been made regarding the implementation of RPOA-SSF, including the establishment of the SSF Forum 2021, a platform where small-scale fishers can exchange knowledge and best practices to jointly build their capacities. At the level of initiatives, importantly the WWF Transforming Small-Scale Fisheries initiative supports 10 Mediterranean countries in developing participatory fisheries management strategies. National examples include the Algerian network of Small-scale fishers associations. At the level of transnational projects, as showcased by GFCM's SSF mapping tool¹⁸, there is a wealth of SSF-related projects, which seem to be evenly distributed across the Mediterranean, and tend to concentrate on issues such as the participation of small-scale fishers in decision-making processes, capacity building and development of the value chain; while topics related to the impacts of SSF on climate and environment and decent work seem to be less covered by SSF projects in general.

https://www.fao.org/gfcm/meetings/medfish4ever/awards/en/
 https://www.fao.org/gfcm/activities/fisheries/small-scale-fisheries/mapping-tool/en/

2.2.4 Potential avenues for future cooperation: pilot actions / projects

Building on the overall assessment provided so far, this section provides some insights on the type of actions (frameworks processes, projects) and related support to be foreseen as part of the UfM Roadmap, in addressing fisheries and aquaculture opportunities across the Mediterranean.

The actions proposed as follows have been defined and developed based on the priority areas which present a higher number of gaps as emerged in the assessment, the ultimate goal being to support and further strengthen the work carried out by UfM.

The calls for action in the SBE Ministerial Declaration allow for a clustering exercise, which is presented as follows.

Firstly, a number of potential avenues for future cooperation related to FAO's *General Fisheries Commission* for the Mediterranean should be derived from the previous description of the state-of-the-art and subsequent analysis:

- Strengthening and possibly enlarging stakeholder collaboration schemes within the GFCM (i.e. GFCM Technical working groups on Aquaculture)
- Ensuring wide dissemination of the new comprehensive and GFCM 2030 Strategy amongst involved public authorities and stakeholders in the value chain, as well as citizens (especially youth)
- Expanding existing mechanisms to **monitor compliance with GFCM recommendations** to all GFCM members, such as the GFCM-Lex project, which has analysed implementation gaps in 3 Mediterranean countries.

As concerns wider frameworks, particularly referring to sustainable food systems, the following is proposed:

• Continue the work done under the topic of Sustainable Food Systems (particularly through the SFS-MED Platform), with a focus on finalizing national pathways and start their implementation, including defining the actors involved and outlining a clear timeline and key milestones to ensure implementation in future years, building on the 2021 UN Food Summit, the. upcoming 3rd Conference on Mediterranean Diet in September 2022, in Italy; and the PRIMA Community of Practice on WEFE¹⁹.

Regarding Small-Scale Fisheries (SSF):

• Continue establishing and strengthening mechanisms to guarantee a participatory approach to decision-making and the implementation of GFCM plans/strategies, through the active involvement of fishers, fish workers and other stakeholders who actively work in Mediterranean.

Continue promoting frameworks to ensure decent working conditions as well as education and training opportunities for men and women of the sector.

Concerning Illegal, Unreported, and Unregulated Fishing (IUU):

Create the means to ensure the **transfer and capitalisation of the best practices selected by GFCM** to combat IUU fishing in all UfM countries. Overall support to skills and capacity building, especially with local communities which are most exposed to IUU, building on existing examples such as FIUUFRA project.

As regards the adoption of sustainable and environmentally conscious practices in the Fisheries and Aquaculture sector:

 Promote digitalisation and the uptake of advanced tools and technologies for fisheries and aquaculture, capitalising on good experiences across the region. In terms of fisheries, focus should be placed on remote electronic monitoring systems, catch reporting using mobile applications, ecosystem modelling and artificial intelligence tools (as proposed by the European Commission's

¹⁹ https://prima-med.org/wefe-nexus-community-of-practice-a-solution-for-the-mediterranean-future/

Communication on Sustainable Blue Economy). Concerning aquaculture, research and innovation shall prioritise the application of new business models (circular practices), diversified sustainable productions (blue biotechnology, pharma, added value) and innovative technologies (cages, feeding process, sustainable feeding supply, etc).

 Enlarging existing subregional frameworks toward Eastern Mediterranean countries, particularly taking stock on the progress done in the context of the WestMED initiative's Technical Group on Sustainable Aquaculture.

Finally, concerning cross-cutting priorities in the UfM SBE Ministerial Declaration (Maritime Spatial Planning):

In the context of the development of national Marine Spatial Planning strategies, prioritise the
identification of Principal Areas for Fisheries and Allocated Zones for Aquaculture (AZAs) at
country level in the Mediterranean basin and increase their number by 2024. This could be done
through a dedicated series of exchanges/meetings among competent national authorities and key
stakeholders.

2.2.5. Measuring progress in the UfM Declaration Implementation: Fisheries and Aquaculture

Output (Process indicators)

+Number of actions, sets of activities and projects of regional cooperation planned in the area of Sustainable Fisheries and Aquaculture, in particular with regards to the following sub-priorities:

- Ecosystem-based approaches to fisheries, including the establishment of marine protected areas and fisheries restricted areas
- Illegal, Unreported and Unregulated fishing (IUU)
- Small-Scale Fisheries (SSF)
- Diversification of the blue bio-economy
- Market innovation, eco-labelling and traceability of seafood

+Number of actions, sets of activities and projects of regional cooperation being implemented in the Mediterranean area in the field of Sustainable Fisheries and Aquaculture (with regards to the sub-priorities mentioned above)

+Level of compliance at national level with GFCM/FAO recommendations on fishing stocks management and aquaculture

+Level of financial support committed/secured to support the priority on Sustainable Food from the Sea: Fisheries and Aquaculture of the UfM Ministerial Declaration

+Number and typology of partners and stakeholders involved in the actions/sets of activities/projects

Outcomes (result indicators)

+Achieved and projected results of the different actions, sets of activities and projects underway or finished in the field of Sustainable Food from the Sea: Fisheries and Aquaculture, mainly:

- Number/type of new/enhanced products/services developed;
- Number/type of new/enhanced collaboration networks and platforms being supported/activated;
- Number/type of stakeholders (businesses, research, CSOs, etc.) involved and benefitting from the action/activity/project;
- Number/type of regional policies influenced as a result of regional cooperation (mainstreaming).

2.3 Sustainable, climate-neutral and zero-pollution transport and ports

2.3.1 Introduction

Maritime transport has a vital and strategic role in the Mediterranean. It plays a role in ensuring connectivity among the UfM member countries. Covering about 80% of global trade, commercial shipping is crucial for intra-Mediterranean maritime trade flows. In addition, the Mediterranean hosts the largest cruise fleets linking maritime transport and tourism. To assume its responsibility in meeting UN Sustainable Development Goals in the contract of the transition towards a climate-neutral economy, Mediterranean waterborne transport must become cleaner and greener to transform towards zero-emission transport. Greening maritime transport is amongst the most pressing challenges for the region.

More specifically, this challenge concerns a drastic reduction of greenhouse gas emissions, air and water pollution as well as accidents and marine spills, noise, and overall impacts on coastal and marine biodiversity. In order to address such challenges, the sector must accelerate the market-readiness for 'zero-emission' technologies, which in turns implies the mobilisation of significant investments in equipment and infrastructures across the sea basin. In addition, the sector needs to preserve safe and secure waterborne transport including all its activities, its products and its infrastructure. Safety implies the importance to protect the life and preserve the health of the Waterborne workforce, passengers, and citizens living in coastal areas. The Waterborne sector pursues a zero accident, zero fatalities, zero pollution policy and needs to protect ships, vessels and infrastructures from perils, cyber-attacks, piracy and terrorism. Digitisation will connect smart ships and vessels as well as smart ports and smart infrastructure. It will enhance data flows. and lead to a higher degree of automation and autonomy, automated and autonomous systems, ship operations and remote control from the shore by 2030²⁰. Connectivity and automation will only improve nautical operations, safety and the energy-efficiency of Waterborne transport, as well as logistics and mobility flows.

UfM Ministerial Declaration on Sustainable Blue Economy, 2nd February 2021:

- UfM member countries to "work towards a UfM Strategic Action Plan for Transport Connectivity"
- UfM member countries "to comply with the 0.50% sulphur limit in marine fuels and call upon all
 riparian UfM member countries, which have not already done so, to ratify the Annex VI to the
 MARPOL Convention as soon as possible, to maximise health and environmental benefits"
- Support the entry into force of the Med Sox ECA
- The strengthening of "expertise and boosting investments in infrastructure taking duly into account the specific needs and priorities of Mediterranean countries; including investments on the provision of Onshore Power Supply and energy saving technologies for ports activities as well as on the development of alternative fuels, and transitional fuels as appropriate, and technical and operational energy efficiency for ships"
- Mediterranean countries to actively cooperate and participate in the implementation of joint projects in the provision of clean energy and technology

²⁰ https://www.waterborne.eu/vision/connected-and-automated-waterborne-transport/

- "Developing necessary means for facilitation of maritime trade such as a fully digital administrative environment for waterborne transport", necessary for achieving the full benefits of a Maritime Single Window system.
- "Mediterranean countries to ratify the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, and to make sure that vessels flying their flag only get dismantled in facilities which meet high social and environmental standards"

2.3.2 State of the art of activities

To briefly describe the state of the art of Sustainable Blue Economy (SBE) frameworks, initiatives and actions related to Maritime transport and ports in the Mediterranean, a selection of relevant actions will be outlined in this section. The selection is aiming to be as illustrative as possible on the variety of subjects being addressed and has been carried out based on a combination of criteria, including:

- 1. Relevance with respect to the calls for action set for this UfM Ministerial Declaration priority, as presented above;
- 2. Geographical coverage;
- 3. In the case of projects, the incorporation of sustainability and innovation aspects in its approach;

Figure: Overview of selected regional frameworks, subregional processes, transnational projects per sectoral priority (based on the compiled database of SBE actions and initiatives in the Mediterranean)

Regional

- UfM Sustainable Blue Economy Ministerial Declaration 2021
- UfM Ministeral Declaration on Transport 2013
- Regional Transport Action Plan for the Mediterranean RTAP 2014-2020
- EUROMED Transport Ministerial Conference
- Working Group on Transport and Integrated Maritime Policy
- MED SOx ECA
- UfM Working Group on Transport
- REMPEC
- Strategic Plan 2018-2022 of the Centre for Transportation Studies for the Western Mediterranean(CETMO)

Sub-regional

- Trans-european Transport Network
- Motorways of the Sea
- WestMED Green Shipping Technical Group
- EU Strategy for the Adriatic and Ionian Region
- European Maritime Safety Agency
- MedPorts
- EU Communication on a Sustainable Blue Economy

Transnational and multi-country projects

- EuroMed Transport Logistics Project (LogisMed TA)
- EuroMed TSP EuroMed Transport Support Project
- LOCATIONS Low Carbon Transport in Cruise Destination Cities
- DataPorts New smart platform for European ports
- SAFEMED IN

Regional

• UfM Ministerial Declaration on Transport 2013: The UfM Ministerial Conference on Transport aimed to assess the progress of the first Euro-Mediterranean Ministerial Conference held in Marrakech in December 2005. On this occasion, the ministers called for strengthening cooperation in the Mediterranean region in the field of transport. To achieve this, a five-year Regional Transport Action Plan (RTAP) for the period 2007-2013 was adopted. In this context, an evaluation report for the RTAP 2007-2013 and the priority guidelines for the RTAP 2014-2020 were presented at the

- conference. These guidelines will contribute to the definition of the multimodal trans-Mediterranean transport network, a strategic action in which the Secretariat of the Union for the Mediterranean will play an important role.
- Regional Transport Action Plan for the Mediterranean RTAP 2014-2020: Mediterranean countries pursue, through concrete actions, both the regulatory reform and convergence in all relevant different transport sectors (maritime, civil aviation, road, railway and urban transport) and the establishment of an integrated multimodal EuroMediterranean transport network by facilitating trade and connecting people between the EU and the Mediterranean Partners and between Mediterranean Partners themselves. This is a condition for economic growth and integration in the Mediterranean region. The evaluation of the RTAP 2014-2020 contributed importantly to the elaboration of the RTAP 2021-2027.
- **EUROMED Transport Ministerial Conference:** In December 2005 the First Euro-Mediterranean Transport Ministerial Conference was held in Marrakech. In the subsequent EuroMed Transport Forum held in Brussels in May 2007 a Regional Transport Action Plan (RTAP) for the Mediterranean for 2007-2013 was approved, consisting of 34 actions in a number of areas.
- Working Group on Transport and Integrated Maritime Policy: The Working Group on Transport and Integrated Maritime Policy was created by the Intermediterranean Commission (IMC) of the Conference of Peripheral Maritime Regions (CPMR) to support Mediterranean regional authorities' efforts to improve the implementation of the EU regulations and Mediterranean agreements. It is one of four working groups created by the IMC. This working group focuses on specific themes related to maritime and transport policies, including Maritime Spatial Planning.
- MED SOx ECA: The 22nd Meeting (COP 22) of the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) and its Protocols, held in Antalya, Turkey was held on 7-10 December 2021. It adopted a decision on the designation of the Mediterranean Sea, as a whole, as an Emission Control Area for Sulphur Oxides (Med SOx ECA). This decision was taken in order to prevent, reduce and control emissions of sulphur oxides and particulate matter from ships. The adoption of the Med SOx ECA is expected to result in significant reductions in ambient levels of air pollution in the Mediterranean Sea, as a whole, and in the Mediterranean coastal States, which will achieve substantial benefits to human health and the environment.
- UfM Working Group on Transport: The UfM Regional Platform on Transport Connectivity and its dedicated working groups on land, air and maritime transport and logistics connectivity bring together UfM government representatives, key regional and international partner organisations and international financial institutions, as well as key experts and stakeholders from the public and private sectors. The objective of this platform and its working groups is to discuss the proposed elements for the priorities of an enhanced and comprehensive UfM strategy for transport connectivity in order to address the persistent core challenges of the transport sector and to create an efficient, integrated, interoperable and sustainable transport infrastructure network in the Euro-Mediterranean region, inter alia by strengthening regulatory reform and convergence in all relevant transport modes, with the ultimate aim of promoting socio-economic development and cooperation. This will pave the way towards a more sustainable transport sector that integrates multimodal transport and logistics chains, improves individual mobility, facilitates trade and ensures a smooth flow of goods through the different transport modes throughout the Euro-Mediterranean region.
- The objective of Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) is to contribute to preventing and reducing pollution from ships and

combating pollution in case of emergency. In this respect, the mission of REMPEC is to assist the Contracting Parties in meeting their obligations of the Barcelona Convention; the 1976 Emergency Protocol; the 2002 Prevention and Emergency Protocol and implementing the Regional Strategy for Prevention of and Response to Marine Pollution from Ships (2016-2021), adopted by the Contracting Parties in 2016. The key objectives and targets of these documents are reflected in the Mediterranean Strategy for Sustainable Development.

• The Strategic Plan 2018-2022 of the Centre for Transportation Studies for the Western Mediterranean (CETMO)²¹ aims to improve transport conditions in the Mediterranean region to facilitate trade and the safe, efficient and sustainable movement of people, particularly in view of environmental protection with the overarching goal of promoting the socio-economic development of the region.

Subregional

In parallel, a plurality of initiatives is observed -mainly at EU level- establishing sub-regional implementation policies. The "Motorways of the Sea" concept introduced new intermodal maritime-based logistics chains in Europe in 2001. Motorways of the Sea aims to improve access to markets throughout Europe, and bring relief to the over-stretched European road system. The Trans-European Transport Network (TEN-T) policy addresses the implementation and development of a Europe-wide network of railway lines, roads, inland waterways, maritime shipping routes, ports, airports and railroad terminals. The ultimate objective is to close gaps, remove bottlenecks and technical barriers, as well as to strengthen social, economic and territorial cohesion in the EU. With the recent TEN-T revision in December 2021, the former Motorways of the Sea are included in the European Maritime Space²².

The European Maritime Safety Agency (EMSA) provides technical expertise and operational support to enhance maritime safety, pollution prevention and response and maritime security. Most of the Agency's tasks are preventive (e.g. monitoring the application of certain laws and assessing their overall effectiveness). However, some tasks are reactive (e.g. providing oil spill response vessels to EU countries in the event of a major oil spill at sea and detecting marine pollution through satellite monitoring).

The EU Strategy for the Adriatic and Ionian Region (EUSAIR) is a multi-regional strategy adopted by the European Commission and approved by the European Council in 2014. The Strategy was developed in collaboration between the European Commission, representatives of the countries and the stakeholders of the Adriatic-Ionian region. An agreement was reached to work in concert in areas of common interest to benefit both the individual countries and the region as a whole. Pillar 2 of the strategy focuses on connecting the region. It aims to develop reliable transport networks and intermodal connections with the hinterland, both for freight and passengers. It also aims to strengthen maritime safety and security as well as to develop a competitive regional intermodal port system. The pillar 2 is coordinated by Italy, North Macedonia and Serbia.

The EU Communication on Sustainable Blue Economy (2021)²³ focusses on greening and decarbonising maritime transport and port infrastructure. As regards transport, the Communication puts emphasis on renewing or retrofitting ships with low and zero-emission technologies, whilst in the case of ports, it proposes

²¹ https://www.cetmo.org/sites/default/files/2.3 Strategic plan (bo).pdf

²² https://eur-lex.europa.eu/resource.html?uri=cellar:7b299e69-5dc8-11ec-9c6c-01aa75ed71a1.0001.02/DOC 1&format=PDF

²³ https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021DC0240&from=EN

to develop their key role as energy hubs (for integrated electricity, hydrogen and other renewable and lowcarbon fuels systems), as well as for the circular economy (for collecting, transhipping and disposing of waste from ships and other port industries, and for decommissioning ships), for communication (for submarine cables), and for industry (as industrial clusters). Along those lines, the 2020 Communication on a sustainable and smart mobility strategy²⁴ aims to bring the first zero emission vessels to market by 2030 and decarbonise maritime transport through an articulate set of measures.

Created in 2018 by 20 port authorities of the Mediterranean Basin, the MEDports Association now has 23 member ports representing about 70% of the total traffic of Mediterranean portsMedports Association. It aims at creating a new platform of collaboration, production and exchange between the Mediterranean ports on common issues and is also promoting the international visibility of the Mediterranean maritime and ports area, a true connected and connecting platform between Asia, Africa and Europe.

The WestMED Technical Group on Green Shipping²⁵ was created in 2019 with the objective to carefully monitor and examine innovations in the industry such as green fuels (methanol, ammoniac, hydrogen and alternative technologies, including electrification), as well as to promote stakeholder dialogue as a proper basis for further regional action in the field. So far, the Technical Group has, inter alia, conducted an assessment of emerging technologies and their adaptability to the western Mediterranean region and set up a networking sub-group on ports as energy communities.

Transnational and multi-country projects

There exist a wide range of transnational projects in the field of sustainable maritime transport and ports with an ample diversity of objectives, geographical scope and funding. Between the mapping and analysis performed, several have been identified:

- EuroMed Transport Logistics Project LogisMed TA (South-West Med)²⁶: This project, funded by the European Investment Bank, seeks to facilitate, through better connection between transport networks and modes, the trade of goods between Southern Mediterranean Partners Countries and EU, as well as to develop the regional economic integration. LogisMed TA supports the implementation of the Regional Transport Action Plan 2014-2020 actions related logistics. The objective of this action is to contribute to the improvement of training activities in the domain of logistics.
- EuroMed TSP EuroMed Transport Support Project (South Med)²⁷: Aimed at contributing in the creation of an integrated transport system in the Mediterranean, this demand-driven initiative will provide Technical Assistance to EuroMed Partner countries in support of the implementation of the Southern Mediterranean Regional Transport Action Plan (RTAP) 2014-2020. Throughout the life of the project funded by the European Commission (DG NEAR), several seminars/conferences are being organised, technical assistance and training are being conducted and best practices are being shared.

²⁴ https://eur-lex.europa.eu/resource.html?uri=cellar:5e601657-3b06-11eb-b27b-01aa75ed71a1.0001.02/DOC 1&format=PDF

²⁵ https://www.westmed-initiative.eu/green-shipping/

²⁶ EuroMed Transport Logistics countries covered: Algeria, Egypt, Jordan, Morocco, and Tunisia

²⁷ EuroMed TSP countries covered: Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Palestine, and Tunisia

- EuroMed Transport Maritime Project (SAFEMED IV) (South Med)²⁸: The European Maritime and Safety Agency has been implementing the EuroMed Maritime Safety project, funded by the European Commission (DG NEAR) and commonly known as Safemed IV. This project aims at fostering regional cooperation among Mediterranean riparian states, while at the same time providing technical assistance to enhance maritime safety, pollution prevention, security and labour conditions on board ships.
- LOCATIONS Low Carbon Transport in Cruise Destination Cities (North Med)²⁹, funded by
 the Interreg MED programme, will contribute to decongest cruise destinations traffic and to
 decrease greenhouse gases emissions in targeted territories through a larger use of innovative
 sustainable transport solutions, thus improving the overall quality of life of both citizens and
 passengers and increasing port attractiveness far cruise ships and cruise liners.
- The Horizon 2020 project DataPorts New smart platform for European ports (Regional)³⁰ designs an Industrial Data Platform. The Cognitive Ports Data Platform connects existing digital infrastructures of seaports and their systems, sets rules on safe and reliable data sharing and trading, and offer powerful services of data analytics. That allows\ to create different smart applications according to related requirements.

Assessment of regional coverage

Beyond the selected exemplary initiatives described so far, the analysis covered a wider number of projects (provided in the annexed "project database" tables).

The main emerging findings with regards to the initiatives in place in this sector are as follows:

- Regional frameworks are fairly spread across countries
- Subregional processes appear mainly unaddressed in south-east
- R&I project support seem to be mostly in the north and in Israel
- Capitalisation limited except for few EU countries and Albania
- Collaboration projects are mainly in the North with Egypt and Lebanon

Expenditure of the priority

The figures below provides an overview of the expenditure of the sector compared to other SBE priorities and for different type of projects. Projects are divided depending on their main focus (Establishment of collaboration frameworks and platforms, Capacity Building, Research and Innovation, Capitalisation of good practices). It can be observed in the figure below, that Transport and Ports accounts for 27% of the overall spending on SBE priorities. This is driven by several large-scale multi-million projects, whereas other sectors' actions and projects are on a smaller scale. The figure also indicates that almost half of the expenditure goes to projects (47%) that focus on the establishment of collaboration frameworks and platforms while only 1% is spent on capitalisation projects.

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²⁸ SAFEMED IV countries covered: Algeria, Egypt, Israel, Jordan, Libya, Lebanon, Morocco, Palestine, and Tunisia

²⁹ LOCATIONS countries covered: Italy, Albania, Spain, Croatia, and Portugal

³⁰ DataPorts countries covered: Spain, France, Israel, and Greece

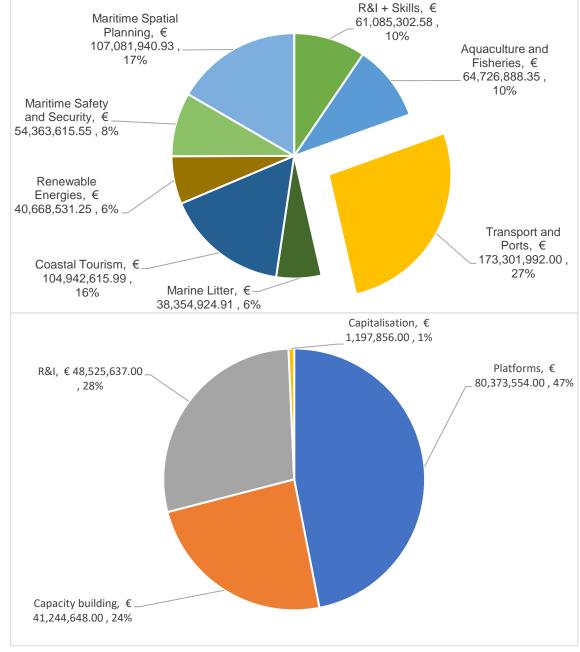


Figure: Project expenditure per priority (top) and type of activity (bottom): Transport and Ports

Source: Database of projects compiled for the UfM State of the Art of the Mediterranean Sustainable Blue Economy report

Further details on the support provided

The figure below provides an overview of the distribution of the collected initiatives (frameworks, processes and projects) across the various UfM countries in the different areas of the Mediterranean. The darker the blue, the higher the coverage of the mapped initiatives for each country (dark blue indicates that a country is involved in all the initiatives mapped for the specific category and pale blue indicates a very limited percentage of the total initiatives mapped). An analysis of the colour scheme shows some sectoral trends:

- The dark blue colour distribution in the column for Regional Framework indicates a geographical balance in the coverage of the initiatives. As acknowledged by Ministers in the UfM Sustainable Blue Economy Ministerial Declaration, the Regional Transport Action Plan for the Mediterranean constitutes a key pillar for the sectors' governance in the Mediterranean.
- The second column shows a diverse palette, whereby some countries seem to be much better covered than others, indicates some polarisation and offers potential for synergies and potential good practices exchange across countries involved in the different initiatives. Sub-regional frameworks and initiatives relate to the EU transport policy, such as the Transport Dimension in the European Neighbouring Policy, and LOGISMED, a regional initiative aimed at supporting the competitiveness and development of the logistics sector in southern Mediterranean countries. Furthermore, the Centre for Transportation Studies for the Western Mediterranean provides expertise to sustain improvement of Transport and Logistics.
- A range of light(er) shades of blue in the project-related columns implies that the initiatives are neither as many nor as equally spread across the region. Thus, one can observe clustering of projects around few countries. The consequence of this is a limited access to the paler blue countries to all types of project support, with the exception of capacity building projects. Partners from three countries (Italy, Spain and France) seem to have a stronger participation in transnational projects over all categories.

Legend of the table: the darker the blue, the higher the coverage of the mapped initiatives for each country (dark blue indicates that a country is involved in all the initiatives mapped for the specific category and pale blue indicates a very limited percentage of the total initiatives mapped).

Figure: Overview of existing actions per country/ sectoral priority



Israel				
Jordan				
Lebanon				
Libya				
Palestine				

Source: Database of processes, frameworks, initiatives and projects compiled for the UfM State of the Art of the Mediterranean Sustainable Blue Economy report

2.3.3 Stocktaking of the Ministerial Declaration: progress and opportunities

As a final step in the analysis, to the main priorities put forward by the UfM Ministerial Declaration for the sustainable development of the transport sector are revisited. The table below provides a further analysis on the state of the art in advancing with the specific UfM priorities as sketched in the introduction to this chapter. It does so by building on the initiatives (frameworks/processes and projects) as reviewed earlier in this chapter and confronting those with each priority of the UfM Ministerial Declaration for this sector. The analysis allows for an assessment on the status of the implementation of each priority (a "visual check") to be used as abasis for the future UfM Roadmap.

Figure: Identification of opportunities per sectoral priority

UFM MINISTERIAL DECLARATION CALL FOR ACTION	VISUAL CHECK OF CURRENT IMPLEMENTATION	JUSTIFICATION AND IDENTIFICATION OF OPPORTUNITIES AS PER THE MAPPING OF INITIATIVES
Work towards a UfM Strategic Action Plan for Transport Connectivity		 The basis for the Action plan is EU transport policy (in particular the Motorways of the Sea, the Trans-European Transport Network and the Transport Dimension in the European Neighbouring Policy). The UfM Strategic Action Plan for Transport Connectivity further will take stock of the implementation of the Regional Transport Action Plan for the Mediterranean region (RTAP) 2014–2020 in Mediterranean countries. OPTIMED IMPLEMENTATION: Towards a new Mediterranean Corridor: from South-Eastern to North-Western ports is an example of a project optimising and strengthening of the trade connections among the ports of the Mediterranean area which can be taken into account when working on the Action Plan. EuroMed Transport projects support southern Mediterranean countries to implement the Regional Transport Action Plan 2014-2020.
Enforcement / ratification of the International Maritime Organisation's (IMO) requirement setting the global 0.50% sulphur limit in marine fuels, under Annex VI to the International Convention for the Prevention of Pollution from Ships (MARPOL), to reduce relevant air pollution worldwide including in the Mediterranean basin, with the view to submit a		 Poseidon Med II with participating partners from Greece, Cyprus and Italy, is the only identified project that aims to contribute to reducing negative impacts of heavy fuel oil powering and to facilitate the implementation regarding alternative fuels for a sustainable future in the shipping industry.

proposal to IMO in 2022 based on the outcome of the socio-economic studies and the decision of COP 22 Support bringing into force the Med SO _x ECA Strengthening expertise and boosting investments in infrastructure taking duly into account the specific needs and priorities of Mediterranean countries; including investments on the provision of Onshore Power Supply and energy saving technologies for ports activities as well as on the development of alternative fuels, and transitional fuels as appropriate, and technical and operational energy efficiency for ships	 At COP 22 it was agreed that the Contracting Parties to the Barcelona submit to the International Maritime Organization (IMO) for consideration by mid-2022, the joint and coordinated proposal to designate the Mediterranean Sea, as a whole, as an Emission Control Area for Sulphur Oxides (Med SOx ECA). The Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea will provide technical support for the implementation of this Decision, in synergy with the IMO, and other relevant stakeholders, through technical cooperation and capacity-building activities, including financial support and resource mobilisation activities The LIFE4MEDECA Project carries out identifies needs, bottlenecks and barriers to the designation of an Emission Control Area and coordinates closely with REMPEC. A considerable number of projects in the north have been identified dealing with. The Connecting Europe Facility funded masterplan for OPS in Spanish ports deals with Onshore Power Supply. Interestingly, several projects have been funded by the EU, including the one above mentioned, exclusively for Spanish beneficiaries. Another focus of projects is investment in LNG technology and infrastructure.
Mediterranean countries to actively cooperate and participate in the implementation of joint projects in the provision of clean energy and technology	 11 northern Mediterranean countries collaborate in the Mediterranean Interregional Electromobility Networks for intermodal and interurban low carbon transport systems including land-sea mobility. Furthermore, Interreg MED funds the project Sustainable Urban Mobility in MED PORT cities in which the knowledge of Sustainable Mobility Plans is improved in Italy, Montenegro, Albania, Cyprus, Spain, Greece & Slovenia. Southern countries are missing projects related to the provision of clean energy and technology

Developing necessary means for facilitation of maritime trade such as a fully digital administrative environment for waterborne transport, necessary for achieving the full benefits of a Maritime Single Window system	Three projects in the north and two projects in the north and south address digitisation in transport and ports. For instance, the EU-funded DataPorts R&I project will design an Industrial Data Platform. The Cognitive Ports Data Platform will connect existing digital infrastructures of seaports and their systems. Beneficiaries come from Spain, France, Israel & Greece
Call on Mediterranean countries to ratify the	No framework, initiative or projects have been identified related to the Hong Kong International Community for the Output Institute of the Community of China International Community for the Output Institute of
Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships,	International Convention for the Safe and Environmentally Sound Recycling of Ships
and to make sure that vessels flying their flag	
only get dismantled in facilities which meet high	
social and environmental standards	

2.3.4 Potential avenues for future cooperation: pilot actions / projects

Building on the overall assessment provided so far, this section provides some (preliminary) insights on the type of actions (frameworks processes, projects) and related support to be foreseen as part of the UfM Roadmap, in addressing transport and port opportunities across the Mediterranean. The calls for actions are grouped into two clusters, one related to frameworks and the other one related to projects.

The following potential avenues refer to the calls for actions related to **frameworks**, which are the enforcement / ratification of the IMO's requirement setting the global 0.50% sulphur limit in marine fuels, the support of the entry into force of the Med SO_x ECA, the call on Mediterranean countries to ratify the Hong Kong International Convention, and the work towards a UfM Strategic Action Plan for Transport Connectivity.

- Build on the potential of the extension of the trans-European transport network (TEN-T), particularly the new Maritime European Space, to neighbouring third countries³¹. The 2021 Joint Communication on a Renewed Partnership with the Southern Neighbourhood and the accompanying Economic and Investment Plan for the region recognise transport connectivity as a key component for the development of the Southern Mediterranean. A comprehensive network for a trans-Mediterranean network for transport, the idenfication of which is ongoing, would facilitate regional connection. Ports need to be better integrated into broader inland multi-nodal logistic system, particularly in the southern and eastern basin, which could be one of the objectives of this network. Another goal should be the regionalisation of supply chains across the Mediterranean, which to date has been heavily dependent on global trends. Such regionalisation can be an efficient solution for both the southern and northern shores of the Mediterranean.
- Build on the work by the UfM Working Group on Transport for the UfM Strategic Action Plan for Transport Connectivity and the WestMed Technical Group on Green Shipping as a good practice of reinforced cooperation of significance for the whole Mediterranean Sea Basin.

The following potential avenues refer to the calls for actions related to **projects** are the *boosting of investments in infrastructure, the call for Mediterranean countries to actively cooperate and participate in the implementation of joint projects, and to develop necessary means for facilitation of maritime trade such as a fully digital administrative environment for waterborne transport.*

- Projects related to the provision of clean energy and technology could be piloted in the south. In the north, there are examples such as projects improving Sustainable Urban Mobility Plans whose results could be capitalised. Boosting the uptake of innovative technologies and full digitalisation is vital to promote smart ports, effective onshore power supply for the decarbonisation of maritime transport, and the roll-out of single-window maritime systems across all regional operators. For the role of ports as energy hubs see also MRE chapter. New projects should be closely aligned with the WestMED initiative's Technical Group on Sustainable Transport and Green Shipping and in particular the action for green ports in the western Mediterranean to act as a network of 'energy communities'.
- Regarding waterborne transport, research from other parts of the EU can be capitalised, in
 particular Horizon 2020 Research and Innovation delivering smart, green, safe and competitive
 waterborne transport such as the STEERER project (led by a Belgian organisation and including
 Portuguese and Italian beneficiaries). Here, greater synergies with northern EU experiences could
 be promoted/capitalised.

³¹ https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021DC0820&from=EN

- Expertise and investment in the north in Onshore Power Supply and energy saving technologies for ports activities as well as on the development of alternative fuels, and transitional fuels as appropriate, and technical and operational energy efficiency for ships should be strengthened given projects have only been identified for Onshore Power Supply as well as alternative and transitional fuels. Existing projects can share their expertise with transport stakeholders in the south and east.
- There is potential for fostering investments and innovation in green ports. A matchmaking between green ports and green shipping companies with a focus on small ports can be a viable option to improve the potential of innovation and diversification through clean energy and technology³². This would also include a broader support towards diversification of business models in small ports (link to maritime tourism, aquaculture and fisheries in an energy-efficient approach).

2.3.5. Measuring progress in the UfM Declaration Implementation: Sustainable transport and ports

Output (Process indicators)

+Number of actions, sets of activities and projects of regional cooperation planned in the area Sustainable, climate-neutral and zero-pollution transport and ports, in particular with regards to the following sub-priorities:

- Reduce relevant air pollution, including the implementation of the global 0.50% sulphur limit in marine fuels
- Setting up an Emission Control Area for Sulphur Oxides in the Mediterranean Sea
- Provision of Onshore Power Supply and energy saving technologies for ports activities
- Development of alternative and transitional fuels
- Technical and operational energy efficiency for ships
- Provision of clean energy and technology
- Fully digital administrative environment for waterborne transport, necessary for achieving the full benefits
 of a Maritime Single Window system
- Ensuring that vessels only get dismantled in facilities which meet high social and environmental standards
- +Number of actions, sets of activities and projects of regional cooperation being implemented in the Mediterranean area in the field of Sustainable, climate-neutral and zero-pollution transport and ports (with regards to the sub-priorities mentioned above)
- +Level of enforcement / ratification of the IMO's requirement setting the global 0.50% sulphur limit in marine fuels at national level
- +Level of financial support committed/secured to support the priority of Sustainable Climate Neutral and Zero Pollution Transport and Ports
- +Number and typology of partners and stakeholders involved in the actions/sets of activities/projects

Outcomes (result indicators)

+Achieved and projected results of the different actions, sets of activities and projects underway or finished in the field of Sustainable Climate Neutral and Zero Pollution Transport and Ports, mainly:

- Number/type of new/enhanced products/services developed;
- Number/type of new/enhanced collaboration networks and platforms being supported/activated;
- Number/type of stakeholders (businesses, research, CSOs, etc.) involved and benefitting from the action/activity/project;
- Number/type of regional policies influenced as a result of regional cooperation (mainstreaming).

³² The Atlantic Smart Ports Blue Accelerator can be regarded as a reference concept for this purpose (https://cinea.ec.europa.eu/news/applications-are-open-take-part-atlantic-smart-ports-blue-accelerator-2021-10-01_en)

2.4 Coastal and Maritime Tourism

2.4.1 Introduction

Coastal and maritime tourism is one of the major economic sectors for Mediterranean countries. The sector is currently undergoing a transformative structural change, which involves finding an appropriate balance between current and future economic, social and environmental needs and opportunities. The coastal and maritime tourism sector is amongst the most severely impacted ones by the COVID-19 pandemic. As the sector itself has significant impacts on the environment and local population, preservation of marine and coastal ecosystem as well as sustainable tourism are issues that are also well reflected by the UfM Ministerial Declaration on Sustainable Blue Economy. More specifically, sustainable change in the sector aims at untapping the economic potential of the sector, at addressing its environmental impacts and at guaranteeing long-term sustainability thus matching the Sustainable Development Goals (SDGs) goals.

UfM Ministerial Declaration on Sustainable Blue Economy, 2nd February 2021:

- Promote policy coordination, stakeholder collaboration and cooperation mechanisms to strengthen the resilience of the tourism sector in the Mediterranean;
- Develop comprehensive monitoring, evaluation and statistics schemes and promote the digitalisation of the sector;
- Implement sectoral strategies and action plans to green the sector and reduce carbon emissions from the whole tourism industry, including tourism-related maritime transport;
- Address seasonality and overtourism by promoting the diversification of the tourism offer, encouraging experience-based and slow tourism as well as associating the hinterland;
- Promote eco-tourism and niche tourism, including activities such as pesca-tourism, culinary tourism, and sport tourism, among others;
- Promote fiscal and investment policies to support sustainable coastal and marine tourism.

2.4.2 State of the art of activities

In the coastal and maritime tourism sector, activities identified across the Mediterranean present a strong emphasis on **Sustainable tourism**, which is due to the priority set by the European Union programmes³³. These include the Agenda for a Sustainable and Competitive European tourism published in 2007 by the European Commission.³⁴ To briefly describe the state of the art of Sustainable Blue Economy (SBE) frameworks, initiatives and actions related to sustainable fisheries and aquaculture in the Mediterranean, a selection of relevant actions is therefore made (on the basis of a longer-list of collected initiatives and projects) and outlined in this section.

This selection is aiming to be as illustrative as possible on the variety of subjects being addressed and has been carried out based on a combination of criteria, including:

- Relevance with respect to the calls for action set for this UfM Ministerial Declaration priority, as presented above;
- b) Geographical coverage;
- c) In the case of projects, the incorporation of sustainability and innovation aspects in its approach;

³³ https://ec.europa.eu/growth/sectors/tourism/offer/sustainable_en

³⁴ Communication from the Commission - Agenda for a sustainable and competitive European tourism COM/2007/0621 final, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52007DC0621

An overview of main frameworks, process and initiatives/projects is provided in the figure below and further described in this section.

An overview of main frameworks, process and initiatives/projects is provided in the figure below and further described in this section.

Figure: Overview of selected regional frameworks, subregional processes, transnational projects per sectoral priority (based on the compiled database of SBE actions and initiatives in the Mediterranean)

Regional

- ASCAME-UNWTO
 Memorandum of
 understanding to promote
 the development of
 sustainable tourism in the
 Mediterranean region
- The Mediterranean Tourism
 Forum (MediTour)

Sub-regional

- Athens Declaration for a Sustainable Tourism
- MEET NETWORK
- Petra Declaration on Investing in Tourism for an Inclusive Future
- A European Strategy for more Growth and Jobs in Coastal and Maritime Tourism
- BILIEMED initiative
- EU Communication on a Sustainable Blue Economy

Transnational and multi-country projects

- TouriSME
- MEDPEARLS: The Mediterranean as an innovative unique destination for slow tourism initiatives
- · CROSSDEV Cultural Routes for Sustainable Social and economic Development in Mediterranean
- CO-EVOLVI
- SIROCCO
- WINTER MED
- HERIT-DATA
- BEST MED

Regional and subregional

- A European Strategy for more Growth and Jobs in Coastal and Maritime Tourism focuses on
 the challenges to be addressed and proposes a strategy to enhance the sector's sustainability and
 competitiveness, to be implemented by the Commission, Member States, regional and local
 authorities, private operators and other stakeholders. Coastal and maritime tourism needs an
 ambitious policy framework.
- The framework of **Interreg MED's Sustainable Tourism Community** (policy and capitalisation project) aims to address tourism pressures; enhance attractiveness and tourism offer; strengthening planning and management practices towards sustainable tourism and building a strong community of projects and stakeholders.
- ASCAME-UNWTO Memorandum of understanding to promote the development of sustainable tourism in the Mediterranean region. ASCAME and UNWTO signed a memorandum of understanding to promote the development of sustainable tourism in the Mediterranean region. As recognised by the World Tourism Organization (UNWTO), the private sector has a key role in achieving its objectives. Both entities will continue to work together on strategies that promote responsible tourism, driving regional sustainable development and catalysing positive changes in the region.
- The Mediterranean Tourism Forum (MediTour) gathers private sector annual conferences whose goals are the promotion of tourism investment projects in the Mediterranean region, the development of North-South Mediterranean and Euro-Mediterranean cooperation in the sector, the valorisation of Mediterranean tourism assets, the improvement of the tourism quality and the support of the tourism businesses that align with SDGs and strengthening of cooperation.

- The Athens Declaration for a Sustainable Tourism it brings together six partners from northern Mediterranean countries, by the MED Sustainable Tourism Community aims to attain four goals: Contributing to address tourism pressures, enhancing attractiveness and tourism offer, strengthening planning and management practices towards sustainable tourism, and building a strong community of projects and stakeholders.
- The MEET Network represents a new ecotourism model and provide a membership network for protected areas who are committed to embracing a new way of developing tourism in the Mediterranean. Through the experiences, they promote: (1) conservation and local communities through ecotourism, (2) deep connections between travellers and the destination, the local environment, local people, and ultimately the travellers themselves, (3) integrate conservation efforts and knowledge in the Med.
- The EU Communication on Sustainable Blue Economy (2021)35 focuses on greening and decarbonising maritime transport and port infrastructure. As regards transport, the Communication puts emphasis on renewing or retrofitting ships with low and zero-emission technologies, whilst in the case of ports, it proposes to develop their key role as energy hubs (for integrated electricity, hydrogen and other renewable and low-carbon fuels systems), as well as for the circular economy (for collecting, transhipping and disposing of waste from ships and other port industries, and for decommissioning ships), for communication (for submarine cables), and for industry (as industrial clusters). Along those lines, the 2020 Communication on a sustainable and smart mobility strategy³⁶ aims to bring the first zero emission vessels to market by 2030 and decarbonise maritime transport through an articulate set of measures.
- BLUEMED initiative: The Preliminary Implementation Plan has been issued in June 2020, including a priority action linked to tourism, tourists and the environment addressing sustainable tourism and cultural heritage, actions on the digitalisation of the sector, and policy coordination.

Transnational and multi-country projects

There exist a wide range of transnational projects in the field of coastal and maritime tourism with an ample diversity of objectives, geographical scope and funding. Between the mapping and analysis performed, several have been identified:

- Improving sustainable tourism development and capacity of tourism SMEs through transnational cooperation and knowledge transfer (TouriSME) (North Med)37: Its main objective is to promote the capacities and skills of tourism SMEs to explore and adopt sustainable solutions that allow them to align their businesses with certain circular economy principles, through a reinforced transnational and intersectoral collaboration between SMEs and tour operators from different sectors in Spain, Italy, France and Cyprus. Therefore, it promotes stakeholder collaboration and cooperation with the aim of strengthening the resilience of tourism sector, one of the main priorities of UfM Declaration, with a specific focus on sustainability.
- The Mediterranean as an innovative unique destination for slow tourism initiatives (MEDPEARLS) (Regional)³⁸: The project invites travellers to discover sustainably and responsibly new destinations while taking time to have direct contact with local communities. As a consequence, the project delivers a set of 26 new Slow Tourism products created by local Destination Management Companies (DMCs) and ICT enterprises thanks to financial and technical support called Product Development and Innovation Facilities, promoting digitalisation of the sector.

38 MEDPEARLS countries covered: Spain, Italy, Greece, Egypt, Jordan, and Palestine

³⁵ https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021DC0240&from=EN

³⁶ https://eur-lex.europa.eu/resource.html?uri=cellar:5e601657-3b06-11eb-b27b-01aa75ed71a1.0001.02/DOC 1&format=PDF

³⁷ **TouriSME countries covered**: Spain, Italy, France, and Cyprus

- Cultural Routes for Sustainable Social and Economic Development in Mediterranean (CROSSDEV) (Regional)³⁹: This project expects to increase tourism competitiveness and attractiveness of less known destinations and rural areas, enhancing the Cultural Routes experiences such as those of the Council of Europe (e.g. Phoenicians Route and IterVitis). To achieve this goal, the project sets up a cross-border tourism framework to enhance sustainable tourism policies, to promote tourism-related business and to develop community-led action plans to turned local culture heritage into assets for socio-economic local development. The project contributes to policy coordination and collaboration through the creation of a cross-border framework and aims to diversify tourism, two key priorities highlighted in the UfM Declaration.
- Promoting the co-evolution of human activities and natural systems for the development of sustainable coastal and maritime tourism (CO-EVOLVE) (North Med)⁴⁰: it aims at analysing and promoting the co-evolution of human activities and natural systems in touristic coastal areas, allowing sustainable development of touristic activities based on the principles of ICZM/MSP, a key priority in the region. CO-EVOLVE couples a presently unavailable analysis at MED scale of threats and enabling factors for sustainable tourism with local studies on representative Pilot Areas, to demonstrate through pilot actions the feasibility and effectiveness of a ICZM/MSP-based planning process.
- WINTER MED Winter Islands Network for all year round Tourism Experience in the Mediterranean (North Med)⁴¹ promotes an alternative, sustainable, all-year round use of Mediterranean insular tourist destinations, by delivering a transnational strategy and the tools for changing and upgrading one of the key sectors of the Mediterranean area. The project is built on the potential of capitalisation: analysing, assembling, adapting and testing available tools and methodologies to deliver a transnational strategy for the development of all-year round sustainable and responsible tourism in Mediterranean island destinations.
- SIROCCO Sustainable Interregional coastal & cruise maritime tourism though cooperation and joint planning (North Med)⁴² has the ambition of tackling promoting environmentally, socially & economically sustainable cruise tourism. It aims to provide integrated view of the current state of Mediterranean cruise tourism (as a whole and per segment) and its impacts (environmental, economic, societal); a foresight of Mediterranean cruise tourism for the following decades; evidence-based, transferable recommendations on developing sustainable and responsible Cruise Value Chains in the Mediterranean; and coordinated strategies NS policies at regional and transnational level regarding the development of a sustainable and responsible cruise maritime and coastal tourism.
- HERIT-DATA Sustainable Heritage Management towards Mass Tourism Impact thanks to a holistic use of Big and Open Data (North Med)⁴³ plans to develop of a sustainable and responsible tourism management towards cultural heritage in MED regions, in particular by taking advantage of technology and innovation in management tools (Smart Cities), as well as other policy and social measures. The partners will develop, test and transfer a series of knowledge and solutions (Models, Strategy, Artificial Intelligence & Big Data based-on platform and App, etc.) in line with the current sectoral changes and characteristics of smart destinations, able to collect, generate, integrate and analyse information and transform it into behaviour changes, according to ICZM recommendations.
- BEST MED Beyond European Sustainable Tourism MED Path (North Med)⁴⁴ contributes to the objective of enhancing Mediterranean Governance, being the main challenges seasonality and

³⁹ CROSSDEV countries covered: Italy, Jordan, Lebanon and Palestine

⁴⁰ CO-EVOLVE countries covered: Greece, Italy, Croatia, France and Spain

⁴¹ WINTER MED countries covered: Italy, Greece, Croatia, Cyprus, France, and Spain

⁴² SIROCCO countries covered: Croatia, Italy, Spain, and Greece

⁴³ **HERIT-DATA countries covered**: Italy, France, Spain, Greece, Croatia, and Bosnia-Herzegovina

⁴⁴ BEST MED countries covered: Spain, Greece, Montenegro, Italy, Croatia, Portugal, Slovenia, and France

lack of effective cooperation among main tourism actors, including the citizen active participation on the policies design. It aims to have a new integrated and sustainable touristic planning aiming at the mitigation of seasonality in the Mediterranean area, through the connection between coastal regions to inland regions, such as a path-route method.

• SMART MED (North Med)⁴⁵ addresses key Mediterranean region challenges in the development of smart, inclusive and sustainable tourism, due to high seasonality and lack of cooperation among key sector stakeholders. SMARTMED contribute to the development of an attractive, smart and inclusive Mediterranean destination, maintaining its leading position through coordinated policies and capable public and private sector stakeholders. This will be achieved by enhanced, more structured cooperation empowering multi-level stakeholders to develop and deliver integrated tourism policies and innovative solutions for smart Mediterranean destinations through an new business model, supported by a permanent collaborative stakeholders platform for cross-sectorial cooperation.

Assessment of regional coverage

Beyond the selected exemplary initiatives described so far, our analysis covered a wider number of projects (provided in the annexed "project database" tables). A synthesis of the analysis of such broader sample of frameworks, initiatives and projects is described in this section.

The main emerging findings with regards to the actions currently in place in this sector are as follows:

- Regional frameworks seem to cover all countries although they might require some further development to substantiate and strengthen the existing frameworks and the support provided;
- (Sub)regional processes remain more scattered (apart from north-west where many countries are part of subregional frameworks);
- Project support is largely developed on the northern shore in all four categories (collaboration, capacity building, R&I and capitalisation), with some exceptions (capacity building in Tunisia and R&I in Lebanon);
- · Capitalisation support is currently stronger in few EU countries (Italy, Spain, Croatia, Greece);
- Low balance in project support seem to persist between southern and norther Countries.

Expenditure of the priority

The figures below provide an overview of the expenditure of the sector compared to other SBE priorities and for different type of projects. Projects are divided depending on their main focus (Establishment of collaboration frameworks and platforms, Capacity Building, Research and Innovation, Capitalisation of good practices). It can be observed in the figure below that Coastal and Maritime Tourism accounts for 16% of the overall spending on SBE priorities, which is the third highest expenditure behind Transport and Ports and Maritime Spatial Planning. Given the size of the sector and the challenges outlined in the UfM ministerial Declaration public spending on transnational projects is needed.. The figure (bottom) indicates that 47% of projects are spent on R&I projects, while all categories receive at least EUR 10 million. Capitalisation projects account for the lowest percentage of spending (11%).

⁴⁵ SMART MED countries covered: Croatia, Bosnia-Herzegovina, France, Spain, Portugal, Montenegro, Italy, Slovenia, and Greece

R&I + Skills. € Maritime Spatial 61,085,302.58,10% Planning, € 107,081,940.93, 17% Aquaculture and Fisheries, € 64,726,888.35 , 10% Maritime Safety and Security, € 54,363,615.55,8% Renewable Energies, € 40,668,531.25,6% Transport and Ports, € 173,301,992.00, 27% Coastal Tourism, € 104,942,615.99 , 16% Marine Litter, € 38,354,924.91,6% Platforms, € Capitalisation, € 17,137,114.00,18% 10,813,964.00,11% R&I, € 43,071,410.00 Capacity building, € , 44% 26,318,195.00,27%

Figure: Project expenditure per priority (top) and type of activity (bottom): Coastal and Maritime Tourism

Source: Database of projects compiled for the UfM State of the Art of the Mediterranean Sustainable Blue Economy report

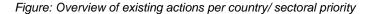
Further details on the support provided

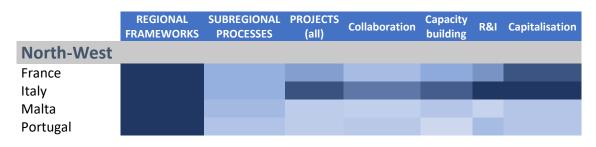
The figure below provides an overview of the distribution of the collected initiatives (frameworks, processes, initiatives and projects) across the various UfM countries in the different areas of the Mediterranean. The darker the blue, the higher the coverage of the mapped initiatives for each country (dark blue indicates that a country is involved in all the initiatives mapped for the specific category and pale blue indicates a very limited percentage of the total initiatives mapped).

Note that the projects are also divided depending on their main focus (Collaboration, Capacity Building, Research and Innovation, Capitalisation of good practices). An analysis of the colour provides for some observations:

- All dark(er) blue cells in a column imply a general balance in the coverage of the initiatives mapped across all the Mediterranean this is the case of Framework Initiatives in this area. The fact that such initiatives involve all countries, nevertheless, does not prevent for the need of additional support in order to strengthen the type of support provided by such initiative. In the case of tourism, the mapping highlights that there are limited frameworks related to tourism. The most important initiatives and the most comprehensive strategy are in the EU. The European Strategy for more Growth and Jobs in Coastal and Maritime Tourism sets out challenges to address in the sector. Important sectoral Declarations are the Athens Declaration for a Sustainable Tourism (northern Mediterranean)⁴⁶ and the Petra Declaration on Investing in Tourism for an Inclusive Future (southern and eastern Mediterranean)⁴⁷. However, a regional framework is missing. The regional and sub-regional Declarations, initiatives and framework do not comprehensively address the sectoral challenges as set out in the UfM Ministerial Declaration on Sustainable Blue Economy adopted on 2 January 2021.
- An entire column in light(er) blue implies that the initiatives are equally spread across the region, but they are typically covering a few countries, hence leaving room for further synergies and possible exchange of practices across partners (and countries involved) in the different initiatives. This is to some extent the case for Collaboration Projects in the tourism sector, where the projects mapped tend to avoid high concentration (with the notable exceptions of some northern Mediterranean countries, at least to some extent). The collaboration projects are related to different aspects of coastal and maritime tourism such as cultural tourism, overtourism, ecotourism, niche tourism and tourism-related maritime transport. Funding for these projects mainly stems from EU funding instruments and mainly supports beneficiaries in EU countries. Only one ENI CBC MED (CROSSDEV Cultural Routes for Sustainable Social and economic Development in Mediterranean) project and one UfM project (MAST Mediterranean Alliance for Sustainable Tourism post COVID-19) includes partners from countries outside the EU.
- A very diverse range of colours within a single column indicates some polarisation of the activities mapped within one or few countries, with the consequence of limited access to the paler blue countries in this specific area of support. This is the case for many project support area for tourism, where a general polarisation in access to project support seem to emerge between southern and northern Mediterranean countries. Particularly, this appears to be the case for projects in the area of capacity building, research and innovation and mostly capitalisation of good practices. This is a pattern that seems to reinforce the support to northern Countries in this area and would require further actions to address such imbalanced dynamics.

Legend of the table: the darker the blue, the higher the coverage of the mapped initiatives for each country (dark blue indicates that a country is involved in all the initiatives mapped for the specific category and pale blue indicates a very limited percentage of the total initiatives mapped).





⁴⁶ https://sustainable-tourism.interreg-med.eu/no-cache/news-events/news/detail/actualites/athens-Declaration-for-a-sustainable-tourism/

⁴⁷ https://www.e-unwto.org/doi/pdf/10.18111/unwtoDeclarations.2016.25.03

Spain				
North-East				
Albania				
Bosnia-				
Herzegovina				
Croatia				
Cyprus				
Greece				
Montenegro				
Slovenia				
Turkey				
South-West				
Algeria				
Mauritania				
Morocco Tunisia				
South-East				
Egypt				
Israel Jordan				
Lebanon				
Libya				
Palestine				

Source: Database of processes, frameworks, initiatives and projects compiled for the UfM State of the Art of the Mediterranean Sustainable Blue Economy report

2.4.3 Stocktaking of the Ministerial Declaration: progress and opportunities

As a final step in the analysis, it is important to return to the main priorities put forward by the UfM Ministerial Declaration for the sustainable development of the tourism sector. The table below provides a further analysis on the state of the art in advancing with the specific UfM priorities as sketched in the introduction to this chapter. It does so by building on the initiatives (frameworks/processes and projects) as reviewed earlier in this chapter and confronting those with each priority of the UfM Ministerial Declaration for this sector. The analysis allows for an assessment on the status of the implementation of each priority (a "visual check") to be used as a basis for the future UfM Roadmap.

Figure: Identification of opportunities per sectoral priority

UFM MINISTERIAL DECLARATION	VISUAL CHECK OF CURRENT IMPLEMENTATION	JUSTIFICATION AND IDENTIFICATION OF OPPORTUNITIES AS PER THE MAPPING OF INITIATIVES	
Promote policy coordination, stakeholder collaboration and cooperation mechanisms to strengthen the resilience of the tourism sector in the Mediterranean		Provided that adequate/targeted funding is available, cooperation mechanisms have good potential to be expanded to other Mediterranean countries, especially in the southern and eastern shores. This opportunity for capitalisation may build on synergies with existing region-wide initiatives such as the ASCAME-UNWTO MoU. There are few regional and sub-regional frameworks and no subregional framework outside the EU. An outstanding example is the European Strategy for more Growth and Jobs in Coastal and Maritime Tourism, which calls for targeted action in the area of coastal and marine tourism and proposes a strategy for EU Member States. Projects While there are some projects in the south, there is potential to expand collaboration projects in the south, also by creating synergies with EU-funded projects. Projects in the north are focussed on SMEs, tourism in the hinterland, capitalisation of project results and community building. MED Sustainable Tourism Community project is an outstanding example coordinating INTERREG Med projects to increase coordination of strategies and synergies of INTERREG Med projects. Projects in the south/ east focus on coordinating in the area of cultural tourism. Policy coordination, stakeholder collaboration and cooperation mechanisms can be strengthened further.	

Develop comprehensive monitoring, evaluation and	Frameworks and processes
statistics schemes and promote the digitalization of the	There is no sectoral strategy how to promote digitalization in the sector and improve
sector	sectoral statistics. Only projects have been identified by the mapping of actions in
	coastal and maritime tourism
	Projects
	There a gaps in comprehensive monitoring, evaluation and statistics schemes.
	Digitalisation is only addressed by few projects and in a limited way (data usage,
	collaboration with ICT companies, gaming, etc.). No project has a holistic approach
	to digitalisation in the sector. This gap exists for both the north and the south.
	Projects have been funded in particular by ENI CBC MED (in the north and south)
	and INTERREG Med (north).
Implement sectoral strategies and action plans to green	Frameworks and processes
and reduce carbon emissions from the whole tourism	Exclusively projects have been identified. Sustainability is part of the sectoral
industry, including tourism-related maritime transport	strategy for the EU but sectoral strategies or processes on greening and reducing
	carbon emission for the sector are missing.
	Projects
	Only one project is related to sustainable tourism-related maritime transport. The
	project SIROCCO focusses on sustainable interregional coastal & cruise maritime
	tourism though cooperation and joint planning in the north. Furthermore, there is a
	lack of projects with explicit objectives to reduce carbon emissions. Projects that
	have been included under this call for action are projects focussed on strategies and
	action plans for sustainable tourism, two projects on circular economy in tourism in
	the Mediterranean north, and CONSUME-LESS, which focusses in the reduction of
	consumption in Mediterranean touristic communities. All projects have been
	identified in the north.

Address seasonality and over tourism by promoting the diversification of the tourism offer, encouraging experience-based and slow tourism as well as associating the hinterland;	Frameworks and processes No frameworks currently exist that address seasonality Projects There are gaps in the south. Most projects addressing seasonality and over tourism are situated in the north of the Mediterranean. There is a possible capitalisation from projects in the north as well as a possibility for synergy building with projects in the north. A few projects funded by ENI CBC MED have been identified addressing seasonality and over tourism in the north and south. In the north, especially INTERREG Med focusses on these aspects, in particular projects on slow tourism and in the hinterland.
Promote eco-tourism and niche tourism, including activities such as pesca-tourism, culinary tourism, and sport tourism, among others	Frameworks and processes A few initiatives and processes have been identified in the north and south, especially on eco-tourism. Frameworks are lacking for the region and also on a sub-regional level Projects Niche tourism projects except for cultural and adventure/sport tourism are situated mostly in the north. Ecotourism projects are scarce in the south. A wealth of projects in the north related to ecotourism, as well as other niche tourism projects (pescatourism, culinary tourism, sport tourism and cultural tourism) have been found funded by COSME, ERASMUS+, EMFF, INTERREG MED, etc.
Promote fiscal and investment policies to support sustainable coastal and marine tourism	Frameworks and processes • Funding is available specifically for sustainable costal and maritime tourism both in North and South and within wider funding schemes such as INTERREG Med, other INTERREG programmes or ENI CBC MED. The majority of the funds stem from EU sources.

2.4.4 Potential avenues for future cooperation: pilot actions / projects

Building on the overall assessment provided so far, this section provides some insights on the type of actions (frameworks processes, projects) and related support to be foreseen as part of the UfM Roadmap, in order to address and ensure fully sustainable coastal and maritime Tourism across the Mediterranean. The different avenues for cooperation are clustered depending on the different aims of the call for actions extracted from the UfM SBE Ministerial Declaration — as indicated in the text below.

The following potential avenues refer to the **calls for actions related to governance**, which are to promote policy coordination, stakeholder collaboration and cooperation mechanisms to strengthen the resilience of the tourism sector in the Mediterranean; to develop comprehensive monitoring, evaluation and statistics schemes and promote the digitalization of the sector; and to implement sectoral strategies and action plans to green the sector and reduce carbon emissions from the whole tourism industry, including tourism-related maritime transport;

- A stronger regional framework could be promoted by supporting projects/initiatives related to policy coordination, stakeholder collaboration and cooperation mechanisms in the south. In the north there are several examples where this is happening and working well. In particular, the MED Sustainable Tourism Community platform/observatories (local level) should be set-up to offer a framework of collaboration to facilitate synergies among modular regional projects. A good practice is the collaboration of CPMR IMC and UfM, together with other key actors namely World Tourism Organisation, Interreg Med, ENI CBC Med, which turned into the recent operational handbook Operational Handbook on "Social and economic regeneration of the Mediterranean after the crisis: shared methods and tools for relaunching a sustainable post COVID-19 tourism model" 48, as well as in 2018 bringing together CO-EVOLVE and MedCoast4BG stakeholders. PANORAMED reinforces the concrete capacities of public to support governance processes in tackling common transnational challenges and planning potential solutions. It is understood that the upcoming MoU between the UfM and the UNWTO will strengthen the regional framework.
- A strategic framework for digitalisation could be implemented in the north and the south to
 advance the digitalisation in the sector. The mapping has not identified regional frameworks
 supporting the digitalisation of tourism businesses and operators. There is a need for greater ability
 to plan and develop the full uptake of digitalisation potential towards the diversification of touristic
 markets, products and services across the region. Projects such as CAST Creative Accelerators
 for Sustainable Tourism are good practices that can be capitalised on.
- Projects that explicitly implement sectoral strategies and action plans to green and reduce carbon emissions are scarce. In this sense, projects rather focus on sustainability or the circular economy in the north. Thus, in the south there is a strong opportunity to strengthen projects in this regard. There is a need for greater ability to plan and develop green tourism infrastructures, towards the diversification of touristic markets, products and services across the region.
- Projects related to tourism-related marine small-scale cruise with low environmental footprint, promoting local entrepreneurship and cultural heritage can be further developed both in the north as in the south. This can be linked to efforts aimed at the uptake of digitalisation in and greening of

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⁴⁸ https://cpmr.org/maritime/cpmr-imc-fosters-collaboration-on-sustainable-tourism-with-partners-from-southern-and-eastern-mediterranean/19824/;

https://cpmr-intermed.org/uncategorized/med-sustainable-tourism-days-several-paths-towards-a-common-goal/13890/

⁴⁹ https://cinea.ec.europa.eu/events/sustainable-tourism-innovation_en

small ports linking it to the idea of investing in small ports in the sectoral priority "Maritime Transport and Ports", including both infrastructure and the industry.

The following potential avenue refer to the **calls for actions related to sectoral innovation**, which are to address seasonality and overtourism by promoting the diversification of the tourism offer, encouraging experience-based and slow tourism as well as associating the hinterland; and to promote eco-tourism and niche tourism, including activities such as pesca-tourism, culinary tourism, and sport tourism, among others;

- Push on the capitalisation of the wide range of existing good practices/projects (often but not only developed on the northern shore), towards the full adoption and further development to reflect the specific challenges and opportunities for southern Mediterranean countries. This action would also allow to strengthen synergies and cooperation across relevant stakeholders (south-south as well as north-south) and accelerate innovative concepts and ideas by building on previous experiences. The European Maritime, Fisheries and Aquaculture Fund launches a call to support flagship projects on Tourism specifically towards the Western Mediterranean area, but which is open to the whole region. The projects should be monitored and successful results should be capitalised towards the whole region.
- Support a more systematic involvement of Development Agencies and local/regional Investment Banks (e.g., African Development Bank) in the region in promoting innovative and sustainable coastal and maritime (eco/sustainable) tourism entrepreneurship not sure it flows logically with the part before possibly with a strong emphasis on youth and women as tourism is the largest employer of female but they are mainly underrepresented in leadership and managerial positions. In addition, the tourism sector is an important source for growth and jobs, especially for youth, as 13% of the tourism-related work force are aged under 25. "Twinning" experiments between the EU countries and non-EU countries could be arranged, in order to promote technology transfer, know-how and good practices exchange.

2.4.5. Measuring progress in the UfM Declaration Implementation: Coastal and Maritime Tourism

Output (Process indicators)

+Number of actions, sets of activities and projects of regional cooperation planned in the area of Coastal and Maritime Tourism, in particular with regards to the following sub-priorities:

- Promotion of the digitalization of the sector
- Reduction of carbon emissions and greening of the tourism industry, including tourism-related maritime transport
- Diversification including experience-based and slow tourism as well as tourism associating the hinterland
- Promotion of eco-tourism and niche tourism

+Number of actions, sets of activities and projects of regional cooperation being implemented in the Mediterranean area in the field of Coastal and Maritime Tourism (with regards to the sub-priorities mentioned above)

- +Level of fiscal and investment policies to support sustainable coastal and marine tourism at national level
- +Level of financial support committed/secured to support sustainable coastal and marine tourism.
- +Number and typology of partners and stakeholders involved in the actions/sets of activities/projects

Outcomes (result indicators)

+Achieved and projected results of the different actions, sets of activities and projects underway or finished in the field of Coastal and Maritime Tourism, mainly:

- Number/type of new/enhanced products/services developed;
- Number/type of new/enhanced collaboration networks and platforms being supported/activated;
- Number/type of stakeholders (businesses, research, CSOs, etc.) involved and benefitting from the action/activity/project;
- Number/type of regional policies influenced as a result of regional cooperation (mainstreaming).

2.5 Marine renewable energies

2.5.1 Introduction

Marine Renewable Energies can play a crucial role in meeting reduction targets in greenhouse gas emissions and in combatting climate change. Despite their currently limited level of development, there are numerous locations in the Mediterranean Sea with considerable Marine Renewable Energies development potentials. Offshore wind energy is considered a particularly promising MRE sector, given its level of development in terms of technology, policy frameworks, commercialisation and installed capacity. Nevertheless, it also faces social acceptance challenges concerning its coexistence with other maritime uses and its still largely unknown impact on marine ecosystems.

The UfM Ministerial Declaration on Sustainable Blue Economy, 2nd February 2021, has called for:

- Cooperation on research and innovation towards the development of technologies capable of fully exploiting the potential of MRE sources of the Mediterranean, including combining different marine activities in the same marine space;
- Offshore operations for renewable energy production to be carried out by taking safety precautions and considering environmental impacts;
- The enhancement of relevant regulatory frameworks and facilitation of licensing process while
 preserving adequate assessment and public consultation prior to installing MRE infrastructure.

2.5.2 State of the art of activities

To briefly describe the state of the art of Sustainable Blue Economy (SBE) frameworks, initiatives and actions related to Marine Renewable Energies in the Mediterranean, a selection of relevant actions is made on the basis of a longer-list of collected initiatives and projects and outlined in this section.

This selection is aiming to be as illustrative as possible on the variety of subjects being addressed and has been carried out based on a combination of criteria, including:

- d) Relevance with respect to the calls for action set for this UfM Ministerial Declaration priority, as presented above;
- e) Geographical coverage;
- f) In the case of projects, the incorporation of sustainability and innovation aspects in its approach;

Figure: Overview of regional frameworks, subregional processes, transnational projects on Marine Renewable Energy (based on the compiled database of SBE actions and initiatives in the Mediterranean)

Regional

- The UfM Ministerial Declarations on Blue
 Economy (February 2021),
 Environment and Climate
 Change (October 2021) and
 Energy (June 2021)
- The UfM Renewable Energy and Energy Efficiency Platform
- The UfM Electricity Market Regulation Platform
 - MEDENER
 - Med-Reg
- Observatoire Méditerranéen de l'Energie

Subregional

- EU Communication on Sustainable Blue Economy
 - EC Offshore Renewable Energy Strategy
- The Blue Growth Community (BCG) Working Group on Marine Renewable Energy
 - Regional Centre for Renewable Energt and Energy Efficiency (RCREEE
 - Central and South-Eastern Europe energy connectivity High-level Group (CESEC)

Transnational and multi-country projects

- MAESTRALE Laying out the foundations for the establishment of a Strategy for the Deployment of Maritime Energy in the Mediterranean
- PELAGOS Establishment of a permanente Cluster and Platform of Nationa Hubs in the Blue Energy Sector.
- BLUE DEAL Labs, Open Days and Business Forums focusing on the definition testing and dissemination of enabling tools for SMEs/start-ups in the Blue Energy Sectors

Regional

- This priority is closely linked to global greenhouse emissions reduction targets. In this sense, it draws direct links to the UfM Ministerial Declarations on Environment and Climate Change (October 2021) and Energy (June 2021), whereby Mediterranean Ministers have called for the enhancement of existing relevant regulatory frameworks, with a focus on licensing processes with adequate assessment and public consultation.
- Moreover, the UfM launched a Renewable Energy and Energy Efficiency Platform with the
 objective of promoting the progressive deployment of renewables and energy efficiency measures.
 On top of this, the UfM Regional Electricity Market Platform seeks to achieve the gradual
 integration of electricity systems and markets in the Euro-Mediterranean region.
- With an active role in these platforms, the Mediterranean Association of National Energy
 Management Agencies (MEDENER) and the Mediterranean Energy Regulators platform (MedReg) play a key role in the exchange of experience, know-how and best practices between member
 countries.
- Other relevant actors at regional level include the Mediterranean Energy Observatory (OME).

Subregional

• At the level of the EU, a wealth of policy developments has taken place in recent years: notably, the, European Union's Communication on Sustainable Blue Economy (2021) with a specific axis on marine renewable energy; embedded in the so-called Climate and Energy package, as well as the European Green Deal. This Communication acknowledges the key role of marine renewable energy in the reduction of maritime activities' carbon footprint, and encourages the development of a diversified energy mix including bottom-fixed offshore wind, floating wind, thermal, wave and tidal energy.

- Moreover, the 2020 Communication "An EU Strategy to harness the potential of offshore renewable energy for a climate neutral future" proposes a strategy to make offshore renewable energy a core component of Europe's energy system by 2050. It sets targets for offshore wind (60 GW in 2030 and 300 GW in 2050) and supports the take-up of emerging technologies such as floating wind and ocean energy (wave and tidal: targets: 100 MW by 2025, 1 GW by 2030 and 40 GW by 2050). As such, it presents a general enabling framework that addresses barriers and challenges common to all offshore technologies and sea basins (including the Mediterranean Sea) and proposed supporting actions that are now implemented.
- Beyond the EU, no Marine Renewable Energy-specific frameworks are observed. Inspite of this, a number of initiatives are active in the development of (renewable) energies in general:
 - In Mediterranean Arab countries, the Regional Centre for Renewable Energy and Energy Efficiency (RCREEE) has the two-fold objectives of diffusing the implementation of cost-effective renewable energy and energy efficiency policies, strategies and technologies in the Arab region, as well as increasing the share of renewable energy and energy efficiency products and services in the Arab region and their share of global market.
 - Moreover, the Central and South Eastern Europe energy connectivity (CESEC) works to accelerate the integration of central eastern and south-eastern European gas and electricity markets.

Transnational and multi-country projects

- MAESTRALE (North Med)⁵¹ This project aims to lay the foundations for a strategy for the deployment of maritime energy in the Mediterranean area. A geodatabase with information on energy potentials has been created, with a view to selecting 20 pilot sites to implement Blue Energy plants in partner regions. Different stakeholders have been involved via national "Blue Energy Labs" to achieve a participatory design process.
- PELAGOS (North Med)⁵² This project's aim is to establish the first permanent Mediterranean
 Cluster of National Hubs in the Blue Energy (BE) sector, where technical experiences are shared.
 An innovative online platform (be-cluster.eu) has been developed to increase the innovation
 capacity of its members, and support research and innovation in the marine renewable energy
 sector.
- BLUE DEAL (North Med)⁵³ This project intends to define, test and disseminate effective practices and tools to enable SMEs to start-up new businesses in the Blue Energy (BE) sector. It also aims at improving public administrations' procedures for integrating BE in national and regional energy policies, in the planning and management of coastal zones, in maritime governance and in RIS3 strategies⁵⁴. BLUE DEAL tested their methodology and demonstrated how to implement a successful planning process during two "BLUE DEAL Testing Labs" (online) focusing on Malta and Durres (Albania).

⁵⁰ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2020:741:FIN&qid=1605792629666

⁵¹ MAESTRALE countries covered: Cyprus, Greece, Croatia, Italy, Malta, Portugal, Slovenia, Spain

⁵² **PELAGOS countries covered**: Cyprus, France, Greece, Croatia, Italy, Portugal, Spain

⁵³ **BLUE DEAL countries covered**: Albania, Greece, Croatia, Italy, Malta, Spain

⁵⁴ National/Regional Research and Innovation Strategies for Smart Specialisation

Assessment of regional coverage

Beyond the selected exemplary initiatives described so far, our analysis covered a wider number of projects (provided in the annexed "project database" tables). A synthesis of the analysis of such broader sample of frameworks, initiatives and projects is described in this section.

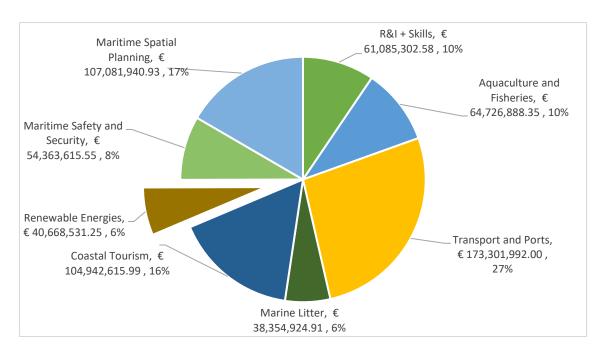
The main emerging findings with regards to the actions currently in place in this sector are as follows:

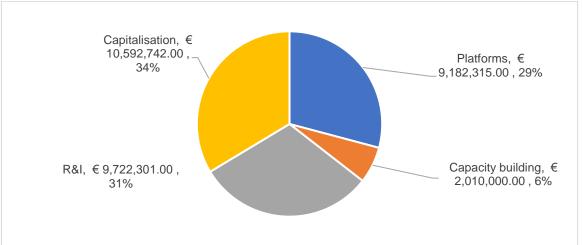
- The sector is still emerging in the Mediterranean region, with a smaller number of initiatives as compared to other sectoral priorities, although an acceleration of initiatives is observed, particularly but not only 'offshore'.
- There is a relatively good coverage of different sub-regions by regional frameworks existing
 in the Mediterranean, although not in a homogeneous way, implying the existence of overlapping
 mechanisms with potential to be further expanded.
- Sub-regional distribution shows relative polarisation, with EU countries leading the way as
 concerns the number of regional frameworks, initiatives and projects. Specifically in EU countries,
 initiatives tend to be national or local-based (e.g. France has planned to install two floating wind
 farms by 2023-2024). One subregional initiative on renewable energies was identified covering
 Mediterranean Arab countries.
- Existing transnational projects tend to concentrate on Capacity building in the north-west and north-east, and to a minor extent on Platforms and Capitalisation projects. No transnational projects have been identified on the topic of marine renewable energy in the southern Mediterranean countries, although several pilot installations at national level are gradually emerging.

Expenditure of the priority

The figure below provides an overview of the expenditure of the sector compared to other SBE priorities and for different type of projects. Projects are divided depending on their main focus (Establishment of collaboration frameworks and platforms, Capacity Building, Research and Innovation, Capitalisation of good practices). The igure below shows that Marine Renewable Energy accounts just for 6% of the overall spending on SBE priorities, coherently with its still emerging status. The figure (bottom) also indicates that the larger part of the expenditure goes to capitalisation projects (34%), the establishment of collaboration frameworks and platforms while only 6% is spent on capacity building.

Figure: Project expenditure per priority (top) and type of activity (bottom): Marine Renewable Energy





Source: Database of projects compiled for the UfM State of the Art of the Mediterranean Sustainable Blue Economy report

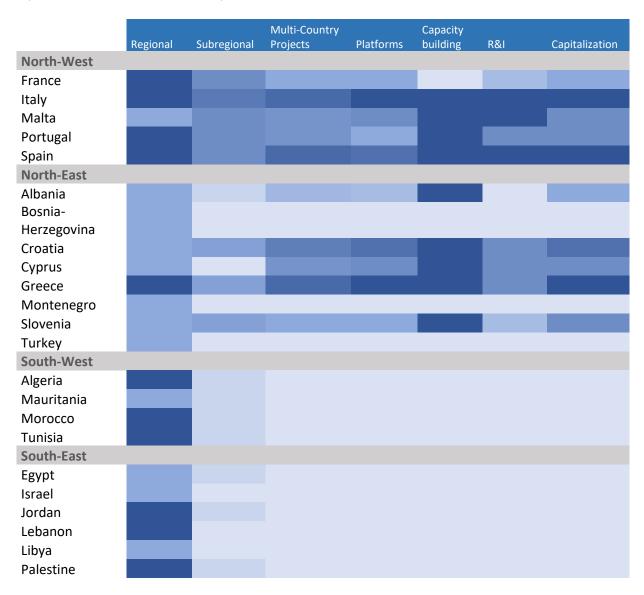
Further details on the support provided

The figure below provides an overview of the distribution of the collected initiatives (frameworks, processes and projects) across the various UfM countries in the different areas of the Mediterranean. The darker the blue, the higher the coverage of the mapped initiatives for each country (dark blue indicates that a country is involved in all the initiatives mapped for the specific category and pale blue indicates a very limited percentage of the total initiatives mapped). It should be noted that the projects are also divided depending on their main focus (Collaboration, Capacity Building, Research and Innovation, Capitalisation of good practices). The figure does not indicate the level of capacity of the countries involved, but rather the level of involvement of stakeholders in SBE actions. It should be noted that, in the case of Marine Renewable Energies, there is a low number of actions compared to the other priorities of the Ministerial Declaration, which indicates a limited development of the sector in the Mediterranean region as a whole (for instance for capacity building projects only one has been identified). The comparatively low expenditure compared to the other priorities is also reflected in the figures above. Based on these considerations, the darker shades of

blue in the table below should not be interpreted as a high level of development of the sector, but rather as a predominance of actions in countries on the northern shore of the Mediterranean.

Legend of the table: the darker the blue, the higher the coverage of the mapped initiatives for each country (dark blue indicates that a country is involved in all the initiatives mapped for the specific category and pale blue indicates a very limited percentage of the total initiatives mapped).

Figure: Example of overview of existing actions per country/ sectoral priority



Source: Database of processes, frameworks, initiatives and projects compiled for the UfM State of the Art of the Mediterranean Sustainable Blue Economy report

2.5.3 Stocktaking of the Ministerial Declaration: progress and opportunities

As a final step in the analysis, it is important to return to the main priorities put forward by the UfM Ministerial Declaration for the sustainable development of the marine renewable energy sector. The table below provides a further analysis on the state of the art in advancing with the specific UfM priorities as sketched in the introduction to this chapter. It does so by building on the initiatives (frameworks/processes and projects) as reviewed earlier in this chapter and confronting those with each priority of the UfM Ministerial Declaration for this sector. The analysis allows for an assessment on the status of the implementation of each priority (a "visual check") to be used as abasis for the future UfM Roadmap.

Figure: Example of identification of opportunities per sectoral priority

UFM MINISTERIAL DECLARATION CALL FOR ACTION	VISUAL CHECK OF CURRENT IMPLEMENTATION	JUSTIFICATION AND IDENTIFICATION OF OPPORTUNITIES AS PER THE MAPPING OF INITIATIVES
Cooperation on research and innovation towards the development of technologies capable of fully exploiting the potential of MRE sources of the Mediterranean, including combining different marine activities in the same marine space		 Although multiple renewable energy related platforms exist under the scope of UfM and beyond (e.g. the UfM Regional Platform on R&I with a concrete line of action on Renewable Energy), these are not marine renewable energy specific, and there is currently no Mediterranean Marine Renewable Energy Strategy in place, with concrete R&I targets. At subregional level, targets for offshore energy development have been set in the EU, and potential conflicts with other maritime uses are increasingly being addressed through Marine Spatial Planning existing frameworks (see related sectoral priority for more information). There seems to be a gap on Research & Innovation projects on MRE in the Mediterranean sea basin, and especially in the southern countries. Projects identified on R&I tend to focus on testing emerging technologies (MaRINET, MARINA Platform). Concerning the combination of different marine activities with MREs, there are a few examples in the north such as the multi-use experiment in the Gulf of Lion (MRE with aquaculture).
Offshore operations for renewable energy production to be carried out by taking safety precautions and considering environmental impacts		 Ongoing offshore operations, mostly at testing level, are based on a few northern and eastern Mediterranean countries, particularly member states of the EU and Israel. As MRE installations spread across other Mediterranean countries, there is a growing need to consider their impacts on marine habitats and wildlife. At regional level, the UfM

	Ministerial Declaration on Environment and Climate Action establishes clean energy recommendations (although not marine renewables specific), while at EU level, marine renewable energy development must be compliant of European environmental legislation. Regarding transnational projects, the environmental impacts of offshore wind energies have been analysed by the project Pharos4MPAs, concluding that impacts are highly dependent on the habitat characteristics of an individual site, the types of turbines and foundations used, and the installation techniques involved.
The enhancement of relevant regulatory frameworks and facilitation of licensing process while preserving adequate assessment and public consultation prior to installing MRE infrastructure	 At the level of regional frameworks/initiatives, Med-Reg acts as a collaborative platform to support countries to reinforce their regulatory capacity. This regional association brings together energy regulatory authorities of 22 Mediterranean countries. One transnational project covering northern Mediterranean countries was identified with the objective of supporting public administrations in order to improve procedures for integrating Blue Energy in national and regional energy policies (BLUE DEAL).

2.5.4 Potential avenues for future cooperation: pilot actions / projects

Building on the overall assessment provided so far, this section provides some insights on the type of actions and support to be foreseen as part of the UfM Roadmap, in addressing marine renewable energy opportunities across the Mediterranean. The actions proposed as follows have been defined and developed based on the priority areas which present a higher number of gaps as emerged in the assessment, the ultimate goal being to support and further strengthen the work carried out by UfM.

Concerning the first call for action extracted from the UfM SBE Ministerial Declaration, "Cooperation on research and innovation towards the development of technologies capable of fully exploiting the potential of MRE sources of the Mediterranean, including combining different marine activities in the same marine space", the analysis of the status of implementation carried out in the previous section points toward the following areas of potential future cooperation:

- Given that the topic is quickly catching up in the Med, and due to the fact that northern EU countries are amongst the most advanced in the world in terms of MRE Development (North Sea, Baltic Sea and Atlantic), it might be worth investigating areas for further exchange and cooperation, bearing in mind the specificities of the various sea basins. In this regard, through existing UfM cooperation mechanisms, Technical Assistance and Information Exchange (TAIEX) or "twinning" experiments between the most MRE-advanced EU countries and Mediterranean countries could be arranged, in order to promote technology transfer, know-how and good practices exchange.
- Capitalising on valuable and innovative outputs of existing transnational projects on Blue Energy in the Mediterranean (e.g. PELAGOS' Blue Energy Cluster, MAESTRALE regional Blue Energy Labs) and enlarging their scope towards Southern and Eastern Mediterranean countries.
- Increasing (visibility of) research and innovation projects in the field of Marine Renewable
 Energy and upscaling existing regional and local initiatives, particularly through increased dialogue with international funding/finance institutions in the sustainable blue economy.
- Further exploit existing Research & Innovation cooperation mechanisms (such as the UfM Research and Innovation Platform) to enhance technology marine renewable energies in the region

Regarding the second call for action, "Offshore operations for renewable energy production to be carried out by taking safety precautions and considering environmental impacts", the following paths for future cooperation are proposed:

 Foster the conceptualisation and development of transnational projects that explore Multi-Use (MU) approaches to marine renewables' development in combination with other maritime uses (i.e. aquaculture, tourism, desalination, etc.), capitalising on existing knowledge and good practices, such as the MARIBE, MERMAID or TROPOS projects.

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⁵⁵ Twinning programmes link institutions from different countries to strengthen a specific field of research. In this context, activities like short-term staff exchanges, expert visits, on-site or virtual trainings, workshops or conferences are supported.

- Explore links and synergies with sectoral priority "Maritime Transports and Ports", building on the notion of Ports as clean energy hubs⁵⁶ (port electrification, renewable energy production based on marine technologies, energy storage, grid connection).
- Deepen the knowledge on the environmental impacts of marine renewable energy, building on existing methodologies for environmental impact assessment of MRE as developed by relevant projects (e.g. Pharos4MPAs) and on the experience from more advanced countries.

Finally, as concerns the third call for action, "Enhancement of relevant regulatory frameworks and facilitation of licensing process while preserving adequate assessment and public consultation prior to installing MRE infrastructure", the following streams of action are proposed:

- Establishment of rather a "UfM Marine Renewable Energies Platform", or a specific working group under existing platforms on Renewable Energy and Energy Efficiency or Electricity Market Integration. This group may involve relevant regional stakeholders (including IFIs and new funds/facilities), with the objective of developing a Mediterranean Marine Renewable Energy Strategy, fostering the establishment of MRE development targets at national level, good practice exchange, and concrete project development.
- Explore and share best practices in terms of regulatory frameworks and facilitation of licensing process, notably for multi-use projects, including stronger role for Maritime Spatial Planning in terms of permission for the setup of pilot areas for new initiatives in this field (also building upon the upcoming guidance on permitting for renewables, for which a public consultation⁵⁷ is currently being launched.
- Further strengthening existing regional and subregional energy collaboration frameworks in the Mediterranean (e.g. MEDENER, Med-Reg, RCREEE, OME), promoting dialogue and exploring synergies amongst them; as well as promoting the incorporation of the topic of Marine Renewable Energy development under their portfolio.

Lastly, with a focus on cross-cutting priority "Marine Spatial Planning":

 Further foster the conceptualisation and development of transnational projects that explore Multi-Use (MU) approaches to marine renewables' development at local level in combination with other maritime uses (i.e. desalination for islands' water supply, aquaculture, tourism, etc.), capitalizing on existing knowledge and good practices in the European Union, such as MARIBE, MERMAID or TROPOS projects.

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https://maritime-executive.com/editorials/sustainable-ports-as-energy-hubs

https://ec.europa.eu/info/news/public-consultation-launched-renewables-permitting-and-power-purchase-agreements-2022-jan-18 en

2.5.5 Measruing progress of the Ministerial Declaration implementation: Marine renewable energies

Output (Process indicators)

- +Number of actions, sets of activities and projects of regional cooperation **planned** in the area of Marine Renewable Energies, particularly addressing the following sub-priorities:
 - Research and innovation on MRE technologies
 - Multi-use activities (e.g. combination of different maritime activities in the same marine space, including MRE)
 - Environmental impacts of MREs
 - Enhancement of regulatory frameworks and facilitation of licensing processes
- +Number of actions, sets of activities and projects of regional cooperation **being implemented** in the Mediterranean area in the field of Marine Renewable Energies (with regards to the sub-priorities mentioned above)
- +Number of national MRE-related strategies and regulatory frameworks in place
- +Level of **financial support** committed/secured to support the development of Marine Renewable Energies in the Mediterranean
- +Number and typology of partners and stakeholders involved in the actions/sets of activities/projects

Outcomes (result indicators)

- +Achieved and projected results of the different actions, sets of activities and projects underway or finished in the field of Marine Renewable Energies, mainly:
- Number/type of new/enhanced products/services developed;
- Number/type of new/enhanced collaboration networks and platforms being supported/activated;
- Number/type of stakeholders (businesses, research, CSOs, etc.) involved and benefitting from the action/activity/project;
- Number/type of regional policies influenced as a result of regional cooperation (mainstreaming).

2.6 Interactions between marine litter and the blue economy

2.6.1 Introduction

Marine litter — and marine plastic pollution in particular — is a major threat to oceans and seas due to its significant environmental, economic, social, political and cultural implications. Marine litter negatively impacts coastal and marine ecosystems and the services they provide, by ultimately affecting people's livelihoods and well-being. Plastic pollution across the Mediterranean poses a threat to economic resilience and environmental sustainability, with negative effects on human health.

It is widely acknowledged that the Mediterranean is one of the most affected seas by marine litter worldwide.⁵⁸ The root causes of marine litter in the Mediterranean are a complex combination of multiple challenges: production and consumption patterns, irresponsible behaviour of individuals and economic sectors, weak enforcement and/or lack of policy and legislative frameworks, poor solid waste management practices, misconceptions related to possible solutions, fragmented understanding of the problem due to the lack of fit-for-purpose data. For these reasons, addressing litter and plastic pollution is a priority for the UfM.

UfM Ministerial Declaration on Sustainable Blue Economy, 2nd February 2021:

- "Progress in the implementation of the Regional Action Plan on marine litter management in the Mediterranean and the application of the Sustainable Consumption and Production approach as per the 2014 UfM Ministerial on Environment and Climate Change, and the following approval of the 2016 Regional Action Plan on Sustainable Consumption and Production (SCP) of the Barcelona Convention"
- UfM member countries to "develop further initiatives to raise public awareness on marine litter
 and address it, including micro-plastics, through actions that include among others marine litter
 monitoring and removal"
- UfM member countries to "contribute to the implementation of the BLUEMED pilot initiative for a 'Healthy, plastic-free Mediterranean Sea'"
- Progress in "the Barcelona Convention's COP 21 commitment to take urgent action to prevent
 plastic leakage in the Mediterranean Sea, by promoting prevention measures and circular
 approaches, and adopting national plans to progressively achieve 100% plastic waste collection
 and recycling, by 2025"
- "UfM member countries to improve port reception facilities to ensure proper collection and recycling of waste coming from all maritime activities"
- Exchange of best practices to address the issue of marine litter from aquaculture and the issue
 of abandoned, lost or otherwise discarded fishing gear in the framework of the GFCM, engaging
 with fishermen to involve them in the collection of marine litter at sea

⁵⁸ https://www.unep.org/unepmap/resources/factsheets/pollution

2.6.2 State of the art of activities

As to briefly describe the state of the art of Sustainable Blue Economy (SBE) frameworks, initiatives and actions related to the protection of ecosystems tackling marine litter in the Mediterranean, a selection of relevant actions will be outlined in this section. The selection is aiming to be as illustrative as possible on the variety of subjects being addressed and has been carried out based on a combination of criteria, including:

- 1. Relevance with respect to the calls for action set for this UfM Ministerial Declaration priority, as presented above;
- 2. Geographical coverage;
- 3. In the case of projects, the incorporation of sustainability and innovation aspects in its approach;

Figure: Overview of regional frameworks, subregional processes, transnational projects per sectoral priority

Regional

- UfM Ministerial Declarations on Sustainable Blue Economy (Feb 2021), Environment and Climate Change (Oct 2021)
- Convention for the Protection of the Marine Environment and the Coastal Region of Mediterranean, including the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC)
- Mediterranean Node on Marine
 Litter
- BLUEMED initiative

Sub-regional

- European Green Dea
- Strategy for Plastics in a Circular Economy
- Marine Strategy Framework Directive
- EU Directive on the reduction of the impact of certain plastic products on the environment
- Mediterranean sea basin lighthouse actions to prevent, minimise and remediate litter and plastic pollution
- Cooperation Agreement between the United Nations Environment Programme (UNEP) and the Italian
 Ministry of Environment Land and Sea Protection (IMELS)
 - FI I4O cean

Transnational and multi-country projects

- UfM labelled Plastic Busters Initiative: PlasticBusters MPAs Plastic Busters: preserving biodiversity fror
 plastics in Mediterranean Marine Protected Areas
- COMMON COastal Management and MOnitoring Network for tackling marine litter in Mediterranean sea
- Plastic Busters CAP
- Marine Litter MED I
- ACT4LITTER Joint measures to preserve natural ecosystems from marine litter in the Mediterranea protected areas
- EU Water and Environment Support (WES

Regional

- The UfM Ministerial Declaration on Environment and Climate Change calls for developing and implementing environmental policies and actions aiming at preventing and reducing air, water, marine and soil pollution, towards achieving the long-term objective of zero pollution in order to protect human health and well-being and safeguard the environment. Special attention is given to plastic pollution, in particular marine litter and the impact of single use plastics.
- The objective of the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) is to contribute to preventing and reducing pollution from ships and combating pollution in case of emergency. In this respect, the mission of REMPEC is to assist the Contracting Parties in meeting their obligations of the Barcelona Convention; the 1976 Emergency Protocol; the 2002 Prevention and Emergency Protocol and implementing the Regional Strategy for Prevention of and Response to Marine Pollution from Ships (2016-2021), adopted by the

Contracting Parties in 2016, which key objectives and targets are reflected in the Mediterranean Strategy for Sustainable Development.

- The Mediterranean Node on Marine Litter establishes linkages and synergies with the Global Partnership on Marine Litter (GPML), and enhances knowledge among governments, NGOs/NPOs and local communities in the Mediterranean. It was launched to enhance awareness on marine litter prevention and reduction measures, promote the exchange of information and knowledge, establish linkages and synergies with the Global Partnership on Marine Litter, and enhance knowledge among governments, NGOs and local communities in the Mediterranean.
- The BlueMed Initiative, set up in May 2014 in the framework of the European Strategy on Blue Growth, is a political initiative aiming at advancing a shared vision for a more healthy, productive, resilient, better known and valued Mediterranean Sea, promoting the citizens' social well-being and prosperity, now and for future generations, and boosting economic growth and jobs.

Subregional initiatives

- The framework to reduce Marine Litter in the European Union is governed by the European Green Deal, Marine Strategy Framework Directive, the Directive on the reduction of the impact of certain plastic products on the environment (Single-Use Plastics Directive) and the Strategy for Plastics in a Circular Economy. The priorities of the European Green Deal include the reduction of water pollution, moving towards a circular economy and improving waste management.
- The EU Plastics Strategy aims to protect the environment and reduce marine litter. It will support more sustainable and safer consumption and production patterns for plastics. The Plastics Strategy also aims to transform the way plastic products are designed, manufactured, used and recycled in the EU. Single-use plastic products (SUPs) are used once or for a short time and then thrown away. The impact of this plastic waste on the environment and our health is global and can be severe. The 10 most common single-use plastic items found on European beaches, together with fishing gear, account for 70% of all marine litter in the EU. Consequently, the EU aims to lead the global fight against marine litter and plastic pollution.
- The EU Single-Use Plastics Directive aims to prevent and reduce the impact of certain plastic
 products on the environment, in particular the marine environment, and on human health. They
 also aim to promote the transition to a circular economy with innovative and sustainable business
 models, products and materials, thereby also contributing to the efficient functioning of the EU
 internal market.
- The EU Marine Strategy Framework Directive aims to protect the marine environment. It requires the application of an ecosystem-based approach to the management of human activities that enables the sustainable use of marine goods and services. To implement the Directive, each EU Member State must describe what it considers to be a clean, healthy and productive sea. These include. Good Environmental Status (GES), monitor and assess the quality of its seas against GES, and ensure that it takes appropriate measures to maintain or achieve GES by 2020. The European

Commission adopted a report on the first implementation cycle of the Marine Strategy Framework Directive in June 2020.⁵⁹ The report shows that while the EU framework for protecting the marine environment is comprehensive and ambitious, it needs to be strengthened to address prevailing pressures such as overfishing and unsustainable fishing practices, plastic waste, excessive nutrients, underwater noise and other types of pollution.

- Particularly relevant for the near future is the relevant funding streams to tackle Marine Litter through the Mediterranean Lighthouse, under the EU Mission 'Restore our oceans and waters by 2030', which offers possibilities to also tackle marine pollution. The broader goal of the EU mission is to restore our oceans and waters by 2030. To achieve that, we need to succeed in restoring biodiversity and ecosystems, eliminating pollution and bring climate neutrality and circularity to the blue economy sectors. The Mediterranean Lighthouse, under this mission, has as its priority to prevent and eliminate pollution by reducing plastic litter at sea, nutrient losses and use of chemical pesticides by 50%. Starting from research and innovation, Horizon Europe provides funding to address marine pollution in the EU.
- However, funding from other sources will be needed to address pollution and achieve the objectives of this Mission from public and private sector at national, regional and local level. The circular design of fishing gear is one of the foreseen measures of the Horizon Europe call. This call covers the objectives of the UfM ministerial Declaration and provides funding in the Mediterranean Sea. In addition, following the Cooperation Agreement between the United Nations Environment Programme (UNEP) and the Italian Ministry of Environment, Land and Sea Protection Marine Litter Management has been enhanced in Albania, Montenegro, Slovenia, Bosnia-Herzegovina & Italy.
- The European Commission (DG MARE) supports the **EU4Ocean Coalition**, which connects diverse organisations, projects and people that contribute to ocean literacy and the sustainable management of the ocean. There is thematic work undertaken by the platform of members on 'Healthy and Clean Ocean', that looks specifically into marine pollution/plastics- The cooperation among members help projects and initiatives to emerge and promote ocean literacy actions that focus on marine pollution by working with other organisations and individuals. The Working Group on Healthy and Clean Ocean is chaired by the Ocean Literacy Italia network in Italy (countries: Italy, Spain, France, Portugal, Malta, Greece, Cyprus).

Transnational and multi-country projects

There are a wide range of transnational projects in the field of marine litter with various objectives, geographical scope and funding. Between the mapping and analysis performed, several have been identified:

 PlasticBusters MPAs - Plastic Busters: preserving biodiversity from plastics in Mediterranean Marine Protected Areas (North Med)⁶¹ The overall objective of the PlasticBusters

⁵⁹ https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1593613439738&uri=CELEX:52020DC0259

⁶⁰ https://ec.europa.eu/oceans-and-fisheries/news/mission-restore-our-ocean-and-waters-powerful-wave-actions-our-ocean-seas-and-waters-2021-12-16 en;

 $[\]frac{https://ec.europa.eu/info/research-and-innovation/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe/healthy-oceans-seas-coastal-and-inland-waters_en$

⁶¹ PlasticBusters MPAs countries covered: Albania, Croatia, Greece, Italy, France, and Spain

MPAs project is to contribute to maintaining biodiversity and preserving natural ecosystems in pelagic and coastal Marine Protected Areas, by defining and implementing a harmonized approach against Marine Litter. The project entails actions that address the whole management cycle of Marine Litter, from monitoring and assessment to prevention and mitigation, as well as actions to strengthen networking between and among pelagic and coastal Marine Protected Areas.

- COMMON COastal Management and Monitoring Network for tackling marine litter in the Mediterranean Sea (Regional)⁶²: The COMMON project will apply the Integrated Coastal Zone Management (ICZM) principles to the challenge of marine litter, improving knowledge of the phenomenon, enhancing the environmental performance of 5 pilot coastal areas in Italy, Tunisia and Lebanon, and engaging local stakeholders in marine litter management.
- Plastic Busters CAP (Regional)⁶³: The project will capitalise upon and effectively transfer available knowledge and tools from 5 projects that address the entire management cycle of marine litter from monitoring and assessment to prevention and mitigation. The project's comprehensive, multilevel and strategic approach will facilitate the efforts of decision makers and stakeholders in effectively dealing with marine litter towards good environmental status in the Mediterranean. The COVID-19 pandemic has worsened the situation as the use of single-use plastics (SUP) such as gloves and masks has increased, threatening to stall and even reverse the progress achieved with regard to SUP which account for up to 50% of beach litter.
- The overall objective of the Marine Litter MED II (South Med)⁶⁴ project is to reduce and prevent the generation of marine litter in the Mediterranean through an expanded implementation of key reduction and prevention measures as provided for in the Regional Plan on Marine Litter Management in the Mediterranean.
- ACT4LITTER Joint measures to preserve natural ecosystems from marine litter in the Mediterranean protected areas (North Med)⁶⁵ will aim at reviewing the most promising proposed measures and select the ones that could be implemented in the Marine Protected Area (MPA), considering particularly the ecosystem services. The selection of measures will result in the development of MPA-specific action plans whose implementation could be the object of a future project. In addition, those plans will be complemented, by a realistic and operational governance plan at transnational level.
- The EU funded Water and Environment Support (WES) in the ENI Southern Neighbourhood Region (South Med)⁶⁶ is a regional project that aims at protecting the environment and improving the management of scarce water resources in the Mediterranean region. Among the key objectives of WES is to tackle problems related to pollution prevention and water use efficiency. WES capitalizes on the experience of previous successful EU funded regional projects (Horizon 2020 CB/MEP; SWIM SM; SWIM-Horizon 2020 SM) and strives for increasing the capacities of

⁶² COMMON countries covered: Italy, Tunisia, and Lebanon

⁶³ Plastic Busters CAP countries covered: Italy, Greece, Spain, Egypt, Tunisia, Lebanon, and Jordan

⁶⁴ Marine Litter MED II countries covered: Algeria, Egypt, Israel, Lebanon, Libya, Morocco, and Tunisia

⁶⁵ ACT4LITTER countries covered: Albania, Belgium, Croatia, Cyprus, France, Greece, Italy, Montenegro, Slovenia, and Spain

⁶⁶ WES ENI countries covered: Morocco, Algeria, Tunisia, Egypt, Israel, Lebanon, Palestine, and Jordan

stakeholders and creating the conditions for knowledge exchange and ownership in the Partner Countries.

Assessment of regional coverage

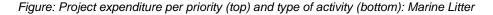
Beyond the selected exemplary initiatives described so far, our analysis covered a wider number of projects (provided in the annexed "project database" tables).

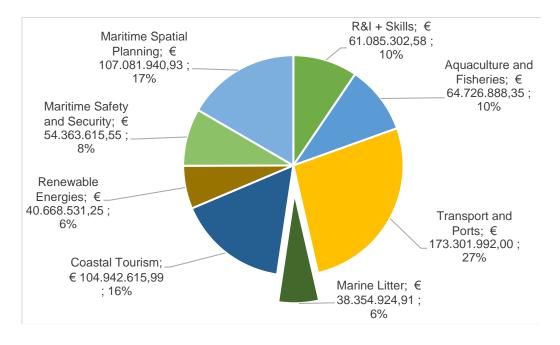
The main emerging findings with regards to the initiatives in place in this sector are as follows:

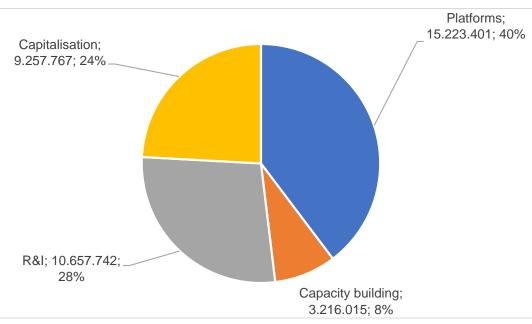
- · Regional frameworks are fairly spread across countries
- Subregional processes mainly referred to the north
- Capacity building and R&I are largely missing with some country exceptions in the north and south
- · Capitalisation mainly in the north
- · Collaboration projects seem to be more heavily distributed but still with some notable gaps

Expenditure of the priority

The figures below provide an overview of the expenditure of the priority compared to other SBE priorities and for different type of projects. Projects are divided depending on their main focus (Establishment of collaboration frameworks and platforms, Capacity Building, Research and Innovation, Capitalisation of good practices). We can observe in the figure below, that Marine Litter accounts for 6% of the expenditure on SBE sectors, slightly above Renewable Energies. The figure (bottom) indicates that Marine Litter projects focus on collaboration and building platforms (40%). Capacity building accounts for the lowest amount of spending (8% of total spending.)







Source: Database of projects compiled for the UfM State of the Art of the Mediterranean Sustainable Blue Economy report

Further details on the support provided

The figure below provides an overview of the distribution of the collected initiatives (frameworks, processes, initiatives and projects) across the various UfM countries in the different areas of the Mediterranean. The darker the blue, the higher the coverage of the mapped initiatives for each country (dark blue indicates that a country is involved in all the initiatives mapped for the specific category and pale blue indicates a very limited percentage of the total initiatives mapped).

Projects are also divided depending on their main focus (Collaboration, Capacity Building, Research and Innovation, Capitalisation of good practices). The colour schemes provide some insights:

- All dark(er) blue cells in a column imply a general balance in the coverage of the actions mapped across
 all the Mediterranean this is the case for the first column of regional frameworks. The Regional Plan
 on Marine Litter Management in the Mediterranean addresses the complex challenges posed in the
 Mediterranean region by marine litter. A regional framework, the Barcelona Convention, is in place to
 protect the Mediterranean Sea against pollution. The United Nations Environment Programme is a
 crucial player involved in the regional framework.
- In the case of Marine Litter, the figure highlights that subregional frameworks in the second columns have a limited coverage when it comes to southern countries. The most important initiatives and the most comprehensive strategies are in fact often driven by the EU. The Marine Strategy Framework Directive and the Directive on the reduction of the impact of certain plastic products on the environment set the rules how to address Marine Litter in the EU. The Strategy for Plastics in a Circular Economy and the European Green Deal are important strategical documents for the framework on how to deal with Marine Litter Challenges in Europe. They have important implications for the Mediterranean Sea.
- Interestingly though, projects in all four categories are spread around the region, which indicates that
 countries in the south are not only involved in capitalisation projects but also building platforms and
 engaging in research and innovation. Capacity building projects are spread but scattered across the
 Mediterranean, while capitalisation projects and to some extent R&I ones are relatively common across
 the seabasin, although generally more prominent in western Mediterranean countries (both northern
 and southern).

Legend of the table: the darker the blue, the higher the coverage of the mapped initiatives for each country (dark blue indicates that a country is involved in all the initiatives mapped for the specific category and pale blue indicates a very limited percentage of the total initiatives mapped).

Figure: Overview of existing actions per country/ sectoral priority



Source: Database of processes, frameworks, initiatives and projects compiled for the UfM State of the Art of the Mediterranean Sustainable Blue Economy report

2.6.3 Stocktaking of the Ministerial Declaration: progress and opportunities

As a final step in the analysis, it is important to return to the priorities put forward by the UfM Ministerial Declaration for the interaction between the marine litter and the blue economy. The table below provides a further analysis on the state of the art in advancing with the specific UfM priorities as sketched in the introduction to this chapter. It does so by building on the initiatives (frameworks/processes and projects) as reviewed earlier in this chapter and confronting those with each priority of the UfM Ministerial Declaration for this sector. The analysis allows for an assessment on the status of the implementation of each priority (a "visual check") to be used as a basis for the future UfM Roadmap.

Figure: Identification of opportunities per sectoral priority

UFM MINISTERIAL DECLARATION CALL FOR ACTION	VISUAL CHECK OF CURRENT	JUSTIFICATION AND IDENTIFICATION OF OPPORTUNITIES AS PER THE MAPPING OF INITIATIVES
	IMPLEMENTATION	
Progress in the implementation of the Regional Action Plan on marine litter management in the Mediterranean		 The object of the Marine Litter MED II project is to reduce and prevent the generation of marine litter in the Mediterranean through an expanded implementation of key reduction and prevention measures as provided for in the Regional Plan on Marine Litter Management in the Mediterranean. This project facilitates the implementation in countries of the southern Mediterranean. One of the key actions of Plastic Busters is to assess the status of the implementation of the Regional Plan on Marine Litter Management at national, sub-regional and regional level All other projects identified deal with the challenges of marine litter and reduction measures, both in the north and south.
Develop further initiatives to raise public awareness on marine litter and address it, including micro-plastics, through actions that include among others marine litter monitoring and removal		 Raising public awareness, e.g. by collaboration with NGOs such as in the MEDSEALITTER project is a part of many projects mapped. PlasticBusters MPAs proposes monitoring mechanisms for marine litter. Both named projects are situated in the north Projects related to this call for action tend to be situated in the north Integrated Monitoring and Assessment Programme of the Mediterranean Sea is a key achievement for the Mediterranean region, which will enable a quantitative, integrated analysis of marine litter. Furthermore, especially in the north there are well-connected ocean literacy activities on marine pollution, in particular related to the EU4Ocean Coalition

Contribute to the implementation of the BLUEMED pilot initiative for a 'Healthy, plastic-free Mediterranean Sea' Progress in "the Barcelona Convention's COP 21 commitment to take urgent action to prevent plastic leakage in the Mediterranean Sea, by promoting prevention measures and circular approaches, and adopting national plans to progressively achieve 100% plastic waste collection and recycling, by 2025	 11 countries from the north, south and east Mediterranean are participating in the BLUEMED initiative. Countries not participating so far are missing out on the results of the initiative. National plans have not been analysed as part of this roadmap. However, some projects such as ACT4LITTER develop plans adapted to MPA and in the EU there is a Strategy for Plastics in a Circular Economy in place. The circular approach is lacking in many projects.
UfM member countries to improve port reception facilities to ensure proper collection and recycling of waste coming from all maritime activities	 Port reception facilities are being addressed only by the cooperation agreement between the UNEP and the Italian Ministry of Environment, Land and Sea Protection. No project has been identified tackling this issue.
Exchange of best practices to address the issue of marine litter from aquaculture and the issue of abandoned, lost or otherwise discarded fishing gear in the framework of the GFCM, engaging with fishermen to involve them in the collection of marine litter at sea	 ADRINET and the recently launched Plastic Busters CAP are a comprehensive bunch of actions focused to improve a joint coastal management system and to create governance plans to preserve biodiversity and coastal ecosystems of the Programme Regions, which share the same issues in terms of pollution and fishing addressing the issue of marine litter related to fishery.

2.6.4 Potential avenues for future cooperation: pilot actions / projects

Building on the overall assessment provided so far, this section provides some insights on the type of actions (frameworks processes, projects) and related support to be foreseen as part of the UfM Roadmap, in addressing Marine Litter opportunities across the Mediterranean. The avenues for future cooperation are grouped into two clusters, one related to frameworks and the other one related to projects.

The following potential avenues refer to the calls for actions related to **frameworks**, which are the *Progress in the implementation of the Regional Action Plan on marine litter management in the Mediterranean*; and progress in the Barcelona Convention's COP 21 commitment to take urgent action to prevent plastic leakage in the Mediterranean Sea

- The regional framework is in place. It is important for UfM member countries to make progress in the implementation of these frameworks. However, **circularity** should be fully embedded in **policies and institutional frameworks**.
- A common information sharing system, with an observatory mechanism, would be beneficial
 to tackle marine litter in a more effective way. Existing tools such as the MEDBEP, the Bluemed
 website, the UfM Blue Economy Working Group and the UfM WG on Environment and Climate
 Change,, UNEP/MAP Mediterranean node, the UNSDSN Med node are to be acknowledged as
 information sharing system.

The following potential avenues refer to the calls for actions related to **projects** are to contribute to the implementation of the BLUEMED pilot initiative for a 'Healthy, plastic-free Mediterranean Sea'; to develop further initiatives to raise public awareness on marine litter and address it, including micro-plastics, through actions that include among others marine litter monitoring and removal; to improve port reception facilities to ensure proper collection and recycling of waste coming from all maritime activities, and the exchange of best practices to address the issue of marine litter from aquaculture and the issue of abandoned, lost or otherwise discarded fishing gear

- The EU mission: Restore our Oceans and Waters provides for many opportunities to reduce pollution from litter, plastic and microplastic, to accelerate the uptake of innovative solutions to prevent and minimise litter, plastic and microplastic pollution, monitoring of marine litter quantities, and assessment of the impact of implemented measures and to empower citizens taking action against pollution. The role of the UfM to support the streamlining the objectives of the Regional Action Plan across the sea basin by considering ongoing UNEP-MAP activities and building on UfM's experience over the last decade in actions such as Plastic Busters CAP⁶⁷and the UfM H2020 initiative Towards a cleaner Mediterranean⁶⁸. This would include support in monitoring of marine litter quantities, and assessment of the impact of implemented measures and to empower citizens taking action against pollution on an integrated coastal zone management approach.
- The role of the UfM as catalyser and facilitator of regional processes, ensuring convergence and inclusiveness, is expected/shall continue. In particular, so far the UfM has ensured the northsouth connection of ongoing activities/projects and future joint programming; stimulated convergence of financing around the region; linked marine litter as such with the green, circular

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⁶⁷ https://ufmsecretariat.org/launch-plastic-busters-cap-project/

 $^{^{68}\} https://op.europa.eu/en/publication-detail/-/publication/a483cca7-f0b1-11ea-991b-01aa75ed71a1/language-en/format-PDF/source-187701518$

economy approach, with emphasis on sustainable consumption and production and resource efficiency; placed marine litter in the wider land-sea approach; linked ML with research and innovation: linked with blue skills.

- Circularity is a key concept related to marine litter and the mapping has shown a limited number of projects related to circularity. Pilot projects to build capacity in the region can be launched to reduce and recycle waste and address the challenges related to marine litter in the region. The H2020 DIGICIRC project (European cluster-led accelerator for digitisation of the circular economy across key emerging sectors) serves as a good practice to build on Circularity, to recycle materials from waste, is key to achieve the objective of 100% plastic waste collection and recycling, by 2025. In this regard Ocean literacy also plays a vital role to raise public awareness on the problem of marine litter.
- Other countries can also benefit from participating in the follow up of the BLUEMED pilot initiative for a 'Healthy, plastic-free Mediterranean Sea' tackling marine litter in the whole Mediterranean region by expanding current scope of activities and geography and the newly launched EU Mission Restore our Ocean and Waters— Mediterranean sea basin lighthouse. The Mission will serve as overall R&I umbrella for marine pollution and start with ML activities in the Mediterranean Sea.

2.6.5. Measuring progress in the UfM Declaration Implementation: Marine Litter

Output (Process indicators)

+Number of actions, sets of activities and projects of regional cooperation planned in the area of Interactions between marine litter and the blue economy, in particular with regards to the following sub-priorities:

- Raising awareness and addressing marine litter including micro-plastics
- Prevention measures and circular approaches
- Improvement of port reception facilities to ensure proper collection and recycling of waste coming from all
 maritime activities
- Address the issue of marine litter from aquaculture and the issue of abandoned, lost or otherwise discarded fishing gear engaging with fishermen to involve them in the collection of marine litter at sea
- Achieving 100% plastic waste collection and recycling, by 2025

+Number of actions, sets of activities and projects of regional cooperation being implemented in the Mediterranean area in the field of Interactions between marine litter and the blue economy (with regards to the sub-priorities mentioned above)

+Level of implementation of the Regional Action Plan on marine litter management in the Mediterranean at national level

+Level of progress in the Barcelona Convention's COP 21 commitment to take urgent action to prevent plastic leakage in the Mediterranean Sea

+Level of financial support committed/secured to support the priority of Marine Litter

+Number and typology of partners and stakeholders involved in the actions/sets of activities/projects

Outcomes (result indicators)

+Achieved and projected results of the different actions, sets of activities and projects underway or finished in the field of Marine Litter, mainly:

- Number/type of new/enhanced products/services developed;
- Number/type of new/enhanced collaboration networks and platforms being supported/activated;
- Number/type of stakeholders (businesses, research, CSOs, etc.) involved and benefitting from the action/activity/project;
- Number/type of regional policies influenced as a result of regional cooperation (mainstreaming).

2.7 Maritime safety and security of blue economy activities

2.7.1 Introduction

Effective coastguard functions are critical to ensure a safe and secure Mediterranean region. Yet these functions face relevant challenges, including the need to detect marine and coastal threats -including environmental ones- as early as possible. As a result of the different needs of maritime safety and security, a number of opportunities now exist for the development and innovation across the sector. In brief, examples include the development of training activities, as well as the exchange of information, expertise, technical assistance, training and best practices to address knowledge sharing across the region.

The UfM Ministerial Declaration on Sustainable Blue Economy, 2nd February 2021:

- Recognised "the importance of ensuring a high level of maritime safety and security throughout the Mediterranean Sea basin, for the protection of citizens and countries, and for the development of a sustainable blue economy";
- Welcomed the role of the Mediterranean Coast Guard Functions Forum (MedCGFF) "in enhancing regional cooperation and promoting understanding of maritime issues of mutual importance and of common interest related to Coast Guard Functions across borders and sectors, both civil and military"
- Highlighted regional institutions such as the regional Maritime Pollution Emergency Response
 Centre for the Mediterranean Sea (REMPEC) and initiatives, such as the SAFEMED initiative
 implemented by the European Maritime Safety Agency (EMSA)

2.7.2 State of the art of activities

To briefly describe the state of the art of Sustainable Blue Economy (SBE) frameworks, initiatives and actions related to Marine Renewable Energies in the Mediterranean, a selection of relevant actions is made on the basis of a longer-list of collected initiatives and projects and outlined in this section.

This selection is aimed to be as illustrative as possible on the variety of subjects being addressed and has been carried out based on a combination of criteria, including:

- g) Relevance with respect to the calls for action set for this UfM Ministerial Declaration priority, as presented above;
- h) Geographical coverage;
- i) In the case of projects, the incorporation of sustainability and innovation aspects in its approach;

Figure: Overview of regional frameworks, subregional processes, transnational projects on Maritime Safety and Security (based on the compiled database of SBE actions and initiatives in the Mediterranean)

Regional

- UfM Ministerial Declaration on Sustainable Blue Economy 2021
 - Conventions of the International Maritime Organisation (IMO)
- Mediterranean Coast Guard Functions Forum (MedCGFF)
 - Maritime Pollution
 Emergency Response Center for the Mediterranean
 (REMPEC)

Subregional

- EU Communication on Sustainable Blue Economy (2021)
 - European Maritime Security Agency (EMSA)
 - European Fisheries Control Area (EFCA
 - European Border and Coast Guard Agency (Frontex)
 - Common Information Sharing Environment (CISE)
 - Conernicus Maritime Surveillance Service

Transnational and multi-country projects

- SAFEMED Capacity building and technical Assistance project by which a
 platform is established to enhance safety and security cooperation
- WestMOPoCO Preparedness and response to oil and highly noxious substances (NHS) marine pollution
- MED OSMoSIS Information Exchange to develop regional and local Smart
- CALYPSO SOUTH Safer marine transportation and reduction of risks in sea faring

Regional

- Conventions of the International Maritime Organisation (IMO): the International Maritime Organisation is the United Nations specialised agency with responsibility for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships. Key IMO conventions include the International Convention for the Safety of Life at Sea (SOLAS, 1974, as amended), the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto and by the Protocol of 1997 (MARPOL) and the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) as amended, including the 1995 and 2010 Manila Amendments.
- In close alignment with the former, the Maritime Pollution Emergency Response Centre for the Mediterranean (REMPEC) assists Mediterranean coastal States in "ratifying, transposing, implementing and enforcing" the above mentioned international maritime conventions, and specifically those related to the prevention, preparedness and response to pollution from ships. REMPEC is administered by the International Maritime Organisation (IMO) in cooperation with the Mediterranean Action Plan of the United Nations Environment Programme (UNEP/MAP). Importantly, REMPEC has recently elaborated the "Mediterranean Strategy for the Prevention of, and Response to Marine Pollution from Ships (2022-2031)⁶⁹", including a dedicated Action Plan.
- The Mediterranean Coast Guard Functions Forum (MedCGFF) was established to enhance cooperation among Mediterranean Littoral States Coast Guard Agencies in 2009. It is defined as a "non-binding, non-political and independent" forum that brings togetherthe heads of national maritime authorities, which engage in coast guard activities in Mediterranean countries as well as the EU and international bodies

Subregional

⁶⁹ https://www.rempec.org/en/knowledge-centre/online-catalogue/wg-51-5-med-strategy-2022-2031.pdf

- The European Maritime Safety Agency (EMSA) aims to ensure a "high, uniform and effective level of maritime safety, maritime security, prevention of, and response to, pollution caused by ships", as well as to provide an early and adequate response to marine pollution caused by oil and gas installations. In the Mediterranean region, it coordinates the SAFEMED initiative, a technical assistance and capacity building project that brings together national, European and international stakeholders with the aim to raise the safety, security and protection of marine environment standards.
- The European Fisheries Control Agency (EFCA) has the mission to promote the highest common standards for control, inspection and surveillance under the Common Fisheries Policy.
- The European Border and Coast Guard Agency (Frontex) promotes, coordinates and develops European border management, with a focus on preventing smuggling, human trafficking and terrorism as well as many other cross-border crimes. Among other activities, it supports search and rescue operations that arise during border surveillance operations at sea, and develops training curricula in a variety of areas to guarantee the highest levels of professional knowledge among border guards across Europe.
- The Common Information Sharing Environment (CISE) is an EU initiative providing a decentralised framework for point-to-point information exchange across sectors and borders. It involves more than 300 EU and national authorities with responsibilities in maritime surveillance with the aim to make European and national maritime surveillance systems interoperable, enabling all concerned authorities to exchange information on a voluntary basis in an automatic and secure way.
- The Copernicus Maritime Surveillance (CMS) service provides satellite-based data to detect
 illegal ship-sourced discharges (e.g. of oil), to identify polluting vessels and to track the evolution
 of accidental spills. The service is provided in areas of European interest outside European waters
 such as overseas territories of EU states.

Transnational and multi-country projects

- SAFEMED IV (Regional)⁷⁰ Capacity building and technical assistance project by which a platform
 is established to enhance safety and security cooperation. Among its thematic components, this
 project implemented by EFSA includes Flag State Implementation, Port State Control, Vessel
 Traffic Monitoring, Environmental Protection, Security of ships and port facilities, etc. It also offers
 technical assistance and support to the Mediterranean Coast Guard Functions Forum (MedCGFF).
- WestMOPoCO (West Med)⁷¹ Preparedness and response to oil and highly noxious substances
 (NHS). This project aims at strengthening cooperation between participating countries in preparing
 for and responding to oil and Highly Noxious Substances (HNS) marine pollution and in improving
 the quality and interoperability of their response capacities. Particularly, it enhances emergency
 decision-making capabilities, assesses national contingency plans and strengthens cooperation
 and national emergency procedures.
- MED OSMoSIS (North Med)⁷²

 Information exchange to develop regional and local smart plug-in capability for interoperable systems. MED OSMoSIS is a strategic project under Interreg MED

⁷⁰ SAFEMED countries covered: Algeria, Egypt, Jordan, Israel, Libya, Lebanon, Morocco, Palestine and Tunisia

⁷¹ **WestMOPoCO countries covered**: Algeria, France, Italy, Malta, Morocco, Spain, Tunisia, Monaco

⁷² **MED OSMOSIS countries covered**: Greece, Italy, Spain, Slovenia, Portugal, France, Croatia, Montenegro

Governance axis focusing on the development of modules for Maritime Surveillance activities to enhance maritime situational awareness in the Mediterranean. It aims to ease information exchanges that will support the further development of a regional/local smart plug-in capability supporting interoperable and transnational systems.

• CALYPSO SOUTH (Cross-border)⁷³ – Safer marine transportation and reduction of risks in sea faring. This project addresses the challenges of safer marine transportation, protection of human lives at sea, and the safeguarding of marine and coastal resources from irreversible damages. It is a commitment to put technological advancement and scientific endeavour at the service of humanitarian responses, reducing risks in sea faring, and protecting the marine environment.

Assessment of regional coverage

Beyond the selected exemplary initiatives described so far, our analysis covered a wider number of projects (provided in the annexed "project database" tables). A synthesis of the analysis of such broader sample of frameworks, initiatives and projects is described in this section.

The main emerging findings with regards to the actions currently in place in this sector are as follows:

- A relatively heterogeneous coverage of regional frameworks is observed across UfM countries, although with a wide distribution across different subregions.
- A gap is observed in subregional processes coverage, as all initiatives observed are concentrated in the EU
- **Projects are instead more distributed across the region**, showing at times a focus on bilateral schemes (e.g. Italy-Malta cooperation).
- Capitalisation shows a clear gap for this priority area, offering further room for cooperation.

Expenditure of the sector

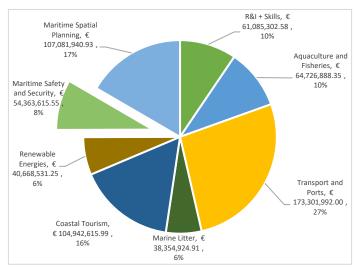
The figure below provides an overview of the expenditure of the sector compared to other SBE sectors and for different type of projects. Projects are divided depending on their main focus (Establishment of collaboration frameworks and platforms, Capacity Building, Research and Innovation, Capitalisation of good practices). We can observe in Figure 2, that Maritime Safety and Security accounts just for 9% of the overall spending on SBE sectors.

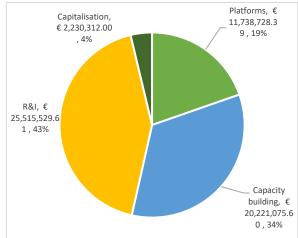
Additionally, almost a half of the resources dedicated to Maritime Safety and Security (43%) is focused on Research and Innovation projects (such as the development of IoT applications, early warning technologies, HF-radars, weather sensors, and so on). Activities based on capacity building (34%) and the setup of collaboration platforms (19%) also seem to constitute funding priorities in this sector, often identified together as part of the same project (e.g. SAFEMED IV, WestMOPoCo). Finally, only one capitalisation project has been identified (PROteuS).

Figure: Project expenditure per sector (left) and type of activity (right): Maritime Safety and Security

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⁷³ CALYPSO SOUTH countries covered: Italy, Malta





Source: Database of projects compiled for the UfM State of the Art of the Mediterranean Sustainable Blue Economy report

Further details on the support provided

The figure below provides an overview of the distribution of the collected initiatives (frameworks, processes and projects) across the various UfM countries in the different areas of the Mediterranean. The darker the blue, the higher the coverage of the mapped initiatives for each country (dark blue indicates that a country is involved in all the initiatives mapped for the specific category and pale blue indicates a very limited percentage of the total initiatives mapped). Note that the projects are also divided depending on their main focus (Collaboration, Capacity Building, Research and Innovation, Capitalisation of good practices).

An analysis of the colour schemes allow some observations:

- Concerning regional frameworks, an uneven distribution of dark and light blue cells in a column is
 observed, implying a general imbalance in the coverage of the initiatives mapped across all the
 Mediterranean. This is explained by the fact that there is not a single security-system so far covering
 the entire Mediterranean region, as each Country has its own. The most comprehensive framework is
 the IMO and UNEP/MAP Regional Marine Pollution Response Centre for the Mediterranean (REMPEC),
 and its Mediterranean Strategy for the Prevention of, and Response to Marine Pollution from Ships
 (2022-2031).
- In the case of subregional initiatives, the mapping highlights that these are concentrated in the EU. The European Union's Maritime Safety Agency (EMSA) is a crucial player involved in the field. The Common Information Sharing Environment (CISE) interconnects existing surveillance systems and networks and gives all concerned authorities access to the information they need for their missions at sea. Other tools include EUROSUR (FRONTEX), SAFESEANET (EMSA), Vessel Monitorng System (VMS) (EFCA), COPERNICUS (ESA), MARSUR (EDA) or the Maritime Single Window).
- Interestingly, projects relate to capacity building are the most frequent in the south (particularly the south-west), while research and innovation projects tend to concentrate on northern Mediterranean countries. No capitalisation initiatives have been identified in this area.

Legend of the table: the darker the blue, the higher the coverage of the mapped initiatives for each country (dark blue indicates that a country is involved in all the initiatives mapped for the specific category and pale blue indicates a very limited percentage of the total initiatives mapped).

Figure: Example of overview of existing actions per country/ sectoral priority



Source: Database of processes, frameworks, initiatives and projects compiled for the UfM State of the Art of the Mediterranean Sustainable Blue Economy report

2.7.3 Stocktaking of the Ministerial Declaration: progress and opportunities

As a final step in the analysis, it is important to return to the main priorities put forward by the UfM Ministerial Declaration for the sustainable development of the maritime safety and security sector. The table below provides a further analysis on the state of the art in advancing with the specific UfM priorities as sketched in the introduction to this chapter. It does so by building on the initiatives (frameworks/processes and projects) as reviewed earlier in this chapter and confronting those with each priority of the UfM Ministerial Declaration for this sector. The analysis allows for an assessment on the status of the implementation of each priority (a "visual check") to be used as abasis for the future UfM Roadmap.

Figure: Example of identification of opportunities per sectoral priority

UFM MINISTERIAL DECLARATION CALL FOR ACTION	VISUAL CHECK OF CURRENT IMPLEMENTATION	JUSTIFICATION AND IDENTIFICATION OF OPPORTUNITIES AS PER THE MAPPING OF INITIATIVES
Mediterranean Coast Guard Functions Forum (MedCGFF) to develop training activities		 So far, with regards to training activities, during past plenary sessions, the MedCGFF has called for conducting a mapping of existing Training Centres of the various Coast Guards in the Mediterranean Sea (2017); to extend EFCA's European Coast Guard Functions Training Network (ECGF)⁷⁴ project in order to establish a Sectorial Qualification Framework (2018); and to promote cooperation, dialogue and training activities in the region (2019). From a thematic point of view, the topics of focus for MedCGFF have been: Oil Spill Response, Maritime Surveillance, Illegal Immigration, Cooperation for the control of fishing in the Mediterranean Sea. At subregional level several initiatives and projects observed promote capacity building and expertise sharing: the European Coast Guard Functions Training Network (ECGF) has developed a Training Portal in the field of coast guard functions; promotes sharing of best practices, mobility and on-the-job training as a form of learning. The SAFEMED initiative also offers practical training to Port State Control officers to familiarise them with the various functionalities of THETIS-MED, as well as on environmental legislation, including to southern and eastern Mediterranean countries such as Morocco and Jordan.

⁷⁴ https://ecgf.efca.europa.eu/

Further facilitate exchange of information, expertise, technical assistance, training and best practices to address illicit activities at sea



- Concerning regional frameworks, the MedCFGG provides an annual forum (last meeting held on 2019) for political dialogue. On the topic marine pollution, the MENELAS information system launched by REMPEC in 2015 is a network of Law Enforcement Officials from participating States supported by an electronic information system.
- At subregional level, a wide array of EU information sharing and collaboration tools (such as CISE or Copernicus) have been identified.

2.7.4 Potential avenues for future cooperation: pilot actions / projects

The UfM Ministerial Declaration on Sustainable Blue Economy *recalled* the importance of improving maritime safety, and acknowledged the role of many of the initiatives briefly described above (i.e. the the Mediterranean Coast Guard Functions Forum (MedCGFF), the regional Maritime Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC), the SAFEMED initiative and the European Maritime Safety Agency (EMSA)).

Even though no concrete *calls for action* concerning Maritime Safety and Security have been expressed in the SBE Declaration, Ministers have *invited* the Mediterranean Coast Guard Functions Forum (MedCGFF) to develop training activities and further facilitate exchange of information, expertise, technical assistance, training and best practices to address illicit activities at sea. In this regard, and building on the overall assessment provided in the previous section, some insights on the type of actions and support to be foreseen as part of the UfM Roadmap are proposed as follows.

Considering the development of *training activities* in the framework of MedCGFF, the following cooperation avenues are suggested:

- With a flexible and virtual approach, promote the set-up of a Mediterranean Maritme Safety and Security Academy operated by the MedCGFF Secretariat, targeted at maritime safety officials, both civil and military. This Academy may capitalise on the experience of the European Coast Guard Functions Training Network (ECGF) or the 5+5 Defence College and shall especially consider gender equality by focussing on increasing the number of female trainees recruited.
- Based on a detailed analysis on training needs and/or preferences in each of MedCGFF member countries, design and implement a series of training workshops at national/ local level, building on training experiences and support schemes from the SAFEMED initiative.

As regards the exchange of information, expertise, technical assistance and best practices within the MedCGFF:

- Capitalising on and expanding scope of coordination tools developed at EU level aimed to improve interoperability, surveillance and intervention capacities at transnational level. Building on the successful example of the Common Information Sharing Environment (CISE), and account taken of its availability for EU Mediterranean countries only, a CISE-style platform may be replicated for non-EU Mediterranean countries. This may be linked with training activities (above) focused on familiarising Mediterranean officers with the functionalities of such tools and their potential replicability at regional level.
- Strengthening data management strategies as a reference for better exchange of information.at Mediterranean level, with a particular focus on data simplification and the improvement of data sharing channels between different institutional levels, the involvement of public and private bodies, universities, local authorities and citizens through their digital transformation.

2.7.5 Measuring progress of the Ministerial Declaration implementation: Maritime Safety and Security

Output (Process indicators)

+Number of actions, sets of activities and projects of regional cooperation **planned** in the area of Maritime Safety and Security, particularly addressing the following sub-priorities:

- Development of training activities
- · Exchange of information, expertise, technical assistance and best practices
- Prevention and reaction against manmade and natural disasters
- Ship pollution

+Number of actions, sets of activities and projects of regional cooperation **being implemented** in the Mediterranean area in the field of Maritime Safety and Security (with regards to the sub-priorities mentioned above)

+Level of **financial support** committed/secured to support the development of Maritime Safety and Security in the Mediterrapean

+Number and typology of partners and stakeholders involved in the actions/sets of activities/projects

Outcomes (result indicators)

+Achieved and projected results of the different actions, sets of activities and projects underway or finished in the field of Maritime Safety and Security, mainly:

- Number/type of new/enhanced products/services developed;
- Number/type of new/enhanced collaboration networks and platforms being supported/activated;
- Number/type of stakeholders (businesses, research, CSOs, etc.) involved and benefitting from the action/activity/project;
- Number/type of regional policies influenced as a result of regional cooperation (mainstreaming).

3 Assessment of the UfM Ministerial Declaration: cross-cutting priorities

3.1 Overview of cross-cutting priorities

Following the detailed description of the sectoral priorities, this chapter will be dedicated to the assessment of the cross-cutting priorities included in the UfM Ministerial Declaration for Sustainable Blue Economy. As such, it will assess their current status of implementation and accordingly propose potential avenues for future cooperation feeding the Roadmap.

Cross-cutting priorities are defined as transversal, horizontal (sets of) methodologies and actions which are considered instrumental for the development of the sustainable blue economy sectors described above. The cross-cutting priorities included in this section (as included in the UfM Ministerial Declaration) are the following:

- Governance and the future of sea basin strategies
- Marine research and innovation, skills, careers and employment
- Maritime Spatial Planning, Integrated Coastal Zone Management
- Sustainable investment in the blue economy

In addition, cross-cutting priorities have been grouped in two different clusters: "enablers" and "tools".

- Enablers are conceived as fundamental instruments which constitute a pre-requisite for the development of sectoral priorities. They are considered critical and *conditio sine qua non* given that they provide the resources and organisational structures essential for their operation. These include: Governance and Sustainable Investments.
- Tools are considered to be auxiliary methodologies, ultimately serving as a means to the
 development of the sectoral priorities individually and particularly useful for the advancement of a
 propitious ecosystem for the development of the sustainable blue economy as a whole. These
 include Maritime Spatial Planning, Integrated Coastal Zone Management and Marine research and
 innovation, skills, careers and employment.

Given the distinct and specific nature of cross-cutting priorities, either tools or enabling factors, a slightly different structure and methodology has been followed in this section. Thus, for each of the cross-cutting priorities, three main aspects have been developed: firstly, an in-depth although non-exhaustive description of the most relevant frameworks and initiatives (state of the art) is presented. Secondly, a stocktaking exercise on the implementation of the SBE Ministerial Declaration has been conducted. Finally, a set of potential avenues for future cooperation are proposed based on the gaps identified and/or the areas where UfM/regional cooperation would bring special added value.

3.2 Enabler: Governance and the future of sea basin strategies

3.2.1 Introduction

The Declaration tasks the UfM Secretariat to continue reinforcing the existing dialogue among stakeholders in the blue economy in order to maximise regional coordination, partnerships, opportunities for cooperation and pooling of resources.

In this section an overview of the complex ecosystem of institutions and organisations operating in the sea basin is provided. This is paired with an analysis of potential thematic synergies and links amongst the different initiatives. A focus is also put into the sub-regional Initiatives WestMED and EUSAIR, as well as on projects which can support/be the driving force of governance processes in the region (such as the Governance Axis of the INTERRREG MED Programme).

UfM Ministerial Declaration on Sustainable Blue Economy, 2nd February 2021:

- Ministers task the UfM Secretariat to reinforce dialogue between UfM member countries and stakeholders on the sustainable blue economy, maximising regional coordination, partnerships, opportunities for cooperation and pooling of resources – in close cooperation with the UNEP/MAP Barcelona Convention and other relevant partners, and commit to continue their constructive work within the Blue Economy Working Group;
- Ministers welcome the proposals made by civil society representatives of 10 countries within the Summit of the Two Shores to develop concrete projects in the fields of sustainable development, support to Mediterranean youth, development of digital technology, culture and circular economy;
- Ministers take note of the on-going implementation of the European Union Strategy for the
 Adriatic and Ionian Region (EUSAIR) and call participating member countries to make full use
 of future European Structural and Investment Funds (ESIF) and the Instrument for preAccession (IPA), including Interreg programmes, to actively support the development of
 sustainable blue economy in the Adriatic and Ionian region;
- Ministers recognise both the WestMED initiative and the EUSAIR as successful examples of cooperation, focused on clear goals, priorities and measurable targets and as a catalyst for the development of sustainable blue economy projects in the region;
- Ministers call for further opportunities for exchange of experiences and best practices, as well
 as cooperation between the countries of the Mediterranean region, maximizing the potential of
 the above mentioned two sub-regional initiatives and encourage the involvement of other UfM
 countries in relevant activities:
- Ministers call on relevant Managing Authorities5 and participating countries to further enhance synergies between future Interreg programmes and other European Union funds, aligning them to the extent possible to address the needs of the whole region whilst avoiding double funding, and promoting their contribution to the achievement of policy objectives set out either in the UfM context, or within the context of agreements between the European Union and third countries, or within the context of other regional cooperation agreements;
- Ministers encourage the engagement of all the relevant national and local authorities;

 Ministers call on other donors to further support the fruitful cooperation in the region and complement the ongoing and future actions, as possible and opportune

3.2.2 State of the situation

A wide variety of governance structures and institutional frameworks which play a direct or indirect role in expanding the activities related to the sustainable blue economy in the sea basin can be identified in the Mediterranean region. This ecosystem of organisations, international associations or collaborative networks can be found both at an international, regional and sub-regional level.

This wide variety of institutional frameworks translates into the identification of a selection of over **twenty-five organisations** operating in the Mediterranean, these being organisations both regional and sub-regional. They include very different profiles and dynamics of cooperation.

Central to this ecosystem and with a **holistic approach towards governance** in the Mediterranean are, 3 key organisations can be identified: The **Union for the Mediterranean**⁷⁵, the **Maghreb Arab Union** (MAU)⁷⁶, which is a cooperation initiative based on the Marrakech Treaty (1989) between Mauritania, Morocco, Algeria, Tunisia and Libya (Southern members of 5+5) aiming to support "common policy in all the domains", and the **5+5 Dialogue**, an intergovernmental cooperation Initiative between Malta, Italy, France, Spain, Portugal, Mauritania, Morocco, Algeria, Tunisia, and Libya (Launched in 1990 and steered through Ministerial Conferences of ministers of Foreign Affairs⁷⁷).

In parallel to the 3 key inter-governmental frameworks identified above, the following should also be listed when dealing with a better governance and reinforcing the dialogue among different levels of government and stakeholders:

ARLEM (Euro-Mediterranean Regional and Local Assembly)⁷⁸: An assembly of local and regional elected representatives from the European Union and its Mediterranean partners which was set up in 2010 by the European Committee of the Regions, allowing elected representatives from the three shores of the Mediterranean Sea to represent their local and regional authorities politically, maintain political dialogue and promote interregional cooperation

CPMR Mediterranean Commission⁷⁹: It gathers around 40 Member Regions from 9 different EU members states and other countries (Albania, Cyprus, France, Greece, Italy, Malta, Morocco, Spain and Tunisia). It is open to all the different sub-national levels in all Mediterranean countries and focuses on the development of the Euro-Mediterranean dialogue and territorial cooperation, concentrating its efforts on Transport and Integrated Maritime Policy, Economic and Social Cohesion, Water and Energy.

⁷⁵ https://ufmsecretariat.org/

⁷⁶ https://issafrica.org/profile-arab-maghreb-union-amu

⁷⁷ In particular, the WestMED initiative is the result of years of dialogue between ten countries in the western Mediterranean region involved in the '5+5 Dialogue': These countries are ready and willing to work together on their shared interests for the region: to increase maritime safety and security, promote sustainable blue growth and jobs, and preserve ecosystems and biodiversity.

⁷⁸ https://cor.europa.eu/en/our-work/Pages/ARLEM.aspx

⁷⁹https://cpmr-intermed.org/

MED CITIES⁸⁰: it is network which helps empower Mediterranean local governments to achieve their strategic priorities, believing them to play a vital role in improving the lives of citizens. It is a Mediterranean voice for local authorities and builds their capacity to meet the challenges of local governance in a sustainable way. It has four principal fields of activity: developing and implementing projects; sharing knowledge and building expertise in local authorities; facilitating cooperation and multilateral action between municipalities and metropolitan areas; participating in regional and international political processes.

PRIORITY axis 4 INTERREG MED Programme: PANORAMED⁸¹ is a governance platform that supports the process of strengthening and developing multilateral cooperation frameworks in the Mediterranean region for joint responses to common challenges and opportunities.

as regards *marine policies, sustainability and the blue economy*, and based on the mapping carried out, we can first identify 3 pivotal frameworks in the Mediterranean, which are: Firstly, the **Mediterranean Strategy for Sustainable Development (MSSD)** 2016-2025⁸², which provides an integrative policy framework for all stakeholders, to translate the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs) at the regional, sub-regional, national and local levels in the Mediterranean region.

Secondly, the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention)⁸³, Mediterranean Action Plan (MAP) constitutes the key regional governance framework on environmental issues in the sea basin.

Thirdly, the **General Fisheries Commission in the Mediterranean (GFCM)**⁸⁴ promotes the development, conservation, rational management and best utilisation of living marine resources, as well as the sustainable development of aquaculture in the Mediterranean, Black Sea and connecting waters.

In parallel to these three central elements to marine and sustainability policies in the Mediterranean Sea basin, the following are also play an important role in their respective fields of activity: ...

MedWet⁸⁵: the Mediterranean Wetlands Initiative brings together 27 Mediterranean and peri-Mediterranean countries that are Parties to the Convention on Wetlands. The MedWet mission is to ensure and support the effective conservation of the functions and values of Mediterranean wetlands and the sustainable use of their resources and services

MedPAN⁸⁶: The network's mission is to promote, through a partnership approach, the sustainability and operation of a network of marine protected areas in the Mediterranean which are ecologically representative, connected and effectively managed to help reduce the current rate of marine biodiversity loss

PIM Initiative⁸⁷: This is an international NGO for the promotion and assistance in the management of mediterranean insular areas. Its objective is the preservation of these micro-areas through the implementation of concrete actions in the field, by promoting the exchange of know-how and knowledge

81 https://governance.interreg-med.eu/el/

⁸⁰ https://medcities.org/es/

⁸² https://www.unep.org/unepmap/what-we-do/mediterranean-strategy-sustainable-development-mssd

⁸³ https://www.unep.org/unepmap/who-we-are/barcelona-convention-and-protocols

⁸⁴ https://www.fao.org/gfcm/en/

⁸⁵ https://medwet.org/

⁸⁶ https://medpan.org/

⁸⁷ http://initiative-pim.org/index.php/en/home/

between conservationists and specialists in the Mediterranean basin. Its approach gives priority to simple and pragmatic solutions

The IUCN Centre for Mediterranean Cooperation⁸⁸: This is an environmental organisation devoted to promote sustainable livelihoods and biodiversity conservation through cooperation and shared values and culture.it is the only environmental organisation with observer status at the United National General Assembly.

Finally, two instrumental platforms/tools can be identified which serve the development of the blue economy in the Mediterranean:

- The Mediterranean Blue Economy Stakeholder Platform⁸⁹, a regional networking platform for sharing knowledge and supporting the development of the blue economy, which is the largest "onestop-shop" for general, technical and sectoral information related to marine and maritime affairs in the Mediterranean, and
- The **European Maritime Spatial Planning Platform**⁹⁰, an information and communication gateway designed to offer support to all EU Member States (including the Mediterranean ones) in their efforts to implement Maritime Spatial Planning (MSP) in the years to come.

From a *more sub-regional perspective*, the WestMED Maritime Initiative and the EUSAIR: European Union Strategy for the Adriatic and Ionian region (Pillar 1 Blue Growth) offer dedicated collaborative frameworks which bring together national and regional authorities with the wider blue economy communities:

WestMED initiative⁹¹: The European Commission launched the initiative for the sustainable development of the blue economy in the Western Mediterranean region in 2017. The objectives of the WestMED Initiative are to establish a safer and more secure maritime space; a better governance of the seas; and a smart and resilient blue economy.

EUSAIR⁹²: The EU Strategy for the Adriatic and Ionian Region is a macro-regional strategy adopted by the European Commission and endorsed by the European Council in 2014. The Strategy was jointly developed by the Commission and the Adriatic-Ionian Region countries and stakeholders, which agreed to work together on the areas of common interest for the benefit of each country and the whole region. Its Pillar 1 focuses on Blue Growth Topic 1 – Blue technologies; Topic 2 – Fisheries and aquaculture; Topic 3 – Maritime and marine governance and services).

3.2.3 Emerging findings

Based on the analysis of all of the above, the main emerging findings with regards to the Declaration priority on governance include the following:

1. The existence of a rich ecosystem of governance structures both at regional and subregional level can be observed.

⁸⁸ https://www.iucn.org/regions/mediterranean

⁸⁹ https://medblueconomyplatform.org/

⁹⁰ https://maritime-spatial-planning.ec.europa.eu/

⁹¹ https://westmed-initiative.eu/

⁹² https://www.adriatic-ionian.eu/

A wide variety of governance structures and institutional frameworks can be identified in the Mediterranean region. This ecosystem of organisations, international associations or collaborative networks can be found both at a regional and sub-regional level and comprises virtually all relevant blue economy related sectors.

2. These ecosystems entail both organisations with a holistic approach and sector-related organisations

Central in the ecosystem and with a holistic approach: Union for the Mediterranean, the Maghreb Arab Union (MAU) or the 5+5 Dialogue.

Sector related organisations include: the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention), Mediterranean Action Plan (MAP), or the General Fisheries Commission in the Mediterranean (GFCM).

- 3. A fundamental strength: Two instrumental platforms/tools, which serve the development of the blue economy in the Mediterranean:
 - +The Mediterranean Blue Economy Stakeholder Platform.
 - +The European Maritime Spatial Planning Platform.

4. Dedicated sub-regional cooperation frameworks in the West and Adriatic Ioanian region: Not in the East MED

From a more sub-regional perspective, the WestMED Maritime Initiative and the EUSAIR: European Union Strategy for the Adriatic and Ionian region (Pillar 1 Blue Growth) offer dedicated collaborative frameworks which bring together national and regional authorities with the wider blue economy communities., thus covering and offering dedicated support in these two geographies. By contrast, the eastern part of the Mediterranean does not enjoy a governance structure to facilitate cooperation among stakeholders and blue economy related actors.

3.2.4 Stocktaking of the Ministerial Declaration and exploring ways forward and future actions

As a final step in the analysis and going back to the main priorities as included in the UfM Ministerial Declaration with regards to governance, and to identify potential avenues for future cooperation in the governance field, the two following aspects can be underlined:

- It needs to be acknowledged that, as underlined above, there is already an existing rich and quite comprehensive ecosystem of governance structures both at regional and sub-regional level.
- This leads to the assumption that most of the future avenues of actions will need to be linked to the search for further synergies and complementarities among the existing organisations and frameworks of regional cooperation operating in the sea basin (rather than the creation of new ones).

In brief, the Declaration includes four specific calls for further action:

Firstly, the Declaration calls to increase the number of opportunities for exchange of experiences and best practices, as well as cooperation between the countries of the Mediterranean region, maximizing the potential of the two sub-regional initiatives (WestMED and EUSAIR) and encouraging the involvement of other UfM countries in relevant activities.

Given that the WestMED Initiative and EUSAIR are recognised as successful examples of cooperation, focused on clear goals and acting as catalysts for the development of sustainable blue economy projects in the region, the proposals for the future could come from two different angles:

Firstly, identify clear elements of good practice which can be replicated at regional level by some other frameworks or initiatives, especially in the topics of **governance** (i.e. how the actual WestMED Initiative and the macro regional strategy EUSAUIR work in terms of planning and decision making) and in the key aspects on **project development support** through the work of dedicated Technical Groups (for instance, and in the case of the WestMED Initiative: Green Transport, sustainable aquaculture or the WestMED clusters alliance).

Secondly, both the WestMED Initiative and the EUSAIR have a geographical component, which makes them put the focus on a given part of the Mediterranean region. In this way, exploring ways of a more articulated joint work (taking the shape of concrete pilot actions) with the Blue Economy Working Group could be an option.

The Declaration also calls on relevant Managing Authorities and participating countries to further enhance synergies between future Interreg programmes and other European Union funds, aligning them to the extent possible to address the needs of the whole region whilst avoiding double funding, and promoting their contribution to the achievement of policy objectives set out either in the UfM context, or within the context of agreements between the European Union and third countries, or within the context of other regional cooperation agreements;

In this regard, a short and concise strategy for cooperation with EU funding sources, and especially with the INTERREG Programmes operating in the Mediterranean could be sought. This strategy could represent the basis for cooperation with INTERREG Programmes in the Mediterranean (INTERREG MED, INTERREG NEXT MED, cross-border Programmes), with the aim to reinforce synergies and cooperation between the INTERREG Programmes and the priorities identified in the Declaration on Sustainable Blue Economy.

Building on the INTERACT series of events to "Improving Synergies in the Mediterranean post 2020- How to achieve inter-programme cooperation?" where both Interreg and ENI CBC programmes participated together with EU Member States and Partner countries of the 2021-2027 programming task forces, with the support of DG REGIO and DG MARE, an agreement on synergies and related actions with the UfM Blue Economy Working Group could be envisaged.

A non-exhaustive list of potential actions and joint activities to be included in this cooperation strategy could include the following:

- Co-organising events, exchange of best practices, communication; establish regular meetings, ideally on a quarterly basis.
- Joint seminars and webinars before launching Programmes calls (to activate regional stakeholders and experts) and to disseminate previous results.

- Providing inputs on possible areas of intervention as identified during UfM activities including
 mainly the BE Working Group and Webinars organised in the context of the blue economy sector,
 etc. to be considered by INTERREG Managing Authorities when drafting calls and ToRs.
- Specific cooperation with the UfM Blue Economy Working Group and the UfM Secretariat to support the capitalisation of valuable projects across the Mediterranean.
- Potential participation of UfM representatives (i.e., Chair or Blue Economy Working Group) in relevant ad hoc Programmes Monitoring Committees meetings and with specific modalities to be jointly identified.
- Support the process of utilising projects' results to feed evidence-based policymaking in the region.

As a third call for action, Ministers encourage the engagement of all the relevant national and local authorities.

Opportunities for this third call for action might have a more limited scope than the two previous ones, as this engagement of subnational levels of government is taking place already, following the institutional architecture of the different Member States and countries.

In any case, and for this engagement of sub-national levels of government to be further developed, three organisations could play a pivotal role to secure a more active involvement in the activities of the UfM Blue Economy Working Group:

ARLEM (Euro-Mediterranean Regional and Local Assembly), CPMR (Conference of Peripheral Maritime Regions) Mediterranean Commission or MEDCITIES (network of Mediterranean local governments).

Specific activities could then be identified in different scopes of action, with CPMR and MEDCITIES playing a role for bringing cities and regions into future project consortia, and ARLEM playing a more political role (based on the experience of the Nicosia Initiative). All these opportunities should be further discussed and exchanges with these three organisations should be scheduled.

Finally, the Declaration calls on other donors to further support the fruitful cooperation in the region and complement the ongoing and future actions, as possible and opportune.

For this call for action, organisations such as the World Bank and the European Bank of Reconstruction and Development should be taken into consideration, together with the African Development Bank. All three of them include in their portfolios blue economy related projects, especially in the case of the World Bank, which is already quite active in northern Africa in this context.

3.3 Enabler: Sustainable investment in the blue economy

3.3.1 Mapping of existing funding sources and guidance

Introduction

On 17 May, the European Commission adopted the Communication on a new approach for a sustainable blue economy in the EU "A Green Recovery for the Blue Economy – Transforming the EU's Blue Economy for a Sustainable Future". This strategy sets out a detailed agenda for the sector to transition from "Blue Growth" to a sustainable blue economy, which drives the green transition, replacing unchecked expansion with clean, climate-proof and sustainable activities. ⁹³ The Communication set out a detailed agenda for the blue economy. To implement this agenda, the European Commission and the European Investment Bank Group, composed of the European Investment Bank and the European Investment Fund (EIF) will increase their cooperation on a sustainable blue economy. The institutions will work jointly with Member States to meet existing financing needs to reduce pollution in European seas and support investment for blue innovation and blue bioeconomy.

The new European Maritime, Fisheries and Aquaculture Fund - especially with its 'BlueInvest' platform and the new BlueInvest Fund - will support the transition towards more sustainable value chains based on the oceans, seas and coastal activities. To further finance the transformation, the Commission has urged Member States to include investments for a sustainable blue economy in their national resilience and recovery plans as well as their national operational programmes for various EU-funds from now to 2027.

As regards private investments, agreed ocean-specific sustainability principles and standards such as the EU-sponsored Sustainable Blue Economy Finance Initiative should be used in relevant investment decisions.

Across the Mediterranean, the blue economy as a whole is an essential driver for growth and jobs for the region. ocean-related activities in the Mediterranean Sea generate an annual economic value of US\$450 billion, which compared to the regional GDPs, makes it the fifth largest economy in the region after France, Italy, Spain and Turkey. This value represents about 20% of the world's annual GMP,' in an area which makes up only 1% of the world's ocean. Furthermore, the economic assets of the Mediterranean Sea are conservatively valued at a staggering US\$5.6 trillion. Although these figures are impressive, they only partially demonstrate the significance of the Mediterranean Sea, as the intrinsic value of biodiversity and the numerous intangible benefits of a healthy sea cannot be adequately reflected in economic terms. ⁹⁴

However, this source of wealth remains under threat from several human induced challenges, including overfishing, pollution and environmental degradation, as well as the multiple impacts of global climate change. The mapping of investment sources undertaken reveals that there are a multitude of sources to finance blue economy projects. A wide range of funds and financing opportunities are available for the next decade, in

⁹³ https://ec.europa.eu/info/news/european-commission-adopts-new-communication-sustainable-blue-economy-2021-may-17 en#:~:text=Search-

[&]quot;European%20Commission%20adopts%20New%20Communication%20on%20Sustainable%20Blue%20Economy,Economy%20for%20a%20Sustainable%20Future%E2%80%9D.

https://wwfint.awsassets.panda.org/downloads/reviving_mediterranean_sea_economy_full_rep_lowres.pdf

particular for the current EU programming period (2021-2027) in support of a sustainable blue economy in the Mediterranean. These sources of finance should be fully optimised in order to address the current challenges faced by the region, and synergies between public grants and private investments should be strengthened, in order to achieve a truly sustainable Mediterranean blue economy.

Calls for fully sustainable financing (and investments) are constantly emerging as an opportunity for the Mediterranean region. A wide array of public and private streams of finance are increasingly available. These are both through regional and global initiatives addressing the blue economy as well as more broadly aiming to support climate change mitigation and adaptation across the sea basin).

Contributing to the dissemination of these opportunities and calls is key to reach all countries and potential beneficiaries. In line with this, DG MARE and the UfM are planning an event in June 2022 as regards investment/finance in sustainable blue economy in the Mediterranean countries (especially in non-EU states).

From the UfM Ministerial Declaration:

As regards sustainable investment in the blue economy:

- 73. Concerned about the critical status of the marine environment in the Mediterranean and the uneven levels of economic development and access to finance, including concessional finance, between countries in the region, both for public and private stakeholders as well as the lack of capacity, in particular in the developing UfM countries;
- 74. Ministers welcome the increasing interest of European and International Financial Institutions in the sustainable blue economy, and in particular their active participation in meetings of the UfM Blue Economy Working Group, as well as other events organized by the UfM Co-Presidency and Secretariat;
- 75. Ministers reiterate their call on UfM members to continue making the necessary domestic reforms to create a more conducive environment for investments:
- 76. Ministers commit to promote the transition to sustainable blue economy in their national recovery strategies;
- 77. Ministers call upon International Financial Institutions, development partners, public and private actors to prioritize investment in the sustainable blue economy according to the Sustainable Blue Economy Finance Principles and notably in the following domains:
- a. preservation of the marine environment;
- b. innovation in a sustainable blue economy, circular economy, waste management and reduction;
- c. sustainable food value chains from the sea incl. both fisheries and aquaculture;
- d. marine renewable energies and de-carbonization of blue economy sectors;
- e. sustainable maritime transport including energy efficiency in ports;
- f. sustainable coastal and maritime tourism, including the protection and valorisation of maritime cultural heritage;
- g. adaptation to climate change, notably adapting relevant infrastructure and acting against coastal erosion by using nature-based solutions.⁹⁵

⁹⁵ Quote from the UfM Ministerial Declaration: https://ufmsecretariat.org/wp-content/uploads/2021/02/Declaration-UfM-Blue-Economy-EN-1.pdf

On a global scale, in the mapping we find initiatives such as the United Nations' Sustainable Blue Finance Initiative and the UN Sustainable Blue Economy Finance Principles ⁹⁶, or the PROBLUE initiative97 from the World Bank, among many others. Funds are available to developing countries and countries with economies in transition to meet the objectives of the international environmental conventions and agreements.

In the Mediterranean region, the main sources of investment in the blue economy include public funding opportunities offered by International Organisations, governments, Multilateral Development Banks (MDBs), structural funds, in particular the European Regional Development Fund (ERDF) and the EMFAF, and green funds. Such funding is offered in the form of grants or concessional lending instruments aiming at co-financing of projects and providing support to infrastructure development and SMEs. As a key example, the Environmental Fund⁹⁸ for Mediterranean Marine Protected Areas (MedFund) aims at strengthening long-term financial sustainability of Marine Protected Areas (MPAs) through the establishment of a fund jointly managed by Mediterranean states and regional organisations (MedPAN, WWF-Mediterranean, IUCN-Mediterranean, among others).

Regarding the call for actions highlighted by the UfM Ministerial Declaration, the domains underlined are addressed due to the variety of funding opportunities, that either offer investment for several domains (such as the BlueInvest Fund or are focused on specific areas. Thanks to the development of the Sustainable Blue Economy Finance Principles⁹⁹ (under the Sustainable Blue Economy Finance Initiative of the UN), signed by a multitude of institutions as well as its founders (European Commission, WWF, the World Resources Institute (WRI) and the European Investment Bank (EIB)), it enhances the promotion of sustainable finance in blue economy.

In this chapter, we first take stock of the relevant work in terms of financing carried out by international organisations world wide. Then, we present different financing options by typology of sources of financing. We have divided them into three broad typologies: general funding programmes, ad hoc calls and projects, and specific financing sources (such as funds and crowdfunding initiatives).

International organisations

- United Nations: with the creation of the Sustainable Blue Economy Finance Initiative UN-convened global community focused on the intersection between private finance and ocean health.
- WWF: also a part of the Sustainable Blue Economy Finance Principles, it includes investment in several projects and grants and has dedicated schemes for financial support, the majority of which go towards the development of the green economy but it also applies to the development of the

⁹⁶ The Sustainable Blue Economy Finance Principles are the foundational keystone to invest in the ocean economy. Launched in 2018, they are the world's first global guiding framework for banks, insurers and investors to finance a sustainable blue economy. They promote the implementation of SDG 14 (Life Below Water), and set out ocean-specific standards, allowing the financial industry to mainstream sustainability of ocean-based sectors. More info at: https://www.unepfi.org/blue-finance/

⁹⁷ https://www.worldbank.org/en/programs/problue

⁹⁸ https://ufmsecretariat.org/project/medfund/

⁹⁹ https://www.unepfi.org/blue-finance/the-

 $[\]frac{principles/\#:\text{``:text=The}\%20Sustainable}\%20Blue\%20Economy\%20Finance, invest\%20in\%20the\%20ocean\%20economy. \&text=They\%20promote\%20the\%20implementation\%20of, sustainability\%20of\%20ocean\%2Dbased\%20sectors.$

- sustainable blue economy. Moreover, it has developed the Mediterranean Marine Initiative (MMI)¹⁰⁰.
- World Resources Institute: works with partners to implement on-the-ground projects and mobilize
 diverse coalitions to put the world on a more sustainable path. It is currently investing in the Ocean
 Watch platform¹⁰¹ that supports the flow of data into policy and aims to present essential and
 reliable ocean data to policymakers.
- International Development Banks have a focus on sustainable investment in blue economy. There
 are four main multilateral banks operating in the region:
 - EIB: The EIB, as the EU climate bank, is investing in the sustainable blue economy and supporting initiatives aimed at reducing pollution and preserving this natural resource.
 - World Bank: has an overall oceans portfolio worth over \$9 billion and includes relevant actions such as PROBLUE is a new Multi-Donor Trust Fund, that supports the development of integrated, sustainable and healthy marine and coastal resources.
 - African Development Bank, which finances at the national and international level and has financed the Nador West Med Port Complex (NWM) Construction Project¹⁰³, among other projects.
 - European Bank for Reconstruction and Development: also a signatory to the Sustainable Blue Economy Finance Principles¹⁰⁴.

1. Funding programmes

As part of established programmes, we can find at least 19 programmes with the potential to fund blue economy initiatives in the region, including general ones such as the LIFE Programme, ¹⁰⁵ COSME Europe's programme for small and medium-sized enterprises ¹⁰⁶, Erasmus + Programme ¹⁰⁷, or Horizon Europe ¹⁰⁸, which includes specific missions such as the Oceans and Seas Mission and the sea basin lighthouse coordination activities ¹⁰⁹¹¹⁰.

The eligible countries for LIFE, COSME, Erasmus+ and Horizon Europe programmes are the following¹¹¹:

- 1. Legal entities established in the following countries and territories will be eligible to receive funding through the aforementioned programmes:
 - The Member States (MS) of the European Union (EU), including their outermost regions;
 - The Overseas Countries and Territories (OCT) linked to the Member States: Anguilla, Aruba, Bermuda, Bonaire, British Antarctic Territory, British Indian Ocean Territory, British Virgin Islands, Cayman Islands, Curaçao, Falkland Islands, French Polynesia, French Southern and Antarctic Territories, Greenland, Montserrat, New Caledonia and Dependencies, Pitcairn, Saba, Saint

https://ec.europa.eu/programmes/horizon2020/

¹⁰⁰ https://www.wwfmmi.org/who we are/mediterranean marine initiative/

https://www.wri.org/initiatives/ocean-watch

https://www.eib.org/en/about/initiatives/preserving-our-oceans/index.htm

¹⁰³ https://projectsportal.afdb.org/dataportal/VProject/show/P-MA-DD0-004

 $^{{\}color{red}^{104}} \, \underline{\text{https://www.ebrd.com/news/2020/ebrd-signs-up-to-sustainable-blue-economy-finance-principles.html}$

https://ec.europa.eu/info/news/life-programme-2018-oct-25 en

https://ec.europa.eu/growth/smes/cosme_es

¹⁰⁷ https://erasmus-plus.ec.europa.eu/

¹⁰⁹ https://ec.europa.eu/info/research-and-innovation/funding/funding-opportunities/funding-programmes-and-open-

calls/horizon-europe/eu-missions-horizon-europe/healthy-oceans-seas-coastal-and-inland-waters es

¹¹⁰ https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2021-ocean-03-02

¹¹¹ https://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2018-2020/annexes/h2020-wp1820-annex-ga_en.pdf

Barthelemy, Saint Helena, Saint Pierre and Miquelon, Sint Eustatius, Sint Maarten, South Georgia and the South Sandwich Islands, Turks and Caicos Islands, Wallis and Futuna Islands.

- The associated countries (AC).
- Multitude non-EU countries except where this is explicitly excluded in the call text.
- 2. International European interest organisations will also be eligible to receive funding.
- 3. Legal entities established in countries not listed above will be eligible for funding when such funding is explicitly foreseen in a call.
- 4. In addition, legal entities established in countries not listed above and international organisations (IOs) will be eligible for funding:
- When funding for such participants is provided for under a bilateral scientific and technological agreement or any other arrangement between the EU and an international organisation or a third country;
- When the Commission deems participation of the entity essential for carrying out the action funded

These programmes are in addition to the specific regional ones of all the areas relevant to the development of the blue economy in the Mediterranean, of which the most relevant are: Interreg Adriatic-Ionian¹¹², Interreg Balkan Mediterranean¹¹³, Interreg Greece-Italy¹¹⁴, Interreg Greece-Cyprus¹¹⁵, Greece-Albania¹¹⁶, Interreg Italy-Croatia¹¹⁷, Interreg Italy-Malta¹¹⁸, Interreg Marittimo-IT FR-Maritime¹¹⁹, Interreg NEXT MED¹²⁰, Interreg EuroNEXT¹²¹, Interreg EuroMed¹²², Interreg PRIMA MED¹²³, and Interreg SUDOE¹²⁴.

The eligible countries in these cases are the bilateral Member States/countries which from part of each of the programmes. Interreg PRIMA MED varies its eligible countries by call, Interreg Euromed includes EU Member States and associated countries and for Interreg NEXT MED the eligible countries will probably be all Mediterranean countries except Morocco.

In addition, the Northern African countries from the Mediterranean region also benefit from the African Development Fund¹²⁵ that enhances sustainable economic development and social progress of African countries. Moreover, the Interregional Innovation Investments (I3)¹²⁶ will likely open up to neighbouring countries.

2. Ad hoc Calls

https://www.adrioninterreg.eu/index.php/projects/support-to-applicants/

http://www.interreg-balkanmed.eu/calls-for-proposals/

https://greece-italy.eu/call-for-project/

https://interreg.eu/programme/interreg-greece-cyprus/

https://greece-albania.eu/calls

https://www.italy-croatia.eu/what-we-fund

¹¹⁸ https://italiamalta.eu/bandi/bandi-aperti/?lang=en

¹¹⁹ http://interreg-maritime.eu/

¹²⁰ https://www.enicbcmed.eu/sites/default/files/National%20consultations/ISO1%20activities.pdf

https://www.euronext.com/en

¹²² https://interreg-med.eu/about-us/futureinterregmedprogramme/

 $^{{}^{123}\,\}underline{\text{https://prima-med.org/wp-content/uploads/2021/12/Preliminary-version-AWP2022.pdf}}$

¹²⁴ https://www.interreg-sudoe.eu/gbr/home

https://www.afdb.org/en/about-us/corporate-information/african-development-fund-adf

https://ec.europa.eu/regional_policy/en/policy/themes/research-innovation/i3/

In addition to the aforementioned category of regional development programmes and their respective calls, there are a multitude of recent or active ad hoc calls that provide opportunities to finance specific projects in different areas. The main thematic areas covered by these calls include a wide variety of topics, including topics that are crucial to the future of Blue Growth in the Mediterranean (driven by the BLUEMED Strategic Research and Innovation Agenda¹²⁷), strengthening the capacity and accountability of civil society organisations and facilitating their involvement in political decision-making processes, identifying cutting-edge circular economy solutions and by promoting business development and start-up growth. Reinforcing the sustainability, prominence, governance and resources of the different networks (MEDPAN, BLUEMED, BLUEBIO, Galatea, etc.) is also a recurring topic.

- BLUEBIO COFUND¹²⁸
- BlueCrowdMED¹²⁹
- BLUEMED Call for Start-up Actions¹³⁰
- European Civil Protection and Humanitarian Aid Operations¹³¹
- European Commission Blue Economy Window 2020¹³²
- European Commission Annual work programme for grants and procurement
- Galatea Blue Growth Accelerator¹³³
- Mava Foundation¹³⁴
- MedPAN¹³⁵
- European Cooperation in Science and Technology¹³⁶

Specific projects like the SwitchMed¹³⁷, funded by the Neigbourhood Policy Funds which supports sustainable consumption and production practices for a circular economy in the Mediterranean, contribute towards strengthening the capacity and accountability of civil society organisations and facilitate their involvement in political decision-making processes, and institutional framework.

3. Financing (crowdfunding) initiatives¹³⁸

When it comes to specific financing initiatives (including crowdfunding), there is also a wide array of blue economy topics subject to being financed by these initiatives. These range from conservation issues at the local level and protecting plants, promoting regional networking and preserving three ecosystems (coastal,

¹²⁷ http://www.bluemed-initiative.eu/strategic-research-and-innovation-agenda/

https://bluebioeconomy.eu/bluebio-call-announcement/

https://en.goteo.org/channel/bluecrowd

http://www.bluemed-initiative.eu/start-up-actions/

https://ec.europa.eu/echo/funding-evaluations/financing-civil-protection/calls-for-proposal_en

https://emff-infoday-2020.converve.io/index.php

¹³³ https://galateaproject.eu/innovation-support-call/

https://mava-foundation.org/for-grant-seekers/

https://medpan.org/on-going-calls-for-tender/

¹³⁶ https://www.cost.eu/

https://switchmed.eu/

¹³⁸ The definition of "crowdunding" used here is the one provided by the European Commission: Crowdfunding is an emerging source of financing involving open calls to the public, generally via the internet, to finance projects through monetary contributions in exchange for a reward, product preordering, lending, or investment. For small businesses, access to this form of finance represents an alternative (or a complement) to more traditional sources of finance like debt finance. Crowdfunding platforms are websites where fundraisers such as SMEs can source financial pledges from a crowd. There are several crowdfunding types, the most common types used by profit-making SMEs and start-ups are peer-to-peer (or marketplace) lending and equity crowdfunding: https://ec.europa.eu/growth/access-finance-smes/policy-

 $[\]underline{\text{areas/crowdfunding en#:} \text{``text=Crowdfunding} \text{`} 20 \text{is} \text{`} 20 \text{is} \text{`} 20 \text{an} \text{`} 20 \text{emerging} \text{`} 20 \text{source,preordering} \text{`} 20 \text{cm} \text{'} 20 \text{emerging} \text{'} 20 \text{source,preordering} \text{'} 20 \text{cm} \text{'} 20 \text{emerging} \text{'} 20 \text{source,preordering} \text{'} 20 \text{cm} \text{'} 20 \text{emerging} \text{'} 20 \text{source,preordering} \text{'} 20 \text{cm} \text{'} 20 \text{emerging} \text{'} 20 \text{source,preordering} \text{'} 20 \text{emerging} \text{'}$

freshwater and traditionally managed landscape) to protecting biodiversity of chemical pollutants (for example implementing sustainable projects that reduce or avoid plastics and other waste and clean up waste and wastewater).

In more general terms, support is provided to fight against the effects of climate change, safeguarding biodiversity and making the switch to a green, circular and social economy in the Mediterranean a reality. The main beneficiaries (independently of whether they could also be donors in other projects or calls) of the financing options available are government agencies, civil society organisations, private sector companies, research institutions, among the broad diversity of potential partners, to implement projects and programs in recipient countries. Organisations or Funds that have carried out specific financing/crowdfunding initiatives are the following:

- Blue Sustainable Ocean Strategy¹³⁹
- BlueInvest¹⁴⁰
- Critical Ecosystem Partnership Fund¹⁴¹
- European Investment Bank¹⁴²
- European Investment Fund¹⁴³
- European Maritime, Fisheries and Aquaculture Fund (EMFAF)¹⁴⁴
- European Bank for Reconstruction and Development:
- Fonds Français pour l'Environnement Mondial (FFEM)¹⁴⁵
- Global Environment Facility ¹⁴⁶
- MedFund¹⁴⁷
- Prince Albert II Monaco Foundation¹⁴⁸
- PROBLUE Initiative from the World Bank ¹⁴⁹
- Swedish International Development Cooperation Agency SIDA¹⁵⁰
- The SwitchersFund¹⁵¹
- United Nations' Sustainable Blue Finance Initiative¹⁵²
- World Wildlife Fund¹⁵³
- Sub-national Climate Finance Initiative (SnCF)¹⁵⁴
- Dutch Fund for Climate and Development¹⁵⁵
- The CommonWealth¹⁵⁶

¹³⁹ https://www.eib.org/en/about/initiatives/preserving-our-oceans/index.htm

¹⁴⁰ The BlueInvest pilot initiative managed by the European Investment Fund, provides financing to underlying equity funds that strategically target and support the innovative blue economy: https://ec.europa.eu/commission/presscorner/detail/en/IP_21_222
¹⁴¹ https://www.cepf.net/

http://www.eib.org/efsi/index.htm

https://www.eif.org/

https://ec.europa.eu/oceans-and-fisheries/funding/emfaf_en

https://www.ffem.fr/fr

https://www.thegef.org/about/funding

¹⁴⁷ https://themedfund.org/en/to-become-a-beneficiary/

https://www.fpa2.org/foundation-projects.html

https://www.worldbank.org/en/programs/problue

¹⁵⁰ https://www.sida.se/English/

https://www.theswitchersfund.eu/en/

¹⁵² https://www.unepfi.org/blue-finance/

https://www.wwfmmi.org/newsroom/latest_news/?uNewsID=2479966

¹⁵⁴ https://www.subnational.finance/

https://wwf.panda.org/wwf_news/?355950/Dutch-Fund-for-Climate-and-Development-open-for-business

¹⁵⁶ https://thecommonwealth.org/

- JPI Oceans¹⁵⁷
- European Fund for Sustainable Development under the European External Investment Plan¹⁵⁸
- Critical Ecosystem partnership Fund¹⁵⁹
- International Fund for Agricultural Development¹⁶⁰
- Green Climate Fund ¹⁶¹
- InnovFin¹⁶²

Stocktaking of the Ministerial Declaration and exploring ways forward and future actions

As described throughout this section, there are a wealth of financing opportunities available. However, most funds remain very competitive and often focussed or mainly targeted to the northern shore of the region. As a result, the ability of southern Mediterranean stakeholders to access to such valuable stream of financial support may remain limited.

This is an aspect that might limit the potentials for the implementation of the UfM Ministerial Declaration, and dedicated support to financial access by southern stakeholders would be needed for a more well-balanced support towards a sustainable blue economy development across the Mediterranean (e.g., local support for financing visibility and intermediation for greater reach of financial support towards the southern shore).

Furthermore, we suggest considering the following avenues of additional support towards the implementation of the UfM Ministerial Declaration and an even more effective financing of a sustainable blue economy across the Mediterranean:

- Offer relevant training on project management and conceptualisation to enable countries to identify and access all available resources. This could be particularly relevant for EU Member States and southern Mediterranean non-EU countries. One such example is the pilot training session carried out as part of the WestMed Assisstance Mechanism. This session aimed at Blue Economy stakeholders in the Southern Mediterranean who were interested in acquiring basic knowledge and skills for EU project proposal development. Relevant topics could include sessions on the logical framework approach, do's and don'ts in the preparation of these type of projects, consortium building, budget preparation as well as concrete examples of on-going blue economy related projects counting with a presence of Southern Mediterranean partners.
- Innovative financial solutions will be required to enhance ocean and coastal resilience. A new financing path that could provide new ways of financing the blue economy are blue bonds. They are relatively new compared to the green bonds but have shown a great potential in the Republic of Seychelles. Since then, more successful examples have taken place such as the Nordic Investment Bank "Nordic-Baltic Blue Bond". As the largest asset class in the global financial market, the bond market offers an opportunity for private sector capital to be mobilized to support the blue economy and the achievement of SDG 14. Alongside WWF's Oceans Practice Statement on Outcome of COP26, Fiji announced its plan to issue a sovereign blue bond in 2022 intended to raise up to \$100 million for investments to deliver a resilient sustainable blue economy, create jobs

158 https://ec.europa.eu/eu-external-investment-plan/home en

160 https://www.ifad.org/en/

161 https://www.greenclimate.fund/

162 https://www.eib.org/en/products/mandates-partnerships/innovfin/index.htm

¹⁵⁷ https://www.jpi-oceans.eu/

¹⁵⁹ https://www.cepf.net/

¹⁶³ https://www.westmed-initiative.eu/effective-project-proposal-development-for-eu-funding-29-june-2021-online/

- and protect Fiji's ocean and biodiversity, and called for urgent investment in coral reef conservation as part of delivering ocean-climate solutions in support of people and nature.
- International multilateral banks to continue the efforts to bring together the development of the blue
 economy. The four main international banks operating in the region are the European Investment
 Bank, European Bank for Reconstruction and Development, World Bank and the African
 Development Bank. The former three are signatories of the Sustainable Blue Economy Finance
 Principles showing that collaboration on investment is possible and useful.

BlueInvest is a European Commission and European Investment Fund initiative that aims to improve access to finance and investment readiness for start-ups, early-stage businesses, and SMEs active in the blue economy. It is enabled by the European Maritime and Fisheries Fund and has proved to be successfully working. Moreover, it is also an example of collaboration between EU and Africa, for instance, with the BlueInvest Africa event. This is an opportunity for enhancing further collaboration between companies operating in the African blue economy and European investors.

3.4 Tool: Marine research and innovation, skills, careers and employment

3.4.1 Introduction

Research and innovation (R&I) offer significant opportunities for Mediterranean countries to develop and use their assets for the benefit of their economies and of their peoples, especially as a driver of economic development. Moreover, the maritime sector plays a relevant role in employment in the Mediterranean region, where fisheries support 200,000 direct and 500,000 indirect jobs.

In light of the current challenges such as climate change, overexploitation of fish stocks or pollution that continuously changes the Mediterranean, it is clear that research and innovation on these fields is key to address these challenges. In addition, the new approach for a sustainable blue economy in the EU - Transforming the EU's Blue Economy for a Sustainable Future, highlights the role of this priority for achieving the EU's ambition to become climate-neutral by 2050, for protecting and restoring marine ecosystems and for making the blue economy a font of ideas and action to generate sustainable innovation. It also emphasises the potential for a transition towards a sustainable blue economy in terms of skills, careers and employment. These range from fisheries to tourism, but are not fully exploited, as there is a shortage of skills and qualifications on many sectors in the blue economy.

The UfM Ministerial Declaration on Sustainable Blue Economy (2nd February 2021) calls for:

- The uptake of the BLUEMED Implementation Plan and the continuation of the BLUEMED
 Initiative for Blue Jobs and Growth in the Mediterranean region under Horizon Europe, as a key
 element for an integrative implementation of the Research and Innovation Agenda for the
 Mediterranean through a coordinated multi-programme effort;
- The promotion of the Start-up Europe Mediterranean (SEMED) initiative, aiming, in partnership
 with BLUEMED, to connect all the actors of the innovation system in the Mediterranean area as
 well as other instruments and initiatives to support the sustainable development, job creation
 and competitiveness of Blue economy SMEs;
- The continuation and further development of the Copernicus marine service to tackle coastal challenges as called by the MED7 group white paper "Copernicus for the blue economy in the Mediterranean sea and beyond";
- The establishment of blue economy clusters including transnational ones, the strengthening of existing clusters, and increased cooperation between national clusters in the Mediterranean;
- Stakeholders to work together in sector-specific partnerships to develop and implement strategies to address skill gaps and promote decent work and tailored training for blue economy sectors:
- Further use of the Mediterranean Blue Economy Stakeholder Platform managed by the UfM Secretariat to facilitate contacts between existing education networks, exchange information including pedagogic tools and serve as an interface for mobility programs;
- The UfM countries to collaborate in the relevant international fora to adapt training and education requirements for maritime-related professions, in view of technological developments and climate-related commitments.

3.4.2 State of the art of activities

To briefly describe the state of the art of Sustainable Blue Economy (SBE) frameworks, initiatives and actions related to Marine research and innovation, skills, careers and employment in the Mediterranean, a selection of relevant actions (on the basis of a longer-list of collected initiatives and projects) will be outlined in this section. The selection aims to be as illustrative as possible on the variety of subjects being addressed and has been carried out based on a combination of criteria, including:

- Relevance with respect to the calls for action set for this UfM Ministerial Declaration priority, as presented above;
- k) Geographical coverage;
- I) In the case of projects, the incorporation of sustainability and innovation aspects in its approach;

Figure: Overview of regional frameworks, subregional processes, and transnational and multi-country projects on Marine research and innovation, skills, careers and employment (based on the compiled database of SBE actions and initiatives in the Mediterranean)

Regional

- BLUEMED Initiative
- Mediterranean Blue Economy Stakeholder Platform (MED BESP)
- UfM Regional Platform in Research and Innovation
- Copernicus Marine Service
- PRIMA (Partnership for Research and Innovation in the Mediterranean Area)
- UNIMED (Mediterranean Universities Union)
- EMUNI (Euro-Mediterranean University)

Subregional

- Mediterranean Innovation Alliance
- SEMED Startup Europe Mediterranean
- Joint Programming Initiative Healthy and Productive Seas and Oceans (JPI
 - Oceans)
 - 5+5 Forum
 - WestMed Initiative
- Communication on a new approach for a sustainable blue economy in the EU
 "Transforming the EU's Blue Economy for a Sustainable Future".

Transnational and multi-country projects

- BlueSkills- Blue Jobs and Responsible Growth in the Mediterranear
 - Blue Growth Community Interreg MED horizontal project
 - Mediterranean New Chance (MEDNC)
 - MedSkippers
 - · Youth Employment in Ports of the Mediterranean (YEP MED)
 - ISOL-MET
 - CMES-WestMED
- •NAUTILUS Education & Certification Framework for Blue Career in Water Sports
 - •BAPSI- Blue Academy for Professionals of the Seafood Industry

Regional

• BLUEMED Initiative, adopted by all UfM countries, fosters integration of knowledge and efforts to develop Blue Growth in the Mediterranean and promotes joint actions on relevant research and innovation priorities. This includes actions such as the EU Mission Restore our Ocean and Waters, in which BLUEMED Initiative will collaborate through the national hubs and building on the experience of the Pilot for a healthy and plastic-free Mediterranean. This mission aims to know, restore and protect our ocean and waters by 2030. This to be achieved by reducing human pressures on marine and freshwater environments, restoring degraded ecosystems and sustainably harnessing the essential goods and services they provide. Among its main instruments to reach these goals, it must be highlighted the BlueMed Strategic Research and Innovation Agenda (SRIA), that outlines a set of key challenges for the Mediterranean and, particularly

 $^{{\}color{red}^{164}} \, \underline{https://op.europa.eu/en/publication-detail/-/publication/672ddc53-fc85-11ea-b44f-01aa75ed71a1}$

knowledge gaps, specific activities enabling the blue growth as well as measures for capacity creation and skills' enhancement and the **Implementation Plan**, that presents the shared priority goals and a set of strategic action to reach them.

- Mediterranean Blue Economy Stakeholder Platform (MED BESP), that plays a crucial role in promoting a common and coherent framework, bearing in mind regional specificities of the Mediterranean, to enhance exchange and dissemination of knowledge, networking and capacitybuilding.
- Moreover, the UfM launched a Regional Platform in Research and Innovation that actively supports the sustainable development of the Mediterranean region and plays a central role in stimulating and monitoring Euro-Mediterranean cooperation in the fields of research and innovation.
- In addition, the **Copernicus Marine Service** provides free, open, regular and systematic baseline information on the state, variability and dynamics of the blue (physical), white (sea ice) and green (biogeochemical) ocean with respect to the global ocean and European regional seas. Additionally, the European Marine Observation and Data network provides openly accessible, standardised and harmonised, data, metadata and data products of in-situ marine data for the European Seas, in 7 disciplinary areas. The Mediterranean sea basin is addressed through the Mediterranean Monitoring Forecasting Centre (MED MFC) as well as through diverse actions such as training sessions for the Mediterranean.
- Other relevant actors at regional level include the PRIMA (Partnership for Research and Innovation in the Mediterranean Area), UNIMED (Mediterranean Universities Union) and EMUNI (Euro-Mediterranean University).

Subregional

- At the level of the EU, the Mediterranean Innovation Alliance to boost the Mediterranean leadership in transformative innovation of the blue economy was created under BLUEBIOMED project.
- **SEMED**, a digital platform that connects innovation ecosystems in the Euro-Mediterranean area and creates opportunities for the entire ecosystem.
- Also at EU level, the Joint Programming Initiative Healthy and Productive Seas and Oceans
 (JPI Oceans) is a platform that provides a strategic agenda and action plan to address complex
 ocean-related societal challenges that cannot be solved at national level.
- In the Western Mediterranean countries there are several initiatives, among which we can find the 5+5 Dialogue to ensure closer cooperation. The main objectives are structured into specific activities that are divided into three main axes (Networking, Research and Innovation, Higher Education).
- Building on the experience on the 5+5 dialogue, WestMED was launched. The countries involved collaborate and agree on a common roadmap for the development of a sustainable blue economy in the sub-basin to generate growth, create jobs and provide a better living environment for Mediterranean populations and is identified as a key priority skills development and circulation. Moreover, within the WestMED Conference 2021, some initiatives and good practices were identified, particularly in relation to Mission Starfish 2030 implementation (such as BlueSkills project).

Transnational and multi-country projects

- **BLUESKILLS (West Med)** ¹⁶⁵- It promotes opportunities for "Blue" marine and maritime careers by developing skills, exchanging knowledge and valorising research for more sustainable Mediterranean Sea. Its aim is to develop new curricula and increase employability in the marine and maritime sectors.
- BLUEGROWTH INTERREG MED (North Med) ¹⁶⁶- is the continuation of InnoBlueGrowth Interreg MED horizontal project (2016-2019) and aims to disseminate capitalized results and knowledge but also to create new knowledge, through dialogue among researchers, higher education, decision makers, representative of EU, national, regional, local institutions, stakeholders, citizens for evidence-based policy making as well as identify and implement new and best practices. Within its network, a number of projects related to research and innovation may be found (e.g. IBLUE, 4HELIX+)
- **MEDITERRANEAN NEW CHANCE (MEDNC) (Regional)** ¹⁶⁷- brings together a network of stakeholders working towards the socio-professional integration of young people in the Mediterranean region. Promoting capacity-building activities and stimulating innovation. Improving the socio-professional integration of young people, in particular of NEETs and young women.
- MedSkippers (Regional)¹⁶⁸ aims to create sustainable professional networks across the Mediterranean Sea, to improve training and recognition of professional skippers of Small Commercial Vessels (SCV) with the ultimate goal of boosting charter and nautical tourism, a mature and continuously growing sub-sector, further using it as a vehicle to attract youth towards maritime professions in support of the EU's Blue Growth policy.
- Youth Employment in Ports of the Mediterranean (YEP MED) (Regional)¹⁶⁹ this project has
 the objective to better match the labour market skills needs and dual TVET offers in the
 Mediterranean port industry in order to contribute to jobs creation, especially for NEETs and
 women. YEP MED will adapt 9 training curricula to the actual needs of the productive sectors,
 introducing personalized monitoring to students and creating training courses that address
 environmental issues.
- **iSOL-MET** (**Regional**)¹⁷⁰ the overall objective of the iSOL-MET project is to bridge the gap between shipping world requirements, in respect to human resources soft skills and competences, through developing innovative educational material on the case study methodology.
- CMES-WestMED (West Med)¹⁷¹ the main objective of this project is to establish a sustainable network of Maritime Education and Training Institutes, Public Authorities and Private actors of the maritime transport sector in the Western Mediterranean.

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BLUE SKILLS countries covered: Algeria, Italy, Malta, Mauritania, Morocco, Libya, Portugal, Spain, France, Tunisia
 BLUEGROWTH INTERREG MED countries covered: Spain, France, Italy, Croatia, Greece, Montenegro, Albania,
 Malta, Cyprus

¹⁶⁷ **MEDITERRANEAN NEW CHANCE (MEDNC) countries covered:** Algeria, Egypt, France, Lebanon, Morocco, Portugal, Spain and Tunisia

¹⁶⁸ **MedSkippers countries covered:** Algeria, Croatia, Cyprus, Egypt, France, Greece, Israel, Italy, Lebanon, Malta, Montenegro, Serbia, Slovenia, Spain, Tunisia and Turkey

¹⁶⁹ Youth Employment in Ports of the Mediterranean (YEP MED) countries covered: Spain, Italy, Lebanon, Egypt, Tunisia, France, Jordan

¹⁷⁰ **iSOL-MET countries covered:** France, Bulgaria, Turkey, Romania, Poland and Greece

¹⁷¹ CMES-WestMED countries covered: Italy, France, Tunisia

- NAUTILUS (Education & Certification Framework for Blue Career in Water Sports Tourism) (Regional)¹⁷² proposes a university-business collaboration in East Mediterranean basin to expand knowledge and renew education and training curriculum models for blue growth and sustainability. Coastal and maritime tourism can be a major source of growth and jobs but lacks skilled and educated workforce. The main goal is to create highly skilled and educated Water Sports Tourism professionals, who will be able to provide excellent services, act as local ambassadors and raise awareness about the preservation of the seas and oceans.
- BAPSI (Blue Academy for Professionals of the Seafood Industry) (North-West Med)¹⁷³- aims to promote a fruitful dialogue between the industrial sector of fishery and education, in order to address the necessity of professionals to be trained and equipped consistently with the needs of the industry. By putting together the direct representatives of the fishery industrial compartment and the academic and research providers, the projects aims to empower hybrid professional figures, equipped with the exact skills required by the industry.

Assessment of regional coverage

Taking into account that Marine research and innovation, skills, careers and employment is a cross-cutting priority and, therefore, it is covered by many projects from different sectors, the regional coverage will only focus on the first two categories, regional frameworks and subregional processes. The figure below provides an overview of the distribution of such initiatives (frameworks, processes) across the various UfM countries in the different areas of the Mediterranean.

The regional coverage assessment allows for some observations:

- In general, there is a good coverage of regional frameworks across the Mediterranean, without relevant disparities between sub-regions. This is due, to a great extent, to the establishment of the BLUEMED Initiative and its Implementation Plan and Strategic Research and Innovation Agenda (SRIA). These instruments represent a comprehensive strategy with the views of all stakeholders in the Mediterranean Basin.
- Regarding subregional processes, there is relative polarization with North-West Mediterranean
 countries displaying greater presence, followed by South-West Mediterranean countries. As a
 consequence, this priority does not present a North-South divide, but rather an East-West, in part
 due to the pre-existing work of the WestMED Initiative in the Western Mediterranean.
- Another relevant finding is the low number of socioeconomic observatories in the
 Mediterranean, both at the regional and subregional level. There is a good coverage of marine
 observatories focused on biodiversity and coastal data (such as the Copernicus Marine Service,
 the European Marine Observation and Data network, citizens observatories from MedPan) but very
 few in the socioeconomic field, especially in the South.

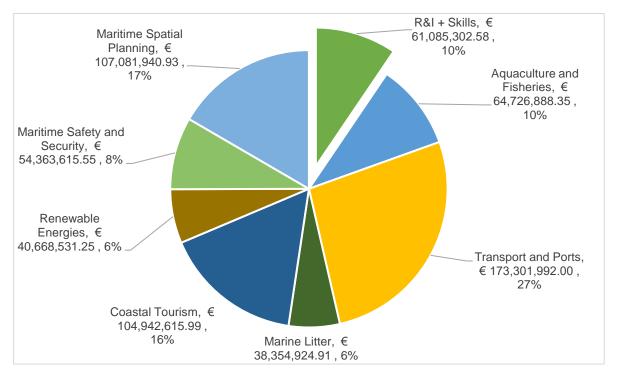
Expenditure of the priority

The figure below provides an overview of the expenditure of the sector compared to other SBE priorities and for different type of projects. It can be observed in Figure 2, Marine research and innovation, skills, careers and employment accounts for 10% of the overall spending on SBE priorities. As a consequence, it has the fourth highest expenditure, at the same level as Aquaculture and Fisheries.

¹⁷² NAUTILUS countries covered: Greece, Turkey, Cyprus, Italy

¹⁷³ BAPSI countries covered: Italy, Portugal, Spain

Figure: Project expenditure per priority: Marine research and innovation, skills, careers and employment



Source: Database of projects compiled for the UfM State of the Art of the Mediterranean Sustainable Blue Economy report

3.4.3 Stocktaking of the Ministerial Declaration: progress and opportunities

As a final step in the analysis, it is important to return to the main priorities put forward by the UfM Ministerial Declaration for the Marine research and innovation, skills, careers and employment cross-cutting priority. The table below provides a further analysis on the state of the art in advancing with the specific UfM priorities as sketched in the introduction to this chapter. It does so by building on the initiatives (frameworks/processes and projects) as reviewed earlier in this chapter and confronting those with each priority of the UfM Ministerial Declaration for this sector. The analysis allows for an assessment on the status of the implementation of each priority (a "visual check") to be used as a basis for the future UfM Roadmap.

Figure: Example of identification of opportunities per sectoral priority

UFM MINISTERIAL DECLARATION CALL FOR ACTION	VISUAL CHECK OF CURRENT IMPLEMENTATION	JUSTIFICATION AND IDENTIFICATION OF OPPORTUNITIES AS PER THE MAPPING OF INITIATIVES
The uptake of the BLUEMED Implementation Plan and the continuation of the BLUEMED Initiative for Blue Jobs and Growth in the Mediterranean region under Horizon Europe, as a key element for an integrative implementation of the Research and Innovation Agenda for the Mediterranean through a coordinated multi- programme effort		 The BLUEMED Initiative was established in 2014 by 9 European countries with the aim of aiming at advancing a shared vision for a more productive and valued Mediterranean Sea and boosting economic growth and jobs. Afterwards, all countries of the European Union joined and with the Valetta Declaration (2017), this initiative involved all UfM countries. This initiative involves two main instruments, the SRIA and Implementation Plan that fosters the commitment of Mediterranean countries to address the main challenges and priorities identified. Thematic platforms are developed under this initiative engaging main national stakeholders towards the implementation of BlueMed agendas. Since 2014, a pilot action an A Healthy Plastic-Free Mediterranean Sea as well as Start-up Actions apart from the two key milestones (SRIA and Implementation Plan) have been developed.
Invest in socioeconomic observatories and provide scientific evidence to support integrated approaches to the development of the sustainable blue economy		There are well-established and successful initiatives regarding observatories in the Mediterranean, however with a more scientific and biological approach. For example, the Copernicus Marine Service (further detailed in Maritime Safety and Security chapter) and EMODnet that offer information on the physical and biogeochemical state of the regional seas in Europe. However, there is lack of socioeconomic observatories, although EMODnet at least includes information on Human Activities.

	A non-national socioeconomic observatory is <i>Plan Bleu</i> that acts as the Mediterranean Observatory for the Environment and Sustainable Development. One of its missions is to provide the Contracting Parties to the Barcelona Convention with statistics, indicators and assessments relating to the environment and sustainable development in order to constitute a decision-making aid for the Mediterranean countries. However, there are not a large number of socioeconomic observatories across the region and the existing ones are mainly national such as the Human Environment Observatory (OHM) <i>Littoral Méditerranéen</i> (French Mediterranean coastal zone). In addition, there is also a gap on the South Mediterranean Sea basin where very few initiatives on this field can be found.
Research and innovation investments at all levels to address key challenges of the region, provide tailor-made solutions for society at large, create new and sustainable business opportunities in the blue economy; and work closely with the private sector	Investment in blue economy has been growing steadily in the past years through the establishment of diverse programmes and projects. However, the private sector remains a small proportion of research and innovation investment, while European funds (H2020, Erasmus+, ERDFF, EMFFand now HE and EMFAF, ESF) are the main funding mechanisms in this field. Most of the funding concentrates on Northern and European countries, creating a gap with Southern countries.
The UfM countries to collaborate in the relevant international fora to adapt training and education requirements for maritime-related professions, stakeholders to work together in sector-specific partnerships to develop and implement strategies to address skill gaps and promote decent work and tailored training for blue economy sectors	A variety of strategies and tools for blue career development are already in place in the form of transnational projects promoting the development of skills (BlueSkills), internship mobility between Mediterranean countries (HOMERe) or the integration of young people (MedNc). These seek to address the mismatch between the education <i>curricula</i> and the skillsets needed by the market as well as to promote skills and employment in specific sectors. The UfM has held webinars on women and blue skills, careers and job in Lebanon and digitalisation skills in the aquaculture and tourism sectors. However, there is a lack of regional frameworks and agreements among Mediterranean countries on maritime skills and academic <i>curricula</i> that could homogenise skills and educational requirements across the region, increasing employability. There are some regional fora such as 5+5 dialogue in the West Mediterranean or UNIMED that enhance institutional cooperation among Mediterranean universities.

	•	Regarding the geographical coverage, the south, particularly the southeast is involved in fewer projects and initiatives. An increase in growth and employment opportunities in the southern countries would have positive implications for the entire region.
The establishment of blue economy clusters - including transnational ones, the strengthening of existing clusters, and increased cooperation between national clusters in the Mediterranean;	•	Mediterranean clusters are in a relatively good position as most of them are growing or mature which involves that they might be rapidly reaching a stable level of maturity (growing ones) or are already well-established in their region or country (mature ones). However, there are geographical imbalances with the large majority of clusters being located in the North and West of the region, especially the mature ones, leaving southern clusters to be mostly very recent or even at an early stage of development and often not yet fully active. The western Mediterranean has enhanced the promotion of innovation in the Blue Economy through the set-up of clusters, with the EU being more regional-level while African countries are more national-level clusters. It seems to be a gap in southern clusters, which are also involved in less transversal clusters.
The promotion of the Startup Europe Mediterranean (SEMED) initiative, aiming, in partnership with BLUEMED, to connect all the actors of the innovation system in the Mediterranean area as well as other instruments and initiatives to support the sustainable development, job creation and competitiveness of Blue economy SMEs	•	European and Southern Mediterranean start-ups, investors, corporates, universities, policymakers, research centres and incubators have a platform where stakeholders exchange information, ideas, experiences and build business links since 2019 thanks to SEMED initiative. Its implementation and support towards start-ups and SMEs promotion and creation has been supported by the BLUEMED Start-up Actions and the SwitchMed. This last initiative offers direct support to the private sector (industry, start-ups and entrepreneurs) with a special focus on the South, where SMEs promotion may have a great impact on the employment and economy of the region.

3.4.4 Potential avenues for future cooperation: pilot actions / projects

Building on the overall assessment provided so far, this section provides key insights on the type of actions and support foreseen as part of the UfM Roadmap, in addressing marine research and innovation, skills, careers and employment opportunities across the Mediterranean.

Concerning the call for action "Invest in socioeconomic observatories and provide scientific evidence to support integrated approaches to the development of the sustainable blue economy" the analysis of the status of implementation carried out in the previous section points toward the following areas of potential future cooperation:

- Further development and investment on socioeconomic observatories, particularly transnational ones, but also capitalising from successful initiatives in Northern Mediterranean countries and transferring best practices to the South Mediterranean basin. Through continuously gathering data and their analysis, the region can foresee major socioeconomic needs and be prepared to meet these demands and avoid significant imbalances such as the current labour mismatch.
- Support towards ensuring the implementation of the projects that aim at developing socioeconomic observatories and their endurance, such as the EMIPO observatory under EMIPO project.

Concerning the call for action "Research and innovation investments at all levels to address key challenges of the region, provide tailor-made solutions for society at large, create new and sustainable business opportunities in the blue economy; and work closely with the private sector", the following paths for future cooperation are proposed:

- Further collaboration with the private sector is required to address the main challenges facing the region and create business opportunities, especially in relation with start-ups. The role of International Development Banks such as the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), the Islamic Development Bank (IsDB) or the African Development Bank (AfBD), are particularly relevant for Southern Mediterranean countries, and are crucial for the development of the blue sectors in the region.
- Support Smart Specialisation Strategies¹⁷⁴ across the Mediterranean Sea basin. S3 is already an advanced process within EU Mediterranean countries, but some EU Neighbouring countries are also discussing the approach and piloting in their own regions. The example from north could help and be transferred to south Mediterranean countries. This would favour the identification of specific needs and innovations potentials to be promoted, as to reflect the specificities of the local value-chains across the sea basin.

Regarding the call for action "The UfM countries to collaborate in the relevant international fora to adapt training and education requirements for maritime-related professions, stakeholders to work together in sector-specific partnerships to develop and implement strategies to address skill gaps and promote decent work and tailored training for blue economy sectors":

- Further stimulating the ongoing regional dialogue process on "blue" skills, careers and jobs under the framework of UfM, with a special focus on women and youth, in particular through:
 - **Bolstering relevant specific fora** (such as the Higher Education Internationalisation, Academic Mobility and Vocational Education & Training processes);
 - Ensuring the continuation of the series of UfM webinars on Blue Skills held in 2021.
 In particular, the experience of the "Women and Blue Skills/Careers/Jobs in Lebanon" webinar could be replicated in other SEMED countries with a similar focus on gender; as

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 $^{^{174}} https://s3platform.jrc.ec.europa.eu/documents/20125/247601/Smart+Specialisation+in+the+world+an+EU+policy+approach+help.pdf/126aeb09-aba3-517b-5759-aa732cd0be67?t=1621268542951$

well as "Digitalisation skills in the aquaculture and tourism sectors in the Mediterranean region" and "Women in blue economy in the Mediterranean" UfM webinars. Moreover, capitalising on the European Year of Youth 2022, a new (cycle of) webinar(s) could be organised with a focus on the upskilling and reskilling of young students and workers according to the needs of key Blue Economy sectors.

- Further support for EU4Ocean Coalition for Ocean Literacy, and building on this experience
 capitalise and extend towards the whole Mediterranean Sea basin, including Southern
 countries. Capitalise on the achievements of this project (Platform for organisations and individuals
 engaged in Ocean Literacy initiatives, a European Youth Forum for the Ocean and a Network of
 European Blue Schools, WG on Healthy and Clean Ocean) as well as the achievements of
 BlueSkills project once its implementation period ends
- Commissioning an ad-hoc Study on Blue Skills in the Mediterranean, focusing on the identification of gaps, needs and opportunities for a selected number of Blue Economy sectors and sub-sectors (in particular, green maritime transport, yachting and cruising, aquaculture, blue bioeconomy and marine renewable energy). This study shall place the emphasis on youth and gender equality, and especially address technical, digital and high skills. The main goal of this study is to provide an analysis and evaluation of the current situation and provide tailored suggestions to the gaps identified to be considered and taken into account by national authorities as well as regional and subregional initiatives.

Regarding the call for action "The establishment of blue economy clusters - including transnational ones, the strengthening of existing clusters, and increased cooperation between national clusters in the Mediterranean":

- Further promotion and establishment of transnational clusters as they are relatively unusual. Recent initiatives have promoted them such as Mediterranean Maritime Surveillance Cluster under PROteuS. Further support towards southern clusters, mostly at an early stage of development and often not yet fully active, so they can grow in number and size, thus be able to better engage with other regional counterparts. Building upon existing initiatives (WestMED Cluster Alliance) and projects (e.g. MISTRAL, BlueSkills, Culture & Creative Industry) which are aiming at the same cooperation purpose across the region with the ambition to channel investments towards innovation of business models and business ecosystems across the Mediterranean. Bring greater awareness on the role of maritime clusters in south-east countries so to accelerate their establishment. Promoting the development of existing clusters such as the Algerian or the Tunisian Maritime Clusters to grow and become mature in order to be able to scale-up to become regional.
- 3.4.5 Measuring progress of the Ministerial Declaration implementation: proposed indicators

Output (Process indicators)

+Number of actions, sets of activities and projects of regional cooperation **planned** in the area of Marine research and innovation, skills, careers and employment, particularly addressing the following sub-priorities:

- Development of socioeconomic observatories
- Promotion of business opportunities in collaboration with the private sector
- Collaboration and agreements between countries on educational requirements
- Ocean literacy
- Clusters development
- Smart specialisation strategies

+Number of actions, sets of activities and projects of regional cooperation **being implemented** in the Mediterranean area in the field of Marine research and innovation, skills, careers and employment (with regards to the sub-priorities mentioned above)

+Level of **financial support** committed/secured to support the development of Marine research and innovation, skills, careers and employment

+Number and typology of partners and stakeholders involved in the actions/sets of activities/projects

- Balanced representation of relevant stakeholders
- Balanced geographical representation

Outcomes (result indicators)

+Achieved and projected results of the different actions, sets of activities and projects underway or finished in the field of Marine Research and Innovation, mainly:

- Number/type of new/enhanced products/services developed;
- Number/type of new/enhanced collaboration networks and platforms being supported/activated;
- Number/type of stakeholders (businesses, research, CSOs, etc.) involved and benefitting from the action/activity/project;
- Number/type of regional policies influenced as a result of regional cooperation (mainstreaming).

3.5 Tool: Maritime Spatial Planning and Integrated Coastal Zone Management

3.5.1 Introduction

The UfM Declaration highlights the importance of Maritime Spatial Planning (MSP) and Integrated Coastal Zone Management (ICZM) as tools to support Sustainable Blue Economy, with ICZM being integrated in MSP as a way to ensure greater synergies through the land-sea interaction principle. Both tools have been recognised as significant enablers to attract investments and reduce impacts on the environment due to the increasing competition for the use of marine and coastal space and resources in the Mediterranean. Notably, the two tools are instrumental to an increased effort to control and minimize the impacts associated with the expansion of activities in coastal areas and at sea, with an ecosystem-based approach – an aspect making the tool truly cross-cutting.

3.5.2 Stocktaking of the Ministerial Declaration and exploring ways forward and future actions

The UfM Ministerial Declaration addressed the need to support greater uptake of Maritime Spatial Planning and Integrated Coastal Zone Management in order to ensure a fully sustainable blue economy in the Mediterranean and address an increasing competition for marine and coastal space and resources.

In particular, the Declaration recognises some specific elements for consideration:

- Invites all countries to further use Maritime Spatial Planning in support of the development of the sustainable blue economy in the Mediterranean, including by addressing Land-Sea Interactions;
- Calls for their further development and update of ICZM national strategies, when necessary, through
 the provision of adequate financial and technical support, as well as for further involvement and
 coordination of national and local authorities on MSP/ICZM as appropriate.

The main frameworks and initiatives/projects currently ongoing across the Mediterranean are now briefly reviewed as a basis for further actions to be suggested towards the implementation of the UfM Directive.

State of the art of activities

To briefly describe the state of the art of Sustainable Blue Economy (SBE) frameworks, initiatives and actions related to Maritime Spatial Planning (MSP) and Integrated Coastal Zone Management (ICZM) in the Mediterranean, a selection of relevant actions will be outlined in this section. The selection aims to be as illustrative as possible on the variety of subjects being addressed and has been carried out based on a combination of criteria, including:

- d) Relevance with respect to the calls for action set for this UfM Ministerial Declaration priority, as presented above;
- e) Geographical coverage;
- f) In the case of projects, the incorporation of sustainability and innovation aspects in its approach;

Figure: Overview of regional frameworks, subregional processes, transnational projects on Maritime Spatial Planning (MSP) and Integrated Coastal Zone Management (ICZM)

Regional

- The UfM Ministerial Declarations on **Sustainable Blue Economy** (February 2021)
- Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (1995)
- UNEP-MED Action Plan for the Implementation of the ICZM Protocol for the Mediterranean (2012-2019)
- UNEP-MED Common Regional Framework for Integrated Coastal Zone Management (2019)
- IOC UNESCO / EC: MSP Global Initiative (2018)

Subregional

- EU Regulation No 1255/2011 supporting and facilitating the implementation of maritime spatial planning and integrated coastal management
- EU Directive 2008/56/EC establishing a framework for Community action in the field o
 marine environmental policy
- EU Directive 2014/89/EU establishing a framework for maritime spatial planning

Transnational and multi-country projects

ENPI CBC Med projects

Managing the Environmental Sustainability of Ports for a durable development (MESP)

ENI CBC Med projects

- Co-evolution of coastal human activities & Med natural systems for sustainable tourism & Blue
 Growth in the Mediterranean (Co-Evolve4BG)
- Coastal Management and Monitoring Network for tackling marine litter in Mediterranean sea (COMMON)
 - Mediterranean Forum For Applied Ecosystem-Based Management (MED4EBM)

Union for the Mediterranean projects

- PLASTIC-BUSTERS for a Mediterranean free from litter
- The MedFund: Environmental Fund for Mediterranean Marine Protected Areas (MPAs)

Interreg MED projects

- Coastal Integrated Governance for Sustainable Tourism (COASTING)
 - Guiding Mediterranean
 - Blue Energy Deployment Alliance
 - MPA Networks

Interreg V-A Greece-Cyprus projects

- Diving routes in marine protected areas of the Eastern Mediterranean Development of diving tourism network
 - Cross-border Cooperation for Maritime Spatial Planning 2

Interreg V-A Italy – Croatia projects

ShARed Governance of Sustainable fisheries and aquaculture activities as leverage to protect

UNEP MAP projects

Coastal Management Programme

European Maritime and Fisheries Fund

- The European Marine Observation and Data Network (EMODNet)
 - MSP Global, notably the Pilot Project: West Mediterranean
- Toward the operational implementation of MSP in our common Mediterranean Sea (MSPMED)

LIFE

Integrated, Innovative and Participatory Management for N2000 network in the Marine
 Environment

H2020

 Multi-Use Platforms and Co-Location Pilots Boosting Cost-Effective, and Eco-Friendly and Sustainable Production in Marine Environments (UNITED)

Regional

The Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (1995)¹⁷⁵ was initially endorsed in 1975 by 16 Mediterranean countries and the European Community adopted the Mediterranean Action Plan (MAP), and was

 $^{^{175}\,\}text{https://ec.europa.eu/environment/marine/international-cooperation/regional-sea-conventions/barcelona-convention/index_en.htm$

the first-ever Regional Seas Programme under UNEP's umbrella. In 1995, the Action Plan for the Protection of the Marine Environment and the Sustainable Development of the Coastal Areas of the Mediterranean (MAP Phase II) was adopted by the Contracting Parties to replace the Mediterranean Action Plan of 1975. Today, the Barcelona Convention involves 22 Contracting Parties determined to protect the Mediterranean marine and coastal environment while boosting regional and national plans to achieve sustainable development.

- The UNEP-MED Action Plan for the Implementation of the ICZM Protocol for the Mediterranean (2012-2019) is adopted by Contracting Parties (CPs) to focus on three major objectives further articulated into a series of actions, entrusting PAP/RAC and UNEP/MAP to support them in their implementation, namely:
 - Objective 1:Support the effective implementation of the ICZM Protocol at regional, national and local levels including through a Common Regional Framework for ICZM;
 - Objective 2:Strengthen the capacities of CPs to implement the Protocol and use in an effective manner ICZM policies, instruments, tools and processes;
 - Objective 3: Promote the ICZM Protocol and its implementation within the Region, and promote it globally by developing synergies with relevant Conventions and Agreements.
- The UNEP-MED Common Regional Framework for Integrated Coastal Zone Management (2019), identifies all appropriate measures to prevent, abate, combat and to the fullest possible extent to eliminate pollution of the Mediterranean Sea Area and to protect and enhance the marine environment and the natural resources in the region. As such it offers a valuable framework towards sustainable development for the Mediterranean sea basin, through the integrated management of coastal zones, taking into account the protection of areas of ecological and landscape interest and the rational use of natural resources. It does so by coordinating, where appropriate, bilaterally or multilaterally their national coastal strategies, plans and programmes related to contiguous coastal zones.
- The IOC UNESCO MSP Global Initiative (2018) is a three-year long initiative promoted in
 collaboration with the European Commission and calling on regional experts to develop guidance
 on international cross-border planning. In this context, two pilot projects were promoted, one of
 which in the West Mediterranean (while the other in the South-East Pacific). The initiative also
 aims to communicate and disseminate relevant results and advancements in this area.
- PAP/RAC's: Coastal Management Programme¹⁷⁶ mission is to support Mediterranean countries
 on their path towards sustainable coastal development. Contracting Parties defined the PAP/RAC's
 mission with their decision and that is to provide support to Mediterranean countries to ratify and
 implement the ICZM Protocol, as well as to implement the Mediterranean Strategy for Sustainable
 Development (MSSD).

Subregional

• The EU Regulation No 1255/2011 to support the further development of an Integrated Maritime Policy contributes, among other objectives, to the development of cross-sectoral tools,

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¹⁷⁶ https://paprac.org/

namely Maritime Spatial Planning, the Common Information Sharing Environment (CISE) and marine knowledge on the oceans, seas and coastal regions within and bordering the Union. It does so, in order to develop synergies and to support sea or coast-related policies, particularly in the fields of economic development, employment, environmental protection, research, maritime safety, energy and the development of green maritime technologies, taking into account and building upon existing tools and initiatives.

- The EU Directive 2008/56/EC establishing a framework for Community action in the field of marine environmental policy (MSFD) focuses on the support of an ecosystem-based approach to the management of human activities related to the sea, while enabling a sustainable use of marine goods and services. Its main priorities are to achieving or maintaining good environmental status in the Community's marine environment, to continuing its protection and preservation, and to preventing subsequent deterioration.
- The EU Directive 2014/89/EU establishing a framework for maritime spatial planning is aimed at promoting the sustainable growth of maritime economies, the sustainable development of marine areas and the sustainable use of marine resources. Within the Integrated Maritime Policy of the European Union, the framework provides for the establishment and implementation by Member States of maritime spatial planning, by taking into account land-sea interactions and enhanced cross-border cooperation, in accordance with relevant UNCLOS provisions.
- EMODNet: European Marine Observation and Data Network¹⁷⁷ is a long-term marine data initiative developed through a series of projects launched by the European Commission's Directorate -General for Maritime and Fisheries (DG MARE) in 2009. It is a key implementation mechanism of its Marine Knowledge 2020 strategy. Essentially, EMODnet is a consortium of organisations assembling European marine data, data products and metadata from diverse sources in a uniform way. The main purpose of EMODnet is to unlock fragmented and hidden marine data resources and to make these available to individuals and organisations (public and private), and to facilitate investment in sustainable coastal and offshore activities through improved access to quality-assured, standardised and harmonised marine data which are interoperable and free of restrictions on use.

Transnational and multi-country projects

• MESP: Managing the Environmental Sustainability of Ports for a durable development (2012-2015)¹⁷⁸ (Regional)¹⁷⁹ addresses the reduction of water, air and noise pollution deriving from port activities through the implementation of a multidisciplinary approach, which encompasses technological, regulatory and administrative solutions. By reinforcing the cooperation between port authorities, scientific organisations and public administrations, it fosters the transfer of sustainable management models for port areas developed by MESP project in the Mediterranean.

¹⁷⁷ https://maritime-spatial-planning.ec.europa.eu/projects/european-marine-observation-and-data-network

¹⁷⁸ https://keep.eu/projects/4036/Managing-the-Environmental-S-EN/

¹⁷⁹ MESP countries covered: Italy, Greece, Lebanon, Jordan

- CO-EVOLVE4BB: Co-evolution of coastal human activities & Med natural systems for sustainable tourism & Blue Growth in the Mediterranean (2019-2022)¹⁸⁰ (Regional)¹⁸¹ looks at issues around the growth of tourism in the Mediterranean, by analysing and promoting the coevolution of human activities and natural eco-systems in touristic coastal areas. In order to protect the environment and tackle climate change, Co-Evolve4BG is promoting the sustainable development of touristic activities using the principles of Integrated Coastal Zone Management (ICZM) and Maritime Spatial Planning (MSP).
- COMMON: Coastal Management and Monitoring Network for tackling marine litter in Mediterranean sea (2019-2022)¹⁸² (Regional)¹⁸³ addresses the issue of marine litter though a global effort at basin level and a multi-institutional and multi-stakeholder approach ones that tackles the different and competing environmental, economic, social, cultural and recreational drivers that can affect marine ecosystems. The COMMON project is applying the Integrated Coastal Zone Management (ICZM) principles to the challenge of marine litter, improving knowledge of the phenomenon, enhancing the environmental performance of pilot coastal areas and engaging local stakeholders in marine litter management.
- **MED4EBM:** Mediterranean Forum For Applied Ecosystem-Based Management (2019-2022)¹⁸⁴ (Regional)¹⁸⁵ tackles Ecosystem Based Management, by assisting ICZM actors in four coastal areas to jointly develop and apply a common methodology to make ecosystem-based ICZM much easier to design and implement i.e. through innovative techniques and methods. A software tool helps institutional actors to better handle the complex multi-stakeholders analytical processes that characterize EBM applications and assess the relationships between ecosystem components, functions and services, as well as the associated human activities.
- PLASTIC-BUSTERS CAP¹⁸⁶ (2021-2023) (Regional)¹⁸⁷ entails actions to enhance and transfer knowledge, experience and best practice tools that address the entire management cycle of marine litter from monitoring and assessment to prevention and mitigation, towards an integrated and strategic approach (i.e. by coupling Ecosystem-based management and ICZM into local development planning). In the long-term, it will enhance ecosystem services via a reduced leakage of marine litter and marine plastic pollution in the Mediterranean Sea and less emissions of greenhouse gases by a wise-use and sustainable disposal of plastics.
- MedFund: Environmental Fund for Mediterranean Marine Protected Areas (MPAs)¹⁸⁸

 189 initiative is a Mediterranean cooperation platform which currently has 15 members including 6

 Mediterranean countries as well as regional civil society organizations. MedFund is composed, on the one hand, of Countries with an ambitious policy in favour of the creation of MPAs and having explicitly expressed their support for the initiative, while on the other is composed of several organizations such as the Prince Albert II of Monaco Foundation, the Oceanographic Institute —

¹⁸⁰ https://maritime-spatial-planning.ec.europa.eu/projects/co-evolution-coastal-human-activities-med-natural-systems-sustainable-tourism-blue

¹⁸¹ COEVOLVE-B4G countries covered: Greece, Italy, Spain, Tunisia, Lebanon

¹⁸² https://keep.eu/projects/22820/COastal-Management-and-MOni-EN/

¹⁸³ COMMON countries covered: Italy, Tunisia, Lebanon

¹⁸⁴ https://keep.eu/projects/22871/Mediterranean-Forum-For-App-EN/

¹⁸⁵ MED4EBM countries covered: Jordan, Italy, Tunisia and Lebanon

¹⁸⁶ https://www.enicbcmed.eu/projects/plastic-busters-cap

¹⁸⁷ PLASTIC BUSTERS CAP countries covered: Italy, Greece, Spain, Egypt, Tunisia, Lebanon, Jordan

¹⁸⁸ https://themedfund.org/en/about-us/

¹⁸⁹ MedFund countries covered: France, Tunisia, Monaco, Morocco, Albania and Spain

Prince Albert 1st of Monaco Foundation, as well as regional organizations involved in the conservation of the marine and coastal ecosystems of the Mediterranean¹⁹⁰. Since October 2019, the initiative benefiting from the Union for the Mediterranean label.

- COASTING: Coastal Integrated Governance for Sustainable Tourism (2018-2020)¹⁹¹ (North Med)¹⁹² is a capitalisation project based on the ICZM principles application, aiming at enhancing the effectiveness of a multilevel governance tool like Coast Contract, fully framing coastal management and tourism sustainability issues. COASTING transnational partnership activated synergies and cooperation to share specific solutions for an integrated and responsible management of coastal areas, particularly invested by tourism criticalities. The project capitalised on previous experiences related sustainable development and landscape recovery so that a new shared methodology was able to enhance the governance tool (Marseille Bay Contract) with activities focused on tourism qualification and sustainability.
- MPA Networks¹⁹³ (2019-2022) (North Med)¹⁹⁴ supports testing and adaptation of tools and recommendations from previous projects to improve marine conservation on selected pilot sites, as well as facilitate the transfer of lessons learned and best practices to the MPA community around the Mediterranean. Networks of MPA managers developed and reinforced at national, international and regional (Mediterranean) levels, and a regular thematic capacity building programme was set up. Networking activities facilitated exchanges between MPA managers and other actors, capitalisation of good practices and increased knowledge. This approach amplified by connecting networks. Through strong, active and connected networks of MPA managers, the MPA NETWORKS project helps to achieve effectively managed MPAs by providing sustainable solutions to relevant challenges (management effectiveness, small-scale fisheries management, mobile species conservation, as well as sustainable financing).
- Diving routes in marine protected areas of the Eastern Mediterranean Development of diving tourism network¹⁹⁵ (2018-2022) (Cross-border)¹⁹⁶ is a project aimed at developing a network of diving routes in marine areas as a tool for multiple purposes e.g. protecting the marine environment, preserving and promoting the natural and cultural heritage, raising public awareness, promoting the sustainable development of tourism, especially diving, as well as enriching and diversifying the provided tourist services.
- Cross-border Cooperation for Maritime Spatial Planning 2¹⁹⁷ (2018-2023) (Cross-border)¹⁹⁸ capitalises on the results of the previous Strategic Project THAL-CHOR: Cross-border Cooperation Maritime Spatial Planning Development, co-funded by the Interreg Greece-Cyprus 2007-2013 Programme. The capitalization is made at both the content and the corporate level, as it incorporates a new strategic partner, the Ministry of Environment and Energy of Greece, a

¹⁹⁰ The Specially Protected Area Regional Activity Centre – UN Environment -MAP, the Critical Ecosystem Partnership Fund, MedPAN network of Mediterranean MPA Managers, WWF Mediterranean, IUCN Mediterranean, the French coastal protection agency Conservatoire du Littoral and the Mediterranean Small Islands Initiative.

¹⁹¹ https://keep.eu/projects/21388/Coastal-INtegrated-Governan-EN/

¹⁹² COASTING countries covered: Italy, Spain, Greece, Croatia, Malta

¹⁹³ https://maritime-spatial-planning.ec.europa.eu/projects/mpa-networks

¹⁹⁴ **MPA Networks countries covered**: France, Italy, Croatia, Slovenia, Greece, Spain, Albania

¹⁹⁵ https://maritime-spatial-planning.ec.europa.eu/projects/diving-routes-marine-protected-areas-eastern-mediterranean-development-diving-tourism

¹⁹⁶ **Diving routes countries covered:** Cyprus, Greece

¹⁹⁷ https://maritime-spatial-planning.ec.europa.eu/projects/cross-border-cooperation-maritime-spatial-planning-2

¹⁹⁸ Cross-border cooperation for MSP countries covered: Cyprus, Greece

competent authority for MSP in Greece. In terms of content in particular, the aim is no longer to prepare the two countries for the implementation of the Directive but to align with the requirements of the Directive and the gradual introduction of Maritime Spatial Planning by March 2021.

- ARGOS: ShARed Governance of Sustainable fisheries and aquaculture activities as leverage to protect marine resources in the Adriatic Sea¹⁹⁹ (2020-2022) (Cross-border)²⁰⁰ sets up a common framework for governance where all Institutions competent for fisheries and aquaculture in the Programme area acted as a whole in the management and protection of shared biological resources, under the best scientific guidance. Recommendations and final outputs came from results of multidisciplinary activities Maritime Spatial Planning studies to deepen the overlaps in the use of marine space; assessment of interactions between environmental management and social-economic impacts; standardisation of existing data on Adriatic biological resources; running of bio-economic models for stock assessments; implementation of pilot actions. It also provides a cross border network to share project results and define the best practices for training operators towards environmental sustainability and the adoption of responsible practices in fisheries and aquaculture.
- MSPMED: Toward the operational implementation of MSP in our common Mediterranean Sea (2020-2022)²⁰¹ (North Med)²⁰² has the overarching objective to facilitate the MSP Directive's processes, currently at different stages of implementation in EU Member States (MS) surrounding the Mediterranean Sea, by supporting the establishment of coherent and coordinated maritime spatial plans across the Region. The MSP-MED project capitalises on the results of other EUfunded projects on MSP in the region, either recently carried out or still ongoing, and also promotes the active participation of both EU and non-EU Mediterranean countries, in a pan-Mediterranean approach. The MSP-MED project addresses specific issues regarding the national MSP implementation, tailored to the actual needs of each MS, and at the same time implements activities at basin scale, enhancing cooperation and knowledge sharing, finally ensuring coherence among the MS's plans.
- UNITED: Multi-Use Platforms and Co-Location Pilots Boosting Cost-Effective, and Eco-Friendly and Sustainable Production in Marine Environments (2020-2023)²⁰³ (North Med)²⁰⁴ aims to prove that the co-existence of different activities in the same marine space is a feasible option (from an economic, social and environmental perspectives) for European maritime industry and local ecosystems. The project promotes the design of multi-purpose platforms and the development of different activities in the same area across the North Sea, the Baltic and the Mediterranean. The main activities focus around 5 pillars defined through the BG-05 call (i.e. Technology, Economy, Legal/Governance/Policy, Society, and Environment). The project demonstrates the benefits of co-location of different combinations of marine activities (i.e. renewable energy, aquaculture, bio-resources, environmental restoration, maritime transport, and tourism services) in the same marine space.

 $^{^{199}}$ https://maritime-spatial-planning.ec.europa.eu/projects/shared-governance-sustainable-fisheries-and-aquaculture-activities-leverage-protect

²⁰⁰ ARGOS countries covered: Italy, Croatia

²⁰¹ https://maritime-spatial-planning.ec.europa.eu/projects/toward-operational-implementation-msp-our-common-mediterranean-sea

²⁰² MSPMED countries covered: Italy, France, Greece, Malta, Slovenia

²⁰³ https://maritime-spatial-planning.ec.europa.eu/projects/multi-use-platforms-and-co-location-pilots-boosting-cost-effective-and-eco-friendly

²⁰⁴ UNITED countries covered: Netherlands, Belgium, Germany, United Kingdom, Greece, France, Denmark, Ireland, Portugal

Assessment of regional coverage

Beyond the selected exemplary initiatives described so far, our analysis covered a wider number of projects (provided in the annexed "project database" tables).

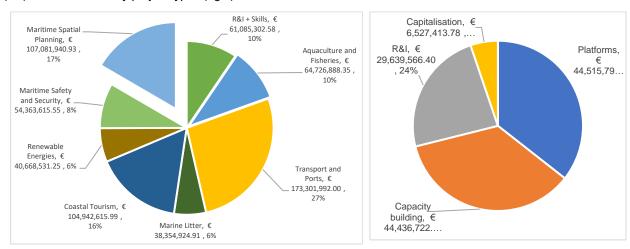
The main emerging findings with regards to the initiatives in place in this sector are as follows:

- Regional frameworks are fairly spread across countries, which in principle should imply strong
 commitment in the implementation of MSP/ICSM practices (e.g. Barcelona Convention) but in
 practice still remain a strong encouragement rather than a mandate to implement such tools;
- Subregional processes and strong requirements for MSP/ICZM implementation are mainly referred to the north (EU Directive on MSP, etc.);
- Capacity building and R&I support are increasingly being provided, with stronger support for northern Mediterranean Countries but some country exceptions in the south (e.g. WestMED);
- · Capitalisation is slowly emerging although currently mostly focussed in northern countries;
- **Collaboration** projects seem to be more heavily distributed but still with some notable gaps (e.g. south-eastern -Mediterranean countries remaining largely unsupported in this area).

Expenditure of the sector

The figures below provide an overview of the expenditure of the sector compared to other SBE sectors and for different type of projects. We can observe in Figure 2, that MSP/ICZM accounts for 20% of the overall expenditure of SBE (basedon projects collected). Also, MSP/ICZM projects focus on platforms (36%) and capacity building (35%) which is expected given the transversality and novelty of the topic. As MSP/ICZM also is part of broader sectoral innovative projects (e.g. Horizon 2020) a relevant portion is nevertheless also related to R&I (24%). Capitalisation projects are still limited (5%) given the novelty of the topic but shows already an emerging trend in this direction.

Figure: Overview of expenditure on MSP/ICZM compared to other Sustainable Blue Economy Sectors (left) and breakdown by project types (right)



Source: Database of over 300 initiatives/projects collected for this UfM Roadmap

Stocktaking of the Ministerial Declaration: progress and opportunities

As a final step in the analysis, we get back to the main priorities put forward by the UfM Ministerial Declaration for the support to MSP and ICZM. The table below provides a further analysis on the state of the art in advancing with the specific UfM priorities as sketched in the introduction to this chapter. It does so by building on the initiatives (regional, subregional, transnational/international) as reviewed earlier in this chapter and confronting those with each priority of the UfM Ministerial Declaration for this sector. The analysis allows for an assessment on the status of the implementation of each priority (a "visual check") to be used as a basis for the future UfM Roadmap.

Figure: Identification of opportunities per sectoral priority

UFM MINISTERIAL DECLARATION CALL FOR ACTION	VISUAL CHECK OF CURRENT IMPLEMENTATION	JUSTIFICATION AND IDENTIFICATION OF OPPORTUNITIES AS PER THE MAPPING OF INITIATIVES
All countries to further use Maritime Spatial Planning in support of the development of the sustainable blue economy in the Mediterranean, including by addressing Land-Sea Interactions		 Overall frameworks exist at Mediterranean level through the recognition of MSP and ICZM as part of the Barcelona Convention and related protocols, making therefore binding to develop and make full use of such tools. In order to foster the knowledge creation on how to design and conduct MSPs, many projects have been deployed or are on-going within Europe and with Mediterranean neighbouring countries. A great majority of these projects are funded via various EU funding programmes and are often also of transnational nature by bringing the experience together from various partners across Europe or one specific sea-basin and/or region. The ambition is nevertheless not only to share experience and foster transfer and knowledge creation, but also to foster coherence among the various MSP attempts within the sea-basin and particularly a much greater understanding and recognition of the relevance of such tools for a fully sustainable development of the blue economy as a whole – particularly but not only in southern Mediterranean countries. Further efforts are still needed in this respect.
Further development and update of ICZM		Similarly to MSP, relevant frameworks exist such as for the Barcelona Convention, making the
national strategies, when necessary, through the		tool an essential policy requirement for sustainable blue economy development.
provision of adequate financial and technical		Relevant ICZM oriented projects have been funded by the Interreg MED Programme and
support, as well as for further involvement and		other Interreg and ENI CBC programmes including Southern Mediterranean partners.

coordination of national and local authorities on	•	As for MSP further efforts are needed to strengthen the integration of ICZM with MSP and
MSP/ICZM as appropriate.		ensure capability of Local Authorities in such a critical policy for sustainable development.

Potential avenues for future cooperation: pilot actions / projects

Building on the overall assessment provided so far, this section provides some (preliminary) insights on the type of actions (frameworks processes, projects) and related support to be foreseen as part of the UfM Roadmap, in addressing Marine Litter opportunities across the Mediterranean. The calls for actions are grouped into two clusters, one related to frameworks and the other one related to projects.

The following potential avenues refer to the calls for actions related to framework initiatives:

- Support the policy uptake of MSP as an enabler of the Green Deal: development of a clean, circular blue economy, preserving and protecting biodiversity in the marine environment (in particular with spatial measures), facilitating the supply of clean, affordable and secure, energy, enabling the provision of healthy and environmentally friendly food from the sea. Climate proofing of MSP, including incorporating adaptation and mitigation actions and/or strategies into MSP, making MSP flexible and adaptive to respond to climate change.
- Applying the Ecosystems Based Approach (EBA) in MSP: designing maritime spatial plans to integrate
 objectives and measures of other EU instruments (e.g. the Marine Strategy Framework Directive) with
 the aim to reduce collective pressures and ensuring that marine ecosystems are in a healthy,
 productive and resilient condition.
- Support the development of national strategies and approaches to review/revise maritime spatial plans
 to make them future proof, more integrated and more coherent. At sea basing level: set-up common
 monitoring tools to assess the performance maritime spatial plans, establishing common procedures
 to assess/evaluate/revise plans and align them to the objectives of the European Green Deal.
- Promoting ocean governance policy uptake through MSP: incorporating oceans' governance tools into the MSP process and in maritime spatial plans. For example, by enabling stakeholder participation in governance schemes and instruments, by providing capacity building and facilitating joint and/or coherent planning, or by promoting cooperation with third countries in issues of common interest in a sea basin or a shared ocean space.

The following potential avenues refer to the calls for actions related to **project support:**

- Promote initiatives to address gaps and challenges in the collection, integration, use, re-use, access, including to data produced by non-public actors, of data in the MSP context: using best available data and instruments to prepare, monitor and revise maritime spatial plans. Developing data tools, models and infrastructures, allowing for interoperability and enabling Member States to share MSP data and information, especially in a cross-border and sea basin context (e.g. via EMODnet).
- Raise awareness on the need for MSP strategies to support the blue economic sectors (e.g. tourism and maritime/underwater cultural heritage, offshore wind energy, aquaculture) in the maritime domain: ex-ante assessments (Strategic Environmental Assessment, Environmental Impact Assessment); multi-use in project design and licensing/permits; development of a regulatory framework for multi-use; allocation of sufficient sea space, resolution of conflicts with other uses, enabling synergies with other sectors / activities, including Land Sea Interactions (LSI). Therefore, specific spatial plan or zoning should be considered for specific/relevant sectors (e.g. offshore wind energy), as part of the overall maritime spatial plan. This specific plan could include provisions to allow for the long-term

development of the sector, in particular as regards allocation of space and/or provisions for **co-uses**, **coexistence with other sectors.** Furthermore, greater efforts in strengthening the land-se interaction should be put in the future plans.

There are nevertheless a wide number of ongoing actions and initiatives on this matter and **the UfM role** may rather be that of a 'support' to the existing initiatives (e.g. IOC-UNESCO), by ensuring that the key challenges and principles expressed in this section are fully addressed, rather than an active promoter of such actions. Also, overall awareness should be promoted towards southern policymakers, as to foster sound MSP strategies for a fully sustainable blue economy development in each Mediterranean country.

3.5.3 Measuring progress of the Ministerial Declaration implementation: proposed indicators

Output (Process indicators)

+Number of actions, sets of activities and projects of regional cooperation **planned** in the area of Marine Spatial Planning and Integrated Coastal Zone Management, particularly addressing the following sub-priorities:

- Marine and coastal protected areas
- Preserving inland wetlands
- Land-sea interactions

+Number of actions, sets of activities and projects of regional cooperation **being implemented** in the Mediterranean area in the field of Marine Spatial Planning and Integrated Coastal Zone Management (with regards to the subpriorities mentioned above)

+Level of **financial support** committed/secured to support the implementation and use of Marine Spatial Planning and Integrated Coastal Zone Management

+Number and typology of partners and stakeholders involved in the actions/sets of activities/projects

- Balanced representation of relevant stakeholders
- Balanced geographical representation

Outcomes (result indicators)

+Achieved and projected results of the different actions, sets of activities and projects underway or finished in the field of Marine Spatial Planning and Integrated Coastal Zone Management, mainly:

- Number/type of new/enhanced products/services developed;
- Number/type of new/enhanced collaboration networks and platforms being supported/activated;
- Number/type of stakeholders (businesses, research, CSOs, etc.) involved and benefitting from the action/activity/project;
- Number/type of regional policies influenced as a result of regional cooperation (mainstreaming).

4 Provisions for the monitoring system

4.1 Objective and purpose of the monitoring system

Monitoring is the continuing function that uses systematic collection of data on specific indicators to assess the progress of an intervention. It is carried out during the execution of the intervention with the intention of providing continuous feedback on the related activities of the intervention, outputs and results. This information permits an early identification of possible deviations from operational objectives. Monitoring generates data which is normally required for the evaluation of the intervention.

Monitoring aims to verify that (1) planned activities are being carried out as intended, (2) funds are correctly used and spent on delivering planned outputs and (3) result indicators evolve in the expected/desired direction. In that sense, a strong monitoring system helps to ensure that the concrete plan of action meets its main objectives and expectations.

Based on the above, the monitoring system planned to be deployed to assess general progress of the Roadmap to set the path towards the implementation of the 2021 UfM Ministerial Declaration on Sustainable Blue Economy will involve the following:

- The monitoring of the process of implementation to ensure that the activities outlined in the Roadmap are being accomplished and that resources are being allocated and used effectively.
- Monitoring the concrete outputs directly associated to the activities supported through the
 actions, sets of activities or projects carried out to implement the Roadmap.
- Assessment of the progress towards the achievement of the short, medium and long term
 objectives, assessing if the result indicators evolve in the expected/desired direction.
- Using the information collected to periodically review the overall strategy and to inform decision makers and stakeholders at different levels.
- 4.2 How a system for monitoring is going to be run in the context of the Ministerial Declaration on Sustainable Blue Economy?

Implementation Arrangements

Monitoring of advancement towards addressing the priorities set in the Declaration and its Roadmap will be carried out by the UfM's Blue Economy Working Group, counting with the support of the Union for the Mediterranean Secretariat, which will steer the process and take ownership and coordination of this activity through time.

In this way, UfM's Blue Economy Working Group, counting with the support of the Union for the Mediterranean Secretariat, will carry out the following activities linked to the monitoring function described in this chapter of the Roadmap:

- Responsible for the overall coordination and monitoring of the implementation of the Roadmap;
- Approve and update the indicators to capture the implementation of the Roadmap.

 Ensuring the preparation of the Yearly summary reports on the progress in the execution of the Roadmap.

Monitoring and Evaluation system to be put in place

A simple and straight-forward reporting system will be set out to monitor the implementation of the Roadmap towards the fulfilment of the UfM Ministerial Declaration. This will be based on a template which will be developed in the early stages of the Roadmap's implementation, and will be aimed in particular at monitoring progress on the accomplishment of the different Declaration Priorities (as specified above).

Accordingly, the Yearly summary report on implementation will detail the following:

- 1. Initiatives planned per each Declaration Priority and Call for Action;
- 2. Initiatives implemented (and status of implementation²⁰⁵) Declaration Priority and Call for Action;
- Outputs (deliverables) and outcomes expected per each initiative (and status of achievements²⁰⁶);
- 4. Challenges and mitigation plans (with regards to issues and bottlenecks addressed/foreseen).

In parallel, and in order to properly link the monitoring of the Roadmap's implementation with the national dimension and trying to minimise the reporting burden on countries, National Focal Points would be requested to **report every two years on progress** by Ministerial Declaration Priority/ies.

These should be simple and compact reports which would contain a brief introduction on main achievements and describe new or enhance:

- Policies (including new/revised regulations in place),
- Strategies,
- Initiatives,
- Action plans or
- Projects

Finally, a **mid-term evaluation** would take place in the context of the preparation of a new Ministerial Declaration, expected possibly after 2025.

The scope and focus of the evaluation would be agreed based on the inputs received by the both the Yearly summary reports and the two-yearly national reports on progress.

All the above would help collect information on progress achieved and remain a reference for the policy makers at national level.

Proposed indicators (output and outcomes)

Indicators are quantitative or qualitative variables that allow measuring changes produced by an intervention. They should provide a reasonably simple and reliable basis for assessing an intervention in terms of its activities, outputs and results.

A good indicator is defined as SMART:

²⁰⁵ Starting date, expected end, main actors involved, financial allocations, etc.

 $^{^{206}}$ Extent to which early outputs are already being delivered and outcomes are generated .

- Specific: the indicator should be direct, detailed and meaningful.
- Measurable: the indicator should be quantifiable to track progress or success.
- Achievable: the goal should be realistic, and we must have the resources and tools to attain it.
- Relevant: it should align with the overall objectives and mission.
- Time-bound: there has to be a deadline in which the indicator should be achieved.

Indicators should preferably be quantitative and they should be measured over time to show changes. The system of indicators for the monitoring of the Roadmap to set the path towards the implementation of the 2021 UFM Ministerial Declaration on sustainable blue economy' will include both output (process) and outcome indicators.

Output (Process indicators)

They are closely connected to the activities, as the direct result of the activity. They refer to indicators to measure whether planned activities actually took place. They are also named Process indicators. Examples are the number of projects conceptualised, or the number of projects which have secured funded from EU and international agencies.

Result indicators

This category includes the **concrete products** describing immediate direct effects directly associated to the activities supported through the actions/sets of activities or projects developed in the context of the Roadmap. These indicators allow assessing whether these actions have been successfully implemented and they are very useful for monitoring the implementation of the intervention.

Some **preliminary** relevant indicators have been developed and included in all Declaration Priorities with the exception of the two cross-cutting Priorities considered as 'Enablers', following the structure described below (not in an exhaustive manner but as a way of example). This set of indicators will be closely aligned to the Yearly summary report on implementation and will be further developed over time.

Output (Process indicators)

- +Number of actions, sets of activities and projects of regional cooperation planned (per Declaration Priority)
- +Number of actions, sets of activities and projects of regional cooperation being implemented in the Mediterranean area per Declaration Priority
- +Level of financial support committed/secured to support each priority of the UfM Ministerial Declaration
- +Number and typology of partners and stakeholders involved in the actions/sets of activities/projects

Outcomes (result indicators)

- +Achieved and projected results of the different actions, sets of activities and projects underway or finished, mainly:
- Number/type of new/enhanced products/services developed;
- Number/type of new/enhanced collaboration networks and platforms being supported/activated;
- Number/type of stakeholders (businesses, research, CSOs, etc.) involved and benefitting from the initiative;
- Number/type of regional policies influenced as a result of regional cooperation (mainstreaming).

5 Overview of shortlisted actions for a concrete follow-up

The following table consists of a summary compilation of suggested key priorities for regional cooperation. This streamlining exercise has resulted in the shortlisting of 15 concrete follow-up actions, covering each of the Ministerial Declaration Priorities:

UfM call(s) for action	Status based on analysis	Action proposed	Concrete steps
Marine Litter			
Improve port reception facilities to ensure proper collection and recycling of waste coming from all maritime activities	Port reception facilities are being addressed only by the cooperation agreement between the UNEP and the Italian Ministry of Environment, Land and Sea Protection. No project has been identified tackling this issue. At the same time, relevant successful initiatives supporting circular models and reduction of plastics exist (Plastic Busters CAP, Plastic Busters MPAs). Stronger support could be needed to further capitalise those practices and strengthen the ability of port reception facility in introducing circular models.	Foster ability of Ports in adopting fully circular models – with a strong focus on supporting and sharing good practices for adoptions in southern countries. Circularity is one of the key concepts related to marine litter and the mapping has shown a limited number of projects related to circularity, in different value chains. It is particularly important to advance and build on existing efforts and ensure that the countries be involved even through different but interlinked, coordinated projects at regional level, maintaining a land-sea dimension.	Identify a sample of interested Port Authorities Discuss with relevant regional/national projects on actions needed Set-up an action plan for implementation
Maritime and Coastal To	purism		
Promote fiscal and investment policies to support sustainable	A larger amount of public grants covers tourism although mainly on the northern shore, with a wide number of	Systematic involvement and exchange between successful projects/initiatives in tourism diversification/digitalisation and	Identify relevant local/national Development Agencies, including regional ones (e.g. African Development Bank)

coastal and marine
tourism

Promote the digitalization of the sector

Promoting the diversification of the tourism offer, encouraging experience-based and sustainable tourism as well as associating the hinterland

good practices/projects being supported.

Access to finance nevertheless remain an issue for micro-SMEs to access innovation, technology towards digitalisation and sustainable diversification.

Local/national development agencies are active in supporting sustainable tourism enterprises across the Mediterranean although often focus more on inland/city tourism then coastal/maritime (particularly for the southern shore).

local/national Development Agencies / Investment Banks across the region.

The exchange would enable to identify 'corridors' and 'priorities of intervention' for the sector to fully innovate (digitalise and diversify) as a guidance for banks to support local micro/SMEs – on the basis of national and local strategies – and with a strong emphasis on youth and women entrepreneurship

- Engage with relevant successful tourism project/initiatives in the Mediterranean (so to get a clear view of priority needs and financial support for the sector)
- Set-up an exchange of ideas/success cases to raise awareness of Development Agencies (webinars, workshops, etc.)
- Identify priority innovation/technologies and bottlenecks in their access to micro-SMEs to be addressed

Maritime Ports and Transports

Mediterranean countries to actively cooperate and participate in the implementation of joint projects in the provision of clean energy and technology Mediterranean countries increasingly collaborate through a range of networks and relevant innovation projects.

Nevertheless, such collaboration is often benefitting mid- to large-scale ports linked to relevant maritime transport routes across the Mediterranean.

A gap and an opportunity exist in jointly addressing the needs of smaller-scale ports across north and south of the Mediterranean, as to accelerate transformative innovation towards greater sustainability,

Acceleration of transformative innovation for smaller-scale Mediterranean ports.

Build upon and adapt from other experience on acceleration of uptake of innovative technologies and business models by focussing on small-scale Mediterranean ports. Setting up a platform for sharing needs, opportunities and investment potentials for green and sustainable innovation for small ports.

Provide viable options to improve the potential of innovation and diversification through clean energy and technology through such Mediterranean platform. This would also include a broader support towards diversification of business models in small ports (link to maritime

- Identify the relevant interested ports to be engaged with (e.g. through MedCities and/or other similar regional/sectoral networks)
- Finetune and adapt 'acceleration' models including through examples from other seabasin (e.g. AspBAM in the Atlantic)
- Set-up an action plan for the identification and addressing of main needs, challenges and opportunities for diversification
- Implement a dedicated platform to allow for knowledge exchanges, sharing of practices

	resilience and socio-economic profitability.	tourism, aquaculture and fisheries in an energy-efficient approach).		and attraction of finance/investments
Strengthening expertise and boosting investments in infrastructure taking duly into account the specific needs and priorities of Mediterranean countries; including investments on the provision of Onshore Power Supply and energy saving technologies for ports activities as well as on the development of alternative fuels, and transitional fuels as appropriate, and technical and operational energy efficiency for ships	A considerable number of projects in the north have been identified dealing with. Several projects have been funded by the EU, with a growing role of alternative energy technologies and means (electrification, hydrogen, etc.). The role of ports as 'energy hubs' is essential as they offer a potential infrastructure for greater uptake of renewable energy (on and off-shore) and link with marine and inland transport activities. Southern ports would benefit from greater access to innovative experiences being provided as a way to strengthen Mediterranean south-south and north-south cooperation in this area.	Expand current initiatives in fostering ports as 'hubs' of clean and renewable energy. Boost the uptake of innovative technologies and full digitalisation to promote smart ports, effective onshore power supply for the decarbonisation of maritime transport, and the roll-out of single-window maritime systems across all regional operators. Expand to the whole Mediterranean the experience of the WestMED initiative's Technical Group on Sustainable Transport and Green Shipping and in particular the action for green ports in the western Mediterranean to act as a network of 'energy communities'.	•	Engage with the WestMED TG on Green Shipping and identify potentials for further expansion of their actions across the whole Mediterranean Monitor advancement and disseminate progresses (e.g. project submissions)
Marine Renewable Energ	gies			
Offshore operations for renewable energy production to be carried out by taking safety precautions and considering environmental impacts	An increasing pressure is put on the ability of local relevant institutions in speeding up and simplifying the licensing processes for marine renewable energy technologies/practices – with an EU	Multi-use (MU) approaches to ecosystem- based MSP to allow for a proper planning of marine renewables zones/licensing. Build on the upscaled interest of marine renewables (offshore wind, wave and solar) across the MED, the 2021 UfM Ministerial on	•	Identify Permission Agencies across Mediterranean countries (selected numbers) Identify successful/advanced practices/initiatives in using MSP as a basis for MRE licensing (as emerging from

The enhancement of relevant regulatory frameworks and facilitation of licensing process while preserving adequate assessment and public consultation prior to installing MRE infrastructure	consultation currently ongoing on this matter. 207 At the same time, the licensing process would have to reflect upon a number of environmental challenges, as well as the need to carefully plan the zones dedicated to MREs practices in order to manage potential risks and conflict with other usages of the marine space. The overall increasing interest in offshore technologies in the	Energy and the upcoming EU guidance on permitting for renewables (onshore/offshore). Reflect on challenges and opportunities for marine renewable energy support as emerged from regional initiatives (Blue Deal, MISTRAL, MAESTRALE, PELAGOS). Foster the conceptualisation and development of MSP as an essential prerequisite for maritime zoning for renewable energy deployment, also by capitalising on existing knowledge and good practices, such as MARIBE, MERMAID or TROPOS.	local experiences and sub/regional initiatives) Define additional guidelines/initiatives to disseminate and uptake such good practices Monitor advancements and increasingly expand the reach of the network and its ambition – to support sustainable uptake of renewable energy across the Mediterranean
	Mediterranean requires a thorough adoption of good practices, both in administrative capability and the use of MSP as an 'enabling tool' for sustainable MRE deployment regionally.	Include land-see interaction with regards to existing other inland renewable resources and grid connectivity requirements.	
Cooperation on research and innovation towards the development of technologies capable of fully exploiting the potential of MRE sources of the Mediterranean, including combining different marine activities in the same marine space	The sector is still emerging in the Mediterranean region, with a smaller number of initiatives as compared to other sectoral priorities. An acceleration of initiatives at national/local scale is observed (mostly in EU Med countries), particularly but not only 'offshore'. Nevertheless, there seems to be a gap on multi-country projects on MRE	Technical Assistance and Information Exchange (TAIEX) ²⁰⁸ or Twinning schemes between the most MRE-advanced EU countries and Mediterranean countries, in order to promote technology, know-how and good practices transfer Given that the topic is quickly catching up in the Med, and since northern EU countries are amongst the most advanced in the world in terms of MRE Development (North Sea, Baltic	 Identify and select 5-10 best practices, preferably but not only in northern-EU countries Identify and engage national/regional authorities and stakeholders to take part in the transfer exercise. Set up the "transfer teams", pairing model and learning regions.

https://ec.europa.eu/info/news/public-consultation-launched-renewables-permitting-and-power-purchase-agreements-2022-jan-18_en https://ec.europa.eu/neighbourhood-enlargement/funding-and-technical-assistance/taiex_en

	in the Mediterranean sea basin, and very especially in the southern countries.	Sea and Atlantic), further exchange and cooperation is needed, bearing in mind the specificities of the various sea basins. This knowledge transfer may be focused not only on technological aspects related to the deployment of MRE, but also on the existing evidence of environmental impacts of offshore and other types of blue energy, as well as on proven strategies to foster its social acceptance and co-existence with other maritime uses.	•	Tailored design of the transfer process according to the specificities of learning regions (including study visits, training activities, workshops, conferences, etc.)
Fisheries and Aquacultu				
Comply with the recommendations adopted by the GFCM with the view to sustainably manage key stocks in the region and develop sustainable aquaculture	Aquaculture growth is a means for ensuring the sustainability of regional fisheries stock, while developing fully sustainable food cycles. In this context, to achieve sustainable food cycles, it is essential to ensure the full sustainability of aquaculture practices, while promoting circular innovation and diversification of food value chains across the Mediterranean. A central role in this process is being played by the SFS-MED Platform, which is now at a pivotal point in time in defining the actors involved and outlining a clear timeline and key milestones to ensure implementation	Scale-up good practices on sustainable food value-chains. Continue the work done under the topic of Sustainable Food Systems (particularly through the SFS-MED Platform), with a focus on finalizing national pathways ²⁰⁹ and start their implementation. Address other good regional practices (e.g. WestMED AquaWest Technical Group, EU Aquaculture Assistance Mechanism, SwitchMED) in involving both southern and northern experts and practitioners in the sector, towards a fully circular and sustainable food cycle – and the main role of sustainable aquaculture in innovative food value-chains.	•	Ensure linkages with regional relevant actions (SFS-MED, WestMED TG on Sustainable Aquaculture, Aquaculture Assistance Mechanism, etc.) Identify living labs for relevant coastal cities as to promote multi-stakeholder exchanges to identifying areas for sustainable/circular innovation across local food chains Discuss hot topics for sustainable food chains are identified, while main challenges for adoptions at local level are identified with concrete actions

²⁰⁹ FAO, CIHEAM and UfM. 2021. Food systems transformation – processes and pathways in the Mediterranean: A stocktaking exercise. https://www.fao.org/3/cb7978en/cb7978en.pdf

	in future years, building on the 2021 UN Food Summit, the upcoming 3 rd Conference on Mediterranean Diet in September 2022, in Italy; and the PRIMA Community of Practice on WEFE. Importantly, other sub-regional initiatives could be capitalized across the Mediterranean (e.g. WestMED AquaWest Technical Group), as a way to enhance the innovation capacity and diversification of value chains across the region.		•	Support twinning and other actions to implement innovative, circular and fully sustainable food systems
Establishment and strengthening of marine protected areas and fisheries restricted areas Comply with the recommendations adopted by the GFCM with the view to sustainably manage key stocks in the region and develop sustainable aquaculture	MSP is an essential crosscutting tool to ensure sustainable development of the blue economy. Under the multiuse perspective of MSP spatial limitation and planning for aquaculture sustainable development plays a crucial role. In particular, identification of Allocation Zones is essential for a clear spatial planning and requires indepth analysis. This is therefore an area of pivotal importance.	Principal Areas for Fisheries and Allocated Zones for Aquaculture (AZAs). In the context of the development of national Marine Spatial Planning strategies, prioritise the identification of Principal Areas for Fisheries and Allocated Zones for Aquaculture (AZAs) at country level in the Mediterranean basin and increase their number by 2024. This could be done through a dedicated series of exchanges of practices and sharing of good practices amongst competent authorities and key stakeholders.	•	Engage with responsible of national activities for MSP, as well as relevant local operators in the sector Allow for exchange of experiences and practices towards the need of proper planning and MSP as a way to also ensure sustainable economic return for companies and attract sustainable investments (i.e. through a stable policy framework)
Further support to the GFCM's Regional Plan of Action for Small-Scale Fisheries in the Mediterranean and Black Sea (RPOA-SSF) as a	In this context, some very specific tools, expertise and skill-sets are still largely lacking across the Mediterranean and are required in light of a sustainable development for the sector. This is a propaedeutic		•	Draft and disseminate operational guidance material to support practitioners – by building on good examples previously identified

activity also towards the support to sustainable food-value chain (as proposed in the action above). Eurity Increasing cooperation has emerged across Coast Guard Functions and further support on sharing know how and capacity would allow for more effective actions. A possible role of EMSA could be possibly discussed in fostering greater expertise. Also, greater connections between existing sub/regional initiatives and good practices should be capitalised.	Mediterranean Maritme Safety and Security Academy operated by the MedCGFF Secretariat. With a flexible and virtual approach, promote the set-up of a Mediterranean Maritime Safety and Security Academy operated by the MedCGFF Secretariat, targeted at maritime safety officials, both civil and military. This Academy may capitalise on the experience of the European Coast Guard Functions Training Network (ECGF) or the 5+5 Defence College, and shall especially consider gender equality by	UfM could advocate for the set-up of such initiative and foster exchanges/webinars on this matter.
	focussing on increasing the number of female trainees recruited.	
ovation skills careers and jobs		
Maritime clusters act as catalysts for sustainable innovation, access to finance and overall technological development of the blue economy across the Mediterranean.	Mediterranean cluster alliance (s) to address sectoral needs and raise its profile towards sustainable investors. Provide further support towards southern clusters, mostly at an early stage of development and often not yet fully active, so they can grow in number and size and be able to better engage with other regional counterparts.	Identify relevant initiatives at regional, subregional and international levels Provide a platform for sharing experiences and opportunities amongst the initiatives Identify specific means to further support the
	sustainable food-value chain (as proposed in the action above). Surity Increasing cooperation has emerged across Coast Guard Functions and further support on sharing know how and capacity would allow for more effective actions. A possible role of EMSA could be possibly discussed in fostering greater expertise. Also, greater connections between existing sub/regional initiatives and good practices should be capitalised. Ovation, skills, careers and jobs Maritime clusters act as catalysts for sustainable innovation, access to finance and overall technological development of the blue economy	urity Increasing cooperation has emerged across Coast Guard Functions and further support on sharing know how and capacity would allow for more effective actions. A possible role of EMSA could be possibly discussed in fostering greater expertise. Also, greater connections between existing sub/regional initiatives and good practices should be capitalised. Mediterranean Maritme Safety and Security Academy operated by the MedCGFF Secretariat. With a flexible and virtual approach, promote the set-up of a Mediterranean Maritime Safety and Security Academy operated by the MedCGFF Secretariat, targeted at maritime safety officials, both civil and military. This Academy may capitalise on the experience of the European Coast Guard Functions Training Network (ECGF) or the 5+5 Defence College, and shall especially consider gender equality by focussing on increasing the number of female trainees recruited. This Academy may capitalise on the experience of the European Coast Guard Functions Training Network (ECGF) or the 5+5 Defence College, and shall especially consider gender equality by focussing on increasing the number of female trainees recruited. The Mediterranean Cluster alliance (s) to address sectoral needs and raise its profile towards sustainable investors. Provide further support towards southern clusters, mostly at an early stage of development and often not yet fully active, so they can grow in number and size and be able to

Research and innovation investments at all levels to address key challenges of the region, provide tailor-made solutions for society at large, create new and sustainable business opportunities in the blue economy; and work closely with the private sector A wide range of alliances and networking initiatives in the sector sector A wide range of alliances and networking initiatives in the sector with the ambition to channel investments towards innovation of business models and business ecosystems across the Mediterranean. A wide range of alliances and networking initiatives (WestMED Cluster (Alliance) and projects (e.g. MISTRAL, BlueSkills, Culture & Creative Industry) which are aiming at the same cooperation purpose across the region—with the sustains of the same cooperation purpose across the region of the network and its ambition of the network and it				
investments at all levels to address key UfM Ministerial Declaration, Ocean Literacy is a growing concept with UfM Ministerial Declaration, Ocean Literacy is a growing concept with UfM Ministerial Declaration, Ocean membership for the UfM so to	investments at all levels to address key challenges of the region, provide tailor-made solutions for society at large, create new and sustainable business opportunities in the blue economy; and work closely with the private sector promotion of the Startup Europe Mediterranean (SEMED) initiative, aiming, in partnership with BLUEMED, to connect all the actors of the innovation system in the Mediterranean area as well as other instruments and initiatives to support the sustainable development, job creation and competitiveness of Blue	although clusters in the sector have been growing and consolidating throughout the past decade, there is still room for support and reinforcement. A wide range of alliances and networking initiatives, including through sub/regional projects exist in this respect and could be further capitalised. As a result, greater awareness and understanding of the role of cluster may allow for more	Alliance) and projects (e.g. MISTRAL, BlueSkills, Culture & Creative Industry) which are aiming at the same cooperation purpose across the region – with the ambition to channel investments towards innovation of business models and business ecosystems across the Mediterranean. Bring greater awareness on the role of maritime clusters in south-east countries so to accelerate their establishment. Promoting the development of existing clusters such as the Algerian or the Tunisian Maritime Clusters (or Maghreb cluster) to grow and become mature in order to be able to scale-up to	 clusters on the southern shore Monitor advancements and increasingly expand the reach
investments at all levels to address key UfM Ministerial Declaration, Ocean Literacy is a growing concept with up across the Mediterranean countries. the platform or ensuring an observe" membership for the UfM so to				
to address key Literacy is a growing concept with membership for the UfM so to		1		•
	investments at all levels	UfM Ministerial Declaration, Ocean	up across the Mediterranean countries.	,
challenges of the region, strengthen/support ongoing actions.	to address key	Literacy is a growing concept with		membership for the UfM so to
	challenges of the region,			strengthen/support ongoing actions.

 $^{210}\,https://ufmsecretariat.org/wp-content/uploads/2019/12/Maritime-Clusters-in-the-Mediterranean-Region_Dec-2019.pdf$

provide tailor-made solutions for society at large, create new and sustainable business opportunities in the blue economy; and work closely with the private sector Collaborate in the relevant international I to adapt training and education requirements for maritime-related professions, stakeholders to work together in sector-specific partnerships to develop and implement strategies to address skill gaps and promote decent work and tailored training for blue	high relevance to address the calls for action referred to in this section (left). Ocean Literacy is in fact reportedly contributing ²¹¹ to overall awareness of challenges and opportunities offered by the sea (careers, jobs, skills, marine litter, etc.) and calls for a full engagement of all parties involved in the sustainable management of our ocean and seas (hence linking to fostering sustainable innovation and inclusion of blue economy actors). Put ocean literacy high on the Mediterranean policy agenda would be a strong contribution by the UfM to the achievement of Sustainable Development Goals (SDGs).	Further support of EU4Ocean Coalition for Ocean Literacy, by building on this experience to capitalize and extend towards the whole Mediterranean Sea basin, including Southern countries. Capitalize on the achievements of this project (Platform for organisations and individuals engaged in Ocean Literacy initiatives, a European Youth Forum for the Ocean and a Network of European Blue Schools, WG on Healthy and Clean Ocean) as well as the achievements of BlueSkills project.m	
Invest in socioeconomic observatories and provide scientific evidence to support integrated approaches to the development of the sustainable blue economy	There are low number of socioeconomic observatories in the Mediterranean, both at the regional and subregional level. There is a good coverage of marine observatories focused on biodiversity and coastal data (such as the Copernicus Marine Service, the European Marine Observation and	Capitalise and support existing initiatives, with a special focus on the South Mediterranean Sea basin. Further support on socioeconomic observatories, particularly transnational ones, but also capitalising from successful initiatives at benefit of the whole region.	 Identification of relevant stakeholders and authorities williling to lead the process Stock taking exercise of state of the art with regards to the data availability to support the development of

²¹¹ https://webgate.ec.europa.eu/maritimeforum/en/node/4484

	Data network) but very few in the socioeconomic field. The main non-national socioeconomic observatory is Plan Bleu that acts as the Mediterranean Observatory for the Environment and Sustainable Development. In addition, there is also a gap on the South Mediterranean Sea basin where very few initiatives on this field can be found.	Through continuously gathering data and its analysis, the region can foresee major socioeconomic needs and be prepared to meet these demands and avoid significant imbalances such as the current labour mismatch.	the sustainable blue economy • Development of the project following the logical framework approach)
The UfM countries to collaborate in the relevant internatiol fora to adapt training and education requirements for maritime-related professions, stakeholders to work together in sector-specific partnerships to develop and implement strategies to address skill gaps and promote decent work, promote the knowledge on project development and consortium building,and tailored training for blue economy sectors	A variety of strategies and tools for blue career development are already in place in the form of transnational projects promoting the development of skills (BlueSkills), internship mobility between Mediterranean countries (HOMERe) or the integration of young people (MedNc). These seek to address the mismatch between the education <i>curricula</i> and the skillsets needed by the market as well as to promote skills and employment in specific sectors. The UfM has an important role regarding enhancing skills for better employability. Among the actions developed, in June 2021 a series of webinars on skills promotion were held.	Ensuring the continuation of the series of UfM webinars on Blue Skills, careers and jobs held in 2021 and capitalise on the European Year Youth 2022. For example, the experience of the digitalisation webinar, could be continued and the "Women and Blue Skills/Careers/Jobs" webinar could be replicated in other SEMED countries with a similar focus on gender; but also "Digitalisation skills in the aquaculture and tourism sectors in the Mediterranean region" and "Women in blue economy in the Mediterranean" UfM webinars. Moreover, capitalising on the European Year of Youth 2022, a new (cycle of) webinar(s) could be organised with a focus on the upskilling and reskilling of young students and workers according to the needs of key Blue Economy sectors	 Establish an ad hoc working group to facilitate the continuation of the series of webinars on the topic Analysis of similar type of events around the topic to assess potential synergies Preparation of a detailed planning for the organisation of the webinars Agenda design and conceptualization Upholding of the events Ensure communication and outreach, ex-ante, during and after the webinars Training for the promotion and development of operational partnerships

Research and innovation investments at all levels to address key challenges of the region, provide tailor-made solutions for society at large, create new and sustainable business opportunities in the blue economy; and work closely with the private sector

Smart Specialisation, as a placebased and innovative approach to innovation, was conceiv"d as a "Ma"e in EU" concept associated to the European cohesion policy. Under this umbrella, it has triggered the development of more than 120 Smart Specialisation Strategies among European Union (EU) regions and Member States in recent years.

Nonetheless, the European roots of Smart Specialisation have gradually grown beyond EU borders. Smart Specialisation has started inspiring, at different levels, several countries and regions belonging to the European Enlargement Policy, the European Neighbourhood Policy and more widely.

The approach should be further expanded and shared across the whole Mediterranean Sea basin, by capitalizing on ongoing experiences in the EU but also in other non-EU Countries (5+5 dialogue).²¹²

Support Smart Specialisation Strategies²¹³ across the Mediterranean Sea basin.

S3 is an advanced process within EU Mediterranean countries but also some EU Neighbouring countries are discussing the approach and piloting in their own regions.

The example from north could help and be transferred to south Mediterranean countries and would favour the identification of specific needs and innovations potentials to be promoted, as to reflect the specificities of the local value-chains across the sea basin.

- Identify interested Countries and institutional actors in the south
- Provide a platform for sharing experiences and opportunities amongst EU and southern actors
- Identify specific means to further support the development of Smart Specialisation Strategies on the southern shore
- Foster a view on how the Innovation Integrated Investment (I3) Instrument²¹⁴ could be used to strengthen north-south and south-south cooperation
- Monitor advancements and increasingly expand the reach of the network and its ambition

Maritime Spatial Planning and Integrated Coastal Zone Management

Please bear in mind that several follow-up actions related to this cross-cutting priority are also included in relevant sectoral priorities

²¹² https://www.fiveplusfiverihe.org/research-and-innovation

²¹³ https://s3platform.jrc.ec.europa.eu/documents/20125/247601/Smart+Specialisation+in+the+world+an+EU+policy+approach+help.pdf/126aeb09-aba3-517b-5759-aa732cd0be67?t=1621268542951

²¹⁴ https://ec.europa.eu/regional policy/en/policy/themes/research-innovation/i3/

Welcome the work of the Intergovernmental Oceanographic Commission of UNESCO on Maritime Spatial Planning in the western Mediterranean and invite all UfM member countries to further use Maritime Spatial Planning in support of the development of the sustainable blue economy in the Mediterranean, including by addressing Land-Sea Interactions, as appropriate

Overall frameworks exist at Mediterranean level through the recognition of MSP and ICZM as part of the Barcelona Convention and related protocols, making therefore binding to develop and make full use of such tools.

In order to foster the knowledge creation on how to design and conduct MSPs, many projects have been deployed or are on-going within Europe and with Mediterranean neighbouring countries

The ambition is nevertheless not only to share experience and foster transfer and knowledge creation, but also to foster coherence among the various MSP attempts within the seabasin

Establishment of a UfM Maritime Spatial Planning (MSP) multi-stakeholder informal working group

This group may count on a strong involvement of IOC-UNESCO and involve relevant regional stakeholders.

The group may provide a suitable forum for further transfer and knowledge creation (building on MSP MED, MSPGlobal and other initiatives). Additionally, it may facilitate result capitalisation on relevant multi-use projects and initiatives, with a focus on increasing policy coherence and harmonization at regional level.

The initial focus of the group may be on the integration of marine renewable energy in national MSP plans.

- Identification and engagement of key stakeholders in the Med
- Series of
 webinars/workshops on
 marine renewable energy
 with a focus on MSP
 (building on the MSPGlobal and WestMED joint
 webinars on MSP for
 aquaculture and tourism)