



### 3.2.2 SYNTHESIS MULTILEVEL REPORT AND MAPPING TOOL



### 3.2.2 Synthesis multilevel report and mapping tool

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## Synthesis Multilevel Mapping Report

Synthesis multilevel mapping report combines the analysis of linkages between EU transnational strategies with territorial innovation strategies and the assessment of the existing linkages and disalignments with SDGs.

Within this report, we aim to highlight connections and disconnections between international/intergovernmental initiatives in the Mediterranean area and territorial innovation policies (RIS3 and others) of the Blue Bio Med (BBM) regions and countries. BBM-related RIS3 priorities and trajectories, previously identified in the project, were matched against selected topics and goals of the European Union Strategy for the Adriatic and Ionian Region (EUSAIR), Initiative for the sustainable development of the blue economy in the western Mediterranean (WestMED Initiative), UfM Ministerial Declaration on Sustainable Blue Economy and BlueMed Implementation Plan. Relevant topics and goals were selected based on their relevance to BBM. The matching revealed which territories have their innovation trajectories aligned with macroregional/international topics of focus, thus more possibilities to contribute to the objectives of transnational cooperation and participation in global value chains.

The identification of connections between the transnational and the regional-level policy orientations in the BBM topics of interest builds on previously developed RIS3 Country reports and policy factsheets (deliverable D.3.2.1). Using keyword analysis we compared the data on the existence of BBM-related topics in regional and national RIS3 strategies, the reported relevance of blue bioeconomy fields and the implementation data, if available, with topics and targets of policy implementation documents on the intergovernmental level.

It must be noted that the results of this matching, presented in tables and figures in respective chapters, only reveal that there is an existing connection between a RIS3 strategy and an international initiative target, but don't display the strength of this connection. In some regions, this connection can be strong, with the blue bioeconomy positioned clearly between RIS3 priorities and focus areas. Somewhere else the blue bioeconomy technological fields are nested under broader and different innovation areas but are also considered relevant for a territory. We need to mention also that most analysed RIS3s were developed for the 2014-2020 period with only a few covering the new programming period. There is currently a major revision of RIS3 strategies going on in all BBM territories. Based on the significance of the sustainable blue economy in achieving the green transition and efforts given to supporting the development of solutions to address those challenges on many levels, we can expect more connections between territorial RIS3 priorities and trajectories, and pan-Mediterranean targets and goals established at the intergovernmental level in the new generation of RIS3 strategies.

For all four transnational initiatives in the Mediterranean area, we matched their priorities with Agenda 2030 Sustainable Development Goals (SDGs). In this part, SDG policy mapping shows how policy documents adopted by four studied transnational initiatives (EUSAIR, WestMED, UfM and BlueMed). SDG Mapper tool,<sup>1</sup> developed by JRC, was used for the analysis. The tool identifies relevant SDGs from a document or multiple documents and assesses which are more prevalent than others.

This report aims to contribute to Blue Bio Med Activity 3.2 Mapping Blue Bioeconomy Innovation Trends and is built on previous deliverables developed earlier, in particular, D.3.1.1 Conceptual framework and mapping methodology and D.3.2.1 RIS3 country reports and policy factsheets.

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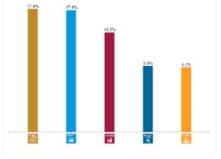
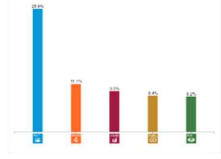
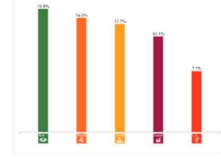
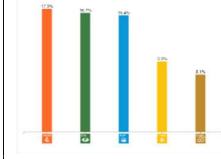

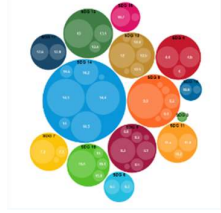
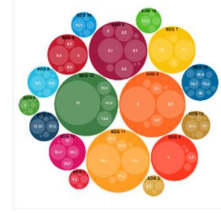
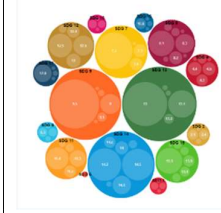
<sup>1</sup> <https://knowsdgs.jrc.ec.europa.eu/sdgmapper>

## Summary overview

Transnational initiatives in the Mediterranean area are very different as regards their aims and objectives, governance, supporting structures, intervention focus and many more. The following table allows an overview of the main characteristic of all four initiatives considered in this report.

Table 1: Overview of the transnational initiatives' main characteristics and their relation to SDGs

	<b>EUSAIR</b>	<b>WestMED Initiative</b>	<b>Union for the Mediterranean</b>	<b>BlueMed Initiative</b>
<i>Full name</i>	European Union Strategy for the Adriatic and Ionian Region	Initiative for the sustainable development of the blue economy in the western Mediterranean		Research and Innovation for blue jobs and growth in the Mediterranean area
<i>Launch year</i>	2014	2017	2008	2014
<i>Main objective/ Mission</i>	To promote economic and social prosperity and growth in the region by improving its attractiveness, competitiveness and connectivity	To help achieve a safer and more secure maritime space, create a smarter and more resilient Blue Economy and improve the maritime governance for the western Mediterranean	To enhance regional cooperation, dialogue and the implementation of projects and initiatives with tangible impact on our citizens, with an emphasis on young people and women, in order to address the three strategic objectives of the region: stability, human development and integration	To advance 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
<i>Body of adoption</i>	Adopted by the European Commission and endorsed by the European Council	Initiative adopted by the European Commission and endorsed by the Council of the EU after the political push from 10 participating countries, later adopted also by UfM member countries	Launched by a decision of the UfM heads of state and government	Developed and agreed between 9 Mediterranean EU Member States, later endorsed by all EU countries and adopted by all UfM member countries

	<b>EUSAIR</b>	<b>WestMED Initiative</b>	<b>Union for the Mediterranean</b>	<b>BlueMed Initiative</b>
<i>Type of policy cooperation framework</i>	EU macro-regional strategy	EU sea basin strategy	Intergovernmental organisation	Political initiative
<i>Participating countries</i>	Albania, Bosnia and Herzegovina, Croatia, Greece, Italy, Montenegro, North Macedonia, San Marino, Serbia, Slovenia	Algeria, France, Italy, Libya, Malta, Mauritania, Morocco, Portugal, Spain, Tunisia	All EU Member States, Albania, Algeria, Bosnia and Herzegovina, Egypt, Israel, Jordan, Lebanon, Mauritania, Monaco, Montenegro, Morocco, Palestine, Syria, Tunisia, Turkey	Algeria, Morocco, Croatia, Cyprus, Egypt, France, Greece, Israel, Italy, Jordan, Malta, Mauritania, Palestine, Portugal, Slovenia, Spain, Tunisia, Turkey
<i>Geographical coverage</i>				
<i>Most prevalent SDGs</i>	 SDG 12 SDG 14 SDG 8	 SDG 14	 SDG 13 SDG 9 SDG 11 SDG 8	 SDG 9 SDG 13 SDG 14
<i>Most prevalent SDG Targets</i>	 Target 12.b Target 16.a Target 8.1	 Target 14.1 Target 9.5 Target 14.4 Target 14.5	 Other detected terms relevant to SDG 13 Other detected terms relevant to SDG 9 Target 11.3 Other detected terms relevant to SDG 5	 Target 9.5 Other detected terms relevant to SDG 13 Target 7.2 Target 14.2 Target 14.5
<i>Prevalence of SDG 14 Targets</i>	Target 14.5 Target 14.1 Target 14.2	Target 14.1 Target 14.4 Target 14.5	Target 14.1 Target 14.5	Target 14.2

## European Union Strategy for the Adriatic and Ionian Region (EUSAIR)

The EU Strategy for the Adriatic and Ionian Region (EUSAIR) is one of four macro-regional strategies. It was adopted by European Commission and endorsed by the European Council in 2014. EUSAIR replaced the Maritime Strategy for the Adriatic and Ionian Seas which addressed the blue growth opportunities of the area two years before.

The general objective of the EUSAIR is to promote economic and social prosperity and growth in the region by improving its attractiveness, competitiveness and connectivity. The participating countries agreed on areas of mutual interest with high relevance for the Adriatic-Ionian countries, being it common challenges or opportunities. The countries are aiming to create synergies and foster coordination among all territories in the Adriatic-Ionian Region in the four thematic areas/pillars:

- Pillar 1 – Blue Growth encourages innovative and maritime growth by promoting sustainable economic development and job creation as well as business opportunities.
- Pillar 2 – Connecting the Region is meant to improve transport and energy connectivity by strengthening maritime safety and security and developing a port system, creating reliable transport networks and intermodal connections with the hinterland, and establishing a well-interconnected and well-functioning internal energy market.
- Pillar 3 – Environmental Quality is dedicated to ensuring the economic and social well-being of the people of the Adriatic and Ionian Region.
- Pillar 4 – Sustainable Tourism is on developing the potential of the Adriatic and Ionian Region by offering innovative and quality tourism products and services.

Moreover, Strengthening R&D, innovation and SMEs and Capacity building, including communication, are two cross-cutting aspects across each pillar, while Climate change mitigation and adaptation and Disaster risk management are horizontal principles for all four pillars.

The EUSAIR Action Plan accompanies the Strategy. It is structured around the four pillars and their topics, which represent the main areas where the macro-regional strategy can contribute to improvements. Under each topic, indicative actions and projects are identified.<sup>2</sup>

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<sup>2</sup> The EUSAIR Action Plan is currently under revision.

For the 2021-2027 programming period, EUSAIR implementing bodies agreed on flagships, i.e. solutions for the main challenges of macro-regional importance. Flagships are consistent with national needs as well as with the EU policy objectives for a greener, low-carbon and more connected Europe. EUSAIR countries and regions will meet concrete actions at the territorial level by embedding them in their ESIF/IPA programming documents to follow a common goal and propose solutions for the EUSAIR territories.

The following table describes topics and flagships related to the BBM topics of interest. These are all connected to Pillar 1 – Blue Growth.

Table 2: EUSAIR topics and flagships related to the BBM topics of interest

Topic	Flagship
Blue technologies	Fostering quadruple helix ties in the fields of marine technologies and blue biotechnologies for advancing innovation, business development and business adaptation in blue bio-economy
Fisheries and aquaculture	Promoting sustainability, diversification and competitiveness in the fisheries and aquaculture sectors through education, research & development, administrative, technological and marketing actions, including the promotion of initiatives on marketing standards and healthy nutritional habits
Maritime and marine governance and services	Bolstering capacity building and efficient coordination of planning and local development activities for improving marine and maritime governance and blue growth services

## Linkages between EUSAIR Pillar 1 topics and territorial RIS3 priorities

The next table summarizes references to EUSAIR Pillar 1 topics as found in territorial RIS3s of EUSAIR countries and regions:

Table 3: EUSAIR countries and regions with references to EUSAIR Pillar 1 topics in their RIS3s

<i>Territory</i>	<i>Blue technologies</i>	<i>Fisheries and aquaculture</i>	<i>Maritime and marine governance and services</i>
Croatia	X	X	
Attica (GR)	X	X	
Central Greece (GR)		X	
Central Macedonia (GR)		X	
Crete (GR)		X	
Epirus (GR)		X	
Ionian Islands (GR)		X	
North Aegean (GR)	X	X	
Peloponnese (GR)		X	
South Aegean (GR)	X	X	
Thessaly (GR)	X	X	
Thrace (GR)			
Western Greece (GR)	X	X	
Western Macedonia (GR)			
Abruzzo (IT)			
Apulia (IT)	X	X	
Basilicata (IT)			
Calabria (IT)	X		X
Emilia-Romagna (IT)	X	X	
Friuli Venezia Giulia (IT)	X	X	
Lombardia (IT)	X		
Marche (IT)	X	X	
Molise (IT)	X	X	
Sicily (IT)	X	X	X
Umbria (IT)			
Veneto (IT)	X	X	X
Montenegro	X		
Slovenia	X	X	
<i>Total</i>	<i>17</i>	<i>20</i>	<i>3</i>

In most studied RIS3s, we can find some sort of references to respective EUSAIR Pillar 1 topics. Most territories report trajectories linked to Blue biotechnologies Fisheries and aquaculture, while Sicily and Veneto have links to all three topics. Italian regions Abruzzo, Basilicata and Umbria report no RIS3 priorities or trajectories linked to any EUSAIR Pillar 1 topic.

### Topic 1: Blue technologies

The Blue technologies topic and its related flagship are about maximizing sustainable economic growth and employment as well as business creation based on blue technologies, “brain circulation”, networking capacity and access to seed and venture capital. Quadruple helix ties in the field of blue technologies in the region will be strengthened through:

- Stronger RDI and cooperation among SMEs and between SMEs, large enterprises and research centres operating in the Adriatic-Ionian Macroregion
- Increased networking between researchers, SMEs and clusters
- Increased joint research papers and number of researchers exchanged within the macro-region
- Internationalization of SMEs in the region
- Easier access to finance and promotion of the creation of start-ups

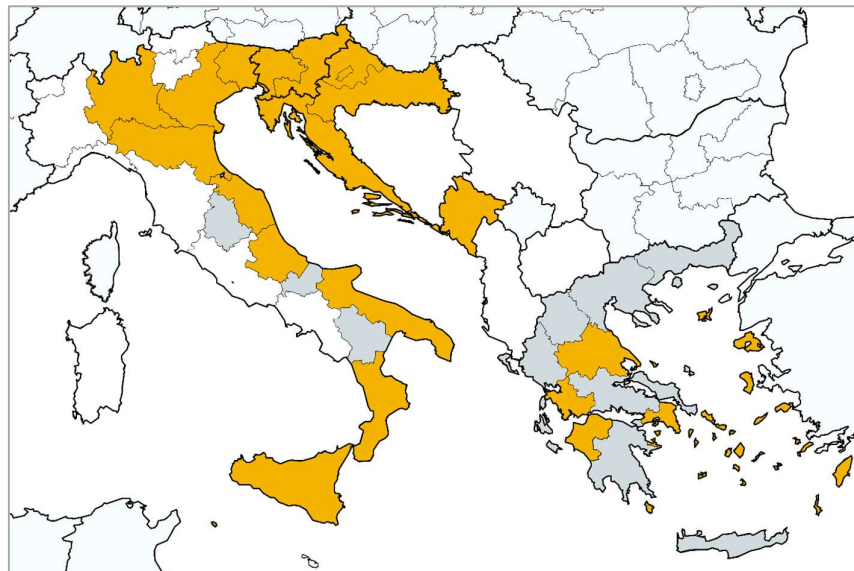


Figure 1: BBM territories with RIS3 trajectories linked to EUSAIR Blue technologies topic

No EUSAIR territory reports specific RIS3 priority on the Blue technologies topic. However, many regions report RIS3 trajectories linked to EUSAIR topic Blue technologies. Based on BBM sectors classification, these are related to Healthcare and Pharmaceuticals (e.g. Montenegro, Friuli Venezia Giulia, Lombardia, Sicily), Industrial processes and Manufacturing (e.g. Slovenia, Calabria, Sicily) and Fisheries and Aquaculture (Attica, North Aegean, South Aegean, Thessaly, Western Greece). However, blue technologies are addressed only in general in RIS3s of EUSAIR territories.

## Topic 2: Fisheries and aquaculture

EUSAIR Fisheries and aquaculture topic and its related flagship are dealing with better cooperation across the Adriatic-Ionian sea basin for the creation of new jobs through better management and sustainable exploitation of fish stocks and the increase of aquaculture production due to improvement of productivity, quality, environmental sustainability and diversification of these traditional industries.

Innovation trajectories related to this EUSAIR topic can be found in several RIS3s in the EUSAIR territories.

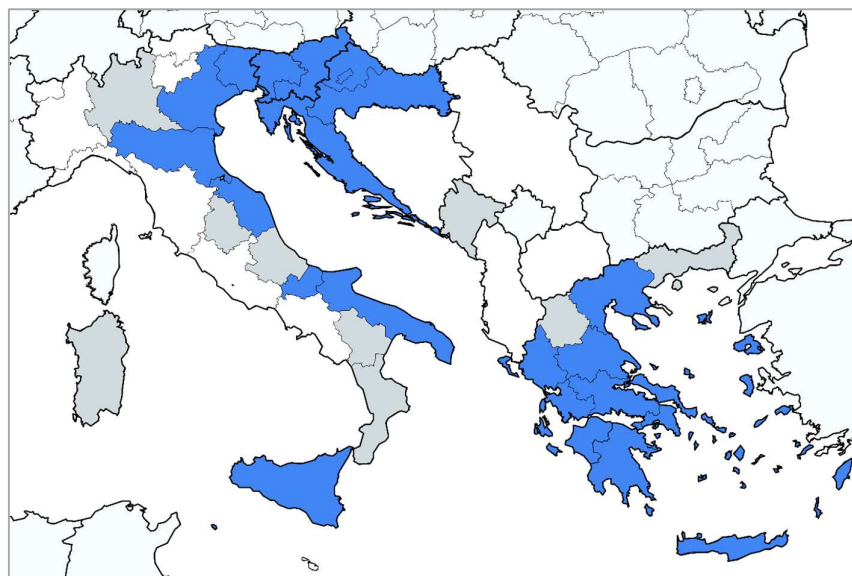


Figure 2: BBM territories with RIS3 trajectories linked to EUSAIR Fisheries and aquaculture topic

RIS3 priorities and trajectories related to EUSAIR Fisheries and aquaculture topic can mainly be linked to BBM sector of the same name and in particular the Sea processing and trade subsector (e.g. in Croatia, most Greek regions, Slovenia, Friuli Venezia Giulia, Molise, Sicily).

### Topic 3: Maritime and marine governance and services

This EUSAIR topic and its related flagship deal with the need to manage the waters more coherently due to more and more fierce competition for maritime space.

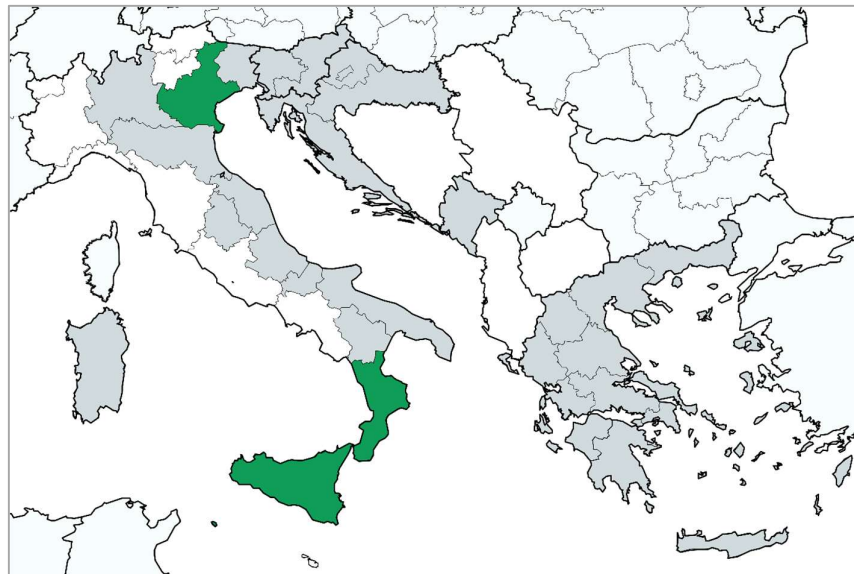


Figure 3: BBM territories with RIS3 trajectories linked to EUSAIR topic Maritime and marine governance and services

A limited number of territorial RIS3s identify innovation trajectories related to this topic. Calabria's RIS3, for example, has innovation priorities on marine ecosystem services and Sicily on bio-monitoring and bio-remediation as well as on marine environmental technologies.

## Prevalent Sustainable Development Goals in EUSAIR

The following policy documents were used in the analysis of how EUSAIR relates to the SDGs and their targets:

- Communication from the Commission concerning the European Strategy for the Adriatic and Ionian Region, 2014 and addendum
- Council conclusions on the European Union Strategy for the Adriatic and Ionian Region (EUSAIR), 2014
- For a prosperous and integrated Adriatic and Ionian Region (brochure), 2014
- EUSAIR Action Plan, 2020
- EUSAIR Flagships 2021-2027, 2020

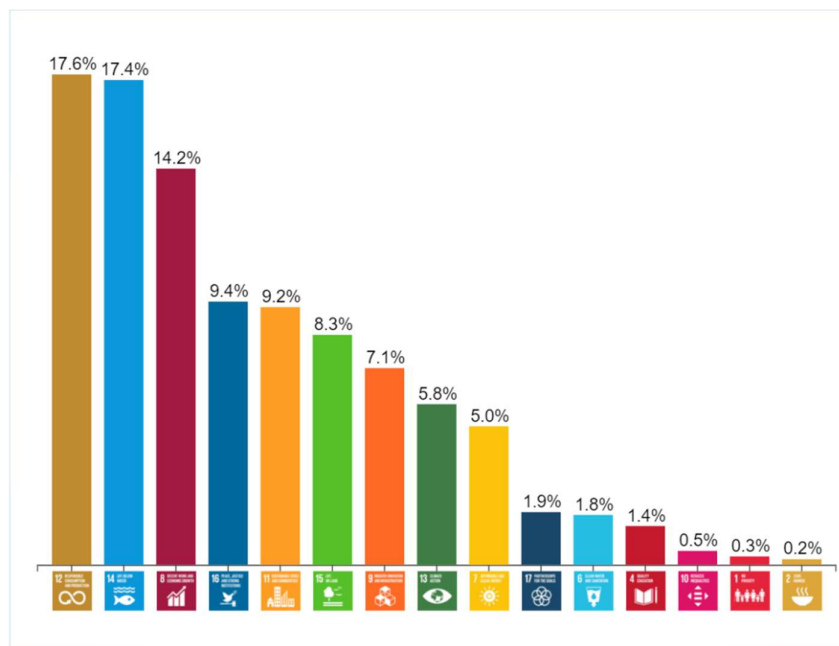


Figure 4: Relevant SDGs for EUSAIR

The most prevalent SDGs are SDG 12 Responsible consumption and production and SDG 14 Life below water, followed by SDG 8 Decent work and economic growth. Given EUSAIR's general objective and focus on cooperation in the blue economy, transport and energy connectivity, environment and tourism it is expected that its linkages to SDGs are strongest in goals addressing the use of resources, blue economy and quality of life of its people.

The next cluster of SDGs also represented in the EUSAIR strategic documents is composed of SDG 16 Peace, justice and strong institutions, SDG 11 Sustainable cities and communities, SDG 15 Life on land, SDG 9 Industry, innovation and infrastructure, SDG 13 Climate action, and SDG 7 Affordable and clean energy.

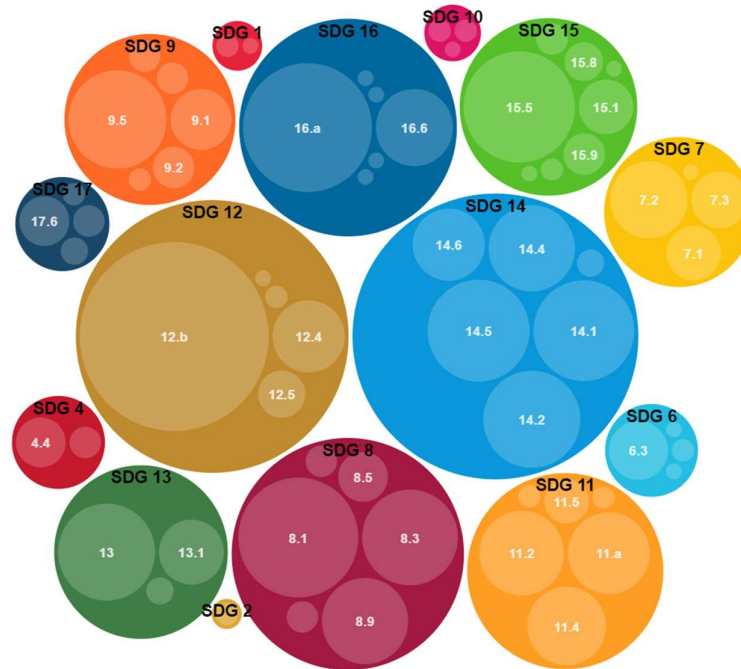


Figure 5: SDGs and Targets detected in EUSAIR

Among all SDG Targets, the most prevalent are Target 12.b Develop and implement tools to monitor sustainable tourism, Target 16.a Strengthen national institutions to prevent violence and combat crime and terrorism, and Target 8.1 Sustainable economic growth.

Of SDG 14 Targets, the most prevalent are Target 14.1 Reduce marine pollution, 14.4 Sustainable fishing, 14.5 Conserve coastal and marine areas, and 14.2 Protect and restore ecosystems.

## Initiative for the sustainable development of the blue economy in the western Mediterranean (WestMED Initiative)

The WestMED is the initiative of ten countries in the western Mediterranean region involved in the “5+5 Dialogue”: five EU Member States (France, Italy, Portugal, Spain and Malta), and five Southern partner countries (Algeria, Libya, Mauritania, Morocco and Tunisia) that 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. In 2018, 10 Western Mediterranean countries, the European Commission and the Union of the Mediterranean adopted a declaration to strengthen regional cooperation on the WestMED initiative.

The signatories agreed 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, while preserving the services performed by the Mediterranean ecosystem. In this roadmap, 6 priorities were agreed upon:

- Maritime safety and the fight against marine pollution
- Maritime cluster development
- Skills development and circulation
- Sustainable consumption and production
- Biodiversity and marine habitat conservation and restoration
- Development of coastal communities and sustainable fisheries and aquaculture

The Framework for Action outlines the steps to achieve the initiative’s goals and priorities. It was drafted and endorsed following an extensive, bottom-up consultation process, involving a wide range of stakeholders from the region. Several priorities and targeted actions have been set for each goal.

3 goals:

1. A safer and more secure maritime space;
2. A smart and resilient blue economy;
3. Improved maritime governance.

10 priorities:

1. Coastguard functions cooperation (training, capacity building, search and rescue)
2. Maritime safety and response to marine pollution rescue
3. Strategic research and innovation
4. Maritime clusters development
5. Skills development and circulation

6. Sustainable consumption and production (maritime transport, ports, maritime and coastal tourism, marine aquaculture)
7. Spatial Planning and coastal management
8. Marine and maritime knowledge
9. Biodiversity and marine habitat conservation
10. Sustainable fisheries and coastal community development

### Linkages between WestMED Initiative Goals and territorial RIS3 priorities

The next table summarizes linkages between references to goals as set in the WestMED Framework for Action in territorial RIS3s of EUSAIR countries and regions:

Table 4: WestMED countries and regions with references to WestMED Framework for Action goals in their RIS3s

<i>Territory</i>	<i>A safer and more secure maritime space</i>	<i>A smart and resilient blue economy</i>	<i>Better governance of the sea</i>
Corse (FR)			
Occitanie (FR)		X	
Provence Alpes Cote d'Azur (FR)	X	X	
Basilicata (IT)			
Calabria (IT)	X	X	X
Campania (IT)		X	
Lazio (IT)		X	
Liguria (IT)	X	X	
Sardinia (IT)			
Sicily (IT)	X	X	X
Tuscany (IT)			
Malta		X	X
Alentejo (PT)		X	
Algarve (PT)		X	X
Lisboa e Vale de Tejo (PT)		X	X
Andalusia (ES)		X	X
Aragon (ES)			
Balearic Islands (ES)			
Catalonia (ES)		X	
Murcia (ES)	X	X	X
Valencia (ES)			
<i>Total</i>	<i>5</i>	<i>14</i>	<i>7</i>

In most RIS3s of WestMED countries and regions, some sort of references to WestMED Initiative goals can be found. Trajectories related to A smart and resilient blue economy are most prevalent, being present in almost all territories. Italian regions Calabria and Sicily and Spanish Murcia have links to all three goals. On the other hand Corse, Basilicata, Sardinia, Tuscany, Aragon, Balearic Islands and Valencia show no references to WestMED goals in their respective RIS3s.

## Goal 1: A safer and more secure maritime space

WestMED Goal 1 is about ensuring the safety and security of activities at sea, which is essential for the sustainable development of the maritime economy, maintaining and creating jobs and for the proper governance of the sea and coasts. This goal is connected to the BBM-relevant priority of Maritime safety and response to marine pollution.

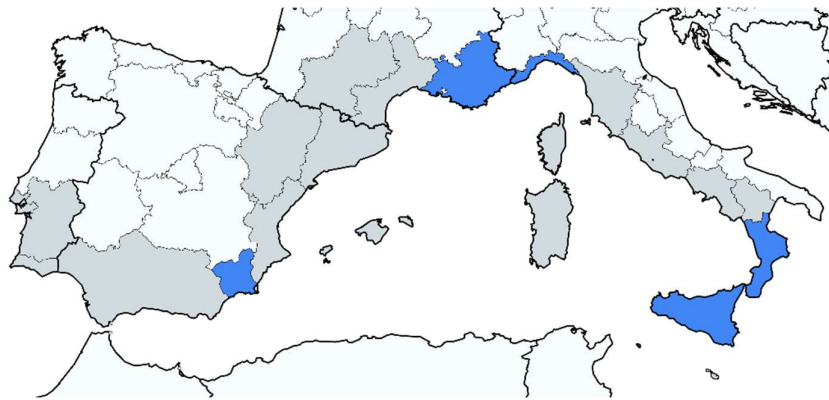


Figure 6: BBM territories with RIS3 trajectories linked to priorities of Westmed Goal 1 A safer and more secure maritime space, relevant for BBM

Reported RIS3 trajectories, linked to this Goal, are dealing with protection, prevention and mitigation against marine pollution (Provence Alpes Cote d' Azur, Liguria, Sicily), development of advanced control and monitoring safety systems (Calabria) and the deployment of marine environment technologies (Murcia).

## Goal 2: A smart and resilient blue economy

Innovation and knowledge sharing are key to addressing the generational change in the labour market and making the region more sustainable, competitive and resilient to cyclical crises and shocks. This goal largely builds on existing initiatives such as Bluemed and its Strategic Research and Innovation Agenda and encourages partners to be better involved. BBM-related priorities addressed by this goal are Strategic Research and Innovation, Maritime clusters development, Skills development and circulation, and Sustainable consumption and production (maritime transport, ports, maritime and coastal tourism, marine aquaculture).

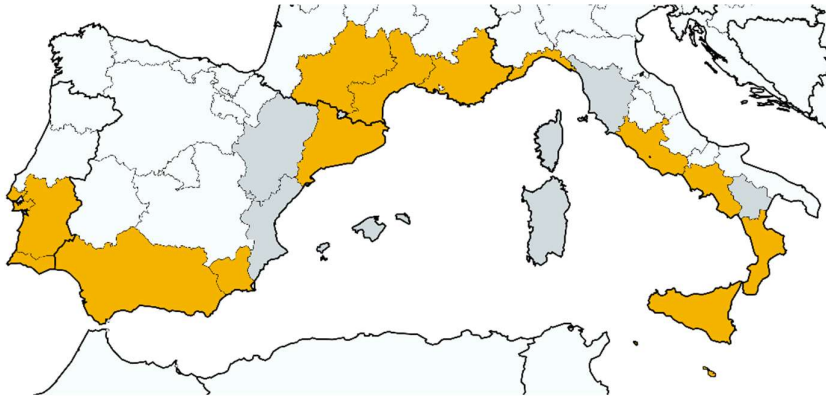


Figure 7: BBM territories with RIS3 trajectories linked to priorities of Westmed Goal 2 A smart and resilient blue economy, relevant for BBM

Most territories' RIS3s have some reference to the topics of this WestMED goal. While most of them are related to living resources (fisheries, aquaculture and/or blue biotechnologies), some regions (i.e. Occitane, Liguria, Calabria, Catalonia) report innovation trajectories related to industrial systems, maritime technologies, and advanced materials.

### Goal 3: Better governance of the sea

Goal 3 Better governance of the sea is connected to a solid institutional, legal and technical framework that can, in achieving healthy marine and coastal ecosystems while promoting socioeconomic development, balance competing demands for limited natural resources and space. Its priorities relevant for BBM include Spatial planning and coastal management, Biodiversity and marine habitat conservation, Sustainable fisheries and coastal community development, and Marine and maritime knowledge.

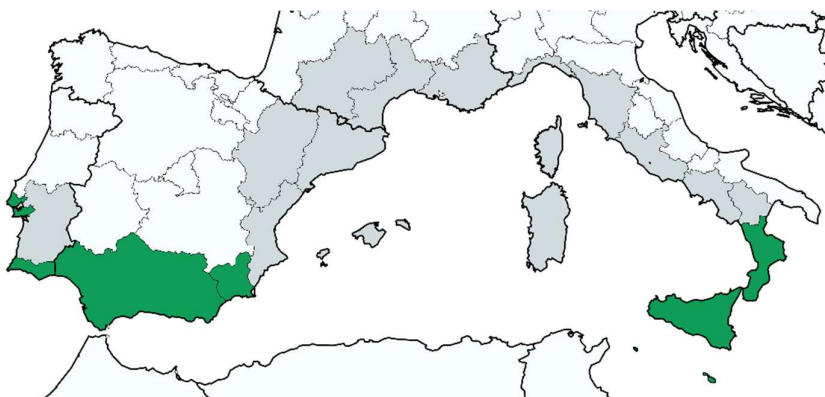


Figure 8: BBM territories with RIS3 trajectories linked to priorities of Westmed Goal 3 Better governance of the sea, relevant for BBM

Here just a few territories report some sort of reference to this goal in their RIS3s. They are mostly about the management of marine ecosystems, while Lisboa e Vale do Tejo has among its trajectories one aligned with this goal, Support R&D in the field of marine science.

## Prevalent Sustainable Development Goals in WestMED Initiative

The following policy documents were used in the analysis of how the WestMED Initiative relates to the SDGs and their targets:

- Initiative for the sustainable development of the blue economy in the western Mediterranean, 2017
- WestMED Framework for Action, 2017
- Algiers Declaration, 2018

Given that WestMED Initiative is a sea basin strategy, it is no surprise that SDG 14 Life below water is by far the most prevalent of all SDGs. Other SDGs addressed by the WestMED Initiative include SDG 9 Industry, innovation and infrastructure, SDG 8 Decent work and economic growth, SDG 12 Responsible consumption and production, SDG 13 Climate action, SDG 15 Life on land, and SDG 4 Quality education.

Among all SDG Targets, the most prevalent are Target 14.1 Reduce marine pollution, Target 9.5 Enhance research and upgrade industrial technologies, Target 14.4 Sustainable fishing, and Target 14.5 Conserve coastal and marine areas.

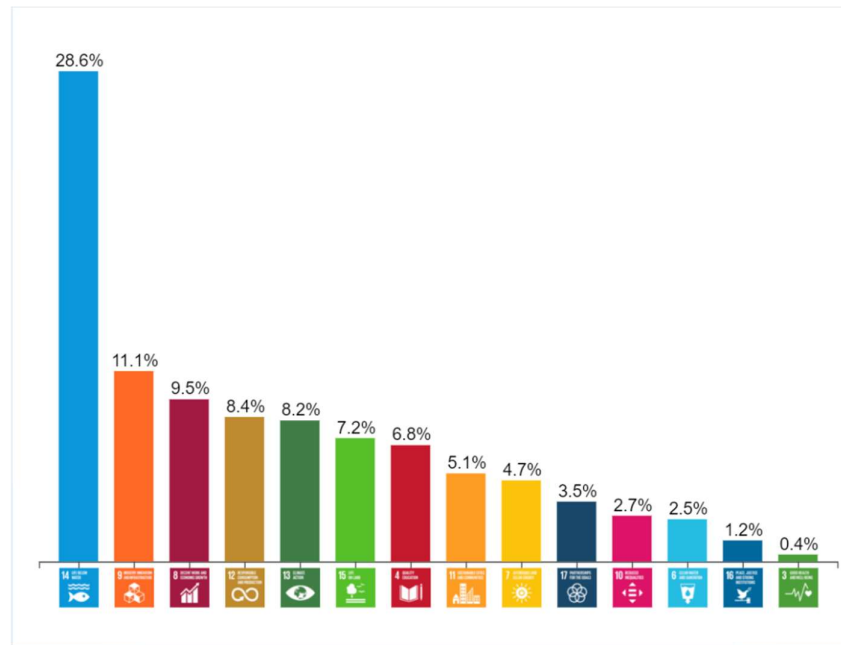


Figure 9: Relevant SDGs for WestMED

Of SDG 14 Targets, the most prevalent are Target 14.1 Reduce marine pollution, 14.4 Sustainable fishing, and 14.5 Conserve coastal and marine areas.

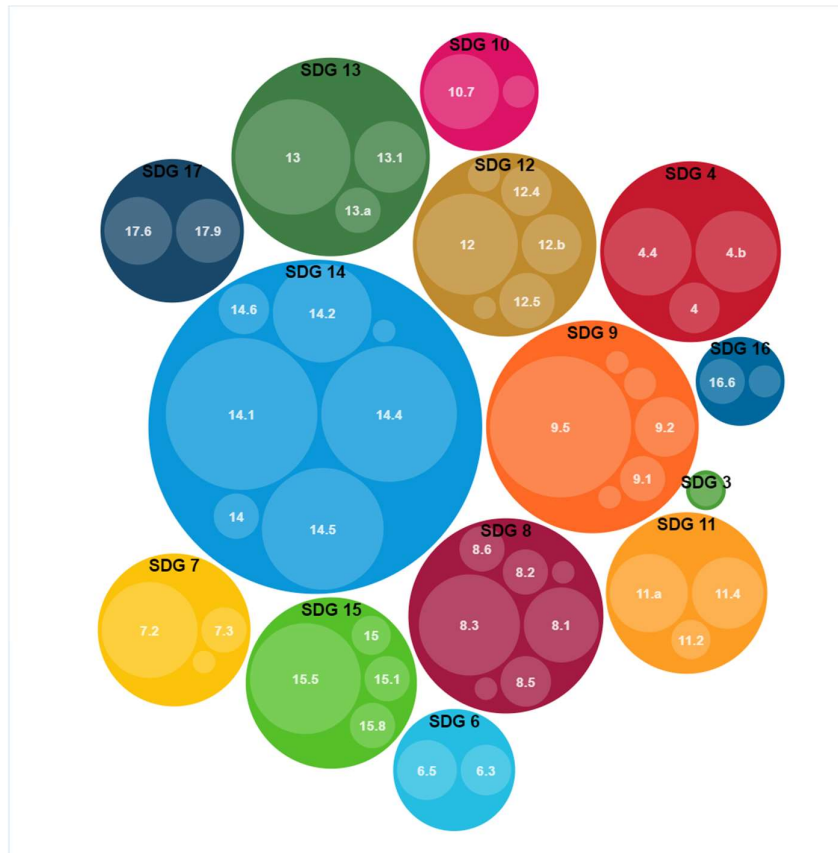


Figure 10: SDGs and Targets detected in WestMED

## Union for the Mediterranean

The Union for the Mediterranean is an intergovernmental institution bringing together 42 countries to promote dialogue and cooperation in the Euro-Mediterranean region. UfM's mission is to enhance regional cooperation, dialogue and the implementation of projects and initiatives with tangible impact on our citizens, with an emphasis on young people and women, to address the three strategic objectives of the region: stability, human development, and integration.

It is a forum for discussing regional strategic issues, based on the principles of shared ownership, shared decision-making and shared responsibility between the two shores of the Mediterranean. Its main goal is to increase both North-South and South-South integration in the Mediterranean region, support the countries' socioeconomic development and ensure stability in the region. The institution, through its course of actions, focuses on two main pillars: fostering human development and promoting sustainable development. To this end, it identifies and supports regional projects and initiatives of different sizes, to which it gives its label, following a consensual decision among the 42 countries.

The high-level reference for the UfM work in the field of blue bioeconomy is the Ministerial Declaration on Sustainable Blue Economy. It was adopted in February 2021, six years after the first UfM Ministerial Declaration on Blue Economy. The declaration is articulated around 8 topics – 5 more than the 2015 Declaration, two of them are specifically interesting for the BBM project:

- Sustainable food from the sea: fisheries and aquaculture and
- Interactions between marine litter and the blue economy.

Some others, e.g. Governance and the future of sea basin strategies in the Mediterranean region, Marine research and innovation, skills, careers and employment, Maritim Spatial Planning and Integrated Coastal Zone Management are also linked to BBM-specific topics.

The declaration recognises 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.

## Linkages between UfM Sustainable Blue Economy topics and territorial RIS3 priorities

Table 5: BBM countries and regions with RIS3 references to UfM Ministerial Declaration on Sustainable Blue Economy topics related to the BBM project

<i>Territory</i>	<i>Sustainable food from the sea: fisheries and aquaculture</i>	<i>Interactions between marine litter and the blue economy</i>
Croatia	X	
Cyprus	X	
Attica (GR)	X	X
Central Greece (GR)	X	
Central Macedonia (GR)	X	X
Crete (GR)	X	
Epirus (GR)	X	
Ionian Islands (GR)	X	
North Aegean (GR)	X	
Peloponnese (GR)	X	
South Aegean (GR)	X	
Thessaly (GR)	X	
Thrace (GR)		
Western Greece (GR)	X	
Western Macedonia (GR)		
Corse (FR)		
Occitanie (FR)	X	X
Provence Alpes Cote d'Azur (FR)	X	
Abruzzo (IT)		
Apulia (IT)	X	
Basilicata (IT)		
Calabria (IT)		X
Campania (IT)		
Emilia-Romagna (IT)	X	
Friuli Venezia Giulia (IT)	X	
Lazio (IT)	X	X
Liguria (IT)		
Lombardia (IT)		
Marche (IT)	X	
Molise (IT)	X	
Sardinia (IT)		
Sicily (IT)	X	X
Tuscany (IT)		
Umbria (IT)		
Veneto (IT)	X	

<i>Territory</i>	<i>Sustainable food from the sea: fisheries and aquaculture</i>	<i>Interactions between marine litter and the blue economy</i>
Malta	X	
Montenegro	X	
Alentejo (PT)	X	
Algarve (PT)	X	
Lisboa e Vale de Tejo (PT)	X	
Slovenia	X	X
Andalusia (ES)	X	
Aragon (ES)		
Balearic Islands (ES)		
Catalonia (ES)	X	
Murcia (ES)	X	X
Valencia (ES)		
<i>Total</i>	<i>32</i>	<i>8</i>

#### Topic 1: Sustainable food production: fisheries and aquaculture

According to the declaration, Mediterranean fisheries are of vital importance to food security and provide essential socio-economic value for vulnerable coastal communities across the region. All UfM members shall apply an ecosystem-based approach to fisheries management and provide adequate protection for the marine environment. The potentials for the development of aquaculture and blue-bioeconomy are to ensure a level playing field in the Mediterranean and bring about a more competitive, sustainable, profitable and equitable aquaculture sector.

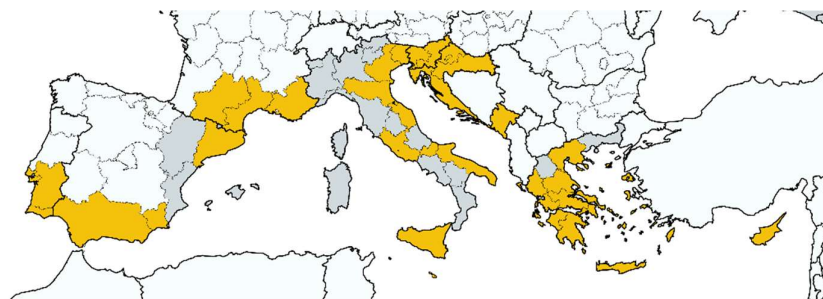


Figure 11: BBM territories with RIS3 trajectories linked to UfM Ministerial Declaration on Sustainable Blue Economy topic Sustainable food production: fisheries and aquaculture

RIS3 priorities and trajectories related to the UfM topic on sustainable food production through fisheries and aquaculture can be found in many BBM countries and regions.

## Topic 2: Interactions between marine litter and the blue economy

The Ministerial Declaration welcomes several initiatives and commitments in the Mediterranean that address the issue of marine litter. As regards marine litter generated by blue bioeconomy sectors, it calls for 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, also by involving fishermen in the collection of marine litter at sea.

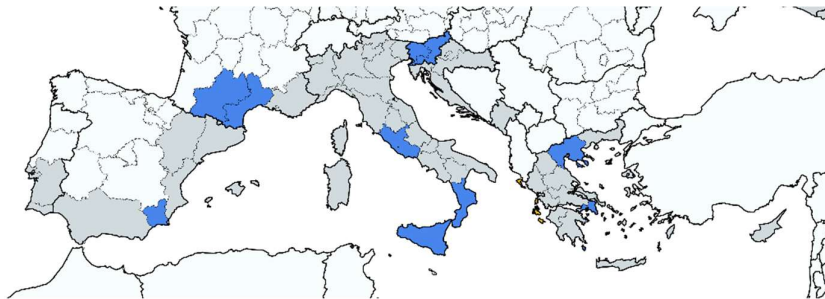


Figure 12: BBM territories with RIS3 trajectories linked to UfM Ministerial Declaration on Sustainable Blue Economy topic Interactions between marine litter and the blue economy

Several BBM territories have RIS3 priorities or trajectories linked to this topic. Sicily for example has a trajectory Innovation to recover marine litter. Some other regions address the topic through marine environmental technologies (Attica, Calabria, Central Macedonia, Lazio, Murcia, Occitane), whereas in Slovenia's RIS3 a reference to recycling fishing nets can be found.

## Prevalent Sustainable Development Goals in UfM

The following policy documents were used in the analysis of how UfM relates to the SDGs and their targets:

- Barcelona Declaration, 1995
- Paris Declaration, 2008
- UfM Roadmap for Action, 2017
- UfM Presskit, 2020
- UfM Institutional Brochure, 2021
- Annual Report 2021
- Secretariat of the UfM, Annual Work Programme 2022

The most prevalent SDGs related to the work of the Union of the Mediterranean are SDG 13 Climate action, SDG 9 Industry, innovation and infrastructure, SDG 11 Sustainable cities and communities, and SDG 8 Decent work and economic growth, 12.1%. It must be noted that only general UfM policy documents were used in the SDG prevalence mapping and the results reflect the broad scope of UfM areas of interest.

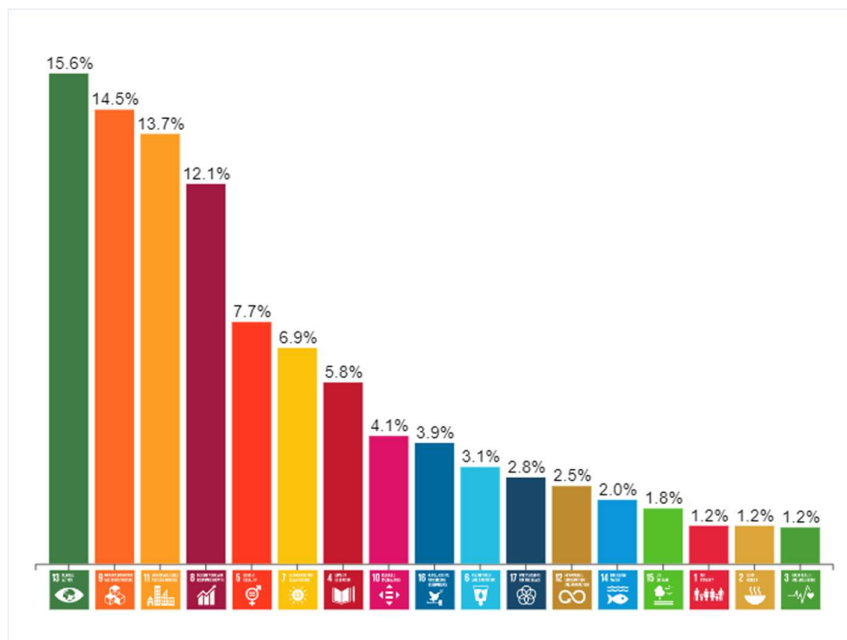


Figure 13: Relevant SDGs for UfM

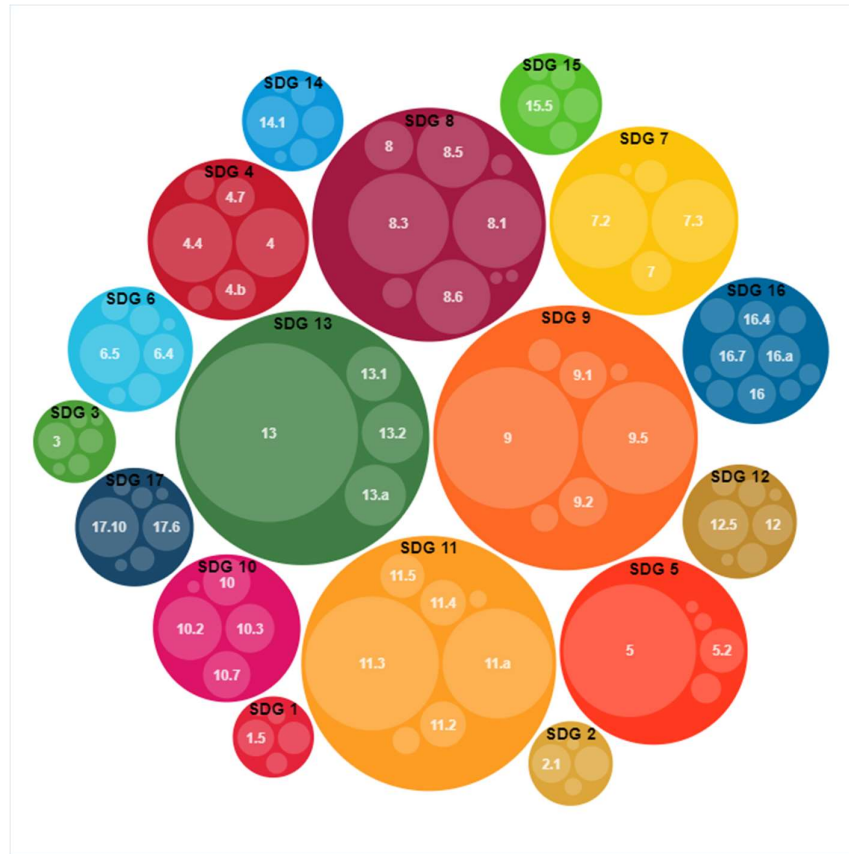


Figure 14: SDGs and Targets detected in UfM

## BlueMed Initiative

The BlueMed Research and Innovation Initiative is an intergovernmental regional-scale initiative launched in 2014, aiming to advance a shared vision for a healthier, productive, resilient, better-known and valued Mediterranean Sea. It addresses research and innovation through a multi-disciplinary approach, linking economy, environment and humans, to build sustainable Blue Growth through networks of actors and international science diplomacy efforts. Since 2017, the Initiative is formally joined by 16 EU and non-EU Mediterranean countries and steered by the Euro-Mediterranean Group of Senior Officials BlueMed Working Group (GSO BlueMed WG), co-chaired by the European Commission and the co-chair of the Union of the Mediterranean and supported by the Secretariat of the Union of the Mediterranean.

The GSO BlueMed WG endorsed at first the BlueMed Strategic Research and Innovation Agenda (SRIA) and then the BlueMed Implementation Plan. The BlueMed SRIA is articulated around four pillars (Knowledge, Economy, Technology and Cross-cutting) and identifies several key challenges around which to develop and align their marine and maritime research and innovation agendas.

The BlueMed Implementation plan presents 13 priority goals, among which three are of particular BBM interest:

- Understanding pollution impacts, mitigation, and remediation in the Mediterranean sea,
- Support solutions for sustainable production and consumption of food from the sea and
- Exploring the potential of blue-biotech

## Linkages between BlueMed Initiative priority goals and territorial RIS3 priorities

Table 6: BBM countries and regions with RIS3 references to BlueMed Initiative priority goals related to the BBM project

<i>Territory</i>	<i>Understanding pollution impacts...</i>	<i>Support solutions for food from the sea</i>	<i>Potential of blue-biotech</i>
Croatia		X	X
Cyprus		X	X
Attica (GR)	X	X	X
Central Greece (GR)		X	
Central Macedonia (GR)		X	

<i>Territory</i>	<i>Understanding pollution impacts...</i>	<i>Support solutions for food from the sea</i>	<i>Potential of blue-biotech</i>
Crete (GR)		X	
Epirus (GR)		X	
Ionian Islands (GR)		X	
North Aegean (GR)		X	X
Peloponnese (GR)		X	
South Aegean (GR)		X	X
Thessaly (GR)		X	X
Thrace (GR)			
Western Greece (GR)		X	X
Western Macedonia (GR)			
Corse (FR)			
Occitanie (FR)		X	X
Provence Alpes Cote d'Azur (FR)	X	X	X
Abruzzo (IT)			
Apulia (IT)		X	X
Basilicata (IT)			
Calabria (IT)			X
Campania (IT)			X
Emilia-Romagna (IT)		X	X
Friuli Venezia Giulia (IT)	X	X	X
Lazio (IT)		X	X
Liguria (IT)	X		
Lombardia (IT)			X
Marche (IT)		X	X
Molise (IT)		X	X
Sardinia (IT)			
Sicily (IT)	X	X	X
Tuscany (IT)			
Umbria (IT)			
Veneto (IT)		X	X
Malta	X	X	
Montenegro		X	X
Alentejo (PT)		X	X
Algarve (PT)		X	X
Lisboa e Vale de Tejo (PT)	X	X	X
Slovenia		X	X
Andalusia (ES)	X	X	X
Aragon (ES)			
Balearic Islands (ES)			
Catalonia (ES)	X	X	X
Murcia (ES)	X	X	X
Valencia (ES)			
<b>Total</b>	<b>10</b>	<b>32</b>	<b>28</b>

## Topic 1: Understanding pollution impacts, mitigation, and remediation in the Mediterranean sea

This BlueMed Implementation Plan's priority goal is about supporting the proper management and improvement of the marine environment and connected activities from filling the knowledge gaps to identifying recycling solutions, in the perspective of the blue circular economy and the Green Deal, and, in parallel, improving the understanding on the functioning of the Mediterranean Sea ecosystem.

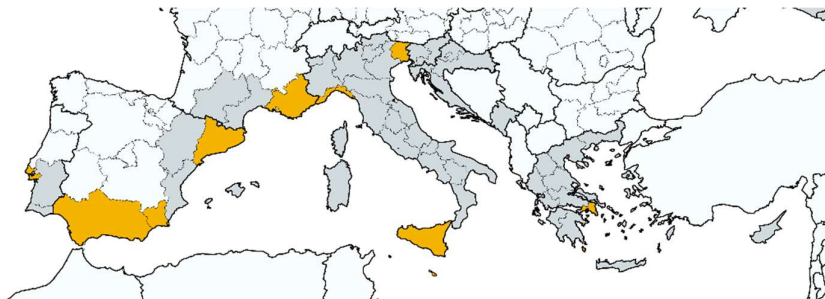


Figure 15: BBM territories with RIS3 trajectories linked to BlueMed Implementation Plan topic Understanding pollution impacts, mitigation, and remediation in the Mediterranean sea

Only a few BBM territories show links to this priority goal in their RIS3 strategies, e.g. Provence Alpes Cote d'Azur (fight and regulation against marine pollution), Liguria (protection and enhancement of the marine and coastal environment).

## Topic 2: Support solutions for sustainable production and consumption of food from the sea

The economic driver "Food" is one of the shared Mediterranean cultural roots. Improvements in the fisheries and aquaculture sectors are necessary with the aim to make these economic activities more environmentally and economically sustainable. The concept of Sustainable Food Consumption contrasts with the increase of the demands of food, e.g. during the touristic season, and the increase in food waste requires new practices leading to improved society behaviours, better consumer practices, implementation of the European Strategies 'From farm to fork', Food 2030, and at the global level the relevant UN-Sustainable Development Goals.

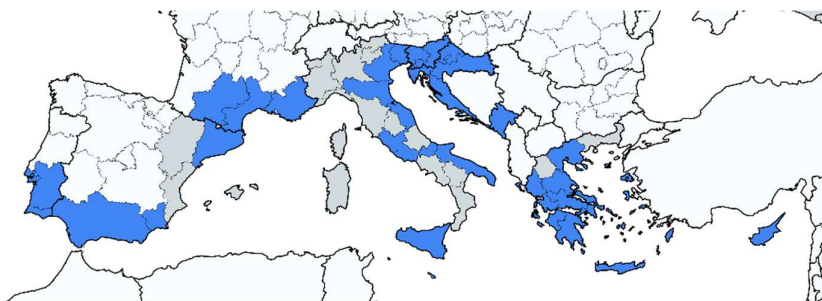


Figure 16: BBM territories with RIS3 trajectories linked to BlueMed Implementation Plan topic Support solutions for sustainable production and consumption of food from the sea

The vast majority of BBM territories have a priority in their RIS3 concerning sustainable food production and processing, many also with an emphasis on fisheries and aquaculture sectors.

### Topic 3: Exploring the potential of blue-biotech

The marine environment is a potential key provider of biotechnological novelty. The high biodiversity of Mediterranean marine organisms might have a high potential for applications in biotechnology, materials and engineering. To generate new products and services, the biotechnological potential of marine resources needs to be bridged with their exploration and exploitation. This implies filling a frontier knowledge gap at the crossroads of biotechnology, food production, and sustainable use of bio-resources with socioeconomic impacts in several fields, exploiting convergences with biotech infrastructures, and accessing the still-untapped marine biotechnological resources on a larger scale.

Biotechnology is also a regular innovation priority in many BBM territories' RIS.

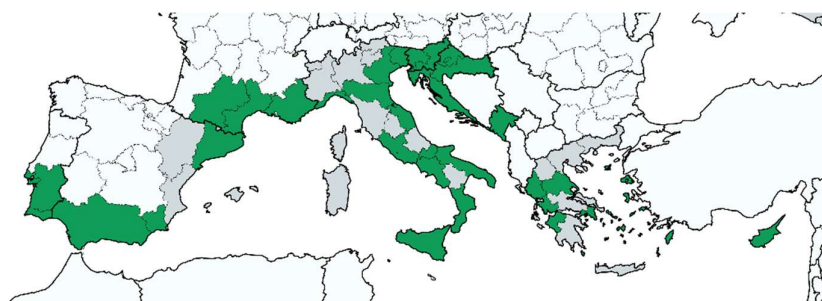


Figure 17: BBM territories with RIS3 trajectories linked to BlueMed Implementation Plan topic Exploring the potential of blue biotech

## Prevalent Sustainable Development Goals in BlueMed Initiative

BlueMed is contributing to reaching several Sustainable Development Goals<sup>10</sup> of the UN 2030 Agenda<sup>11</sup>, focusing on SDG14-Life below Water but also targeting SDG12- Sustainable Consumption and Production and SDG17-Partnerships for Sustainable Development. However, the analysis of the following policy documents used in SDG Mapper revealed also other important SDGs:

- Venice Declaration on Mediterranean Sea Cooperation, 2015
- Valletta Declaration on Strengthening Euro-Mediterranean Cooperation through Research and Innovation, 2017
- BlueMed Strategic Research and Innovation Agenda (SRIA), 2018 version
- BlueMed Preliminary Implementation Plan, 2020

The most prevalent SDGs include SDG 9 Industry, innovation and infrastructure, SDG 13 Climate action, and SDG 14 Life below water. Among SDG Targets, very high are Target 9.5 Enhance research and upgrade industrial technologies, Target 7.2 Increase global percentage of renewable energy, Target 14.2 Protect and restore ecosystems, and Target 14.5 Conserve coastal and marine areas.

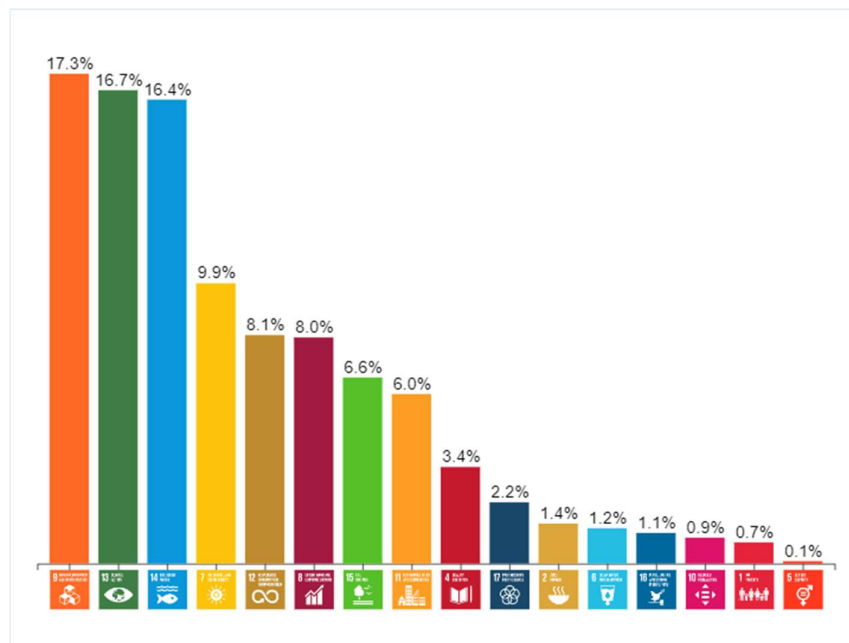


Figure 18: Relevant SDGs for BlueMed Initiative

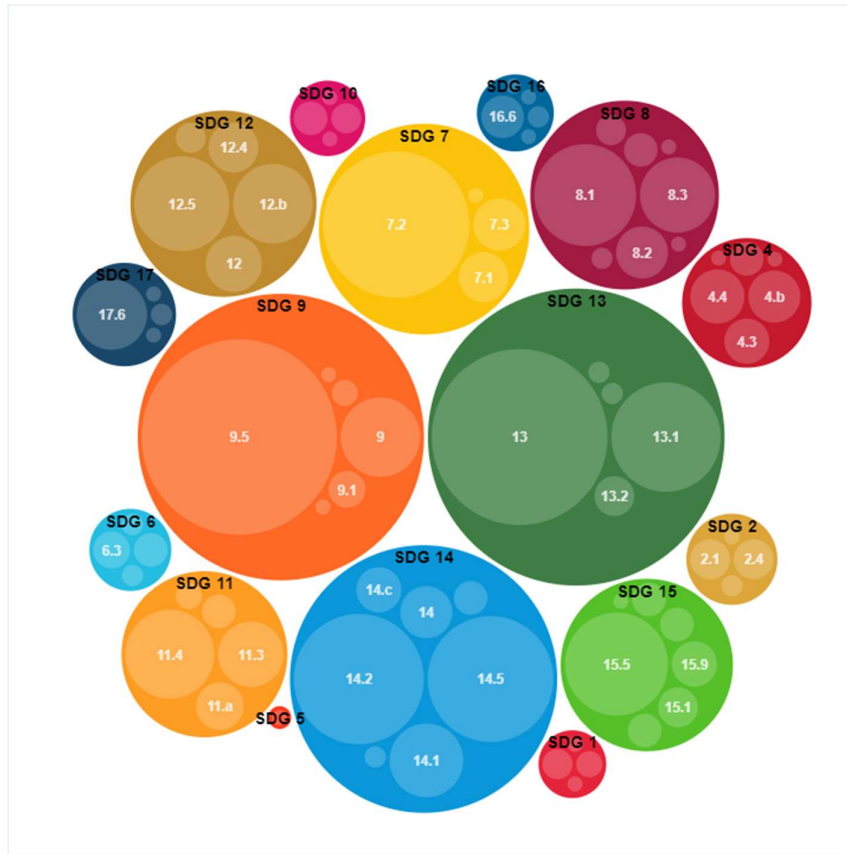


Figure 19: SDGs and Targets detected in BlueMed Initiative

## Conclusions

The mapping of innovation priorities and trajectories revealed that in most studied RIS3s, we can find references to topics and goals of two Mediterranean transnational strategies, EUSAIR and WestMED Initiative. Most territories report trajectories linked to fisheries and aquaculture, blue bioeconomy and blue sustainable development technology. However, there are still many Mediterranean EU regions that report no RIS3 priorities or trajectories linked to EUSAIR topics or WestMED goals. This fact may change with the ongoing revision of territorial RIS3s and the importance of the sustainable blue economy in the green transition process.

Matching transnational initiatives' priorities with SDGs reveals that BlueMed, EUSAIR and especially WestMED Initiative has SDG 14 Life below water among those more prevalent. High on the list are also SDG 9 Industry, innovation and infrastructure, SDG 8 Decent work and economic growth and, in UfM and BlueMed, also SDG 13 Climate action.

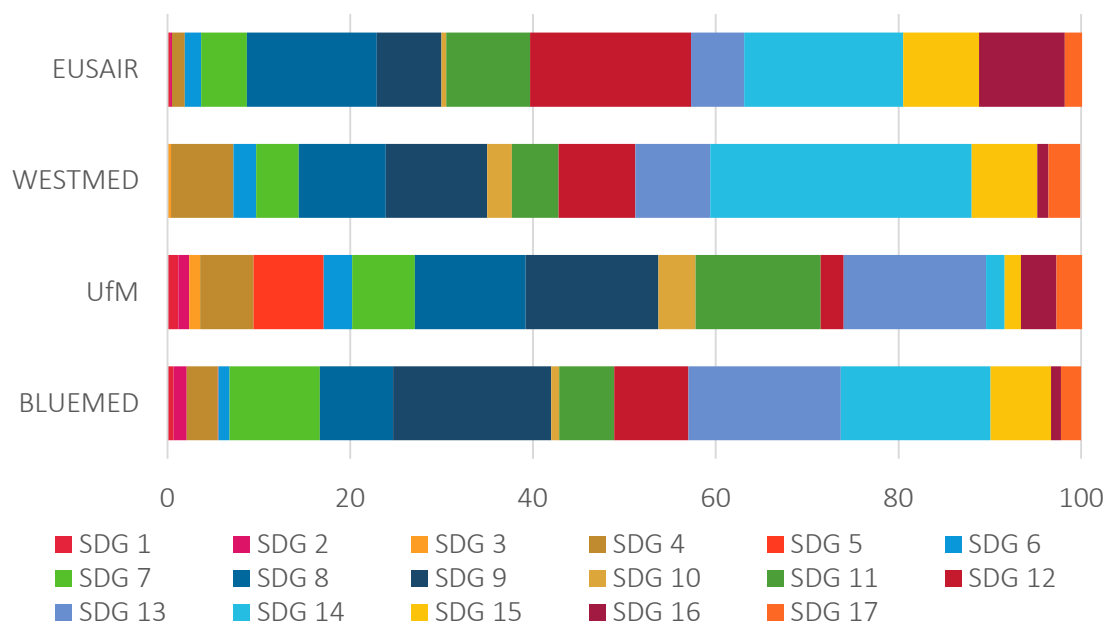


Figure 20: Most prevalent SDGs in policy documents

As regards SDG 14 Life below water, the most prevalent targets of this SDGs are Target 14.1 Reduce marine pollution, Target 14.2 Protect and restore ecosystems, Target 14.4 Sustainable fishing, and Target 14.5 Conserve coastal and marine areas.

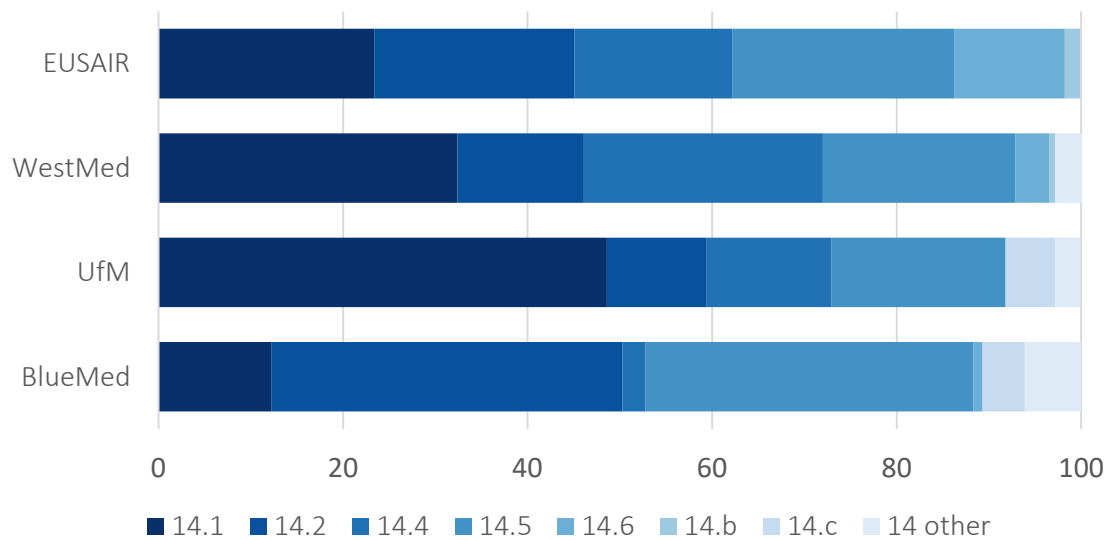


Figure 21: Most prevalent SDG 14 Targets in policy documents

## Annex

### List of Sustainable Development Goals

- SDG 1: No Poverty
- SDG 2: Zero Hunger
- SDG 3: Good Health and Well-being
- SDG 4: Quality Education
- SDG 5: Gender Equality
- SDG 6: Clean Water and Sanitation
- SDG 7: Affordable and Clean Energy
- SDG 8: Decent Work and Economic Growth
- SDG 9: Industry, Innovation and Infrastructure
- SDG 10: Reduced Inequality
- SDG 11: Sustainable Cities and Communities
- SDG 12: Responsible Consumption and Production
- SDG 13: Climate Action
- SDG 14: Life Below Water
- SDG 15: Life on Land
- SDG 16: Peace and Justice Strong Institutions
- SDG 17: Partnerships to achieve the Goal

## List of SDG 14 targets

14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans

14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels

14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics

14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information

14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation<sup>4</sup>

14.7 By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism

14.a Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries

14.b Provide access for small-scale artisanal fishers to marine resources and markets

14.c Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention on the Law of the Sea, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of “The future we want”