



BLUMED STRATEGIC  
RESEARCH AND  
INNOVATION AGENDA

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Work goes on under the Italian coordination with 8 other EU Member States (except Portugal, all bordering the Mediterranean): Cyprus, Croatia, France, Greece, Malta, Slovenia, Spain and - since July 2014 – also Portugal. The process is supported and facilitated by the European Commission (DG R&I, DG MARE, DG JRC).

#### Venice Declaration on Mediterranean Sea Cooperation

#### Launching a Strategic Marine and Maritime Research and Innovation Agenda for Blue Growth

Venice, October 16, 2015

**Agreed** to coordinate and integrate efforts to implement the BLUEMED SRIA by actively promoting synergies and complementarities among all the involved stakeholders at local, regional and national level, as well as among Member States at European level, in order to provide added value to regional, national and EU investments by removing barriers, avoiding duplication and reducing fragmentation,

**Decided** to advance the strategic marine and maritime research and innovation Agenda for Blue Growth in the Euro-Mediterranean Region, aiming in particular at:

- Promoting cooperation in research and innovation between all Mediterranean countries;
- Engaging with both public and private stakeholders, including small and medium enterprises, in research and innovation actions of cooperation;
- Supporting knowledge-based policy making;
- Prioritising the implementation of cross-cutting actions with high societal impact;
- Ensuring the effective and efficient use of resources and infrastructures by Member States cooperation and joint actions;
- Developing innovative sea-related competences, particularly at technical, doctoral and first stage researchers level.



The Strategic Research and Innovation Agenda has been recently updated by the Strategic Board of the BLUEMED Initiative in April 2017

## Valletta Declaration on Strengthening Euro-Mediterranean Cooperation through Research and Innovation

*4 May 2017 Valletta (Malta)*

We **VALUE** the work performed by the countries in the Western Mediterranean and the Adriatic and Ionian Region that aim at a joint and common definition of research priorities and **WELCOME** the efforts pursued by the European Commission and the Maltese Presidency of the Council of the EU to include other member countries of the UfM in the implementation of the BLUEMED initiative on a voluntary basis. To this aim, we **CALL** for support to maintain an open dialogue between key stakeholders to develop **joint sub-regional and regional approaches towards actions supporting the implementation of the BLUEMED initiative**

We **ACKNOWLEDGE** the potential of research and innovation communities across the Euro-Mediterranean area to maximise existing and future opportunities and the use of the most appropriate instruments supporting the implementation of the BLUEMED initiative.



# Key Challenges of CSA BLUEMED



Consolidate and update the SRIA, with a more precise specification and prioritization of the challenges and related actions



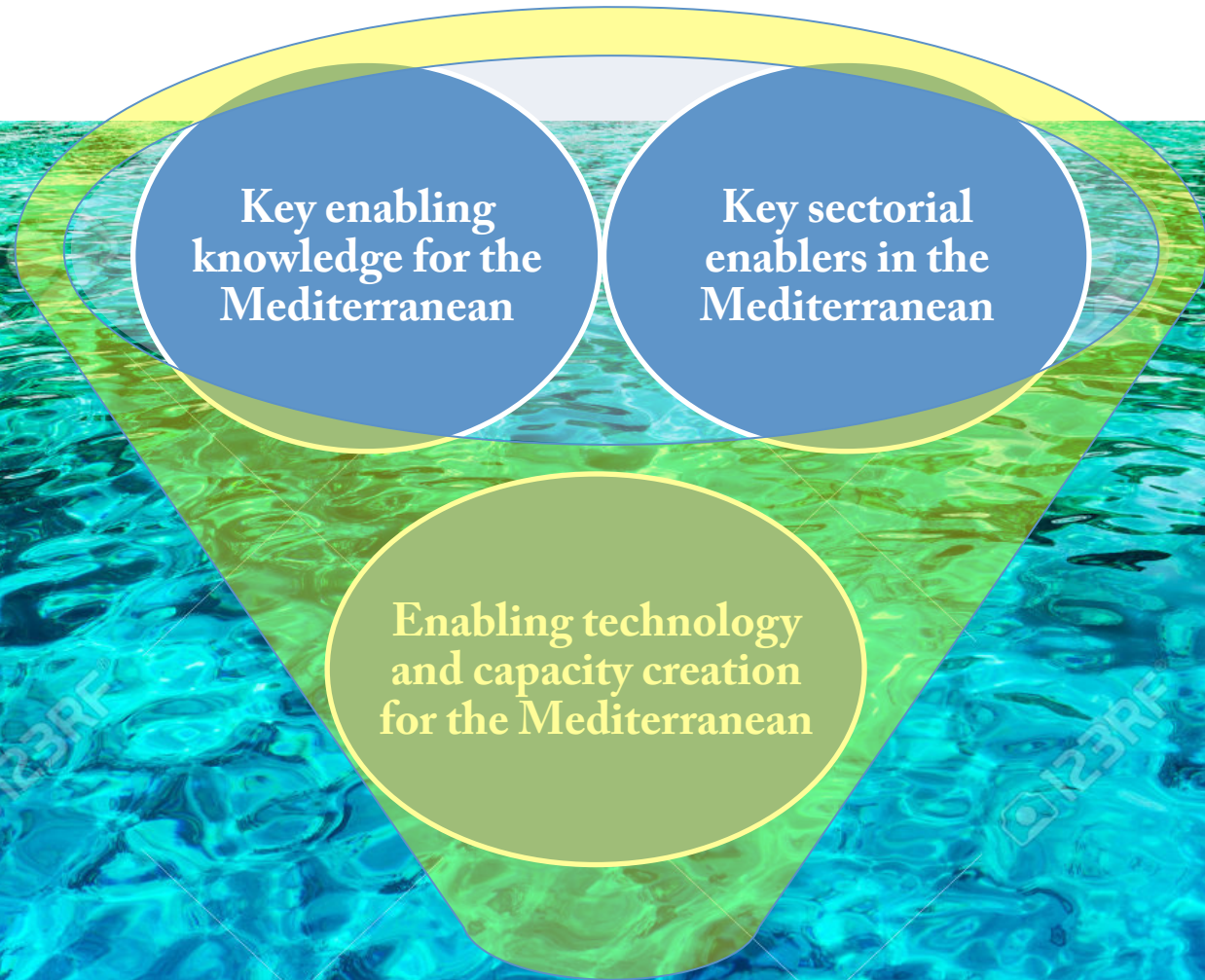
Identify and define key framework conditions for the SRIA implementation, such as tools and metrics to select priorities, perform risk analysis and monitor the implementation process, addressing a roadmap for the deployment of Research Infrastructures (RIs), assessing data policies and improving strategies for human resources in the 'blue' careers perspective



Establish a detailed and realistic Implementation Plan of the SRIA, to be developed together and from the beginning with national research funders and all stakeholders concerned. This Implementation Plan will identify and address, in particular, key barriers and bottlenecks, showing where and how research and innovation can bring crucial added value to Blue Growth in the area



Support and facilitate the cooperation and coordination firstly among Member States and then in all the Mediterranean countries, in order to promote the alignment of Programmes and pooling of resources and investments to address the challenges identified in the BLUEMED SRIA. This will not only enhance the cost-efficiency of the investments in marine and maritime research, innovation and technology but it will reduce drastically fragmentation and duplication of efforts



# Strategic Research and Innovation Agenda



Mediterranean sea  
Ecosystems

*services, resources, vulnerability and resilience to natural and anthropogenic pressures*

Mediterranean sea  
Dynamics

*developing services in the field of sustainable adaptation and to climate change and plans for mitigation*

Hazard and  
protection

*Coastal areas in the Mediterranean*

# Key sectorial enablers in the Mediterranean

Innovative business based on marine bio-resources in the Mediterranean

Maritime Spatial Planning & Integrated Coastal Zone Management in the Mediterranean

Ecosystem-based management of Mediterranean aquaculture and fisheries

Maritime clusters in the Mediterranean

Sustainable tourism in the Mediterranean



*Smart, greener maritime transport and facilities in the Mediterranean*

*Observing systems and operational oceanography capacities in the Mediterranean*

*Multi-purpose off-shore platforms in the Mediterranean*


*Marine and costal cultural heritage in the Mediterranean: discovering, protecting and valuing*

A large blue banner with white serif text that reads "Key enabling knowledge for the Mediterranean". The banner is set against a background of vibrant, rippling turquoise water.


# Key enabling knowledge for the Mediterranean

A blue horizontal bar with white text that reads "MEDITERRANEAN SEA ECOSYSTEMS: SERVICES, RESOURCES, VULNERABILITY AND RESILIENCE TO NATURAL AND ANTHROPOGENIC PRESSURES".


## MEDITERRANEAN SEA ECOSYSTEMS: SERVICES, RESOURCES, VULNERABILITY AND RESILIENCE TO NATURAL AND ANTHROPOGENIC PRESSURES



Understanding the functioning of the Mediterranean Sea ecosystem



Promoting sustainable exploitation of biotic and abiotic resources



Cleaning the Mediterranean Sea

A blue horizontal bar with white text that reads "MEDITERRANEAN SEA DYNAMICS: DEVELOPING SERVICES IN THE FIELD OF SUSTAINABLE ADAPTATION TO CLIMATE CHANGE AND PLANS FOR MITIGATION".

## MEDITERRANEAN SEA DYNAMICS: DEVELOPING SERVICES IN THE FIELD OF SUSTAINABLE ADAPTATION TO CLIMATE CHANGE AND PLANS FOR MITIGATION



Understanding and forecasting the Mediterranean Sea dynamics



Preparing to climate change



Climate services for the Mediterranean

A blue horizontal bar with white text that reads "HAZARDS AND THE PROTECTION OF COASTAL AREAS IN THE MEDITERRANEAN".

## HAZARDS AND THE PROTECTION OF COASTAL AREAS IN THE MEDITERRANEAN



Reducing the risk of disasters





# Key sectorial enablers in the Mediterranean

## **INNOVATIVE BUSINESSES BASED ON MARINE BIO-RESOURCES IN THE MEDITERRANEAN**

Developing new technologies and tools  
Generating new products and services

## **ECOSYSTEM-BASED MANAGEMENT OF MEDITERRANEAN AQUACULTURE AND FISHERIES**

Develop optimal fishing strategies, technologies and practices  
Develop optimal aquaculture strategies, technologies and practices

## **PROMOTING SUSTAINABLE TOURISM IN THE MEDITERRANEAN**

Linking tourism and environment  
Developing smart technologies and dedicated services

## **MARITIME CLUSTERS IN THE MEDITERRANEAN**

From traditional maritime economic to blue growth activities

## **MARITIME SPATIAL PLANNING AND INTEGRATED COASTAL ZONE MANAGEMENT IN THE MEDITERRANEAN**

Strengthen synergies among science, industry, policymakers and society  
Effective maritime spatial planning in the Mediterranean



# Enabling technology and capacity creation for the Mediterranean

## SMART, GREENER MARITIME TRANSPORT AND FACILITIES IN THE MEDITERRANEAN

Greening vessels and facilities  
Safer maritime transport in the Mediterranean

## OBSERVING SYSTEMS AND OPERATIONAL OCEANOGRAPHY IN THE MEDITERRANEAN


Towards an observing system of systems  
Tailor-made sensors and platforms

## MULTI-PURPOSE OFFSHORE PLATFORMS IN THE MEDITERRANEAN

Changing the rationale: one platform, multiple uses and activities  
Train for blue offshore professionals

## MARINE AND COASTAL CULTURAL HERITAGE IN THE MEDITERRANEAN: DISCOVERING, PROTECTING AND VALUING

Towards a shared management approach to cultural heritage in the Mediterranean  
Increase the economic impact of the Mediterranean's cultural heritage

A stylized map of the Mediterranean region, showing the coastline and major cities, rendered in shades of blue and white.



# ...an example of specific actions for each specific goal

## MEDITERRANEAN SEA ECOSYSTEMS: SERVICES, RESOURCES, VULNERABILITY AND RESILIENCE TO NATURAL AND ANTHROPOGENIC PRESSURES

GOAL	ACTION
<b>Understanding the functioning of the Mediterranean Sea ecosystem</b>	Establish a coordinated network of marine institutes, universities, stations, observatories and companies; define standard species, habitats and ecosystem monitoring and protection protocols
	Identify the origin of invasive or alien species and the routes of invasions, the environmental conditions conducive to invasions and their main effects on local habitats, species, and ecosystem
	Promote and regulate transparency with regard to the results of research conducted or 'owned' by private companies and take action to make them more readily available to the public
	Assess inputs from atmosphere-land-sea and anthropogenic pressures leading to change in marine and coastal ecosystems; limit specific emerging risks and impact on both ecosystems and human health and wellbeing
	Fill gaps in understanding the biogeographic patterns, biodiversity, fisheries and ecosystem functions and services supported by different marine ecosystems at ocean basin and management relevant scales
<b>Promoting sustainable exploitation of biotic and abiotic resources</b>	Develop and implement management plans for sustainable exploitation of coastal to deep-sea biotic and abiotic resources, including gas hydrates, minerals and molecules of industrial interest
	Implement managing solutions and conservation plans, including networks of Marine Protected Areas, for coastal to deep-sea ecosystems, that take into account their relationship with natural and anthropogenic changes in the environment while ensuring and promoting ecosystems services
	Develop environmental decision support modelling systems to sustain policy strategies, including adaptation and mitigation, for preserving the socioeconomic and environmental sustainability of marine species and habitats
	Describe the deep sea, mapping the topography of seabed, characterising the geomorphology and substrate types, identifying geo-habitats, and mapping sensitive habitats, with an inventory of their biodiversity, as well as Essential Fish Habitats
<b>Cleaning the Mediterranean Sea</b>	Identify: areas with potential conflict hot spots that are particularly exposed to the impact of multiple stressors; possible solutions
	Develop and test (bio)remediation measures in different areas/places, including the possible re-use and recycling of hazardous materials
	Implement coordination/cooperation schemes and comparable risk assessment of the effects of multiple anthropogenic pressures at different depths, including deep-sea areas; comply with regional conventions and the Marine Strategy Framework Directive
	Measure and identify chemical compounds and other sources of pollution, including contaminant dispersal, in different marine matrices; characterise sources, pathways and effects on marine ecosystems; develop early warning tools to detect pollutants

**The SRIA is a living document offering a toolbox for interested implementing bodies of the Mediterranean to facilitate their Research and Innovation programming cycles. It is designed to:**

- allow for different types of R&I and political action to be taken at different levels, as regards geographical coverage, critical mass, joint funding, coordination of national/regional efforts or the use of EU instruments;
- involve relevant players and stakeholders of the area such as national ministries, regional authorities, international organizations, research infrastructure, academia, the private sector, and the general public.

**It can be implemented by:**

- Joint actions, including coordinating, planning and programming research and innovation activities;*
- Bilateral/multilateral R&I initiatives and programming actions.*



blueMed

*Thank you for  
your attention!*