

Tyrrhenian Case Study

Thematic Focus: Process and instruments
for the transboundary cooperation on MSP

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in the Western Mediterranean region



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Table of Contents

List of Acronyms	i
1. Objective of the document	1
2. Introduction to the case study area	3
2.1 Data and information acquired from Country fact sheets	5
3. Governance aspects of a trans-boundary cooperation in the EU Maritime Spatial Planning.....	6
3.1 Requirements for a trans-boundary MSP.....	7
3.2 General experience	10
4. The MSP process at the national level, including participation	12
4.1 Participatory process.....	13
5. Identification of legal and policy instruments for the implementation of the provisions of the MSP Directive, with particular reference to the protection of marine mammals in the Tyrrhenian case area.....	17
5.1 International legal regime.....	18
5.2 EU Level.....	23
5.3 Regional level	25
5.4 National level and the Environmental Assessment processes	33
6. Overview of the existing regional institutional cooperation structures in the pilot area, supporting transnational collaboration in the fields relevant for MSP	37
6.1 Regional Sea Conventions: Barcelona Convention and RACs.....	37
6.2 Other international Agreements, networks or structures of Member States' competent authorities: Ramoge and Pelagos Agreements.....	41
6.3 Other methods in the context of sea-basin strategies.....	45
7. Proposals for the MSP approach in the pilot area considering the appropriate measures to guarantee a favourable conservation status of marine mammals.....	47
7.1 Protecting marine mammals, together with their habitat, from the direct or indirect negative impacts of human activities, in particular in the two economic sectors: maritime transport (goods, passengers and ferries) and fishing (trawl and longline)	47
8. Conclusions	53
Annex A: Data and information acquired from Country fact sheets	55

List of Acronyms

ABMT	Area-Based Management Tools
ABNJ	Areas Beyond National Jurisdiction
AC	Alternating Current
ACCOBAMS	International Agreement on the conservation of cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic Area
AIS	Advanced Information Security (network)
AP	Action Plan
ASCOBANS	Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas
BBNJ	Biodiversity in areas Beyond National Jurisdiction
CAMP	Coastal Area Management Programme
CBC	Cross-border Cooperation
CBD	Convention on Biological Diversity
CCH	Cetacean Critical Habitats
CFP	EU Common Fisheries Policy
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CLC	Civil Liability Convention
CMS	Convention on Migratory Species
CNR	Italian National Research Council
CNRS	French National Centre for Scientific Research
COLREG	Convention on the International Regulations for Preventing Collisions at Sea
CoNISMa	Italian National Interuniversity Consortium for Marine Sciences
COP	Conference of the Parties, as the supreme decision-making body of a specific Convention
CORILA	Consortium for coordination of research activities concerning the Venice lagoon system – CORILA, Ministry of Infrastructure and Transport
DGR	Deliberation of the Sardinian Regional Government DWT Deadweight tonnes
EAF	Ecosystem Approach to Fisheries
EASME	Executive Agency for Small and Medium-sized Enterprises
EBSA	Ecologically or Biologically Significant Areas
EcAp	Ecosystem Approach (of the UN Environment/MAP)
ECST	European Charter for Sustainable Tourism (in Protected Areas)
EEA	European Environment Agency
EEZ	Exclusive Economic Zone
EGTC	European Grouping of Territorial Cooperation
EIA	Environmental Impact Assessment
EMFF	European Maritime and Fisheries Fund
EMODNET	European Marine Observation and Data Network
EO	Ecological Objectives
EPZ	Ecological Protection Zone
EU	European Union
FAL	Facilitation Committee
FAO	Food and Agriculture Organization
GDPR	European law on general data protection regulation
GES	Good Environmental Status
GFCM	General Fisheries Commission for the Mediterranean
HNS	Hazardous and Noxious Substances
ICC	Italian Inter-ministerial Coordination Committee
ICMMPA	International Committee on Marine Mammal Protected Areas
ICT	Italian Inter-ministerial Coordination Table
ICZM	Integrated Coastal Zone Management
ILO	International Labour Organization
IMAP	Integrated Monitoring and Assessment Programme

IMMA	Important Marine Mammal Areas
IMO	International Maritime Organisation
IMP	Integrated Maritime Policy
IMRCC	Italian Maritime Rescue Co-ordination Centre
INSPIRE Directive	Directive on Infrastructure for Spatial Information in the European Community
INTERREG: A	Key instruments of the European Union supporting cooperation across borders through project funding
IUCN	International Union for Conservation of Nature
IWC	International Whaling Commission
kV	Kilovolt
LNG	Liquefied Natural Gas
LSI	Land-Sea Interactions
MAECI	Italian Ministry of Foreign Affairs and International Cooperation
MAP	Mediterranean Action Plan
MARPOL	International Convention for the Prevention of Pollution from Ships
MATTM	Italian Ministry of environment, land and sea protection
MEDPOL	Programme for assessing and mastering pollution in the Mediterranean region
mW	Megawatt
MELS	Ministry for the Environment, land and sea (Italy)
MEPC	Marine Environment Protection Committee
MIBACT	Italian Ministry of Cultural Heritage
MIT	Ministry of Infrastructure and Transport
MMPATF	Marine Mammal Protected Areas Task Force
MPA	Marine Protected Area
MSFD	Marine Strategy Framework Directive
MSP	Maritime Spatial Planning
NFP	National Focal Point
NGO	Non-Governmental Organization
OEABCM	Other Effective Area-Based Conservation Measures
OPRC	(Convention on) Oil Pollution Preparedness, Response and Co-operation
PACA	Provence-Alpes-Côte d'Azur
PAP/RAC	Priority Actions Programme Regional Activity Centre
PMIBB	International Marine Park of the Strait of Bonifacio
PMIS	Port Management Information System
PP	Participatory Process
PSSA	Particularly Sensitive Sea Area
QSR	The Mediterranean Quality Status Report
RAC	Regional Activity Centre
RAMOGE	Saint-Raphaël – Monaco – Genoa; the Contracting Parties of the Agreement on the protection of the marine and coastal environment of an area of the Mediterranean Sea
RAMOGEPOL	An emergency response plan set up within the RAMOGE Agreement by France, Italy and Monaco in 1993 to combat incidences of accidental marine pollution in the Mediterranean
REMPEC	The Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea
RFMO	Regional Fisheries Management Organization
RLP	Regional Landscape Plan
RSC	Regional Seas Convention
SC	Steering Committee
SCI	Sites of Community Importance
SEA	Strategic Environmental Assessment
SEIS	Shared Environmental Information System
SHOM	French Naval Hydrographic and oceanographic Service
SMART	Specific, Measurable, Achievable, Relevant and Time-bound (SMART criteria in project management)
SPA/BD Protocol	Protocol on Specially Protected Areas and Biodiversity in the Mediterranean
SPA/RAC	The Regional Activity Centre for Specially Protected Areas

SPAMI	Specially Protected Areas of Mediterranean Importance
SPZ	Special Protection Zones
SSC	IUCN Species Survival Commission
STCW	Standards of Training, Certification and Watch-keeping (for Seafarers)
TC	Italian Technical Committee
TEN-T	Trans-European Transport Network
TGML	MSFD Technical Group on Marine Litter
TMSP	Trans-boundary Maritime Spatial Planning
TNEC	Italian National Board on Coastal Erosion
TPEA	Trans-boundary Planning in the European Atlantic
TSS	Traffic Separation Scheme
UNCLOS	United Nations Convention on the Law of the Sea
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
VTMIS	Vessel, Traffic, Monitoring, Information System
VTS	Vessel Traffic Service
WCPA	World Commission on Protected Areas
WHC	World Heritage Convention
WHO	World Health Organization

1. Objective of the document

In the context of the SIMWESTMED project, the trans-boundary methodological components of Marine Spatial Planning (MSP) are essential to achieve a comprehensive and applicable example of planning in the Mediterranean. As defined by the Grant Agreement, the scope of SIMWESTMED project is to support MSP in the EU Member States and to enforce cross-border cooperation in the Mediterranean concerning MSP.

The MSP Directive (2014/89/EU) expressly provides for effective trans-boundary cooperation and collaboration between Member States and neighbouring third Countries, underlining that Member States should consult and coordinate their plans with the relevant ones, enhancing effective cooperation across the marine region concerned (MSP Directive, Article 11).

Article 11 – Cooperation among Member States

1. As part of the planning and management process, Member States bordering marine waters shall cooperate with the aim of ensuring that maritime spatial plans are coherent and coordinated across the marine region concerned. Such cooperation shall take into account, in particular, issues of a transnational nature.
 2. The cooperation referred to in paragraph 1 shall be pursued through:
 - (a) existing regional institutional cooperation structures such as Regional Sea Conventions; and/or
 - (b) networks or structures of Member States' competent authorities; and/or
 - (c) any other method that meets the requirements of paragraph 1, for example in the context of sea-basin strategies.
-

MSP is primarily a country-based process, used to spatially analyse and organise human activities in marine areas to achieve ecological, economic and social objectives. But, even if the planning of marine spaces regards only the marine waters of each coastal Member State, another important element to be taken into account is given by the particularities of the marine regions (Article 4, co 5, MSP Directive).

Trans-boundary cooperation is therefore essential to ensure that the MSP plans are coherent and coordinated across the coastal zones and the marine regions, where the political and jurisdictional delineation of boundaries typically does not correspond to the limits of maritime activities or ecosystems. An effective trans-boundary cooperation and collaboration in MSP between Member States is meant to be promoted to improve the efficiency of planning and management of coastal and marine resources and activities, facilitating decision-making. (*“Cross-border cooperation in Maritime Spatial Planning”- Reporting on the Service Contract: EASME/EMFF/2014/1.3.1.8/SI2.714082: Study on international best practices for cross-border Maritime Spatial Planning by NIRAS, 2017”).*

As for the terms used in this paper to define the cooperation on transnational issues, and taking into account the wording of the MSP Directive (see Article 1, co 2 “... taking into account land-sea interactions and enhanced cross-border cooperation, in accordance with relevant UNCLOS provisions”; and Article 6, co 2, let (f) “Member States shall ... ensure trans-boundary cooperation between Member States in accordance with Article 11”), either the terms “trans-boundary” or “cross-border” are used as their meanings are similar.

In the Tyrrhenian pilot case the **cross-border aspects** are addressed between Tuscany and Sardinia, on one side; and between Italy and France on the other (Tuscany/Corsica-Sardinia/Corsica), which include

relevant to multiple themes, e.g.: economic aspects (Maritime Transport and ports, Tourism, Fishery and Aquaculture); legal aspects (UNCLOS EPZ/EEZ, international straits, TSS and VTS, International Agreements such as the Pelagos Sanctuary, etc.); environmental aspects (PSSA, marine mammals Sanctuary, SPAMI, National Parks and MPAs, Islands); geomorphological characteristics (currents, bathymetry, presence of many islands and archipelagos, etc.).

In this context, the present Report – based on an overall framework of the relevant legal and institutional instruments (at all levels: international, EU, regional and national) to the implementation of the MSP Directive on cross-border collaboration, aims to identify the correct context to advance proposals concerning the process and instrument/s to reach an MSP trans-boundary cooperation with a particular focus on the protection of marine mammals. In particular, the activities envisaged are the following:

1. Consultations with the relevant project partners on the process of the cross-border cooperation between the Italian and French case study areas;
2. Analysis of the legal and institutional framework, as well as of the governance aspects of a trans-boundary cooperation in maritime spatial planning to develop a common vision for the implementation of the provisions of the MSP Directive, with particular reference to the protection of marine mammals in the Tyrrhenian case study area;
3. Identification of the main requirements for the transnational MSP, taking into account general experience;
4. Analysis of the MSP process at the national level, including participation of the key stakeholders (main institutional actors) relevant for the trans-boundary activities in the case study area;
5. Overview of the existing regional institutional cooperation structures in the pilot area, supporting a transnational collaboration in the fields relevant for MSP, with a particular attention to the Barcelona Convention, as the first RSC, and the related MAP Components, specifically REMPEC and SPA/RAC; as well as other international Agreements, networks or structures of Member States' competent authorities, such as Pelagos and Ramoge Agreements; as well as other methods in the context of sea-basin strategies;
6. Drafting proposals on the harmonised MSP approach in the pilot area, within the framework of an integrated ICZM/MSP approach, considering the appropriate measures to guarantee a favourable conservation status of marine mammals.

The Report reflects on output C113, addressing governance issues relevant for the cross-border MSP, having in mind the necessities of the pilot case study area to explore specific requirements and procedural steps (processes) as a precondition for the formal Trans-boundary Maritime Spatial Planning (TMSP) process to take place.

This Report can be considered as an unofficial general framework, indicating possibilities for a cross-border cooperation that could be used as an initial input for the future formal initiatives relevant for the cross-border MSP.

2. Introduction to the case study area

The present pilot case area is a part of the Mediterranean, a semi-enclosed sea with characteristic oceanographic dynamics and water circulation patterns, which are the source of a rich biological productivity. Its vast and unique biodiversity has led to its recognition as one of the most important biodiversity hotspots in the world. This wide range of specificities translates into a rich concentration of biodiversity, including, within marine wildlife, marine mammals that live in and migrate through the sea.

The area includes a part of the Italian Ecological Protection Zone (EPZ) and considers the French Exclusive Economic Zone (EEZ), a part of the Marine Mammals Sanctuary or Pelagos Sanctuary Agreement¹ and it is connected to the main sub regions of the Marine Strategy Framework Directive (Directive 2008/56/UE – Article 4), identified with (at least) the Italian part of the Western Mediterranean Sea marine sub-region.

In the present case study the marine area is defined by the following coastal points:

- Tuscany Region Northern Administrative limit, which includes the whole jurisdictional area of the Port Authority System of the Northern Tyrrhenian Sea;
- Fosso Chiarone (Tuscany), as the Eastern limit of the Pelagos Sanctuary and as the Southern Administrative limit of Tuscany;
- Cape Ferro (North-eastern Sardinia), as the Southern limit of the Pelagos Sanctuary;
- Cape Falcone (North-western Sardinia), as the Western limit of the Pelagos Sanctuary.

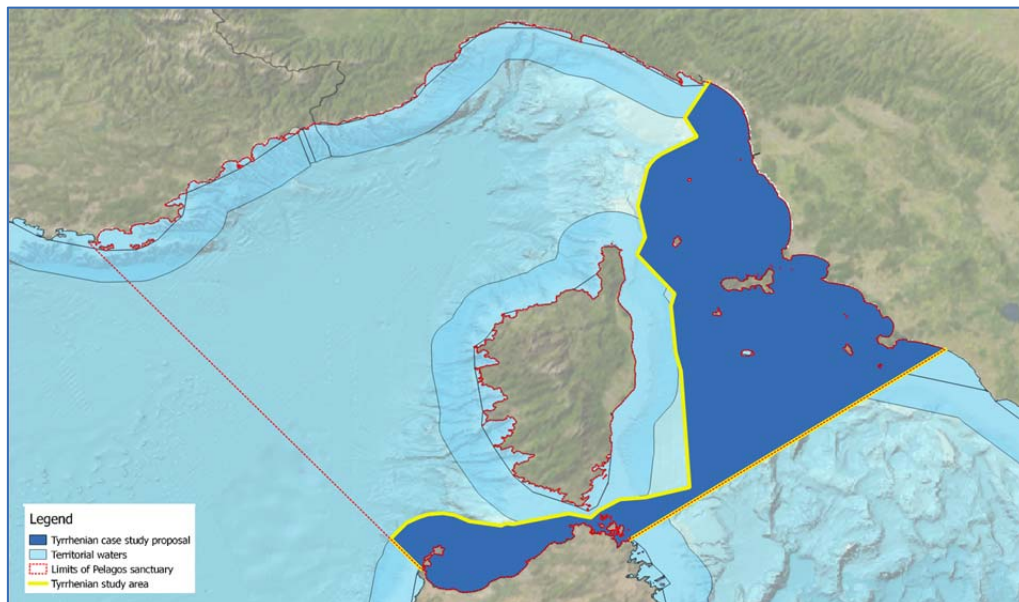


Figure 1: Tyrrhenian case study area

¹ The Sanctuary of the Marine Mammals (or Pelagos) was established through an International Agreement between Italy, France and the Principality of Monaco, signed in Rome on November 25th 1999. The Agreement promotes, through integrated management, concerted and harmonized actions among the three signatory Countries for the protection of marine mammals and their habitats against all possible causes of disturbance: pollution, noise, accidental capture and injury, disruption, etc. (<https://www.sanctuaire-pelagos.org>).

Most of this wide area covers the Italian territorial waters. In fact, the fragmented line joining Livorno with Cape Falcone coincides mainly with the demarcation of Italian territorial waters, apart from a segment between the Italian EPZ and French EEZ². This delimitation, as presented here and in all following related documents, is instrumental to this project only and is made without prejudice of any claim of State sovereignty.

This area encompasses the Italian parts of:

- the **Corsica Channel**, a 80 km wide stretch of water that separates the Corsica Island from the Elba Island and divides the Ligurian Sea from the Tyrrhenian one and the Tyrrhenian Sea from the Corsica one. The Channel is an area characterised by a great environmental sensitivity, subject to increased pressure that is associated with a range of human activities, such as marine traffic, fishing, touristic activities, coastal urbanization, underwater operations, scientific research, etc. Although these activities contribute to cross-border socio-economic development, they can negatively impact on the environment. Besides the Pelagos Sanctuary, in 2015 the Italian and French Governments have signed a Memorandum of Understanding concerning the regulation of international maritime traffic in Corsica Channel to improve safety of navigation and the marine environment through the adoption of separate traffic flows from North and South, and also providing enhanced monitoring to a better and quicker response in case of emergency;

and

- the **international Strait of Bonifacio**, a three-mile wide international strait, with a maximum depth of 89 metres, separating Sardinia from Corsica, between the Sea of Sardinia and the Tyrrhenian Sea. The 28 November 1986 Agreement between the Government of the French Republic and the Government of the Italian Republic defines the delimitation of the maritime boundaries in the Area of the Strait of Bonifacio (considering that the Caen Agreement signed on 21 March 2015 between Italy and France has been submitted for parliamentary ratification but has not come into force yet).

The area itself lies within territorial waters of the two States (Italy and France) and it is governed by the international legal “right of unimpeded transit passage” (UNCLOS), where ships have to take a recommended route over one mile wide. In this area, the maritime traffic is congested and it may expose new economic developments to more risks.

The Strait is an area characterised by most outstanding zones in the Mediterranean in terms of biodiversity, subject to increased pressure and problems such as the trade traffic and the risks of damaging the biological balance of the area in case of accident. Besides the **Pelagos Agreement**, the Strait is, due to its priceless environmental heritage, in the focus of interest of **Natura 2000 sites** (the area is almost entirely a SCI/SPZ); includes two protected areas instituted in the 1990s (the Natural reserve of the Strait of Bonifacio and the National Park of La Maddalena Archipelago), where restricted measures have been adopted to preserve the area. Among them, it has in particular to be mentioned:

- the designation of the Strait and adjacent areas as a **particularly sensitive sea area (PSSA)** by the Marine Environment Protection Committee (MEPC) of the International Maritime Organisation (IMO), in June 2011;

² According to the Caen Agreement signed on 21 March 2015 between Italy and France. The Agreement has been submitted for parliamentary ratification and has not come into force yet.

- the adoption of **maritime traffic national laws** (Italian Merchant Marine Decree of 26 February 1993 and French Decree No. 84/98 of 3 November 1998, as amended by Decree No. 56/2003) to ban the transit of the Strait by French and Italian ships carrying dangerous goods and establishing precautionary areas at the periphery of two-way recommended routes and a mandatory reporting system.

In addition, the considered marine area includes:

- three **National Parks** (Asinara, La Maddalena Archipelago and the whole Tuscan Archipelago and its 7 major islands: Gorgona, Capraia, Elba, Pianosa, Montecristo, Giglio and Giannutri) and two **Marine Protected Areas** (Asinara and Secche della Meloria);
- three main **ports** (Livorno, Piombino and Porto Torres).

2.1 Data and information acquired from Country fact sheets

From the Country fact sheets analysis of Italy and France – where a collation of information across the project area has been done to provide an overview of the area’s characteristics (including marine environment; maritime activities; key sectoral and socio-economic trends and emerging pressures, legal issues, governance) – emerges a synthesis of the main trans-boundary issues relevant for the present case study area with spatial concerns (see **Annex A** for a detailed analysis).

First of all, impacts deriving from **fishing activities** (overfishing) could be considered in a wider context because of the mobility of fish stocks, so the activity has to be managed in a joint way on a basin scale. Concerning **Oil and Gas extraction**, focus could be put on new themes in the field of research and development, even in the deep offshore context. **Shipping activities** interact with a variety of uses of the marine environment, from interactions with inshore fisheries in the coastal zone to recent challenges like large offshore infrastructure projects associated with marine wind farms. Pollution deriving from shipping activities (e.g. ballast waters, noise and pollution) affects marine and coastal biodiversity, tourism and fishing activities. Other relevant trans-boundary interactions of shipping are related to operational, administrative and custom procedures – land and sea side – safety and security taking into account also international regulations and the policies and strategies of the EU. The **network of protected areas** – including the Pelagos Sanctuary, small islands and the Natura 2000 network – deserves a special attention, with a management planning that takes into account all other potentially conflicting activities.

An interesting example of a trans-boundary cooperation is that of the Pelagos Sanctuary for the Mediterranean Marine Mammals.

3. Governance aspects of a trans-boundary cooperation in the EU Maritime Spatial Planning

Action towards integrated sea management is a fundamental step by all riparian States sharing a regional sea, taking into account the different stages and modalities of transposition and implementation of the EU MSP Directive. At the regional level, cross-border cooperation is listed as one of the main steps for MSP implementation outlined in the Conceptual Framework for Marine Spatial Planning in the Mediterranean (COP 20, Tirana, Albania, December 2017, Decision IG.23/7 Annex II). However, so far there has been mostly a unilateral perspective in the management of the shared sea resources. There is a space for improvement in cooperation in the light of integrated management when it comes to the preparation of MSP plans, by enhancing a trans-boundary cooperation and governance in the present pilot case area.

Unlike on land, the need to proceed with trans-boundary planning at sea is stronger because the marine environment is naturally fluid and, as such, not enclosed within the administrative boundaries; in addition, many marine resources and marine activities are cross-border and mobile in nature; finally, in this dynamic environment, it is not easy to contain many activities and their impacts within administrative territories (S. Jay et al., 2016)³.

In order to better frame the perspective, it is important to highlight that in the international context and therefore in the shared sea areas, the key words are regulation, cooperation and management of these marine areas. In particular, a collaborative approach within neighbouring jurisdictions is essential for effective and operational planning and management of marine areas across borders. The central document within the EU regulating planning of marine areas, the MSP Directive itself, in Article 11, gives directives on the trans-boundary cooperation, stating that at the national level Countries shall cooperate to guarantee that maritime spatial plans are coherent and coordinated across the marine region concerned, taking into account in particular issues of a transnational nature.

The considerations related to the cross-border approach, in addition to being expressly provided for by the MSP Directive itself, are fully taken into account and are the basis of the entire legal structure of the EU, with particular importance in the areas related to policy integration, territorial cohesion and environmental fields such as nature (marine) conservation, river basin management, and alike.

In the spatial planning of marine areas the trans-boundary cooperation is “an integral part of an ecosystem approach to MSP, as marine and coastal ecosystem dynamics transcend administrative boundaries and steer planning towards wider regional or sea basin considerations” (S. Jay et al., 2016).

Also, in the trans-boundary context, MSP approach should be adaptive, ecosystem-based and should include all relevant stakeholders, meaning it should be practiced within the ecosystem-based boundaries (marine regions), so that a wiser management of all uses and of the ecosystems can be achieved (Douve, 2008), instead of per sector or per economic activity.

However, for TMSP to be operational requires the development of a common vision from regional actors in assessing, evaluating and monitoring marine spatial plans (Soininen & Hassan, 2015). Therefore, the importance should be emphasized not only of the cross-border nature of marine and coastal ecosystem dynamics, but also and in particular of the governance components in the TMSP, based on the governance variations of different jurisdictions, as well as the cultural, social and policy once.

³ Trans-boundary dimensions of marine spatial planning: Fostering inter-jurisdictional relations and governance, Stephen Jay et al., in Marine Policy, 2016 Elsevier Ltd.

3.1 Requirements for a trans-boundary MSP

MSP is an important component of a set of policy rules and processes, that are part of the international and European Union maritime governance systems (UNCLOS, Barcelona Convention, IMO, IMP, sectorial Directives, etc.) and in which cooperation and collaboration between neighbouring States becomes fundamental for the effective coherence of the management of marine regions and sub-regions.

MSP is identified by the overarching EU Integrated Maritime Policy (IMP) as a cross-cutting policy tool enabling public authorities and stakeholders to apply a coordinated, integrated and **trans-boundary approach**. In other words, the trans-boundary criterion is to be considered as a constitutive element of the MSP.

As a starting point of the TMSP processes, an official decision of the concerned Countries is needed stating the beginning of the process with the identification of the relevant responsible authorities and bodies involved.

In this complex structure of coordinating a trans-boundary cooperation needed within cross-cutting policy tools, each coastal State has its own legal system and discipline that applies to the marine and coastal areas. Anyhow, States are called to reconcile differences in approach, procedures and rules, requiring political commitment and significant financial and human resources.

Therefore, key elements for establishing a cooperation on MSP between Countries includes knowledge and understanding of **the formal planning systems and process across borders**. For establishing the relations between neighbouring Countries, the legal framework of reference is fundamental to find the minimum requisites for a shared MSP agreement.

The analysis of the *regulatory instruments* and *administrative structures* of coastal and marine activities may highlight significant differences between adjoining jurisdictions. For example, in Italy, there are varying degrees of autonomy between regions, with responsibilities distributed between the State and the Autonomous Regions (i.e. the Autonomous Region of Sardinia compared to Tuscany Region), whereas in mainland France, there is a concentration of decision-making powers at the central level, relying on decentralised services at regional level or local authorities for various operational aspects. These differences should be carefully taken into account in the TMSP and cross-border processes.

Information on the official MSP authorities, as well as other authorities that have responsibilities for implementing MSP is central. Without prejudice to the competence of each Member State to determine activities in their maritime spatial plan or plans, the sectors and responsible sectoral bodies to be considered on their MSP for their sustainable development are mainly those of energy at sea, maritime transport, fisheries and aquaculture, preservation, protection and improvement of the environment, including resilience to climate change impacts, sustainable tourism, sustainable extraction of raw materials and other similar sectors (Article 5, MSP Directive).

It has to be considered that national (and sub-national) authorities have competency for MSP within their national borders: in fact, the Directive recognises the competency of Member States in carrying out MSP for their marine waters (Article 2, “*the Directive shall apply to marine waters of Member States*”). For the transnational aspects, on the contrary, the Directive does not require any kind of shared planning, but only the relatively weak measure of cooperation between Countries.

As part of the planning and management process, another key element is the **identification of common interest's aspects** of Member States bordering the concerned marine region, in particular of a transnational nature. As part of this step to ensure that maritime spatial plans are coherent and coordinated, it is important to verify if there are any contact points for cooperation or breakpoints, finding some common ground or, in case of opposing objectives, how they can be resolved to contribute towards preventing or reducing conflicts between different uses in the broader marine ecosystem.

Reaching a common conceptualization of planning issues and goals, establishing clear and common objectives of management and planning would be an ideal scenario in shared sea basins.

Cooperation with Member States with which sea basins are shared is aimed at ensuring the coherence and coordination of the respective maritime spatial management plans of the region or the marine sub-region itself, taking into account **existing institutional regional cooperation structures**, such as for example those foreseen by Regulation (EU) No 1380/2013 of 11 December 2013 on the Common Fisheries Policy, in particular Article 18 on regional cooperation on conservation measures and Regional Sea Convention referred to the Mediterranean Sea, the Barcelona Convention (see chapters 6 on Regional level and 7).

The framework provided by the MSP Directive, which acts within the Integrated Maritime Policy of the Union to seek the coordination (not the replacement) of policies on specific maritime sectors, is based on the enhanced cross-border cooperation in accordance with the UN Convention on the Law of the Sea (UNCLOS) (Article 1, Directive MSP).

Therefore, for the implementation of the MSP, the international cooperation component, which uses the legal instruments provided for by the international legal system and first of all by UNCLOS (the international reference Convention), takes on an important role. Thus, it will be worthwhile investigating, also in this specific case study, the instruments that embody the enhanced cross-border cooperation.

Even if the planning of marine spaces regards only the marine waters of Member States, another important element to be taken into account is given by the **particularities of the marine regions** (Article 4, co 5, Directive MSP). In other words, the analysis of the governance context is extended to the relevant marine region whereabouts the national plan will operate, meaning a relative coordination and exchange of information with the neighbouring Countries and the pertinent international bodies.

Trans-boundary cooperation requires investigating **instruments that embody cross-border cooperation** in the area. On the legal basis, for area-based management tools (ABMTs), from UNCLOS, and the UN Fish Stocks Agreement, MSP may provide an operative tool for the sustainable use of the sea foreseen by UNCLOS; therefore, this planning approach comprehends sectoral area-based management tools (ABMTs) (e.g. fisheries closures), cross-sectoral ABMTs (e.g. marine protected areas), Strategic Environmental Assessments and Environmental Impact Assessments (Chair of the Preparatory Committee established by resolution 69/292, 2017)⁴.

Within the trans-boundary context, the application of other two processes helps foster cooperation between neighbouring States: the **Strategic Environmental Assessment (SEA)** and the **Environmental**

⁴ Chair of the Preparatory Committee established by resolution 69/292, 2017. Chair's non-paper on elements of a draft text of an international legally-binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction. Available at http://www.un.org/depts/los/biodiversity/prepcom_files/Chair_non_paper.pdf

Impact Assessment (EIA)⁵, as both processes allow for consultations to be carried out when potential significant issues of a trans-boundary nature are identified through the evaluation process⁶. Through these processes the plan and policy formulation process and project approval procedure are acknowledging that natural ecosystems have no boundaries. As a result, whilst respecting national jurisdiction, the SEA and EIA can assist in fostering cooperation so that national plans and policies and projects undertaken have a higher potential to contribute towards regional efforts at guaranteeing a sustainable development (the sustainable growth of maritime economies, the sustainable development of marine areas and the sustainable use of marine resources) of regional seas like the Mediterranean. It has to be underlined that within the process of the Environmental Impact Assessment (EIA) a specific section related to marine mammals (potential impact and mitigating measures associated) has been included.

In addition, a consideration of tools such as the **carrying capacity and the cumulative impact assessment**, that could indicate activities that may have trans-boundary effects of the neighbouring MSP plan or plans in the relevant marine zone, should form an integral part of the negotiations or cross-border cooperation within the trans-boundary MSP.

Knowledge production and sharing of information are the backbone of TMSP as a reflexive governance arrangement. The exchange of data and information and the production of knowledge at the regional sea level presuppose not only collaboration between national governments, NGOs, EU institutions, European Marine Observation and Data Network (EMODNET), international organizations (IMO, UN Environment) and representatives of maritime activities, but also the harmonization of data and information systems of these actors and institutions, in order to realize a legitimate and robust knowledge base for joint planning processes at the regional sea level (Jan P. M. van Tatenhove, 2017)⁷.

In particular, data interoperability should be based upon the principles of the INSPIRE Directive⁸.

Last but not least, the **relevance of the role of public participation**, the importance of which in politics and the legislative process has been recognized globally⁹, should be taken into consideration. It has to be noted that in order to facilitate stakeholder participation and cooperation, case studies showed that **establishing dedicated engagement bodies** (i.e. mandated coordinating bodies accepted across different

⁵ See the Convention on Environmental Impact Assessment in a Trans-boundary Context, done at Espoo, Finland, on 25 February 1991, and decision II/9 of its Parties at Sofia on 26 and 27 February 2001, in which it was decided to prepare a legally binding protocol on strategic environmental assessment, the Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Trans-boundary Context, the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, done at Aarhus, Denmark, on 25 June 1998, and taking note of the relevant paragraphs of the Lucca Declaration, adopted at the first meeting of its Parties.

⁶ It should be useful to recall the meaning of “**Strategic Environmental Assessment**”, which is the evaluation of the likely environmental, including health, effects, which comprises the determination of the scope of an environmental report and its preparation, the carrying-out of public participation and consultations, and the taking into account of the environmental report and the results of the public participation and consultations in a plan or programme; and of the “**affected sea zone**”, which means the marine zone likely to be affected by the trans-boundary effects of a plan or programme on the ecosystem.

⁷ Jan P. M. van Tatenhove (2017) *Trans-boundary marine spatial planning: a reflexive marine governance experiment?*, Journal of Environmental Policy & Planning, 19:6, 783-794, DOI: 10.1080/1523908X.2017.1292120.

⁸ See footnote 10.

⁹ See the UNECE Convention on access to information, public participation in decision-making and access to justice in environmental matters or **Aarhus Convention**⁹ of June 25 1998.

jurisdictions; for instance, the “Fishermen’s Advisory Board” in Rhode Island) may facilitate discussion and exchanges between different parties, improving transparency and trust-building¹⁰.

Resuming the previous assumptions, it is not a matter of confirming the relevance (if not necessity) to proceed with a trans-boundary and/or cross-border approach, recognized both in the literature and in the MSP Directive itself; rather, in this specific pilot case, **it is a matter to indicate and recommend how to proceed with the aforementioned cross-border cooperation, identifying main sectors and key issues on which to focus such a cooperative process, establishing clear and joint objectives, and gathering relevant information.**

3.2 General experience

In order to have a complete picture both on the aspect of the previous experiences and on the potential opportunities for financial support, it has to be recalled that the European Commission has supported the development of MSP processes throughout the EU, by facilitating cooperation between Member States in the management of maritime space in EU waters.

In order to do so, the Commission has co-financed since 2009 a number of preparatory actions on MSP in the Baltic Sea, the North Sea, the Atlantic, the Adriatic Sea and the Mediterranean Sea. This was followed by the launch in 2014 of initiatives to establish lasting MSP mechanisms for cross-border MSP cooperation in the Baltic, the Black and the Celtic Seas.

In the same context, EASME published two calls for proposals for projects to support the launch and implementation of concrete cross-border MSP cooperation initiatives between Member States. In 2016, the call covered the Northern European Atlantic, the Western and the Eastern Mediterranean; while in 2017, the call covered the North and Baltic Seas and the Outermost Regions.

The Commission has also concluded a number of studies on various aspects of MSP, which could be utilized as a useful reference for negotiations or cross-border cooperation within the trans-boundary MSP:

- A study on the legal aspects of MSP (2008)¹¹;
- A study on the economic effects of MSP (2010)¹², which concluded that economic effects of MSP are reduced transaction costs for new maritime activities and an improved investment climate;
- A study looking into the potential of MSP in the Mediterranean (2011)¹³;
- A study on data for MSP¹⁴;
- A technical study on MSP for Blue Growth¹⁵.

¹⁰ *Cross-border cooperation in Maritime Spatial Planning*- Reporting on the Service Contract: EASME/EMFF/2014/1.3.1.8/SI2.714082: Study on international best practices for cross-border Maritime Spatial Planning by NIRAS, 2017.

¹¹ http://ec.europa.eu/maritimeaffairs/documentation/studies/spatial_planning_en.htm

¹² http://ec.europa.eu/maritimeaffairs/documentation/studies/study_msp_en.htm

¹³ http://ec.europa.eu/maritimeaffairs/documentation/studies/study_msp_med_en.htm

¹⁴ <https://publications.europa.eu/ga/publication-detail/-/publication/f01f1b26-1b60-11e7-aeb3-01aa75ed71a1>

¹⁵ https://www.msp-platform.eu/sites/default/files/20180419_published_version_.pdf

A relevant key point that needed to be raised is that most of the project experiences, such as the Trans-boundary Planning in the European Atlantic (TPEA) project, emphasized that **“trans-boundary MSP is unlikely to lead to a joint plan, but it should rather offer effective links between national MSP processes”**¹⁶. (Jay et al., 2016, p. 87).

Joint trans-boundary approach building upon CAMP networks

A trans-boundary approach to MSP should be fostered building upon CAMP (Coastal Area Management Programme) networks within the UN Environment/MAP-Barcelona Convention.

This Programme of collaboration between the Mediterranean Action Plan (MAP), national and local authorities, and institutions, as well as international financial institutions, is based on the principles of sustainable development, integrated planning, and the management of Mediterranean coastal areas.

It is useful to highlight that with the creation of the Network of CAMP projects it is intended not only to further disseminate the results of CAMP projects, but also to pursue common goals with elements of cohesion and harmonisation, utilising the experiences and relevant outputs as a great alternative and a concrete and tangible solution to many related issues. The development of a Mediterranean Network allows sharing and learning from others’ experiences, finding common strategies to be adopted in the Mediterranean field, test and improve approaches and methodologies, foster coordination and cooperation in the Mediterranean area. Networking in fact means building relationships between people and organizations which have interests and common objectives, with the aim of sharing information, ideas and resources and creating opportunities for further development of the project and, in general, of the activities within their competencies.

¹⁶ Jay et al., 2016, p. 87; see also Jan P. M. van Tatenhove (2017) Trans-boundary marine spatial planning: a reflexive marine governance experiment?, *Journal of Environmental Policy & Planning*, 19:6, 783-794, DOI: 10.1080/1523908X.2017.1292120.

4. The MSP process at the national level, including participation

Regarding the implementation of the MSP in the Italian national context, the references are to the Italian **Legislative Decree No. 201 of 17 October 2016**, implementing the MSP Directive, together with the **Guidelines adopted by Decree of the President of the Council of Ministers of 1 December 2017** *“containing the guidelines and criteria for the preparation of maritime spatial management plans”*¹⁷.

For the trans-boundary cooperation, the cited Legislative Decree 201/2016 and a rule 15 of the Guidelines foresee the usefulness of envisaging **from the very beginning** the participation of Member and Non-Member but neighbouring States in national planning, through instruments such as **programme agreements or technical and/or consultation panels and forums**, or similar, **also taking advantage of utilising European projects in which Italy participates**.

In this trans-boundary cooperation context, it has to be recalled that the Italian Technical Committee (TC, see below), in reporting or directing technical projects and agreements for the individual Ministries and/or national bodies/organizations, shall always provide a close coordination with the Ministry of Foreign Affairs and International Cooperation (MAECI) in order to avoid actions potentially detrimental to national interests.

With regard to cross-border cooperation for the adoption of the national MSP, the delimitations between Italy and some neighbouring countries are not yet formalized. In this context, the challenge for a rational allocation of sea space, in order to reduce conflicts between the different activities that take place in the Mediterranean is more important and necessary than elsewhere. The same guidelines show how the areas beyond the territorial waters require specific planning and management strategies, based on a cross-border governance structure, to be adopted according to the future demand for space, to anticipate possible conflicts and strengthen synergies. Therefore, a significant effort is needed to overcome the definition of the boundaries that have been established considering only the political issues related to the areas of competence (e.g. national borders). Overcoming a traditional border-setting approach should therefore necessarily be based on cross-border cooperation. As foreseen by the aforementioned Legislative Decree 201/2016, the Inter-ministerial Coordination Table (ICT) has identified the maritime reference areas, attributable to the three sub-regions referred to in the Marine Strategy (Article 4 of Directive 2008/56/EU): the Western Mediterranean Sea, the Adriatic Sea, the Ionian Sea and the central Mediterranean Sea.

It is therefore up to the Technical Committee to draw up a Management Plan for each area.

For the Management Plan of the Western Mediterranean Sea area, where the present pilot case falls, the Italian administrative regions belonging to this maritime area are: Liguria, Tuscany, Lazio, Campania, Basilicata, Calabria, Sicily and Sardinia. Therefore, the planning concerning the pilot case will be included in a much larger area, with the related complexity issues.

¹⁷ Decreto del Presidente del Consiglio dei Ministri del 1 dicembre 2017 „Linee Guida contenenti gli indirizzi e i criteri per la predisposizione dei piani di gestione dello spazio marittimo”.

4.1 Participatory process

The relevance of the role of public participation has been recognized, transposed and implemented also in the Italian legal order.

As for the **Italian legal system**, in particular, we shall recall the **Law 108/2001** with which Italy ratified the Aarhus Convention on access to information, public participation in decision-making and access to justice in environmental matters, identifying specific rights for citizens; and the **Legislative Decree 195/2005** with which Italy has implemented Directive 2003/4/EC on public access to environmental information, extending the rights of citizens and duties of the public authorities as regards access to information, by defining the obligation for administrations to make available and disseminate environmental data in forms and formats that are easily available to the non-public audience as well.

Other sector regulations, on a national and sub-national level, have also introduced obligations regarding the collection, processing and dissemination of environmental information, promoting a new culture of participation in decision-making processes that have as their object in particular environmental policies. A significant example is given by the **Tuscany Region**, with the **Regional Law 69/2007** to facilitate the promotion of inclusive decision-making processes. As far as the **Autonomous Region of Sardinia** is concerned, there is only a legislative proposal on participatory process, containing “rules for citizen participation in the elaboration of regional and local public policies”.

From the perspective of MSP, engaging stakeholders and sea-users is regarded as a critical element. In fact, it should be underlined how the participatory processes, foreseen for the management and territorial planning activities, have obviously to be adapted to the peculiarity of the planning of the marine spaces, where prevailing will be the institutional interests at a national level and therefore also cross-border (considering the prevailing national competence on the MSP sea areas), as well as the economic sectors that carry out activities in these areas.

EU MSP Directive, Article 9 – Public participation

1. Member States shall establish means of public participation by informing all interested parties and by consulting the relevant stakeholders and authorities, and the public concerned, at an early stage in the development of maritime spatial plans, in accordance with relevant provisions established in Union legislation.
 2. Member States shall also ensure that the relevant stakeholders and authorities, and the public concerned, have access to the plans once they are finalised.
-

Based on the principles contained in the cited legal instruments, the MSP Directive, in Article 9, gives directives on the participatory process (PP), stating that at the national level Countries shall:

- adopt and implement **specific mechanisms for MSP's public participation**, by providing for clearly defined and identified tools of information and consultation, as well as the right of access to the plans finalised, at an early stage;
- through these mechanisms, **inform** all the identified “interested parties”;
- through these mechanisms, **consult** all the relevant identified “stakeholders, authorities, and the public concerned”.

Thus, Countries should define what they mean by:

- “early stage” in the development of maritime spatial plans;
- “interested parties” that should be informed for each specific maritime spatial plans before its adoption;
- “stakeholders, authorities, and the public concerned” that should be consulted for each specific maritime spatial plans before its adoption;
- “plans finalised” for the exercise of the right of access.

For the participatory process, the Italian Legislative Decree No. 201 of 17 October 2016, together with the Guidelines adopted by Decree of the President of the Council of Ministers of 1 December 2017, containing the guidelines and criteria for the preparation of maritime spatial management plans¹⁸, foresees the participation of different actors:

- The **Inter-ministerial Coordination Committee (ICC)**, which operates at the Department of European Policies of the Presidency of the Council of Ministers. A representative of each of the following Ministries is part of the Committee:
 - a. Ministry of Foreign affairs and international cooperation,
 - b. Ministry of Infrastructure and transport,
 - c. Ministry of Economic development,
 - d. Ministry of Agricultural, food and forest policies,
 - e. Ministry of Environment and the protection of the sea and the territory,
 - f. Ministry of Cultural heritage and tourism,
 - g. Ministry of Defence,
 - h. Ministry of Education and scientific research,
 - i. Ministry of Health,
 - j. Ministry of Labour and social policies,
 - k. Ministry of Economics and finance,

as well as the (l.) Department for Regional Affairs and autonomies of the Presidency of the Council of Ministers and of the Customs and Monopolies Agency.

The ICC is chaired by a representative of the Department of European Policies of the Presidency of the Council of Ministers.

- The **Technical Committee (TC)**, which operates at the Ministry of Infrastructure and Transport as the competent Authority. The TC consists of:
 - a. three representatives of the Ministry of Infrastructures and Transport, one of whom is president;
 - b. two representatives of the Ministry of the Environment and of the protection of the territory and the sea;
 - c. two representatives of the Ministry of Agricultural, Food and Forestry Policies;
 - d. two representatives of the Ministry of Economic Development;
 - e. two representatives of the Ministry of Cultural Heritage and Activities and Tourism;
 - f. a representative of the Regions designated by the Conference of Presidents of the Regions for each maritime area of reference. In the event that several Regions are part of a maritime area of reference, the Committee is composed of one representative of each Region concerned.

¹⁸ Decreto del Presidente del Consiglio dei Ministri del 1 dicembre 2017 „Linee Guida contenenti gli indirizzi e i criteri per la predisposizione dei piani di gestione dello spazio marittimo”.

As observers:

- a. a representative of the Ministry of Defence;
- b. representatives of other administrations, whenever issues relating to them are dealt with.

Finally, may be invited to participate:

- a. representatives of research bodies and institutes, recognized associations and category;
- b. representatives of the Committee for the safety of offshore operations (foreseen by legislative Decree No. 145/2015), at the request of the Ministry of Economic Development if issues related to the security of energy supplies and offshore mining activities are dealt with at the meetings.

It should be pointed out that the TC itself, in its composition, sees a large group of public subjects participating in the drafting of the plan. The TC can also provide for consultations and hearings with other public and private parties in order to better focus the various issues dealt with.

Considering the requested specific mechanisms to inform and consult all the relevant identified stakeholders, authorities, and the public concerned, the cited Guidelines, in **rules 6 and 16**, establish that, to ensure **stakeholder participation** and the related **publicity** of the maritime spatial planning process, **the central element is the dedicated website** as a fundamental tool to ensure maximum participation, to provide both general and timely information on individual plans and the various phases of consultation, monitoring and reporting, make public the various documents produced.

The aforementioned tools to be used in this sense are constituted by:

- a) e-mails addressed to interested persons;
- b) press releases;
- c) local media;
- d) newsletter or blog on the subject;
- e) on-line through the websites of the Public Administrations; and
- f) public meetings and sessions.

As far as cross-border co-operation is concerned, **consultation with neighbouring Countries** is counted, taking advantage also of already existing technical and/or consultation panel and conventions.

In the TMSP a specific challenge is identified on the organisation of cross-border stakeholder involvement, due to a different stakeholder practice, legal constraints and policy constraints.

In the Italian framework, participation (both in the planning phase and in monitoring and implementation) is guaranteed through the **Strategic Environmental Assessment (SEA) procedure** and foreseen to be as extensive as possible. In particular the plans, due to the nature of the contents, shall be submitted to the Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIA) procedures, which in turn provide for further steps and competent subjects.

As part of the SEA procedure and for the purpose of expressing the “reasoned opinion”, the Ministry for the Environment (MELS) is the competent authority and the Ministry of Cultural Heritage (MiBACT) is the concerting authority.

Thus, the SEA will be the object of consultation between Countries directly or indirectly affected by the impacts of the Plan.

The terms “plans” and “programmes” on the current legislation

The current legislation (Directive 2001/42/ EC, Legislative Decree No. 152 of 3 April 2006) requires that acts producing direct environmental effects are subject to Strategic Environmental Assessment.

To facilitate the correct application of Community legislation, the document on the implementation of Directive 2001/42/ EC concerning the assessment of the effects of certain plans and programmes on the environment, by the European Community itself, clarifies that, even if the terms “plans” and “programmes” are not synonymous, *“both can cover a wide range of meanings that sometimes coincide”*. According to the European legislation, thus, *„any act that decides how to implement a strategy for the reorganization of the territory, setting rules or an orientation on the type of development that can be allowed in certain areas“*, shall be considered a “plan”.

With a specific focus on the **Pelagos Sanctuary**, the participatory process related to the planning of the concerned sea area, based on a set of selected criteria essential to identify stakeholders, should take into account also the **followings**:

- **institutional actors involved** (Government or public sector): Pelagos Secretariat and National Focal Points (NFP), SPA/RAC Centre and NFP being in the SPAMI List, RAMOGE Secretariat and NFP since it concerns the same Contracting Parties upon overlapping issues;
- **users** from the more frequent **economic activities** (private sector for profit): maritime transports and fishery;
- **civil society** (not for profit): NGOs, universities, research institutes, local community organizations, and other groups generally related to the Pelagos Sanctuary;
- general public: to be identified applying the set of criteria¹⁹.

In this context, the trans-boundary cooperation within the participatory process requires tailored stakeholder engagement activities, in particular taking into account differences of culture, practice, awareness, institutional arrangements and jurisdictions.

Finally, it should be mentioned the recent new **European Law on general data protection regulation (GDPR)**, with the adoption of **Regulation 2016/679/EU** of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and its transposition to National legal orders. This new regulation, which applies to every organization that processes, transmits and stores personal data of EU residents, is intended to enhance and unify the efforts currently in place to protect personal data. GDPR requires citizens to be informed on how their information is being used, who collects their personal data and what kind of data they collect, and to be notified if a breach has taken place. Informing citizens of how their personal data is used helps to create a sense of transparency and accountability, which will empower digital civic engagement, and hence participatory processes.

¹⁹ See Stakeholder Participation Toolkit for Identification, Designation and Management of Marine Protected Areas, RAC/SPA and IUCN-Med, Ed. RAC/SPA, Tunis. 2016.

5. Identification of legal and policy instruments for the implementation of the provisions of the MSP Directive, with particular reference to the protection of marine mammals in the Tyrrhenian case area

The presence of the Pelagos Sanctuary in the Tyrrhenian case area, between France and Italy, shows an important element of connection also with regard to cross-border cooperation in the MSP: the protection of marine mammals and their habitat as a policy priority.

Having in mind the objective of the MSP Directive, including the ecosystem and biodiversity conservation, to avoid that the various pressures (impacts caused by human activities and natural phenomena) can cause loss of biodiversity and degradation of ecosystem services – a correct picture of the legal and policy framework will support its implementation in the establishment of maritime spatial plans, especially with reference to biodiversity conservation, in particular of marine mammals. In fact, it cannot be underestimated that healthy marine ecosystems and their multiple services, if integrated into planning decisions, can deliver substantial benefits in terms of food production, recreation and tourism, climate change mitigation and adaptation, shoreline dynamics control and disaster prevention.

As for marine mammals and their presence in the Mediterranean Sea, about twenty cetacean species have been reported in this basin, about half of which come from Atlantic populations entering the sea only sporadically. Only nine small cetacean species and three large whale species are sighted frequently in the Mediterranean Sea. They are the minke whale (*Balaenoptera acutorostrata*), fin whale (*Balaenoptera physalus*), short-beaked common dolphin (*Delphinus delphis*), long-finned pilot whale (*Globicephala melas*), Risso's dolphin (*Grampus griseus*), killer whale (*Orcinus orca*), sperm whale (*Physeter macrocephalus*), false killer whale (*Pseudorca crassidens*), striped dolphin (*Stenella coeruleoalba*), rough-toothed dolphin (*Steno bredanensis*), bottlenose dolphin (*Tursiops truncatus*) and Cuvier's beaked whale (*Ziphius cavirostris*).

Nowadays, the most serious threats to marine mammals are: taking, defined as to harass, hunt, capture or kill or attempt to harass, pollution, as listed in the 2017 UN Environment/MAP Action Plan for the Conservation of Cetaceans in the Mediterranean Sea²⁰; reduction or depletion of food resources; incidental catches in fishing gear; degradation and disturbances of habitats caused by other factors²¹.

Effective and durable marine mammals protection in the Mediterranean Sea Area implies the cooperation with existing programmes and plans, at the different levels (international and EU, regional and national), as specified in the following paragraphs.

²⁰ Action Plan for the Conservation of Cetaceans in the Mediterranean Sea. UN Environment/MAP, Athens, Greece 2017.

²¹ See footnote 38.

5.1 International legal regime

As a starting point, from the existing and emerging **international legal regime**, the overarching legal instrument is represented by the **UN Convention on the Law of the Sea, 1982** (hereinafter referred to as **UNCLOS**), dealing with the protection and preservation of the marine environment, as contained in **Part XII of the Convention**²². The marine environment regulated by the UNCLOS is not a spatial entity removed from the territorial jurisdiction of any single State, rather it is a concept comprising all zones of marine jurisdiction governed by the Convention, including internal waters and high seas. (M.L. McConnell et al, 1991)²³. So far, these principles are intrinsically part of the international environmental law.

The primary obligation of States in relation to the global marine environment is stated in Article 192: *“States have the obligation to protect and preserve the marine environment.”* The marine environment is not a distinct entity separate from any State's territorial jurisdiction, as evidenced by Article 193 of the UNCLOS.

These two Articles 192 and 193 are insofar generally regarded as statements of customary international law on the extent of a State's environmental responsibility toward the oceans. A State breaching its obligation to protect and preserve the marine environment would also be in breach of international law. This is further substantiated by Article 235(1) of UNCLOS, which provides that: *“States are responsible for the fulfilment of their international obligations concerning the protection and the preservation of the marine environment. They shall be liable in accordance with international law.”*²⁴

In Section 2 on “Global and Regional Co-operation”, Article 197 provides that *“States shall cooperate on a global and, as appropriate, on a regional basis... in formulating and elaborating international rules for the.., protection and preservation of the marine environment, taking into account characteristic regional features.”*. The obligation to cooperate includes an obligation to notify affected States of actual or imminent danger to the marine environment, to make contingency plans for dealing with such dangers, to research, to study and to exchange information and data in order to provide scientific criteria for the development of rules, standards, procedures and practices to reduce, prevent or control pollution to the final result to protect and preserve the marine environment as a whole. At any rate, Part XII shall be considered within all the interrelated provisions of the Convention, because the extent of State powers to protect and preserve the marine environment is largely determined by its interface with other matters regulated by the Convention, such as resource exploitation and maritime passage of vessels and aircraft.

Moreover, under UNCLOS States Parties agree to adopt domestic laws and regulations to prevent, control, and reduce marine pollution from different sources, in particular by dumping, from land-based sources, seabed activities, and vessels (see UNCLOS, Section 5 on international rules and national legislation to prevent, reduce and control pollution of the marine environment, in particular Article 211 on pollution from vessels, combined with Article 207 on pollution from land-based sources and the following ones). Thus Countries have to ensure that vessels flying their flag are compliant with applicable international rules and standards for the prevention, reduction, and control of marine pollution, also by

²² United Nations Convention On The Law Of The Sea, Dec. 10, 1982, U.N. Dec. A/Conf.62/122, U.N. Sales No. E.83.V.5 (1983), reprinted in 21 I.L.M. 1261.

²³ Moira L. McConnell and Edgar Gold, The Modern Law of the Sea: Framework for the Protection and Preservation of the Marine Environment, 23 Case W. Res. J. Int'l L. 83 (1991).

²⁴ See footnote 21.

adopting domestic laws, regulations and measures for their implementation and providing for effective enforcement of these rules. Therefore, obligations foreseen by UNCLOS are strictly connected with the framework of **1973/78 MARPOL Convention**²⁵ and, specifically, to Annex V for preventing loss and discard of debris and garbage generally and fishing gear particularly.

Numerous and significant international conferences and meetings were convened on these issues, recognising that persistent marine debris, particularly discarded or lost fishing gear, is causing substantial harm to a large variety and number of marine animals when they either ingested or became entangled in it, and posing operational risks to recreational and commercial marine traffic. (H. R. Koehler et al., 2000)²⁶. Even if today major source of marine pollution is land-based activity, the focus of most international responses has been vessel activity. Thus at the international level emerge the global conventions regarding the protection of the marine environment, underlining concern over the impacts of persistent garbage and debris in the sea on marine flora and fauna (included marine mammals), on marine ecosystem function generally, and on various human activities. In particular, as global agreement, the **1973/78 MARPOL Convention** and the **London Dumping Convention of 1972** were adopted for responses to marine pollution²⁷ from a source which involved vessels and land-based activity (regulating the deliberate disposal at sea of various garbage generated on land), related to the UNCLOS obligation that foreseen the duty to cooperate globally and regionally and to develop rules and standards on that basis. Under MARPOL 73/78 – which in its 20 Articles, 2 Protocols, and 6 Annexes establishes specific regulations governing the discharge of pollution and wastes from ships at sea – the term “pollution” at the beginning was defined primarily as oil and other noxious substances, and only later has included the disposal of garbage (particularly including plastics) by ships at sea, with the entry into force of Annex V in 1988, and the related guidelines updated over the years. Garbage is defined as *“all kinds of victual, domestic and operational waste, excluding fresh fish and parts thereof, generated during the normal operation of the ship and liable to be disposed of continuously or periodically except those substances which are defined or listed in other Annexes to the present Convention”*; and plastics are defined as including *“but not limited to synthetic ropes, synthetic fishing nets and plastic garbage bags”*. In general, Annex V prohibits both the deliberate discharge of plastic, including synthetic fishing nets, and non-food garbage into the ocean, providing guidelines to govern specific discharge into the ocean; bans the dumping of plastics and synthetic ropes and fishing gear at sea, regulating the dumping of other types of ship-generated garbage at sea. Parties must therefore ensure that marinas, ports or terminals provide adequate port reception facilities for collection and disposal of garbage that is generated by ships while at sea. Annex V was amended in 1995 to enhance the powers of port States to enforce MARPOL regulations.

The international organisation responsible for supporting the implementation of the MARPOL Convention is the agency called **“International Maritime Organization – IMO”**, which purpose is to, *inter alia*, provide support and tools for cooperation among governments in regulating various issues in trans-global shipping, including issues of marine pollution. Under Article 211 of UNCLOS, IMO is recognized to authorize the establishment of marine pollution standards, thus recommending regulations under MARPOL. In these years, thanks to the IMO work and its principle of “safer ships and cleaner seas”,

²⁵ International Convention for the Prevention of Pollution from Ships, Nov. 2, 1973, 12 I.L.M. 1319, as modified by the Protocol of 1978.

²⁶ Legal instruments for the prevention and management of disposal and loss of fishing gear at sea, H. R. Koehler et al., International Marine Debris Conference held in Hawaii in August 2000.

²⁷ Pollution at the beginning was defined primarily as oil and other noxious substances, and only later has included garbage.

maritime States and their shipping industries have applied effective standards on maritime safety and environmental protection, with a global economic benefit.

From the second half of the 20th century it has become increasingly evident that the conservation status of marine mammals and cetaceans, as an integral part of the marine ecosystem, can be adversely affected by factors such as degradation and disturbance of their habitats, pollution, reduction of food resources, use and abandonment of non-selective fishing gear, and by deliberate and incidental catches. Stressing that their conservation is a common concern, it was therefore recognized the importance of adopting integrating actions to conserve marine mammals (that include also cetaceans) with activities related to the socio-economic development of States, including maritime activities such as fishing and the free circulation of vessels in accordance with international law, emphasizing the need to promote and facilitate cooperation, utilising coordinated and concerted actions to contribute to the conservation of marine mammals and their habitats. In this context, are to be cited the conventions on endangered species, in particular:

- The 1946 International Convention for the Regulation of Whaling;
- The 1973 **CITES or Washington Convention on International Trade in Endangered Species of Wild Fauna and Flora**, with the aim to halt and regulate the trade in wild animals and plants crosses borders between countries, through international cooperation to safeguard certain species from overexploitation;
- The 1979 **Convention on the Conservation of European Wildlife and Natural Habitats**;
- The 1984 **Global Plan of Action for the Conservation, Management and Utilization of Marine Mammals** of the UNEP;
- The 1992 **Convention on Biological Diversity**, under which are developed frameworks such as **Ecologically or Biologically Significant Areas (EBSAs)**;
- The so called **CMS Family**, which refers to the **Convention on Migratory Species** and the collection of **Agreements** and **Memoranda of Understanding** that have been concluded under it:
 - **The 1979 Bonn Convention on the Conservation of Migratory Species of Wild Animals**, concerning the conservation and effective management of particularly species of wild animals that migrate across or outside national jurisdictional boundaries (migratory species), recognising that the States are and must be their protectors when they live within or pass through their national jurisdictional boundaries (based on the fundamental principles stated in Article II);
 - **The 1996 ACCOBAMS Agreement on the conservation of cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic Area**, with the aim to coordinate measures to achieve and maintain a favourable conservation status for cetaceans, calling the Parties to prohibit and take all necessary measures to eliminate any deliberate taking of cetaceans, in a cooperative frame to create and maintain a network of specially protected areas to conserve cetaceans (in particular, Articles I and II).

Worthy of mention for the global protection of marine mammals are also the **fisheries management plans** using the ecosystem approach to fisheries (EAF), under FAO; and the framework of the **International Whaling Commission (IWC)**, set up under the 1946 International Convention for the Regulation of Whaling, aiming at providing for the proper conservation of whale stock, within which it the Mediterranean Sea Area was designated as a Whale Sanctuary. The IWC establishes Conservation Management Plans for key species and populations; it has also adopted a Strategic Plan for Whale-watching for a responsible activity consistent with international best practice.

In the International Union for Conservation of Nature's (IUCN) framework it has been created the **Marine Mammal Protected Areas Task Force (MMPATF)** by the IUCN itself, the International Committee on Marine Mammal Protected Areas (ICMMPA), the World Commission on Protected Areas (WCPA) Marine Vice Chair, and members of the IUCN Species Survival Commission (SSC), aiming at supporting a global profile for the role of marine mammals in protected areas.

Important Marine Mammal Areas (IMMAs) are defined as *discrete portions of habitat, important to marine mammal species, that have the potential to be delineated and managed for conservation.*

IMMAs includes the following considerations: the specific vulnerability of marine mammals; the role of marine mammals as indicators to support the identification of MPAs and spatial protection measures, been easily monitored; the role of marine mammals as umbrella species which helps ensure that a properly designed conservation plan will be beneficial to the broader ecosystem; and the role of marine mammals as flagship species representing powerful political and public levers for the conservation of less popular or well-known organisms, communities or habitats.

Furthermore, elements to identify IMMAs may support the assessment of marine areas esteemed in terms of biodiversity within the Maritime Spatial Planning process²⁸.

Although the existence of the international legal obligation to protect and preserve the marine environment and the importance of cooperation, still fails the coordination of responses and the degree of those responses at the States implementation level. These **legal obligations** can be summarized in the three main-related following ones:

- 1) the obligation to **protect and preserve the marine environment** and, specifically, not to pollute;
- 2) the obligation to **cooperate on global and regional levels**, primarily to **develop acceptable standards, rules and practices** in response to the first obligation; and,
- 3) the obligation effectively to **adopt, implement and enforce at a national level, the agreed upon standards**, under the second obligation, in response to the first obligation²⁹.

Not fulfilling one of the three obligations implies the defeat of the entire regime.

As a necessary step forwards, the UN are negotiating for the inclusion of marine spatial planning (MSP) in a new international legally binding **agreement for the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction (BBNJ)**, with the related obligations for coordination and cooperation, testifying once again the cross-border characteristic of the MSP as an inclusive tool, also in the field of biodiversity protection, including the species of marine mammals and their habitat.

²⁸ See: <https://www.marinemammalhabitat.org/activities/immas/>

²⁹ See footnote 21.

Treaty governing marine Biodiversity in areas Beyond National Jurisdiction (BBNJ)

The General Assembly under the 1982 United Nations Convention on the Law of the Sea, according to resolution 72/249 is finalising the drafting of a legally binding treaty governing marine biodiversity in ocean waters beyond national jurisdiction (BBNJ).

A drafting intergovernmental conference was held on 4 September 2018; a second session is tentatively scheduled from 25 March to 5 April 2019. A third session is scheduled from 19 to 30 August 2019.

The main issues at the heart of the new instrument include capacity building and the transfer of marine technology; area-based management tools, including marine protected areas; environmental impact assessments; and marine genetic resources, including questions on the sharing of benefits.

Source: <https://www.un.org/press/en/highlights/BBNJ>

For what concerns **public participation** as a key element of TMSP, at the international level the most important instrument is the UNECE Convention on access to information, public participation in decision-making and access to justice in environmental matters or **Aarhus Convention**³⁰ of June 25 1998, which requires that the Contracting Parties of the Convention guarantee rights of access to information, public participation in decision-making and access to justice in environmental matters. The Convention sets out minimum requirements for public participation in various categories of environmental decision-making, and also foreseen the development of compliance mechanism to ensure that the Contracting Parties implement its provisions.

From the perspective of the public participation on sectors of environmental law, in particular to protect endangered species, biodiversity, and fragile ecological areas, in the principal biodiversity-related conventions consideration is given to the intersection of public participation and resources development, focusing on the three global conventions of most direct relevance for this topic, namely, the 1992 multilateral **Convention on Biological Diversity (CBD)**, the Convention on Wetlands (**Ramsar**), and the World Heritage Convention (**WHC**), which have helped to encourage further public-participation activities.

According to the new CBD **Draft Decision on Spatial Planning, Protected Areas, and “other effective area-based conservation measures-OEABCM”**³¹ (in discussion at COP14, Sharm-El-Sheik, Egypt, November 2018), Parties are called to facilitate mainstreaming of protected areas and OEABCM into key sectors, such as, inter alia, agriculture, fisheries, forestry, mining, energy, tourism and transportation. It welcomes the voluntary guidance on integration of protected areas and OEABCM into the wider-land and seascapes and on mainstreaming these across key sectors. Moreover, the Draft Decision identify and prioritize *“the sectors most responsible for habitat fragmentation, including transportation, agriculture, energy, infrastructure and urban development, in order to develop strategies to engage them in developing strategies for mitigating the impacts on protected areas and protected area networks including OEABCM and areas under active restoration programmes”*. Thus, it calls for reviewing and adapting *“landscape and seascape plans and frameworks (both within and across sectors), including, for*

³⁰ UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters adopted on 25th June 1998.

³¹ The term **“other effective area-based conservation measures”** defines “a geographical defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in situ conservation of biodiversity, with associated ecosystem functions and services and where applicable, cultural, spiritual, socio-economic, and other locally relevant values”.

example, land-use and marine spatial plans, and sectoral plans, such as subnational land-use plans, integrated watershed plans, integrated marine and coastal area management plans, transportation plans, and water related plans, in order to improve connectivity and complementarity and reduce fragmentation and impacts”; and “sectoral plans to ensure that the many values provided by protected areas and OEABCM, under all governance types, are recognized and incorporated into sectoral plans.”.

Clearly, the new proposal leads to a greater integration of the existing management tools to inclusive, integrated and harmonized planning, based on the cooperation of the various actors and institutions (including national, supranational and international) involved.

5.2 EU Level

At the **EU level**, relevant EU policies and legislation need to be considered, including, among others:

- the **Marine Strategy Framework Directive (MSFD)**³², which obliges Member States to achieve and/or maintain good environmental status of their marine waters and to take measures to meet the established targets, monitoring and reporting among others the conservation status of marine mammals. It provides 11 descriptors of the status of the marine environment and requires Member States to periodically assess these descriptors in order to evaluate their short and long-term variations. Of these, the descriptor 10 concerns monitoring, assessment and measures to ensure that *“Properties and quantities of marine litter do not cause harm to the coastal and marine environment”* and the descriptor 11 concerns underwater noise, recognized in the two distinct components of the impulsive noise (descriptor 11.1) and of the low frequency continuous noise (descriptor 11.2). The operational implementation of these two descriptors is also ensured by the support provided by two technical groups: the technical group on marine litter (TG Litter) and the technical group on underwater noise (TG Noise).

A specific theme is set on marine mammals, corresponding to the themes of the monitoring programmes.

- **Natura 2000**³³ and the related legislation, in the context of which cetaceans – included in Annex I on natural habitat types of community interest whose conservation requires the designation of special areas of conservation – are considered to be “listed species”. The Habitat Directive aims to promote the maintenance of biodiversity by requiring Member States to take measures to maintain or restore natural habitats and wild species listed on the Annexes to the Directive at a favourable conservation status (defined in Articles 1 and 2), introducing robust protection for those habitats and species of European importance (Article 12), and in particular requiring Member States to take requisite measures to establish a system of strict protection for all cetaceans in European waters.
- The **Common Fisheries Policy (CFP)**³⁴. The European Commission has repeatedly addressed the problem of by-catches of marine mammals through Regulations (e.g. Regulation EC/812/2004). As recognized both in the Green Paper on the reform of the Common Fisheries Policy and in the Commission Communication COM (2008) 187, integrated management of marine activities

³² Directive 2008/56/EC of the European Parliament and of the Council of 17.06.2008 establishing a framework for community action in the field of marine environmental policy.

³³ http://ec.europa.eu/environment/nature/natura2000/index_en.htm

³⁴ http://ec.europa.eu/fisheries/cfp_en

requires an ecosystem approach. The CFP has adopted actions for the protection of non-target species such as marine mammals (by the strategy of by-catches prevention and discards elimination), and the protection of sensitive habitats (for example, measures to eliminate destructive fishing practices).

- The **Recommendation on Integrated Coastal Zone Management (ICZM)**³⁵ and the related **2010/631/EU Council Decision on the conclusion of the ICZM Protocol to the Barcelona Convention**³⁶, becoming part of the European *acquis communautaire*, and providing a valid horizon and a vast panorama to prepare an effective management that is integrated with the context.
- The **Renewable Energy Directive**³⁷, requiring national action plans foreseen sustainability criteria, taking into account “*areas designated... for the protection of rare, threatened or endangered ecosystems or species recognised by international agreements or included in lists drawn up by intergovernmental organisations or the International Union for the Conservation of Nature*” (Article 17); and
- The already cited **INSPIRE Directive**³⁸.

In 2007, the **Integrated Maritime Policy for the European Union (IMP)** was adopted to provide a more coherent approach to maritime issues (EC 2007), calling for an increased coordination between different policy areas.

With the objective to support the sustainable development of seas and oceans and to develop a coordinated, coherent and transparent decision-making in relation to the EU’s sectoral policies affecting the oceans, seas, islands, coastal and outermost regions and maritime sectors, including through sea-basin strategies or macro-regional strategies, the European Union has therefore developed an approach to ocean management and maritime governance in the IMP, including, as its environmental pillar, **Directive 2008/56/EC** of 17 June 2008 establishing a framework for a Community action in the field of marine environmental policy (**Marine Strategy Framework Directive**) to achieve a Good Environmental Status.

Together with ICZM and the MSFD, the IMP thus identifies MSP as an important tool for the sustainable development of marine areas and coastal regions, and for the restoration of Europe’s seas to environmental health.

Within this framework, the MSP Directive aims to deal with the high and rapidly increasing demand for maritime space for different purposes, including ecosystem and biodiversity conservation, requiring an integrated planning and management approach to face the multiple pressures and human impacts, such as maritime shipping, fishing activities and aquaculture installations (as indicated in the first Recital of Directive 2014/89/EU on MSP).

³⁵ Recommendation of the European Parliament and of the Council of 30.05.2002 concerning the implementation of Integrated Coastal Zone Management in Europe (2002/413/EC), OJ L 148, 6.6.2002.

³⁶ 2010/631/EU Council Decision of 13 September 2010 concerning the conclusion, on behalf of the European Union, of the Protocol on Integrated Coastal Zone Management in the Mediterranean to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean.

³⁷ Directive 2009/28/EC of the European Parliament and of the Council of 23.04.2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC.

³⁸ Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE).

Moreover, the **Port State Control Directive 2009/16/EC** (replacing Directive 95/21/EC), as amended by the Directive 2013/38/EU, entered into force in 2013, aiming to ensure that there is effective control of compliance with international standards by ships in EU ports and, thereby, ensure that ships sailing in EU waters have been appropriately constructed and are adequately maintained. In addition, Directive 1999/35/EC provides for a system of mandatory surveys for the ro-ro ferries and high speed passenger crafts to be carried out by the host States.

Finally, the **participatory processes**, which are governed by a complex and organic EU legislation, tailored and implemented by Member States are to be taken into account.

The **Lisbon Treaty** contains specific provisions on democratic principles and the related strategies of democratization based on the participation of citizens and organized civil society in European governance. Article 10 prescribes that: *“Every citizen shall have the right to participate in the democratic life of the Union. Decisions shall be taken as openly and as closely as possible to the citizen”*. Further, Article 11.1 TUE, an example of a general principle addressed to European institutions, provides that: *“Institutions shall, by appropriate means, give citizens and representative associations the opportunity to make known and publicly exchange their views in all areas of Union action”*. The commitment of European institutions to promote participatory democracy entails the active promotion of *“an open, transparent and regular dialogue with the representative associations and civil society”* (Article 11.2 TUE). (Dr Víctor Cuesta Lopez, 2009).

Furthermore, **Directive 2003/35/EC** of 26 May 2003 (**the Public Participation Directive**) has been adopted with the objective to contribute to the implementation of the obligations arising under the Århus Convention, in particular by providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment; and improving the public participation and providing for provisions on access to justice.

A particular mention then deserves the **Directive 2001/42/EC** of 27 June 2001 on the assessment of the effects of certain plans and programs on the environment (**SEA Directive**), which provides for public consultation to ensure transparency in the decision-making process.

5.3 Regional level

At the regional level, an important tool is constituted by the Regional Fisheries Management Organizations (RFMOs), managing fisheries that extend beyond the areas of national jurisdiction (e.g. straddling fish stocks and highly migratory fish stocks). In the Mediterranean Sea there is the **FAO General Fishery Council for the Mediterranean, FAO/GFCM**, which plays an important role for the marine mammals protection within planning, safeguarding of marine environment and of threatened species in connection with fishing activities, dealing with the interaction between vulnerable species and human activities also through the mitigation of by-catch and the depredation of marine mammals, in trying to eliminate the discard of fishing gear and related debris. Its Contracting Parties are called to comply with relevant international law and agreed upon standards, such as UNCLOS and the Food and Agriculture Organization's Code of Conduct for Responsible Fisheries as a voluntary agreement³⁹. One of the general principles of the Code of Conduct is that the *“harvesting, handling, processing and distribution of fish and fishery products should be carried out in a manner which will ... minimize negative*

³⁹ The Code was adopted by the Twenty-eighth Session of the FAO Conference, 31 October 1995.

impacts on the environment“). Under the Code of Conduct States, sub-regional and regional fisheries management organizations are invited to adopt appropriate measures to minimize catch by lost or abandoned fishing gear and its impact on non-target species, in particular endangered species (Article 7.2 (f) and (g); Article 7.6.9), and to conduct fishing activities with due regard for the IMO requirements relating to the protection of the marine environment and the loss of fishing gear (Article 8.4.1; Article 8.7.1).

The **Bern Convention on the Conservation of European Wildlife and Natural Habitats** has also to be mentioned, for which, within the habitats conservation, among the categories of protected areas and reserves shared with other parties (border areas) the only Italian reserve shared with other Parties is the Pelagos Sanctuary for Marine Mammals.

Within the framework of the **UN Environment/MAP-Barcelona Convention**, the only legally binding framework for the protection of the Mediterranean marine and coastal environment, the implementation of the legal documents and activities and the coordinated collection of various fundamental information for the management and planning of activities in the Mediterranean is planned and implemented through the Coordinating Unit of MAP providing also the Secretariat to the Barcelona Convention, based in Athens, Greece, and supported by the **MAP Components**, i.e. six Regional Activity Centres (RACs) and the Mediterranean Pollution Assessment and Control Programme (**MEDPOL**)⁴⁰, including – for what concerns the pilot case study – on levels of key contaminants and marine litter, through **MEDPOL**; on pollution from ships, through **REMPEC**; on biodiversity, through **SPA/RAC**, on integrated coastal zone management, through **PAP/RAC**.

A special role is played by the seven Protocols to the Barcelona Convention and the related strategies and Action Plans.

The **Prevention and Emergency Protocol** on cooperation in preventing pollution from ships and, in cases of emergency caused by hydrocarbons and other prejudicial substances, combating pollution of the Mediterranean Sea (adopted in 1976; entered into force in 1978; amended in 2002; entered into force in 2004) aims to maintain and promote, either individually or through bilateral or multilateral cooperation, contingency plans and means for combating pollution of the sea by oil and other harmful substances.

Thus, it has to be recalled the **Regional Strategy for Prevention of and Response to Marine Pollution from Ships (2016-2021)** adopted by the COP 19 of the **Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC)**⁴¹, which aims at preventing pollution from ships and maritime accidents and at enhancing the level of preparedness for response to major pollution incidents, in the Mediterranean region, thus implementing the 2002 Prevention and Emergency Protocol to the Barcelona Convention, as an integral part of the UNEP/MAP's Mid-Term Strategy (2016-2021), in the implementation of which the maritime industry together with the cooperation and participation of the private sectors concerned should be improved through consultations, technical and financial contributions. The Regional Strategy (2016-2021) lists the priority issues to be addressed when implementing the Emergency Protocol.

The **Dumping Protocol** for the prevention and elimination of pollution of the Mediterranean Sea by discharges from boats, airships, or incineration at sea (adopted in 1976; entered into force in 1978;

⁴⁰ See <http://web.unep.org/unepmap/who-we-are/institutional-framework/secretariat/map-components>

⁴¹ www.rempec.org/admin/store/about/87_0.asp

amended in 1995, amendments not yet in force) aims to preserve the Mediterranean prohibiting activities such as incineration at sea and discharge of wastes or other materials, except for dredging materials, fishing wastes, platforms and other structures.

The Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities (**LBS Protocol**; adopted in 1980; entered into force in 1983; amended in 1996, entered into force in 2008), including Regional plans under Article 15 of LBS, aims to protect the

Mediterranean Sea against pollution from land-based sources, on eliminating substances that are toxic, persistent and liable to bioaccumulate.

The **Protocol on Specially Protected Areas and Biodiversity in the Mediterranean** (SPA/BD Protocol, adopted in 1982; entered into force in 1986; amended in 1995; and Annexes adopted in 1996, amended in 2009, 2012 and 2013) aims to protect and improve the state of the Mediterranean natural and cultural heritage, particularly through the establishment of Specially Protected Areas in order to conserve, protect and restore the health and integrity of ecosystems. Article 4 of the Protocol provides a comprehensive statement of the objective of marine protected areas with strong antecedents in the 1992 Convention on Biological Diversity.

Article 4

The objective of specially protected areas is to safeguard:

- (a) representative types of coastal and marine ecosystems of adequate size to ensure their long-term viability and to maintain their biological diversity;
 - (b) habitats which are in danger of disappearing in their natural area of distribution in the Mediterranean or which have a reduced natural area of distribution as a consequence of their regression or on account of their intrinsically restricted area;
 - (c) habitats critical to the survival, reproduction and recovery of endangered, threatened or endemic species of flora or fauna;
 - (d) sites of particular importance because of their scientific, aesthetic, cultural or educational interest;
 - (e) sites of biological and ecological value:
 - the genetic diversity, as well as satisfactory population levels, of species, and their breeding grounds and habitats;
 - representative types of ecosystems, as well as ecological processes;
 - (f) sites of particular importance because of their scientific, aesthetic, historical, archaeological, cultural or educational interest.
-

The Protocol places a general obligation on Parties “to protect, preserve and manage in a sustainable and environmentally sound way areas of particular natural or cultural value, notably by the establishment of specially protected areas (Article 3(1)(a) – called “Specially Protected Area of Mediterranean Interest” (SPAMI) and provides for a set of protective measures to use in case such an area is established, including the regulation of the passage of ships or the regulation or prohibition of any activity involving the exploration or modification of the soil or the exploitation of the subsoil.

The Protocol is applicable to all marine waters, irrespective of their legal status as well as to the seabed and subsoil and to coastal terrestrial areas designated by each Party.

If a SPAMI is established on the high sea, the protection measures are those prescribed by the State proposing the SPAMI: other Parties must comply with measures but enforcement must be in accordance with international law⁴². **The Pelagos Sanctuary for marine mammals, the site encompassing an area established also on the high sea, was included in the list in 2012.**

For the implementation of the 1995 SPA/BD Protocol through a measurable framework of actions, the **SAP/BIO** was adopted in **2003**, to assess the status of marine and coastal biodiversity and the main problems concerning biodiversity, and identifies concrete actions at national and regional level (UNEP/MAP-RAC/SPA 2003). Always in the context of the UN Environment/MAP-Barcelona Convention, additional specific biodiversity-oriented instruments have been adopted, including eight Regional Action Plans, seven of which on the conservation for the most threatened and most emblematic species and sensitive habitats in the Mediterranean, including cetaceans, in particular the bottlenose dolphin.

Under Article 11 and 12 of the Protocol, on the formulation and implementation of action plans for the conservation and recovery of species, Parties have adopted and therefore updated the Action Plan for the Conservation of Cetaceans in the Mediterranean Sea.

The **Action Plan (AP) for the conservation of cetaceans**⁴³ (Decision IG.21/17 on the Programme of Work of COP 18, 2013, on the update of the Action Plan for the Conservation of Cetaceans in the Mediterranean Sea and Decision IG.22/12 adopted by the 19th Meeting of the Contracting Parties to the Barcelona Convention), clearly states that concrete protection measures, coordinated programmes for scientific research and public awareness campaigns can ensure the survival and assist in the recovery of cetacean populations.

⁴² Legal Aspects of Maritime Spatial Planning, European Commission, 2008.

⁴³ Action Plan for the Conservation of Cetaceans in the Mediterranean Sea. UN Environment/MAP Athens, Greece 2017. http://www.rac-spa.org/sites/default/files/action_plans/ap_cetaceans_en.pdf

The Action Plan for the conservation of cetaceans

With the objectives to protect and conserve the cetacean habitats including feeding, breeding and calving grounds, as well as to protect, conserve and recover the cetacean populations in the Mediterranean Sea Area, the AP recommends the following **general priorities**:

- prohibition of deliberate taking;
- prevention and elimination of pollution;
- elimination of incidental catches in fishing gear;
- prevention of over-exploitation of fishery resources;
- protection of feeding, breeding and calving grounds;
- monitoring, research and data collection and dissemination with regard to biology, behaviour, range and habitats of cetaceans;
- educational activities aimed at the public at large and fishermen.

The Barcelona Convention Contracting Parties have the **obligation** to take all the necessary measures to ensure a favourable conservation status for cetaceans by protecting them and their habitats from induced and cumulative effects resulting directly or indirectly from activities under national jurisdiction or control, closely cooperating to achieve and maintain a favourable conservation status for cetaceans.

Such measures should include:

- the prohibition of any deliberate taking of cetaceans as well as ensuring enforcement of existing laws;
- the adoption of fishery policies that avoid the adverse effects of fisheries on the conservation status of cetaceans in the Mediterranean Sea Area;
- the regulation of fishing gear and practices in order to eliminate by-catches and to prevent fishing gear from being lost or discarded at sea;
- a ban on the use of large-scale driftnets;
- the safe release of any cetaceans incidentally caught in fishing gear;
- the adoption of national and regional strategies to phase-out the discharge of toxic compounds in the Mediterranean Sea Area, giving priority to those substances contained in the black and grey lists of the Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-Based Sources;
- the establishment of port reception facilities for the collection of ship generated garbage and of bilge and ballast waters;
- the development of scientific research and monitoring, using non-destructive and non-invasive procedures;
- the creation of a network of marine protected areas, including feeding, breeding and calving grounds for cetaceans;
- the development of widespread campaigns to increase public and fishermen awareness to support the conservation measures and to encourage the establishment of voluntary observer programmes to report sightings and strandings.

The activities envisaged in the Action Plan are coordinated by SPA/RAC in co-operation with other bodies concerned, in particular with reference to ACCOBAMS.

It has also to be ensured that:

- a) Cetaceans are covered, at national level, by appropriate regulation measures providing for the elimination of deliberate killing and for the mitigation of the adverse impacts from their interactions with human activities, in particular in relation to:
 - by catch and depredation in fishing gears;
 - seismic surveys and other marine noise generating activities;
 - harassment by leisure boating and scientific activities; and
 - collisions with ships (ship strikes).
- b) Whale-watching activity is environmentally sound and sustainably conducted, through regulation or other appropriate approaches, using, as appropriate, high quality certification systems for whale-watching.

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- c) The knowledge about cetacean populations is improved, furthermore ensuring that the data collected by the survey initiative serve also as baseline data for the Good Environmental Status concerning cetacean species as defined by the contracting Parties under the Ecological Objective 1 of the EcAp process.
 - d) The cetacean-fisheries interactions is reduced or mitigated, in collaboration with the Secretariats of and GFCM, through investigating innovative and environmentally sound mitigation measures and by disseminating information on relevant best practices and successful initiatives.
 - e) The impact of underwater noise is mitigated, pursuing the development and the implementation of a basin-wide strategy for underwater noise monitoring in the Mediterranean, as proposed by the ACCOBAMS/ASCOBANS/CMS Joint Noise working group, under the Ecological Objective 11 of the EcAp process; developing an acoustic mapping.
 - f) Habitat conservation is pursued through the establishment by each Contracting Party of a list of marine areas under its jurisdiction identified as of special importance for cetaceans, where should be granted a protection status that ensures the long term preservation of the species and the sustainable management of human activities having impacts on cetaceans, using as appropriate the tools developed at regional and international levels for inventorying sites of conservation interest, in particular the list of areas of special importance for cetaceans in the ACCOBAMS area.
-

Furthermore, the Roadmap for a comprehensive coherent network of well-managed Marine Protected Areas (MPAs) to achieve Aichi Target 11 in the Mediterranean (MPAs Roadmap)⁴⁴ has to be considered appropriately. In order to guide the Contracting Parties to the Barcelona Convention and harmonize their efforts to achieve the globally agreed Aichi Target 11, the Roadmap activities proposed are oriented towards achieving four specific Objectives.

Objective 1: Strengthen networks of protected areas at national and Mediterranean levels, including in the high seas and in ABNJ, as a contribution to the relevant globally agreed goals and targets.

Objective 2: Improve the network of Mediterranean MPAs through effective and equitable management.

Objective 3: Promote the sharing of environmental and socio-economic benefits of Mediterranean MPAs, and the MPAs integration into the broader context of sustainable use of the marine environment and the implementation of the ecosystem and marine spatial planning approaches.

Objective 4: Ensure the stability of the network of Mediterranean MPAs by enhancing their financial sustainability.

The **Offshore Protocol** for the protection of the Mediterranean Sea from pollution caused by exploration and exploitation of the continental Shelf, the sea floor and its subsoil (adopted in 1994, entered into force in 2011. Not yet ratified by Italy) aims to regulate, organize, and limit the increase in the activities concerning exploration and exploitation of the Mediterranean seabed and its subsoil, considering their adverse impact on environment and human beings. In particular, under Article 12, Parties are requested

⁴⁴ Roadmap for a comprehensive coherent network of well-managed Marine Protected Areas (MPAs) to achieve Aichi Target 11 in the Mediterranean. UN Environment/MAP, Athens, Greece, 2017.
http://www.rac-spa.org/sites/default/files/action_plans/fdr_en.pdf

to prohibit the disposal of garbage at sea, including all plastics and therefore also the synthetic ropes, fishing nets and plastic garbage bags, all other non-biodegradable garbage. In parallel, Parties shall ensure (Article 13) the disposal of all wastes and harmful or noxious substances and materials in designated onshore reception facilities, adopting the related sanctions in respect of illegal disposal. Cooperation and coordination is requested for the development and implementation of contingency plans in cases of emergency to combat accidental pollution (coordinated with the contingency plan foreseen by the Emergency Protocol) (Article 16 and Section V). Finally, with regard to Specially Protected Areas of Mediterranean Importance, such as the Pelagos Sanctuary, Article 21 provides that “Parties shall take special measures to prevent, abate, combat and control pollution arising from activities in these areas. Such measures may include, *inter alia*:

- a) Special restrictions or conditions when granting authorizations for such areas;
- b) The preparation and evaluation of environmental impact assessments;
- c) The elaboration of special provisions in such areas concerning monitoring, removal of installations and prohibition of any discharge;
- d) Intensified exchange of information among operators, the competent authorities, Parties and the Organization regarding matters which may affect such areas.”

The **Hazardous Wastes Protocol** on the prevention of pollution of the Mediterranean Sea by trans-boundary movements of hazardous wastes and their disposal (adopted in 1996, entered into force in 2011) aims to reduce and progressively eliminate the hazardous waste generation, generally through substitution and other clean production methods considering the danger threatening the Mediterranean Sea caused by the trans-boundary movements and disposal of hazardous wastes, in the light of the Basel Convention on the control of trans-boundary movements of hazardous wastes and their disposal.

The **Protocol on Integrated Coastal Zone Management in the Mediterranean** (adopted in 2008, entered into force in 2011. Not yet ratified by Italy.) aims at establishing a common framework for the integrated management of the Mediterranean coastal zones, meant as a dynamic process for the sustainable management and use of such zones. In order to preserve the natural habitats and ecosystems of the coastal zone, which includes the territorial sea, the Contracting Parties are invited to adopt specific activities, laws and measures within the framework of a dedicated planning in this sense. Considering the aspect of protecting marine mammals in a planning context, the following provisions have in particular to be considered . Under Article 9, economic activities shall be conducted considering the fragile nature of coastal zones; in particular fishing practices must be compatible with sustainable use of natural marine resources; aquaculture shall be regulated by controlling the use of inputs and waste treatment; tourism is encouraged as far as it is sustainable to preserves coastal ecosystems, regulating or prohibiting the practice of various sporting and recreational activities, including recreational fishing and shellfish extraction; maritime activities shall be conducted in such a manner as to ensure the preservation of coastal ecosystems. Moreover, Article 10 requests Parties to take specific measures also to protect marine areas hosting habitats and species of high conservation value (editor’s note, such as the marine mammals), through legislation, planning and management, promoting regional and international cooperation for the implementation of common programmes on the protection of marine habitats. In accordance with the provisions of the MSP Directive, the ICZM Protocol, Article 28, identifies a trans-boundary cooperation as the fundamental process to coordinate national coastal strategies, plans and programmes related to contiguous coastal zones.

To varying degrees, the Protocols to the Barcelona Convention, addressing specific aspects for the achievement of the objectives of the Convention and, therefore, for the overall protection of the

Mediterranean, constitute substantial and solid juridical and operational tools for the preservation of marine mammals and their habitat.

To conduct an even more accurate analysis, the **State of the Mediterranean Marine and Coastal Environment Report 2012** gives a picture of multiple pressures acting simultaneously, and affecting different components of the Mediterranean marine and coastal environment, highlighting the following as the major issues requiring coordinated policy and management responses in the coming years in order to stem the tide of degradation of the Mediterranean ecosystems: **coastal development and sprawl**, driven by urban and touristic development; **chemical contamination** of sediments and biota caused by pollution from urbanisation, industry, antifoulants, and atmospheric transport; **eutrophication** caused by human-mediated input of nutrients into marine waters; **marine litter**; **marine** on biota, especially marine mammals, caused by intense maritime traffic, particularly in the Western Mediterranean, and intense offshore exploration and military activities; **invasive non-indigenous species** altering the food web and modifying habitats; **over-exploitation** beyond sustainable limits leading to changes in community structure, ecological processes and the delivery of ecosystem services and – on the other side – aquaculture adding new pressures such as nutrient and organic matter pollution eutrophication and eventual benthic anoxia, pollution through the release of antibiotics and biocides, and the introduction of non-indigenous species.

Among these pressures there is transport, specifically **maritime transport** as a strong traditional economic sector in the Mediterranean. In fact, the Mediterranean Sea is among the world's busiest waterways, accounting for 15% of global shipping activity by number of calls and 10% by vessel deadweight tonnes (dwt). (UNEP/MAP – Barcelona Convention 2012).

The maritime traffic, intersected by the oil tanker routes, branches off from east to west for the discharge terminals in the Gulf of Genoa and near Marseille; from south to north, connecting the Algerian and Libyan cargo terminals with the northern Mediterranean oil ports. (EEA and UNEP 1999).

There is also evidence of the impact of fishing activities on the populations of cetaceans, with by-catches – the accidental capture of non-target species in fisheries – resulting in injury and mortality. By catch is a serious issue in many parts of the Mediterranean. Longlines and driftnets result in significant by catch also of marine mammals (especially whales and dolphins) (Abdul Malak et al. 2011). Deterrent measures that attempted to reduce such by-catches had proved to be effective in some areas and useless in others, and therefore further methods need to be developed.

Illegal driftnet activities carried out by EU fishing vessels continue to be reported and have been cause of criticism regarding the Union compliance with applicable international obligations.

Banning driftnets respond to the new Common Fisheries Policy's goal to minimise the impact of fishing activities on the marine ecosystems and to reduce unwanted catches as much as possible.

Finally, it has to be underlined the important role of **Integrated Monitoring and Assessment Programme (IMAP)**, adopted by the Contracting Parties to the Barcelona Convention in their COP 19, for the production of knowledge at the regional sea level and the sharing of data and information, through a region-wide common indicators as the basis of harmonised monitoring at national level and regional data based assessments, with a particular mention of the Shared Environmental Information System (SEIS) Principles in the same IMAP Decision.

5.4 National level and the Environmental Assessment processes

Finally, at the national level, the measures within planning are taken over, adopted, or to be adopted by the Mediterranean Countries for the marine mammals protection in the Mediterranean Sea Area .

Countries and organisations should take into account and develop the work related to the effects of chemical pollution on health and reproductive cycles of marine mammals and of the species on which they feed.

In particular, as regards the major tool dedicated to the protection of marine mammals in this area, the **Pelagos Sanctuary** has a governance type through collaboration among relevant authorities (the three Countries Government: France, Italy and the Principality of Monaco), which address threats collectively. In fact, the governing body of the Agreement, the Conference of the Parties, has no direct competence on the management of the Sanctuary that is fully demanded to the National competence⁴⁵.

Thus, in these three Countries cetaceans are protected by national law (in Italy since 1980) and they have ratified the Bonn, Bern and Washington Conventions, the 1996 Barcelona SPA/BD Protocol and the 1996 ACCOBAMS Agreement, and have as well joined the International Whaling Commission (France since 1948, Monaco since 1982, and Italy since 1998).

In France and Italy, as part of the European Union, driftnets are outlawed since 2002 and a decommissioning process of the fleet was done.

As for the legal protection status of the Pelagos Sanctuary, the following measures have been taken at national levels:

France

- Ministerial Decree 01.07.11 establishing the list of protected marine mammals and the related protection measure at national scale, including the forbidding of the cetacean intentional disturbance.
- Ministerial Decree 11.07.11 regulating the use of the driftnets.
- Decree 07.12.11 related to the management of the nautical events.
- Decree No. 2012-1148 of 12.10.12 related to the declaration of the French EEZ in the Mediterranean Sea.
- The label “high quality whale watching” has been implemented in France in order to encourage whale-watching operators to carry out their activity on a sustainable way (Monaco is following the same process).

Italy

- Ministerial Decree 21.05.1980 related to cetacean protection.
- Ministerial Decree 03.05.1989 on “Discipline of the capture of cetaceans, tortoises and sturgeons”, prohibiting the capture of the cetaceans.
- Ministerial Decree of 22.05.1991 (and subsequent modifications) regulating the use of the driftnets.

⁴⁵ See the Periodic review of the SPAMIs for the Pelagos Sanctuary.

- Law No. 157 of 11.02.1992 related to the total protection of the marine mammals.
- Furthermore, the regional provisions are to be mentioned and, in particular, the Tuscany Region Law No. 3 of 12.01.1994 on the implementation of the Law No. 157 of 11.02.1992 and the Sardinia Region Law No. 23 of 29.07.1998 on the protection of wildlife and on hunting in Sardinia: both laws foresee that the monk seal (*Monachus monachus*) and all species of cetaceans (*Cetacea*) (i.e. all marine mammals) are particularly protected, also from the point of view of sanctions.
- Law No. 391 of 11.10.2001 that ratifies the Agreement; its Article 5 provides for the prohibition of competitions of fast motorboats in the Italian territorial waters included in the Sanctuary area.
- Law No. 217 of 15.12.2011 enhancing the sanctions of the violation of the EU ban of the use of the driftnets for swordfish.
- Decree of the President of the Republic No. 209 of 27.10.2011 on the Italian institution of Ecological Protection Zones (EPZ) of the North-Western Mediterranean.
 - Inter-ministerial Decree No. 70 of 2.03.2012 on general provisions to restrict or prohibit the transit of merchant ships for the protection of sensitive areas in the territorial sea.
 - Law No. 217 of 15.12.11 that enhances the sanctions in case of violation of the EU ban of driftnets.

Principality of Monaco

- Sovereign order dated 1993 and related to marine reserves, fisheries and underwater activities.

The Agreement does not include any provision on penalties or sanctions.

The same Parties to the Pelagos Agreement (France, Italy and Monaco) have signed both the ACCOBAMS Agreement that represents a buffer zone for the Pelagos Sanctuary, and the RAMOGE Agreement against pollution (coastal and at sea) and their respective Permanent Secretariats closely cooperate.

To face accidental pollution, RAMOGEPOL covering the whole Pelagos Sanctuary would be activated; in case of ship strikes and stranding events, National Stranding Networks have been implemented.

Interactions between fisheries and marine mammals should be investigated by designing and implementing appropriate research and awareness initiatives, and inviting the EU Non-Member States to consider the banning of driftnet use.

To improve the implementation of the code of conduct for whale watching in the Mediterranean, it should be integrated into national legislation, as well as regulation to avoid the use of powerful noise sources – such as low-frequency active sonar – in those areas known to be highly frequented by cetaceans.

Equally important is to consider interactions with human activities, to be properly addressed to solve existing and potential problems, which still include:

- Interactions with fishing: by-catch in pelagic fisheries and competition between small-scale, artisanal coastal fisheries and coastal odontocetes.
- Whale watching: recommendations foresee that the correct base is a strong educational element; guidelines are adopted to minimise disturbance; it has been established a national

registry of commercial whale watching operators; activities are regularly monitored; and scientific data are collected on all cruises.

- Noise: effects of human-produced noise in the marine environment (including noise deriving from industrial, military, research, and shipping sources) have to be constantly assessed and regulated. In Italy, in line with the requirement of the MSFD, a national register of impulsive sources of noise has been established (localized and limited in time) and the University of Pavia, with CNR and CoNISMa, has been charged with implementing and managing this register with a structure open to future research and international sharing. The purpose of the Registry is to allow the assessment of the number of days/year and of the areas affected by sources of impulsive noise of high power that have the potential to expose marine animals to sound levels that cause damage.
- Traffic: impact of maritime traffic on cetaceans is assessed, and where possible mitigated.

The plans of the MSP shall, due to the nature of the contents, be submitted to other two operative tools foreseen by the international and therefore EU legal systems: the **Strategic Environmental Assessment (SEA)** and the **Environmental Impact Assessment (EIA)** procedures, which in turn provide for further steps and competent subjects. As part of the SEA procedure and for the purpose of expressing the “reasoned opinion”, the Italian Ministry for the Environment (MELS) is the competent authority and the Ministry of Cultural Heritage (MiBACT) is the concerting authority.

In particular the SEA will be the object of consultation between Countries directly or indirectly affected by the impacts of the Plan.

As already seen, also participation processes will be guaranteed through the SEA procedure. The Italian Technical Committee (TC), already in its composition, guarantees a broad set of public entities participating in the drafting of the plan. The TC can also provide for consultations and hearings with other public and private parties in order to better focus the various issues dealt with.

The current legislation (Directive 2001/42/ EC, Italian Legislative Decree 3 No. 152 of April 2006,), *vice versa*, requires that acts producing direct environmental effects are subject to Strategic Environmental Assessment.

To facilitate the correct application of EU legislation, the document on the implementation of Directive 2001/42/ EC concerning the assessment of the effects of certain plans and programmes on the environment, by the European Union itself, clarifies that, even if the terms “plans” and “programmes” *“are not synonymous, both can cover a wide range of meanings that sometimes coincide”*. According to the European legislation, thus, a “plan” shall be considered *“any act that decides how to implement a strategy for the reorganization of the territory, setting rules or an orientation on the type of development that can be allowed in certain areas”*.

As already mentioned, the sustainable development of the national territory, including the marine spaces, should be based on a balanced relationship between social needs, economic activities and the protection of the environment, therefore in coherence also with the **European Landscape Convention of the Council of Europe of 20 October 2000** and the **European Space Development Scheme** (Potsdam, Germany, 1999).

In particular, at a sub-national level, there are the **Regional Landscape Plans (RLP)** that are instruments of territorial governance drawn up by the Region together with the Ministry for Cultural Heritage and Activities, which aims to protect, both in terms of conservation and preservation and use and

enhancement, specific categories of territorial assets, including coastal territories, parks and reserves. **They should be seen as fundamental key tools of a “hinge” between the local spatial planning and the marine spatial planning (MSP).**

The **Regional Landscape Plan of the Autonomous Region of Sardinia**, referred to in the Regional Law No. 8 of 25 November 2004, approved with D.G.R. No. 36/7 of 5 September 2006, provides for the identification of the areas of coastal landscape, “on the basis of precise territorial analysis, of the environmental, historical-cultural and settlement values of the territories, among which are included (for Northern Sardinia, falling in the pilot case): the Gulf of Asinara, the Bassa Valle del Coghinas, the north-western coast of Gallura, the north-eastern coast of Gallura.

Twenty-seven (27) coastal landscape areas have been identified, to represent the reference area for the qualitative landscape differences of the regional territory, which outline the coastal landscape and which open up relations with the internal landscape areas in a unitary perspective of active conservation of the environment landscape of the region. The delimitation of the areas does not take on the meaning of boundary, caesura, leap, discontinuity; indeed, it should be understood as the “welding” between different territories useful for the recognition of the specificities and identity of a place.

The categories of goods encompass the *Posidonia Oceanica* meadows and areas of additional naturalistic interest, including the priority species and habitats in accordance with the Habitats Directive 43/92; and, pursuant to Article 142 of Legislative Decree No. 42 of 22 January 2004 and subsequent amendments, embrace also National and Regional Parks and Reserves (including marine ones), as well as the parks' external protection areas (Article 17 of the RLP). Such landscape assets are the object of conservation and protection, aimed at maintaining the characteristics of the constituent elements of the relative morphologies in order to preserve the integrity or the state of optimal balance between natural habitats and anthropic activities (Article 18 of the RLP). For them, any transformation is subject to a **landscape authorization**.

6. Overview of the existing regional institutional cooperation structures in the pilot area, supporting transnational collaboration in the fields relevant for MSP

6.1 Regional Sea Conventions: Barcelona Convention and RACs

The Regional Seas Programme of the United Nations Environment Programme (UNEP) is intended to foster regional cooperation for the benefit of the marine and coastal environment. Most of the Regional Seas initiatives function through non-binding action plans; some however have also adopted legally binding Conventions, implemented through Protocols, addressing specific issues such as, *inter alia*, protected areas. The Protocols are only framework documents, which rely on States Parties to implement their provisions in national legislation.

Under the Regional Seas Programme, multilateral agreements have been adopted for eight regions with the objective of protecting the marine environment. Additional Protocols dealing with specially protected marine areas have been concluded for some of them.

The **Mediterranean Action Plan (MAP)**, adopted in 1975 as a cooperative initiative undertaken by Countries bordering the Mediterranean Sea and the European Union, is the first plan to become a Regional Seas Programme under the United Nations Environment Programme (UN Environment). The **1976/1995 Convention for the Protection of the Marine Environment and Coastal Regions of the Mediterranean (Barcelona Convention)** has been established within this framework. MAP's goal has gradually included integrated coastal zone planning and management, biodiversity conservation and sustainable development as the key tools through which solutions are being sought.

From an institutional point of view of the role of the governing bodies, the UN Environment/MAP-Barcelona Convention is implemented through specific Protocols and Programmes, of which the implementation is coordinated by the MAP Coordinating Unit Barcelona Convention Secretariat supported by relevant MAP Components, namely the MED POL Programme and six Regional Activity Centres (RACs). The Contracting Parties – responsible for the implementation of the Barcelona Convention and its Protocols – have the support of the Secretariat of the Barcelona Convention entrusted to UNEP and its Coordinating Unit under the Unit's supervision of the MAP's Regional Activities Centres (RACs)⁴⁶.

The MAP Components contribute for the implementation of the relevant Protocols to the Barcelona Convention, in particular on the cross-cutting issues, supporting Contracting Parties with technical assistance and platforms for collaboration, and mobilization of financial resources, where appropriate, to undertake and successfully implement the outputs agreed in the relevant Protocols to the Barcelona Convention and the related Action Plans, including cooperation across the marine region concerned on issues of a transnational nature. They also periodically assess progress and lessons learned through the Mediterranean region as well as provide analyses of comparative practices and experiences, useful as a

⁴⁶ <http://web.unep.org/uneppmap>

basis for the trans-boundary cooperation and for the many projects that they lead and coordinate on the cooperation and collaboration between Contracting Parties.

The MAP Coordinating Unit establishes and strengthens relations with other Regional Seas Programmes, the secretariats of the international conventions relevant to the region, the United Nations Commission on Sustainable Development, and the international financial institutions related to environment and sustainable development in the Mediterranean. As may be known, the EU is a Contracting Party of the 80/MAP-Barcelona Convention, thus having a fundamental and privileged role in the implementation of the Barcelona System in a coherent way with the EU framework, also by encouraging cooperation tools.

Included in the definition of regional institutional cooperation structures active in the pilot area to support transnational collaboration in the fields relevant for MSP, a particular role is played both by REMPEC and SPA/RAC.

- The **Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC)**, administered by the International Maritime Organization (IMO) in cooperation with UN Environment, aims to contribute to preventing and reducing pollution from ships and combating pollution in case of emergency, assisting the Contracting Parties in meeting their obligations under the Barcelona Convention and the Prevention and Emergency Protocol as well as in implementing the Regional Strategy for Prevention of and Response to Marine Pollution from Ships, and also in mobilizing the regional and international assistance in case of an emergency under the Offshore Protocol.
- Thus, the Centre plays a key role in the pilot area for assistance to issues and problems, if not emergencies, linked and connected with maritime traffic, and maritime activities in general (including offshore).
- The **Specially Protected Areas Regional Activity Centre (SPA/RAC)** aims to contribute to the protection and preservation and sustainable management of marine and coastal areas of particular natural and cultural value and threatened and endangered species of flora and fauna, including marine mammals, also through the implementation of the obligations under the Barcelona Convention, under the SPA/BD Protocol and under the relevant Action Plan.
- The **Priority Actions Programme Regional Activity Centre (PAP/RAC)** aims to contribute to sustainable development of coastal zones and sustainable use of their natural resources; provides assistance to Mediterranean Countries in the implementation of the Barcelona Convention, in meeting their obligations under the ICZM Protocol and the related Action Plan and in implementing the MSSD. Article 17 of the ICZM Protocol, calls for the Parties to define, with the assistance of the Centre, a common regional framework for integrated coastal zone management in the Mediterranean to be implemented by means of appropriate regional action plans and other operational instruments, as well as through their national strategies⁴⁷.

UN Environment/MAP-Barcelona Convention is first and foremost a governance framework, facilitating cooperation and decision-making in the Mediterranean region. UN Environment/MAP therefore contains in itself those elements that we have seen as belonging to the TMSP, i.e. the instrument of planning based on cooperation between trans-boundary countries bordering the same sea basin⁴⁸.

⁴⁷ <http://web.unep.org/unepmap/who-we-are/institutional-framework/secretariat/map-components>

⁴⁸ UNEP/MAP: State of the Mediterranean Marine and Coastal Environment, UNEP/MAP – Barcelona Convention, Athens, 2012.

In this context, particular relevance has assumed the ecosystem approach, which has become the guiding principle to all policy development undertaken under the auspices of the Barcelona Convention since 2008, when the Contracting Parties to the Barcelona Convention agreed to progressively implement the EcAp to the management of human activities, with the ultimate objective of achieving the Good Environmental Status (GES) of the Mediterranean Sea (taken by the EU MSFD).

Furthermore, in 2016 the Contracting Parties to the Barcelona Convention (COP19) adopted the **Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast and Related Assessment Criteria (IMAP)**⁴⁹, to be implemented between 2016 and 2021 to support the assessment of the ecological status of the Mediterranean Sea, so that management of human activities is based on sustainable use of the Mediterranean Sea ecosystems.

Particular importance assumes the **Ecological Objective on Biodiversity (EO1)**, which foresees that the Biological diversity is maintained or enhanced. The quality and occurrence of coastal and marine habitats and the distribution and abundance of coastal and marine species are in line with prevailing physiographic, hydrographic, geographic and climatic conditions. The related **Operational Objectives** include that: species distribution is maintained; population size of selected species is maintained; population condition of selected species is maintained; key coastal and marine habitats are not being lost.

The following MAP Barcelona Convention GES **Targets** are focused on **marine mammals**:

- Human activities that have the potential to exclude **marine mammals** from their natural habitat within their range area or to damage their habitat are regulated and controlled;
 - Conservation measures implemented for the zones of importance for **cetaceans**;
 - Fisheries management measures that strongly mitigate the risk of incidental taking of monk seals and **cetaceans** during fishing operations are implemented;
 - Populations recover toward natural levels (**marine mammals**);
 - Decreasing trends in human induced mortality (**marine mammals**).
-

⁴⁹ See Decision IG.22/7.

As regards **pollution from ships**⁵⁰, IMAP specifically addressed it under Ecological Objective 9 (Contaminants): *“Regarding acute pollution events, while Contracting Parties already have an existing monitoring obligation under Article 9 of the Prevention and Emergency Protocol, the efforts of which need to be strengthened, it is also foreseen that further analysis of the links in between acute pollution events and their effects on biota and the development of specific assessment criteria for this latter should occur”*. In addition to EO9, three more EOs have been identified by **REMPEC**⁵¹ National Focal Points as potentially relevant with respect to pollution from ships under the **Prevention and Emergency Protocol** to the Barcelona Convention: EO2, non-indigenous species introduced by human activities are at levels that do not adversely alter the ecosystem; EO9, contaminants cause no significant impact on coastal and marine ecosystems and human health; EO10, marine and coastal litter does not adversely affect coastal and marine environment; and EO11, noise from human activities causes no significant impact on marine

⁵⁰ List of main relevant International Conventions dealing with:

Maritime Safety and Prevention of Pollution from Ships:

- The International Convention on Load Lines, 1966 (LL, 1966);
- The Protocol of 1988 relating to the International Convention on Load Lines (1966);
- The International Convention for the Safety of Life at Sea, 1974 (SOLAS, 1974);
- The International Convention for the Prevention of Pollution from Ships, 1973, as amended by the Protocols of 1978 and 1997 relating thereto (MARPOL) and its Annexes;
- The International Convention on Standards of Training, Certification and Watch-keeping for Seafarers, 1978 as amended in 1995 (STCW, 1995);
- The Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREG, 1972), as amended;
- The International Convention on Tonnage Measurement of Ships, 1969 (TONNAGE, 1969);
- The International Convention on the Control of Harmful Antifouling Systems on Ships (2001);
- The ILO Merchant Shipping (Minimum Standards) Convention, 1976 (No. 147), and the Protocol of 1996 relating thereto.

Combating Pollution:

- The International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990 (OPRC);
- The Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances 2000 (OPRC-HNS Protocol);
- The International Convention relating to Intervention on the High Seas in Cases of Oil Pollution Casualties (1969) (INTERVENTION 1969) and its Protocol relating to Intervention on the High Seas in Cases of Pollution by Substances other than Oil, 1973 (INTERVENTION PROTOCOL 1973);
- The International Convention on Salvage, 1989 (SALVAGE, 1989);
- The Nairobi International Convention on the Removal of Wrecks (2007).

Liability and Compensation for Pollution Damage:

- The International Convention on Civil Liability for Oil Pollution Damage, 1992 (CLC, 1992);
- The International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992 (FUND, 1992);
- The Protocol on the Establishment of a Supplementary Fund for Oil Pollution Damage (2003);
- The International Convention for the Control and Management of Ship’s Ballast Water and Sediments (2004);
- The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships (2009);
- The 1996 London Protocol on Prevention of Pollution by Dumping of Wastes and Other Matter;
- The ILO Merchant Shipping (Minimum Standards) Convention, 1976 (No. 147), and the Protocol of 1996 relating thereto;
- The Protocol of 1996 to amend the Convention on Limitation of Liability for Maritime Claims (1976);
- The International Convention on Civil Liability for Bunker Oil Pollution Damage (2001);
- The 2010 Protocol to the International Convention on Liability and Compensation for Damage in Connexion with the Carriage of Hazardous and Noxious Substances by sea (1996).

Source: REMPEC/WG.41/INF.12

⁵¹ In the UN Environment/MAP-Barcelona Convention context the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) is the responsible Centre for the coordination of the activities related to the implementation of the Protocol concerning Cooperation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea (“the 2002 Prevention and Emergency Protocol”) to the Barcelona Convention. The Centre is based in Malta and administered by the IMO in cooperation with UNEP/MAP.

and coastal ecosystems⁵². Furthermore, related to the Ecological Objective 10 “Marine and coastal litter do not adversely affect the coastal and marine environment”, the additional candidate common indicator 24 was identified on “Trends in the amount of litter ingested by or entangling marine organisms, **especially mammals**, marine birds and turtles”. Ingestion of and entanglement in marine litter by marine mammals are considered by the EU MSFD TGML (Technical Group on Marine Litter) for further development.

Useful available knowledge about the Mediterranean environment’s condition, in particular the major drivers and pressures affecting the sea and its coastal inhabitants, the current and prospective impacts of collective human activity, and emerging issues in coastal and marine management can be found on the latest Regional Assessment Report on the state of the Mediterranean marine and coastal environment, the Mediterranean Quality Status Report of 2017⁵³.

6.2 Other international Agreements, networks or structures of Member States’ competent authorities: Ramoge and Pelagos Agreements

In addition to the legislation of the European Union and, in particular, the “Habitats”⁵⁴ Directive with specific provisions applicable to cetaceans, the international environmental conventions of relevance to the protection of marine mammals have been ratified by the concerned member States, Italy and France, and by most of the Mediterranean Countries. In particular in this context it has to be mentioned, in addition to the Barcelona Convention and its Protocols and the Conventions on endangered species, (such as the Bonn Convention of migratory species of wild animals, the Bern Convention on the conservation of European wildlife and natural habitats, CITES, and the Agreement on conservation of cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic Area-ACCOBAMS)⁵⁵, the Ramoge and Pelagos Agreements, both between Italy, France, and the Principality of Monaco.

In the framework of the Barcelona Convention and the related Mediterranean Action Plan, the 1976 **Agreement on the protection of the marine and coastal environment of an area of the Mediterranean Sea (RAMOGE) Agreement**, from the three States Parties: France/Provence-Alpes-Côte d’Azur, Principality of Monaco and Italy/Liguria Region) establishes a pilot area for the prevention and control of pollution of the marine environment, constituting an instrument of scientific, technical, legal and administrative cooperation with which the Parties adopt integrated management actions. In 1993, with the implementation of the RAMOGEPOL Plan, the RAMOGE Agreement extended its competences on the high seas, thus also including the scope of the Pelagos Agreement and, more recently, of the MSP

⁵² See REMPEC/WG.41/INF.12 “Consultancy Report for the development of a quality assurance programme for data reporting and collection, in accordance with Article 5 of the 2002 Prevention and Emergency Protocol, as well as for the development of the 2017 Quality Status Report (QSR2017) for the Mediterranean (English only)”.

⁵³ See the 2017 Mediterranean Quality Status Report <http://web.unep.org/uneppmap/2017-mediterranean-quality-status-report>; the Initial Integrated Assessment of the Mediterranean Sea (UNEP/MAP 2012), the UNEP/MAP State of the Environment and Development in the Mediterranean Report 2009 (UNEP/MAP/BP/RAC 2009), the EEA-UNEP/MAP 2006 report Priority Issues in the Mediterranean Environment (EEA and UNEP 2006), the UNEP/MAP 2005 Report Trans-boundary Diagnostic Analysis for the Mediterranean Sea (UNEP/MAP/MED POL 2005), and the EEA-UNEP/MAP 1999 Report State and Pressures of the Marine and Coastal Mediterranean Environment (EEA and UNEP 1999). Prior reports on the state of marine and coastal environment in the Mediterranean were produced within the MAP system in 1996 and 1989 (UNEP/MAP/MED POL 1996 and UNEP/ MAP/MED POL/WHO/FAO 1989).

⁵⁴ Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora.

⁵⁵ See Chapter 6.

Directive. In the EU framework, to which two of the three States Parties to the Agreement belong, in particular the Marine Strategy Framework Directive obliges Member States bordering the same maritime region to draw up “in close cooperation” plans in order to guarantee the “Good Environmental Status” of the respective sea basins, based on detailed assessments on the state of the marine environment, defining the actions to be undertaken and the objectives to be achieved.⁵⁶

The 1999 **Pelagos Agreement establishing the Sanctuary for Mediterranean Marine Mammals** aims “to ensure a favourable conservation status for marine mammals by protecting them and their habitats from the direct and indirect negative impacts of human activities” (Article 4 of the Agreement), and thus to create “jointly coordinated initiatives to protect marine mammals and their habitats from all sources of disturbance caused by human activity: pollution, noise, accidental capture and injury, disruption, etc.”, which are also associated with natural causes (climatic changes, epidemics, etc.). To this end, the Parties are called to identify the threats posed to cetacean populations by these activities and taking appropriate measures to reduce them. The area is in fact subject to strong pressure from anthropic activities that result in serious impacts on the populations of marine mammals. Among others, these impacts are due to certain fishing techniques, prey depletion, increasing chemical and biological pollution, urbanization, collision with boats, as well as whale watching activities⁵⁷.

The Agreement covers an area of about 90,000 km² in the North-Western Mediterranean between Italy, France and the island of Sardinia, and includes Corsica and the Tuscan Archipelago.

The Sanctuary consists of maritime areas located in the inland waters and territorial seas of the French Republic, the Italian Republic and the Principality of Monaco, as well as the adjacent areas of high sea.

As already specified, in November 2001, the Sanctuary was included in the SPAMI list according to the requirements of the SPA/BD Protocol to the Barcelona Convention.

The portion of the Sanctuary included in the Italian territorial waters extends for about 25,000 km² and is included in the Italian Official List of Protected Areas (and identified as an “EUAP area”)⁵⁸.

Under UNCLOS, the area in question consists partly of waters over which each Party exercises its sovereignty or jurisdiction.

Wildlife particularly protected
(also under the Italian Law No. 157/1992, Article 2)

CLASS	SPECIES
(Marine) Mammals	Monk seal (<i>Monachus monachus</i>) All species of cetaceans (<i>Cetacea</i>)

⁵⁶ <http://www.ramoge.org>

⁵⁷ <https://www.sanctuaire-pelagos.org>

⁵⁸ The Law No. 394/1991 on the “Framework Law on Protected Areas”, as the main reference for the establishment and management of Italian protected natural areas, establishes the Official List of Protected Areas (EUAP), in which the protected areas are registered. Article 36 identifies – in addition to the areas referred to in Article 31 of Law No. 979/1982 – the marine areas for the establishment of marine parks or marine reserves; among these areas is also included the “Alto Tirreno-Ligurian Sea Sanctuary of the Cetaceans”.

Italy and **France** are EU Member States, the **Principality of Monaco** is part of the **EU** customs territory through an agreement with France, and it is administered as part of France. All three are Contracting Parties to the Barcelona Convention. At any rate, the Agreement (Article 7) specifies that in the Sanctuary the Parties comply with the international and European Community regulations.

The European Union exercises, for two States Parties (France and Italy), exclusive competence in the conservation and management of living marine aquatic resources and the related technical measures for the conservation of Mediterranean fishery resources are managed and regulated under the umbrella of the EU Common Fishery Policy (CFP).

The Parties are called to adopt national strategies aimed at the progressive suppression of toxic discharges into the Sanctuary, also through the implementation of the LBS Protocol and the Action Plans of the relevant Protocols of the Barcelona Convention. Article 14, in particular, provides for the competences of individual States, including ships⁵⁹. In addition, the Parties invite the other States that carry out activities in the area of the Sanctuary to take measures similar to those provided for in the Agreement, taking into account the Action Plan adopted in the framework of the UN Environment/MAP-Barcelona Convention for the conservation of cetaceans in the Mediterranean and the ACCOBAMS Agreement or any other relevant treaty (Article 17).

While the Pelagos Sanctuary represents a unique example of trans-boundary conservation area in the Mediterranean, pressures on the eight regular resident cetacean species as well as the transient ones, have dramatically increased in recent decades with different origins: ship strikes, fishing bycatches⁶⁰, prey depletion, disturbance and stress (whale watching, commercial and leisure boats), underwater noise, chemical and biological pollution (including microplastics), and climate change affect survival, recruitment, reproductive success, mutation rates and may play a significant role in the partitioning of genetic variation among populations exposed to high and less extreme stress (Fossi et al., 2013)⁶¹.

Currently, four main issues are challenging the management of the Pelagos Sanctuary for the conservation of marine mammals and their habitats (Notarbartolo di Sciarra et al., 2008)⁶²: curbing illegal driftnet practices; ensuring that ongoing military exercises are not harmful to cetaceans; streamlining bureaucratic obstacles to effective management; and identifying clear ecosystem-level objectives.

The second issue is the use of the Pelagos area as a test zone for acoustic experiments through military exercises on both French and Italian sides. Collaboration to solve that issue is now underway within the scope of the ACCOBAMS work on the impact of submarine noise on cetaceans. In 2007, the Contracting Parties to ACCOBAMS have adopted Guidelines to address the impact of anthropogenic noise on marine mammals in the ACCOBAMS area. A status report of ACCOBAMS, however, found that no significant progress has been made to address the problem of marine noise, nor have there been any systematic attempts to coordinate industrial activities with marine mammal conservation initiatives (Notarbartolo di Sciarra and Birkun 2010).

⁵⁹ Pelagos Sanctuary Agreement, article 14: “1. In the part of the Sanctuary situated in the waters that fall under its sovereignty or jurisdiction, each of the States Parties to this Agreement is competent to ensure the application of the provisions of the latter. 2. In the other parts of the Sanctuary, each of the States Parties shall be responsible for ensuring the application of the provisions of this Agreement to ships flying its flag and, within the limits provided for by the rules of international law, to ships flying the flag of Third States.”.

⁶⁰ Many fisheries catch fish other than the ones that they target: these unwanted fish are referred to as bycatch (Greenpeace).

⁶¹ Fossi M.C. et al. 2013. The Pelagos Sanctuary for Mediterranean marine mammals: marine protected area or marine polluted area? The case study of the striped dolphin (*Stenella coeruleoalba*). Marine Pollution Bulletin 70 (2013) 64-72.

⁶² Notarbartolo-di-Sciarra G. et al. 2008. The Pelagos Sanctuary for Mediterranean marine mammals. Aquatic Conservation marine and Freshwater Ecosystems. 18: 367-391 (2008).

SPAMI periodic review

According to the latest periodic review of the SPAMIs for the Pelagos Sanctuary, as for threats from urbanisation, industrialization and pollution, the Sanctuary has particularly urbanized coastal zones subject to strong touristic pressures. Industrialisation of the coastal zone induces more pollutants, as well as acoustic and seismic disturbances linked to civil engineering works and exploitation of the continental shelf. Threats from marine traffic (international and between islands and continent) induce some risk of ship strikes, direct disturbances and acoustic pollution. Marine transport of petroleum and/or dangerous products induces a permanent threat to the ecosystem and to the Sanctuary's species. The development of sea routes could in time lead to new constraints related to the increase of the maritime traffic. Threats from pleasure boating and whale watching risk to disturb the animals directly and, in some cases, also by ship strikes.

Finally, fisheries activities, in particular bycatch and competition, have some impact on marine mammals and their habitat.

The following are the most important external threats that are of concern, evaluated individually:

- All marine mammals are very seriously impacted by pollution.
- A serious threat as a global issue is registered for the reduction of fish stock, habitat loss, global warming and ship strikes (being one of the main anthropogenic cause of mortality of large cetaceans).
- All marine mammals, especially Cuvier's beaked whale, are impacted by acoustic threats that are increasing due to the constructions, navy activities and marine traffic.
- Another threat is given by stress and disturbance in particular from whale watching activities that are increasing.

No registered impacts from the scientific activities and low ones from natural diseases.

Bycatch threat has been reduced since the ban of the driftnets, but still not eliminated. In fact, in spite of bans imposed by the European Commission, the General Fisheries Commission for the Mediterranean and the International Commission for the Conservation of Atlantic Tuna, driftnets are still used in the Sanctuary, causing significant levels of cetacean mortality (Imbert et al., 2001)⁶³.

Depredation (interactions with fisheries) constitutes a very serious threat, especially for the bottlenose dolphins in Corsica and Sardinia.

According to the official website of the Pelagos Sanctuary⁶⁴, the Contracting Parties, at their 6th meeting (COP6, 2015), with Resolution 6.1 have adopted the Pelagos Sanctuary **management plan**, for the period 2016-2022, considering the previous one adopted during the second meeting of the Contracting Parties (Isola D'Elba, 2004). The management plan is divided into 4 parts:

- I. Knowledge of the ecosystem, species and activities;
- II. Prevention and mitigation of human impacts and pressures and management of emergency situations;
- III. Communication, awareness and involvement of the general public and stakeholders;
- IV. Governance of the Agreement.

⁶³ Imbert G., Gaertner J.C., Laubier L. 2001. Thonaille méditerranéenne. Suivi en mer de la campagne 2000. Rep. PACA 3340, Université Aix Marseille II, CNRS Centre d'Océanologie de Marseille.

⁶⁴ See footnote 53.

The management plan is based on a functional perspective, the ecosystem approach, and the principle of continuous updating, taking into account anthropogenic and natural variable, in addition to actions implemented as part of other Agreements and international programmes; nevertheless, the functional and operative part of the area management plan is still lacking. In fact, it defines the activities that shall be prepared, adopted and implemented by the Parties and therefore it is not a proper management plan, as it does not include zoning, regulations for each zone, competencies and responsibilities, governing bodies, management programmes; it does not implement the planning of management activities, including protection and management measures and the relative prohibitions.

On the other hand, with the Work Programme adopted for the period 2018-2019, the Contracting Parties confirm their commitment to contribute to the implementation of the work programme activities, both nationally and tripartite. The Permanent Secretariat is called to continue its cooperation and to develop the activities set out in the work programme with the Secretaries of other relevant intergovernmental organizations, such as the RAMOGE, ACCOBAMS, SPA/RAC, GFCM Agreements, in consultation with the National Focal Points.

6.3 Other methods in the context of sea-basin strategies

In the framework of the Cross-Border Cooperation Programme “Italy-France Maritime 2007/2013” joint projects have been implemented to support economic development in the area of cooperation. Hereafter, some example of cross-border projects (CBC programme) involving the Italian and France side of the **Corsica Channel**:

- INTERREG IV A Italy-France Maritime Cooperation Programme 2007/2013. Lead Partner Chamber of Commerce of Bastia and Haute Corse – Project ART2;
- INTERREG V A Italy-France Maritime Cooperation Programme 2014/2020. Lead Partner CIREM Economic Science Department of Cagliari University – Project GoSmartMED;
- INTERREG V A Italy-France Maritime Cooperation Programme 2014/2020. Lead Partner Chamber of Commerce of Ajaccio – Project Marittimo Tech;
- INTERREG V A Italy-France Maritime Cooperation Programme 2014/2020. Lead Partner Chamber of Commerce of Cagliari – Project ItinERA.

Furthermore, in the Corsica Channel, the Italian and French Governments have signed a Memorandum of Understanding in 2015, concerning the **regulation of international maritime traffic in the Channel**, in order to reduce the risk of accidents in an area characterized by a great environmental sensitivity and therefore to improve safety of navigation and the marine environment, providing enhanced monitoring to a better and quicker response in case of emergency.

For the **Strait of Bonifacio**, particularly are relevant:

- a Franco-Italian agreement on operational procedures for the **ship reporting system** in the Strait (Bonifacio Traffic VTS - vessel traffic services), signed on 3 June 1999;
- in the framework of the cross-boundary cooperation in the Strait, **the European Grouping of Territorial Cooperation (EGTC)** (along with the organization called “EGTC – PMIBB” by the Environment Office of Corsica and the National Park of La Maddalena Archipelago), which has been set up in order to promote joint management and protection of both natural and cultural wealth, to prevent natural and technological risks.

Furthermore, in the UN Environment/MAP-Barcelona Convention framework, another method in the context of sea-basin strategies utilised in the pilot area is the already mentioned **Coastal Area Management Programme (CAMP)**, based on the principles of sustainable development, integrated planning, and the management of Mediterranean coastal areas, as a collaborating Programme signed in 2007 between the Mediterranean Action Plan (MAP), the Italian national and local authorities, and institutions, and closed in 2017.

The proposal for activating the CAMP Italy project – prepared by the Italian Ministry of Environment, Land and Sea (IMELS), in collaboration with the concerned coastal local authorities (Regions), on the basis of the evaluation of natural features, anthropogenic and natural pressures, and governance tools in a sample of pilot areas – was submitted and formally approved by the Contracting Parties to the Barcelona Convention during COP 15 in 2008.

The main objective of the CAMP Italy has concerned the development and implementation of strategies and procedures for sustainable development of coastal areas, in particular by identifying and testing *ad hoc* methodologies and tools for the **Integrated Coastal Zone Management (ICZM)**, implementing the ICZM Protocol, in particularly significant pilot areas of Italy, including the present pilot area falling in the Tuscany and Sardinia Region. The project stands out from other CAMP Projects completed in other Mediterranean countries as being the first multi-area CAMP: it has covered five pilot areas falling within the territory of three coastal Regions (Emilia-Romagna, Sardinia and Tuscany). The activities of the CAMP Italy, incorporated within the regulatory framework of the Barcelona Convention and the European Union, have focused in particular on three Thematic Areas:

- **The planning of land and marine coastal areas;**
- **The protection, safeguarding and recovery of coastal and marine habitats;**
- **The sustainability of social and economic pressure on coastal areas.**

thus covering a part of the objectives and aspects of the present pilot case.

Two **instruments** have been implemented and tested on CAMP Italy activities:

- i. a **matrix for analysing LSI**, which sets out a standardised approach for identifying LSI in respect of an Individual Activity (or Project Activity), and which analyses elements such as the geographical reference area, the main ecosystem services, human activity/pressure and natural phenomena, and the main policy and planning tools. The matrix also requires a gap analysis of the activity to identify improved proposals for appropriate consideration of LSI for similar activities;
- ii. a **tool for analysing the mapping of ecosystem services and related LSI, and evaluation of the impact and effects of planning and management activities for coastal zones**. The suggested approach has enabled identification of a **significance matrix**, which connects human activity with the impacts it has on ecosystem services and reciprocal interactions, in socio-economic and environmental sustainability terms. The matrix, therefore, enables identification of the most suitable management method to ensure ecosystem services continue, and also analysis of the influence the actions have on them.

The methods and tools proposed can be applied equally to any coastal zone management activity, whether already implemented, in the planning stage, or newly-developed; an *ex-post* application enables evaluation of how consistent a specific activity is with ICZM, MSP and LSI; *ex-ante* application enables consideration of an activity in terms of its ICZM, MSP and LSI elements. It is precisely this dual interpretation that makes it an extremely versatile and effective tool, and is therefore useful for a number of different applications, such as evaluating or planning coastal zone management projects.

7. Proposals for the MSP approach in the pilot area considering the appropriate measures to guarantee a favourable conservation status of marine mammals

As a tool for planning and integrating different uses of the sea, MSP is rooted in pre-existing legislation, national and local structures and procedures. Legal requirements and operational procedures under international, EU and national law have a direct impact on how MSP can be framed and implemented. Moreover, the elaboration of MSP requires a comprehensive integration of all maritime sectors, which can include technical specificities for each of the concerned sectors. In most cases, the management of marine areas also involves different levels of public authorities, economic operators and sectors, as well as relevant stakeholders.

As already underlined, in this specific pilot case it is a matter to indicate and recommend how to proceed with the aforementioned cross-border cooperation and to identify the main sectors on which to focus such a cooperative process.

This chapter of the Report aims to examine the relationship between a possible TMSP cooperation in the pilot area in question and the planning tools in place as well as the current sectoral legislation.

7.1 Protecting marine mammals, together with their habitat, from the direct or indirect negative impacts of human activities, in particular in the two economic sectors: maritime transport (goods, passengers and ferries) and fishing (trawl and longline)

The Mediterranean biodiversity faces multiple anthropogenic pressures that affect its ecological status and peril its conservation. Impacts have been reported on the populations of different species, including marine mammals, notably cetaceans and, occasionally, monk seals.

The Pelagos Sanctuary thus represents a multinational entity with overlapping jurisdictions between France, Italy and Monaco, making its management a challenge where Pelagos Parties should examine their respective obligations and tools already established through other international agreements like the Barcelona Convention and ACCOBAMS.

The last challenge is related to the EcAp approach in the Mediterranean: defining ecosystem-level objectives that seek to extend conservation measures from protected species and their habitats to marine food-webs and ecosystem-wide processes. This supposes a robust multidisciplinary knowledge base that has still to be developed.

The Pelagos Sanctuary is thus a complex entity, being made of different ecosystems, including coastal areas and the high sea, each of them requiring specific management approach. The fact that these coastal areas include MPAs is noteworthy since, if well managed, they might contribute in term of good-management governance of the Sanctuary and in the frame of ACCOBAMS and the SPA/BD Protocol to the Barcelona Convention.

2017 Mediterranean Quality Status Report

From the Regional Assessment of the Mediterranean Marine and Coastal Environment, providing information on the status of the environment and description on the distance from EcAp targets, ecological objectives and Good Environmental Status (GES), the Quality Status Report (QSR) on Biodiversity gives more information about the marine mammals.

Data on distribution of marine mammals are usually collected during dedicated ship and aerial surveys, acoustic surveys, or opportunistically by whale watching operators, ferries, cruise ships, military ships.

Twelve species of marine mammals — one seal and 11 cetaceans — are regularly present in the Mediterranean Sea; all these 12 species belong to populations (or sub-populations, *sensu* IUCN) that are genetically distinct from their North Atlantic conspecifics. The Mediterranean monk seal (*Monachus monachus*) and the 11 cetacean species (fin whale, *Balaenoptera physalus*; sperm whale, *Physeter macrocephalus*; Cuvier's beaked whale, *Ziphius cavirostris*; short-beaked common dolphin, *Delphinus delphis*; long-finned pilot whale, *Globicephala melas*; Risso's dolphin, *Grampus griseus*; killerwhale, *Orcinus orca*; striped dolphin, *Stenella coeruleoalba*; rough-toothed dolphin, *Steno bredanensis*; common bottlenose dolphin, *Tursiops truncatus*; harbour porpoise, *Phocoena phocoena relicta*) face several threats, due to heavy anthropogenic pressures throughout the entire Mediterranean Basin.

The conservation status of marine mammals in the region is jeopardised by numerous human impacts, such as:

- deliberate killing (mainly due to interactions with fisheries), naval sonar, ship strikes, epizootics, fisheries bycatch, chemical pollution and ingestion of solid debris;
- short-term habitat displacement as a consequence of naval exercises using sonars, seismic surveys, vessel disturbance and noise; and
- long-term relocation caused by food depletion due to over fishing, coastal development and possibly climate change.

Two of these species have very limited ranges: the harbour porpoise, possibly representing a small remnant population in the Aegean Sea, and the killer whale, present only as a small population of a few individuals in the Strait of Gibraltar.

Out of the 12 marine mammal species listed above, seven are listed under a Threat category on the IUCN's Red List, three are listed as Data Deficient and two need to be assessed.

Current knowledge about the presence, distribution, habitat use and preferences of Mediterranean marine mammals is limited and regionally biased, due to an unbalanced distribution of research effort during the last decades, mainly focused on specific areas of the Basin. Throughout the Mediterranean Sea, the areas with less information and data on presence, distribution and occurrence of marine mammals are the south-eastern portion of the basin, including the Levantine basin, and the North Africa coasts. In addition, the summer months are the most representative ones and very few information have been provided for the winter months, when conditions to conduct off-shore research campaigns are particularly hard due to meteorological adversity.

Marine mammals presence and distribution is mainly related to suitable habitats and availability of food resources; anthropogenic pressures, as well as climate change, may cause changes and shifts in the occurrence of marine mammals, with potential detrimental effects at the population levels. Accordingly, in order to enhance conservation effort and inform management purposes, it is crucial to obtain detailed and robust descriptions of species' range, movements and extent of geographical distribution, together with detailed information on the location of breeding and feeding areas.

Ongoing effort by ACCOBAMS is planning a synoptic region-wide survey, the so-called ACCOBAMS Survey Initiative, to assess presence and distribution and to estimate density and abundance of cetaceans in the summer of 2018. Concurrently, local scientists are working on the identification of Cetacean Critical Habitats (CCHs) and Important Marine Mammal Areas (IMMAs) in the entire Mediterranean Sea. A gap analysis is also been conducted within the Mediterranean Sea, to provide an inventory of available data and to select areas where more information should be collected.

Within the **EcAp Ecological Objective 1** (*Biological diversity is maintained or enhanced. The quality and occurrence of coastal and marine habitats and the distribution and abundance of coastal and marine species are in line with prevailing physiographic, hydrographic, geographic and climatic conditions*) related to marine mammals, are to be considered:

- **Common Indicator 3 on species distributional range.** The aim of this indicator is to provide information about the geographical area where marine mammal species occur, and to determine the range of cetaceans and seals that are present in the Mediterranean waters. The distribution of a given marine mammal species is usually described by a map, describing the species presence, distribution and occurrence. Geographical Information Systems (GIS) are commonly used to graphically represent monitoring data and species distributional range maps.
- **Common Indicator 4 on population abundance of selected species.** This indicator aims at providing robust and quantitative indications on population abundance and density estimates for marine mammal species living in the Mediterranean Sea.
- **Common Indicator 5 on population demographic characteristics of marine mammals within the Mediterranean waters,** which aims to assess its conservation status by analysing demographic parameters. These data are particularly difficult to obtain for marine mammals, thus relying on demographic models, which imply several assumptions, which may be violated.

Source: 2017 Mediterranean Quality Status Report – https://www.medqsr.org/sites/default/files/inline-files/2017MedQSR_Online_0.pdf

As seen, even if a management plan has been adopted since 2004 and updated in 2015, in practice the Cetaceans Sanctuary lacks the functional and operative part of the area management plan. As it is known, the presence of the management plan is a *conditio sine qua non* for the existence of a marine protected area. Therefore, the adoption of MSP, which also deals with cross-border issues, could contribute to bridge this deficit and resolve itself as a useful operative tool also for the protection of marine resources present in the area and, in particular, for the protection and safeguard of marine mammals, as it is also provided for in the 1999 Agreement establishing the Pelagos Sanctuary.

Activities to be considered by the relevant States in agreement and in full cooperation

Within this pilot area of the project, and in this phase, the goal is not to give answers as to frame the fundamental questions, on the basis of which the TMSP should be structured. Therefore, the principal questions to be taken into account on the future analysis on the TMSP cooperation should be the following ones:

- To what extent cumulative impacts (across time and space) would be successfully managed?
- To what extent TMSP would have an impact on the sustainability of social and economic conditions?
- To what extent TMSP would have an impact on biodiversity, if would have been any change to the biodiversity in the concerned area attributable to the TMSP?
- How cross-border collaboration should contribute to ensuring a consistent and equitable use of marine space across-borders, so that resource use and rights are consistent across the borders?
- To what extent a successful cross-border sharing of good practices within the TMSP process should be achieved?
- What could be the main obstacles and key barriers to cross-border MSP collaboration and cooperation?

- How it should be implemented the stakeholder's involvement in designing and shaping the MSP process, including its cross-border elements: from the direct and substantial involvement, to the information of stakeholders of the development of the MSP even if without any contributors to its design; through their invitation to advance comments to be acted upon in some instances and, finally the active role of stakeholders in the planning process and significantly shaped the resulting plan?

It has already been underlined that trans-boundary MSP is unlikely to lead to a joint plan, but it should rather offer effective links between national MSP processes.

For establishing cooperation on MSP between neighbouring Countries, key elements that should form an integral part of the negotiations or cross-border cooperation within the trans-boundary MSP, to ensure that maritime spatial plans are coherent and coordinated, include:

- Knowledge and understanding of the legal framework of reference **and of the formal planning systems and process across borders**, fundamental to find the minimum requisites for a shared MSP agreement.
- **Identification of common interest's aspects** of Member States bordering the concerned marine region, in particular of a transnational nature, finding common ground or, in case of opposing objectives, how they can be resolved to contribute towards preventing or reducing conflicts between different uses in the broader marine ecosystem.
- **Evaluation of possible common approaches** for the management of maritime activities and marine conservation objectives between the bordering States.
- Analysis of **cooperation gaps** between different sectors.
- **Identification and consideration of existing institutional regional cooperation structures;**
- Analysis of the governance context, extended to the relevant **particularities of the** marine region whereabouts the national plan will operate, achieving coordination and exchange of information with the neighbouring Countries and the pertinent international bodies.
- Examination of legal **instruments embodying cross-border cooperation** in the area, such as sectoral area-based management tools (ABMTs) (e.g. fisheries closures), cross-sectoral ABMTs (e.g. marine protected areas), Trans-boundary Strategic Environmental Assessments and Environmental Impact Assessments (as both processes allow for consultations to be carried out when potential significant issues of a trans-boundary nature are identified through the evaluation process).
- Consideration of tools such as the **carrying capacity and the cumulative impact assessment**, that could indicate activities that may have trans-boundary effects of the neighbouring MSP plan or plans in the relevant marine zone. Therefore, consultation with the bordering State/s to coordinate their plans, in order to ensure that the collective pressure resulting from the cumulative and combined impact of all maritime activities remains in line with environmental requirements for Good Environmental Status (GES) set by the Marine Strategy Framework Directive⁶⁵.

⁶⁵ The Marine Strategy Framework Directive (MSFD, 2008/56/EC) calls for a coherent approach within a marine region or sub-region covering EU Member States in the implementation of all necessary steps for the achievement of Good Environmental Status (GES). The MSFD requires Member States to cooperate and is promoting a cooperation with and through the Regional Seas Conventions and specifically the Barcelona Convention in the Mediterranean Region (MSFD (19)). Also the MSFD invites

- In particular, considering the **marine mammals protection**: adoption of recovery of undisturbed situation for marine mammals by reducing fishery in the framework of the ACCOBAMS and Pelagos Agreements; implementation of mitigating measures, including by-catch monitoring and research, preventing and reducing the harmful effects of underwater noise; assessment of plans for the construction of offshore wind farms for their negative cumulative effects on marine mammals (underwater noise), and their habitat, parallel addressed in the Offshore Protocol and the related Action Plan.
- **Production of knowledge at the regional sea level and the sharing of data and information**, through the collaboration and harmonization of data and information systems, in order to create a legitimate and solid knowledge base for joint planning processes at the regional sea level;
- Recognition of the relevance of the role of **public participation** and the correct application of the related process, adopting and implementing specific mechanisms for MSP's public participation, informing all the identified "interested parties", and consulting all the relevant identified "stakeholders, authorities, and the public concerned".
- Establishment of **dedicated engagement bodies** to facilitate discussion and exchanges between different parties, improving transparency and trust-building.
- Following the UN Environment/MAP-Barcelona Convention principles, the MSP in this particular area (including Pelagos Sanctuary) should be organised around the **11 Ecological Objectives**⁶⁶ (developed in synergy with the EU MSFD) agreed by the Contracting Parties to the Barcelona Convention as a common strategy for the application of the **Ecosystem Approach** to the management of human activities: biodiversity conservation, coastal dynamics, fisheries management, pollution reduction, marine litter and hydrography as part of an integrated analytical and implementation framework⁶⁷.
- Prevision of a joint trans-boundary approach between neighbouring Countries on MSP, among others **building upon CAMP networks**.
- Identification of useful tools to build-up the TMSP process, such as the **European Grouping of Territorial Cooperation (EGTC)** and the related individuation and agreement of its main elements by the concerned Central governments, Regional and/or local authorities, bodies

Third Countries with waters in the same marine region or sub-region as the Member States to participate in the process laid down in the Directive, thereby facilitating achievement of good environmental status in the marine region or sub-region concerned (MSFD paragraph 20).

The Five-Year Programme of UNEP/MAP-Barcelona Convention (2010-2014), adopted at the Meeting of the Contracting Parties (Marrakesh, 2009) considered the application of the ecosystem approach roadmap as the overarching priority cutting across its six thematic areas.

⁶⁶ In 2012, with Decision IG.20/4 the Contracting Parties to the Barcelona Convention have adopted 11 Ecological Objectives (and their respective common indicators) that relate to the following topics: Biodiversity (EO1); Non-indigenous species (EO2); Fisheries (EO3); Marine food webs (EO4); Eutrophication (EO5); Sea-floor integrity (EO6); Hydrography (EO7); Coast (EO8); Contaminants (EO9); Marine litter (EO10); and Noise (EO11).

⁶⁷ See the 2008 Decision IG.17/6 on "Implementation of the ecosystem approach to the management of human activities that may affect the Mediterranean marine and coastal environment" (UNEP(DEPI)/MED IG.17/10). The Contracting Parties to the Barcelona Convention committed to progressively apply EcAp to the management of human activities with the goal of effecting real change in the Mediterranean marine and coastal environment. Decision IG 17/6 also outlines a roadmap for the implementation of EcAp, consisting of several subsequent steps, such as the development of Ecological Objectives (EO), operational objectives and respective indicators, the development of GES descriptors and targets, monitoring programmes, and finally the necessary management measures and programmes to achieve GES; and the 2012 Decision IG.20/4.

governed by public law and Associations as appropriate, in order to manage the cross-border cooperation. In fact, the EGTC is a specific EU substantive tool to facilitate cross-border, trans-national or inter-regional cooperation, enabling regional and local authorities from different Member States to cooperate more effectively, for example by allowing them to directly apply for and manage European funds. Its fundamental role is to organise and manage cross-border, trans-national or interregional cooperation measures, with or without EU financial support.

- In order to achieve greater protection of marine mammals in the Mediterranean, enhance the involvement of the **Pelagos Sanctuary** in the Mediterranean nature conservation networks and therefore of Protected Areas, providing for greater spreading of best practices, twinning and technical cooperation with other SPAMIs and more generally other MPAs in the framework of and with support from UN Environment/MAP Barcelona Convention and its SPA/RAC. Therefore, strengthen the protection of marine mammals also through a correct, concerted and extensive planning of marine spaces, based on the best available data and knowledge, with the **adoption of national MSPs** that, based on a specific consultation, cooperation and harmonisation, take into account this particular aspect. It should therefore be specifically agreed between the three Contracting Parties, through the above-mentioned cross-border cooperation process (TMSP), the collation and harmonization of the three national MSPs that provide a valuable planning tool and, ultimately, management tool of this particular area of the **Sanctuary Pelagos for the protection of marine mammals**, in particular with respect to the many anthropic activities that impact the area.

8. Conclusions

The adoption of a general plan for the management of all the maritime economic activities, taking into account the interactions and impacts of both natural and anthropic origin, can also be a useful tool for the protection of marine mammals and their habitat, since the EU MSP Directive is a legally binding instrument, transposed and implemented at the national level, establishing a framework for maritime spatial planning as a cross-cutting policy tool, based on the ecosystem approach (as referred to in Article 1(3) of Directive 2008/56/EC), enabling public authorities and stakeholders to apply a coordinated, integrated and trans-boundary approach. The MSP plans should consider the species protection implications, with the aim of ensuring that the collective pressure of all activities is kept within levels compatible with the achievement of good environmental status and that the capacity of marine ecosystems to respond to human-induced changes is not compromised, insofar in particular protecting endangered species such as the marine mammals through complex and all-inclusive management plans.

The MSP can therefore be considered as a complementary tool that is also useful for improving the protection of marine mammals, supporting both the implementation of the Pelagos Sanctuary and the Ramoge and ACCOBAMS Agreements, and the sustainable development of the Mediterranean through UN Environment/MAP-Barcelona Convention. We have seen that in the application of the MSP Directive in the present pilot case area the nodal question is not represented by the obligation of cooperation, as the countries involved – Italy and France – are both the EU Member States, the Contracting Parties to the Agreement establishing the Sanctuary for the Marine Mammals (Pelagos) and the two Agreements RAMOGE and ACCOBAMS, as well as the Contracting Parties to the Regional Seas Convention of the UNEP/MAP-Barcelona Convention, since an obligation to cooperate and collaborate clearly and substantially derives from the aforementioned legal instruments. The question that arises is about “**how**”, and in what terms the obligation of cooperation should be implemented.

The MSP is primarily a national activity. However, taking into consideration that ecosystems as well as pressures from human activities cannot be framed within natural boundaries, it becomes extremely important for Member States to perceive the instrument of a cross-border cooperation within the MSP as an *opinio juris sive necessitatis* or an opinion of law or necessity, believing that such action should be carried out as a legal obligation. It is clear that a coordination mechanism through the EU MSP Directive is in place to standardize policies and regulations across all sectors and parties involved, but there are still inconsistencies between their implementation.

Therefore, the cross-border collaboration still remains a major challenge. Pilot activities, testing different aspects of a trans-boundary collaboration are fundamental to lead on how the significant barriers as well as minor difficulties to cross-border collaboration should be resolved. In addition, the cross-border cooperation can be encouraged through the Regional Seas Conventions system that is the natural framework for a cross-border cooperation.

The starting point of any TMSP process should be an **official decision of the concerned countries to cooperate**, accompanied by the identification of the **responsible authorities** and bodies to be involved. Although this is particularly relevant for the formal TMSP process, pilot TMSP activities should follow the same approach.

The Tyrrhenian pilot case study aimed at exploring governance prerequisites necessary to be in place for the implementation of TMSP, which proved to be a rather **sensitive** task. Namely, as the pilot project failed to ensure from the beginning the consent of the responsible authorities on the specific **scope of**

work and the **institution** fully **responsible** for the implementation of the cross-border activities, the scope of work has continuously been changed in order to accommodate different requirements from the members of the Steering Committee. This resulted in hampering participation and support from project partners and stakeholder consultation process, which means that the implementation of activities was mainly based on desk analysis.

Therefore, it can be proposed that any future TMSP activities should:

- ensure, prior to initiate TMSP, the **official decision of the concerned countries** regarding the implementation of activities;
- be led exclusively by **national authorities** of the concerned countries so to ensure that the activities are legitimate and fully supported by these authorities, and that they bring added value;
- envisage the involvement of **existing institutional regional cooperation structures**, such as the UN Environment/MAP-Barcelona Convention and its RACs, as a supporting partner and confirmed framework for facilitating cooperation.

Annex A:

Data and information acquired from Country fact sheets

Taking into account the **Country fact sheets of Italy and France** – where a collation of information across the project area has been done to provide an overview of the area’s characteristics (including marine environment; maritime activities; key sectoral and socio-economic trends and emerging pressures, legal issues, governance) – the following table shows information concerning the maritime activities in the area, in accordance with Commission Directive (EU) 2017/845 of 17 May 2017) **Annex III, Table 2b.**

Group	Sectors / Activities	
Extraction of living resources	Fish and shellfish harvesting (professional, recreational)	
	Fish and shellfish processing	
	Marine plant harvesting	
	Hunting and collecting for other purposes	
Extraction of non-living resources	Extraction of oil and gas, including infrastructures	
	Extraction of minerals (rock, metal ores, gravel, sand, shell)	
	Extraction of salt	
	Extraction of water	
Cultivation of living resources	Aquaculture, including infrastructure	
Transport	Transport infrastructure	
	Shipping	
	Shipbuilding	
Physical restructuring of coastline or seabed	Land claim	
	Coastal defense and flood protection	
	Offshore structures (other than for oil/gas/renewables)	
	Restructuring of seabed morphology, including dredging and depositing of materials	
Production of energy	Renewable energy generation (wind, wave and tidal power), including infrastructure	
	Non-renewable energy generation, including infrastructure	
	Transmission of electricity and communications (cables)	
Tourism and leisure	<i>Coastal tourism</i>	Coastal tourism
		Beach-based activities
	<i>Maritime tourism</i>	Cruise tourism
		Sailing and nautical activities
Public sector	Defence/Military Areas	
	Research and Education	

In the Country fact sheet a first screening has been done, which includes the description of the trans-boundary issues and, in particular, trans-boundary interactions of the activity (cross-border activity, cross-border pressures, issues and opportunities, hotspots of interaction, shared resources), summarized hereinafter.

Extraction of living resources

ACTIVITY: Fish and shellfish harvesting (professional, recreational)

No trans-boundary interactions of the activities are in place, due to their typical local characteristic.

ACTIVITY: Marine plant harvesting

No trans-boundary interactions are in force for this activity. Several international projects tried to identify proper management issues of beached seagrass and avoid wrong practices, as well as detect possible uses of this resource as raw material and obtain economic benefit from a proper management solution of them.

Extraction of non-living resources

ACTIVITY : Extraction of non-living resources

Since 2012 it a technical table was launched between Italy and Malta for the study of possible joint exploration and development in a marine area subject of litigation.

Cultivation of living resources

ACTIVITY: Aquaculture, including infrastructure

No trans-boundary interactions of the activities are in place, due to their typical local characteristics. The different shape of the coastlines and their geomorphology has led to some national differentiation in the development of aquaculture activities, avoiding trans-boundary interactions.

Transport

ACTIVITY: Shipping

The most relevant trans-boundary interactions of shipping are related to operational, administrative and custom procedures – land and sea side – safety and security, taking into account international regulations and the policies and strategies of the EU. Italy is directly involved in a number of regional initiatives and projects, which includes:

- exchange of data and information related to safety and security at sea and the protection of maritime environment;
- a common platform, named “port management information system” (PMIS), implemented and made operational in the most important Italian ports to simplify and harmonize the administrative procedures applied to maritime transport by rationalizing and implementing electronic means for clearance of ships. PMIS is being enhanced further in order to act as National Maritime Single Window, complying with IMO FAL Committee requirements and the 2010/65/EU Directive;
- an integrated VTMISS platform, in compliance with the rules set forth in the IMO international Conventions and EU Directives, which allows building of a global picture of the vessel traffic developing in the Mediterranean Basin, and is made available for use by the IMRCC and the Coast Guard stations operating along the Italian coast;
- the ground-based AIS network, which is fully operational and integrated in the VTMISS.

Physical restructuring of coastline or seabed

ACTIVITY: Restructuring of seabed morphology, including dredging and depositing of materials

In the revised sources there aren't reference to trans-boundary impacts or pressures about coastal erosion. Some opportunities have been recognized in a view of development of macro-regional and Mediterranean Basin policies. The TNEC Guidelines identify as necessary the sharing and development of good practices, such as those started with MEDSANDCOAST in which a first bibliographic reconnaissance of the sand deposits in the Mediterranean was prepared.

Production of energy

ACTIVITY: Non-renewable energy generation, including infrastructure- LNG FACILITIES

Large-scale import/export infrastructure: Italy currently has 3 operational re-gasification terminals, 2 off-shore (one near Livorno) and 1 on-shore.

The trans-boundary interactions of the LNG sector are based on the coordination and alignment of the initiatives at European, national and local level, which will deliver a strong clustering effect and complementarity of the results, supporting both National Authorities and the EC in the full deployment of a cross-border and interoperable alternative fuels infrastructure and the adequate coverage of the TEN-T Network.

This approach will guarantee the cross-border continuity, including the maritime transport, setting up stable and reliably maritime LNG supply chain while diversifying energy routes and sources.

ACTIVITY: Transmission of electricity and communications (cables)

In 1967, the Sardinia – Corsica – Italian Mainland direct current interconnection (200kV – 200 MW), called SACOI, entered into operation, connecting the Codrongianos (Sardinia) converter stations with S. Dalmazio (middle Tuscany), in order to initially perform large energy transfers from the new Sardinia (Sulcis) coal power plants towards the Italian Mainland. This use almost immediately underwent some changes, actually allowing to compensate for production shortages in the island, both referring to load/production imbalance periods and to particular emergency conditions and to regulate frequency in AC Sardinian grid.

Cables connected to an Italian terminal station: cooperation between France and Italy (Sardinia, Corsica, Italy), for share energy facilities may help to reduce energy shortage and increase energy security.

Tourism and leisure

ACTIVITY: Maritime Tourism

Maritime tourism refers to sea-based activities such as boating, yachting, cruising, nautical sports as well as their land-based services (Ecorys, 2013). Maritime tourism can be divided in coastal, cruise and nautical tourism. It will probably bring new challenges and conflicts with other sectors in the future.

Relevant EU legislation, such as the Water Framework Directive and the Marine Strategy Framework Directive, require Member States to ensure good status of coastal and marine waters, a pre-requisite for tourism to prosper. ICZM and MSP help ensure sustainable and Green Infrastructure development through smart planning and cooperation between government, public and private partners, taking into account that the maritime tourism sector potentially impacts on the ecosystems and, in particular, of those of the Protected Areas; compete for space with shipping and passenger transport, fisheries sector and aquaculture developments along the coast; involves water demand, more waste and emissions from air, road and sea transport at peak periods, more risks of soil sealing and biodiversity degradation (from infrastructure developments), eutrophication and other pressures. In addition, the impacts of climate change exacerbate pressures on these areas and could reshape tourism's geographical and seasonal distribution.

ACTIVITY: Coastal Tourism and Beach-based activities

It is worth to mention the following areas of interventions for their relationship with MSP:

- the “Tuscany Landscape Plan”, which includes measures to protect the dunes and coastline and imposes limits on building permanent structures on beaches, in order to guarantee accessibility and use of the shores;
- the support for the national strategy for parks and protected areas, rural and inland areas for a full integration of these destinations into the national tourism supply;
- the ECST method and processes (European Charter for Sustainable Tourism in Protected Areas), including the tourist-cultural supply;
- the regional interventions and Tourism Districts, established by the Ministry of Cultural Heritage and Activities and Tourism;

- the initiative for the sustainable development of the blue economy in the western Mediterranean Region, which enhances a series of action of cooperation for promoting a sustainable and responsible tourism, promoting transnational natural, cultural and historical routes; endorsing brand-building of thematic tourist products and services; providing common quality standard and certification; promoting new tourism models and sea-land itineraries (developing top-end destinations connecting the port and the harbour city with the hinterland by creating a sea and land itinerary with thematic stopovers and new technologies); supporting tourism-fisheries and fisheries cultural heritage.

These actions aim to address tourist seasonality in a sustainable manner, to diversify products and destinations, to implement sustainable coastal tourism models based on marine coastal ecosystem and changed behaviour of residents and tourists.

Public Sector

ACTIVITY: Defence/Military Areas

The Italian Navy offers its significant participation in international co-operation activities involving other Mediterranean marinas.

Fishery related conflicts and synergies

Fishery activities are almost widespread along Italian Tyrrhenian coasts, with historical fishing harbours and medium-large fleets. Conflicts in fisheries arise usually when other activities are in competition for the resources or for space. Fish stocks in the whole Mediterranean Sea are generally fully exploited or overexploited. This condition is leading to heavy risks of collapse of the stocks, urging the needs of proper regulation of the exploitation of the resources and sustainability of the used gears. In particular, the occurrence of shared stocks between regional and international fleets in the Mediterranean Western Seas may lead to possible trans-boundary conflicts for fish resources (i.e. between Italian and French fleets in the north-western Tyrrhenian sea and at the sea borders with Corsica). This condition may lead to trans-boundary conflicts for fish resources both at inter-regional and international level, especially when common fishing grounds became overexploited and in absence of an adequate protection of recruitment and spawning areas of target species. The Code of Conduct for Responsible Fisheries (as formulated by FAO in 1995) in coherence with UNCLOS and accounting for the Declaration of Cancun (1992), the Rio Declaration (1992), the provisions of the Agenda 21 of UNCED, the 1992 FAO Technical Consultation on High Sea Fishing and the EU Common Fisheries Policy (CFP, 2014) further emphasizes the necessity, when in presence of shared stocks for coastal states to cooperate for fisheries research and management.



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PAP/RAC is established in 1977 in Split, Croatia, as a part of the UN Environment Mediterranean Action Plan (UN Environment/ MAP). PAP/RAC’s mandate is to provide assistance to support Mediterranean countries in the implementation of the Barcelona Convention and its Protocols, and in particular of the Protocol on Integrated Coastal Zone Management in the Mediterranean. PAP/RAC is oriented towards carrying out the activities contributing to sustainable development of coastal zones and strengthening capacities for their implementation. Thereby, it co-operates with national, regional and local authorities, as well as with a large number of international organisations and institutions.

Following the emerging need to introduce MSP in the entire Mediterranean Region, the 20th Meeting of the Contracting Parties to the Barcelona Convention (COP 20, Tirana, Albania, 2017) adopted the *Conceptual Framework for Marine Spatial Planning*. Therefore, MSP was introduced within the Barcelona Convention System, as the main tool/process for the implementation of ICZM in the marine part of the coastal zone, thus contributing to the balance between environmental, social and economic dimensions of sustainable development.