



**MEDITERRANEAN ACTION PLAN (MAP)
REGIONAL MARINE POLLUTION EMERGENCY RESPONSE CENTRE FOR THE
MEDITERRANEAN SEA (REMPEC)**

Regional Meeting of National Experts
on the Mediterranean Strategy for the Prevention of, and Response to
Marine Pollution from Ships (2022-2031) (Remote Meeting)

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**SECOND DRAFT MEDITERRANEAN STRATEGY FOR THE PREVENTION OF, PREPAREDNESS
FOR AND RESPONSE TO MARINE POLLUTION FROM SHIPS (2022-2031)**

Note by the Secretariat

SUMMARY

Executive Summary: The present document provides the Second Draft Mediterranean Strategy for the Prevention of, and Response to Marine Pollution from Ships (2022-2031) and its Action Plan and proposes the related vision, overarching objective, guiding principles, strategy governance and Common Strategic Objectives.

Action to be taken: Paragraph 4

Related documents: REMPEC/WG.45/7, REMPEC/WG.45/16

Background

1 The Regional Strategy for the Prevention of, preparedness for and Response to, Marine Pollution from Ships (referred to as the Regional Strategy) was adopted in 2016 for the period 2016 to 2021. The Regional Strategy (2016 - 2021) was developed through an extensive consultative process with the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean ("the Barcelona Convention") and partners. It 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. It lists the priority issues to be addressed when implementing 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 and includes, for each of these issues, precise commitments and a timetable for the implementation of twenty-two specific objectives to be achieved by 2021.

2 As the period of implementation for the Regional Strategy (2016-2021) neared completion, the Thirteenth Meeting of the Focal Points of REMPEC (Malta, 11-13 June 2019) requested the Secretariat to:

1. **carry out** a joint analysis, involving IMO, relevant Directorate Generals (DGs) of the European Commission, EMSA and REMPEC, to identify the complementarities of relevant projects implemented in the Mediterranean region, in particular the SAFEMED IV Project, and REMPEC activities in the framework of the Regional Strategy (2016-2021) and to propose concrete synergies.
2. **continue** ongoing efforts, through a specific activity of the PoW for the biennium 2020-2021:

- **to review** the progress made in the field of prevention of, preparedness for and response to marine pollution from ships in the Mediterranean region by analysing information gathered in National Action Plans, project fiches, and the analysis referred in point 1, as well as any other relevant information;
 - **to launch** a wide consultation process involving national competent authorities, relevant regional and international institutions and stakeholders addressing challenges and offering expertise, resources, and funding to progress in the improvement of the prevention of and response to marine pollution from ships in the Mediterranean region:
 - a) to define, through a collaborative approach, the vision, the strategic directions, and objectives of a Post-2021 Mediterranean Strategy for Prevention of and Response to Marine Pollution from Ships;
 - b) to outline the main institutions and stakeholders' roles and responsibilities within their respective mandate, and identify required synergies; and
 - c) to propose a modus operandi (e.g. Action Plan) to ensure concerted planning, coordinated implementation, and monitoring procedures;
3. **to submit** the draft Post-2021 Mediterranean Strategy for Prevention of and Response to Marine Pollution from Ships to the Fourteenth Meeting of the Focal Points of REMPEC (25-27 May 2021, Malta), for consideration.

Introduction

3 In this context, the Second Draft Mediterranean Strategy for the Prevention of, and Response to Marine Pollution from Ships (2022-2031) and its Action Plan reproduced in **Annex** to the present document have been prepared taking into account the outcome of the following processes:

- .1 the two separate surveys completed by the Focal Points of REMPEC, and by the Post 2021 Mediterranean Strategy Brainstorming Group, as set out in document REMPEC/WG.49/INF.4;
- .2 the preparation of a comparative analysis of relevant strategies and action plans, National Action Plans for the implementation of the Regional Strategy (2016-2021), and fiches providing information on projects supporting the implementation of the Regional Strategy (2016-2021)), presented in document REMPEC/WG.49/INF.3;
- .3 the review of the First Draft Mediterranean Strategy (2022-2031) and its Action Plan by the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean ("the Barcelona Convention"), and by specialised agencies of the United Nations, other governmental and non-governmental organisations, as well as to international professional organisations and associations, the activities of which are relevant to the work of the Centre;

Actions requested by the Meeting:

- 4 **The Meeting is invited to:**
- .1 **to take note** of the information provided in the present document; and
 - .2 **to examine and provide comments**, as required on the proposed Second Draft Mediterranean Strategy for the Prevention of, and Response to Marine Pollution from Ships (2022-2031) and its Action Plan.

ANNEX

MEDITERRANEAN STRATEGY FOR THE PREVENTION OF, [PREPAREDNESS FOR,] AND RESPONSE TO MARINE POLLUTION FROM SHIPS (2022-2031)

PREAMBLE

Nothing in this Strategy shall prejudice the principles of Sovereignty of the States, principles of Freedom, rights of Navigation, and principles of Innocent Passage in the Territorial Sea. In case of any contradiction between the Strategy and national or international legislations, the latter shall prevail. For specific topics addressing national issues, the Secretariat should seek the authorisation of the concerned country prior to the publication of certain reports.

DRAFT MEDITERRANEAN STRATEGY FOR THE PREVENTION OF, [PREPAREDNESS FOR,] AND RESPONSE TO MARINE POLLUTION FROM SHIPS (2022-2031)

1. VISION

"A clean and healthy Mediterranean marine and coastal environment with a sustainable and pollution free maritime sector, supported by a rigorous enforcement system and strengthened multi-sectoral cooperation, for the benefit of present and future generations"

2. OVERARCHING OBJECTIVE

2.1. The objective of the Mediterranean Strategy for the Prevention of, [Preparedness for,] and Response to Marine Pollution from Ships (2022-2031), hereinafter referred to as the "Mediterranean Strategy (2022-2031)" is to provide guidance to the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean, hereinafter referred to as "the Barcelona Convention", in meeting their obligations under Articles 4 (1), 6 and 9 thereof; the Protocol concerning Cooperation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea, hereinafter referred to as "the 2002 Prevention and Emergency Protocol" and the Protocol Concerning Cooperation in Combating Pollution of the Mediterranean Sea by Oil and other Harmful Substances in Cases of Emergency (1976), hereinafter referred to as "the 1976 Emergency Protocol"¹.

2.2. The Mediterranean Strategy (2022-2031) also aims to contribute to the implementation of overarching and thematic Mediterranean strategies, particularly the Mediterranean Strategy for Sustainable Development (MSSD) (2016-2025), the United Nations (UN) Environment Programme / Mediterranean Action Plan (UNEP/MAP)'s Mid-Term Strategy (2022-2027), the Ecosystem Approach (EcAp) and its roadmap for implementation, the Mediterranean Strategy on Ships' Ballast Water Management (BWM) and the Regional Plan on Marine Litter Management in the Mediterranean adopted in the Framework of Article 15 of the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-based Sources and Activities (LBS Protocol) to the Barcelona Convention. It also strives to contribute to global and other regional goals and strategies, notably, the UN Sustainable Development Goals (SDGs), the International Maritime Organization's (IMO) Strategic Plan for the six-year period 2018 to 2023, the IMO Action Plan to address marine plastic litter from ships, the IMO strategy on the reduction of greenhouse gas emissions (GHG) from ships (IMO's GHG Strategy), disaster resilience, prevention, preparedness and response in line with the Sendai framework for Disaster Risk Reduction, the European Green Deal, the European Maritime Safety Agency (EMSA) 5-Year Strategy (2020-2024), and the work of the Convention on Biological Diversity through the Aichi Targets (specifically target 9 on invasive alien species), and the Post-2020 Biodiversity Framework which is currently in development.

3. GUIDING PRINCIPLES

3.1. The Mediterranean Strategy (2022-2031) outlines the main objectives and strategic directions for the period 2022 to 2031. Implementation of the Mediterranean Strategy (2022-2031), and work

¹ For those Contracting Parties who have not yet ratified the 2002 Prevention and Emergency Protocol.

undertaken to deliver the objectives of the strategy will be undertaken with the following guiding principles:

- .1 Guiding the work of the Contracting Parties to the Barcelona Convention, wherever possible, towards achieving the UN 2030 Agenda for sustainable development and delivering on the SDGs (especially SDG 5 - Gender Equality, SDG 13 - Climate Action, and SDG 14 - Life Below Water) and the Good Environmental Status (GES) of the Mediterranean Sea and Coast, particularly the ecological objectives related to non-indigenous species (EO2), contaminants (EO9), and marine litter (EO10);
- .2 Strengthening cooperation among relevant organisations and stakeholders operating within the Mediterranean to maximise synergies (wherever possible) and impacts on the ground, and encourage more cohesive and effective working;
- .3 Building on the achievements and lessons learnt through the implementation of the regional Strategy 2016-2021;
- .4 Taking into account the precautionary approach when planning and undertaking activities to deliver the objectives of the Mediterranean Strategy (2022-2031);
- .5 Streamlining the Ecosystem Approach (EcAp) to the management of human activities in the Mediterranean marine and coastal environment;
- .6 Working, wherever possible, to promote gender equality and the empowerment of women within the maritime sector²;
- .7 Promoting, encouraging and enhancing wherever possible, regional and sub-regional cooperation between countries to tackle pollution from ships in the Mediterranean region;
- .8 Supporting, encouraging and strengthening collaboration with all stakeholders³ of the Mediterranean region, with a particular focus (as appropriate) on EU related regulatory instruments and institutions, with a view to encouraging more cohesive working, maximizing synergies and benefits for the Contracting Parties and effectiveness and enhancing impacts on the ground; and
- .9 The Mediterranean Strategy (2022-2031) and its Action Plan shall apply to ships as well as port reception facilities, terminals, offshore installations and sea ports or handling facilities, as appropriate and in compliance with legal regulations aimed at preventing, reducing and controlling pollution of the marine environment from ships as adopted, at the regional global level and in conformity with international law, under the aegis of United Nations specialized agencies, and in particular of the IMO⁴.

4. SETTING THE SCENE

The Mediterranean Region

4.1. The scope of the application of the Regional Strategy (2022-2031) is the Mediterranean Sea area as defined in Article 1 of the 1976 Convention for the Protection of the Mediterranean Sea Against Pollution as amended by the 1995 Convention for the Protection of the Marine Environment and the

² Focussing on increasing the number of female trainees / number of female scientists / experts recruited, as well as engagement of women in working groups, networks, meetings, training exercises and operations.

³ For example, academic institutions, intergovernmental organisations, industry, non-governmental organisations, civic society, general public, etc.

⁴ Article 1 (definitions) paragraph (e) of the Prevention and Emergency Protocol.”

Coastal Region of the Mediterranean⁵. The region comprises a vast set of coastal and marine ecosystems that deliver valuable benefits to all its coastal inhabitants.

4.2. The 22 Contracting Parties to the Barcelona Convention are: Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, France, Greece, Israel, Italy, Lebanon, Libya, Malta, Monaco, Montenegro, Morocco, Slovenia, Spain, Syrian Arab Republic, Tunisia, Turkey, and the European Union. The Mediterranean region is undergoing intensive demographic, social, cultural, economic and environmental changes. The population continues to grow in coastal and urban areas of the Mediterranean region, and is predicted to reach 572 million by 2030⁶. Mediterranean countries are the world's leading tourism destination, and furthermore the Mediterranean also stands as the second biggest cruising region in the world⁷. The combination of population growth, alongside the growth of coastal (peri) urban hubs and maritime traffic, generates multiple environmental pressures, which are further amplified by tourism (often concentrated in Mediterranean coastal areas), and climate change.

4.3. Although the Mediterranean Sea basin covers less than 1% of the world oceans, it is strategically located at the interface of the three continents of Asia, Europe and Africa and at the crossroads of three maritime corridors. The Mediterranean Sea is one of the busiest seas in the world, with 24% of the global fleet of ships calling ports or passing through the Mediterranean in 2019, including container ships, gas tankers and oil and chemical tankers representing 36.5%, 32.6%, and 27% of the world fleet, respectively⁸. Moreover, the Mediterranean is the second largest market globally (after the Caribbean) for cruising, accounting for 17.3% of worldwide cruises in 2019⁷. As maritime traffic is steadily increasing it adds environmental pressures, such as rising CO₂ emissions, pollution by oil and hazardous and noxious substances (HNS), marine litter, collisions with large cetaceans, underwater noise and the introduction of non-indigenous species. Container port traffic development shows a clear trend of rapid growth of the sector, which undoubtedly increases the environmental pressure and strengthens the need for a transition to a sustainable maritime sector. Not least, preparedness and response to pollution incidents calls for a stronger inter-sectoral cooperation and for an integrated disaster management that enables coordinated response operations at sea and onshore.

Building on the Regional Strategy (2016-2021)

4.4. This Mediterranean Strategy (2022-2031) was developed building on the Regional Strategy for Prevention of, Preparedness for, and Response to Marine Pollution from Ships (2016-2021) adopted by the COP 19⁹ in 2016. Although much progress has been made in the last 15 years, several of the issues highlighted in previous strategies still have relevance today, and therefore it is important to build on past efforts and recognise the progress that has already been achieved.

4.5. The Contracting Parties to the Barcelona Convention have developed the Mediterranean Strategy (2022-2031) in collaboration with the Regional Marine Pollution Emergency Response Centre

⁵ Mediterranean Sea Area shall mean the maritime waters of the Mediterranean Sea proper, including its gulfs and seas, bounded to the west by the meridian passing through Cape Spartel lighthouse, at the entrance of the Straits of Gibraltar, and to the east by the southern limits of the Straits of the Dardanelles between Mehmetcik and Kumkale lighthouses

⁶ Mediterranean Quality Status Report 2017, Barcelona Convention

⁷ MedCruise, 2018. 2018 Statistics. Cruise activities in MedCruise ports

⁸ REMPEC (2020). Study on trends and outlook of marine pollution from ships and activities and of maritime traffic and offshore activities in the Mediterranean

⁹ 19th Ordinary Meeting of the Contracting Parties to the Barcelona Convention its Protocols (Athens, Greece, 9-12 February 2016).

for the Mediterranean Sea (REMPEC), the IMO, UNEP/MAP and other key stakeholders in the Mediterranean, including IPIECA.

4.6. The development of the Mediterranean Strategy (2022-2031) was undertaken in parallel with the development of the UNEP/MAP Medium-Term Strategy 2022-2027. Considering the legal, financial and institutional framework of the UNEP/MAP Barcelona Convention system, including in particular the provisions of the 2002 Prevention and Emergency Protocol, the Mediterranean Strategy (2022-2031) should be seen as an integral part of the UNEP/MAP Medium-Term Strategy.

Structure and presentation of the Mediterranean Strategy (2022-2031)

4.7. This document sets out the vision, overarching objective, guiding principles, strategy governance and Common Strategic Objectives (CSOs), which come together to form the Mediterranean Strategy (2022-2031). The Mediterranean Strategy (2022-2031) is supported by an Action Plan for Implementation, which is presented as an appendix to this document.

5. GOVERNANCE

Governance, partnership and resource mobilisation

5.1. The implementation of the Mediterranean Strategy (2022-2031) shall be governed through the comprehensive and integrated institutional, legal, and implementing framework of the Barcelona Convention and its Protocols, particularly the 2002 Prevention and Emergency Protocol, in collaboration and consultation with relevant national, regional and international organisations, institutions, agencies and stakeholders. This shall be done by coordinating parallel initiatives and processes to ensure the capitalisation of past and ongoing efforts, with a view to increasing the effectiveness of the resources mobilised to meet the common objective of the Mediterranean Strategy (2022-2031).

5.2. Non-governmental organisations (NGOs) contributing to the implementation of the Mediterranean Strategy (2022-2031) are invited to apply for accreditation as UNEP/MAP partners¹⁰ to become involved in the implementation of the present strategy. UNEP/MAP Partners provide expert policy and technical advice and promote the policies, strategies and programmes derived from the Barcelona Convention and its Protocols. UNEP/MAP Partners participate as Observers in the meetings of the Contracting Parties to the Barcelona Convention and its Protocols as well as in activities carried out within the framework of the UNEP/MAP Programme of Work.

5.3. The Contracting Parties to the Barcelona Convention further encourage regional and international institutions to formalise their cooperation to provide financial and technical support to Contracting Parties for the implementation of the Mediterranean Strategy (2022-2031) through specific partnership agreements, as appropriate.

Mid-term review and evaluation

5.4. The implementation of the Mediterranean Strategy (2022-2031) will be regularly monitored through a consultative process with Contracting Parties to the Barcelona Convention and relevant regional and international organizations.

5.5. Following a period of five (5) years, the Mediterranean Strategy (2022-2031) and its Action Plan will be reviewed based on an analysis of the progress of its implementation and on the outcome of

¹⁰ In accordance with the rights and responsibilities of MAP Partners, provided for in Decision IG.19/6 "MAP/Civil society cooperation and partnership

discussions on emerging issues. The need to update and revise the Mediterranean Strategy (2022-2031) and its Action Plan will be assessed, in 2026, with a view to potentially adopt a revised strategy in 2027. The review will take into consideration the development of the forthcoming UNEP/MAP Mid-Term Strategy (2028–2032), alongside Contracting Party reporting on the status of implementation of the Mediterranean Strategy (2022-2031) and its Action Plan.

Risk Mitigation

5.6. The successful implementation of the Mediterranean Strategy (2022-2031) and its Action Plan are subject to a number of identified risks, including, but not limited to:

- .1 **The COVID-19 global pandemic**, the associated global travel restrictions, and the subsequent pressures on government resources as staff and funding are redirected to deal with the health crisis;
- .2 Partly as a result of the above mentioned global pandemic, but also as a general consideration, the implementation of the Mediterranean Strategy (2022-2031) and its Action Plan will be dependent on **appropriate and adequate funding** being available within Contracting Parties, and regional institutions; and
- .3 Furthermore, the complexities of the Mediterranean Sea Region’s socio-politics could present **potential political instabilities** within the region, which could hinder the successful implementation of the Mediterranean Strategy (2022-2031) and its Action Plan.

5.7. In order to mitigate the risks identified above, the following considerations have been made for the implementation of the Mediterranean Strategy (2022-2031) and its Action Plan:

- .1 To mitigate the risks associated with the **COVID-19 global pandemic**, Contracting Parties will continue to work towards a digital transformation, making use of digital technologies to improve networking, capacity building and visibility;
- .2 To mitigate risks associated with ensuring **appropriate and adequate funding**, Contracting Parties will continue to ensure that the funds available are used in an efficient and appropriate manner, avoiding duplication of efforts wherever possible, in order to fully implement the Mediterranean Strategy (2022-2031) and its Action Plan. Contracting Parties will also coordinate with all stakeholders (including the private sector, NGOs, regional and international non-governmental organisations, etc), looking for opportunities to collaborate and join efforts whenever possible (and appropriate). REMPEC will assist Contracting Parties (where possible) to develop partnerships with regional and international organisations and seek funding opportunities (where possible) for the activities necessary to implement the Mediterranean Strategy (2022-2031) and its Action Plan;
- .3 To mitigate risks associated with **potential political instabilities**, Contracting Parties will continue the efforts within the framework of the Barcelona Convention to address jointly, and individually, common challenges through a regional consensus for the benefit of the entire region, and its individual Contracting Parties.

6. COMMON OBJECTIVES TO ACHIEVE THE VISION FOR THE MEDITERRANEAN

6.1. This section presents the seven identified Common Strategic Objectives (CSOs), which represent the thematic priority areas for the Mediterranean Strategy (2022-2031). The seven CSOs apply to the Mediterranean region as a whole, and Contracting Parties to the Barcelona Convention,

alongside the various organisations and institutions of the Mediterranean, each have a role to play in achieving these objectives.

Common Strategic Objectives (CSO)

CSO 1 Prevent, prepare for, and respond to operational, illegal and accidental oil and HNS pollution from ships

6.2. The rates of accidental pollution from ships have gone down globally and regionally despite the increase in shipping transportation. These results have been achieved in particular through the adoption of regional and international regulatory framework, through the UNEP/MAP Barcelona Convention System and IMO, respectively, namely the 2002 Prevention and Emergency Protocol, 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 Oil Pollution Preparedness, Response and Co-operation, 1990 (OPRC) and the Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances 2000 (OPRC-HNS Protocol), as well as technical cooperation activities undertaken at national and regional level. However, risks associated with the transport by ships of oil and HNS with possible harmful consequences on biota and ecosystems cannot be eliminated, accidents can and still do occur. The practice of illegal discharge from ships has been increasingly monitored and enforcement procedures are being put in place progressively through the Mediterranean Network of Law Enforcement Officials relating to MARPOL within the framework of the Barcelona Convention (MENELAS) to prosecute offenders.

6.3. To meet this CSO, the Contracting Parties to the Barcelona Convention agree to reinforce the already established collaborative and collective effort, within the framework of the Mediterranean Strategy (2022-2031) and invite relevant organisations to cooperate and coordinate their actions for assistance to facilitate the ratification, effective implementation and strict enforcement of relevant legally binding instruments. The Contracting Parties also acknowledge the need to further develop policies to address current and new challenges in prevention, preparedness and response to operational, illegal and accidental pollution from ships in the Mediterranean, and to facilitate and enhance existing or new services to foster monitoring and exchange of knowledge and data. To maximise these efforts, closer synergies are required between relevant networks within, and outside the Mediterranean region.

6.4. Furthermore, Contracting Parties acknowledge that in maritime transport, the linear cycle of exploitation and use of resources and the elimination of waste is no longer feasible. Therefore, it is required that Contracting parties look towards a vision for a circular economy in maritime transport and the maritime industry, including: leisure (pleasure and entertainment, cruise business); harvesting of raw materials (oil and gas, offshore mining, fishing); logistics (shipping of food, energy, containers, bulk material); and infrastructure (ferries, local shipping, ports). In that line, Contracting Parties also recognise the key role of shipping, as the backbone of trade in the Mediterranean region, in enabling and capitalising on a circular conversion of supply chains and to determine what type of collaboration across value chains those changes would require.

6.5. Contracting Parties also recognise the need of a stronger inter-sectoral cooperation between at-sea, shoreline, and wildlife responders, port authorities, oil and chemical industry and agree to aim for a holistic / integrated management of marine pollution incidents that enable a coordinated response operation at sea and onshore, including the response to wildlife. Such a holistic approach should permeate the oil spill preparedness and response both at a national level and in region-wide cooperation.

CSO 2 Promote and support the development and implementation of innovative global solutions to mitigate and respond to climate change

6.6. Climate change is generally recognised as one of the most pressing environmental emergencies of this generation. A globally warming climate causes weather patterns to change, sea levels to rise, weather events to become more extreme and may potentially impact freshwater resources, coastal systems and low-lying areas, ocean systems, food security and food production systems. Furthermore, climate change increases risks for human health; increased and longer heat waves are a health risk factor, especially for the elderly. The climate emergency affects every nation in the world and has the potential to disrupt national economies and displace entire communities. The 2013 report from the International Panel on Climate Change (IPCC) highlights the Mediterranean as one of the most vulnerable regions in the world to the impacts of global warming. The 2019 Report on the State of the Environment and Development in the Mediterranean (SoED) concludes that the Mediterranean basin is affected by climate change at a pace well above global average, in particular by more rapid warming of ambient air and sea surface in all seasons. Through the application of the Coastal Risk Index (CRI-MED) for the Mediterranean (on 21 Mediterranean countries), coastal hot-spots are found to be predominantly located in the south-eastern Mediterranean region.

6.7. The network of Mediterranean Experts on Climate and Environmental Change (MedECC) published its first report on the 'current situation and risks for the future' for climate and environmental changes in the Mediterranean in 2020¹¹. The report concludes that due to both global and regional trends in the drivers of climate and environmental change, impacts in the Mediterranean region will be exacerbated in the coming decades, and that significantly enhanced efforts are needed to adapt to inevitable changes, mitigate change drivers and increase resilience.

6.8. Although shipping is one of the most energy-efficient modes of transportation, the shipping industry must still play its part in pursuing strategies to reduce GHG emissions globally and operate as efficiently and as cleanly as possible. It must also be acknowledged that most impacts of climate change are exacerbated by other environmental challenges.

6.9. The Fourth IMO Greenhouse Gas Study found that total GHG emissions from shipping rose by about 10% from 2012 to 2018. The GHG emissions (including CO₂, CH₄ and N₂O, expressed in CO_{2e}) of total shipping (international, domestic and fishing) have increased from 977 million tonnes in 2012 to 1,076 million tonnes in 2018 (9.6% increase). In 2012, 962 million tonnes were CO₂ emissions, while in 2018 this amount grew by 9.3% to 1,056 million tonnes of CO₂ emissions. The share of shipping emissions in global anthropogenic GHG emissions has increased from 2.76% in 2012 to 2.89% in 2018. Carbon intensity (fleet's CO₂ emissions per transport work) has improved for international shipping, as well as for most ship types. GHG emissions are projected to increase from about 90% of 2008 emissions in 2018 to 90-130% of 2008 emissions by 2050 for a range of six plausible long-term economic and energy scenarios.

6.10. International agreements and policy documents on responding to climate change include; the UN Paris Agreement and the 2030 Agenda for Sustainable Development; the London Convention and London Protocol (carbon capture and sequestration); the Regional Climate Change Adaptation Framework for the Mediterranean Marine and Coastal Areas; and specifically related to GHG emissions from shipping activities, the IMO's GHG Strategy, which envisages, in particular, a reduction in carbon intensity of international shipping (to reduce CO₂ emissions per transport work, as an average across

¹¹ MedECC (2020) Climate and Environmental Change in the Mediterranean Basin – Current Situation and Risks for the Future. First Mediterranean Assessment Report [Cramer, W., Guiot, J., Marini, K. (eds.)] Union for the Mediterranean, Plan Bleu, UNEP/MAP, Marseille, France, 600pp, in press

international shipping, by at least 40% by 2030, pursuing efforts towards 70% by 2050, compared to 2008); and that total annual GHG emissions from international shipping should be reduced by at least 50% by 2050 compared to 2008. Furthermore, under MARPOL Annex VI, carbon intensity of ships is expected to decline through implementation of further phases of the Energy Efficiency Design Index (EEDI) for new ships and the requirement for Ship Energy Efficiency Management Plans (SEEMP).

6.11. In addition, the EU MRV Regulation (Regulation 2015/757) on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport and amending Directive 2009/16/EC applies to all ships above 5000 GT in respect to CO₂ emissions released in voyages to, from and between ports under the jurisdiction of EU Member States from the 1 January 2018.

6.12. With a view to addressing this global challenge, the Contracting Parties to the Barcelona Convention commit, through the present Mediterranean Strategy (2022-2031) to promote and support the development and implementation of innovative global solutions to mitigate and respond to climate change, specifically through supporting efforts to reduce GHG emissions from ships by at least 40% by 2030.

CSO 3 Reduce and monitor air emissions from ships to a level that is not harmful to the marine environment, or the health of the coastal population of the Mediterranean

6.13. Air emissions from ships are a contributor to the overall air quality degradation in the Mediterranean region, and more specifically in the Mediterranean coastal States. Sulphur oxide (SO_x) emissions can cause acid rain and combine with other pollutants to generate fine particles, which can lead to respiratory and cardiovascular diseases including childhood asthmas, as well as reduced life expectancy and increase premature deaths. Acid rain is harmful to crops, forests and aquatic species, as well as contributing to the acidification of the oceans. Nitrogen oxides (NO_x) are also precursors of fine particles and ozone and are one of the main causes of ocean eutrophication. The key international regulatory framework regarding the requirements to control emissions from ships is established by MARPOL Annex VI.

6.14. MARPOL Annex VI, adopted by the Protocol of 1997, as amended in 2011¹², regulates the prevention of air pollution from ships in general and, in particular, establishes more stringent limits for emissions of SO_x, NO_x and Particulate Matter (PM) from ship engine exhausts. MARPOL Annex VI also introduces a new Chapter 4 with regulations on energy efficiency for ships. Regulation 14¹³ provides that from 1 January 2020 the sulphur content of fuel oil used onboard ships shall not exceed 0.50% m/m. However, within SO_x Emission Control Areas (SO_x ECAs), where a higher level of protection is needed due to the proximity of high density shipping traffic to populated areas (for example) or the susceptibility of a particular sea area to acidification or eutrophication, the limit is set at 0.10% m/m.

6.15. In addition, in the European Union the requirements of MARPOL Annex VI as amended, have been transposed into EU law through Directive (EU) 2016/802. Therefore, the 0.50% m/m sulphur limit applies in EU waters (including the Mediterranean Sea) outside SO_x ECAs as of 1 January 2020. The SO_x ECA requirements apply in the North Sea, Baltic Sea and English channel.

¹² Resolution MEPC.203(62)

¹³ [http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Sulphur-oxides-\(SOx\)-%E2%80%93-Regulation-14.aspx](http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Sulphur-oxides-(SOx)-%E2%80%93-Regulation-14.aspx)

6.16. MARPOL Annex VI standards are expected to reduce SO_x emissions by approximately 75% from typical operations using residual fuels. Implementing SO_x ECA standards would enable a reduction of approximately 95% in SO_x emissions from ships compared with existing regulations. PM reductions of about 51% are associated with MARPOL Annex VI, and SO_x ECA standards would increase that to a reduction of approximately 62% in emissions.

6.17. Regulation 13¹⁴ provides progressive reductions in NO_x emissions from marine diesel engines installed on ships, with a "Tier II" emission limit for engines installed on a ship constructed on or after 1 January 2011; and a more stringent "Tier III" emission limit for engines installed on a ship constructed on or after 1 January 2016 operating in NO_x ECAs. "Tier I" emissions limits apply to marine diesel engines installed on a ship constructed on or after 1 January 1990 but prior to 1 January 2000¹⁵. In the EU NO_x requirements from shipping sources are broadly addressed through existing Air Quality legislations but further developments, including the possibility to establish ECAs in all EU waters, are being explored under the Zero Pollution and Sustainable and Smart Mobility ambitions of the EU Green Deal.

6.18. In this context, the Contracting Parties to the Barcelona Convention pledge to fully implement the Road Map for a Proposal for the Possible Designation of the Mediterranean Sea, as a whole, as an Emission Control Area for Sulphur Oxides Pursuant to MARPOL Annex VI, based on their decision adopted at COP 21¹⁶ in 2019¹⁷. The Contracting Parties will also explore, within the context of the Mediterranean Strategy (2022-2031) the possible designation of the Mediterranean Sea, as a whole, as an Emission Control Area for NO_x pursuant to MARPOL Annex VI, within the framework of the Barcelona Convention, and will call for coordinated regional and international efforts to that effect.

CSO 4 Prevent and reduce [plastic] litter entering the marine environment from ships, in order to limit the environmental, health, and socio-economic impact of marine litter in the Mediterranean

6.19. Even though discharging plastics into the sea is already prohibited under regulations for the prevention of pollution by garbage from ships in MARPOL, plastics still enter the marine environment as a result of a wide range of land based and sea-based activities. These plastics persist in the marine environment and have harmful effects on marine life and marine biodiversity, as well as negative impacts on human health. Marine litter can also cause risks to navigational safety. The abundance of floating litter in Mediterranean waters has been reported at quantities measuring from 0 items to over 600 items per square kilometre. The 2015 UNEP/MAP Marine Litter Assessment in the Mediterranean concludes that approximately 0.5 billion litter items are currently lying on the Mediterranean seafloor.

6.20. In the Mediterranean, although most of the marine litter originates from land-based sources, ship sources contribute to the accumulation of floating debris and litter. Studies assessing floating debris, focusing on the Mediterranean sea floor, have suggested that accumulated litter, including high

¹⁴ [http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Nitrogen-oxides-\(NOx\)-%E2%80%93-Regulation-13.aspx](http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Nitrogen-oxides-(NOx)-%E2%80%93-Regulation-13.aspx)

¹⁵ The NO_x ECA standards will apply as of 1 January 2021 in the North Sea, Baltic Sea and English Channel.

¹⁶ 21st Ordinary Meeting of the Contracting Parties to the Barcelona Convention and its Protocols (Naples, Italy, 2-5 December 2019).

¹⁷ Decision IG.24/8 establish that the proposal for the possible designation of the Mediterranean Sea as SO_x ECA may be submitted to IMO by the Contracting Parties in 2022.

proportions of plastics, has a predominantly coastal origin, while litter collected on the open slope, dominated by heavy litter, is mostly ship-originated, especially at sites under major shipping routes¹⁸. Commercial fishing is recognised as a sea-based source of marine plastic litter, particularly derelict fishing gear (UNEP/MAP, 2015).

6.21. The main international and regional instruments and action plans in place to address plastics in the Mediterranean marine environment and the prevention of pollution by garbage from ships are MARPOL Annex V; the IMO action plan to address marine plastic litter from ships; the Regional Plan on Marine Litter Management in the Mediterranean in the Framework of Article 15 of the LBS Protocol to the Barcelona Convention; and Article 14 on the provision of adequate Port Reception Facilities of the 2002 Prevention and Emergency Protocol. In addition, the EU has a number of directives which aim at reducing marine litter, including the PRF Directive (Directive (EU) 2019/883 on port reception facilities for the delivery of waste from ships), the SUP Directive (Directive (EU) 2019/904 on the reduction of the impact of certain plastic products on the environment) and the various provisions of the Marine Strategy Framework Directive (Directive (EU) 2008/56).

6.22. To achieve this objective, the Contracting Parties to the Barcelona Convention accept to undertake collective and individual actions to fully implement the IMO Action Plan to address marine plastic litter from ships, and the UNEP/MAP Regional Plan on Marine Litter Management in the Mediterranean, and to ratify, and effectively implement related legally binding instruments as well as policies to address marine plastic litter¹⁹ in the Mediterranean.

CSO 5 Keep non-indigenous species introduced by shipping activity at levels that do not adversely alter the ecosystem

6.23. Shipping is recognised as a major pathway for introducing non-indigenous species (NIS) to new environments. The introduction of NIS in new environments can present a major threat to marine ecosystems by overrunning existing ecosystems and causing local extinction of species. The effects experienced in many parts of the world have been devastating, including in parts of the Mediterranean. Over the last two decades, changes in the Mediterranean marine biodiversity related to the introduction of NIS have been reported as the consequences of several specific actions: intense maritime traffic; opening of artificial channels and aquaculture activities.

6.24. Vessel-introduced NIS have been estimated to account for 26% of new NIS introductions in the Mediterranean. Ships' ballast water is of particular concern as a vector of introduction of invasive alien species in the Mediterranean Sea because of the large quantities of ballast water coming from different marine environments around the world being discharged at Mediterranean ports. Biofouling on ships' hulls and within niche areas is also recognized as a major vector for NIS introduction. In the last decade, the species richness of marine organisms in the Mediterranean Sea has been reported to have reached ~17,000 taxa, among which some 820 can be considered NIS⁸.

6.25. The key regional and international instruments in place to address biosafety in Mediterranean waters are the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (BWM Convention), the Mediterranean Strategy on Ships' Ballast Water Management, including its Action Plan and Timetable, alongside the 2011 Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species (Biofouling

¹⁸ Ramirez-Llodra, De Mol, Company, Coll, & Sardà, 2013

¹⁹ Plastic litter should be taken to include all types and sizes of marine plastic litter, including macro-, meso- and micro-plastics, as well as abandoned, lost and otherwise discarded fishing gear (ALDFG).

Guidelines)²⁰, the International Convention on the Control of Harmful Anti-fouling Systems on Ships, 2001 (AFS Convention), and the Action Plan concerning Species Introductions and Invasive Species in the Mediterranean Sea. Activities undertaken to meet this CSO will be undertaken in close collaboration with the Regional Activity Centre for Specially Protected Areas and Biological Diversity within the Mediterranean (UNEP/MAP - SPA/RAC), and with consideration of the Protocol Concerning Specially Protected Areas and Biological Diversity (SPA/BD Protocol, 1995) alongside the Post-2020 Strategic Action Programme for the Conservation of Biodiversity and Sustainable Management of Natural Resources in the Mediterranean Region (Post-2020 SAP BIO).

6.26. To meet this objective and address the introduction of harmful aquatic organisms and pathogens into the marine environment and the introduction of invasive species, the Contracting Parties to the Barcelona Convention agree to accelerate processes of ratification and to effectively implement relevant legally binding instruments as well as policies to address marine biosafety in the Mediterranean, and call for further coordinated technical assistance provided by relevant international and regional organizations.

CSO 6 Achieve a well-managed safe and pollution free Mediterranean, with integrated marine spatial planning and designation of special areas, where shipping activity has a limited impact upon the marine environment

6.27. Under the Protocol on Integrated Coastal Zone Management and the Protocol concerning Specially Protected Areas and biological Diversity in the Mediterranean to the Barcelona Convention, protective measures have been put in place through Marine Spatial Planning (MSP) to address land-sea interactions, Marine Protected Areas (MPAs), Specially Protected Areas of Mediterranean Importance (SPAMIs), and Environmentally or Biologically Significant Areas (EBSA).

6.28. Recognising that certain sensitive marine environments can be subject to harm from operational and accidental pollution and vessel discharges, IMO set-up a comprehensive regulatory framework to protect sensitive areas. In Annex I (Prevention of pollution by oil), Annex II (Control of pollution by noxious liquid substances), Annex IV (Prevention of pollution by sewage from ships) and Annex V (Prevention of pollution by garbage from ships), MARPOL defines certain sea areas as "special areas" in which, for technical reasons relating to their oceanographical and ecological condition and to their sea traffic, the adoption of special mandatory methods for the prevention of sea pollution is required. Under MARPOL, these special areas are provided with a higher level of protection than other areas of the sea. In this context, the Mediterranean Sea became a special area under MARPOL Annex I since October 1983, and Annex V since May 2009. CSO3 covers the establishment of Emission Control areas under MARPOL Annex VI for the prevention of air pollution from ships.

6.29. An area that needs special protection through action by IMO because of its significance for recognised ecological or socio-economic or scientific reasons and which may be vulnerable to damage by international maritime activities can be designated as a Particularly Sensitive Sea Areas (PSSAs).

6.30. These instruments are complemented by the Traffic Separation Schemes (TSS) and other ship routing systems enshrined in Chapter V of the International Convention for the Safety of Life at Sea (SOLAS), 1974, which have been established in most of the major congested shipping areas of the Mediterranean, where the number of collisions and groundings has often been dramatically reduced.

²⁰ Resolution MEPC.207(62))

6.31. In addition, the European Union has adopted Directive 2014/89/EU establishing a framework for maritime spatial planning aimed at promoting the sustainable growth of maritime economies, the sustainable development of marine areas and the sustainable use of marine resources.

6.32. To meet this objective, the Contracting Parties to the Barcelona Convention call for coordinated and integrated measures between international and regional organisations in consultation with UNEP/MAP and the IMO, and agree to take the required actions at national, sub-regional and regional level to set-up special areas and efficiently manage these instruments, as appropriate.

CSO 7 Identify and understand collectively emerging issues related to pollution from ships in the Mediterranean, and define required actions to address issues identified

6.33. The state of understanding of issues in the marine environment is constantly evolving and therefore there is a need to continually reflect on the current understanding and stay abreast of issues as they emerge. Current emerging issues include, but are not limited to, the impact of underwater noise from shipping, the regulation of black and grey water and marine cleaning products, the end-of-life management of fibre reinforced plastic (FRP) vessels as alternatives to disposal at sea; hull scrapings and marine coatings as a source of microplastics, etc.

6.34. With a view to meeting this objective, the Contracting Parties to the Barcelona Convention agree to share results of research and development studies and to address emerging issues related to pollution from ships in the Mediterranean within the framework of the Mediterranean Strategy (2022-2031), as appropriate.

Supporting Objectives

6.35. The primary responsibility for achieving the seven thematic CSOs remains with Contracting Parties to the Barcelona Convention, however to support their individual and collective efforts there must be also a collaborative, coordinated, and collective effort made by all relevant regional stakeholders in the Mediterranean. The Action Plan presented in **Appendix** to this document sets out the specific actions required to achieve the seven CSOs of the Mediterranean Strategy (2022-2031). Each of the actions identified are categorized under the following 'areas of influence':

- .1 Actions on people;
- .2 Actions on institutions;
- .3 Actions for infrastructure; and
- .4 Actions for information and knowledge sharing.

6.36. To guide the implementation of the Mediterranean Strategy (2022-2031) and its Action Plan, the following section sets out some supporting objectives for each 'area of influence' listed above.

Actions on people

6.37. Related to people, skills and networks within the Mediterranean.

Area of Influence	Supporting Objective
Networks	To support and encourage open and collaborative networks between all stakeholders of the Mediterranean for the sharing of knowledge, best practice, and experiences, with the aim to identify synergies and strengthen multi-sectoral cooperation and collaboration.
Capacity Building / Technical Cooperation	To support the Contracting Parties to ensure that they have adequate knowledge, expertise and experience to implement the Mediterranean Strategy 2022-2031, and any / all associated requirements to reduce marine pollution from ships in the Mediterranean. To support Contracting Parties to ensure that personnel responsible for responding to marine pollution incidents have adequate practical and operational training and are sufficiently prepared to act in the event of an emergency.
Operations	To support Contracting Parties to ensure that they have developed or have access to pollution response services to act in the event of an emergency.

Actions on institutions

6.38. Related to existing institutions, administrations and organisations within the Mediterranean.

Area of Influence	Supporting Objective
Governance	To ensure that Contracting Parties have a clear understanding of the relevant roles and responsibilities of governing bodies, in terms of implementing the Mediterranean Strategy (2022-2031).
Ratification / Transposition	To support the ratification by all Contracting Parties of all relevant international conventions which aim towards reducing pollution from ships in the marine environment. To ensure the transposition into national law of all relevant international conventions which aim towards reducing pollution from ships in the marine environment.
Implementation	To support administrations with implementation of relevant international conventions.
Enforcement	To set-up efficient and strict enforcement of all relevant international conventions, as transposed into national law, which aim towards reducing pollution from ships in the marine environment.

Actions for infrastructure

6.39. Related to the physical infrastructure, equipment and technology available within the Mediterranean.

Area of Influence	Supporting Objective
Port Reception Facilities	To ensure that adequate port reception facilities are available in the Mediterranean to limit the potential for marine pollution from ships.
Alternative Energy / New Technology	To ensure that there are appropriate facilities to support ships operating with alternative energy.
Response Means	To ensure that the required means to respond to marine pollution incidents are available and strategically placed throughout the Mediterranean region.
Surveillance / Monitoring Means	To ensure that the required surveillance and monitoring infrastructure (e.g. satellite imaging) means to deter and detect illicit discharges and emissions from ships, to exchange the monitoring information, and to assist in responding to marine pollution incidents, are available and strategically placed throughout the Mediterranean region.

Actions for information and knowledge sharing

6.40. Related to the sharing of best practices, communication, research and development within the Mediterranean.

Area of Influence	Supporting Objective
Standards / Guidelines	To establish, adopt, disseminate, implement and enforce required regional standards.
Decision Making Tools	To evaluate the need for, develop, maintain and upgrade decision support tools to support well-informed and prompt decisions by Contracting Parties.
Monitoring and Reporting Obligations	To support the coordination of monitoring and reporting efforts between Mediterranean coastal States.
Research and Development	To encourage Contracting Parties to participate in research and development of new technologies and techniques to address the issues of pollution from ships, and to share their results for the benefit of the Mediterranean regional and its coastal States. To develop and upgrade means/platform enabling the Contracting Parties to communication and exchange information in real time.

7. IMPLEMENTATION OF THE MEDITERRANEAN STRATEGY 2022-2031

Action Plan for the Implementation of the Mediterranean Strategy (2022-2031)

7.1. The Mediterranean Strategy (2022-2031) is supported by an Action Plan for the Implementation of the Mediterranean Strategy (2022-2031), which sets out the specific actions required under each CSO. The actions are grouped by 'areas of influence' and are guided by the supporting objectives set out in **Section 6** for each Area of Influence. Each action is presented with an indicator, target and is linked to the implementing / governing body responsible for delivering the action (the lead or partner). The actions are also prioritised as high, medium, or low. The Action Plan is presented in full in **Appendix** of this document.

7.2. **Figure 1** aims to visualise the interconnection between the CSOs, the corresponding areas of influence, and the implementing / governing body responsible for delivering the actions.

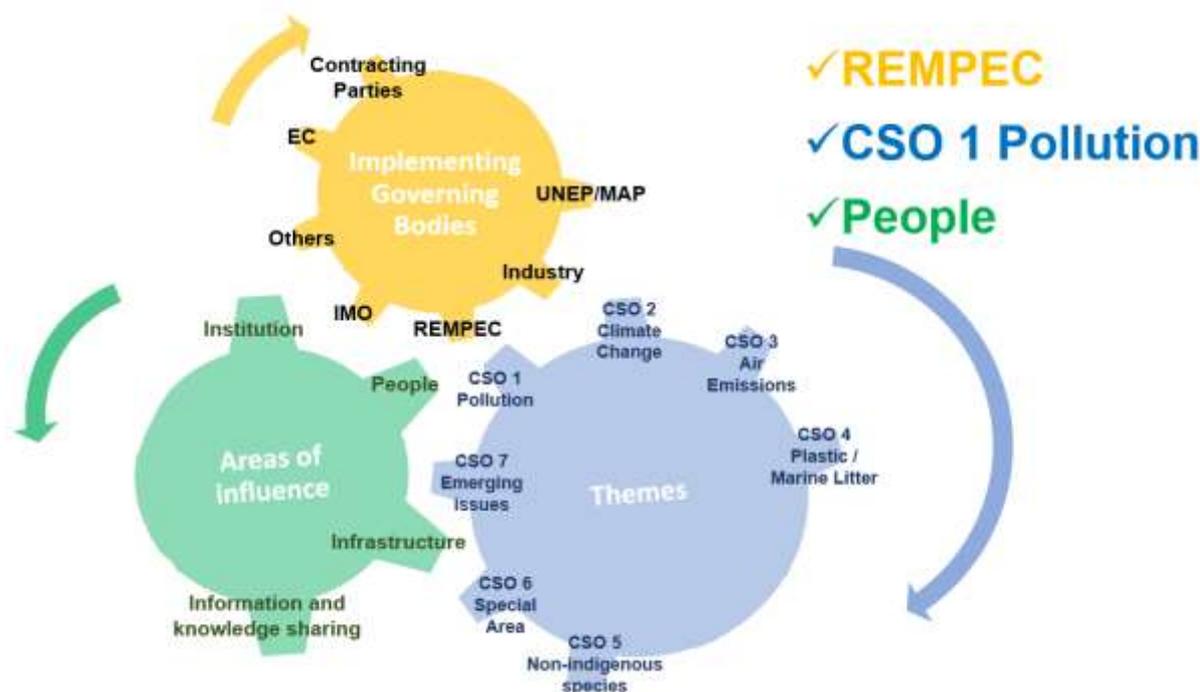


Figure 1 – Interlocking CSOs, areas of influence and implementing / governing bodies responsible for delivering on the actions of the Action Plan

Practical arrangements for the management and implementation of the Mediterranean Strategy (2022-2031)

7.3. To meet the CSOs of the Mediterranean Strategy (2022-2031) that are common for all stakeholders in the Mediterranean, a biennial meeting will be organised on the first year of each biennium, in order to:

- .1 Report and assess the progress made in the implementation of the Mediterranean Strategy (2022-2031);

- .2 Define priority actions and propose related activities for the following biennium; and
 - .3 Define roles and responsibilities for the implementation of the proposed activities and establish operational and strategic synergies, through specific partnership agreements, if required, by coordinating parallel initiatives and processes to ensure the capitalisation of past and ongoing efforts with a view to increasing the effectiveness of the resources and expertise mobilised to meet the CSOs of the Mediterranean Strategy (2022-2031).
- 7.4. The Rules of procedure for Meetings and Conferences of the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution and its related Protocols (UNEP/IG.43/6, Annex XI) shall apply mutatis mutandis to the deliberations of this Meeting.
- 7.5. The Secretariat of the Meeting will be the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) administered by the IMO in cooperation with UNEP/MAP.
- 7.6. The meeting will be attended by:
- .1 Experts on prevention of, and response to marine pollution from ships from Contracting Parties member of the Bureau of the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (“the Barcelona Convention”) and its Protocols;
 - .2 Relevant national, regional and international organizations, institutions and agencies as observers; and
 - .3 Accredited UNEP/MAP Partners as observers.
- 7.7. The participation of the above representatives will be subject to the submission of the reports and contributions defined in the below reporting and monitoring procedures.
- 7.8. In line with the 2017 UN Secretary General’s System-wide Strategy on Gender Parity, the participation of female gender representatives will be encouraged, to contribute to joint efforts towards gender-balanced participation.
- 7.9. The outcome of the meeting will be considered for the preparation of the UNEP/MAP Programme of Work (PoW) and Budget to be submitted to the Meeting of the Focal Points of REMPEC for its review, to the Meeting of the MAP Focal Points for its approval and to the Ordinary Meeting of the Contracting Parties to the Barcelona Convention and its Protocols for its adoption. Relevant national, regional and international organizations, institutions and agencies, and accredited UNEP/MAP Partners will be encouraged to build their respective programme of work taking into account the outcome of the meeting.
- 7.10. For each of the seven CSOs, Contracting Parties are committing to maintaining an effective and fully operational network of designated officials, who will ensure coordination at national level between relevant competent authorities and other stakeholder including the private sector. Contracting Parties will exchange lists of official national designations between relevant regional and international organisations to ensure coordination. Furthermore, Contracting Parties will have nominated officials from each Contracting Party, who have clear responsibilities to deliver on the actions set out in the action plan.

Reporting and monitoring procedure

7.11. In preparation for the above-mentioned meeting, CPs, relevant national, regional and international organisations, institutions and agencies as well as accredited MAP Partners, the activities of which are relevant to the objectives of the Mediterranean Strategy (2022-2031), will be requested to complete an online concise progress report and provide input on ongoing and future related actions based on the action tables of the Action Plan.

7.12. For each CSO and corresponding Area of Influence, the progress report and input will focus on action, indicator, target and financial resources mobilised.

7.13. The report of the above-mentioned meeting will be publicly available and will be submitted to the Meeting of the Focal Points of REMPEC and to other fora, as appropriate.

Public awareness

7.14. Contracting Parties will be encouraged to regularly communicate to the public on key issues relevant to the Mediterranean Strategy (2022-2031) and to engage with coastal communities and civil society. Contracting Parties will demonstrate to stakeholders that they are delivering on the objectives of the strategy successfully and effectively. Contracting Parties will also be encouraged to promote the work undertaken to deliver on the CSOs through supporting increased media exposure of relevant activities, the promotion and dissemination of relevant studies, and through the organisation of activities to increase public engagement.

Appendix – Action Plan

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	<ul style="list-style-type: none"> i) Inter-Secretariat Meeting j) Union Civil Protection Mechanism (UCPM) k) The Union for the Mediterranean (UfM) l) Relevant EU Marine Strategy Framework Directive (MSFD) Expert Groups, including JRC Expert Group for descriptors 8 and 9 m) Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP). 				
	1.1.4 To foster peer learning (exchange of experts and meeting)	Number of peer reviews in the region	5	To be defined	low
1.2 Capacity Building / Technical Cooperation	<p>1.2.1 To increase as much as practical, the level of knowledge in the field of preparedness and response to accidental marine pollution by oil and other harmful substances by delivering trainings on the following subjects:</p> <ul style="list-style-type: none"> a) IMO OPRC Model Courses (Level 1, 2 and 3) b) IMO HNS Model Courses (Operational and Manager Level) c) POSOW Model Courses (Train the trainer course, Volunteer management, Oiled Shoreline Assessment, Oiled Shoreline Cleanup, Oiled Wildlife response, Fishermen's Support in Oil Spill Response, Oil Spill Waste Management) d) Waste Management e) Surveillance and monitoring f) MARPOL (Annex I, Annex II, Annex III and Annex IV) g) IMO Port State Control Model Course h) IMO Flag State Implementation Model Course i) EUROWA model wildlife courses (BASIC Responder, ADVANCED Responder, SPECIALIST Responder, Manager, Wildlife Branch Director). 	Number of newly trained personnel per subject	2 newly trained personnel per country per training subject	To be defined	high

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	<p>1.2.2 To attend workshops, seminars and trainings offered by REMPEC, EMSA and other established networks addressing other topics, for example:</p> <ul style="list-style-type: none"> a) Circular economy and Sustainable Consumption and Production measures applying to maritime transport and the main maritime business Leisure (pleasure and entertainment cruise business), harvesting of raw materials (oil and gas, offshore mining, fishing), logistics (shipping of food, energy, containers, bulk material) and infrastructure (ferries, local shipping, ports). 	% of CPs attending	100%	To be defined	high
	<p>1.2.3 To develop and implement (in cooperation with the chemical industry) multi-sectoral training and contingency planning in case of chemical pollution at sea, for decision makers, citizens and volunteers, on-shore responders, and port authorities.</p>	Training developed	Year tbc	To be defined	high
	<p>1.2.4 To increase awareness on and use of (if needed), the services offered by EMSA in support of the transposition, implementation, and Enforcement following the Ratification of International Conventions including IMSAS within the framework of the SAFEMED project, including:</p> <ul style="list-style-type: none"> a) the enforcement and implementation of environment related international and European legislation b) Earth Observation services developed and offered by EMSA c) EMSA Remotely Piloted Aircrafts (RPAS) services developed to assist in maritime surveillance operations to support authorities involved in maritime pollution and emissions monitoring; d) Pollution Response Services offered by EMSA 	% of CPs aware of services offered	100%	To be defined	high
	<p>1.2.5 To develop an e-learning platform on the prevention of, preparedness for and response to marine pollution</p>	e-learning platform developed	Year tbc	To be defined	high
	<p>1.2.6 To enhance number of REMPEC Mediterranean Assistance Units (MAU) creating a network within MAU and CPs through REMPEC</p>	Number of MAU	Number tbc	To be defined	high

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
1.3 Operations	1.3.1 To organise annual / biennial national exercises (standard, table-top; communications) to test national response capabilities, cooperation and mutual assistance between Contracting Parties, REMPEC Mediterranean Assistance Unit (MAU), EMSA pollution response services (where applicable), private sector drills, etc.	Number of full-scale national exercise Number of communication exercise Number of table-top exercise	1 per year 1 per year 1 every two years	To be defined	high
	1.3.2 To organise sub-regional / regional / international exercises to test cooperation arrangements	Number of drills and exercises Number of full-scale or table-top international exercise	1 per sub-region every 2 year 1 every 2 year	To be defined	high

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	1.3.3 To develop and implement a process to capture lessons identified during real accidents and exercises and to integrate the follow-up in relevant trainings and subsequent exercises	<p>Successful development and implementation of process</p> <p>Number of training programmes adapted to reflect lessons identified</p> <p>Number of exercises where previously identified lessons are tackled with new approaches</p>	<p>Year tbc</p> <p>1 programme</p> <p>1 exercise</p>	To be defined	high
	1.3.4 To develop a framework for holistic integrated management of marine pollution incidents that enable a coordinated preparedness and response operation at sea and onshore, incorporating the response to oil-affected wildlife, at a national level and in the region-wide cooperation	Guidelines, training and exercises on the integrated management for marine pollution incidents developed	Year tbc	To be defined	high
	1.3.5 To establish systems and procedures for national and sub-regional monitoring and surveillance including regular individual or Coordinated Aerial Surveillance Operation for illicit ship pollution discharges in the Mediterranean (OSCAR-MED) in the waters under the jurisdiction of CPs, if the CPs so agree, and results reported to the Meeting of MENELAS;	<p>Number of OSCAR-MED</p> <p>Number of detentions of vessels</p>	<p>1 OSCAR-MED per year</p> <p>50% reduction in number of detained vessels</p>	To be defined	high
	1.3.6 To increase awareness and facilitate the use of Earth Observation services and RPAS services developed and offered by EMSA	% of CPs aware of services	100%	To be defined	high

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	1.3.7 To facilitate the use of EMSA maritime application as platform to exchange AIS information that is shared by the MAREΣ participating countries.	% of CPs aware of services	100%	To be defined	high
	1.3.8 To organise and follow-up analysis of concentrated inspection campaigns on MARPOL-related deficiencies	Number of inspections carried out	5,000 per year	To be defined	high
	1.3.9 To make use of the data collected under THETIS-MeD database to produce meaningful statistics in relation to MARPOL related deficiencies.	% reduction of detentions Number of analysis carried out	5% per year 1 per year	To be defined	high
INSTITUTION					
1.4 Governance	1.4.1 To strengthen the capacity of individual coastal States to respond efficiently to marine pollution incidents at sea and onshore through the establishment and the update of national system for responding to marine pollution, the development and update of national contingency plan (NCP) and sub-regional operational agreements and contingency plans.	% of CPs with established and updated National systems % of CPs with updated and adopted NCP	100% 100%	To be defined	high
	1.4.2 To set-up an operational network of Subregional Contingency Plans (SCP), and to define and implement synergy activities between the SCPs	% of CPs Parties to have a SCP in force Number of SCP operationally connected, and synergy activities defined and implemented	At least 80% At least 3	To be defined	medium

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	1.4.3 To extend the mandate of SCP to address prevention of pollution from ships	Number of SCP addressing prevention issues	At least 3	To be defined	medium
	1.4.4 To set-up the modalities of possible creation and operation, including in terms of governance and financing of a regional "Blue Fund"	Date for official establishment	year tbc	To be defined	medium
1.5 Ratification / Transposition	<p>1.5.1 To ratify and implement the following legal instrument, to ensure their transposition into national law, and to cooperate to ensure full compliance with their provisions:</p> <ul style="list-style-type: none"> a) the Protocol concerning Cooperation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea, ("2002 Prevention and Emergency Protocol") b) the International Convention for the Prevention of Pollution from Ships (MARPOL) and its Annex I, Annex II, Annex III, and Annex IV c) the International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC 90 Convention) d) the Protocol on Preparedness, Response and Cooperation to pollution Incidents by Hazardous and Noxious Substances, 2000 (2000 OPRC-HNS Protocol) e) the 1992 International Convention on Civil Liability for Oil Pollution Damage (CLC Convention) f) the 2001 International Convention on Civil Liability for Bunker Oil Pollution Damage (BUNKER Convention) g) the 1992 International Fund for Compensation for Oil Pollution Damage (FUND 1992) h) the 2010 Protocol to the International Convention on Liability and Compensation for Damage in Connection with the 	<p>% of CPs having ratified, transposed and enforcing:</p> <ul style="list-style-type: none"> a) 2002 Prevention and Emergency Protocol b) MARPOL <ul style="list-style-type: none"> i. Annex I ii. Annex II iii. Annex III iv. Annex IV c) OPRC Convention d) OPRC-HNS Protocol e) CLC Convention f) BUNKER Convention g) FUND 1992 h) The 2010 HNS Protocol 	At least 80% for each instrument	To be defined	high

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	Carriage of Hazardous and Noxious Substances by Sea, 1996 (The 2010 HNS Protocol). <i>(Still not into force)</i>				
1.6 Implementation	1.6.1 To undertake the IMO Member State Audit Scheme (IMSAS), using the III Code as the audit standard and following the Framework and Procedures for the IMO Member State Audit Scheme and implemented corrective measures to address identified gaps	% of CPs having undertaken the IMSAS and implemented corrective measures to address identified gaps	At least 100%	To be defined	high
1.7 Enforcement	1.7.1 To set-up a national legal framework (regulations) as a basis for prosecuting discharge offenders for infringements of MARPOL Annex I, II, III and IV	% of CPs with legal framework in place	At least 80%	To be defined	high
	1.7.2 To use the common marine oil pollution detection / investigation report	% of CPs using report	At least 80%	To be defined	high
	1.7.3 To apply criteria for a common minimum level of fines for each offense provided for under MARPOL Annex I, II, III and IV	% of CPs applying common minimum level of fines	At least 80%	To be defined	high
	1.7.4 To set-up the modalities of possible creation and operation, including in terms of governance and financing of a regional "Blue Fund" (Refer to action 1.4.4)	Amount collected from fines	amount tbc	To be defined	high
	1.7.5 To improve effectiveness of the Memorandum of Understanding (MoU) on port State Control (PSC) in the Mediterranean region (Mediterranean MoU) and to facilitate cooperation between the Paris MoU and the Mediterranean MoU	Number of meetings	1 per year	To be defined	high
INFRASTRUCTURE					
1.8 Port Reception Facilities	1.8.1 To provide adequate reception facilities in Mediterranean ports, enabling their use as soon as they are available at a fee which should be reasonable and should not serve as a disincentive for those ships that use them for disposal of: <ul style="list-style-type: none"> a) oily wastes b) Noxious Liquid Substances (NLS) c) sewage 	a) For oily wastes <ul style="list-style-type: none"> i. % of major ports having established collection, treatment and disposal procedures for bilge waters, oily residues and dirty ballast waters; and ii. % of major ports with 	100%	To be defined	high

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
		<p>collection, treatment and disposal procedures for bilge waters, oily residues and dirty ballast waters in place</p> <p>b) For Noxious Liquid Substances (NLS):</p> <p>i. % of major ports handling NLS having established collection, treatment and disposal procedures for NLS; and</p> <p>ii. % of major ports with collection, treatment and disposal procedures for NLS in place.</p> <p>c) For sewage:</p> <p>i. % of major ports having established collection and treatment procedures for sewage; and</p> <p>ii. % of major ports with collection and treatment procedures for sewage in place.</p>	<p>100%</p> <p>100%</p> <p>100%</p> <p>100%</p> <p>100%</p> <p>100%</p>		
<p>1.9 Alternative Energy / New Technologies</p>	<p>1.9.1 To follow-up on international development on response techniques to alternative fuel spills and provide necessary guidances and capacity building to CPs</p>	<p>Development on response techniques shared with CPs</p>	<p>Upon approval of relevant documents at IMO</p>	<p>To be defined</p>	<p>high</p>

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
1.10 Response Means	1.10.1 To have and maintain adequate oil and / HNS pollution response capabilities (both in human resources and equipment)	% of CPs having carried out national assessments on response capacities	At least 80%	To be defined	high
		% of CPs having adequate oil pollution response capabilities	At least 80%		
		% of CPs with adequate HNS response capabilities	At least 80%		
% of CPs contributing to the pool of equipment		100%			
	1.10.2 To establish a pool of oil and HNS pollution response means at sub-regional and regional level	Pool established	year tbc	To be defined	low
	1.10.3 To raise awareness on the EMSA pollution response services available in the Mediterranean.	% CPs aware of services	100%	To be defined	high
1.11 Surveillance / Monitoring Means	1.11.1 To have and maintain adequate surveillance and monitoring capabilities	% of CPs with adequate surveillance and monitoring capabilities	At least 50%	To be defined	high
		% of CPs with access to CleanSeaNet	100%		
	1.11.2 To increase awareness on the Earth Observation services developed and offered by EMSA and on the EMSA RPAS services for surveillance	% of CPs aware of services	100%	To be defined	medium

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	1.11.3 To increase awareness on the AIS based traffic monitoring services offered by EMSA (e.g. SafeSeaNet Ecosystem Graphical User Interface (SEG) and the regional cooperation entities (e.g. Mediterranean regional AIS server (MAREΣ)).	% of CPs aware of services	100%	To be defined	medium
	1.11.4 To set up a common emergency communication system for the whole Mediterranean	% of CPs with access to the common system	100%	To be defined	high
INFORMATION AND KNOWLEDGE SHARING					
1.12 Standards / Guidelines	1.12.1 To promote, disseminate and revise the existing recommendations, principles and guidelines, to develop new ones aimed at facilitating the implementation of the 2002 Prevention and Emergency Protocol, MARPOL (Annex I, Annex II, Annex III, Annex IV), OPRC Convention, OPRC-HNS Protocol, CLC Convention, BUNKER Convention, The 2010 HNS Protocol	Number of Guidelines revised and/or updated Number of downloads of Guidelines per year	To be defined through the MTWG To be defined through the MTWG	To be defined	medium
	1.12.2 To consider regional host nation support guidelines (alternatively a dedicated chapter could be included in the the Mediterranean Guide on Cooperation and Mutual Assistance)	Date guidelines developed / dedicated chapter is included	Year tbc	To be defined	medium
	1.12.3 To apply existing and new guidelines in particular: a) Guide for Combating Accidental Marine Pollution in the Mediterranean Sea. (REMPEC, 2000) b) Guidelines for the use of dispersants for combating oil pollution at sea in the Mediterranean region (REMPEC, 2011) c) Mediterranean Oiled Shoreline Assessment Guidelines (REMPEC, 2009)	% of CPs having applied these guidelines	100%	To be defined	medium

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	<ul style="list-style-type: none"> d) Mediterranean Oil Spill Waste Management Guidelines (REMPEC, 2012) e) The significance of a material safety data sheet (REMPEC, 2001) f) Personal protective equipment and monitoring devices for maritime chemical emergencies (REMPEC, 2003) g) Theory and practice of foams in chemical spill response (REMPEC, 1992) h) Risks of gaseous releases resulting from maritime incidents (REMPEC, 2018) i) Practical Guide for Marine Chemical Spills (REMPEC, 2000) j) Mediterranean Guide on Cooperation and Mutual Assistance in Responding to Marine Pollution Incidents (REMPEC, 2018) k) Oiled Shoreline Assessment Manual (POSOW,2013) l) Oiled Shoreline Cleanup Manual (POSOW, 2013) m) Oil Spill Volunteer Management Manual (POSOW, 2013) n) Oiled Wildlife Response Manual (POSOW, 2013) o) Oil Spill Waste Management Manual (POSOW,2016) p) Fishermen's Support in Oil Spill response Manual (POSOW, 2016) q) HNS Response Manual (2021) [expected to be adopted at the next meeting of focal point of REMPEC] r) Manual on oil spill risk evaluation and assessment of response preparedness (2010 edition) s) IMO/UNEP Guidance Manual on the assessment and restoration of environmental damage following marine oil spills (2009 edition) t) Guidance document on the implementation of an incident management system (IMS) (2012 edition) 				

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	<ul style="list-style-type: none"> u) Guidance on the safe operation of oil pollution combating equipment (2017) v) Guideline for oil spill response in fast currents (2013 edition) w) Bioremediation in marine oil spills (2004 edition) x) Guidelines for the development of shipboard marine pollution emergency plans (2010 edition) y) IMO/FAO Guidance on managing seafood safety during and after oil spills (2002 edition) z) Manual on chemical pollution: <ul style="list-style-type: none"> o Section 1 – Problem Assessment and Response Arrangements (1999 edition) o Section 2 – Search and Recovery of Packaged Goods lost at Sea (2007 edition) aa) Field guide for oil spill response in Tropical waters (1997 edition) bb) Guide on the implementation of the OPRC convention and OPRC-HNS Protocol (2020 edition) cc) Bonn Agreement Helcom REMPEC Marine HNS Response Manual (2021) dd) Other relevant guidelines as made available, alongside any relevant documents produced, including lessons learnt from accident experience. 				
1.13 Decision Making Tools	1.13.1 To improve the quality, speed and effectiveness of decision-making process through the maintenance, update, upgrade, development and inter-connection of technical and decision support tools, including: <ul style="list-style-type: none"> a) Barcelona Convention Reporting System (BCRS) b) REMPEC Country Profile c) MENELAS Information system 	Number of decision support tool maintained, updated and upgraded Number decision support tool developed	6 To be defined	To be defined	medium

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	<ul style="list-style-type: none"> d) The Maritime Integrated Decision Support Information System on Transport of Chemical Substances (MIDSIS-TROCS) e) The Mediterranean Integrated Geographical Information System on Marine Pollution Risk Assessment and Response (MEDGIS-MAR) f) Mediterranean Oil Spill Waste Management Decision Support Tool (Waste Management) g) Common Emergency and Information System (CECIS) h) EU SafeSeaNet, the vessel traffic monitoring and information system covering the waters in and around EU i) Data and images from Earth Observation satellites (CleanSeaNet and Copernicus services) j) THETIS-MeD k) Mediterranean AIS experts working group (MAREΣ) l) Global Integrated Shipping Information System (GISIS) 				
	<p>1.13.2 To update country specific information on existing and new decision support tool notably the BCRS, REMPEC Country Profile, MENELAS Information system, MEDGIS-MAR, Waste Management and CECIS.</p>	<p>% of CPs having updated national information for each decision support tool</p> <p>% of CPs using each decision support tool</p>	<p>At least 80%</p> <p>At least 80%</p>	<p>To be defined</p>	<p>high</p>
	<p>1.13.3 To establish a system of notification to a vessel's next port of call of the status of its on board retention of bilge waters, oily wastes, HNS residues, sewage, garbage, ozone-depleting substances and exhaust gas cleaning residues;</p>	<p>Date of establishment</p>	<p>2030</p>	<p>To be defined</p>	<p>low</p>
	<p>1.14.1 To ensure compliance with reporting obligations under the Barcelona Convention and the 2002 Prevention and Emergency</p>	<p>% of CPs having reported measure on the BCRS</p>	<p>At least 80%</p>	<p>To be defined</p>	<p>high</p>

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
1.14 Monitoring and Reporting Obligations	Protocol by reporting measures undertaken through the BCRS and inter-linked reporting databases, such as the IMAP and MEDGIS-MAR, notably: <ul style="list-style-type: none"> a) All incidents; b) The presence, characteristics and extent of spillages of oil and HNS; c) Immediately inform all CPs likely to be affected by the incident; d) Continue to observe the situation for as long as possible; e) POLREP (POLWARN, POLINE and POLFAC); and f) Information on illicit discharges on the MEDGIS-MAR 				
	1.14.2 To comply with IMO reporting requirement (SOLAS, MARPOL, OPRC-90 & OPRC-HNS Prot) notably: <ul style="list-style-type: none"> a) Mandatory reporting system under MARPOL (MEPC/Circ.318) b) Condition Assessment Scheme c) Pollution Prevention Equipment d) Contact Points e) Marine Casualty and Incidents f) Port States Control g) Information on assistance that may be made available to other States; and h) Copies of bilateral or multilateral agreements. 	% of CPs being compliant with IMO GISIS and other reporting requirements	At least 80%	To be defined	high
	1.14.3 To update MEDGIS-MAR with national inventory of response equipment	% of CPs having shared their equipment	At least 80%	To be defined	high
	1.14.4 To further streamline reporting procedures	Number of reporting systems	1	To be defined	medium

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
1.15 Research and Development	1.15.1 To provide assistance to regional institutions and industry in identifying fields of research in which there is a need for enhancement of the state-of-the-art of marine pollution prevention, preparedness and response technologies and techniques.	% of CPs having shared the results of their research	At least 80%	To be defined	medium
	1.15.2 To provide assistance and encourage scientific and technical institutions, as well as industry, to actively participate in research and development activities and programmes related to accidental marine pollution prevention, preparedness and response, and to share systematically the results of their research to all Mediterranean Coastal States	% of CPs having share the results of their research	At least 80%	To be defined	medium

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	<p>k) EU MRV Regulation (Regulation 2015/757 of the European Parliament and of the Council) on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport</p> <p>l) Reporting requirements to THETIS MRV, enabling companies responsible for the operation of large ships using EU ports to report their CO₂ emissions under the Regulation (EU) 2015/757 on Monitoring, Reporting and Verification of CO₂ from marine transport.</p>				
	2.2.2 To promote technologies and operations to improve energy efficiency in the maritime sector building on the experience of Maritime Technologies Cooperation Centres (MTCCs)	% of CPs aware of new technologies and operations	100%	To be defined	medium
	2.2.3 To use the provision of services, in support of the Transposition, Implementation, and Enforcement following the Ratification of International Conventions, offered under the SAFEMED project.	% CPs making use of such services	100%	To be defined	high
	2.2.4 To contribute to the possible establishment of externally funded major projects under the auspices of IMO in support of the Initial IMO Strategy on Reduction of GHG Emissions from Ships, such as the on-going IMO-Norway GreenVoyage2050 Project, and their subsequent implementation in the Mediterranean, as appropriate	Number of CPs contributing	At least 2	To be defined	low
2.3 Operations	2.3.1 To organise campaigns to monitor ship emissions	Number of campaigns	1 per year	To be defined	medium
INSTITUTION					
2.4 Governance	2.4.1 To support the implementation of the 'Initial IMO Strategy on Reduction of GHG Emissions from Ships' (Res. MEPC.304(72))	% of CP implementing the Initial IMO Strategy on	100%	To be defined	high

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
		Reduction of GHG Emissions from Ships			
	2.4.2 To include enforcement of MARPOL Annex VI, in the context of the setting up of the modalities of possible creation and operation, including in terms of governance and financing of a regional "Blue Fund"	Modalities of possible creation and operation, including in terms of governance and financing of a regional "Blue Fund"	Adopted	To be defined	high
2.5 Ratification / Transposition	2.5.1 To ratify and implement MARPOL Annex VI, to ensure its transposition into national law, and to cooperate to ensure full compliance with its provisions	% of CPs having ratified, transposed and enforcing: MARPOL Annex VI	100%	To be defined	high
2.6 Implementation	2.6.1 To undertake the IMO Member State Audit Scheme (IMSAS), using the III Code as the audit standard and following the Framework and Procedures for the IMO Member State Audit Scheme and implemented corrective measures to address identified gaps	% of CPs having undertaken the IMSAS and implemented corrective measures to address identified gaps % of ships adhering to MARPOL Annex VI requirements % of CPs' administrations being effective in carrying out all their responsibilities and obligations under MARPOL Annex VI	100% At least 80% At least 80%	To be defined	high
	2.6.2 To comply with the mandatory technical and operational requirements which apply to ships of 400 GT and above, i.e. the EEDI, applicable to new ships, which sets a minimum energy efficiency level for the work undertaken (e.g. CO ₂ emissions per tonne-mile) for different ship types and sizes, and the SEEMP, applicable to all ships	% of ships transiting the Mediterranean region constructed in 2025 to be at least 30% more energy efficient than those constructed in 2014	100%	To be defined	high

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
2.7 Enforcement	2.7.1 To define appropriate technical assistance, guidance and knowledge required for setting up national legal framework (regulations) for prosecuting offenders for infringements of MARPOL Annex VI, through MENELAS	% of CPs contributing to the definition of appropriate technical assistance, guidance and knowledge required	At least 50%	To be defined	high
	2.7.2 To set-up a national legal framework (regulations) as a basis for prosecuting offenders for infringements of MARPOL Annex VI	% of CPs with legal framework in place	At least 80%	To be defined	high
INFRASTRUCTURE					
2.8 Port Reception Facilities	2.8.1 To provide adequate reception facilities in Mediterranean ports, enabling their use as soon as they are available at a fee which should be reasonable and should not serve as a disincentive for those ships that use them for disposal of ozone-depleting substances and exhaust gas cleaning residues	% of major ports having established collection and treatment procedures for ozone-depleting substances and exhaust cleaning residues	100%	To be defined	high
		% of major port with collection and treatment procedures for such substances and residues in place	100%		
2.9 Alternative Energy / New Technology	2.9.1 To introduce alternative bunkering facilities and use LNG gas as fuel for international shipping	% availability of adequate LNG bunkering facilities in the Mediterranean region	100%	To be defined	medium
	2.9.2 To provide adequate onshore power supplies	% of CPs having onshore electrical power supply in place.	100%	To be defined	high

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
2.10 Response Means	N/A	N/A	N/A	N/A	N/A
2.11 Surveillance / Monitoring Means	2.11.1 To have and maintain adequate surveillance and monitoring capabilities, including, if possible, access to the Remotely Piloted Aircraft System Services (RPAS)	% of CPs having surveillance and monitoring capabilities	100%	To be defined	high
INFORMATION AND KNOWLEDGE SHARING					
2.12 Standards / Guidelines	2.12.1 To promote, disseminate and revise the existing recommendations, principles and guidelines, to develop new ones aimed at facilitating the implementation of MARPOL Annex VI	% of CPs having downloaded/been provided with such guidelines	100%	To be defined	medium
	2.12.2 To apply existing and new guidelines in particular: <ul style="list-style-type: none"> a) GloMEEP Ship emissions toolkit guide no.1: Rapid assessment of ship emissions in the national context b) GloMEEP Ship emissions toolkit guide no.2: Incorporation of MARPOL Annex VI into national law c) GloMEEP Ship emissions toolkit guide no.3: Development of a national ship emissions reduction strategy d) GloMEEP Port emissions toolkit guide no.1: Assessment of port emissions e) GloMEEP Port emissions toolkit guide no.2: Development of port emissions reduction strategies f) 2014 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships, as amended (resolution MEPC.245(66)); g) 2016 Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP) (resolution MEPC.282(70)); 	% of CPs having applied these guidelines	100%	To be defined	medium

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	<ul style="list-style-type: none"> h) 2014 Guidelines on survey and certification of the Energy Efficiency Design Index (EEDI), as amended (resolution MEPC.254(67)); i) 2013 Guidelines for calculation of reference lines for use with the Energy Efficiency Design Index (EEDI) (resolution MEPC.231(65)); j) 2018 Guidelines on the Method of Calculation of the Attained Energy Efficiency Design Index (EEDI) for new Ships (MEPC.308(73)); 				
	2.12.3 . To develop guidelines for alternative energy applications	Guidelines developed	Year tbc	To be defined	medium
2.13 Decision Making Tools	2.13.1 Increase awareness of any decision-support tools available to CPs and industry in particular those developed within the GloMEEP and the “Capacity Building for Climate Mitigation in the Maritime Shipping Industry – The Global MTCC Network (GMN)” projects	<ul style="list-style-type: none"> % of CPs being provided access to such tool % of CPs using each decision support tool 	<ul style="list-style-type: none"> 100% A 100% 	To be defined	medium
	2.13.2 To establish a system of notification to a vessel’s next port of call of the status of its on board retention of ozone-depleting substances and exhaust gas cleaning residues;	Date of establishment	2030	To be defined	low
2.14 Monitoring and Reporting Obligations	2.14.1 To comply with the mandatory reporting obligations under MARPOL Annex VI, Regulation 22, taking into consideration the guidance notes as set out in MEPC.320(74), MEPC.282(70), MEPC.292(71), MEPC.293(71),	% of CPs to have complied with the mandatory reporting obligations	100%	To be defined	high
2.15 Research and Development	2.15.1 To support research and development to improve energy efficiency of international shipping	% of CPs participating in research and development activities	50%	To be defined	medium
	2.15.2 To provide assistance to regional institutions and industry in identifying fields of research in which there is a need to improve energy efficiency of international shipping	% of CPs having shared the results of their research	At least 80%	To be defined	medium

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	2.15.3 To encourage scientific and technical institutions, as well as the industry, to actively participate in research and development activities and programmes related to energy efficiency of international shipping, and to share systematically the results of their research to all Mediterranean Coastal States	% of CPs having shared the results of their research	At least 80%	To be defined	medium
	2.15.4 To promote, disseminate relevant studies on energy efficiency of international shipping, notably: <ul style="list-style-type: none"> a) Study of emission control and energy efficiency measures for ships in the port area b) Studies on the feasibility and use of LNG as a fuel for shipping c) Study on the optimization of energy consumption as part of implementation of a ship energy efficiency management plan (SEEMP) d) Methanol as marine fuel: environmental benefits, technology readiness, and economic feasibility e) Investigation of appropriate control measures (abatement technologies) to reduce black carbon emissions from international shipping f) Third IMO Greenhouse gas study 2014 g) Fourth IMO Greenhouse gas study 2020 	% of CPs aware of such studies	100%	To be defined	medium

CSO 3: Reduce and monitor air emissions from ships to a level that is not harmful to the marine environment, or the health of the coastal population of the Mediterranean

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
PEOPLE					
3.1 Networks	3.1.1 To actively participate in existing global and regional working groups established to reduce SOx and NOx emissions from ships notably the SOx/NOx Technical Committees of Experts, MENELAS, IMO Working Group on Reduction of GHG Emissions from Ships, and Global Network of Maritime Technology Cooperation Centres (MTCC) and Regional Seas Programmes (HELCOM, OSPAR, Bonn Agreement)	% of CPs participating in existing global and regional working groups	At least 50%	To be defined	low
3.2 Capacity Building / Technical Cooperation	3.2.1 To increase as much as practical, the level of knowledge in the field of SOx and NOx emission control area requirements under MARPOL Annex VI by providing technical assistance and capacity building activities	% of personnel trained	2 newly trained personnel per country	To be defined	high
	3.2.2 To increase as much as practical, the level of knowledge in the field of SOx requirements under Directive (EU) 2016/802 relating to a reduction in the sulphur content of certain liquid fuels and tools and the relevant services developed by EMSA (THETIS-EU / RPAS) for its implementation	Number of CPs updated with such information	100%	To be defined	high
	3.2.3 To increase awareness on and use of, if needed, the services made available by EMSA in support of the Transposition, Implementation, and Enforcement following the Ratification of International Conventions under the SAFEMED project	Number of CPs aware of such information	100%	To be defined	high
	3.2.4 To increase awareness on and use of, if needed, the services made available by EMSA with the aim to extend cooperation in the area of Directive 2002/59/EC – VTMIS (as amended)	Number of CPs aware of these services	100%	To be defined	high
3.3 Operations	3.3.1 To organise campaigns to monitor ship emissions	Number of campaigns	1 per year	To be defined	high

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	3.3.2 To contribute to the possible establishment of externally funded major projects under the auspices of IMO in support of the Initial IMO Strategy on Reduction of GHG Emissions from Ships, such as the on-going IMO-Norway GreenVoyage2050 Project, and their subsequent implementation in the Mediterranean, as appropriate	Number of CPs contributing	At least 2	To be defined	low
INSTITUTION					
3.4 Governance	3.4.1 To support the implementation of 'Decision IG. 24/8 on the Road Map for a Proposal for the Possible Designation of the Mediterranean Sea, as a whole, as an Emission Control Area for Sulphur Oxides Pursuant to MARPOL Annex VI, within the Framework of the Barcelona Convention'.	Status of implementation of Decision IG. 24/8	100% implemented	To be defined	high
	3.4.2 To agree upon and implement a Road Map for a Proposal for the Possible Designation of the Mediterranean Sea, as a whole, as an Emission Control Area for Nitrogen Oxides Pursuant to MARPOL Annex VI, within the Framework of the Barcelona Convention'.	Roadmap submitted	To be defined	To be defined	high
	3.4.3 To include enforcement of MARPOL Annex VI, in the context of the setting up of the modalities of possible creation and operation, including in terms of governance and financing of a regional "Blue Fund"	Modalities of possible creation and operation, including in terms of governance and financing of a regional "Blue Fund"	Adopted	To be defined	high
3.5 Ratification / Transposition	3.5.1 To ratify and implement MARPOL Annex VI, to ensure its transposition into national law, and to cooperate to ensure full compliance with its provisions	% of CPs having ratified, transposed and enforcing MARPOL Annex VI	100%	To be defined	high
3.6 Implementation	3.6.1 To undertake the IMO Member State Audit Scheme (IMSAS), using the III Code as the audit standard and following the Framework and Procedures for the IMO Member State Audit Scheme and implemented corrective measures to address identified gaps	% of CPs having undertaken the IMSAS and implemented corrective measures to address identified gaps	100%	To be defined	high

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
		% of ships adhering to MARPOL Annex VI requirements	100%		
		% of CPs' administrations being effective in carrying out all their responsibilities and obligations under MARPOL Annex VI	100%		
3.7 Enforcement	3.7.1 To set-up a national legal framework (regulations) as a basis for prosecuting discharge offenders for infringements of the MARPOL Annex VI	% of CPs with legal framework in place	At least 80%	To be defined	high
INFRASTRUCTURE					
3.8 Port Reception Facilities	3.8.1 To provide adequate reception facilities in Mediterranean ports, enabling their use as soon as they are available at a fee which should be reasonable and should not serve as a disincentive for those ships who use them for disposal of scrubbers' residues.	% of major ports having the required PRF for scrubber waste in place	100%	To be defined	high
3.9 Alternative Energy / New Technologies	3.9.1 To provide low-sulphur oxides fuels for international shipping	Number of ports providing adequate low-sulphur oxides bunkering facilities in the Mediterranean region	At least one per country	To be defined	medium
	3.9.2 To introduce alternative bunkering facilities and use LNG gas as fuel for international shipping	Number of ports providing adequate LNG bunkering facilities in the Mediterranean region	At least one per country	To be defined	medium
	3.9.3 To provide adequate onshore power supplies	Number of ports having onshore electrical power supply in place.	At least one per country	To be defined	high
3.10 Response Means	N/A	N/A	N/A	N/A	N/A

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
3.11 Surveillance / Monitoring Means	3.11.1 To have and maintain adequate surveillance and monitoring capabilities, including, if possible, access to the Remotely Piloted Aircraft System Services	% of CPs having surveillance and monitoring capabilities in place	100%	To be defined	high
	3.11.2 To make use of THETIS-MED which serves as a platform to record and exchange information on the results of individual compliance verifications performed by Member States as foreseen by Directive (EU) 2016/802 on the reduction in the sulphur content of marine fuels.	% of CPs using THETIS-MED for such analysis	100%	To be defined	high
	3.11.3 Within the framework of EMSA's implemented cooperation projects, to make use of EMSA maritime application which serves as a platform to exchange AIS information that is shared by the Mediterranean AIS Regional Server (MAREΣ) participating Contracting Parties.	% of Cps making use of application	100%	To be defined	high
INFORMATION AND KNOWLEDGE SHARING					
3.12 Standards / Guidelines	3.12.1 To promote, disseminate and revise the existing recommendations, principles and guidelines, to develop new ones aimed at facilitating the implementation of MARPOL Annex VI	% of CPs having downloaded/been provided with such guidelines	100%	To be defined	medium
	3.12.2 To apply existing and new guidelines in particular: <ul style="list-style-type: none"> a) GloMEEP Ship emissions toolkit guide no.1: Rapid assessment of ship emissions in the national context b) GloMEEP Ship emissions toolkit guide no.2: Incorporation of MARPOL annex VI into national law c) GloMEEP Ship emissions toolkit guide no.3: Development of a national ship emissions reduction strategy d) GloMEEP Port emissions toolkit guide no.1: Assessment of port emissions e) GloMEEP Port emissions toolkit guide no.2: Development of port emissions reduction strategies 	% of CPs having applied these guidelines	100%	To be defined	medium

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	<ul style="list-style-type: none"> f) 2015 Guidelines for exhaust gas cleaning systems (MEPC.259(68)); g) 2019 Guidelines for PSC under MARPOL Annex VI, Chapter 3 (MEPC.321(74)); h) 2019 Guidelines for consistent implementation of the 0.5% sulphur limit under MARPOL Annex VI (MEPC.320(74)) 				
3.13 Decision Making Tools	3.13.1 To increase awareness of all the decision-support tools available to CPs and industry	<ul style="list-style-type: none"> % of CPs being provided access to such tools % of CPs using each decision support tool 	<ul style="list-style-type: none"> 100% 100% 	To be defined	medium
3.14 Monitoring and Reporting Obligations	3.14.1 To comply with all the mandatory reporting obligations under MARPOL Annex VI, Regulations, 11, 18, noting contents of MEPC.320(74), MEPC.1/Circ.880	% of CPs to have complied with the mandatory reporting obligations	100%	To be defined	high
	3.14.2 To establish monitoring systems in their ports and coastal region	% of CPs with monitoring systems in place in major ports around the Mediterranean	100%	To be defined	high
	3.14.3 To provide information on the monitoring, reporting and verification of SOx and NOx emissions	% of CPs having shared relevant information	50%	To be defined	high
3.15 Research and Development	3.15.1 To encourage CPs to participate in research and development and studies carried out on national, regional and international (within IMO) levels	% of CPs participating in relevant research and development activities	50%	To be defined	medium

CSO 4: Prevent and reduce plastic litter entering the marine environment from ships, in order to limit the environmental, health, and socio-economic impact of marine litter in the Mediterranean

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
PEOPLE					
4.1 Networks	4.1.1 To contribute to the work of United Nations bodies and agencies, as well as international fora, which are active in the matter of marine plastic litter from shipping, notably the <ul style="list-style-type: none"> a) IMO Working Group on Marine Plastic Litter b) Food and Agriculture Organization of the United Nations (FAO) through the Joint FAO/IMO Ad Hoc Working Group on Illegal Unreported and Unregulated (IUU) Fishing & Related Matters (JWG); Private stakeholders (Cruise liners, etc) c) Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP); d) UN Environment-managed Global Partnership on Marine Litter (GPML); e) UN Open-ended informal Consultative Process on Oceans and the Law of the Sea (ICP); and f) United Nations Environment Assembly (UNEA); and g) UNEP Expert group h) MSFD TG Marine Litter 	% of CPs participating into the relevant international working groups	At least 50%	To be defined	low
	4.1.2 To make information available to UNEA through IMO or UNEP/MAP, as appropriate	Number of updates provided	1 per year	To be defined	medium

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
4.2 Capacity Building / Technical Cooperation	4.2.1 To implement targeted technical cooperation and Capacity-building activities, in the Mediterranean to address relevant implementation issues related to the Regional Plan on Marine Litter Management in the Mediterranean and the IMO Action Plan to Address Marine Plastic Litter from Ships especially within the framework of the “Marine Litter-MED II” Project (e.g. scaling up and pilot project implementation of related measures of the Regional Plan on Marine Litter Management in the Mediterranean) and the IMO’s Integrated Technical Cooperation Programme (ITCP), as appropriate;	Number of trained personnel	2 newly trained personnel per country per training subject	To be defined	high
	4.2.2 To promote the collaboration among private sector operators, particularly cruise companies, to address single-use-plastics within their operations (i.e. hospitality services, toileteries)	Number of companies that take measures to address SUP	5	To be defined	low
	4.2.3 To contribute to the possible adjustments of the IMO model course “Marine Environmental Awareness 1.38” to specifically address marine plastic litter, and promote its use in the Mediterranean.	% of CPs contributing	50%	To be defined	low
	4.2.4 To contribute to the possible establishment of externally funded major projects under the auspices of IMO in support of the IMO Action Plan to Address Marine Plastic Litter from Ships, such as the] IMO-FAO-Norway GloLitter Partnerships Project, and their subsequent implementation in the Mediterranean, as appropriate	Number of CP contributing	At least 3	To be defined	low
	4.2.5 To increase awareness on and use of, if needed, the services made available by EMSA in support of the Transposition, Implementation, and Enforcement following the Ratification of International Conventions offered under the SAFEMED project	% of CPs aware of such services	100%	To be defined	high
	4.2.6 To increase awareness on and use of, if needed, the services developed and made available by EMSA with the aim to extend cooperation in the area of Directive 2002/59/EC – VTMIS (as amended).	% of CPs aware of such services	100%	To be defined	high
4.3 Operations	N/A	N/A	N/A	N/A	N/A

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
INSTITUTION					
4.4 Governance	4.4.1 To strengthen the capacity of individual coastal States to respond efficiently to pollution by marine plastic litter	% of CPs having the capacity to respond efficiently to pollution by marine plastic litter	100%	To be defined	high
	4.4.2 To implement specific actions to address marine plastic litter from ships in the Mediterranean arising from the Regional Plan on Marine Litter Management in the Mediterranean, the IMO Action Plan to Address Marine Plastic Litter from Ships, as well as other relevant plans or initiatives, including the forthcoming IMO Strategy on marine plastic litter from ships, as appropriate;	% of CPs having fully implemented relevant provisions of the: <ul style="list-style-type: none"> - Regional Plan on Marine Litter Management in the Mediterranean, - IMO Action Plan to Address Marine Plastic Litter from Ships 	100% 100%	To be defined	high
	4.4.3 To explore with the IMO and UNEP/MAP steps that could be taken within their respective mandates to establish synergies with a view to enhancing cooperation and coordination in implementing their respective plans or strategies on marine plastic litter from ships as well as other relevant plans or initiatives.	Number of meetings held	1 per year	To be defined	medium
4.5 Ratification / Transposition	4.5.1 To ratify and implement MARPOL Annex V, to ensure its transposition into national law, and to cooperate to ensure full compliance with its provisions and as appropriate, actions from the IMO Action Plan on plastic litter and microplastics. 4.5.2. Transposition and implementation of related UNEA resolutions/provisions.	% of CPs having ratified, transposed and enforcing MARPOL Annex V	100%	To be defined	high

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	4.5.3 To implement national regulations empowering maritime authorities to require, if they deem it necessary, the Masters of vessels to discharge wastes into designated port reception facilities before sailing	% of CPs having implemented the national regulations	At least 80%	To be defined	high
4.6 Implementation	4.6.1 To undertake the IMO Member State Audit Scheme (IMSAS), using the III Code as the audit standard and following the Framework and Procedures for the IMO Member State Audit Scheme and implemented corrective measures to address identified gaps	% of CPs having undertaken the IMSAS and implemented corrective measures to address identified gaps	100%	To be defined	high
	4.6.2 To encourage CPs to implement the relevant measures provided for in the Regional Plan on Marine Litter Management in the Mediterranean in line with the timetables, using the Operational Guidelines on the Provisions of Reception Facilities in Ports and the Delivery of Ship-Generated Wastes in the Mediterranean (Decision IG.24/11, Annex III) as well as the Guidance Document to Determine the Application of Charges at Reasonable Costs for the Use of Port Reception Facilities or, when Applicable, Application of the No-Special-Fee System, in the Mediterranean (Decision IG.24/11, Annex IV), and sharing best practices and lessons learned in this process in the Mediterranean	% of ships adhering to MARPOL Annex V requirements % of CPs implementing relevant obligations under the Regional Plan on Marine Litter Management in the Mediterranean	100% 100%	To be defined	high
	4.6.3 To provide assistance to CPs to effectively implement their obligation to provide adequate facilities at ports and terminals for the reception of garbage, as required by regulation 8 of MARPOL Annex V	% of CPs' administrations being effective in carrying out all their responsibilities and obligations under MARPOL Annex V	100%	To be defined	high
	4.6.4 To explore and implement (to the extent possible) ways and means to charge reasonable costs for the use of port reception facilities or when applicable, apply a 'No-Special-Fee' system (including provisions for passively fished waste and the right of delivery).	Number of ports with a 'no special fee' system in place	1 per country	To be defined	high

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
4.7 Enforcement	4.7.1 To contribute to the development of possible IMO mechanisms to enhance the enforcement of MARPOL Annex V requirements for the delivery of garbage to reception facilities, and their implementation in the Mediterranean;	% of CPs contributing	50%	To be defined	high
	4.7.2 To set-up a national legal framework (regulations) as a basis for prosecuting discharge offenders for infringements of MARPOL Annex V	% of CPs with legal framework in place	At least 80%	To be defined	high
	4.7.3 To apply criteria for a common minimum level of fines for each offense provided for under MARPOL Annex V	% of CPs applying common minimum level of fines	At least 80%	To be defined	high
	4.7.4 To carry out FSI inspections to ensure that registered vessels, including pleasure craft and fishing boats, comply with MARPOL Annex V requirements and any other national rules and regulations;	Number of inspections, deficiencies found, and ships detained	100% compliance	To be defined	high
	4.7.5 To improve effectiveness of the Memorandum of Understanding (MoU) on port State control (PSC) in the Mediterranean region (Mediterranean MoU) and to facilitate cooperation between the Paris MoU and the Mediterranean MoU	Number of joint concentrated inspections	1 per year	To be defined	high
INFRASTRUCTURE					
4.8 Port Reception Facilities	4.8.1 To contribute to the development of IMO tools to support the implementation of cost frameworks associated with port reception facilities, taking into account the need not to create disincentives for the use of port reception facilities, the potential benefits of cost incentives that provide no additional fees based on volume and identifying waste types that can be reduced, reused or recycled through schemes that identify waste revenue	Number of ports having installed facilities for the collection of garbage and procedures for its disposal;	At least one per country	To be defined	high
	4.8.2 To provide adequate reception facilities in Mediterranean ports, enabling their use as soon as they are available at a fee which should be reasonable and should not serve as a disincentive for those ships that use them for the disposal of garbage	Number of ports with collection and disposal procedures for garbage in place	At least one per country	To be defined	high

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	4.8.3 To contribute to the establishment of possible IMO requirement for port reception facilities to provide for separate garbage collection for plastic waste from ships, including fishing gear to facilitate reuse or recycling, and its implementation in the Mediterranean	% CPs contributing	50%	To be defined	high
	4.8.4 To provide assistance to CPs to effectively manage marine litter accidentally collected during fishing activities (the so-called "Fishing for Litter") as well as damaged fishing gears, providing assistance to realise adequate port reception facilities and cooperation within stakeholders	% of CPs to have requested assistance	50%	To be defined	high
4.9 Alternative energy / New Technologies	N/A	N/A	N/A	N/A	N/A
4.10 Response means	N/A	N/A	N/A	N/A	N/A
4.11 Surveillance / Monitoring Means	4.11.1 To assist CPs in setting up surveillance / monitoring systems, including procedures and systems both in port and around the coast (aerial surveillance using RPAS)	% number of CPs having a surveillance / monitoring system in place	At least 80%	To be defined	high
	4.11.2 To carry out FSI and PSC inspections to ensure that vessels and crafts are in compliance with MARPOL Annex V	Number of inspections / detentions	No detentions	To be defined	high
INFORMATION AND KNOWLEDGE SHARING					
4.12 Standards / Guidelines	4.12.1 To promote, disseminate and revise the existing recommendations, principles and guidelines, to develop new ones aimed at facilitating the implementation of MARPOL Annex V: <ul style="list-style-type: none"> a) IMO Action Plan to address marine plastic litter from Ships (Res. MEPC.310(73)); b) 2017 Guidelines for the Implementation of MARPOL Annex V (Res.MEPC.295(71)) 	% of CPs having downloaded/been provided with such guidelines	100%	To be defined	medium

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	<ul style="list-style-type: none"> c) Guidelines concerning Pleasure Craft Activities and the Protection of the Marine Environment in the Mediterranean (Decision IG 17/9);; d) Operational Guidelines on the Provisions of Reception Facilities in Ports and the Delivery of Ship-Generated Wastes in the Mediterranean (Decision IG.24/11, Annex III); and; e) Guidance Document to Determine the Application of Charges at Reasonable Costs for the Use of Port Reception Facilities or, when Applicable, Application of the 'No Special Fee System', in the Mediterranean (Decision IG.24/11, Annex IV). 				
	<p>4.12.2 To contribute to the IMO review of the application of placards, garbage management plans and garbage record-keeping in MARPOL Annex V in the Mediterranean.</p>	<p>% CPs contributing</p>	<p>50%</p>	<p>To be defined</p>	<p>medium</p>
	<p>4.12.3 To support and promote the uptake of the FAO Voluntary Guidelines of the Marking of Fishing Gear in the Mediterranean</p>	<p>% of CPs using guidelines</p>	<p>100%</p>	<p>To be defined</p>	<p>medium</p>
	<p>4.12.4 To promote the use of the regional policy guidelines to tackle single-use pastics, being developed under the Barcelona Convention, by port authorities and private sector operators.</p>	<p>% of CPs using guidelines</p>	<p>100%</p>	<p>To be defined</p>	<p>medium</p>
<p>4.13 Decision Making Tools</p>	<p>4.13.1 To increase awareness of any decision-support tools available to the CPs and industry</p>	<p>% of CPs being provided access to such tools</p> <p>% of CPs using each decision support tool</p>	<p>100%</p> <p>100%</p>	<p>To be defined</p>	<p>medium</p>

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
4.14 Monitoring and Reporting Obligations	4.14.1 To comply with the mandatory reporting obligations under the London Convention, the London Protocol, MARPOL Annex V, and on a regional basis, the Dumping Protocol, while noting contents of MEPC.1/Circ834/Rev1; MEPC.295(71), MEPC.310(73)	% of CPs to have complied with the mandatory reporting obligations	100%	To be defined	high
	4.14.2 To establish a single and uniform monitoring systems in ports and coastal region in connection with UNEP/MAP IMAP	% of CPs with monitoring systems in place in major ports around the Mediterranean	50%	To be defined	high
	4.14.3 To provide information on the monitoring, reporting and verification of the level of marine plastic litter in ports and within coastal waters and to share their experiences and best practices;	% of CPs having shared relevant information	50%	To be defined	high
4.15 Research and Development	4.15.1 To encourage the CPs and relevant international or regional organisations that have conducted any scientific research related to marine litter in the Mediterranean to share the results of such research, including any information on the areas contaminated by marine plastic litter from ships in the Mediterranean	% of CPs to participating in relevant studies	50%	To be defined	medium
	4.15.2 To encourage CPs to contribute, by undertaking studies at national level, to the IMO study on marine plastic litter and other regional studies and projects of regional or sub-regional scope, such as those funded by the EU including macro and microplastics, from all ships, pleasure boats and fishing boats	% CPs contributing	50%	To be defined	medium
	4.15.3 To invite CPs and relevant international or regional organisations to undertake studies to better understand microplastics from ships in the Mediterranean.	% CPs / int'l organisations contributing	50%	To be defined	low

CSO 5: Keep non-indigenous species introduced by shipping activity at levels that do not adversely alter the ecosystem

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
PEOPLE					
5.1 Networks	<p>5.1.1 To contribute to the work of United Nations bodies and agencies, as well as international fora, which are active in the matter of biosafety, notably the:</p> <ul style="list-style-type: none"> a) IMO (MEPC; PPR-WGs; CGs on ballast water and biofouling) b) Regional Activity Centre for Specially Protected Areas (SPA/RAC); and c) EMSA 	% of CPs participating in relevant international working groups	At least 50%	To be defined	low
5.2 Capacity Building / Technical Cooperation	<p>5.2.1 To implement targeted technical cooperation and Capacity-building activities, in the Mediterranean to address implementation issues related to biosafety, namely the effective implementation of:</p> <ul style="list-style-type: none"> a) the Mediterranean Strategy on Ships' Ballast Water Management, including its Action Plan and Timetable (the "Mediterranean BWM Strategy") b) the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (BWM Convention); c) the International Convention on the Control of Harmful Anti-fouling Systems on Ships, 2001 (AFS Convention); and d) the 2011 Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species (Biofouling Guidelines), and associated best practices 	Number of newly trained personnel per subject	1 newly trained personnel per country per subject	To be defined	high

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	5.2.2 To contribute to the possible establishment of externally funded major projects under the auspices of IMO in support of the BWM Convention, AFS Convention or Biofouling Guidelines, such as the on-going Global Environment Facility (GEF)-United Nations Development Programme (UNDP)-IMO GloFouling Partnerships, and their subsequent implementation in the Mediterranean, as appropriate	Number of CPs contributing	At least 2	To be defined	medium
	5.2.3 To increase awareness on and use, if needed, the services made available by EMSA in support of the Transposition, Implementation, and Enforcement following the Ratification of International Conventions offered under the SAFEMED project.	% of CPs aware of such services	100%	To be defined	high
	5.2.4 To increase awareness on and use, if needed, the services made available by EMSA with the aim to extend cooperation in the area of Directive 2002/59/EC – VTMISS (as amended).	% of CPs aware of such services	100%	To be defined	high
5.3 Operations	N/A	N/A	N/A	N/A	N/A
INSTITUTION					
5.4 Governance	5.4.1 To implement the Mediterranean BWM Strategy	% of CP having implemented the Mediterranean Strategy	100%	To be defined	high
5.5 Ratification / Transposition	5.5.1 To ratify and transpose the BWM Convention and the AFS Convention	% of CPs having ratified, transposed and enforcing the BWM Convention and the AFS Convention	100%	To be defined	high
5.6 Implementation	N/A	N/A	N/A	N/A	N/A
5.7 Enforcement	5.7.1 Establish a effective Compliance Monitoring and Enforcement (CME) system in the Mediterranean region	Date of establishment of CME	To be defined	To be defined	high

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	5.7.2 To set-up a national legal framework (regulations) as a basis for prosecuting discharge offenders for infringements of the BWM Convention and AFS Convention	% of CPs with legal framework in place	At least 100%	To be defined	high
	5.7.3 To apply criteria for a common minimum level of fines for each offense provided for under the BWM Convention and AFS Convention	% of CPs applying common minimum level of fines	At least 80%	To be defined	high
	5.7.4 FSI to ensuring that registered vessels, including pleasure craft and fishing boats, comply with the BWM Convention and AFS Convention requirements and any other national rules and regulations;	Number of inspections, of inspections, deficiencies found, and ships detained	100% Compliance	To be defined	high
	5.7.5 To improve effectiveness of the Mediterranean MoU and to facilitate cooperation between the Paris MoU and the Mediterranean MoU	Number of meetings	1 per year	To be defined	high
INFRASTRUCTURE					
5.8 Port Reception Facilities	5.8.1 To provide adequate reception facilities in Mediterranean ports, enabling their use as soon as they are available at a fee which should be reasonable and should not serve as a disincentive for the disposal of ships' ballast water sediments.	% of major ports and terminals where cleaning or repair of ballast tanks comply with the provisions of the BWM Convention	100%	To be defined	high
5.9 Alternative Energy / New Technologies	N/A	N/A	N/A	N/A	N/A
5.10 Response Means	N/A	N/A	N/A	N/A	N/A
5.11 Surveillance / Monitoring Means	5.11.1 Operational and accessible testing of ballast water in national laboratories	% of CPs having testing facilities	80%	To be defined	high
	5.11.2 To develop a database of new introductions of non-indigenous species recorded in the Mediterranean via ballast water	Database established	Year tbc	To be defined	medium

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
INFORMATION AND KNOWLEDGE SHARING					
5.12 Standards / Guidelines	<p>5.12.1 To promote, disseminate and revise the existing recommendations, principles and guidelines, to develop new ones aimed at facilitating the implementation of the BWM Convention, AFS Convention and the Biofouling Guidelines, notably (but not limited to):</p> <ul style="list-style-type: none"> a) Guidance for Minimizing the Transfer of Invasive Aquatic Species as Biofouling (Hull Fouling) for Recreational Craft (MEPC.1/Circ.792) b) Guidance for Evaluating the 2011 Guidelines for the Control and Management of Ships' Biofouling to minimize the Transfer of Invasive Aquatic Species (MEPC.1/Circ.811) c) Guidelines Concerning Pleasure Craft Activities and the Protection of the Marine Environment in the Mediterranean (Decision IG 17/9). d) Ballast Water Management - Guidance for best practices on sampling (EMSA 2019) e) Guidelines for Sediment Reception Facilities (G1) (MEPC.152(55)); f) Guidelines for Ballast Water Sampling (G2) (MEPC.173(58)); g) Guidelines for Ballast Water Management equivalent compliance (G3) (MEPC.123(53)); h) Guidelines for Ballast Water Management and Development of Ballast Water Management Plans (G4) (MEPC.127(53)); i) Guidelines for Ballast Water Reception Facilities (G5) (MEPC.153(55)); 	% of CPs having downloaded/been provided with such guidelines	100%	To be defined	medium

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	<ul style="list-style-type: none"> j) 2017 Guidelines for Ballast Water Exchange (G6) (MEPC.288(71)); k) 2017 Guidelines for Risk Assessment under Regulation A-4 of the BWM Convention (G7) (MEPC.289(71)); l) Guidelines for approval of Ballast Water Management Systems (G8) (MEPC.279(70)); m) Procedure for approval of Ballast Water Management Systems that make use of active substances (G9) (MEPC.169(57)); n) Guidelines for approval and oversight of prototype Ballast Water Treatment technology programmes (G10) (MEPC.140(54)); o) Guidelines for Ballast Water exchange design and construction standards (G11) (MEPC.149(55)); p) 2012 Guidelines on design and construction to facilitate sediment control on ships (G12) (MEPC.209(63)); q) Guidelines for additional measures regarding ballast water management including emergency situations (G13) (MEPC.161(56)); r) Guidelines on designation of areas for ballast water exchange (G14) (MEPC.151(55)); s) The Experience-building phase associated with the BWM Convention, (MEPC.290(71)); t) Implementation of the BWM Convention, (MEPC.287(71)); u) Guidelines for Port State Control under the BWM Convention, (MEPC.252(67)); v) Information reporting on type approved ballast water management systems, (MEPC.228(65)); w) Procedures for approving other methods of ballast water management in accordance with Regulation B-37 of the BWM Convention, (MEPC.206(62)); 				

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	<ul style="list-style-type: none"> x) Installation of ballast water management systems on new ships in accordance with the application dates contained in the BWM Convention, (MEPC.188(60)); y) Application of the BWM Convention to ships operating in sea areas where ballast water exchange in accordance with requirements B-4.1 and D-1 is not possible, (BWM.2/Circ.63)); z) Guidance on contingency measures under the BWM Convention, (BWM.2/Circ.62)); aa) Guidance on methodologies that may be used for enumerating viable organisms for type approval of ballast water management systems, (BWM.2/Circ.61)); bb) Guidance on best management practices for removal of anti-fouling coatings from ships including TBT hull paints, (AFS.3/Circ.3)); cc) 2010 Guidelines for Survey and Certification of Anti-Fouling Systems on Ships, MEPC.195(61)). 				
5.13 Decision Making Tools	<p>5.13.1 To explored possible interaction and capitalisation of decision support tools available at Mediterranean and European levels, notably:</p> <ul style="list-style-type: none"> a) Set up a web-based Mediterranean mechanism for exchanging information based on existing tools including the Marine Mediterranean Invasive Alien Species (MAMIAS) b) Use risk assessment as a reliable tool to assist in ballast water management decision-making and in compliance, monitoring and enforcement procedures 	<p>% of CPs being provided access to such tools</p> <p>% of CPs using each decision support tool</p>	<p>100%</p> <p>50%</p>	To be defined	medium
5.14 Monitoring and Reporting Obligations	<p>5.14.1 To comply with the mandatory reporting obligations under the BWM Convention, and on a regional basis, under the Regional Strategy addressing Ship's ballast water management and invasive species (Decision IG20/11), while noting contents of resolutions</p>	<p>% of CPs to have complied with the mandatory reporting obligations</p>	50%	To be defined	high

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	MEPC.289(71), MEPC.151(55), MEPC.152(55), MEPC.161(56), MEPC.228(65),				
	5.14.2 To establish a survey, biological monitoring and risk assessment system for Mediterranean ports.	System established	year tbc	To be defined	medium
5.15 Research and Development	5.15.1 To participate in IMO and Industry initiatives on new technologies and studies both on a national and regional levels	% of CPs participating in relevant studies and initiatives	50%	To be defined	medium

CSO 6: Achieve a well-managed safe and pollution free Mediterranean, with integrated marine spatial planning and designation of special areas, where shipping activity has a limited impact upon the marine environment

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
PEOPLE					
6.1 Networks	<p>6.1.1 To actively participate in networks and groups, and strengthen synergies between relevant networks related to marine spatial planning and the designation of special areas in the Mediterranean, including through:</p> <ul style="list-style-type: none"> a) the Priority Actions Programme/Regional Activity Centre (PAP/RAC) for other measure related to Marine Special Planning (MSP), b) the Regional Activity Centre for Specially Protected Areas (SPA/RAC) for other measure related to Marine Protected Areas (MPAs), Specially Protected Areas of Mediterranean Importance (SPAMIs), Environmentally or Biologically Significant Areas (EBSA) c) REMPEC, for other measures related to Special Areas under MARPOL and Particularly Sensitive Sea Areas (PSSAs) 	Number of joint activities organised	At least 2 joint activities organised	To be defined	low
6.2 Capacity Building / Technical Cooperation	<p>6.2.1 To implement targeted technical cooperation and Capacity-building activities, in the Mediterranean to address implementation issues related to designation of special areas namely :</p> <ul style="list-style-type: none"> a) Special areas under MARPOL b) PSSAs c) Traffic separation schemes (TSS) and other ship routeing systems 	Number of workshops / seminars organised at national or regional levels	2 or 3	To be defined	high
	<p>6.2.2 To increase awareness on and use, if needed, the Traffic Density Mapping (TDM) services developed and made available by EMSA and aimed at facilitating the marine spatial planning and designation of</p>	% of CPs aware of services	100%	To be defined	high

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	special areas, where shipping activity has or has no impact on the marine environment				
6.3 Operations	N/A	N/A	N/A	N/A	N/A
INSTITUTION					
6.4 Governance	6.4.1 To ensure coordination with the relevant national competent authorities and in cooperation with other Mediterranean coastal States to achieve a well-managed safe and pollution free Mediterranean, with integrated marine spatial planning and designation of special areas, where shipping activity has a limited impact upon the marine environment	% of CPs having coordinated with relevant national competent authorities % of CPs concerned consulted	100% 100%	To be defined	high
	6.4.2 When and where possible, and without prejudice to the sovereign right of the States, in close collaboration with the relevant national competent authorities and in cooperation with other Mediterranean coastal States: a) to assess the feasibility to designate the Mediterranean region as a Special Area under MARPOL Annex IV Prevention of pollution by sewage, and to submit the related proposal to IMO, as appropriate including an assessment on the inclusion of black and grey water, b) to continue assessing the feasibility of the designation of certain areas the Mediterranean, as PSSA, and to submit the related proposals to IMO, as appropriate, c) to propose additional appropriate routeing systems in the Mediterranean to IMO, where necessary, for possible adoption in accordance with international law; d) to draw up plans to deal with ships in distress, including, appropriate equipment and means, as required, and have defined the modalities of the response according to its nature and to the risk incurred;	Status of assessment Status of assessment Number of proposals % of CPs having drawn up plans to deal with ships in distress	Completed Completed To be defined- 100%	To be defined	high
6.5 Ratification / Transposition	6.5.1 To ensure through appropriate national laws and regulations and institutional arrangements proper implementation, compliance	% of CPs having national laws and regulations and	100%	To be defined	high

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	monitoring and enforcement of domestic legislation of IMO measures related to PSSAs, routeing systems and Special Areas under MARPOL	institutional arrangements in place			
6.6 Implementation	6.6.1 To develop a national work plan to execute the development and implementation of PSSA, routeing systems and Special Areas under MARPOL	% of CPS with a national work plan	100%	To be defined	high
6.7 Enforcement	6.7.1 To set-up a national legal framework (regulations) as a basis for prosecuting offenders for infringements of requirements of routeing measures, PSSAs, and Special Areas under MARPOL	% of CPs with national legal framework in place	100%	To be defined	high
	6.7.2 To set-up an effective compliance programme incorporating all of the following elements: <ul style="list-style-type: none"> a) Compliance monitoring through routine inspections, surveys, and/or examinations; b) Detection and policing “patrols“; c) Reporting procedures and incentives, including incentives for self-reporting; d) Adequate investigations of violations reported or otherwise detected; e) A system of adequate sanctions in respect of violations; f) Education and public awareness programmes; and g) Co-operation and co-ordination with other States parties. 	Date compliance programme is set up.	To be defined	To be defined	high
INFRASTRUCTURE					
6.8 Port Reception Facilities	N/A	N/A	N/A	N/A	N/A
6.9 Alternative Energy / New Technologies	N/A	N/A	N/A	N/A	N/A
6.10 Response Means	N/A	N/A	N/A	N/A	N/A

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
6.11 Surveillance / Monitoring Means	6.11.1 To establish a robust surveillance and monitoring system including installation of Vessel Traffic Services (VTS)	% of CPs having established a surveillance system	100%	To be defined	high
	6.11.2 To enhance maritime safety, maritime security and marine pollution prevention/ response by strengthening the cooperation on AIS matters and taking part in projects on AIS information sharing through the MAREΣ,	% of CPs participating	100%	To be defined	high
INFORMATION AND KNOWLEDGE SHARING					
6.12 Standards / Guidelines	<p>6.12.1 To promote, disseminate and revise the existing recommendations, principles and guidelines, to develop new ones aimed at facilitating the establishment and management of special areas and routing systems including the:</p> <ul style="list-style-type: none"> a) [Guidance Document for Contracting Parties to the Barcelona Convention with regard to identifying and designating Particularly Sensitive Sea Areas in relation to Specially Protected Areas of Mediterranean Importance] b) Revised guidelines for the identification and designation of Particularly Sensitive Sea Areas (PSSAs) (resolution A.982(24)); c) Guidance note on the preparation of proposals on ships' routing reporting systems (MSC.1/Circ.1060, as amended); d) Procedure for the submission of documents containing proposals for the establishment of, or amendments to, ships' routing systems or ship reporting systems (MSC.1- Circ.1608); and e) Revised Guidelines for vessel traffic services, including Guidelines on Recruitment, Qualifications and Training of VTS Operators (A.857(20)). 	% of CPs having downloaded/been provided with such guidelines	100%	To be defined	medium

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
	6.12.2 To consider the recommendations from the “joint IWC-IUCN-ACCOBAMS workshop on how the data and process used to identify important Marine Mammal Areas (IMMAs) can assist in identifying areas of high risk for ship strikes” (6-7 April 2019, Messinia, Greece) as presented in Annex of the ACCOBAMS Resolution 7.12, and more particularly regarding (i) the process for the designation of a PSSA by IMO at a scale that includes the North West Mediterranean Sea, Slope and Canyon IMMA, plus potentially the Spanish corridor, and (ii) risk reduction measures in the Hellenic Trench .	% of CPs aware of such recommendations	100%	To be defined	medium
6.13 Decision Making Tools	6.13.1 To increase awareness of any decision-support tools available to CPs and industry	% of CPs being provided access to such tools % of CPs using each decision support tool	100% 100%	To be defined	medium
6.14 Monitoring and Reporting Obligations	N/A	N/A	N/A	N/A	N/A
6.15 Research and Development	6.15.1 To carry out the required studies for a submission to IMO addressing all criteria for the designation of a particular area as PSSAs and Special Areas under MARPOL	Number of studies carried out by interested CPs	At least 1 / to be defined	To be defined	medium

CSO 7: Identify and understand collectively emerging issues related to pollution from ships in the Mediterranean, and define required actions to address issues identified

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
PEOPLE					
7.1 Networks	7.1.1 Identification of relevant network for each issue as it emerges, and active participation in said network on the identified issue	% of CPs actively participating in networks related to specifically identified emerging issues	50%	To be defined	low
7.2 Capacity Building / Technical Cooperation	7.2.1 Identification of training needs, and subsequent implementation of training, related to emerging issues as they arise	number of trained personnel for each emerging issue	Adequate number of personnel to be trained	To be defined	high
7.3 Operations	N/A	N/A	N/A	N/A	N/A
INSTITUTION					
7.4 Governance	7.4.1 To include the discussion of 'new and emerging issues' as a rolling agenda item at the Meeting of the Mediterranean Strategy (2022-2031)	Number of discussions held on potential new and emerging issues	Once per year	To be defined	high
	7.4.2 To submit proposals for the inclusion of new emerging issues to assess the need for a revised Strategy and Action Plan at the Meeting of the Mediterranean Strategy (2022-2031)	Number of submissions	As appropriate	To be defined	medium
7.5 Ratification / Transposition	N/A	N/A	N/A	N/A	N/A
7.6 Implementation	N/A	N/A	N/A	N/A	N/A
7.7 Enforcement	N/A	N/A	N/A	N/A	N/A

Area of Influence	Action	Indicator	Target	Lead / Partner	Priority Level
INFRASTRUCTURE					
7.8 Port Reception Facilities	N/A	N/A	N/A	N/A	N/A
7.9 Alternative Energy / New Technology	N/A	N/A	N/A	N/A	N/A
7.10 Response Means	N/A	N/A	N/A	N/A	N/A
7.11 Surveillance / Monitoring Means	N/A	N/A	N/A	N/A	N/A
INFORMATION AND KNOWLEDGE SHARING					
7.12 Standards / Guidelines	N/A	N/A	N/A	N/A	N/A
7.13 Decision Making Tools	N/A	N/A	N/A	N/A	N/A
7.14 Monitoring and Reporting Obligations	N/A	N/A	N/A	N/A	N/A
7.15 Research and Development	7.4.1 To support and participate in research and development initiatives to investigate new and emerging issues related to pollution from ships in the Mediterranean	Number of CPs participating	50%	To be defined	medium