



Accord Pelagos relatif à la création en Méditerranée
d'un Sanctuaire pour les mammifères marins

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di un Santuario per i mammiferi marini

2023 CALL FOR TECHNICAL AND SCIENTIFIC CONSULTANCY OF THE PELAGOS AGREEMENT

Final Administrative Report

June 2025



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General info:

Project title	SUSTAINABLE PORTS IN PELAGOS SANCTUARY - CONSULTANCY CALL 5 Contracts No. 2023-10a, 10b, and 10c		
Consultant(s)	di Majo Francesco Maria, Lanfredi Caterina, Roppo Cristiana (in alphabetical order)		
Duration of the consultancy (beginning – end)	January 2024 – June 2025		
List of the deliverables submitted	Number of deliverable	Title	Date of submission
	Deliverable 1a	<i>Selection of likely impacts/activities affecting cetaceans and their habitats</i>	June 2024
		Amended version	November 2024
	Deliverable 1b	<i>Inventory of ports and (at least) major marinas and assessment of levels of activities that might lead to impacts, where possible, in different seasons and over time</i> Version 1.0	April 2024
		Version 2.0	May 2024
		Version 3.0	October 2024
		Version 4.0	March 2025
	Deliverable 1c	<i>Classify types of ports/marinas in a context of risk assessment framework</i>	October 2024
		Amended version	November 2024
	Deliverable 2	<i>Preliminary short technical report</i>	March 2024
		<i>Interim administrative report</i>	May 2024
	Deliverable 3	<i>Review of existing guidelines, good practices, charters for sustainable ports</i>	July 2024

	Deliverable 4	<i>Develop priority recommendations with a view to facilitate the adoption by the Pelagos Agreement of tailored guidelines/Charters for sustainable ports and marinas</i>	December 2024
	Deliverable 5	<i>Roadmap for the implementation of the recommendations to raise awareness among port authorities, shipping companies, tourism organisations and recreational boaters on good practices in sustainable port activities</i>	March 2025
	Deliverable 6	<i>Final Technical Report</i>	March 2025
<i>Final Administrative Report</i>		June 2025	

ABSTRACT

1. Objective

The potential effects of port-related activities on marine mammals are largely unknown, as very limited studies have been conducted so far. Most of the available knowledge is focused on the impact of marine traffic, including collision risk and ship noise, on cetaceans. Therefore, this call was focused on the topic of Sustainable ports (both commercial and touristic) in Pelagos Sanctuary and, in particular, on assessing the potential impact of port-related activities on marine mammals and their habitat, while reviewing the legal framework and best practice to mitigate such activities, with the aim to identify priority recommendations and draw a roadmap for their implementation.

2. Methodology applied / Activities carried out during the period

The Consultancy was intended as a step-by-step analysis that included the following tasks, with the presentation of dedicated Deliverables:

- A. the preparation of an Inventory of Ports (IoP) and major marinas of the Pelagos Sanctuary. IoP was developed by consulting different data sources of the three Pelagos Agreement Contracting States. Each port identified has a set of data associated with it, such as: name, geographic location, main function, number of berths, maximum ship length capacity, information on whether the municipality where the port is located has signed the Pelagos Partnership Charter, the presence or proximity of Marine Protected Areas and other areas of special protection and, finally, type and name of environmental certifications obtained by the port (**Deliverable 1b**);
- B. the selection of port-related activities that may have a direct or indirect impact on marine mammals and their habitat (**Deliverable 1a**), the review of existing guidelines, best practices and relevant initiatives currently implemented by ports (**Deliverable 3**) and the assessment of the level of potential impact of port-related activities (**Deliverable 1c**). By considering various sources (*i.e.*, scientific literature, EU Reports, deliverables from EU Programmes, grey literature and any documentation made available from port authorities or during stakeholders' consultations), a critical review of the potential impacts of port-related activities was conducted. In relation to the selected port-related activities, a review and identification of existing guidelines, best practices and relevant initiatives currently being implemented was conducted. The legal context was also examined, starting with the reference framework at the international, regional and EU level and, where relevant, with references to national legislation. Furthermore, a series of in-person and virtual meetings between the consultants and relevant stakeholders were organized to better understand the existing best practices adopted by the ports. Finally, to assess the level of impact a risk assessment matrix based on the review of the scientific literature,

legislation and expert opinion, following the qualitative model developed by Lewin and colleagues (2019) and then adapted by Carreno & Loreto, (2021). The criteria selected to assess the level of impact were the potential impact probability, the non-reversibility of the effects, the management complexity or difficulty mitigating the potential impact. An overall rank to define the risk of potential impact was assessed as High risk (Severe potential impacts, difficult to reverse and to manage (*i.e.*, management measure does not exist or are not implemented yet), Moderate risk (Moderate potential impacts, somewhat reversible but still difficult to manage - *i.e.*, management measures exist at national or regional scale) and Low risk (Low impacts, reversible and manageable - *i.e.*, management measures exist and are at least promising);

- C. the development of priority recommendations with a view to facilitating the adoption by the Pelagos Agreement of tailored guidelines/charters for sustainable ports. Proposed recommendations were grouped into three different sections. General - also called cross-cutting - recommendations, as well as specific recommendations to tackle priority pressures. Finally, recommendations for tailoring environmental certifications to the ports of the Pelagos Sanctuary were also proposed (**Deliverable 4**);
- D. the provision of a roadmap for the implementation of the recommendations to raise awareness among stakeholders. A technical analysis considering to whom the recommendation is addressed, the objective/key message to be communicated and who and how to convey it most effectively was developed (**Deliverable 5**).

3. Final results obtained

- A. The development of an Inventory of Ports, which was made available in different formats - as ESRI shapefile and Keyhole Markup Language (.kml) and Tabular (.xlsx). This IoP entails a list of 255 different ports, with 174 in Italy (66 in Liguria, 40 in Sardinia, and 68 in Tuscany), 79 in France (44 in Provence-Alpes-Côte d'Azur and 35 in Corsica) and 2 in the Principality of Monaco.
- B. The work conducted by the consultants with reference to the identification of port-related activities likely affecting marine mammals and their habitat highlighted that ports may represent a source of cumulative pressure acting, in particular, on small resident populations of coastal species and the surrounding marine environment. The main port-related activities that may affect directly or indirectly marine mammals and their habitat have been identified and grouped into four main categories: 1) Port development (*i.e.*, pier construction) and/or maintenance (*i.e.*, dredging); 2) Accidental introduction of oil or chemicals (*i.e.*, oil spills); 3) Waste management (*i.e.*, sewage, such as bilge water, and marine litter); 4) Ship anti-fouling systems (*i.e.*, use of biocides or ultrasonic anti-fouling systems). As emerged from our work, “noise pollution” (*i.e.*: noise generated by port development activities and sound-based antifouling systems) and “plastic pollution” have been identified as having the overall higher potential risk to severely affect cetaceans and their habitat. The nature of their potential impact and the related management difficulties make addressing these two pressures a priority. Therefore, the development of a harmonized approach by the three Contracting Parties is recommended as a matter of urgency. On the other hand, port-related activities that may indirectly impact marine mammals and their habitat include the degradation of critical coastal habitats due to port developments, and water and sediment contamination from a variety of sources (such as accidental leakage of oil, chemicals or sewage and the use of traditional antifouling coatings). The potential impact of these activities still constitutes a cause of concern and should be taken into account in the development of recommendations and mitigation strategies. The consultants have then identified and selected existing guidelines, best practices and relevant initiatives or virtuous examples (*e.g.*, Vancouver Fraser Port Authority management of underwater noise or Fishing for litter initiative to collect plastic) that are currently implemented in ports and marinas. Still, the available best practices, measures and guidelines reviewed are not harmonized and, most importantly, they do not appear to be specifically targeted at the protection of marine mammals and their habitats. Finally, a review of the available port environmental certifications was conducted (*i.e.*, the Blue Flag Programme for Marinas, Marina's international standard ISO

18725 "Clean Harbours"), analysing in detail the required criteria. Taking into account that 40% of the ports of the Pelagos Sanctuary already adhere to at least one an environmental certification and that they can count on well-established organisations, it is believed that environmental certifications could be a useful tool for achieving the goal of Sustainable Ports in the Pelagos Sanctuary, but they should consider additional criteria specifically designed to protect marine mammals and their habitat and raise awareness among ports and their users. On this regard, the eventual creation of a specific (sub) certification/label for the ports complying with these additional criteria is considered highly beneficial.

- C. As a result of the analysis and tasks carried out by the Call, priority Recommendations were identified that entail selected actions aimed at mitigating and addressing the potential direct or indirect impact of port-related activities on marine mammals and their habitat. Those Recommendations were divided in three groups:
1. Cross-cutting recommendations to lay the groundwork for future specific actions;
 2. Specific recommendations to tackle priority pressures generated by port-activities: noise and plastic pollution;
 3. Recommendations for tailoring environmental certifications to the ports of the Pelagos Sanctuary and guide selected management actions.
- D. Finally, the consultants provided a Roadmap for the implementation of the suggested recommendations, identifying the addressee, the leaders and partners involved and the time frame for their implementation.

4. Possible next steps / improvement for a continuation of the consultancy

This Consultancy Call revealed that the sustainable management of port-related activities can play a strategic role in the process of mitigating their potential impact on marine mammals and their habitat, by acting as a catalyst for virtuous actions and by promoting linkages and cooperation between stakeholders.

A follow-up to this Consultancy Call should be targeted at ensuring the implementation of the recommendations, with specific activities required to support the Pelagos Agreement in the tasks identified in the Roadmap provided (*i.e.*, Engagement and education, Research and innovation and Planning), which include the development of collaborative programmes, drafting of guidelines and leading meetings with the stakeholders and awareness campaigns. Possible next steps should also include:

- pursuing the interlocutions already in place with the entities managing and/or monitoring the environmental certifications available for the ports of the Pelagos Sanctuary (*e.g.*, FEE, AFNOR and Green Marine), to finalise the implementation of specific criteria and assess the feasibility of creating a sub-label for the ports willing to be active in the protection of marine mammals and their habitat;
- supporting port managing companies or/and public port authorities adhering to EMAS or which are voluntary adopting "sustainable reports" (such the Port Authorities of Genova and Livorno), in elaborating new environmental management systems or monitoring criteria to tackle the potential impact of port-related activities on marine mammals and their habitat, as identified during this Consultancy, implementing specific actions aimed at removing/mitigating such impacts;
- establishing protocols and elaborating tools for the implementations of the recommendations and the evaluation of their effectiveness over time.

Furthermore, as a result of the work conducted, it would be advisable to consider additional Consultancy Calls focused on:

- ascertaining, also in the framework of the environmental impact assessments of new port infrastructures and in collaboration with the relevant competent institutions, whether the current requirements/criteria can adequately minimize the impact of port-development and waste management. In particular, a new Consultancy Call may assess whether the compensatory/mitigation measures that have been recently identified (for instance, in the Opinion No. 233 of 28 March 2022 of Technical Commission for Environmental Impact



Assessment - EIA and SEA, ID_VIP 745 in order to protect marine mammals from noise originating from the construction of new harbor breakwater of the Port of Genoa) should be integrated with additional criteria aimed at demonstrating that the construction of new port infrastructures does not impact marine mammals' habitat, nor does it prevent the water body from achieving good ecological status in accordance with Directive 2008/56/EC (MSFD), Directive 2000/60/EC (Water Framework Directive), as also provided for by technical screening criteria developed by the EU Commission in implementing taxonomy rules and objectives (as enshrined in Regulation 2020/852/EU);

- assessing whether it is advisable for the three Member States to propose, within the IMO and with the support/endorsement of the UNEP/MAP - Barcellona Convention, the adoption of more restrictive measures - compared to those in Regulation XI of Annex VI of the MARPOL Protocol - for the discharge of sewage into the sea from ships in the Pelagos Area (as provided for "Special Areas", such as the Baltic Sea);
- identifying measures aimed at enhancing port reception facilities and waste management plans, in order to promote ship owners and port users to confer properly sewage and waste and to ensure that bilge water is not discharged into the sea.