

# REPORT ON THE USE OF NETCCOBAMS



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# 1. Background

The initiative to create an ACCOBAMS database with communication purposes came from a specific need expressed by ACCOBAMS Parties during regional workshops on the 'ACCOBAMS Strategy' in 2012.

After consultation with the Scientific Committee and Partners, it was decided to propose an internet tool that would transpose into GIS layers the main and most important information received by the ACCOBAMS Secretariat.

In collaboration with WWF France and GIS 3M, in 2015 ACCOBAMS tried to integrate the ACCOBAMS communication database in a more global tool: the Network on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area (NETCCOBAMS).

The first NETCCOBAMS platform was devoted to all experts working on cetacean conservation (scientific community, managers, IGOs, NGOs, relevant national and regional administrations, academia and so forth).

A first website proposal was provided by a web-designer in September 2015 but was not considered appropriate for a collaborative network. This led ACCOBAMS Secretariat to recruit a new web designer early 2017 but the aimed outcome was still not achieved.

Thanks to a voluntary contribution from Italy in 2018, the ACCOBAMS Secretariat implemented a "cetacean digital platform" with an engineering office - SINAY. This platform is built upon a technological basis provided by SINAY, based on Big Data architecture, High Performance Computing facilities and dedicated modules, which are accessible from a web-interface. SINAY has also provided co-funding during the two triennia of implementation, 2020-2022 and 2023-2025, and is planning to pursue this commitment, in accordance with the Secretariat of ACCOBAMS, for the next renewal period of implementation.

#### 2. The overall objectives of NETCCOBAMS are the following:

- to facilitate the visualization of data on cetaceans, including important areas for conservation, and anthropogenic pressures
- to reinforce exchanges and collaboration of all actors in cetacean conservation
- to assist Parties in taking appropriate management and conservation measures

# **3. Two triennia of implementation of NETCCOBAMS: an ACCOBAMS Digital Platform for Cetacean Conservation**Since January 2020 a progressive development led to launch the new NETCCOBAMS platform, which is available at the following URL:

- https://hub.sinay.ai/accobams/home

New users can create an account by connecting to the link above and following a common login procedure. Support can be requested at the following email address: <a href="mailto:support-accobams@sinay.fr">support-accobams@sinay.fr</a>.

At the end of the 2020-2022 triennium, the status of the platform was as summarized in Table 1 below.

Table 1. Overview of the items developed since November 2019 for the new NETCCOBAMS platform.

Item	Funding scheme	Development period	Status
Acoustic risk module	Italian voluntary contribution	2020 - 2022	Operational
Sea Temperature module	Italian voluntary contribution	2020 - 2020	PoC
Plastics & Pollutant module	Italian voluntary contribution	2020 – 2020	PoC
GIS module	Italian voluntary contribution	2020	Operational
NETCCOBAMS Hub (Homepage, projects, news feeds, workspace settings, user management, etc.)	Italian voluntary contribution	2021 – 2022	Operational
National Report module	SINAY co-funding	2022	PoC
Integration of the Int. Noise Register in NETCCOBAMS	QUIETSEAS	2022	PoC
Hosting of Acoustic Measurement data in HDF5	QUIETSEAS	2022	Operational
Vessel Monitoring module (PSSA – NW MED)	Monaco voluntary contribution	2022	PoC

Full details about the work done in the first contractual period (triennium 2020 – 2022) can be found in the Progress Report presented at the MOP8 held Malta in November 2022 (Link: <a href="https://accobams.org/wpcontent/uploads/2022/11/MOP8.Inf10">https://accobams.org/wpcontent/uploads/2022/11/MOP8.Inf10</a> Progress-report-on-the-implementation-of-NETCCOBAMS-1.pdf) and hence is not presented here.

The contract was renewed in January 2023 for a new triennium (2023 – 2025), with the overall aim of pursuing existing operational tools (such as the model-based underwater noise monitoring), further developing tools that were not at a mature level yet (e.g., tools dedicated to National Reports, Ship traffic monitoring related to the North-western PSSA) and developing new features related to the ACCOBAMS Program of work 2023 – 2025. A summary of such activities is presented in the following sections.

# 3.1 Work done and under development in the period January 2023 – December 2025 (2<sup>nd</sup> NETCCOBAMS contractual period)

Beyond maintaining operational all tools described in Table 1 (above) the developments described below were undertaken.

# 3.1.1 Underwater Noise

With regards to **Underwater Noise**, the modelling scheme was updated to increase the quality of the outputs, and a verification exercise was started using available acoustic measurements in a location in the Mediterranean Sea. Maps regarding the 2<sup>nd</sup> contractual period (January 2023 – December 2025) were generated following the updated methodology (a short report is being prepared to illustrate the updates and will be made available for download from the platform).

It is worth noting that the model verification exercise mentioned above represents a first step to increase model quality and reliability, however a full calibration process includes additional steps and shall be undertaken in the next triennium (2026-2028) provided acoustic measurement data become available in different locations of the Mediterranean (e.g., from Contracting Parties based on MSFD/EcAp rules; from ACCOBAMS scientific partners and further stakeholders through dedicated activities).

# 3.1.2 National Reports

Regarding **National Reports**, functionalities related to document editing were added to the platform. These allow users to work on Word and Excel documents from the Activities page of NETCCOBAMS by opening, editing and saving them online directly from the platform. This makes it possible to apply the User Management Framework of NETCCOBAMS to ease the collaboration between different users, as follows:

- The national report documents from each Country are stored in secured and private spaces of NETCCOBAMS
- Access to such secured and private space is granted by Country's representatives.
- The Secretariat has access to all of them, can get information about progress at any time and provide help whenever necessary.
- Users from the Contracting Party's side can access the latest saved draft, edit and save it again at any time, allowing a flexible and progressive organization of the work to complete the Report.

Therefore, the new functionalities substantially reduce the amount of effort to complete the National Reports from both sides (Secretariat and Contracting Parties).

# 3.1.3 Ship Strikes

Regarding the issue of **Ship Strikes**, the VisiZone module of NETCCOBAMS (currently accessible as a PoC from the platform) is being updated thanks to the ShiPrint project, funded by the Foundation Prince Albert II. The PoC includes a map to show all AIS-equipped vessels in a user defined area, updated every 15 minutes, and information related to single vessels present in the area (latest received GPS position, speed, flag, destination, etc.) that appear after clicking on them directly in the map. The current version of VisiZone also includes a function to set a speed threshold to flag all vessels that are above the limit.

The updated version, expected to be up and running in October 2025, will include a page to visualize statistics over a period about ship traffic, especially related to navigation speed. The user will be able to select a period, and the platform will generate the statistics for that period, allowing comparison and trend analyses about navigation speed and further ship traffic statistics in the designed area. The area where these functionalities will be available is the Pelagos Sanctuary, which is the focus of the ShiPrint project, and the period for the visualization of the statistics starts from January 2023. The new version stores new AIS data every day and once a year will update the statistics.

At the date of release (October 2025), the VisiZone module will show statistics for 2023 and 2024, downloadable as report as well as editable data, allowing the comparison before and after the entry into force of the PSSA.

#### 3.1.4 Strandings

Regarding the topic of **Strandings**, a link was established between the website of MEDACES (<a href="http://medaces.uv.es">http://medaces.uv.es</a>), which is the program dedicated to regional data collection on strandings, and NETCCOBAMS in its role of access gate to data and information related to cetacean conservation. Currently, the development of a dedicated module is ongoing to create a dashboard to provide regular stranding bulletins using MEDACES data. The main benefits are to

- o Automate the reporting to ACCOBAMS of stranding data
- Streamline the share of information among stakeholders
- Increase the visibility of the efforts done by MEDACES, and
- Support decision processes and potentially improve conservation actions.

## 3.1.5 Cooperation

Regarding **Cooperation**, actions were undertaken with INFO/RAC (Regional Activity Centre within UNEP/MAP dedicated to management of information) to establish a collaboration aimed at sharing data relevant for both Organizations. INFO/RAC developed and currently maintains a platform, KMAP (<a href="https://kmap.info-rac.org">https://kmap.info-rac.org</a>) for the management and valorization of knowledge produced by initiatives established under or relevant to UNEP/MAP. A

Memorandum of Understanding was signed between the two Secretariats addressing the topics of Cetacean conservation, Ship Strikes, and Underwater Noise. The first pilot activity was carried out to share data regarding navigation speed statistics of vessels in the Pelagos Sanctuary, as presented in the meeting held in Rome in September 2025 with Countries involved in the management of the NW-MED PSSA.

Table 2. Overview of the items developed or under development in the period 2023 – 2025.

Topic	Description	Status and outputs	Funding scheme
Noise	Noise Map Calibration	Ongoing work	NETCCOBAMS contract 2023-2025
National Reports	New features for national reporting process	Operational, online form feature is available on the "Activity" section of the platform	Voluntary contribution Sinay
Ship Strikes	PSSA Monitoring - new features from ShiPrint project	Ongoing work, prototype available (VisiZone)	ShiPrint project
Strandings	Linking MEDACES to NETCCOBAMS.	Operational, bookmark module available in NETCCOBAMS contacter Tony Raga	NETCCOBAMS contract 2023-2025
Strandings	MEDACES Stranding data dashboard	Ongoing	
Cooperation with Info-RAC	Data exchange for ship strikes, noise and cetacean data	MoU signed, first pilot data exchange done for integration into K-MAP platform	Voluntary contribution Sinay

Hence, key figures in September 2025 are the following:

- 119 registered users, 40 users active in the last 12 months
- **800 Mb of** ASI data (ACCOBAMS Survey Initiative)
- **1.2 Gb** of data for the other projects
- 13 Tb of AIS data used for the noise mapping module and ship tracking, since 2020
- 8 noise maps produced in the Acoustic module: January and July each year since 2023, plus July 2020 and July
   2021
- **8 noise assessment maps** and **8 noise impact indicators** produced in the Acoustic module: January and July each year since 2023, plus July 2020 and July 2021
- **Ship traffic indicators** tracked from 2023-01 with the VisiZone module:
  - 41.7 M AIS messages processed corresponding to 5 186 unique vessels equipped with AIS having crossed the Pelagos Sanctuary, 11M km navigated in the area in 81 000 ship passages.
- **69 Activities**, including:
  - o **24 National Reports** for online compilation
  - 6 Repositories for documents related to Conference of South Mediterranean Countries (CSMC)
  - o 8 Repositories for documents related to Meetings of the Parties (MOPs)
  - 5 Repositories for documents related to Scientific Committee meetings (SC11 to SC15)
  - 26 Research and conservation projects (ACCOBAMS Survey Initiative, Noise Hotspots, Noise Registers etc.)
- Cooperation and collaborations: MEDACES, INFO/RAC and other regional initiatives

During the next triennium, NETCCOBAMS will serve as the central platform for various regional initiatives, including the Pelagos Consortium, reinforcing long-term project sustainability through strengthened governance and coordinated data-sharing via the GIS-enabled system adopted by all ACCOBAMS Parties.

# 3.2 Future work

During the last triennium and especially in 2025, several requests and proposals for development for the next triennium were received. Also, open questions arose about how to continue actions undertaken in the current triennium. These are described in the sections below.

The Working Group (WG) on NETCCOBAMS met in September 2025 to review the status of the platform, examine and provide advice about the continuation of past efforts and on how to deal with new requests. Due to the notable number of topics, the WG could not examine and conclude about all of them and therefore further sessions, likely to be held after MOP9, will be necessary to provide specific advice.

#### **3.2.1** Noise

Integration of the Impulsive Noise Register into the platform. During the next triennium, the proposal from the Secretariat is to fully integrate the International Noise Register within the NETCCOBAMS platform. The initial web application, developed independently thanks to a series of dedicated projects about underwater noise in the Mediterranean Sea (QUIETMED, QUIETMED2, QUIETSEAS), was dismissed while for the current triennium (2023-2025) data on impulsive noise have been collected manually and already stored in NETCCOBAMS exploiting the existing features of the platform. The focus will be on the following tasks:

- 1. Automating reporting and visualization processes based on the initial web application, to ease the reporting required under MSFD and EcAp processes.
- 2. Distinguish absence of data (i.e., Countries did not report) and absence of noise events (i.e., Countries reported absence of noise events, for a given time and position) so that empty geographical units in the register are not misinterpreted to mean that there are no noise events, but rather an absence of noise data.

The WG considered this topic as a high priority for the next triennium.

# 3.2.2 Noise & Cooperation with UNEP/MAP

The need to review the assessment methodology for noise pollution was expressed at the 16<sup>th</sup> Meeting of the Scientific Committee (Dec. 2024). It concerns the methodology established by TG-Noise in 2023 which was applied by ACCOBAMS to carry out the 1<sup>st</sup> regional assessment of underwater noise in cooperation with UNEP/MAP. Especially, the methodology includes a habitat modelling step which is the main element to address based on the discussions held at the SC16 meeting. This activity implies changes in the NETCCOBAMS module dedicated to underwater noise monitoring and assessment, with a view to prepare relevant inputs for the next IMAP cycle in 2028, aligned and consistent with EU and IMAP guidelines.

The WG could not review this request, and the discussion was postponed after MOP9.

# 3.2.3 Ship Strikes

Integration of whale sighting data from cruise ships navigating in the northwestern Mediterranean PSSA into a regional monitoring tool. The proposal was formulated by the DIRM, French *Direction interrégionale de la mer*, because this entity already collects data from cruise ships which communicate to the DIRM the occurrence of sightings during the navigation in French waters of the PSSA. The DIRM is supporting the development of coordinated monitoring tools in the PSSA indeed and indicated ACCOBAMS as potential lead. The NETCCOBAMS Working Group raised the issue of data credibility, especially if sightings are done by non-specialist crew members instead of trained personnel.

Given the lack of a detailed proposal, the WG could not provide a precise answer and the provision of advice was postponed after MOP9. However, it is agreed that further discussions should consider whether a regional tool available from the NETCCOBAMS platform could provide added value compared with national systems.

**Ship Strikes & Conservation through Infrared Monitoring.** The Oceanographic Museum of Monaco proposed a collaboration involving the sharing of whale occurrence data collected through an infrared-camera system, to be installed at the Oceanographic Museum.

The WG concluded that it may be worth setting a pilot project using the data produced using this technology to assess whale presence, especially because the Oceanographic Museum, based on available information, is already planning to fund the data collection system, its installation and operation. Data generated by such program, if reliable and feasible, could then be incorporated into NETCCOBAMS and displayed as whale presence statistics for the waters off Monaco. This could represent the pilot project abovementioned, that may help in assessing the usefulness of a larger implementation, including in other geographical areas. The feasibility and relevance of retransmitting such information to vessels should also be evaluated as part of the protective measures associated to the PSSA, currently under definition.

# 3.2.4 Strandings

Strandings Data Reporting. Enhancing the current stranding reporting system was proposed twice:

- 1. Independent researchers, supported by the University of Liège, proposed to use smartphone apps that include the ability to attach photographs
- 2. ACCOBAMS partners (Green Balkans and TUDAV) proposed to reactivate the Black Sea Watch smartphone app and connect it with MEDACES and NETCCOBAMS.

Both initiatives aim at enhancing the data reporting system for stranding data.

It was acknowledged that more coordinated reporting of strandings across regions and more visibility is necessary to enhance the use of these data for conservation. However, the WG did not have the opportunity to discuss these initiatives in depth due to time constraints, and it was proposed to postpone this after MOP9.

# 3.2.5 Cooperation with Info-RAC

Thanks to the efforts related to the establishment of protective measures associated to the NW MED PSSA, a MoU was signed between ACCOBAMs and INFO/RAC and a first pilot with exchange of ship speed data was carried out (Cf. Section 3.1.8). The question concerns the continuation of this effort in the next triennium, to establish a routine of data sharing between NETCCOBAMS and KMAP platforms about (at least) ship strikes, underwater noise, and cetacean data so that it occurs regularly and responds to needs identified in the MoU.

While the relevance of this cooperation is already acknowledged because of the signature of the MoU in 2025, practical aspects could not be reviewed by the WG and the discussion was postponed after MOP9.

A summary of the open topics is presented below.

Table 3. Items proposed for development in the 2026 – 2028 period

Topic	Description	Status and outputs	Funding scheme	Priority
Noise	Full Integration of the Noise Register in NETCCOBAMS after the end of QUIETMED project series.	Basic reporting procedure already operational based on the use the "Activity" page for reporting + "GIS" module for displaying data. Automation required to reduce the amount of time spent in managing data and producing outptus	NETCCOBAMS contract 2026- 2028	High
Noise	Consortium Pelagos, Proof of Concept (PoC) for monitoring cetaceans through Distributed Acoustic Sensors (DAS)	Waiting for budget approval	For discussion with Secretariat	High, pending review of funding application.
Noise & Cooperation with UNEP/MAP	Review D11/EO11 assessment process, especially the habitat modelling part, in view of the next IMAP Cycle in 2028	Based on discussions from ACCOBAMS Scientific Committee (dec 2024). How to follow TG-Noise Guidelines issued in 2023 using best available habitat modelling science.	For discussion	Discussion postponed
Ship Strikes	Monitoring program through the reporting of whale sighting data from cruise ships, as part of the monitoring program in the Particularly	Request received from DIRM (French "Direction inter- régional de la mer").	For discussions	To be discussed with Secretariat. Issues with credibility of data if observers

	Sensitive Sea Area (PSSA) established by the International Maritime Organization (IMO) in the North-Western Mediterranean Sea.	The DIRM is already collecting sighting data from cruise ships navigating in French waters; however, no dedicated data system exists. Discussion at DIRM concern the usefulness of a "French-only system" vs. the opportunity to support the development of a system in NETCCOBAMS, which will have the advantage of being a regional (and hence harmonized) tool		are from the ship crew and not trained personnel. Test on small scale before proposing for larger scale.
Ship Strikes & Conservation	The Oceanographic Institute of Monaco will mount an infrared camera + antenna for collecting and transmitting whale detection data to the Institute. The goal: Monitoring h24 7/7 of whales in front of Monaco's waters; The proposal from the Oceanographic Institute is to share data to NETCCOBAMS; the interest would be in participating in the industrialisation of the product (infrared camera for whale monitoring) which may benefit conservation effort at ACCOBAMS	Decide what data and how they are stored. Evaluate opportunity to retransmit data to ships through NETCCOBAMS (what technology needed?). A new module for whale presence statistics in waters of Monaco would be built	For discussion	Test on small scale (Monaco) before proposing for larger scale. The infrared camera works well in polar waters because of the large difference of whale body vs. sea temperature. For a trial in the Mediterranean, the feasibility of the technology due to issues with sea temperature should be assessed beforehand.
Strandings	Enhance current stranding data management: include pictures and use a dedicated smartphone app for data reporting	Request received from independent researchers: Etienne (BE) and Rasvan (RO). Supported by Thierry Jauniaux (BE).	For discussions	Discussion postponed
Strandings	Enhance current stranding data management: Reactivate the Black Sea Watch app to report to MEDACES/NETCCOBAMS	Proposal from Green Balkans and TUDAV about reporting method	For discussion	Discussion postponed
Cooperation with Info-RAC	Data exchange for ship strikes, noise and cetacean data between NETCCOBAMS and KMAP platforms to meet each organization's needs and objectives	MoU signed, first pilot of data exchange done with ship speed data in the <u>Pelagos</u> Sanctuary for integration into K-MAP platform	For discussion how to structure the data exchange into a periodical routine. Identify clear needs to be met.	Discussion postponed

# 4. Screenshots

The following pictures illustrate a sample of the NETCCOBAMS platform in September 2025.











