

Regional Webinar on the Mediterranean monitoring and reporting programs for marine litter prevention and mitigation

Tuesday 3 February 2026
09:00 - 14:00 CET (Online)



**Mediterranean
Action Plan**
Barcelona
Convention



The IMAP Reporting in the framework of the Barcelona Convention: Data collection and MAP Data Policy

Arthur Pasquale, INFO/RAC Deputy Director



IMAP Decision

IMAP - COP 19 Decision IG.22/7

- In view of establishing a coherent region-wide framework, the Contracting Parties adopted in 2016 the **Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast and Related Assessment Criteria (IMAP)** (COP 19 Decision IG.22/7)
- UNEP/MAP sets out all the required elements to cover in an integrated manner monitoring and assessment of **biodiversity and fisheries, pollution and marine litter**, and **coast and hydrography**. The core of IMAP are the **23 regionally-agreed common indicators** and **4 candidate indicators**
- **New 11 IMAP Common Indicators** have been developed in the meantime (CIs 28-38)

Ecological Objectives (CIs)

Under the vision of "*A healthy Mediterranean with marine and coastal ecosystems that are **productive and biologically diverse for the benefit of present and future generations***", Contracting Parties adopted a list of **11 Ecological Objectives**, addressing all key elements of the Mediterranean marine and coastal environment:

Ecological Objective (EO)	Description
EO 1	Biodiversity
EO 2	Non-indigenous species
EO 5	Eutrophication
EO 7	Hydrography
EO 8	Coastal ecosystems and landscapes
EO 9	Pollution
EO 10	Marine litter
EO 11	Energy including underwater noise



IMAP Info System

IMAP Info System

- IMAP implementation has since progressed with the development of a centralized data collection and management infrastructure, the **IMAP Info System**, developed by INFO/RAC, **aiming to collect, manage** and **share data** from monitoring programs under the Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast and Related Assessment Criteria (IMAP) in the framework of Barcelona Convention.
- The **System allows** Contracting Parties to **report on** data currently related to the **Common Indicators** (CI).
- IMAP Info System will finally include **38 Common Indicators** as required by the Integrated Monitoring and Evaluation Program (IMAP), adopted by COP 19. The update and upgrade of the IMAP Info System allows also Contracting Parties to submit new data sets for the finalization of the **MED QSR** (Mediterranean Quality Status Report).
- The Eu funded projects **EcAp MED II & EcAp MED III** have progressively supported the development of the **IMAP Info System since 2016**. A further upgrade will be allowed by the support of **EcAp MED Plus (2024-26)**



Mediterranean
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The MEDITERRANEAN QUALITY STATUS REPORT is an important MAP flagship publication for assessing the status of the Mediterranean ecosystem and the achievement of Good Environmental Status

MEDITERRANEAN QUALITY STATUS REPORT



The IMAP Info System has been developed to:

- Improve a **common approach** to environmental monitoring, good environmental status definition and assessment;
- strengthen **the interoperability among network of data infrastructures** to facilitate access and re-use of marine data among countries bordering the Mediterranean Sea;
- improve the **coherence of protocols for monitoring** and for assessment of contaminants in the marine environment;
- facilitate the implementation of a **common data policy** for data and information exchange among all Contracting Parties to Barcelona Convention;
- facilitate the **harmonized implementation** of IMAP and MSFD in the Mediterranean Region;
- **avoid duplication** of data flows reporting for Mediterranean Countries.

Introduction to IMAP Info System

IMAP Info System WEB SITE

- The IMAP Info System is ready, operational and able to collect data from 1st July 2019.
- **IMAP Info System** website is **accessible** to the general **public**. Login for Contracting Parties (CPs) and MAP users is needed to access the reserved sections.
- IMAP Info System is available at:
<http://imapinfosystem.info-rac.org/app/#/>



Introduction to IMAP Info System

IMAP Info System WEB SITE

- A public user can easily access to main contents: *Info and Contacts, Documents, Standards, Utility tools and Geographical data.*
- The **Upload** section is reserved **Contracting Parties (CPs)** logged in.

From the homepage of the IMAP Info System is accessible the **Info System User Guide**, developed to provide general assistance to users and a dedicated e-mail has been set up (imap@info-rac.org) to support CPs during the data upload.



Introduction to IMAP Info System

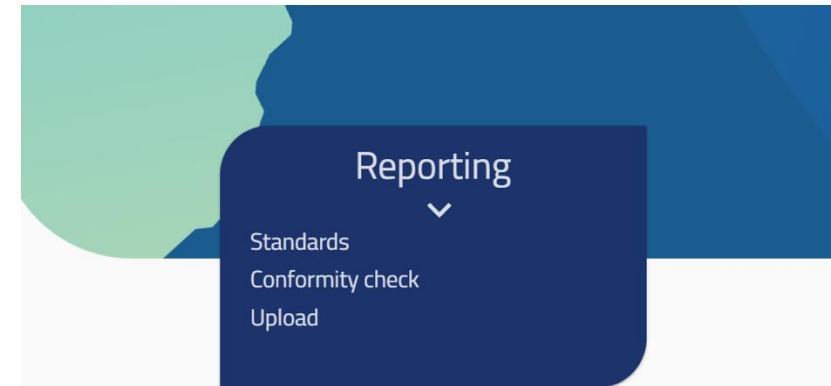
IMAP Info System: Reporting sections

Reporting on data related to the Common Indicators (CIs) requires to download, compile, verify, upload and update the Information Standards. This is possible using **3 sections available in the System**:

- **Standards**
- **Utility tools**
- **Upload**

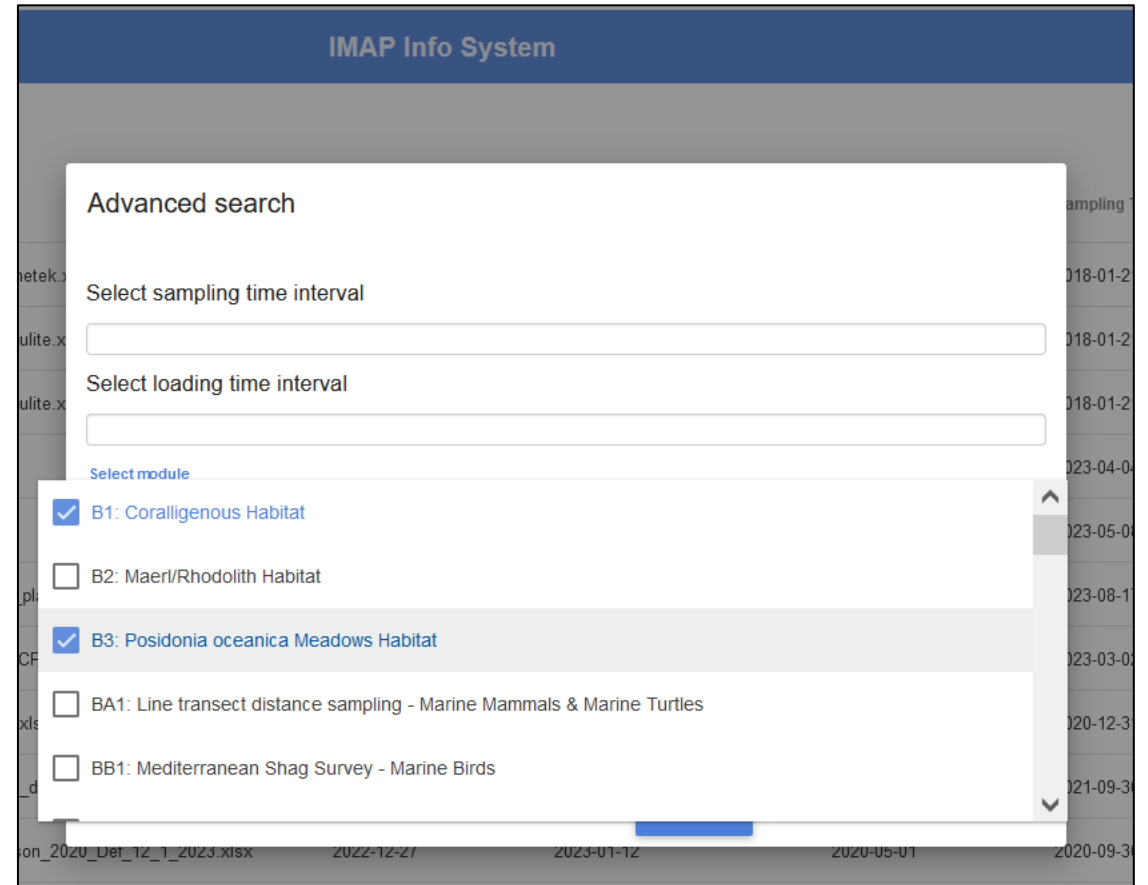
The system provides several "status" for the uploaded file:

- | | |
|-------------------------|----------------------------|
| 1. Draft | 4. Valid |
| 2. Compliant | 5. Official release |
| 3. Not Compliant | 6. Published |



Functionalities

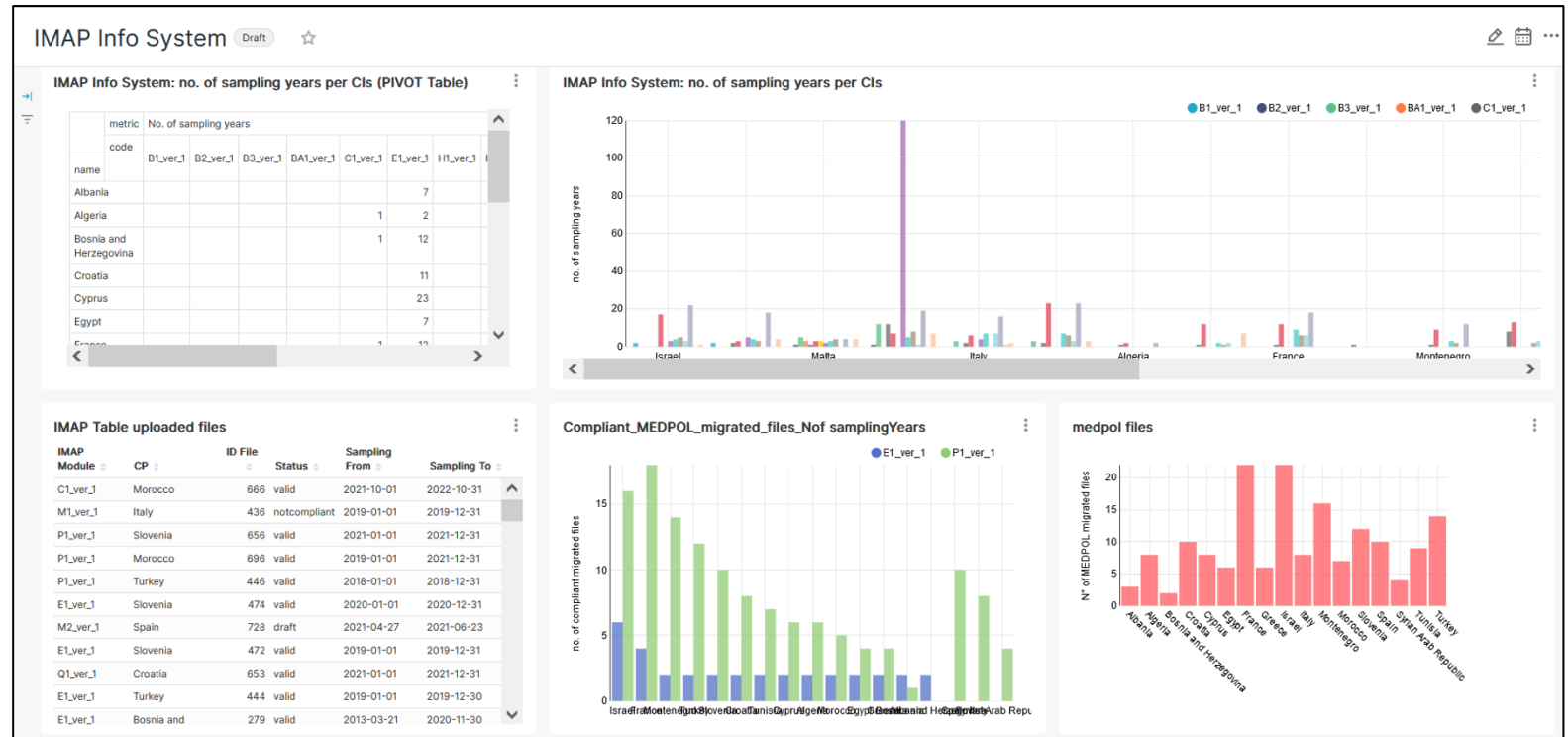
- Update of the advanced research
- The system allows to export, in an Excel sheet, all the data displayed on the page or only those selected
- The system allows to download a compressed file containing all the selected files or all the files listed



The screenshot shows the 'IMAP Info System' interface. A modal window titled 'Advanced search' is open, featuring three input fields for 'Select sampling time interval', 'Select loading time interval', and 'Select module'. Below these fields is a list of modules with checkboxes: 'B1: Coralligenous Habitat' (checked), 'B2: Maerl/Rhodolith Habitat' (unchecked), 'B3: Posidonia oceanica Meadows Habitat' (checked), 'BA1: Line transect distance sampling - Marine Mammals & Marine Turtles' (unchecked), and 'BB1: Mediterranean Shag Survey - Marine Birds' (unchecked). The background shows a table with columns for file names and dates.

Dashboard

- The **"Dashboard"** section will soon be implemented in the IMAP Info System.
- The **Dashboard** is a tool that allows the user to have summarized, in a synthetic way and through graphical representation, different information coming from different data sources.
- **Graphs, tables and maps** are **interactive** and **automatically updated** according to the data stored in the IMAP Info System DB.





IMAP Common Indicators (CIs)

IMAP Common Indicators (CIs)

The IMAP Info System **during the first phase** allowed contracting parties to report data for the **11 IMAP Common Indicators** related to the Ecological Objectives (EO) shown in the table below. The first 11 Common Indicators have been selected basing on these criteria:

1. Maturity of Common Indicators in terms of monitoring experiences and best practices
2. Existing data collection and availability representing all IMAP Clusters
3. Availability of Common Indicators Guidance Factsheets and/or metadata templates

Ecological Objective (EO)	Description
EO 1	Biodiversity
EO 2	Non-indigenous species
EO 5	Eutrophication
EO 7	Hydrography
EO 8	Coastal ecosystems and landscapes
EO 9	Pollution
EO 10	Marine litter
EO 11	Energy including underwater noise

IMAP Common Indicators (CIs)

IMAP DSs & DDs

The IMAP Info System is able to receive and process data according to Data Standards (DS) and Data Dictionaries (DDs) in specific **Modules** (Information Standards) that can refer to one or more CIs, as shown in the subsequent tables.

Common Indicator(s)	Module name	Ecological Objective
CI 1: Habitat distributional range to also consider habitat extent as a relevant attribute CI 2: Condition of the habitat's typical species and communities	B1 - Coralligenous Habitat B2 - Maerl/Rhodolith Habitat B3 - Posidonia oceanica Meadows Habitat	EO 1 - Biodiversity
CI 6: Trends in abundance, temporal occurrence, and spatial distribution of non-indigenous species, particularly invasive, non-indigenous species, notably in risk areas	I1 - Non Indigenous Species	EO 2 - Non Indigenous Species
CI 13: Concentration of key nutrients in water column CI 14: Chlorophyll-a concentration in water column	E1 - Nutrients & physical and chemical parameters	EO 5 - Eutrophication

IMAP Common Indicators (Cis)

IMAP DSs & DDs

Common Indicator(s)	Module name	Ecological Objective
CI 15: Location and extent of the habitats impacted directly by hydrographic alterations to also feed the assessment of EO1 on habitat extent	H1 - Hydrography	EO 7 - Hydrography
CI 16: Length of coastline subject to physical disturbance due to the influence of man-made structures	C1 – Coastline	EO 8 - Coastal Ecosystems and Landscapes
CI 17: Concentration of key harmful contaminants measured in the relevant matrix (EO9, related to biota, sediment, seawater)	P1 - Contaminants in Seawater, Sediment and Biota	EO 9 - Contaminants
CI 21: Percentage of intestinal enterococci concentration measurements within established standards	Q1 - Bathing Water Quality	EO 9 - Contaminants

Integration of MEDPOL Info System

E05 and E09

- Data already reported through the MEDPOL Metadata Templates, relating to the years 1999-2018, have been migrated to the IMAP Info System.
- The migration has also required a data review phase, in terms of formatting, of alignment with Data Dictionaries, and further checks necessary to make the files compliant in the System.

IMAP Common Indicators – Marine Litter

IMAP Common Indicators

As just seen in the previous slides, in some cases one Information Standard can refer to different CIs (eg: Module E1 - CIs 13 & 14). In other cases, as shown in the table below, for a specific CI, multiple Information Standards have been developed (eg M2 and M3 – CI 23).

Common Indicator(s)	Module name	Ecological Objective
CI 22: Trends in the amount of litter washed ashore and/or deposited on coastlines (including analysis of its composition, spatial distribution and, where possible, source)	M1 - Beach litter	EO 10 - Marine Litter
CI 23: Trends in the amount of litter in the water column including microplastics and on the seafloor	M2 – Seafloor litter M3 - Floating microplastics	EO 10 - Marine Litter

IMAP Common Indicators (CIs)

What's new?

- 7 new Information Standards for a total of 18 Common Indicators



Common Indicators	N° of Information Standards
CI 3: Species distributional range (EO1)	14 new Information Standards on marine mammals (one specific on the monk seal), marine turtles, marine birds
CI 4: Population abundance of selected species (EO1)	
CI 5: Population demographic characteristics (EO1)	
CI 18: Level of pollution effects of key contaminants where a cause and effect relationship has been established (EO9)	1 on level of pollution effects (PMO1)
CI 19: Occurrence, origin (where possible), extent of acute pollution events (e.g. slicks from oil, oil products and hazardous substances), and their impact on biota affected by this pollution (EO9)	1 on acute pollution events (PAE1)
CI 20: Actual levels of contaminants that have been detected and number of contaminants which have exceeded maximum regulatory levels in commonly consumed seafood (EO9)	1 on levels of contaminants in seafood (PSF1)
CI 24: Trends in the amount of litter ingested by or entangling marine organisms focusing on selected mammals, marine birds, and marine turtles (E10)	1 on ingestion and entanglement on marine turtles (MLT1)

IMAP Common Indicators (CIs)

The IMAP Info System **during the second phase**, has allowed contracting parties to report data for the **18 IMAP Common Indicators** related to the Ecological Objectives (EO) shown in the table below.

New standards for EO1: Birds

Common Indicator(s)	Module name	Species
CI 3: Species distributional range CI 4: Population abundance of selected species	BA1: Marine mammals, reptiles and birds Distance Sampling Method	Marine mammals, reptiles and birds
CI 4: Population abundance of selected species CI 5: Population demographic characteristics	BB1: Marine Birds Protocol A	Birds
CI 4: Population abundance of selected species CI 5: Population demographic characteristics	BB2: Marine Birds Protocol B	Birds
CI 4: Population abundance of selected species CI 5: Population demographic characteristics	BB3: Marine Birds Protocol C	Birds

IMAP Common Indicators (CIs)

New standards for E01: Marine mammals

Common Indicator(s)	Module name	Species
CI 3: Species distributional range CI 4: Population abundance of selected species	BA1: Marine mammals, reptiles and birds Distance Sampling Method	Marine mammals, reptiles and birds
CI 3: Species distributional range CI 4: Population abundance of selected species	BC1: Cetaceans Photo ID sampling	Marine mammals
CI 3: Species distributional range CI 4: Population abundance of selected species	BC2: Cetaceans Acoustic sampling	Marine mammals
CI 5: Population demographic characteristics	BC3: Cetaceans Population demographic characteristics	Marine mammals
CI 3: Species distributional range CI 4: Population abundance of selected species CI 5: Population demographic characteristics	BM1: Monk Seal	Monk Seal

IMAP Common Indicators (CIs)

New standards for EO1: Turtles

Common Indicator(s)	Module name	Species
CI 3: Species distributional range CI 4: Population abundance of selected species	BA1: Marine mammals, reptiles and birds Distance Sampling Method	Marine mammals, reptiles and birds
CI 3: Species distributional range CI 4: Population abundance of selected species	BT1: Turtles Distribution&Abudance - Nesting beach	Turtles
CI 3: Species distributional range CI 4: Population abundance of selected species	BT2: Turtles Distribution&Abudance – MarineHabitat – Bycatch/Strandings	Turtles
CI 3: Species distributional range CI 4: Population abundance of selected species	BT3: Turtles Distribution&Abudance – MarineHabitat – Plane/Boat/UAV	Turtles
CI 3: Species distributional range CI 4: Population abundance of selected species	BT4: Turtles Distribution&Abudance – MarineHabitat – Telemetry	Turtles
CI 5: Population demographic characteristics	BT5: Turtles nesting and demography	Turtles

IMAP Common Indicators (CIs)

New standards for E09

The module PMO1 includes all the analysis methods (biomarkers) suggested for biological effects monitoring. Module PSF1 allows to collect data relating to the type of contaminants detected in sea food, the actual levels detected and the exceedances of regulatory levels for human consumption.

Common Indicator(s)	Module name
CI 18: Level of pollution effects of key contaminants where a cause and effect relationship has been established	PMO1: Level of pollution effects
CI 20: Actual levels of contaminants that have been detected and number of contaminants which have exceeded maximum regulatory levels in commonly consumed seafood	PSF1: Levels of contaminants in seafood

IMAP Cis – Litter ingestion and entanglement

New standards for EO10

IMAP EO10 **Candidate Indicator 24** is referring to the “Trends in the amount of litter ingested by or entangling marine organisms focusing on selected mammals, marine birds, and marine turtles”. It is the first Candidate Indicator for which a Data Standards and Data Dictionaries have been developed and the correspondent data flow is already in place.

Common Indicator(s)	Module name
Candidate CI 24: Trends in the amount of litter ingested by or entangling marine organisms focusing on selected mammals, marine birds, and marine turtles	TIE: Ingestion and Entanglement on Marine Turtles

NEW IMAP Common Indicators – CI 28-38

COMMON INDICATOR	MODULE NAME	STATUS OF IMPLEMENTATION
CI 28: Trends in the amount of litter coming from riverine sources (EO10)	Although the recent inclusion of the new indicator and the ongoing development of reference documents, the indicator has been included in this biennium plan	Planned for 2026-27 (tbc)

NEW IMAP Common Indicators (CIs)

COMMON INDICATOR	MODULE NAME	STATUS OF IMPLEMENTATION
CI 29: Biomass or abundance of species/genera/taxa or trophic groups (EO4); CI 30: Average of Mean Trophic Level of species/genera/taxa or trophic groups from biomass and/or catches (EO4); CI 31: Biodiversity indices (EO4); CI 32: Pelagic/Demersal ratio (EO4); CI 33: NIS/Demersal ratio (EO4);	Due to the recent inclusion of the new indicator and the ongoing development of reference documents	To be implemented in the future biennia

NEW IMAP Common Indicators (CIs)

COMMON INDICATOR	MODULE NAME	STATUS OF IMPLEMENTATION
CI 34: Zooplankton/ phytoplankton ratio (EO4); CI 35: Size distribution of trophic groups (EO4); CI 36: Production of Megafauna (*Megafauna variables from EO5) (EO4); CI 37: Extent of physical loss of natural habitat (EO6); CI 38: Extent of adverse effects on benthic habitat (EO6).	Due to the recent inclusion of the new indicator and the ongoing development of reference documents	To be implemented in the future biennia

Data Standards (DSs) & Data Dictionaries (DDs)

- **Data Standards (DSs)** are prepared in the form of Excel spreadsheets in which every column indicates a field to be filled by the data providers.
- **Data Dictionaries (DDs)** are prepared in the form of Excel spreadsheets in which every row provides information to guide the data providers.
- **DSs & DDs** are spreadsheets included in the **same Excel file**, downloadable from the IMAP Info system.
- Only data **uploaded** using the Data Standards will be suitable for the inclusion in the database.



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Metadata Templates (Information Standards) & Data Dictionaries IMAP C.I. 13&14_EN_22_Feb_2019.xlsx - Microsoft Excel

Field	Description	List of values	Remarks
CountryCode	Enter member country code as ISO two digits, for example "IT" for Italy.		
NationalStationID	Station code		
NationalStationName	Station name		
Region	Administrative subdivision after country to which the station belongs		non mandatory
Latitude	Latitude of the station in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx).		
Longitude	Longitude of the station in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx). Use positive values without "+" before numbers (for ex. 13.98078) for coordinates east of the of the Greenwich Meridian (0°) and negative values with "-" for coordinates west of the Greenwich Meridian (0°) (for ex. -2.6893).		
ClosestCoast	Station distance from the coast in km		
TCMMatrix	Measure of the environmental matrices in the station, enter one of the values in the list	B = Biota BS = Biota and sediment BSW = Biota, sediment and water column BW = Biota and water column S = Sediment SW = Sediment and water column W = Water column	non mandatory values in the list
SeaDepth	Sea depth in meters		
Mixing	Mixing property of the water column at the station point, enter one of the values in the list	FM = Fully mixed PM = Partially mixed VS = Vertically stratified	
AreaTypology	Typology of the monitored area, enter one of the values in the list	R = Reference C = Coastal HS = Hot spot O = Other	
PressureType	If the monitoring station id dedicated to monitor pressure, indicate the typology of pressure monitored, enter one of the values in the list	AP = Aquaculture plant RP = River Plume UWWTP = Urban Waste Water Treatment Plant	non mandatory
Remarks			

Stations / PhysicoChemical / DD_stations / DD_PhysicoChemical / List_PhysicoChemical

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Filled in Data Standards



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Data Standards (DSs) main characteristics

- related to **IMAP Common Indicators and Ecological Objectives**;
- based on **guidance fact sheets and monitoring protocols** of UNEP/MAP;
- finally submitted for **approval** to Contracting Parties;
- available for **download** from IMAP Info System website;
- present the **same schema** for all the Contracting Parties;
- filled in with **raw data** by Contracting Parties;
- collected data are **published** according to MAP Data Policy;
- collected data are suitable for **sub-regional and regional assessments** by UNEP/MAP.



IMAP Users:
The network

IMAP Users: Strengthening and harmonization of the network

- In order to maximize the reporting data on the IMAP Info System, INFO/RAC has invited all **CPs to make use of the IMAP User Network**.
- **IMAP User Network consists of Country expert representatives**, officially appointed by each CP and coordinated by the INFO/RAC NFPs.
- **INFO/RAC NFPs act as facilitators among INFO/RAC and IMAP users**, allowing the sharing and exchange of knowledge and information for data reporting purposes on IMAP Info System.
- As facilitators, **INFO/RAC NFPs collaborates with INFO/RAC** providing suggestion and observations **to improve Information Standards**.
- Furthermore, **INFO/RAC NFPs encourage** all national IMAP Users **to participate in the Training/Assistance meeting** organized by INFO/RAC.

IMAP Users network: Strengthening and harmonization

Official IMAP Users are responsible to upload, validate and release monitoring data related to IMAP Common Indicators. As suggested by the Contracting Parties, 3-level for IMAP User profiles have been defined, which allow CPs to differentiate the level of responsibility according to the internal national organization on data management.

Level I - Upload: users uploading the monitoring data file and performing the compliance quality check - *scientific institutions responsible for data production and elaboration (i.e. monitoring and research institutes).*

Level II - Validation: users performing the process of quality control of monitoring data - *national institutions responsible for data collection and validation (i.e. Environmental National Agency).*

Level III - Official release and publication: users have the duty to confirm the official release and decide **to publish data according to the MAP data policy** - *national entities responsible for the official release and publication of the data (i.e. National Focal Point).*

Nevertheless, Contracting Parties can decide to appoint the same user even for all the 3 levels.

IMAP Users network: Strengthening and harmonization

Assistance & Training

INFO/RAC has ensured a constant and cross-cutting support for the reporting of all the IMAP Common Indicators at two different levels:

- **supporting the single IMAP user for each single indicator through INFO/RAC daily helpdesk**
- **supporting every country that has given its availability, through Bilateral Trainings**

In order to maximize the benefit of a Training/Assistance meeting, each country has been requested to:

- ensure the participation of all the national IMAP Users
- already access and work on the system
- already make an internal check about all available data for IMAP reporting

IMAP Users network: Strengthening and harmonization

Assistance & Training

The Training/Assistance Meeting has been the right place to have:

- a **clear picture of the IMAP Info System** and its functionalities
- specific explanations and support for the **correct understanding of Data Standards** and how to fill in them
- an **overall guide** about the consultation **of Data Dictionaries**
- an **information** about the available **supporting tools** (utility check and user guide)
- **support to provide a clear state of art** of the monitoring data availability in your country
- **support to make compliant** the filled **Data Standards**
- **information** in order **to complete the list of IMAP users** still pending in some countries



MAP Data Policy

IMAP Data Policy Annex to MAP Data Policy

UNEP/MED IG.25/27
Page 353

Adoption of the Data Policy:

[UNEP/MED IG.25/27, Decision IG.25/10](#) (p. 353)

- Approved during the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) and its Protocols at their 22nd Meeting
- Aiming to achieve a base level of legal interoperability
- Establishing base principles, objectives and means to achieve this interoperability for each data flow belonging to the MAP

Decision IG.25/10

MAP Data Policy

The Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) and its Protocols at their 22nd Meeting,

Considering Decision IG.17/5 on the governance of the UNEP/MAP-Barcelona Convention system, adopted by the Contracting Parties at their 15th Meeting (COP 15) (Almeria, Spain, 15-18 January 2008), and Decision IG.19/6 on the Mediterranean Action Plan Civil Society Cooperation and Partnership, adopted by the Contracting Parties at their 16th Meeting (COP 16) (Marrakesh, Morocco, 3-5 November 2009),

Considering further Decisions IG.20/13, IG.21/13, IG.23/3 and IG.24/2 on governance, adopted by the Contracting Parties at their 17th (COP 17) (Paris, France, 8-10 February 2012), 18th (COP 18) (Istanbul, Turkey, 3-6 December 2013), 20th (COP 20) (Tirana, Albania, 17-20 December 2017), and 21st (COP 21) (Naples, Italy, 2-5 December 2019) Meetings respectively,

Recalling the mandate of INFO/RAC, as laid down in Decision IG.19/5 on the Mandates of the Components of MAP, adopted by the Contracting Parties at their 16th Meeting (COP 16) (Marrakesh, Morocco, 3-5 November 2009), and its relevance to the implementation of this Decision,

Acknowledging the importance to apply the UNEP/MAP Data Policy in the data managed by the UNEP/MAP Barcelona Convention System in order to achieve a base level of legal interoperability,

1. *Adopt* the United Nations Environment Programme/Mediterranean Action Plan (UNEP/MAP) Data Policy as set out in Annex I to the present Decision;
2. *Request* the Secretariat (INFO/RAC) to provide the necessary technical support to Contracting Parties and to address any needs identified to fully implement the UNEP/MAP Data Policy;
3. *Call upon* the Contracting Parties to take effective measures to implement the UNEP/MAP Data Policy.

UNEP/MAP Data Policy

The decision (UNEP/MED IG.25/27, Decision IG.25/10):

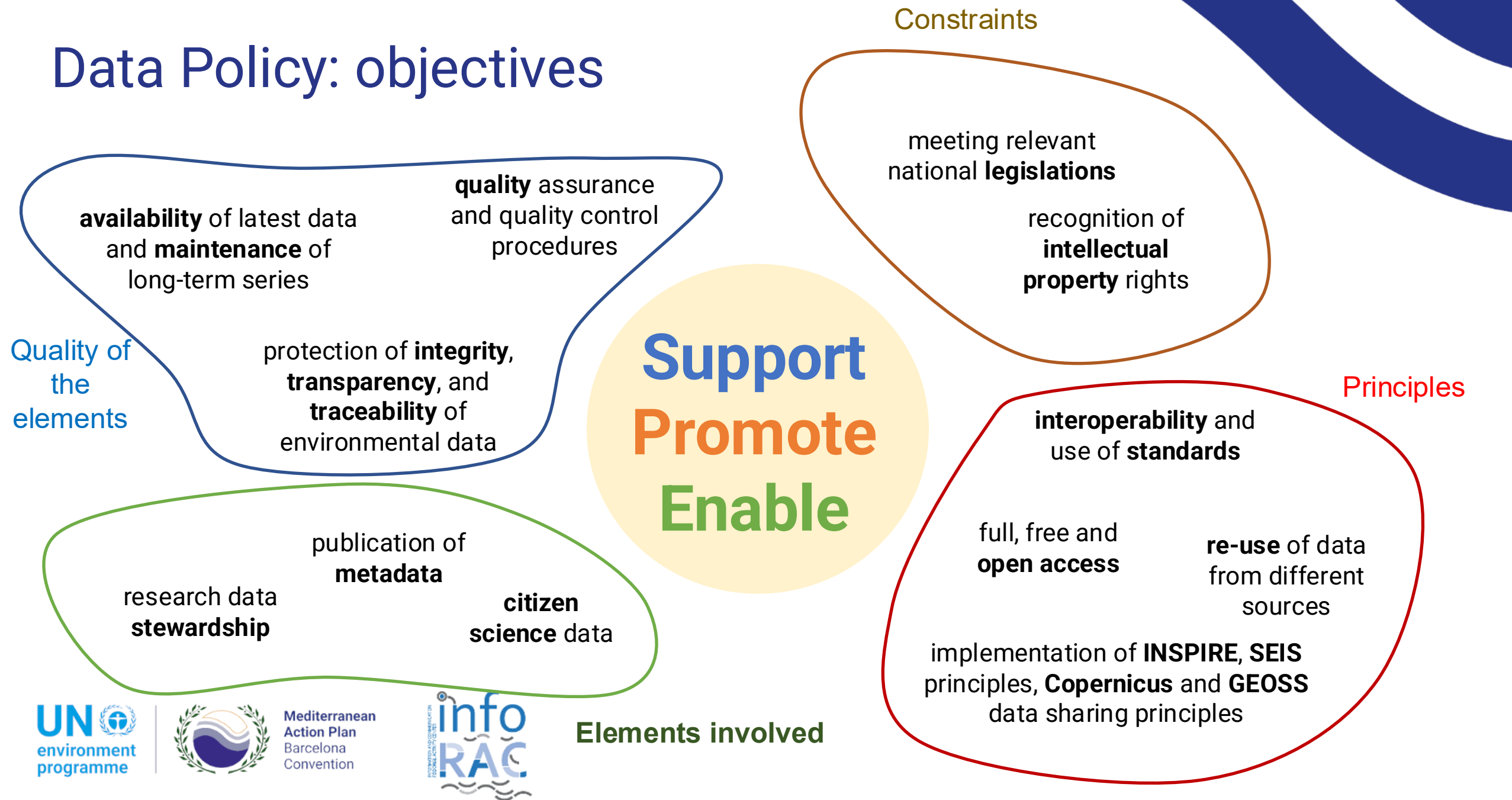
- I. **Adopt** the United Nations Environment Programme/Mediterranean Action Plan (UNEP/MAP) Data Policy as set out in Annex I to the present Decision;
- II. Request the Secretariat (INFO/RAC) to provide the necessary technical support to Contracting Parties and to address any needs identified **to fully implement** the UNEP/MAP Data Policy;
- III. Call upon the Contracting Parties **to take effective measures** to implement the UNEP/MAP Data Policy.

Data Policy: objectives

Support – Promote – Enable

- **availability** of latest data and **maintenance** of long-term series
- exploitation, **re-use** and re-combination of data from different sources in different frameworks and media
- full, free and **open access** to all kinds of data, where possible, whilst recognizing and respecting the variety of business models and data ownerships
- protection of **integrity, transparency, and traceability** in environmental data, analysis and forecasts
- recognition of data providers and of their **intellectual property** rights through citation and data licenses
- meeting relevant national **legislations** and government guidance on the management and distribution of environmental information
- implementation of **INSPIRE, SEIS** principles, **Copernicus** and **GEOSS** data sharing principles
- **interoperability** and use of **standards**
- use of crowd sourced and **citizen science** data
- recognition of the quality of data through quality assurance and quality control procedures
- publication of relevant **metadata**
- **stewardship** and sharing of data from research projects.

Data Policy: objectives





IMAP Info System:
Next challenges

IMAP Info System: next challenges

- Ensure **a real harmonization between IMAP and MSFD** taking into account the existing differences;
- Facilitate a **full interoperability** of IMAP Info System with other regional marine databases (e.g. SeaDataNet, SeaDataCloud, EMODNET, etc.);
- **Avoid duplication** of data transmissions for the Contracting Parties

IMAP Info System: next challenges

- IMAP Info System hardware and software platform **upgraded and expanded** to include also the remaining candidate IMAP CIs to ensure fully operational reporting by CPs;
- Data Standards (DSs) and Data Dictionaries (DDs) developed for remaining **Candidate IMAP Common Indicators**;
- Data Standards (DSs) and Data Dictionaries (DDs) **tuned** for IMAP Common Indicators already in place;
- **QA/QC** tool developed, tuned and integrated for all the existing IMAP CIs data flows where compatible with the nature of the indicator;

IMAP Info System: next challenges

- An additional “**automatic helpdesk**” section implemented into the IMAP Info System to support CPs into the reporting process, recording all the requests to be used for statistical purposes.
- Cooperation with relevant **regional organization** (i.e. Accobams, GFCM, etc.) in order to facilitate the interoperability between IMAP and their Infosystems and databases as appropriate;
- A specific section implemented into the IMAP Info System, as webform, to allow the CPs to officially provide information about the **state of reporting** in the country;

IMAP Info System: next challenges

- "**User management**" system upgraded and adapted to MAP CU and MAP Components needs;
- A **Data Analytics dashboard** implemented into the IMAP Info System providing aggregation of monitoring data, dedicated to MAP Components assessment and also accessible to public users;
- Additional functionalities implemented in the IMAP Info System dedicated to MAP Components: **data analysis and data export in different formats** through specific tools implemented ad hoc;
- Possibility of **queries** and layout the results in tables with data filtering; extensive customization, analysis and data visualization through Python modules (Python notebook, ex. Jupiter lab of WEKEO DIAS-CMEMS);
- Geographical section upgraded and customized for IMAP monitoring data visualization into the IMAP Info System and fully **integrated in KMP**.

The UNEP-MAP Knowledge Management Platform: KMaP

The [MAP Knowledge Management Platform](#) (KMaP) aims to become the unique access point to UNEP-MAP knowledge heritage, following commitments of the adopted Data Policy.

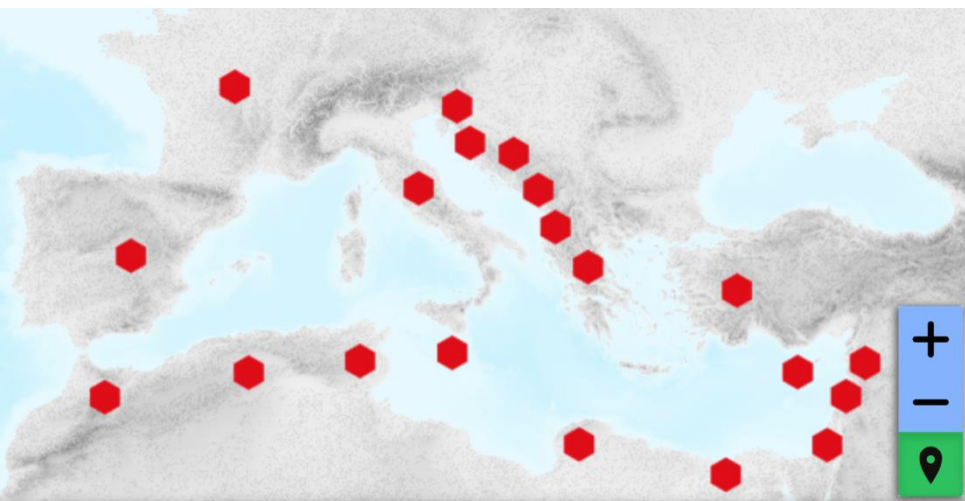
The actual proptoytpe is made by two parts:

1. **Data Hub:** managing «geographical objects»
2. **Knowledge Hub:** managing «non-geographical objects» (documents, videos, leaflets, etc.)



KMaP products: layers and maps

A **Layer** is a single dataset (e.g. 1 shapefile)



Coastday - past events

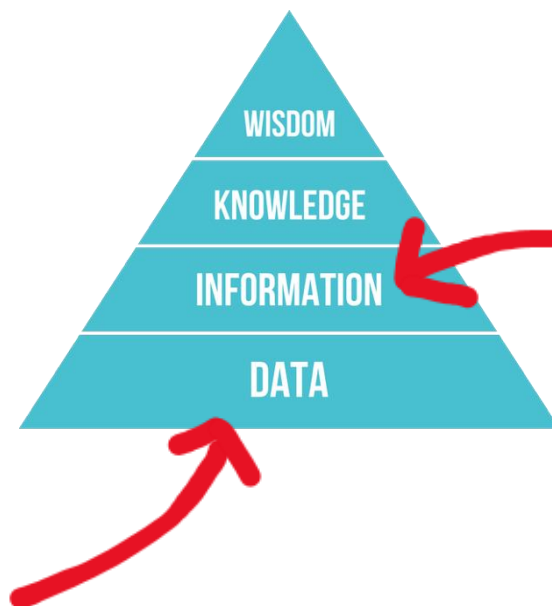


[View dataset](#)

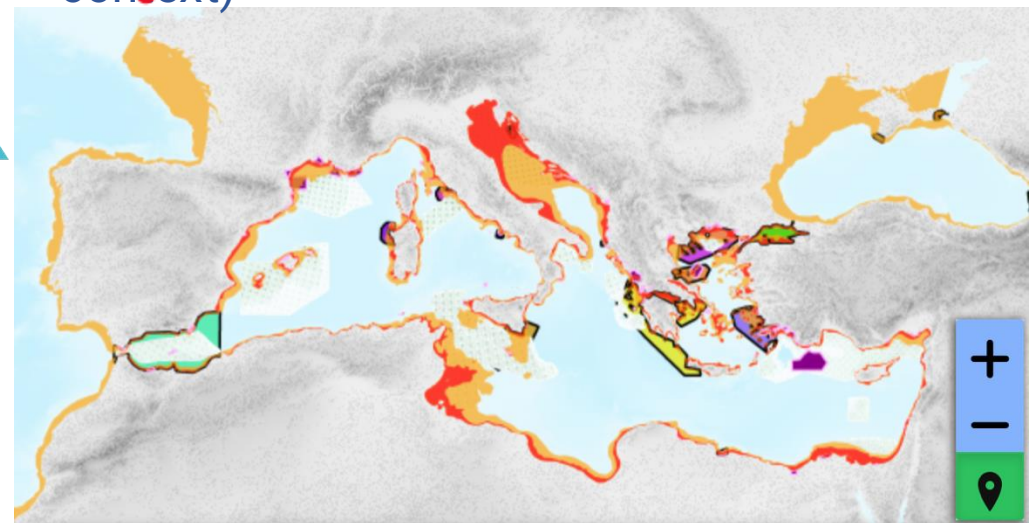
a dataset from PAPRAC - / May 12th 2023

This dataset refers to all the past [Coastday](#) events country by country. Coastday is an event of awareness rising organized yearly by PAP/RAC and involves Contracting Parties from the whole MAP.

Category: [MSP](#)



A **Map** is a superimposition of layers resulting in a combination of datasets, with a specific communication aim (data in context)



Species distribution analysis



[View map](#)

a map from INFORAC Editor / February 13th 2023

Spatial analysis of species distribution by crossing SPAMI areas, species distributions of horse mackerel and Mediterranean mussel.

Category: [Species](#)

IMAP Info System:

For more information:

arthur.pasquale@info-rac.org

INFO/RAC Deputy Director

imap@info-rac.org

IMAP Info System
(INFO/RAC)



bio_imap@info-rac.org

pollmlitter_imap@info-rac.org

coasthydro_imap@info-rac.org

MAP Components for IMAP
(SPA/RAC, MED POL, PAP/RAC & INFO/RAC)

Thank you!



**Mediterranean
Action Plan**
Barcelona
Convention