

DELIVERABLE D 1.7



INCEPTION REPORT

**Implementation of the indicator “Impacts of marine litter on sea turtles and biota” in RSC and MSFD areas
(INDICIT)**

27th February 2017

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Abbreviations and Acronyms

EAB: External Advisory board

CNRS: Centre National de la recherche Scientifique

CO: Coordinator

EU: European Union

GES: Good environmental status (article 9(1) of the MSFD)

INDICIT: Implementation of the indicator “Impacts of marine litter on sea turtles and biota” in RSC and MSFD areas

ISPRA: Italian National Institut for Environmental Protection and Research

MNHN: Museum national d’Histoire naturelle

MSFD: Marine Strategy Framework Directive

RSC: Regional Sea Convention

StC: Steering committee

PoC: Plan of communication

PoD: Plan of dissemination

ULPGC: University of Las Palmas de Gran Canaria

WP: Workpackage (Activity)

General objective and approach of INDICIT

As a collaborative project, INDICIT aims to support the European Commission in its efforts to obtain more coherent and coordinated approaches within and between MSFD marine regions and sub-regions to monitor debris impact in the framework of the Descriptor 10 (“Marine litter”). The general objectives of INDICIT are:

- to address the gaps in the definition of the criteria of three marine debris impact indicators (Indicator 1 “Trends in the amount and composition of litter ingested by sea turtles”; Indicator 2 “Entanglement with debris by marine biota” and Indicator 3 “Micro-debris ingestion by marine biota”),
- to provide/update the determination of a GES for these three indicators,
- to disseminate methodological standards to be used by the Member States represented in INDICIT in order to monitor their progress towards the GES,

The approach will consist in:

- Addressing data and knowledge necessary to better evaluate marine litter relative abundance and impacts at OSPAR, Barcelona-MedPol and at MSFD levels, thanks to the pooling and the analysis of data/expertise among the INDICIT partners,
- Determining a set of detailed criteria (sample size, biological constraints, spatial and temporal scales of evaluation) for Indicator 1 and agreeing, on the basis of a dialogue with stakeholders (politician, biologist, scientists), on a coherent threshold/trend baseline of GES consistent at each sub-region/MSFD levels,
- Developing a standardized monitoring programme (networking, standardizing protocols for data collection, standardizing the evaluation of the distances to the target of GES),
- Evaluating the distance to GES for Indicator 1, for each region/sub-region/country to which the INDICIT partners belong.

The implementation of a coordinated practical monitoring aims at reaching a greater coherence within and between marine (sub)regions as at a larger scale (beyond the MSFD Member states) thanks to the dissemination of INDICIT’s outcomes. INDICIT also aims at communicating to the large audience.

Activity 1 (C. Miaud, CNRS, France)

Management and coordination of the project



I. Introduction

The objective of this activity is to ensure the proper implementation and management of the project with respect to its objectives, time frame and budget constraints while allowing a smooth communication between the consortium members. This activity is led by CNRS (Claude Miaud as CO) and involves all the members of the INDICIT Consortium established in 5 EU member states (France, Italy, Spain, Greece, Portugal) and in 2 non EU-countries both being a contracting party to the Barcelona Convention (Turkey and Tunisia).

II. Methodology

II.1. Working plan and deliverables

The activity is divided in two Tasks:

Task 1.1: Technical coordination of the project

This task aims at ensuring an efficient technical coordination of the project.

Several rules have been proposed during the Workshop meeting # 1 (10th February 2017, Brussels):

- The use of templates for a maximum of reporting and management tools (e.g. reports/time sheet/etc).
- A bi-monthly skype conference among the WP leaders and the CO.
- The composition of dedicated email lists (with the WP5) for e.g. the EAB the WP Leaders, all the participants, etc. The description of these lists are in discussion and will be provided to the participants the coming days.
- M. Marco AR. Santos (DRAM, Azores gov) has been proposed to join this EAB. The partners and CO agree with this change. A confirmation letter has been asked on 23th February 2017 to the Maritime Affairs Regional Director Filipe Porteiro.
- The CO will send regular emails to the WP Leaders according to the deadline and deliveries described in the programme plan:

Table 1.1: working plan for Activity 1 (reporting period 1 (RP1) in yellow)

Reporting period	RP1						RP2						RP3						RP4							
Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Activity 1: Management and coordination of the action																										
Task 1.1																										
Task 1.2																										
Deliverables	D		D			D	R						D	R						D	R			D		R

Table 1.2: deliverables for Activity 1

D1.1	Consortium Agreement	CNRS	Month 3	30 April 2017
D1.2	Minutes of project meeting 1	CNRS	Month 1	28 February 2017
D1.3	Minutes of project meeting 2	CNRS	Month 6	31 July 2017
D1.4	Minutes of project meeting 3	CNRS	Month 13	28 February 2018
D1.5	Minutes of project meeting 4	CNRS	Month 20	30 September 2018
D1.6	Minutes of final meeting	CNRS	Month 24	31 January 2019
D1.7	Inception Report	CNRS	Month 1	28 February 2017
D1.8	Progress Report 1	CNRS	15 days after Month 6	15 August 2017
D1.9	Progress Report 2	CNRS	15 days after Month 13	15 March 2018
D1.10	Progress Report 3	CNRS	15 days after Month 20	15 October 2018
D1.11	Final Report	CNRS	60 days after Month 24	30 March 2019

Task 1.2: Administrative, legal and financial management of the project: Chloé Richard, European Programme Engineer, highlighting the deadlines and deliverables which directly influence the funding, precisely described these aspects during her presentation at the Kick of Meeting (9th February 2017, Brussel). This presentation is given in Annexe 1.2 of this inception report.

II.2. Mitigation measures for potential risks

Each Beneficiary is represented by 2 people in order to substitute the representative at the StC in case of absence. Each WP Leader is responsible for following up the participants involved in his Activity and informing the CO for possible raised questions and decisions taken locally. The StC regularly consulted with and encourage strong commitment of the participants. The StC shall rely on the Consortium Agreement to ensure good relationships and amicable resolution of potential disagreements.

Activity 2 (C. Miaud, CNRS, France)

**Acquiring and using scientific knowledge to develop the
indicators of litter impact at the (sub)regional and the whole
MSFD spatial scale**



I. Introduction

This activity aims at filling the gaps of knowledge necessary for the definition of GES and criteria for Indicator 1 (“Debris ingested by sea turtles”) as well as to evaluate the relevance of Indicators 2 and 3 (“Entanglement with debris by marine biota” and “Micro-debris ingestion by marine biota”), for which the targeted species have to be evaluated. The purpose of Activity 2 is to provide theoretical knowledge and modelling in order to allow the implementation of specific and concrete measures for a standardized monitoring of debris impacts in the OSPAR convention area/Macaronesia and in the Barcelona Convention region, and the implementation of a standardized evaluation of each region/Member State’s distance to GES. Analyses will thus be performed according to the feedback of the partners involved in Activity 3 and Activity 4, with who standardized procedures for the monitoring of debris impacts will be transmitted to Activity 5 for dissemination.

II. Methodology

II.1. Working plan and deliverables

Activity 2 is divided in 6 tasks, the first two concerning the 3 indicators and the third to the sixth focusing on Indicator 1 “Trends in the amount and composition of litter ingested by sea turtles”:

- *Task 2.1*: Establishment of a state of the art of the biological constraints that can influence the indicators’ criteria.
- *Task 2.2*: Pilot study for Indicator 2 “Entanglement with debris by marine biota” and Indicator 3 “Micro-debris ingestion by marine biota”.
- *Task 2.3*: Improvement and standardization of the monitoring for Indicator 1
- *Task 2.4*: Establishment of common databases (already known and newly collected data, provided in the frame of Activities 3 and 4)
- *Task 2.5*: Evaluation and/or revision of GES initial assessment, distance to GES and indicator criteria
- *Task 2.6*: Evaluation of the influence of practical restoration measures implemented in pilot areas on the evaluated distance to the target of GES(s).

Table 2.1: working plan for Activity 2 (reporting period 1 (RP1) in yellow)

Reporting period	RP1						RP2						RP3						RP4							
Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Task 2.1																										
Task 2.2																										
Task 2.3																										
Task 2.4																										
Task 2.5																										
Task 2.6																										
Deliverables	D					D		D					D		D					D				D		

Table 2.2: deliverables for Activity 2

D2.1	Inception Report on Activity 2	CNRS	Month 1	15 February 2017
D2.1	Short progress Report 1 on Activity 2	CNRS	Month 6	31 July 2017
D2.2	Short progress Report 2 on Activity 2	CNRS	Month 13	28 February 2018
D2.3	Short progress Report 3 on Activity 2	CNRS	Month 20	30 September 2018
D2.4	Short progress Report 4 on Activity 2	CNRS	Month 24	31 January 2019
D2.5	Reports on pilot studies	CNRS	Month 8	31 August 2017
D2.6	Report on set of procedures for a standard monitoring using the Indicator "Debris ingestion by sea turtles"	CNRS	Month 15	30 April 2018
D2.7	Final Report on set of procedures for a standard monitoring using the Indicator "Debris ingestion by sea turtles"	CNRS	Month 24	31 January 2019
D2.8	Establishment of common databases	CNRS	Month 13	28 February 2017
D2.9	Final common databases	CNRS	Month 24	31 January 2019

Note that the deliverable D2.8. "Establishment of common databases" is expected for Month 13. The date in the last column is 28 February 2017 (i.e. month 1), which is certainly a mistake. However, a very first version of this delivery will be given for the 28th February 2017.

II.2. Methods of Data Collection and Analysis

Activity 2 is based on literature review, collection of data/expert knowledge and statistical analyses of the common shared data among partners related to litter impacts (ingestion or strangulation) and data necessary for a better understanding of the risky areas, where turtles may meet debris (e.g., biology of sea turtles, movements of litter).

Task 2.1: Establishment of a state of the art on the biological constraints that can influence the indicator criteria

This task relies on a literature synthesis of grey and published literature shared by the participants or found online (e.g. via Web of sciences, Google Scholar, etc.).

For Indicator 1, the state-of-the art will target previous scientific knowledge acquired on debris ingested by sea turtles. The relevance of such an indicator was already highlighted but acquiring knowledge was shown necessary for the definition of Indicator criteria and a better identification of the steps for its concrete implementation on the field.

For Indicator 2, as no species was nominated specifically, the literature review should be based on all relevant taxa at the MSFD and RSC scales.

For Indicator 3, according to known literature and laboratory works on micro-debris ingestion, fish and sea turtle will be targeted.

Task 2.2: Pilot study for Indicator 2 “Entanglement with debris by marine biota” and Indicator 3 “Micro-debris ingestion by marine biota”

The pilot studies of the potential implementation of Indicator 2 and Indicator 3 will consider the conclusions of Task 2.1 and target the whole MSFD area. They will consist in:

- Identifying existing networks among NGOs, rescue centres, fishermen/sailors and other sea user,
- Identifying the human and logistical resources which should be necessary for the implementation of the indicator,
- Collecting available data and uploading them to the databases shared by the participants,
- If possible, collecting new data (“new knowledge”) following the establishment of dedicated protocols and sharing thanks to the common databases. For Indicator 2, data will be collected thanks to the solicited expert’s knowledge and opportunist and systematic observations of entangled individuals by the existing network. If necessary, specific questionnaires will be built and disseminated by the participants. For Indicator 3, specific guidelines aiming to detect micro-litter ingested in fish collected by professional anglers (experiments on different fish species according to the literature review (Task 2.1) will be realised, as well as a methodology to detect micro-litter ingested in live sea turtles monitored in rescue centres and excreted in their tanks. Gastro-intestinal tracts of dead individuals will also be analysed in order to assess the ingested micro-litter,
- Performing exploratory analyses of the data collected in order to evaluate the average parameters (e.g. for Indicator 2, proportion of entangled individuals per species and per region, and e.g., for

Indicator 3, proportion of individuals having ingested debris per species and per region) and to determine the Indicators' criteria.

The third to the sixth tasks concern specifically Indicator 1 “Trends in the amount and composition of litter ingested by sea turtles”.

Task 2.3: Improvement and standardization of the monitoring

The development of a feasible set of procedures [network functioning, standardized protocols for raw data collection based on dead and live sea turtles, data transfer to the common databases of this project] will be co-built thanks to mutual feedback from partners involved in Activity 3 and Activity 4, during meetings, emails and e-conference (e.g., using Skype).

Task 2.4: Establishment of the common databases in order to gather already known and newly collected data.

The definition and establishment of common databases (e.g. on debris ingested by dead and alive turtles, turtle movements, litter movements, etc.) will be shared among the partners. As decided during Workshop#1, these data and analysis will first be shared in Google Drive (“INDICIT” folder dedicated to the project and shared among all partners), then stored with high security standards (MyCORE CNRS storage system) on the private area of the INDICIT website when available (in relation with Activity 5). Before signing a data sharing agreement, which will be conceived among the partners during the first months of the project, only published data will be shared in the first instance. In the same time, an Excel sheet will be proposed in the Google drive dedicated to INDICIT in order to assess the work themes of each Partner (new knowledge).

Task 2.5: Evaluation and/or revision of GES initial assessment, distance to GES and indicator criteria

This task will consist in analysing the data related to new knowledge (e.g., diet (i.e., natural food items), digestive transit time, litter and sea turtles' space use) and evaluating their effect on the Indicator's criteria (i.e., identify possible biological constraints). In the same time, the spatial scale of GES (as one of the Indicator's criteria) will be evaluated by modelling region/sub-region/country's boundaries effects on the Indicator. When a large dataset will be acquired, the temporal scale will be assessed by modelling temporal windows effect on the indicator (e.g. changes over 1 year/ 3 years/etc.). Power analyses, aiming to model the changes of the quantity of ingested debris depending on the number of considered individuals or according to time, will be performed in order to determine

the minimum sample size to be used, its temporal scale of application as well as to evaluate Indicator 1's precision, stability and sensitivity. GES value(s) will then be proposed based on the results of these data analyses.

Task 2.6: Evaluation of the influence of practical restoration measures implemented in pilot areas on the evaluated distance to the target of GES(s)

First, relevant pilot area(s) in OSPAR and MedPol RSCs will be defined with the External Advisory Board (EAB) and partners involved in Activity 3 and Activity 4. Criteria such as zone of accumulation of litter/turtle density and/or on management measures (e.g., restoration measures, awareness campaigns, etc.) will be relevant, as the results obtained from Task 2.5 and from discussions during workshops (Month 13 and 20). Then, an evaluation of the change in Indicator 1 output (e.g., temporal variations in the quantities of ingested debris) will be tested, probably by simulation, or depending on available data.

III. Participants and tasks sharing, expected time table

The Activity is led by CNRS (France). All the INDICIT partners are actively involved. If necessary, other participants could be included (sub-contracting or partnership).

Task 2.1. Establishment of a state of the art on the biological constraints that can influence the indicators' criteria.

The literature reviews will be realized by CNRS for Indicator 1, MNHN for Indicator 2 and ISPRA/ULPGC for Indicator 3. All the partners of the project will participate in this task by helping the persons in charge and sharing their literature and possible knowledge as experts. During Workshop #1 (10th February 2017, Brussels), the decision was taken that each partner would first evaluate the literature available locally (i.e. at the national level) (15 days). Then, the partners will help the coordinator in charge of the literature review by providing a summary of the context and the major results, if necessary by also translating from local into English language (15 days). In the same time, questions, which should be raised in the literature review, are discussed among partners using Word documents especially created in the Google Drive dedicated to INDICIT program.

Task 2.2. Pilot study for the Indicator 2 "Entanglement with debris by marine biota" and the Indicator 3 "Micro-debris ingestion by marine biota"

This task implies regular interactions with the stakeholders (biologists, politicians, etc.) involved in Activity 3 and 4.

Furthermore, ISPRA will develop specific guidelines for fish according to the literature review performed in Task 2.1. ULPGC will establish the methodology to detect micro-litter ingested in live sea turtles in rescue centres. All INDICIT partners will be involved in providing data and/or expert knowledge.

Task 2.3. Improvement and standardization of the monitoring for Indicator 1

ISPRA will share the MSFD TS-Marine Litter “*Litter in biota*” protocol (2013) to all the participants. All INDICIT partners will be involved in the discussion (sharing the first results, feedback and/or skills) thanks to the project’s Intranet and mailing lists and during the three workshops during which training sessions will be proposed (Months 6 in Rome, 13 in Montpellier and 20 in Portugal (city not selected yet)). The procedures will be optimized all together. Outside of meetings, mutual feedback with partners involved in Activity 3 and Activity 4 will be enabled by emails and e-conferences (e.g., using Skype).

Task 2.4: Establishment of common databases (already known and newly collected data, provided in the frame of Activities 3 and 4)

Before signing a data sharing agreement, which will be conceived among the partners during the first months of the project, only published data will be shared in the first instance. In the same time, an Excel sheet will be proposed in the Google drive dedicated to INDICIT in order to assess the work themes of all the INDICIT Partners (new knowledge).

Task 2.5: Evaluation and/or revision of GES initial assessment, distance to GES and indicator criteria

The common databases will be analysed by the post-doctoral biologist recruited by the CNRS with the participation of the main scientists in charge in the Partners’ institutions. The feedback of partners involved in Activity 3 and Activity 4 will allow to better assessing the relevance of the proposed criteria according to e.g., the concrete feasibility. Discussions will be organized during a workshop in Month 13 (Montpellier, France) and possibly updated later (notably during workshop organized in Month 20 in Portugal (city not selected yet)).

Task 2.6: Evaluation of the influence of practical restoration measures implemented in pilot areas on the evaluated distance to the target of GES(s)

This task will imply notably the participation of a recruited post-doctoral biologist by CNRS. Advice and expertise of the members of the AB and partners involved in Activity 3 and Activity 4 will be requested in order to define relevant pilot area(s) in RSC regions.

The expected deliverables of Activity 2 are (Table 2.2):

- The inception and short progress reports to be provided by the Activity Leader (CNRS) at Months 1, 6, 13, 20, 24,
- The reports on the pilot studies on the two new indicators of debris impacts “Entanglement of debris on marine fauna” and “micro-debris ingestion by marine fauna”, within 60 days after Month 6,
- Within 60 days from the end of the action (Month 13) and updating until the end of the Action (Month 24): a report on the set of procedures for a standard monitoring using the Indicator “Debris ingestion by sea turtles” including the definition of a GES and the processes to evaluate the distance to GES (including the networking, user guides for the protocols, user guides for the standardized databases and user guides for statistical analyses.
- The establishment of common databases at Month 13, with updating until the end of the Action at Month 24.

IV. Limitations and mitigation measures

The risks related to the lack of equipment to develop protocols or to collect data should be mitigated by providing tools and logistical support to partners in need e.g., at the sub-regional level. A variety of tools, such as video tutorial or remote communication (e.g., Skype), training workshops aimed at supporting people in collecting data according to standardized procedures. This approach should also help to collect sufficient data to evaluate the GES and Indicator 1 criteria.

Activity 3 (A. Liria-Loza, ULPGC, Spain)
Implementation of the indicator of litter ingestion in the RSC
OSPAR/Macaronesia



I. Introduction

This activity aims to apply concrete actions for the implementation of Indicator 1 “Macro-debris ingested by sea turtles” thanks to all the partners involved in the OSPAR RSC. For more coherence in the assessment of GES and the Indicator criteria, the Macaronesia islands are also included. The Activity is led by ULPGC, who works as an interface between the Macaronesia and the continent.

The activity comprises:

Task 3.1: Identification of the local stakeholders to be mobilized in France, Spain and Portugal

The objective is (i) to identify, contact and network with the stakeholders who will be in charge of data collection of dead and/or live sea turtles and/or laboratory analyses, and (ii) to collect the debris ingested by these individuals. The stakeholders should belong to rescue centres, stranding networks, laboratories, universities, etc.

Task 3.2: Local training on the established protocols for data collection for the identified stakeholders

The aims are: 1) to harmonize the protocol among the partners, starting from the MSFD TS-Marine Litter protocol of 2013 entitled “*Litter in biota*” and to discuss its improvement and possible source of bias, in relation to Task 2.3, and 2) to empower the stakeholders thanks to the local dissemination of the protocols and their training for data collection (e.g., via dissemination of guidelines or training sessions).

Task 3.3: Sharing of already available data in the common databases

The objective is to identify and share every stakeholders’ available literature and data on debris ingestion by dead and live individuals in the RSC OSPAR/Macaronesia area, in the common databases developed in this project (activity 2). Stakeholders will be encouraged to also share data on entanglement/strangulation with debris and micro-debris ingestion. This task will be developed by participants involved in Activity 2 (Task 2.3) in order to train the stakeholders to fill in and update the standard templates of the common databases, which will be implemented in the RSC/MSFD. Their feedback will be collected in order to improve the standard databases.

Task 3.4: Collection of new data and uploading to the common databases

This task aims to support the determination of accurate criteria for Indicator 1, by collecting data and acquiring a better knowledge on sea turtles’ biology, diet and movements, and to compare them with litter movements. Specific protocols for this new data collection will be co-implemented with participants responsible for Activity 2 (Task 2.5).

Task 3.5: Validation and implementation of the GES (baseline or trends) and indicators’ criteria with stakeholders at the RSC OSPAR/Macaronesia scale, and evaluation of each Member states/sub-regions’ distance to the target of GES.

The aim of this task is to validate the GES produced thanks to the results of data analysis and discussion with stakeholders. This task intends to implement a perennial and sustainable monitoring programme for Indicator 1 within the RSC area.

II. Methodology

II.1 Working plan and deliverables

The WP3 Leader has presented the tasks and deliverables expected for this activity to the participants and underlined the deadlines of reporting period 1 (Tables 3.1 and 3.2).

The leader is developing the list of information/items required for D3.2 to be received by email from the participants, or through the dedicated Google drive, before the deadline.

Table 3.1: working plan for Activity 3 (reporting period 1 (RP1) in yellow)

Reporting period	RP1						RP2						RP3						RP4							
Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Activity 3: Implementation of the indicator of litter ingestion in the RSC OSPAR/Macaronesia																										
Task 3.1																										
Task 3.2																										
Task 3.3																										
Task 3.4																										
Task 3.5																										
Deliverables	D					D							D		D					D				D		

Table 3.2: deliverables for Activity 3

D3.1	Inception Report on Activity 3	ULPGC	Month 1	15 February 2017
D3.2	Short progress Report 1 on Activity 3	ULPGC	Month 6	31 July 2017
D3.3	Short progress Report 2 on Activity 3	ULPGC	Month 13	28 February 2018
D3.4	Short progress Report 3 on Activity 3	ULPGC	Month 20	30 September 2018
D3.5	Short progress Report 4 on Activity 3	ULPGC	Month 24	31 January 2019
D3.6	Report on the validated GES and clarified indicator criteria for the standard monitoring at the RSC scale	ULPGC	Month 15	30 April 2018
D3.7	Final report on the validated GES and clarified indicator criteria for the standard monitoring at the RSC scale	ULPGC	Month 24	31 January 2019
D3.8	List of identified stakeholders	ULPGC	Month 15	30 April 2018
D3.9	Final list of identified stakeholders	ULPGC	Month 24	31 January 2019
D3.10	List of evaluation indicators of the implementation of the monitoring program	ULPGC	Month 24	31 January 2019

The leader is developing a detailed timetable for Task 3.1, 3.2 and 3.4, which will be included in the D.3.2., to share with WP3 Partners.

The first documents / information that will be requested to Partners includes:

- List of potential stakeholders per partner,
- Geographic area covered by each partner,
- Identification of potential data available per partner and region/sub-region,
- Which data could be collected by each partner,
- Which methodologies will be used by each partner.

The leader will gather all information requested to elaborate a global view of the RSC OSPAR/Macaronesia region on the D3.2 initial draft.

II.2 Methods of Data Collection and Data Analysis

General methodologies for Data Collection have been established, and are shown in Table 3.

Table 3.3: Main methodologies for data collection per Indicator.

	On Dead Turtles	On Live Turtles
<i>IND 1_ Macro-debris ingestion</i>	Digestive Tract Analysis	Faeces Analysis (collecting
<i>IND 3_ Micro-debris ingestion</i>	(Turtle Necropsies)	faeces from recovery tanks)
<i>IND 2_ Entanglement</i>	Identification of main debris causing entanglement (Standing Network)	

Detailed methodologies for macro and micro debris classification are not yet defined, but the starting point will be the MSFD TS-Marine Litter protocol of 2013 untitled “Litter in biota”.

The leader of the WP3 will collect information about the methodologies used by each partner.

Activity 4 (M. Matiddi, ISPRA, Italy)

Implementation of the indicator “Impacts of marine litter on sea turtles and biota” in RSC and MSFD areas



I. Introduction

This activity aims to apply concrete actions for the implementation of Indicator 1 “Macro-debris ingested by sea turtles” in cooperation with all the Mediterranean partners involved in INDICIT. ISPRA is the leader of this Activity and most of the actions will concern the implementation of the MSFD and EcAp monitoring programme using Indicator 1. However, for a better coherence and for the sustainability of the project, some actions will also target areas located outside EU marine waters but covered by the Barcelona convention, thanks to the participation of INDICIT partners from Turkey and Tunisia.

II. Methodology

Task 4.1: Identification of the local stakeholders to be mobilized in Italy, Greece, France and Spain

The objective of this task is the identification, contact and networking of the stakeholders who will be in charge of the collection of dead and/or live sea turtles and/or of the laboratory work to investigate debris ingestion.

Task 4.2: Local training on the established protocols for data collection to the identified stakeholders

This task aims to:

- 1) Harmonize the protocol among the partners, starting from the MSFD TS-Marine Litter protocol of 2013 entitled “*Litter in biota*” and discussing its improvement and possible sources of bias,
- 2) Empower the stakeholders through the local dissemination of the protocols and their training for data collection.

Task 4.3: Sharing of already available data in the common databases

The objective of this task is to identify and share all stakeholders’ available literature and data on debris ingestion by dead and by live individuals in the RSC area, in the common databases developed in the frame of Activity 2.

Task 4.4: Collection of new data and uploading to the common databases

This task aims to support the determination and the accuracy of Indicator 1 criteria by collecting data and acquiring a better knowledge on sea turtles’ biology, diet and movements.

Task 4.5: Validation and implementation of the GES (baseline or trends) and indicator criteria with the stakeholders at the RSC scale, and evaluation of each Member states/sub-regions’ distance to the target of GES

The aim of this task is to validate the GES produced thanks to the results of data analysis (co-working between participants in charge of Tasks 2.3 and 2.5 and of Tasks 3.3 and 3.4 on data collection and data analyses).

II.1 Working plan and deliverables

On the basis of the proposals from the Workshop meeting #1 (10th February 2017, Brussels), some activities will start soon while others will wait for some outcomes from Activity 2 outcomes.

Task 4.1: Identification of the local stakeholders to be mobilized in Italy, Greece, France and Spain

This activity will start immediately and will be carried out by each partner involved for their own country. Time required to get subcontractors involved in the project can differ substantially among administrations or countries.

EU and non-EU countries will be contacted by the WP leader helped by the Advisory Board and in relationships with the leader and actors involved in Activity 5, in order to enlarge the network for the Mediterranean basin.

Task 4.2: Local training on the established protocols for data collection to the identified stakeholders

ISPRA will share immediately among the partners the MSFD TS-Marine Litter protocol (2013) entitled “*Litter in biota*”. Such guidelines developed for analysing dead and alive turtles will be discussed and improved by identifying possible source of bias, according to WP2’s outcomes. The first approved report will be sent to the network built for collection, dissection and stomach analysis on sea turtles, plus marine litter categorization. Considerations on GES will be done from Month 12, in conjunction with WP2.

The training course on the above procedure will be held in Rome by ISPRA for all the partners during the 2th INDICIT meeting (6th month). Delegates from non-partner country will be invited to the course through Advisory Board.

Task 4.3: Sharing of already available data in the common databases.

Following the agreement with sub-contractor and using partners’ latest available researches, all possible meta-data will be collected by the partners on hold for the realization of the common database.

Task 4.4: Collection of new data and uploading to the common databases

From now, all the available stranded turtles will be collected, labelled and frozen on hold for the guidelines. Similar procedures will be performed for faeces from live animals.

Task 4.5: Validation and implementation of the GES (baseline or trends) and indicator criteria with the stakeholders at the RSC scale, and evaluation of each Member states/sub-regions’ distance to the target of GES

GES consideration will be done from Month 12, in conjunction with WP2.

Table 4.1: working plan for Activity 4 (reporting period 1 (RP1) in yellow)

Reporting period	RP1						RP2							RP3							RP4					
Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Activity 4: Implementation of the indicator of litter ingestion in UNEP/MAP - EcAp process (Barcelona Conv.)																										
Task 4.1																										
Task 4.2																										
Task 4.3																										
Task 4.4																										
Task 4.5																										
Deliverables	D					D							D		D					D					D	

Table 4.2: deliverables for Activity 4

D4.1	Inception Report on Activity 4	ISPRA	Month 1	15 February 2017
D4.2	Short progress Report 1 on Activity 4	ISPRA	Month 6	31 July 2017
D4.3	Short progress Report 2 on Activity 4	ISPRA	Month 13	28 February 2018
D4.4	Short progress Report 3 on Activity 4	ISPRA	Month 20	30 September 2018
D4.5	Short progress Report 4 on Activity 4	ISPRA	Month 24	31 January 2019
D4.6	Report on the validated GES and clarified indicator criteria for the standard monitoring at the RSC scale	ISPRA	Month 15	30 April 2018
D4.7	Final report on the validated GES and clarified indicator criteria for the standard monitoring at the RSC scale	ISPRA	Month 24	31 January 2019
D4.8	List of identified stakeholders	ISPRA	Month 15	30 April 2018
D4.9	Final list of identified stakeholders	ISPRA	Month 24	31 January 2019
D4.10	List of evaluation indicators of the implementation of the monitoring program	ISPRA	Month 24	31 January 2019

II.2 Methods of Data Collection and Data Analysis

Data will be collected according to the Litter in Biota protocol in “Guidance on Monitoring Marine Litter in European Sea” (Annexe 2.2), modified following the partner’s suggestions.

Data analysis will be performed after sampling activity, in agreement with WP2.

Activity 5 (F. Claro, CNRS, France)
Communication, dissemination and outreach



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I. Introduction

This activity aims to communicate about the INDICIT project and its outcomes 1) by providing technical tools for the implementation of a monitoring on debris impacts to the stakeholders potentially concerned within or outside the INDICIT programme for a better coherence in the monitoring approach and 2) by communicating about the project context, objectives and results towards a general audience in order to raise public awareness.

The activity comprises:

Task 5.1: Dissemination of the tools developed for the monitoring of litter impacts on sea turtles

The objective is to share all information about the programme between consortium partners, and to disseminate widely the tools and results widely to the stakeholders belonging to other countries, either included in the MSFD area or other RSCs (e.g., HELCOM) or not (e.g., Southern Mediterranean countries).

Task 5.2: Communication activities

The general aim is to raise awareness among the large audience about litter impacts on marine ecosystems.

II. Methodology

II.1 Working plan

The WP 5 Leader has introduced the tasks and deliverables of this activity to the participants and underlined the short deadlines for the deliverables of the reporting period 1 (tables 1 and 2).

The leader provided the list of the information/ items needed for D5.6, D5.8 and D5.10, to be received from the participants by email, or through the dedicated Google drive, before the 17th of February 2017 for D5.6, D5.8, and before the 6th of March 2017 for D5.10.

Table 5.1: working plan for Activity 5 (reporting period (RP) 1 in yellow)

INDICIT - Work Plan																										
Reporting period	RP1						RP2							RP3							RP4					
Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Activity 5: Communication, dissemination and outreach																										
Task 5.1																										
Task 5.2																										
Deliverables	D		D			D							D							D		D		D		

Table 5.2: deliverables for Activity 5

D5.1	Inception Report on Activity 5	MNHN	Month 1	15 February 2017
D5.2	Short progress Report 1 on Activity 5	MNHN	Month 6	31 July 2017
D5.3	Short progress Report 2 on Activity 5	MNHN	Month 13	28 February 2018
D5.4	Short progress Report 3 on Activity 5	MNHN	Month 20	30 September 2018
D5.5	Short progress Report 4 on Activity 5	MNHN	Month 24	31 January 2019
D5.6	Plan for dissemination	MNHN	Month 1	28 February 2017
D5.7	Final report on dissemination	MNHN	Month 24	31 January 2019
D5.8	Plan for communication	MNHN	Month 1	28 February 2017
D5.9	Final report on communication	MNHN	Month 24	31 January 2019
D5.10	Website + intranet	MNHN	Month 3	30 April 2017
D5.11	Tool kit for standardized monitoring of debris impacts on marine fauna	MNHN	Month 22	30 November 2018
D5.12	Dissemination meeting in Greece	MNHN	Month 22	30 November 2018

II.2. Methods of Data Collection and Analysis

The participants were requested:

- to send the list of the communication activities they plan to undertake during the project,
- to fill in the list of contacts to whom communication and dissemination should be addressed,
- to send the logos of their institution, a short abstract of less than 10 lines about the institution's skills and involvement in the project, as well as their website link, their portrait and professional page link, in order to present partners and teams on the INDICIT website,
- to send high resolution pictures which will illustrate the project activities and objectives on INDICIT tools and website.

The leader then described the timetable for the following RP1.

13th February 2017: dissemination of a provisional table of content for the plan of dissemination (PoD) and the plan of communication (PoC) to the partners, and request of information before the 17th of February.

20- 24th February 2017: the leader synthesizes the contributions, writes the draft of the PoD and of the PoC and disseminates them for comments by email and through Google drive on 24th of February to the participants.

The revised version of the PoD and of the PoC will be submitted to the WP leaders on 26th February for validation, then sent to the CO on February 27.

The first basis for building these plans were identified during the workshop, e.g., target groups, keywords for writing the messages dedicated to each target group, qualities required so that disseminate comprehensive messages and reach their respective audience.

The other tasks to be initiated during RP1 were discussed:

- MNHN will initiate the tender of sub-contractants to design the project 'svisual identity at the end of February 2017. Three logo proposals will be submitted for choice and modification requests, then the chosen logo will be revised, and disseminated with the graphic chart and templates to partners,
- ISPRA will provide a date for the documentary production in the following months and prepare the video-tutorial design in coordination with CNRS and MNHN.

The translation of tools was shortly discussed, confirming the participation of all the partners, the topic will be discussed in more details during next workshop in June 2017 in Roma.

The first conditions of the dissemination meeting organization (number of participants, capacity and availability of the meeting rooms in Athens...), planed in December 2018, was also discussed with the CO and HCMR representatives, so that HCMR can begin their work, ensure they choose the best location for the meeting and make the appropriate reservations.

Annexes

Annexe 1.1. Presentation of Activity 1 (C. Miaud)

Annexe 1.2. Overview of the programme (C. Miaud)

Annexe 1.3. Administrative, legal and financial aspects of the project implementation (C. Richard)

Annexe 2.1. Presentation of Activity 2 (G. Darmon & C. Miaud)

Annexe 2.2. Guidance on Monitoring of Marine Litter in European Seas (M. Matiddi)

Annexe 3.1. Presentation of Activity 3 (A. Liria-Loza)

Annexe 4.1 Presentation of Activity 4 (M. Matiddi)

Annexe 5.1. Presentation of Activity 5 (F. Claro)

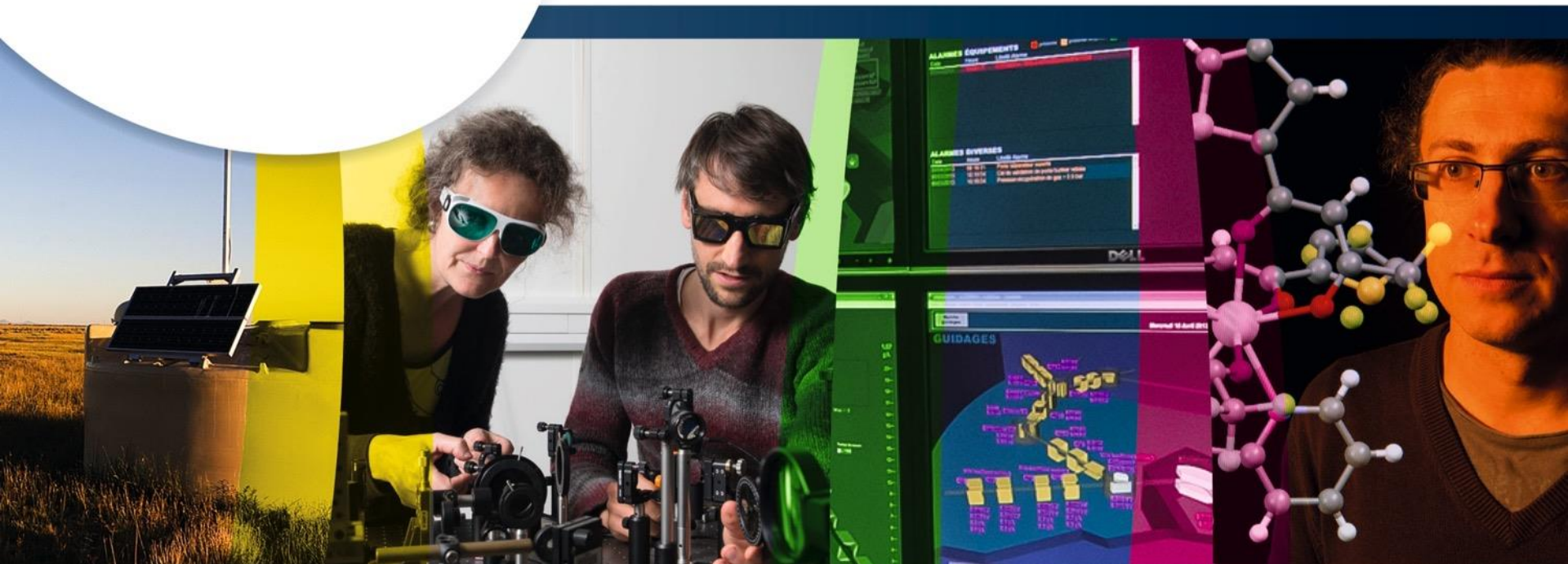
Annexe 6. Attendance sheet



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Activity 1: Management and coordination of the *action* (WP1)



General information & objective



Title: **Management and coordination of the action**

Leader: CNRS (C.Miaud & G.Darmon)

Participants: MNHN (F.Claro), ISPRA (M.Matiddi), CNR-IAMC (G.De Lucia), HCMR (E.Kaberi), UVEG (J.Tomas), ULPGC (A.Liria Loza), PAU-DEKAMER (Y.Kaska), FRCT (L.Paramio), INSTM (M.Bradaï)

General objective:

- Ensuring the **proper implementation & management** of the project with respect to its objectives, time frame and budget constraints
- Ensuring a **smooth communication** between the consortium members

2 main tasks:

- **Task 1.1: Technical coordination of the project** (Month 1- Month 24)
- **Task 1.2: Administrative, legal and financial management of the project** (Month 1- Month 24)



Task 1.1: Technical coordination



Objective: Ensuring an efficient technical coordination of the action

Under the responsibility of the **Coordinator** of the action (**Claude Miaud**)

- Will be assisted in his coordination role by **G.Darmon** (CNRS)
- Will chair the **Steering Committee** Meetings.

Steering Committee (StC): ultimate decision-making body

- 1 representative (i.e main scientist-in-charge)/participating organisation
- Each one of them enjoying voting rights
- In charge of **project supervision and management** and **decide over any strategic issue** (budget reallocation, IPR stakes, conflict resolution, gender consideration strategy etc.)

StC meetings will be held **every 6 months**

Any member should be present or represented at any meeting and shall participate in a cooperative manner.

The StC shall not deliberate and decide validly unless two-thirds (2/3) of its Members are present or represented (quorum).

Task 1.1: Technical coordination

Composition of the Steering Committee



www

Organisation	StC representative	Possible substitute	Voting rights
CNRS	C.Miaud	G.Darmon	Yes
MNHN	F.Claro	P.Haffner	Yes
ISPRA	M.Matiddi	C.Silvestri	Yes
CNR-IAMC	G.De Lucia	A.Camedda	Yes
HCMR	E.Kaberi	C.Tsangaris	Yes
UVEG	J.Tomas	Post-doc (?)	Yes
ULPGC	A.Liria Loza	R.Haroun Tabraue	Yes
PAU-DEKAMER	Y.Kaska	D.Sozbilen	Yes
FRCT	M.L Paramio Martin	F.Pinto	Yes
INSTM	M.N.Bradai	O.Chaieb	Yes

Task 1.1: Technical coordination

The **Coordinator** will also benefit from the help of the **Activity Leaders**: responsible for the coordination of the work to be carried out within their respective Activity (or WP)

Activity (WP)	Activity Leader
WP1	Claude MIAUD (CNRS)
WP2	Claude MIAUD (CNRS)
WP3	Ana LIRIA LOZA (ULPGC)
WP4	Marco MATIDDI (ISPRA)
WP5	Françoise CLARO (MNHN)

Activity Leaders' role:

- **Coordination** of the work in their WP
- Draft of an **Inception Report** for their WP at M1
- **Short progress reports every 6 months** (basis for the drafting of the Progress and Final reports to be provided to the EC)
- **Presentation of the progress achieved during the project meetings**

General Assembly: all the INDICIT participants (including Coordinator, Activity Leaders, other scientists from participating organisations, members of the External Advisory Board) constitute the INDICIT General Assembly

Task 1.1: Technical coordination

External Advisory Board: 11 relevant representatives of the RSCs and of Member State's national administrations and of relevant stakeholders.

Members:

- John MOUAT (OSPAR Commission)
- Stefanie WERNER (HELCOM Commission)
- Tatjana HEMA and Lobna BEN NAKHLA (Barcelona convention secretary)
- Oliviero MONTARANO (Italian Ministry of Environment)
- Isabelle TERRIER (French Ministry of Environment)
- Benjamin GUICHARD (French Marine Protected Areas)
- Marta PARDO DE VERA MARTINEZ-GIL (Min. of Agriculture, Food and Environment)
- Jesus GAGO (Spanish Institute of Oceanography)
- François GALGANI (IFREMER)
- Gilberto MP.CARREIRA/Filipe JMM. PORTEIRO (DRAM, Azores Government)

Role: Providing **advice and recommendations** that could help ensuring that the INDICIT outcomes are MSFD oriented and that respective national and regional cooperation processes will be able to benefit from and contribute to the action work.

Will be invited to the project meetings n°1 and 3



Task 1.1: Technical coordination

Project meetings: organised every 6 months on a rotational basis

They will systematically combine:

- **An meeting** including a **WP meeting** (presentation of the project progress and next steps by the **Activity Leaders** and discussion with the **General Assembly**) + a **Steering Committee meeting** chaired by the **Coordinator**
- **A Workshop:** parallel sessions on Activities 2,3,4,5 + discussions



Project meeting	Venue - Organizer	Tentative schedule	Content
Project meeting 1	Brussels (Belgium) – CNRS	9 & 10 February (2 days)	Kick-off meeting Workshop 1 + EAB
Project meeting 2	Roma (Italy) - ISPRA	July 2017 (2-3 days)	WP + StC meetings Workshop 2 Optional workshop (T2.2)
Project meeting 3	Montpellier (France) - CNRS	February 2018 (2 days)	WP + StC meetings Workshop 3 + EAB
Project meeting 4	Lisbon (Portugal) - ULPGC	September 2018 (2 days)	WP + StC meetings Workshop 4
Final meeting	Brussels (Belgium) - CNRS	January 2019 (1-2 days)	WP + StC meetings

Task 1.2: Administrative, legal and financial management



Objective: Ensuring an efficient administrative, legal and financial management of the action in accordance with the articles of the Grant Agreement and of the Consortium Agreement

Under the responsibility of the **Steering Committee**.

The StC shall rely on the **Project Management Team** (PMT) composed of the **Coordinator** (C.Miaud/G.Darmon) and all relevant administrative departments of the CNRS Regional Delegation Languedoc-Roussillon.

Every information/question regarding administrative, legal and financial management issues linked to the action shall be sent to the Coordinator (C.Miaud/G.Darmon): claudemiaud@cefe.cnrs.fr

The **Coordinator** is the **intermediary** between the beneficiaries and the EC.



Expected results



The expected deliverables of the Activity 1 are:

- A signed **Consortium Agreement** – Month 3 (**by 30 April 2017**)
- **Minutes of the project meetings** – Months 1,6,13,20, 24 (**February 2017, July 2017, February 2018, September 2018, January 2019**)
- **Inception report** – Month 1 (**28 February 2017**)
- **Progress reports** – Within 15 days from end of Month 6, 13 and 20 (**15 August 2017, 15 March 2018, 15 October 2018**)
- **Final report** – Within 60 days from end of action (**31 March 2019**)

Each deliverable must be submitted to the DG ENV at the planned delivery date.



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Implementation of the indicator “Impacts of marine litter on sea turtles and biota” in RSC and MSFD areas

Short title: Indicator Impact Turtles

- INDICIT 2017-2019 -



Programme concerned



DG ENV call for proposal “MSFD second cycle”:



Implementation of the Second Cycle of the Marine Strategy Framework Directive: achieving coherent, coordinated and consistent updates of the determinations of Good Environmental Status, initial assessments and environmental targets

Deadline 28 September 2016

Context of the call for proposal

The European Union's MSFD aims to achieve the protection of marine biodiversity and the sustainable use of the marine environment across Europe.

Objectives : Achieving Good Environmental Status (GES) of the EU's marine waters by 2020

Metrics:

11 qualitative descriptors

Descriptor 10 (D 10): Marine litter

Indicator 10.2.1 (10DC3): *Trends in the amount and composition of litter ingested by marine animals*

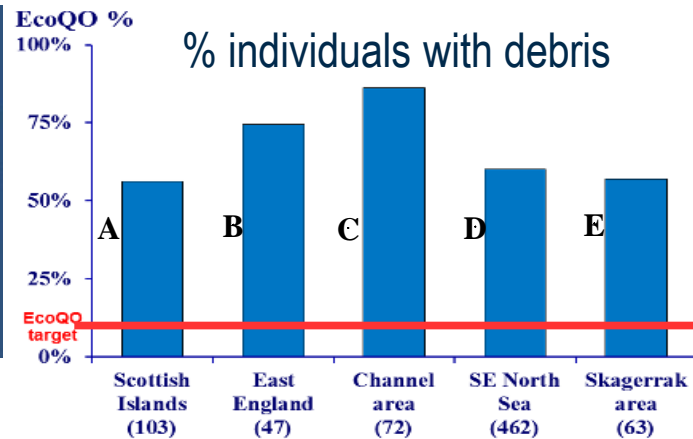
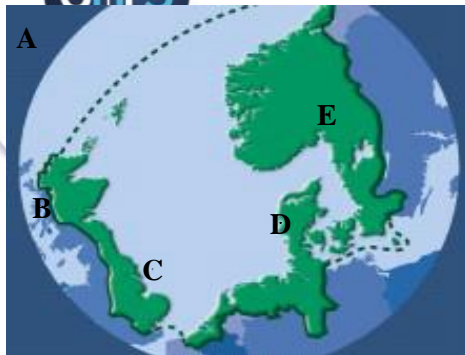
Criteria: *e.g. proportion of individuals with ingested debris, etc.*

GES will be achieved when “properties and quantities of marine litter do not cause harm to the coastal and marine environment”.

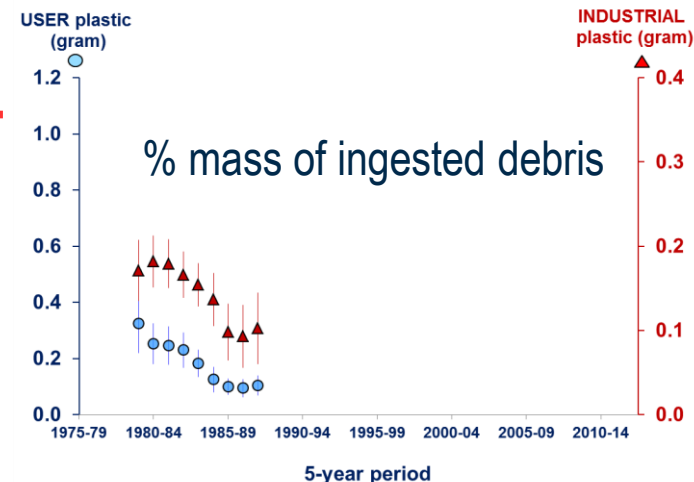


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OSPAR indicator: Plastic litter ingested by beach-washed fulmars (EcoQO = GES for MSFD)



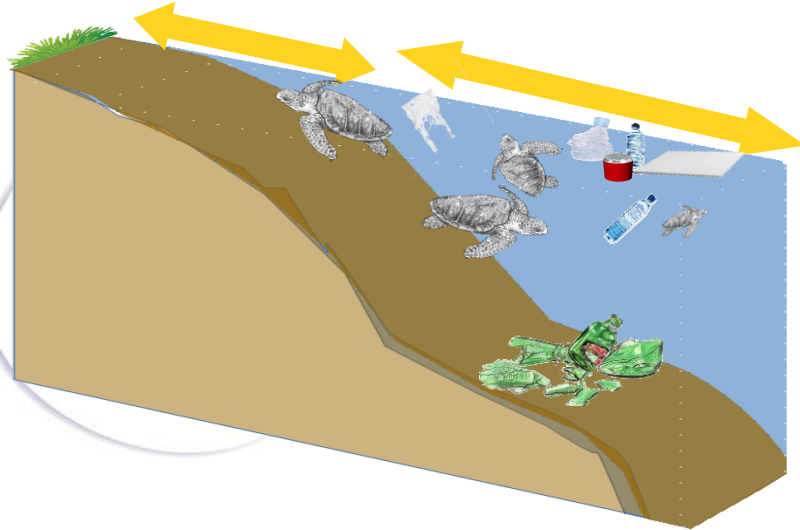
EcoQO: less than 10% of individual should have ingested more than 0,1 g of debris (N = 50-100) over a period of 5 years



Thanks to Jan van Franeker & 'Save the North Sea' group

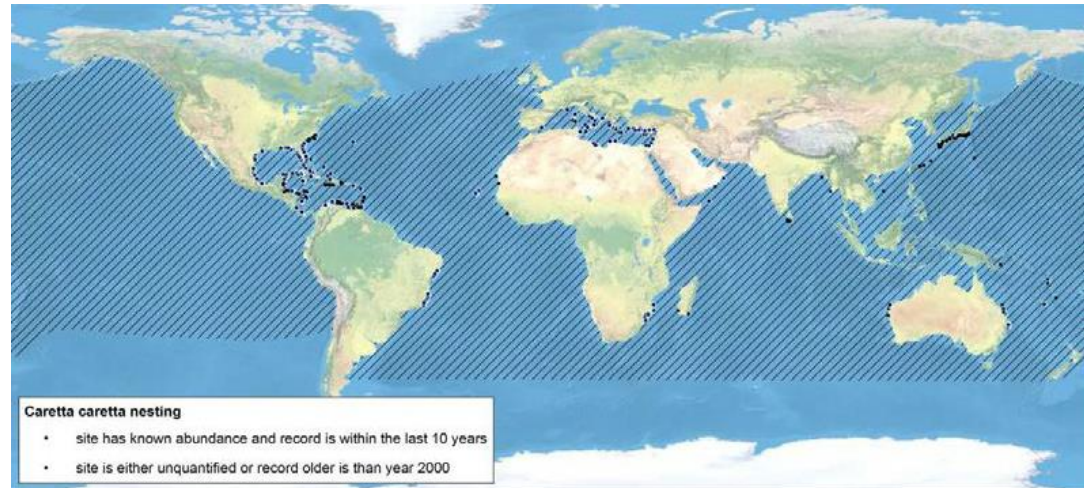
Sea turtle and marine litter

Exposed to plastic debris during their life cycle



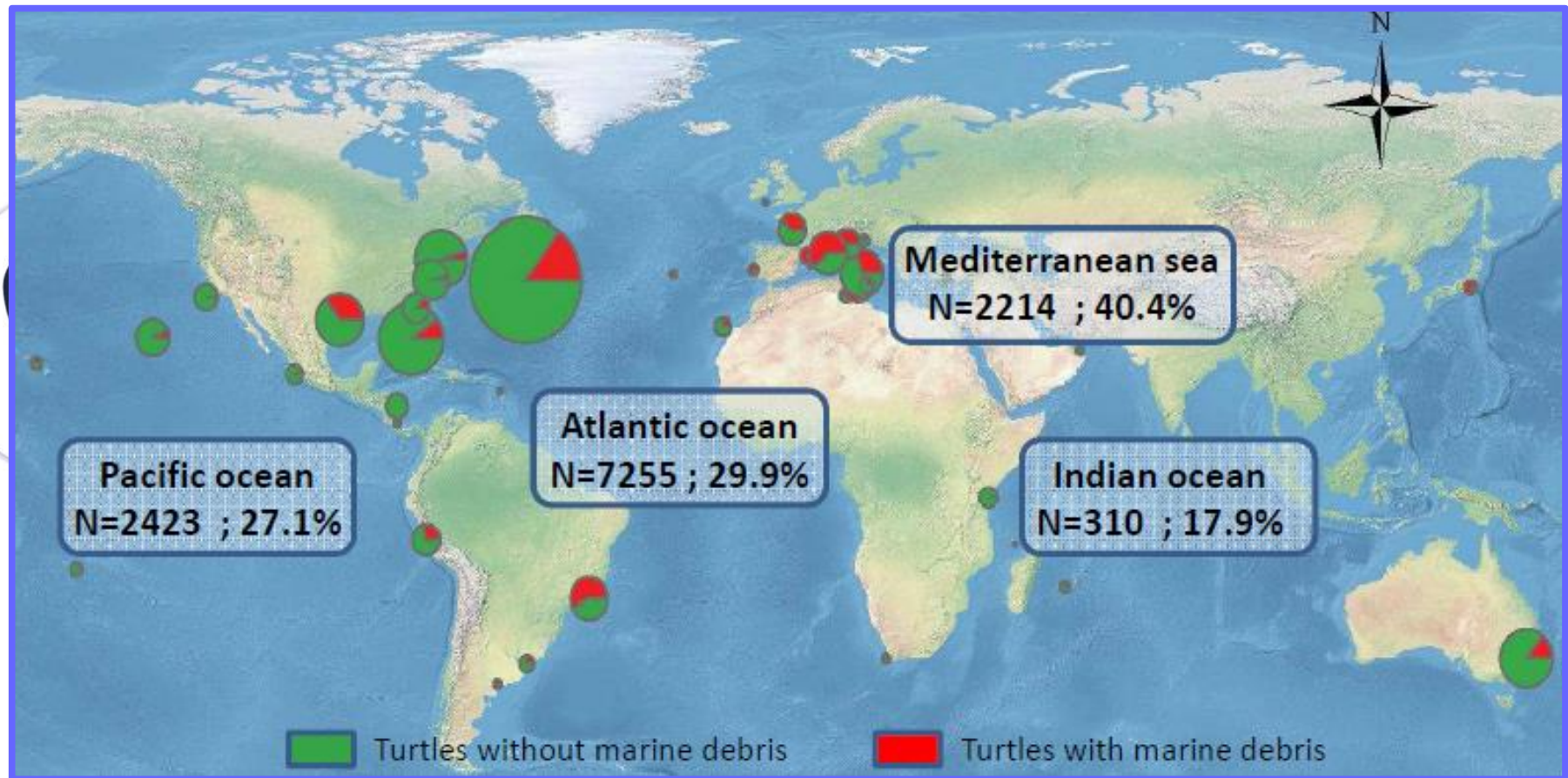
Propensity to ingest debris

Large distribution range



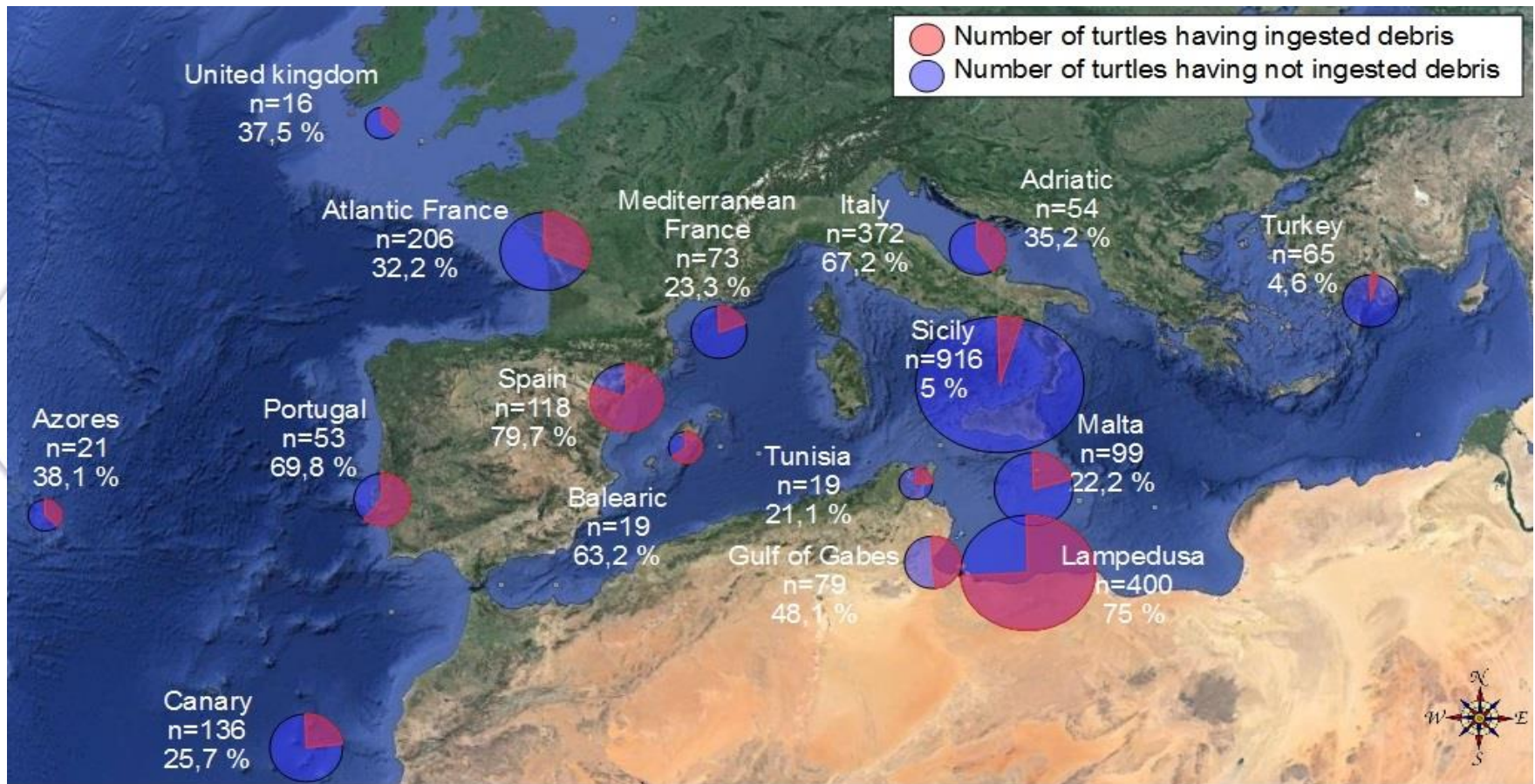
i.e. at least 3 good characteristics for an ecological indicator....

Sea turtle and marine litter



Dell'Amico & Gambaiani, 2013

Sea turtle and marine litter

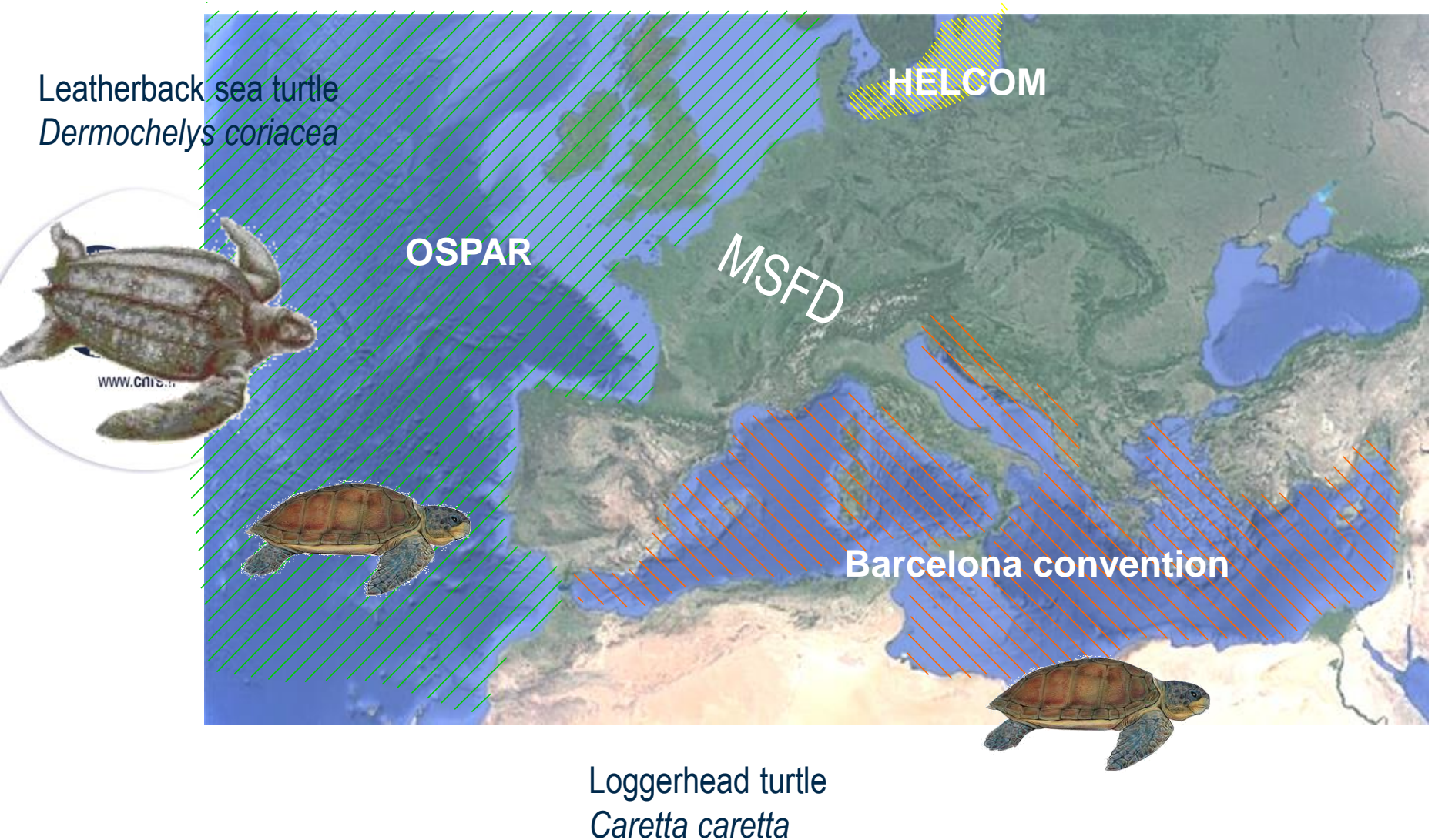


e.g. Dell' Amico & Gambaiani, 2013 ; Darmon *et al.*, 2014 ; Casale *et al.*, 2016

Low number of studies; methodological heterogeneity; % change with research effort

with debris (Red)
without debris (Blue)

Sea turtle and marine litter



Sea turtle and marine litter



Along the Atlantic and Mediterranean coast,

Research centers

Rescue centers

Stranding networks

NGOs

are collecting dead/alive (by catch) turtles

INDICIT 2017-2019

Scientific knowledge

MSFD Task Group on Marine Litter

GES Technical group on Marine litter

Inter sessional group Marine litter

UNEP/MAP/MEDPOL/Common group
on marine litter

Workshops on the development of MSFD

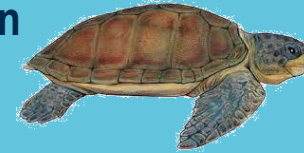
Indicator « debris ingestion by sea
turtles »

Large distribution

Litter exposure

Litter ingestion

Individual available for sampling



Marine macro-debris ingested by sea turtles
as an indicator for the monitoring of GES for D10

INDICIT: INDICator Impact Turtle

Implementation of the indicator “Impacts of marine litter on sea
turtles and biota” in RSC and MSFD areas (2017-2019)



INDICIT 2017-2019

INDICIT: INDICator Impact Turtle

Main topic :

Implement the indicator « **macro-debris** ingested by sea turtles » (D10C3) = **indicator 1** of the proposal

Additional topic:

- Feasability study on **entanglement** of marine biota in debris (D10C4) = **indicator 2** of the proposal
- Feasability study on **micro-debris** ingested by marine biota (D10C3) = **indicator 3** of the proposal



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ISPRA
Istituto Superiore per la Protezione
e la Ricerca Ambientale



Institut National Des Sciences
Et Technologies De La Mer



CNR-I.A.M.C.
National Research Council
Institute for Coastal Marine Environment



UNIVERSITAT
DE VALÈNCIA



UNIVERSIDAD DE LAS PALMAS
DE GRAN CANARIA



INDICIT Objectives

Main objective: the validation and implementation of the indicator «*Debris ingested by sea turtles*» at the RSC and MSFD levels

HOW?

1. By addressing the gaps in the definition of the criteria of 3 marine debris indicators (macro-debris, entanglement, micro-debris)
2. By providing/updating the initial assessment of GES indicator 10.2.1 (10DC3) “*Trends in the amount and composition of litter ingested by sea turtles*” and the methodological standard procedures for the use of this indicator;
3. By implementing the standardized procedures at the regional (e.g. within RSCs) and global MSFD legal requirements
4. By disseminating the design and tools outside the RSC regions

INDICIT structure



Activity 1 Management



Activity 2

Evaluation of the 3 indicators



Activity 3

Implementation of the D10 indicator
in the RSC OSPAR/Macaronesia



ISPRA

Istituto Superiore per la Protezione
e la Ricerca Ambientale

Activity 4

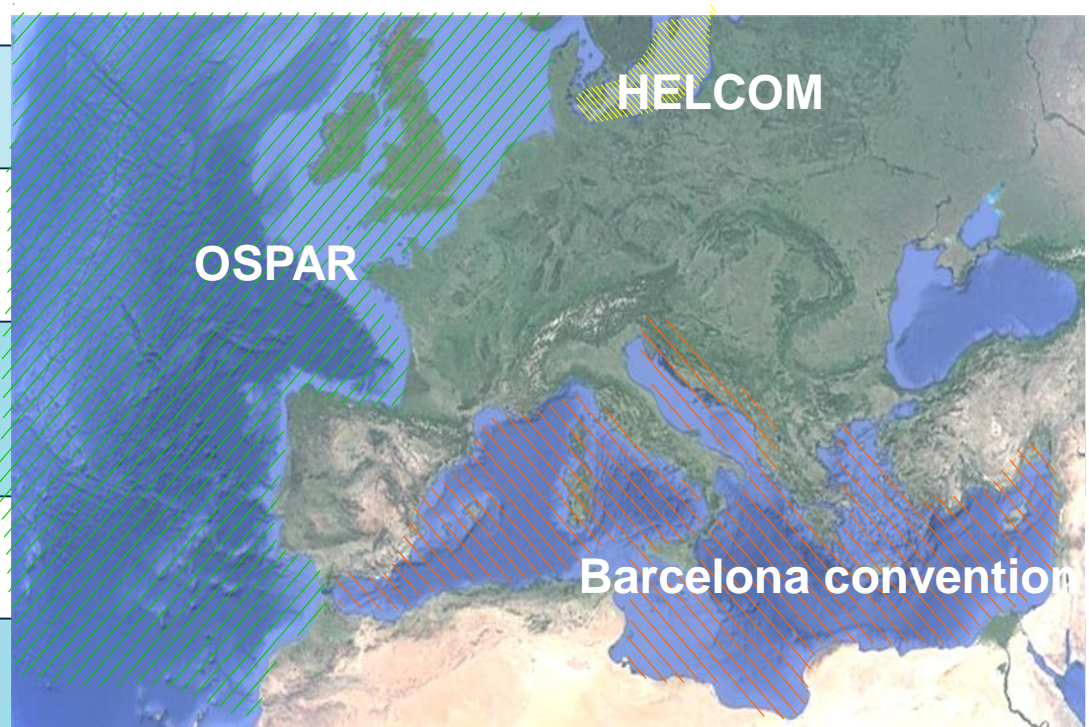
Implementation of the D10 indicator
in the RSC Barcelona/MedPol



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Activity 5

Dissemination / Communication
/ Outreach



Objective: definition of the criteria

Indicator 1: Macro-debris ingestion

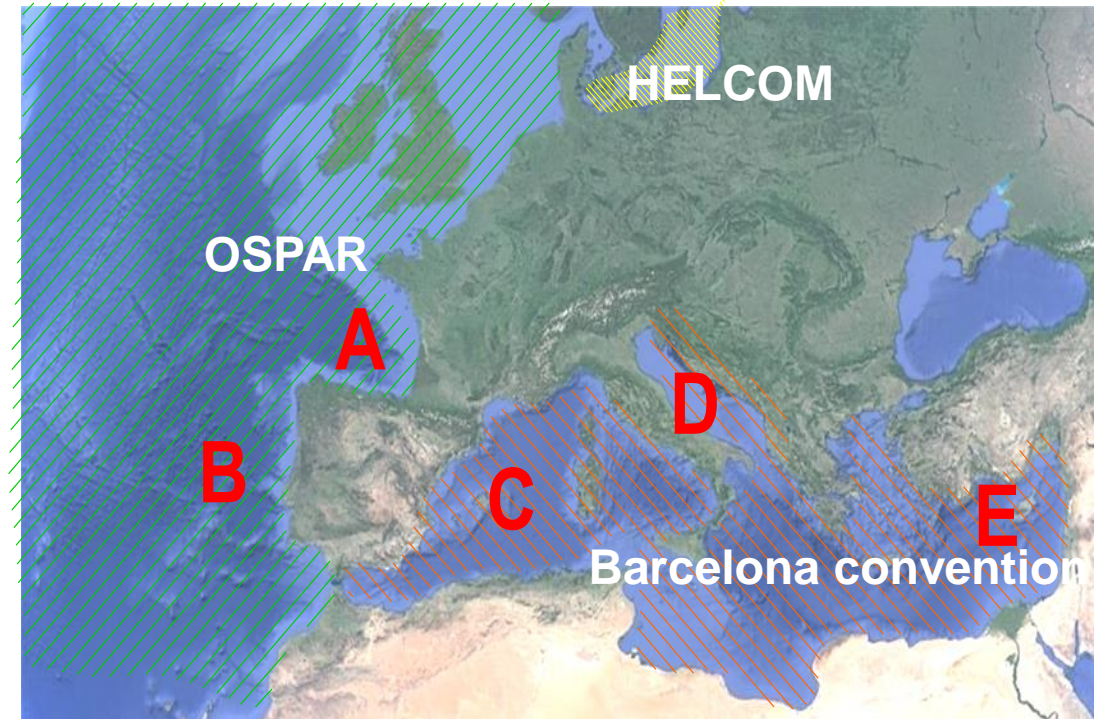
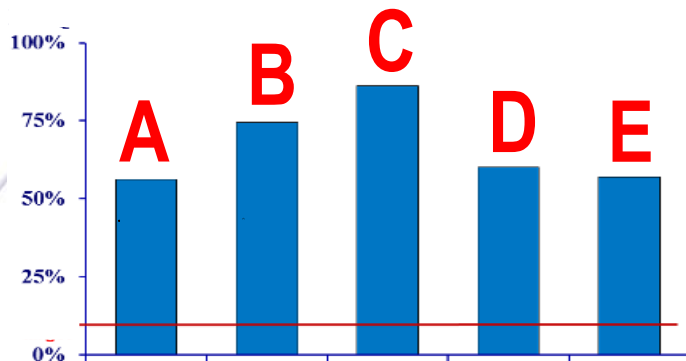
Which criteria?

- % individual / mass / etc.
- Biological constraints
- Spatial scale
- Temporal scale

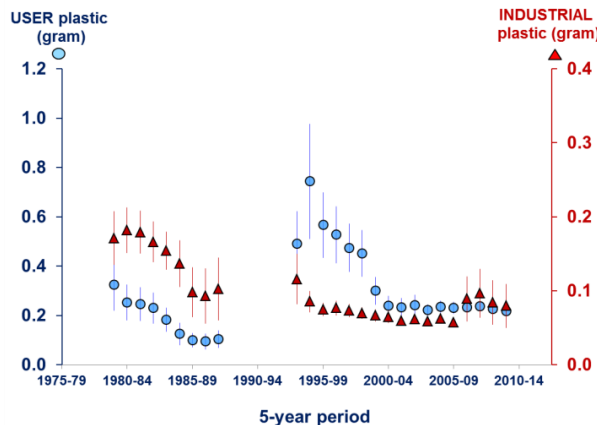


Objective: criteria validation

Which spatial scale ?



Which trends ?



GES proposal

How long to measure a trend?
How long to reach the GES?
Test in pilot areas

Methodology/Results



Acquiring and using scientific knowledge to develop the indicators of litter impact at the MSFD spatial scale

All partners

Acquiring phase

- State of the art on the biological constraints influencing the indicators' criteria
- Standardization of the monitoring of the criteria
- Building the common database for existing and newly collected data

Testing and modeling phase

- Updating and evaluation of the indicator' criteria
- Evaluation of the spatial scale of the indicator (eg region/subregions, ...)
- Evaluation of the temporal window effects (changes over 1 / 3 / 5 years, ...)

Transferring phase

- Effets of practical measures in pilot areas on the distance to target (GES)
- Selection of relevant pilot areas (litter accumulation/turtle abundance)
- Simulation of change in the indicator outputs

Expected result:

A relevant indicator “*Trends in the amount and composition of litter ingested by sea turtle*” with comprehensive assessment of the initial GES and environmental conditions to target it.

Objectives and results



Implementing the D10 indicator “Debris ingested by sea turtles” in:

- the RSC OSPAR/Macaronesia

The UNEP/MAP-EcAp process (Barcelona convention)

All partners

**Building
phase**

- Mobilisation of perennial networks for the collection of data on debris ingestion by sea turtles
- Local training on the standardized/validated protocols

Acquiring phase

- Sharing and transfer of already available data in the common data base
- Collection of new data (standardized/validated protocols)

Implementation phase

- Validation of the indicator criteria at the RCS scale
- Implementation of the GES (baseline or trend)
- Selection of pilot areas for indicator test (e.g. plastic pollution reduction).

Expected result :

A perennial and sustainable monitoring programme in each RCS for D10 indicator and potential future other indicators (entanglement/micro-debris)

Objectives and results



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Communication and outreach

- Dissemination of the INDICIT design to other RCS (HELCOM) and Southern Mediterranean countries (North Africa)
- Communication to the large audience

Expected result:

Use of improved methodologies (network building / data acquisition / modeling / monitoring) for other indicators and regions

Contribution to the awareness about litter impact and policy acceptability for the large audience



Many thanks to all participants for their investment in the application...and the ongoing programme!



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Administrative, legal and financial aspects of the project implementation



Table of content



- ✓ **THE ACTION – General information**
- ✓ **REPORTING**
- ✓ **BUDGET & PAYMENTS**
- ✓ **FINANCIAL MANAGEMENT – Avoiding the most common errors**
- ✓ **RIGHTS & OBLIGATIONS**



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THE ACTION



General information – The *Action*



Grant Agreement n°11.0661/2016/748064/SUB/ENV.C2

Between the **European Union, CNRS and the 9 other beneficiaries**: MNHN, ISPRA, CNR-IAMC, HCMR, UVEG, ULPGC, PAU-DEKAMER, FRCT, INSTM (mandates = Annex IV to the GA)

2 affiliated entities: EPHE (affiliated to CNRS) & FCPCT (affiliated to ULPGC)

Project title: Implementation of the indicator 'Impacts of marine litter on sea turtles and biota' in RSC and MSFD areas = **Action (Annex I to the GA)**

Short title: **Indicator Impact Turtles**

Acronym: INDICIT

Duration: **24 months** from **01/02/2017** to **31/01/2019**

Estimated eligible costs: **EUR 1,327,739**

Maximum EU contribution: **EUR 999,575 (75,28% of the eligible costs of the Action)**





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REPORTING



Reporting Periods (art.I.4.1)



- ⦿ **Inception Report:** to be submitted by **28/02/2017** (M1)

Must specify the proposed methodology for the tasks of the project

- ⦿ **Reporting Period 1:** from 01/02/2017 to 31/07/2017 (M1 to M6)

- **Progress report** : advanced draft of tasks performed + preliminary conclusions (5 pages)

To be submitted by **15/08/2017** (within 15 days by end of RP)

- **Financial report:** statement on the use of the pre-financing instalment used to cover costs of the action (Annex VI of the GA)

To be submitted by **30/09/2017** (within 60 days by end of RP) with a progress report

- ⦿ **Reporting Period 2:** from 01/08/2017 to 28/02/2018 (M7 to M13)

- **Progress report:** by **15/03/2018**

- **Intermediary Financial Report:** by **30/04/2018**



Reporting Periods (art.I.4.1)



- ⦿ **Reporting Period 3:** from 01/03/2018 to 30/09/2018 (M14 to M20)
 - **Progress report:** by **15/10/2018**
 - **Intermediary Financial Report:** by **30/11/2018**

- ⦿ **Last Reporting Period:** from 01/02/2017 to 31/01/2019 (M1 to M24)
 - **Final report:** executed tasks and results during the implementation of the project (all specific products and deliverables produced + executive summary of max 6 pages)
 - A **presentation** summarising in a pedagogic way the main results (max 20 slides)
 - **Final consolidated Financial Statements:** consolidated statement + breakdown of costs declared or requested by each beneficiary and its affiliated entities + receipts (Annex VI)
 - **Certificate on the financial statements:** if cumulative request > 325 000€ (Annex VII)

To be submitted by **31/03/2019** (within 60 days from end of project)



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BUDGET & PAYMENTS



Budget



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BUDGET OF THE ACTION

Part A: Eligible cost categories	Rate %	€	Part B: Financing Plan	€	% of eligible costs
Personnel		770 097	Requested EC contribution	999 575	75,28%
Travel and subsistence		152 788	Contribution of the Coordinating Beneficiary	79 905	6,02%
Equipment		1 750	Contribution of the Associated Beneficiary/ies	248 259	18,70%
Sub-contracting / External assistance		272 553	Other sources of funding	0	0,00%
Other direct costs		43 690	Expected direct revenues	0	
Total direct eligible costs		1 240 877			
Indirect costs / overheads	7,00%	86 861			
TOTAL ELIGIBLE COSTS		1 327 739	TOTAL	1 327 739	

Maximum EU contribution: **EUR 999,575 (75,28% of the eligible costs of the Action)**

Total beneficiaries' own contribution: **EUR 328,164 (24,72% of the eligible costs of the Action)**

Breakdown per beneficiary



Coordinating beneficiary's contribution					
Country	Beneficiary short name	Total costs of the actions in € (including overheads)	Coordinating Beneficiary's own contribution in €	Amount of EC contribution requested in €	Funding rate
France	CNRS - Partner 1	336 682	79905	256 777	76,27%
Associated Beneficiaries' contribution					
Country	Beneficiary short name	Total costs of the actions in € (including overheads)	Associated Beneficiary's own contribution in €	Amount of EC contribution requested in €	Funding rate
France	MNHN - Partner 2	108 008	41616	66392	61,47%
Italy	ISPRA - Partner 3	152 293	30458	121835	80,00%
Italy	CNR-IAMC - Partner 4	114 179	22839	91340	80,00%
Greece	HCMR - Partner 5	104 663	20933	83730	80,00%
Spain	UVEG - Partner 6	114 213	24000	90213	78,99%
Spain	ULPGC - Partner 7	181 917	64516	117401	64,54%
Turkey	PAU-DEKAMER Partner 8	49 967	10500	39467	78,99%
Portugal	FRCT - Partner 9	116 228	23403	92825	79,86%
Tunisia	INSTM - Partner 10	49 589	9994	39595	79,85%
TOTAL			248 259	742798	
Affiliated Entities' costs					
Country	Affiliated Entity short name	Beneficiary to whom the entity is affiliated	Description of the costs items of the affiliated entity	Total costs of the actions in €	Amount of EC contribution requested in €
France	EPHE	CNRS	Personnel costs (C.Miaud)	79905	0
Spain	FCPCT	ULPGC	Not applicable	0	0
TOTAL				79 905	0

 The amounts of EC contribution are all **MAXIMUM INDICATIVE amounts**. The final exact EC contribution will depend on the costs really incurred and declared in the Financial Statements submitted to the EC at end of each reporting period.



Breakdown per activities

Action Number	Name of action	Personnel	Travel and subsistence	Equipment	Sub-contracting	Other direct costs	Total €
1	Management and coordination of the project	163 907	85 346	0	21 300	2 000	272 553
2	Acquiring and using scientific knowledge to develop the indicators of litter impact at the (sub)regional and the whole MSFD spatial scale	184 778	8 200	0	31 127	7 000	231 105
3	Implementation of the indicator of litter ingestion in the RSC OSPAR/Macaronesia	85 945	8 066	0	62 626	15 050	171 687
4	Implementation of the indicator of litter ingestion in UNEP/MAP –EcAp process (Barcelona Convention)	219 141	12 158	1 750	129 000	14 340	376 389
5	Communication, dissemination and outreach	116 325	39 018	0	28 500	5 300	189 143
	TOTAL DIRECT ELIGIBLE COSTS	770 096	152 788	1 750	272 553	43 690	1 240 877
	TOTAL ELIGIBLE COSTS				Overheads	86861	1 327 738



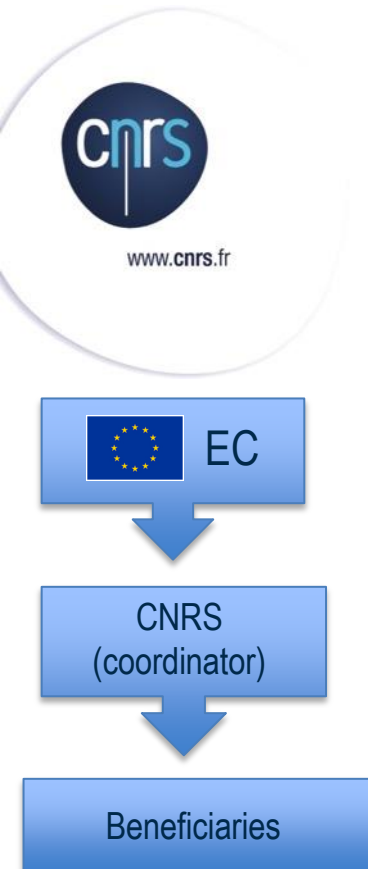
Budget transfers between budget categories (Personnel, Travel & subsistence, Equipment, Sub-contracting, Other direct costs) **are limited to 10% of the amount of each budget category** for which the transfer is intended and without exceeding the total eligible costs provided that this doesn't affect the implementation of the action

Payments – art.I.5



The EC must make the following payment to the coordinator:

- ⦿ A **first pre-financing payment** by **02/03/2017** : EUR 299.872,50 (30%)
- ⦿ A **second pre-financing payment**: EUR 299.872,50 (30%)
 - On the basis of the request for the pre-financing payment (to be done within 60 days following the end of RP1 = by **30/09/2017**) including progress report + financial statement
 - Paid by the EC from 60 days following receipt of request (**30/11/2017**)
 - ⚠ If less than 70% of the first pre-financing payment has been used, the amount of the second pre-financing payment must be reduced by the difference between the 70% ceiling and the amount used
- ⦿ A **payment of the balance**: reimburses the remaining part of the eligible costs incurred by the beneficiaries for the implementation of the action within 90 days from when it receives the final technical and financial reports (to be submitted by **31/03/2019**) = max **30/06/2019**



Currency for requests for payment and financial statements



Art. I.4.6 of the Grant Agreement

- Request for payment and financial statements must be drafted in euros
- Beneficiaries and affiliated entities with general accounts in a currency other than the euro must convert cost incurred in another currency into euros
- Conversion rate = average of the daily exchange rates published in the C series of the Official Journal of the European Union, determined over the corresponding reporting period (available at http://www.ecb.europa.eu/stats/policy_and_exchange_rates/euro_reference_exchange_rates/html/index.en.html)
- Beneficiaries and affiliated entities with general accounts in euros must convert costs incurred in another currency into euros in accordance with their usual accounting practices.



The EC must make **payments in euros** (art. I.5.7)

Checks, audits and evaluations (art.II.27)



- ◉ The EC may, during the implementation of the action or afterwards, carry out **technical and financial checks and audits** to determine that the beneficiaries are implementing the action properly and are complying with the obligations under the Agreement.
- ◉ In addition, the EC may carry out an **interim or final evaluation of the impact of the *action***, measured against the objective of the Union programme concerned
- ◉ Such checks, audits and evaluations may be initiated **during the project** and **up to 5 years** starting from the date of the payment of the balance.
- ◉ Effects of audit findings: the EC may take the measures it considers necessary, including recovery at the time of the payment of the balance or after payment of the balance of all or part of the payments made



The beneficiaries are **jointly and severally liable for repaying any debt** under the Agreement ***up to the maximum amount of the grant*** (Art.I.11)



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FINANCIAL MANAGEMENT



Financial management in 3 points



1. Constantly **REFER to the Grant Agreement** (core text and other annexes) notably:
 - Core text
 - Annex II – Part B (financial provisions)
 - **Annex III – Budget**
2. **Gaëlle DARMON & Claude MIAUD** shall be your main interlocutors as regards these issues and the only contacts of the EC services.
3. Get in touch as much as possible with **your respective administration**.

Eligibility of costs

Eligible costs of the action are costs actually incurred by the beneficiary and which meet the following criteria:

- They are incurred within the **implementation period (01/02/17 – 31/01/19)**
- They are **indicated in the estimated budget** of the action = **Annex III**
- They are **incurred in connection with the action** = **Annex I**, and necessary
- They are **identifiable and verifiable**: in particular they are recorded in the beneficiary's accounting records and determined according to the applicable accounting standards of the country where the beneficiary is established and according to the beneficiary's usual cost accounting practices;
- They **comply with the requirements of applicable tax and social legislation**
- They are **reasonable, justified** and comply with the principle of sound financial management (economy and efficiency)



 For actual costs declared keep adequate **supporting documents** (contracts, invoices, accounting records)

Avoiding the most common errors - 1

1. Costs claimed not linked to the project

- ⦿ All costs claimed should be based on the actual costs incurred:
 - They must be **planned in Annex III** (Budget)
 - They must be supported by **proper documentation** (invoices, contracts, etc. mentioning the acronym of the project)
 - They must be **clearly linked to the project** (e.g. for travels purposes, the person name shall appear in the agenda of the colloquium as speaker and the subject of the colloquium shall be coherent with the project objectives).
 - They should be **neither budgeted nor estimated** amounts !



Avoiding the most common errors - 2

2. Personnel costs

Personnel costs planned are detailed by beneficiary and by WP in **Annex III**

Personnel costs declared must be **coherent with** :

- The **salary** (including all taxes) paid to the person
- The **working time** dedicated to the project



It is necessary to **establish time sheets** detailing each month the time (number of hours) dedicated to INDICIT:

- Hours charged must be listed **by activities** (WP1-5)
- Time-sheets must be **signed and approved** by the person concerned.

The acronym (INDICIT) should appear on the **employment contract** of all temporary staff recruited for the project needs,



Avoiding the most common errors - 3

3 – Travel and subsistence



The per diems must not exceed the scales defined by EC:
http://ec.europa.eu/europeaid/work/procedures/implementation/per_diems/index_en.htm + comply with your administration rules



- Travel and subsistence costs planned are detailed by beneficiary and by WP in **Annex III**
 - 5 projects combined meetings
 - Final dissemination meeting (Greece)
 - Participation to international conferences
 - Data collection/meetings with stakeholders/video shoots
- Time spent in travel should appear on **time sheets**
- Travel and subsistence costs of the **staff involved and planned** in the project ONLY are eligible
- They must be supported by **proper documentation** (e.g invoices, invitation, agenda, participation certificate...)

Avoiding the most common errors - 4

3. Equipment / Depreciation

Do not charge the full cost of equipment at acquisition but:

- **Depreciate** durable equipment over its useful life (as defined according to your organisation accounting rules);
- **Spread the cost** over the duration of the project;
- **Do not charge any residual values.**

ISPRA is the only partner concerned with equipment costs for a transport refrigerator and a complete system for vacuum pump:

- Depreciation rate = **35%** (Annex III)
- Eligible costs = EUR 1750
- Make sure to be able to prove that over the project duration, this equipment does not serve to any other purposes.
- (Buy and) install it as soon as possible in order to be allowed to claim its depreciation costs over the project life (24 months).



Avoiding the most common errors - 5

5. Costs of consumables/supplies (art.II.10)

- **Costs detailed** by beneficiary and by WP in **Annex III**
- **Supplier/procedure** described in **Annex III**
- Award the contract to the **tender offering the best value for money** or, as appropriate, **to the tender offering the lowest price** (avoid conflict of interests) → if not, costs considered ineligible
- Ensure that your contractors can be audited by EC and OLAF
- Comply with **applicable national public procurement rules**
- The beneficiary remain **solely responsible** for carrying out the action and for compliance with the agreement
- Keep all **supporting documents** (estimates, invoices, contracts, accounting records)



Avoiding the most common errors - 6

6. Subcontracting / External Assistance

- **Same conditions** than for costs of consumables/supplies (**art.II.10**)
- Specific conditions for subcontracting:
 - **Doesn't cover core tasks of the action;**
 - Recourse **justified** because of nature of the action and what is necessary for its implementation
 - **Estimated costs clearly identifiable in Annex III**
 - Any recourse to subcontracting if not provided for in Annex I is communicated by the coordinator and **approved by the EC**
 - Ensure that the conditions applicable to the beneficiaries under art.II.8 (**visibility of EU funding**) are applicable to the subcontractor



Keep adequate
**supporting
documents** +
Comply with your
administration
internal rules

Avoiding the most common errors - 7

7. Eligible indirect costs / Overheads – art. II.19.3

Declared on the basis of a **flat rate of 7% of the eligible costs** ('reimbursement of flat-rate costs')

If you declare less than the eligible costs estimated in Annex III, your eligible indirect costs will be lower than the indirect costs estimated in Annex III.

8. Value-Added Tax (VAT) – art. II.19.4

Deductible VAT is **ineligible** !

Ensure that VAT is **always excluded from all cost claims**.





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RIGHTS & OBLIGATIONS



General obligations and role of beneficiaries



Art.II.2.1 - The beneficiaries:

- Are **jointly and severally liable for carrying out the action** in accordance with the Grant Agreement
- Must **comply jointly or individually with any legal obligations** they are bound by under applicable EU, international and national law
- Must **make appropriate internal arrangements** to implement the action properly

→ A **Consortium Agreement** will be signed **between the beneficiaries** (art.I.10)

Purpose: **specify**, with respect to the Project, **the relationship among the parties** in particular concerning: the **organization** of the work, the **management** of the project and the **rights and obligations** of the Parties concerning **Liability, Access Rights, and Dispute resolution**.

General obligations and role of each beneficiary



Art.II.2.2 - Each beneficiary must:



- **Inform the coordinator** immediately of:
 - Any events or circumstances of which the beneficiary is aware, and that are likely to affect or delay the implementation of the action
 - Any change in its legal, financial, technical, organisational or ownership situation and any change in its name, address or legal representative (idem for their affiliated entities)
- **Submit in due time to the coordinator:**
 - The **data needed to draw up the reports & financial statements** (including supporting documents)
 - All the **necessary documents** required for audits, checks or evaluations
 - Any **other information** to be provided to the EC under the Agreement



General obligations and role of the coordinator



Art.II.2.3 – The coordinator (CNRS):

- Must **monitor the implementation of the action** in order to make sure that the action is implemented in accordance with the terms of the Agreement;
-  **Is the intermediary for all communication between the beneficiaries and the EC :**
 - Must immediately inform the EC of:
 - Any change in the name, address, legal representative of any of the beneficiaries/affiliated entities
 - Any change in the legal, financial, technical, organisational or ownership situation of the beneficiaries/affiliated entities
 - Any events or circumstances of which it is aware that are likely to affect or delay the implementation of the action
 - Is responsible for supplying the EC with all document and information required (if it is required from other beneficiaries, it must obtain and verify this information before passing it to the EC)
-  **Must draw up the requests for payment**
- **Must ensure that all appropriate payments are made to the other beneficiaries** without unjustified delay
- **Is responsible for providing all the necessary documents required for checks and audits** initiated before the payment of the balance or **documents required for evaluations**

Any amendment to the GA must be submitted by the coordinator

Visibility of EU funding – Art.11.8



Any communication or publication made by the beneficiary jointly or individually that relates to the action, including at conferences, seminars or in any information or promotional materials (brochures, leaflets, posters, presentations, in electronic form, etc.), must:

- **Indicate that the action has received funding from the Union;** and
- **Display the EU emblem :** When displayed in association with another logo, the EU emblem must have appropriate prominence.

Examples:

« This action has received funding from the European Union under grant agreement No 11,0661/2016/748064/SUB/ENV.C2.»

«The research leading to these results has received funding from the European under grant agreement No 11,0661/2016/748064/SUB/ENV.C2»

Any communication or publication in any form and using any means must indicate:

- That it **reflects only the author's view;** and
- That **the Commission is not responsible for any use that may be made of the information it contains.**

Results – Art.II.9



Ownership of the results: The beneficiaries **retain ownership of the results of the action**, including industrial and intellectual property rights, and of the reports and other documents relating to it, unless stipulated otherwise in the Agreement

→ To be further specified in the Consortium Agreement

Pre-existing rights: Upon EC request specifying which of the results it intends to use, the beneficiaries must:

- Establish a **list of all *pre-existing rights* included in those results**
- **Provide this list to the EC** at the latest with the request for payment of the balance

The beneficiaries must ensure that they or their affiliated entities have all the rights to use any *pre-existing rights* during the implementation of the agreement.

Results – Art.II.9



Rights of use of the results and of pre-existing rights by the Union

The **beneficiaries grant the UE the following rights to use the results** of the *action*:

- For its own purposes (available to staff, copy and reproduction)
- Reproduction
- Communication to the public
- Distribution to the public
- Adaptation: right to modify the results
- Translation
- Right to store and archive the results

Beneficiaries must ensure that the Union has the right to use any *pre-existing rights* included in the results of the *action*.

Information about the copyright owner must be inserted by the EU in cases where the result is divulged by the EU.





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Thank you for your attention!

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INDICIT

"Implementation of the indicator of marine litter on sea turtles and biota in RSC and MSFD areas" (INDICator Impact Turtle)



Activity 2

Acquiring and using scientific knowledge to develop the indicators of litter impact at the (sub)regional and the whole MSFD spatial scale



Participants



CENTRE D'ÉCOLOGIE,
FONCTIONNELLE
& ÉVOLUTIVE

- Leader: CNRS (France)

MNHN (France), HCMR (Greece), ISPRA (Italy), CNR-IAMC (Italy), FRCT (Portugal), UVEG (Spain), ULPGC (Spain), PAU-DEKAMER (Turkey), INSTM (Tunisia)

(Other countries may be involved if possible and necessary)



MUSÉUM
NATIONAL D'HISTOIRE NATURELLE



ISPRA

Istituto Superiore per la Protezione
e la Ricerca Ambientale



CNR-I.A.M.C.
National Research Council
Institute for Coastal Marine Environment



UNIVERSIDAD DE LAS PALMAS
DE GRAN CANARIA



Institut National Des Sciences
Et Technologies De La Mer

- Measure marine debris impact on fauna
- How practical measures of debris reduction can be monitored
- Standardised monitoring to compare (sub)regions

Indicator 1 Macro-debris ingestion by sea turtles D10C3

Evaluate indicators of other debris impacts :

- **Indicator 2** Entanglement with debris D10C4
- **Indicator 3** Micro-debris ingestion D10C3

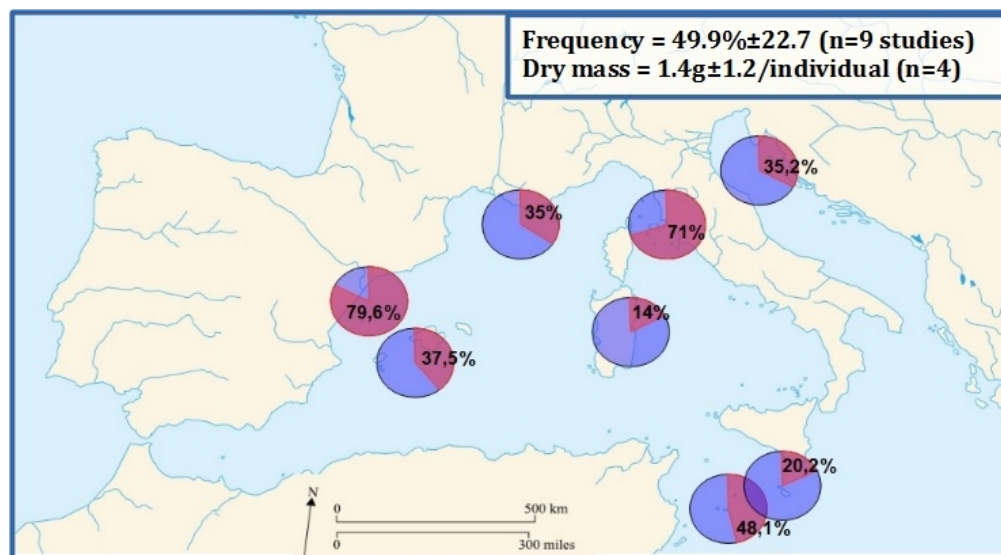


Indicator 1 Macro-debris ingestion by sea turtles

Several gaps of knowledge highlighted

Difficulty to compare (sub)regions due to poor and heterogeneous data

Questions regarding the Indicator's criteria : Are there bias sources ? Should biological constraints be considered (i.e. individual size, health status) ?



Reach a greater coherence and Specify indicator's criteria



Standardize procedures : Collect data from
standardized, pertinent and easy-to-use protocols
(Methodological standards)



Collect large data sets on presence and quantities of
ingested debris / individual



Consider biotic and abiotic characteristics
regions/sub-regions



=> Propose tools kit

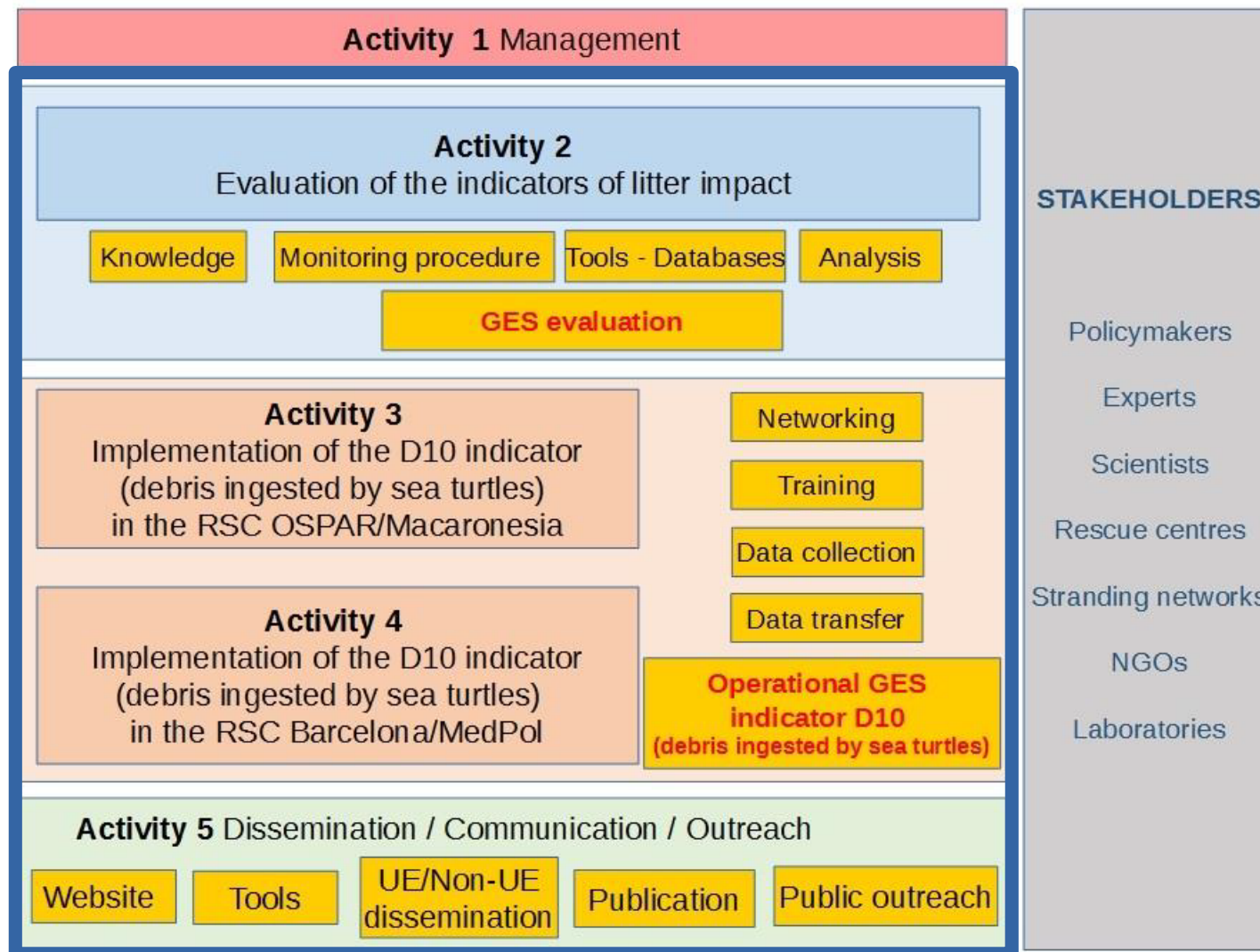


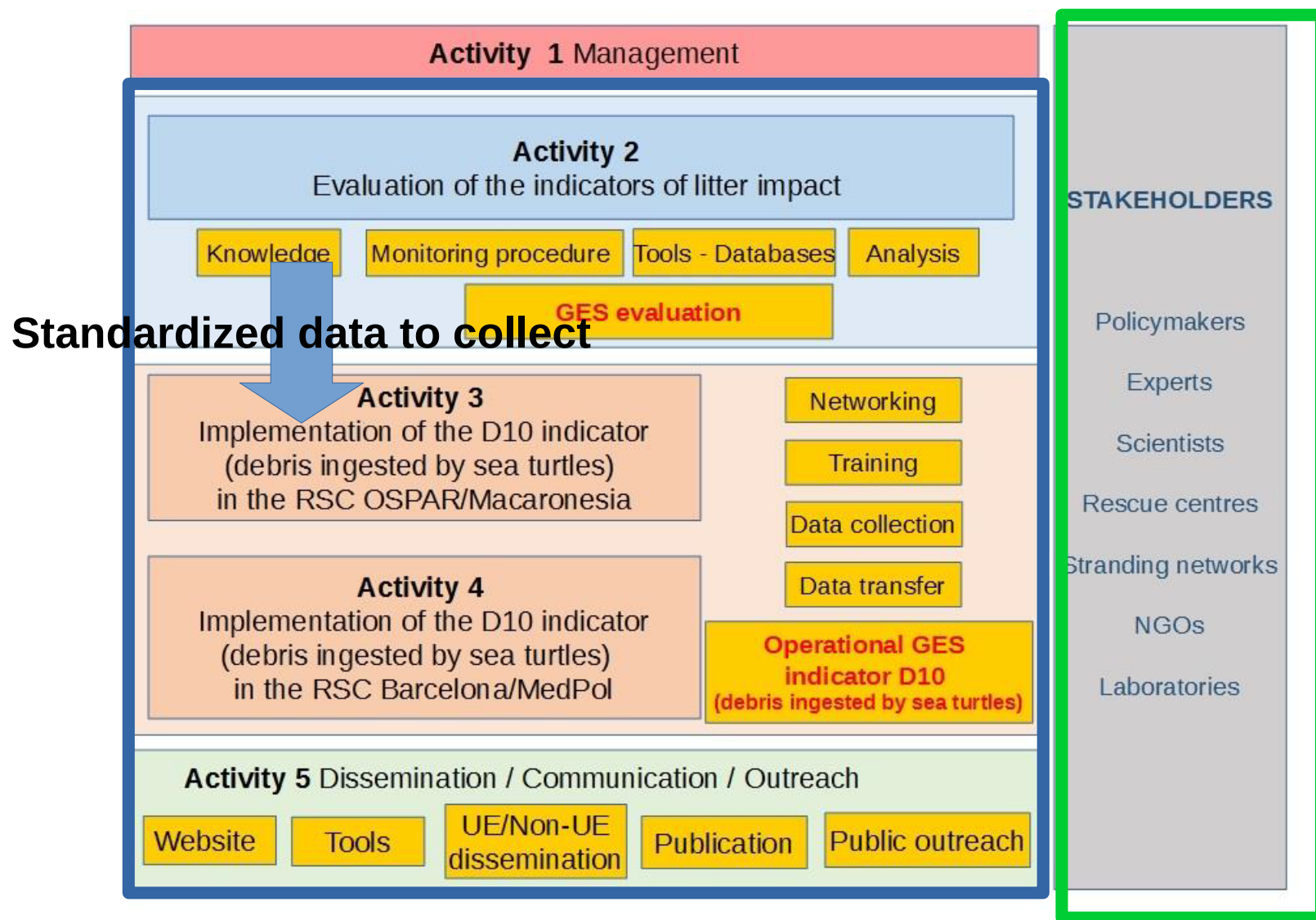
Define indicator's criteria and GES

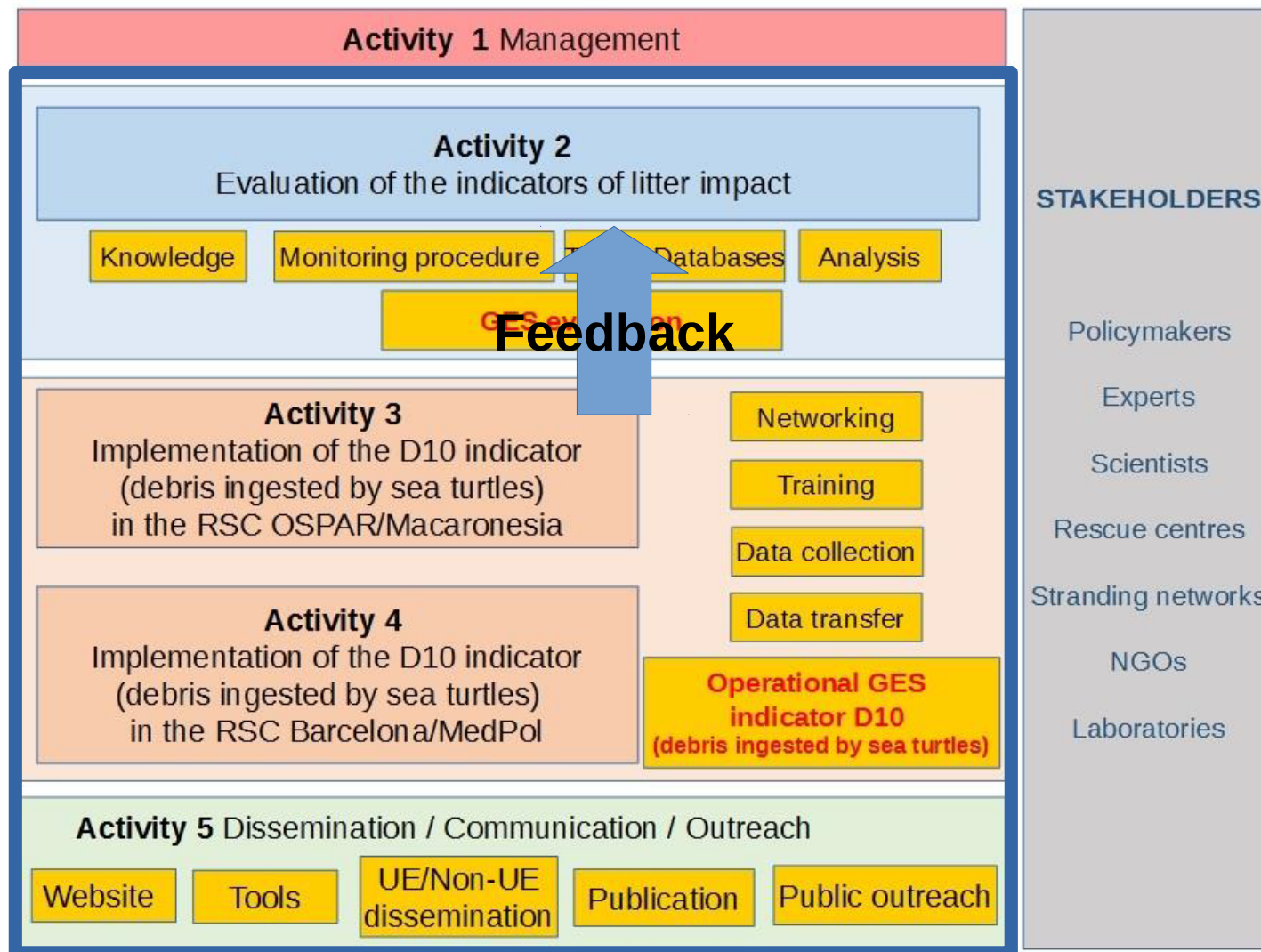
Indicator criteria :

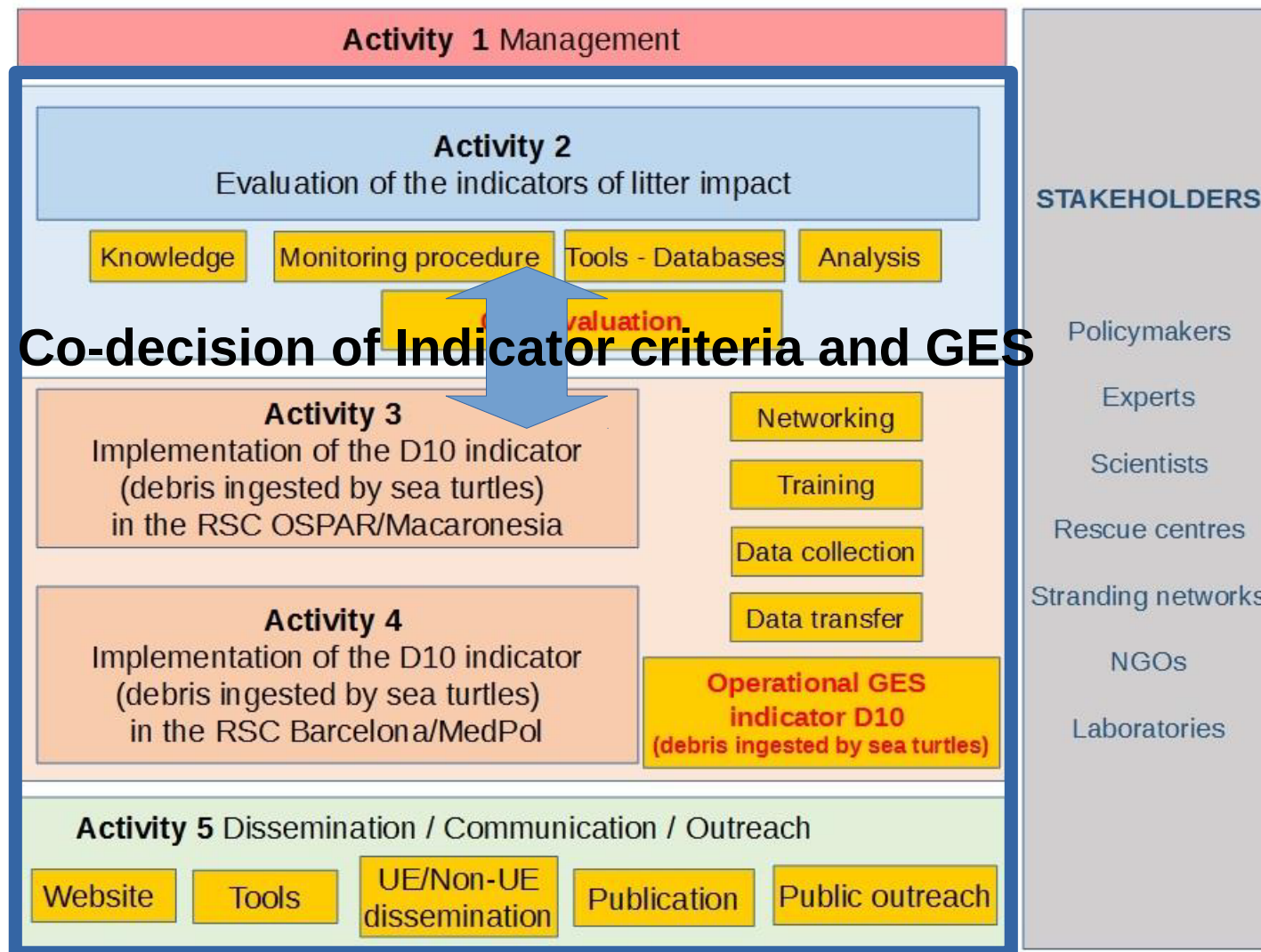
- (i) sample size (i.e. number of dead and/or living individuals)
- (ii) parameter(s) to be evaluated (e.g, occurrence, mass or volume of ingested debris)
- (iii) possible biological constraints (e.g, individual size)
- (iv) the temporal assessment scale
- (v) the spatial assessment scale.

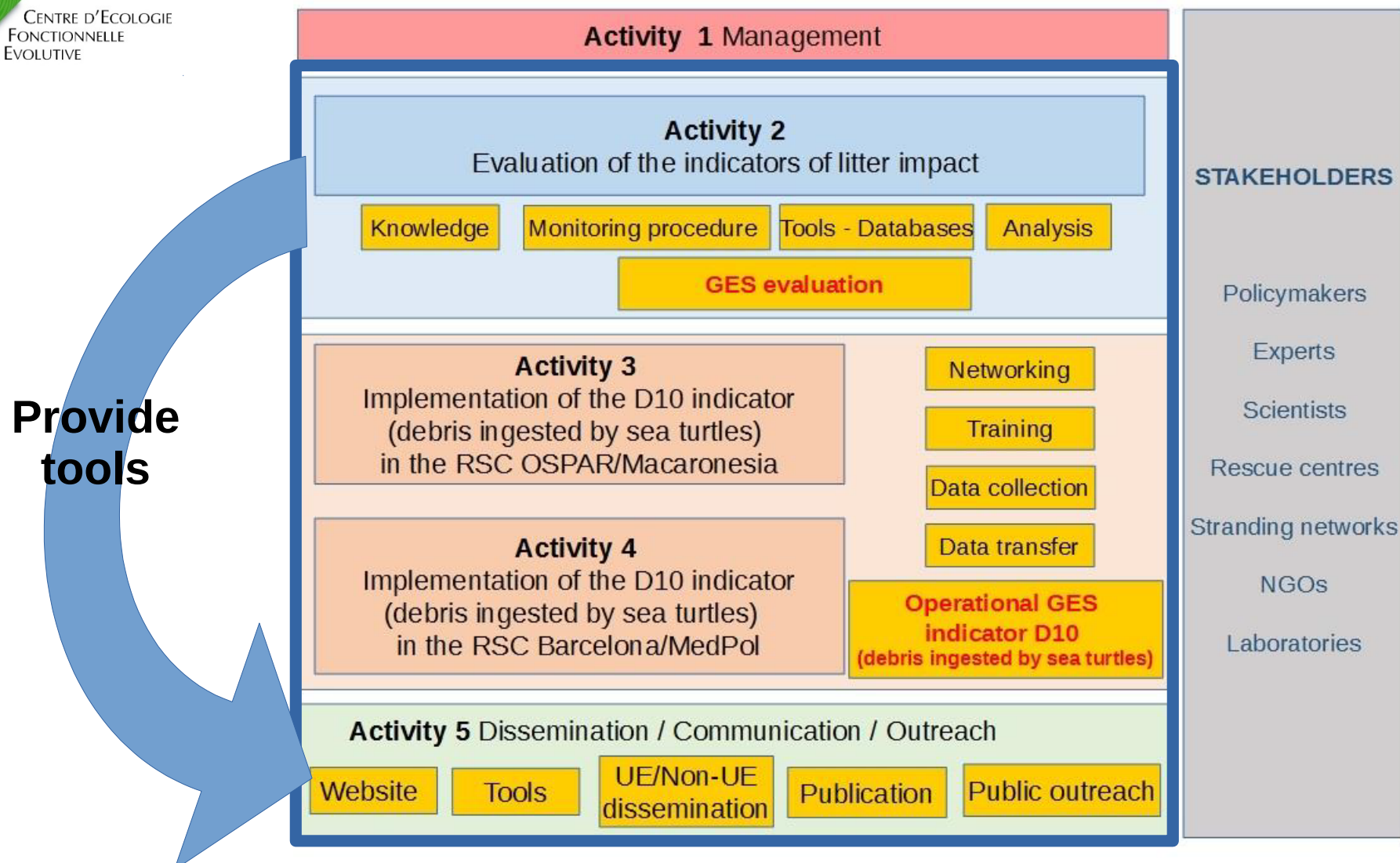
Define thresholds (baseline/trends) at appropriate geographical scale(s)



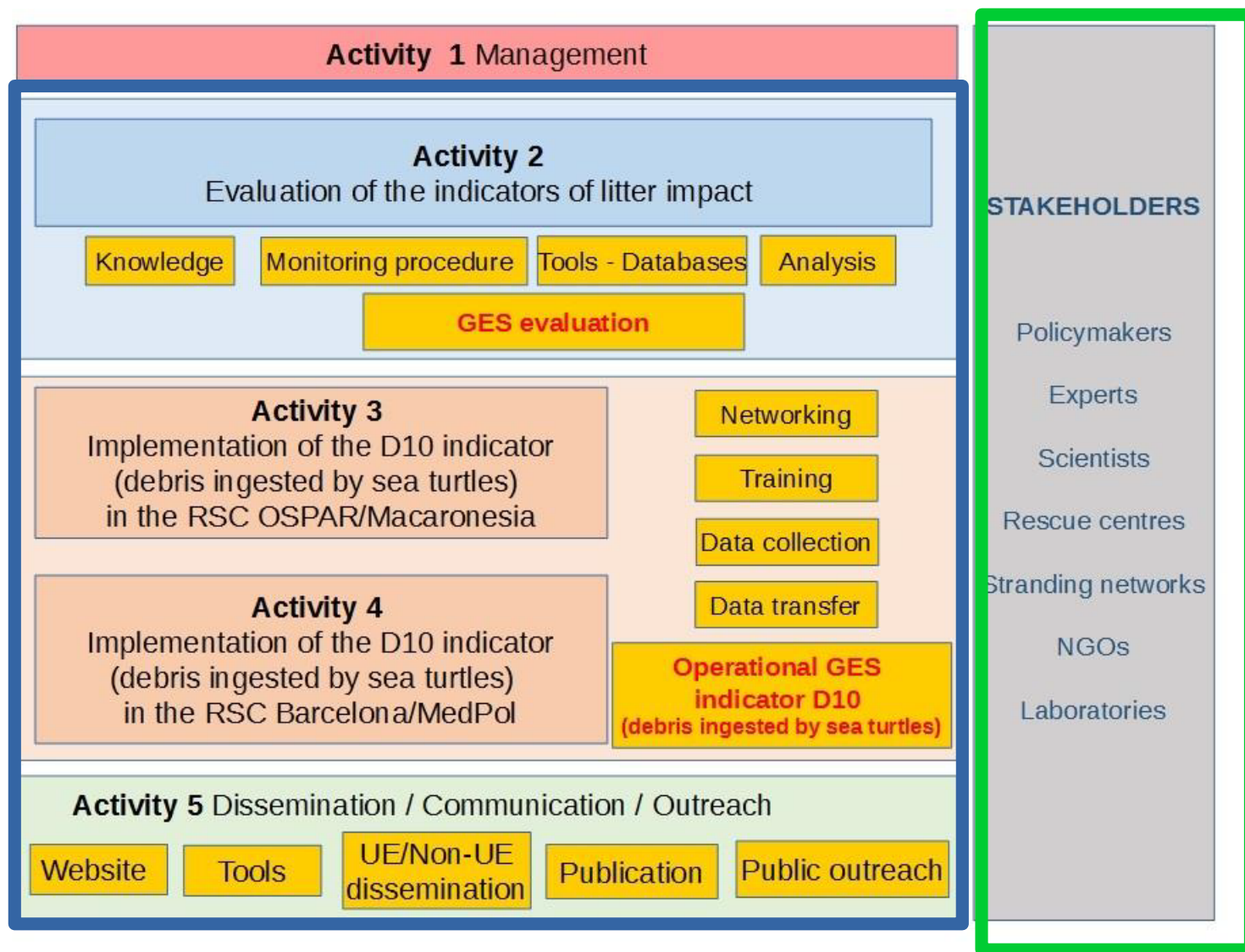








(e.g., training kits including guidelines and basic equipment ; practical workshops ; video tutorials)



Networking between
international/local experts

Task 2.1 State of art (3 indicators)

Task 2.2 Pilot study for indicator 2 « entanglement with debris » and indicator 3 « micro-debris ingestion »

Task 2.3 Improvement and standardization of the monitoring

Task 2.4 Establishment of common databases

Task 2.5 Evaluation/revision of GES and indicator criteria

Task 2.6 Evaluation of the influence of practical restoration

Specifically
for Indicator 1

Task 2.1: Establishment of a state-of-the-art on the biological constraints which can influence the indicators' criteria

Aim : States-of-the-art (relevance, criteria, proposed GES) for the 3 indicators

Methodology : Literature synthesis

From grey and published literature shared by participants

From literature found online (e.g. via Web of sciences, Google Scholar, etc.)

Participants

(1) “Macro-debris ingested by sea turtle” (CNRS)

(2) “Entanglement with debris by marine biota” (MNHN)

(3) “Micro-debris ingested by marine biota” (ISPRA/ULPGC)

With active participation from all stakeholders

Task 2.2: Pilot studies for Indicators “Entanglement with debris by marine biota” and “Micro-debris ingestion by marine biota”



Aim : Feasibility study of the implementation of the Indicators 2 and 3

Methodology :

- *For Indicator 2* (MNHN) : Evaluate existing networks → Collect data (experts' knowledge, opportunist and systematic observations of entangled individuals)

Consider cetaceans, birds, turtles, etc.

For indicator 3 : Develop methodology to detect micro-litter ingested in fish (ISPRA, HCMR, CNRS) and live sea turtles (ULPGC, FRCT, CNRS)

- Exploratory analyses of the collected data → Evaluate the average parameters :

For Indicator 2 : % entangled individuals / species / region + criteria

For indicator 3 : % individuals having ingested micro-debris / species / region

Participants

MNHN, ISPRA, ULPGC, FRCT, CNRS (every other participants welcome)

Aim

Definition and establishment of common standardized data frames

Already and newly collected : debris ingested by dead turtles, debris ingested by dead and alive turtles, turtle movements, litter movements, etc.

Methodology

Transfer of data to be decided Month 1 (update Month 6) + email exchanges among partners

Using high security standards (CNRS storage system).

Participants

CNRS in collaboration with All

Task 2.4: Improvement and standardization of the monitoring



Aim

Set of procedures to collect data for the estimation of the Indicator

- Network functioning
- Standardized protocols for raw data collection
- Data transfer to the common databases

Methodology

Share feedback and advice among partners (mailing lists, intranet, 3 Workshops with training sessions) : **Related to Activity 3 and Activity 4**

Transmitted to **Activity 5** for the dissemination of standardized tool kits (e.g., guidelines, video tutorial, small equipment)

Participants

CNRS in relation with each Activity Leaders (ISPRA, ULPGC, MNHN)

All participants engaged (particularly Activities 3 and 4's participants)

Task 2.5: Evaluation/ revision of GES initial assessment, distance to GES and indicator criteria

Aim

Providing/updating the GES and evaluating distance to GES, criteria of indicator, especially spatial scale and temporal scale of use

Methodology

Analyse biological constraints by considering data/knowledge acquired by the Activity 3 and 4 participants and considering new knowledge

Modelling region/sub-region/country's boundaries effects

Modelling temporal windows effects

Definition of GES at the RSC/MSFD levels and criteria and of each INDICIT country's distance to GES

Participants

Each activity leaders (CNRS, ISPRA, ULPGC, MNHN)

Task 2.6: Evaluation of the influence of practical restoration measures implemented in pilot areas on the evaluated distance to the target of GES(s)

Aim

Evaluation and validation of the co-decided GES and indicator s' criteria

Methodology

- Select pilot areas in RSC regions thanks to WP 3 and WP 4's stakeholders advice (workshops, mails, etc) (e.g., possible practical restoration measures) and data analyses (e.g., risky areas)
- Evaluate the change in the Indicator 1's output (e.g., temporal variations in the quantities of ingested debris) from simulations

Participants

Each activity leaders (CNRS, ISPRA, ULPGC, MNHN)

- Inception and short progress reports (*Month 1, 6, 13, 20, 24*)
- Reports on the pilot studies on the two new indicators of debris impacts “Entanglement of debris on marine fauna” and “micro-debris ingestion by marine fauna” (*within 60 days after Month 6*)
- Report on the set of procedures for a standard monitoring with Indicator “Debris ingestion by sea turtles” with the definition of a GES, the processes to evaluate the distance to GES (networking, easy to use protocols with user guides, rich and standardized databases with user guides, analyses considering identified indicator’s criteria (*Within 60 days from the end of the action (Month 13), with updating until the end of the Action (Month 24)*))
- Establishment of common databases (*Month 13, with updating until the end of the Action (Month 24)*)
- Publications (scientific report, articles, conferences, etc.) (*throughout the project*)



MSFD Protocol for the monitoring of litter ingested by sea turtles (*Caretta caretta*) and MSFD Protocol for sampling litter excreted by live sea-turtles (faecal pellet analysis)

Based on [Guidance on Monitoring of Marine Litter in European Seas. MSFD Technical Subgroup on Marine Litter](#)

The stomach contents of stranded Loggerhead sea turtles *Caretta caretta* (Linnaeus, 1758) are used to measure trends and regional differences in marine litter. A pilot study evaluating methods and potential sources of bias was conducted during 2012 by ISPRA, CNR-IAMC Oristano, Stazione Zoologica Napoli; University of Siena, University of Padova, ArpaToscana. Dissection procedure, measurement, and litter analysis are shown below.

Related marine compartments

Caretta caretta feeds in the water column and at the seafloor. Therefore these two marine compartments are addressed when quantifying litter in the stomachs of stranded Loggerhead sea turtles.

Technical requirements

The Loggerhead sea turtle *Caretta caretta* is a protected species (CITES Appendix I), therefore only authorized people can handle them.

i) Protocol for application in case of finding of a dead sea turtle

1. Upon finding the animal, its discovery should be reported to the main authorities and the operation of coordinated with the local authorities (depending on national law).

2. Based on initial observations and if possible still at the place of discovery, some data should be recorded (See "Identification Data" Sheet, Annex 1).

3. The animal should be transported to an authorized service centre for necropsy.

In case the body is too decomposed, the integrity of the digestive tract should be assessed before disposal at the licensed contractor.

If the necropsy cannot be carried out immediately after recovery, the carcass should be frozen at -16° C, in the rehabilitation facility.

4. Before the necropsy operation, morphometric measurements should be collected (see Annex 1).

5. External examination of the animal should be conducted, including inspecting the oral cavity for possible presence of foreign material.

6. Necropsy

6.1. To remove and separate the plastron from the carapace, an incision should be made on the outside edge, as shown as a dashed line in Picture 1.

6.2. Once the inside of the plastron is accessed, the ligament attachment of the pectoral and pelvic girdle should be cut, as indicated in white circles in Picture 2.

6.3. Qualitative evaluation of the trophic status of the animal should be made, including the atrophy of pectoral muscles (none, moderate, severe), fat thickness in the articular cavities and on the coelomic membrane (abundant, normal, low, none).

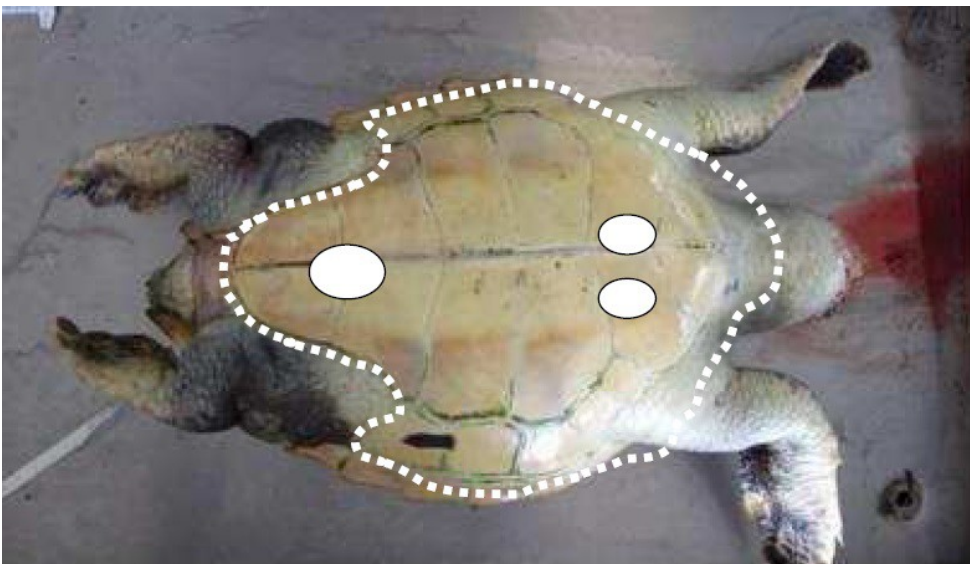
6.4. Removal of pectoral muscles and the heart should expose the gastrointestinal system (GI) (Picture 2, Left).

6.5. As indicated by arrows in Picture 2 (Right), the different portions of the GI should be isolated by means of plastic clamps, fixed on:

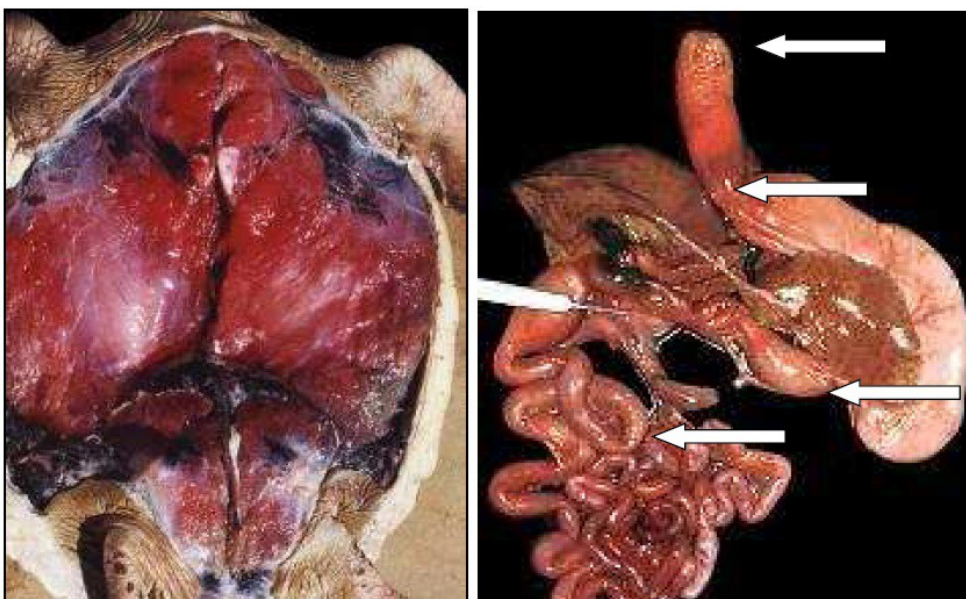
- esophagus proximal to the mouth,
- the esophageal valve,
- the peg and on the cloaca, as close as possible to the orifice anal.

6.6. The entire GI should be removed and placed on the examination surface. This is easier if done by at least 2 operators: one person keeps the animal lying on its side, while the other separates the ligaments of the different organs and the membranes of the carapace by extracting the GI from the animal.

6.7. The sex of the animal should be recorded. The 3 parts of the GI (esophagus, stomach, intestines) should be separated, affixing a second clamp at the cut edge to prevent spillage of the contents.



Picture 1. Cutting line and location of main plastron ligament in a turtle (Wyneken, 2001)



Picture 2 (Left): The ventral pectoral and pelvic musculature covers most of internal organs, which must be removed to expose the peritoneal cavity; (Right): Sea turtle gastrointestinal different portion (Wyneken, 2001)

7. Sampling of gastro-intestinal contents, applicable for any section of the GI

7.1. the section of the GI should be placed in a graduated beaker of adequate size, pre-weighed on electronic balance (accuracy of $\pm 1\text{g}$).

7.2. The section of GI should be open and the contents emptied into the beaker with the help of a spatula, followed by the record of:

- the net weight of the content,
- the volume of the content.

7.3. The section of the GI should be observed and any ulcers or any lesions caused by hard plastic items should be recorded.

The contents should be inspected for the presence of any tar, oil or particularly fragile material, that must be removed and treated separately.

7.4. The liquid portion, mucus and the digested unidentifiable matter should be removed, by washing the contents with freshwater through a filter mesh 1 mm, followed by a rinse of all the material collected by the filter 1mm in 70% alcohol and finally again in freshwater.

The retained content should be enclosed in plastic bags or pots, labelled (Code Individual; GI section; Date) and frozen, not forgetting the sample code and corresponding section of the GI. Finally, the contents can then be sent for analysis.

NOTE: If the contents are stored in liquid fixative, remember to take note of the compound and the percentage of dilution and communicate them to the staff in charge for the further analysis.

8. Analysis of the contents of the GI

8.1. The organic component should be separated from any other items or material (marine litter).

8.2. The fraction of marine litter should be analysed and categorised (Annex 2) with the help of a stereo-microscope, following the approach used in the protocol for ingestion in birds (Van Franeker et al., 2005; 2011; Matiddi et al., 2011) and using a data-sheet as the one provided in Annex 3.

8.3. The fraction of marine litter should be dried at room temperature and the organic fraction at 30°C.

8.4. Both fractions should be weighted, including the different categories of items identified within the marine litter fraction.

The total volume and the volume of the litter found should also be measured, through the variation of water level in a graduated beaker, when the items are immersed without air.

8.5. If possible, different categories of "food" should also be identified. Otherwise, the dry contents should be kept in labelled bags and sent to an expert taxonomist.

Size range

$\geq 1\text{ mm}$ (stomach contents are rinsed over 1 mm mesh sieve)

For each litter category/subcategory an assessment is made of:

- 1) incidence (percentage of investigated stomachs containing litter) (Presence/Absence),
- 2) abundance by number (average number of items per individual),
- 3) abundance by mass (weight in grams, accurate to 4th decimal),
- 4) abundance by volume (in mL H₂O).

ii) Protocol for application for sampling litter excreted by live sea-turtles (faecal pellet analysis) in case of finding a specimen alive

1. Upon finding the animal, its discovery should be reported to the main authorities and the operation of coordinated with the local authorities (depending on national law).

2. Based on initial observations and if possible still at the place of discovery, some data should be recorded (See "Identification Data" Sheet in Annex 1).

3. The animal should be transported to an authorized rehabilitation facility. At the rehabilitation facility, the remaining morphologic parameters should be recorded (Annex 1) and the animal placed in the rehabilitation tanks.

4. As soon as the animal begins to feed, a coloured plastic ball should be added to the food in order to assess the rate of gastrointestinal transit (size of plastic ball must be related to animal size).

In most cases, the observed standard time for gastrointestinal transit is approximately 1.5 months after the first evacuation. The faeces should be sampled from the tank for the entire period between the arrival of the animal and the expulsion of the first coloured ball.

5. The digested part should be removed by washing the sample with freshwater through a filter mesh 1mm and drying the retained fraction at room temperature.

To analyse the content and identify the different categories of possible litter, a data-sheet as the one provided in Annex 3 should be used.

6. Extraction of data

6.1. Sort litter by categories, as described in Annex 2.

For turtle analyses, stomach contents are sorted into the categories as given above for birds (Annex 2).

Abundance by mass (weight in grams, accurate to 3th decimal), colour of items, volume of litter (mL H₂O), different type of litter, different incidence of litter in esophagus, intestine and stomach, incidence and abundance by number per litter category are useful to record for research, monitoring and impact analysis.

6.2. The fraction of marine litter should be analysed and categorised with the help of a stereo-microscope.

6.3. Both fractions should be weighted, including the different categories of items identified within the marine litter fraction.

6.4. The volume of the litter found should also be measured, through the variation of water level in a graduated beaker, when the items are immersed without air.

Size range

≥1 mm (stomach contents are rinsed over 1 mm mesh sieve)

For each litter category/subcategory an assessment is made of:

- 1) incidence (percentage of investigated stomachs containing litter) (Presence/Absence)
- 2) abundance by number (average number of items per individual),
- 3) abundance by mass (weight in grams, accurate to 4th decimal),
- 4) abundance by volume (in mL H₂O).

Annex 1

“Identification Data” Sheet

Identification data

Species (sure ☐ probable ☐ uncertain ☐
Tag number

Date of finding

Circumstances (stranded, interaction with human activities, precise, and precise gear when interaction with fishing activity, death at rescue center)

Date of necropsy (after or before freezing, if freezed indicate at which temperature)

Trophic status

Atrophy of the pectoral muscles : None ☐ Moderate ☐ Severe ☐

Fat thickness in the articular cavities and the coelomic membrane : Abundant ☐ Normal ☐ Low ☐ None ☐

Fresh/Decomposition status (categories to be explained)

Date of turtle death

Cause of death, if determined

Location

Coordinates

Finder personal details (name, telephone, mel)

Animal characteristics

Sex : Male ☐ Female ☐ Juvenile ☐ Undetermined ☐

Identification criteria (from Wyneken 2001) :

Measurements (unit : cm)

Carapace length (CCL)

Overcurve width (CCW)

Plastron length (CPL)

Plastron width (CPW)

Weight (kg)

External observations

External observations	Observation/Comments	Photo (if relevant)
Head		
Flipper		
Carapace		
Plastron		
Tail		
Sex-maturity		
Skeletal damage		
Foreign bodies		
Cause of death		
Other		

Gastro-Intestinal tract

Gastro-Intestinal tract	Observation/Comments	Photo (if relevant)
Oesophagus		
Stomach		
Intestine		

Annex 2.

BIOTA categories for contents of digestive tract (esophagus, stomach, intestine)

Categories for classification of items for Biota

PLA	Plastic	Acronym	All plastic or synthetic items: note number of particles and dry mass for each category
IND	pellets	ind	Industrial plastic granules (usually cylindrical but also oval spherical or cubical shapes exist)
	probab ind?	pind	Suspected industrial, used for the tiny spheres (glassy, milky,) occasionally encountered
USE	sheet	she	Remains of sheet, eg from bag, cling-foil, agricultural sheets, rubbish bags etc
	thread	thr	Threadlike materials, eg pieces of nylon wire, net-fragments, woven clothing; includes 'balls' of compacted such material
	foam	foam	All foamed plastics so polystyrene foam, foamed soft rubber (as in matras filling), PUR used in construction etc
	fragments	frag	Fragments, broken pieces of thicker type plastics, can be bit flexible, but not like sheetlike materials
	other	poth	Any other, incl elastics, dense rubber, sigarete-filters, balloon-pieces, softairgun bullets; objects etc. DESCRIBE
RUB	Other rubbish	Acronym	Any other non synthetic consumer wastess: note number of particles and (in principle) dry mass for each categor
RUB	paper	pap	Newspaper, packaging, cardboard, includes multilayerd material (eg Tetrapack pieces) and aluminium foil
	kitchenfood	kit	Human food remains (galley wastes) like onion, beans, chickenbones, bacon, seeds of tomatoes,grapes, peppers, melon etc
	other user	rva	Other consumer waste, like processed wood, pieces of metal, metal air-gun bulletes; leadshot, painchips. DESCRIBE
	Fish hook	hoo	Fishing hook remains (NOT FOR HOOKS ON WHICH LONGLINE VICTIMS WERE CAUGHT - THOSE UNDER NOTES)
POL	Pollutants (Indus/ Chem waste)	Acronym	Other non synthetic industrial or shipping wastes (number of items and mass per category (wet for paraffin)
POL	slag/coal	sla	Industrial oven slags ('looks like non-natural pumice) or coal remains
	oil/tar	tar	Lumps of oil or tar (also not n=1 and g=0.0001g if other particles smeared with tar but cannot be sampled separately)
	paraf/chem	che	Lumps or mash of unclear paraffin, wax like substances (NOT stomach oil!) if needed subsample and estimate mass
	featherlump	rva	Lump of feathers from excessive preening of fouled feathers (n=1 with drymass) (NOT for few normal own feathers) (not for turtles)
FOO	Natural food	foo	Various categories, depends on the species studied, and aims of study
NFO	Natural non food	nfo	Anything natural, but which can not be considered as normal nutritious FOOD for the individual

Annex 3

Data sheet for recording of ingested items in sea-turtles

To do for each part of the gastrointestinal tract (esophagus, stomach, intestine)

Esophagus <input type="checkbox"/> Stomach <input type="checkbox"/> Intestine <input type="checkbox"/>						
Type of litter	Presence Yes / NO	Abundance (items number)	Volume (mL H ₂ O)	Color (number)	Dry weight (g)	Microlitter abundance (number items <5mm)
IND ind						
IND pind						
USE she						
USE thr						
USE foam						
USE frag						
USE poth						
RUB pap						
RUB kit						
RUB rva						
RUB hoo						
POL sla						
POL tar						
POL che						
POL rva						
FOO						
NFO						



UNIVERSIDAD DE LAS PALMAS
DE GRAN CANARIA



WP3

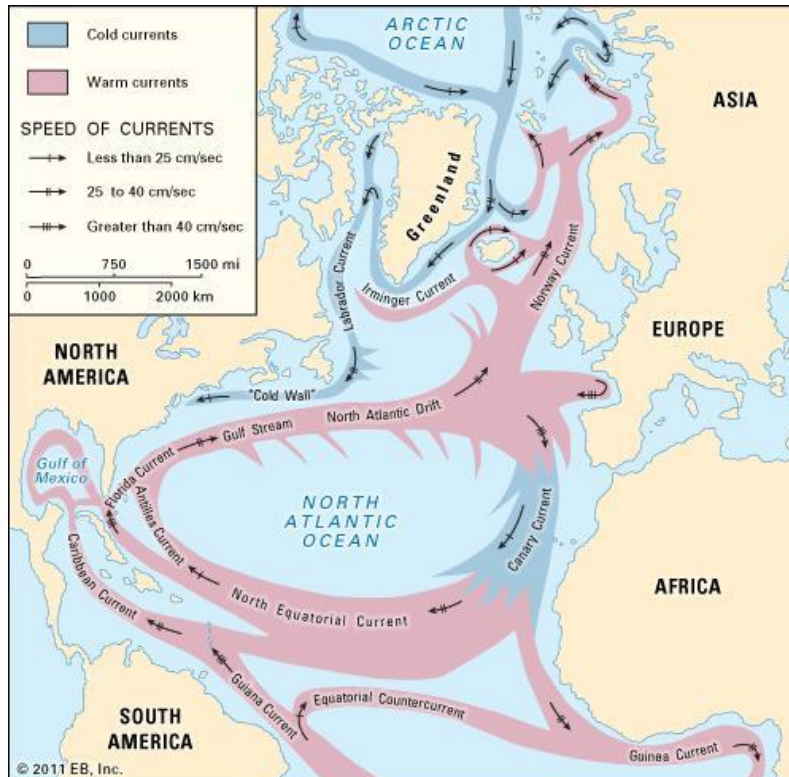
IMPLEMENTATION OF THE INDICATOR «*LITTER INGESTION*» IN THE RSC OSPAR & MACARONESIA



INTRODUCTION



www.cnrs.fr



- Main currents transport **marine debris** across the ocean surface
- North Atlantic gyre is a real garbage belt in the ocean.

- Sea turtles use main currents to move through the ocean.
- Sea turtles spend 95% of their lives in the ocean surface (first 5m).
- Sea turtles are omnivorous and feed on everything they find in the ocean.

- Sea turtles and marine debris present a high degree of interaction through the ocean.
- Changes in debris quantities or qualities could be showed by variations in sea turtles affections by debris (ingested or entanglements).

GOALS AND PARTNERS



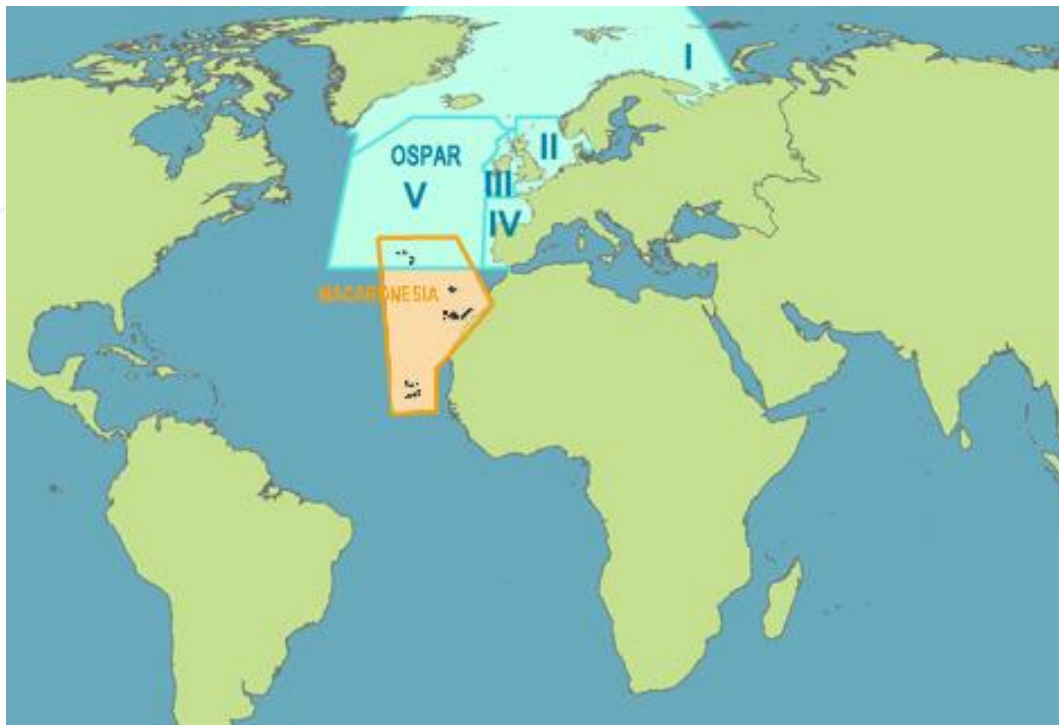
Implementation and pilot studies of:

- Indicator 1 - “*Macro-debris ingestion by sea turtles*”
- Indicator 2 - “*Entanglement with debris by marine turtles*”
- Indicator 3 - “*Micro-debris ingestion by sea turtles*”

by countries of **OSPAR Regional Sea Convention** and **Macaronesia** sub-region.



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Partners:

- **ULPGC (Spain)** (Leader)
University of Las Palmas
- **CNRS (France)**
Centre National de Recherche Scientifique
- **MNHN (France)**
Museum National d'histoire Naturelle
- **FRCT (Portugal)**
Fundo Regional da Ciencia e Tecnologia



1. IDENTIFICATION OF LOCAL STAKEHOLDERS

- Regional institutions
- Wild Life Recovery Centers
- NGOs and Local Associations
- Others



2. LOCAL TRAINING + DATA COLLECTION PROTOCOLS ESTABLISHMENT

- Homogenize methodologies
- Technicians and operators training



3. SHARING AVAILABLE DATA

- Common database elaboration



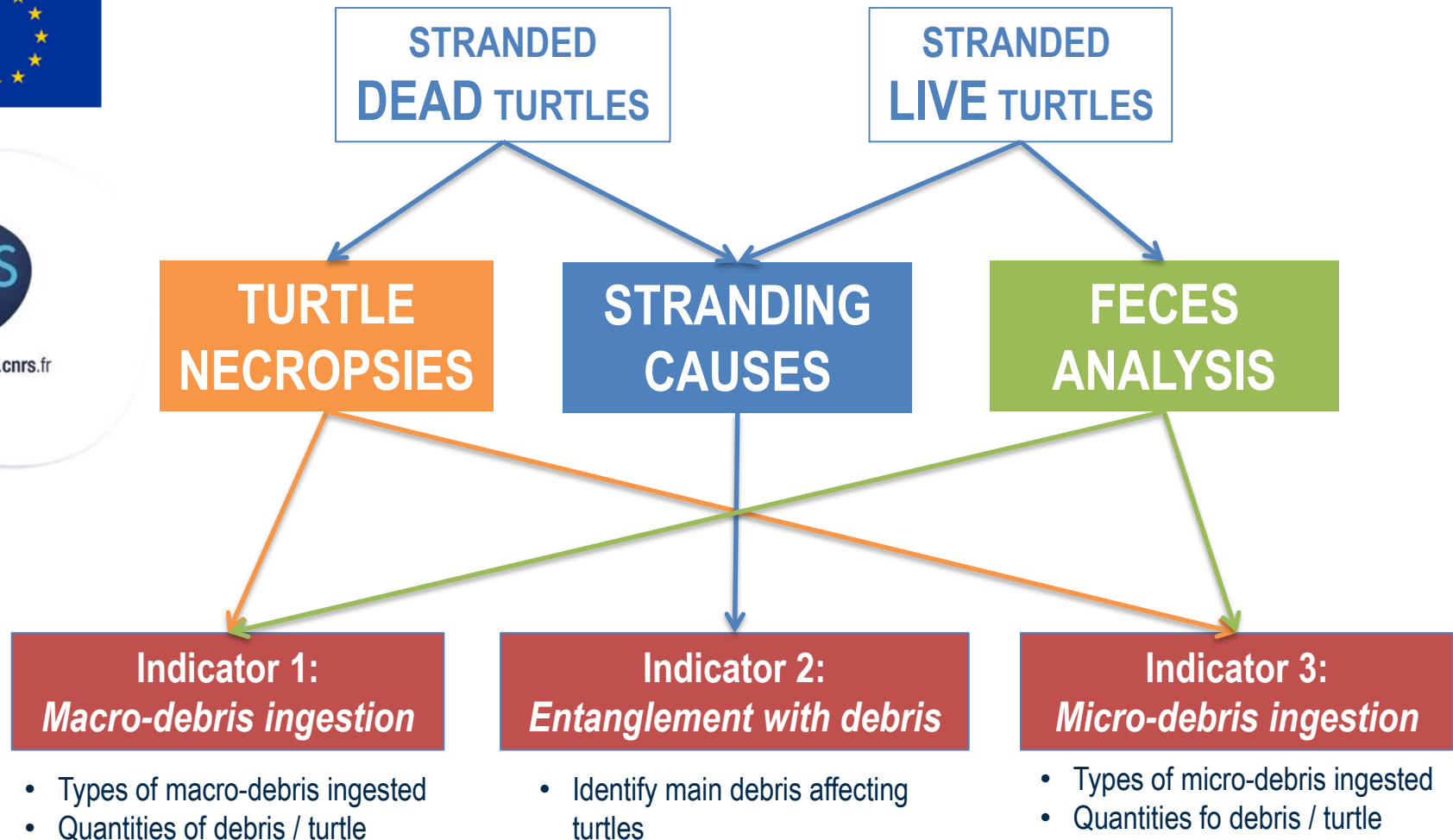
4. COLLECTION OF NEW DATA

- Fill in the common database



5. VALIDATION & IMPLEMENTATION OF GES AND INDICATORS CRITERIA





ESPECTED RESULTS



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ESTABLISHMENT OF MARINE DEBRIS INDICATORS IN THE OSPAR AND MACARONESIAN WATERS



ESPECTED RESULTS



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THROUGH THEIR INTERACTION WITH MARINE BIOTA – SEA TURTLES



Like 8.6M Follow @MailOnline DailyMail Wednesday, Feb 8th 2017 12AM 5°C 3AM 3°C 5-Day Forecast

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A whale is found dead with more than 30 PLASTIC BAGS in its stomach – and experts say it's 'not surprising'

- The whale had been put down by wardens off the coast of western Norway
- Researchers dissected its stomach and found huge amounts of plastic
- The whale was also emaciated with little blubber suggesting it was malnourished

By SHIVALI BEST FOR MAILONLINE
PUBLISHED: 17:21 GMT, 2 February 2017 | UPDATED: 21:17 GMT, 2 February 2017

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Today's headlines
Most Read
Apple's 'spaceship' campus is nearly ready. Stunning features reveal the firm's



THANKS / MERCI / OBRIGADO / GRACIAS



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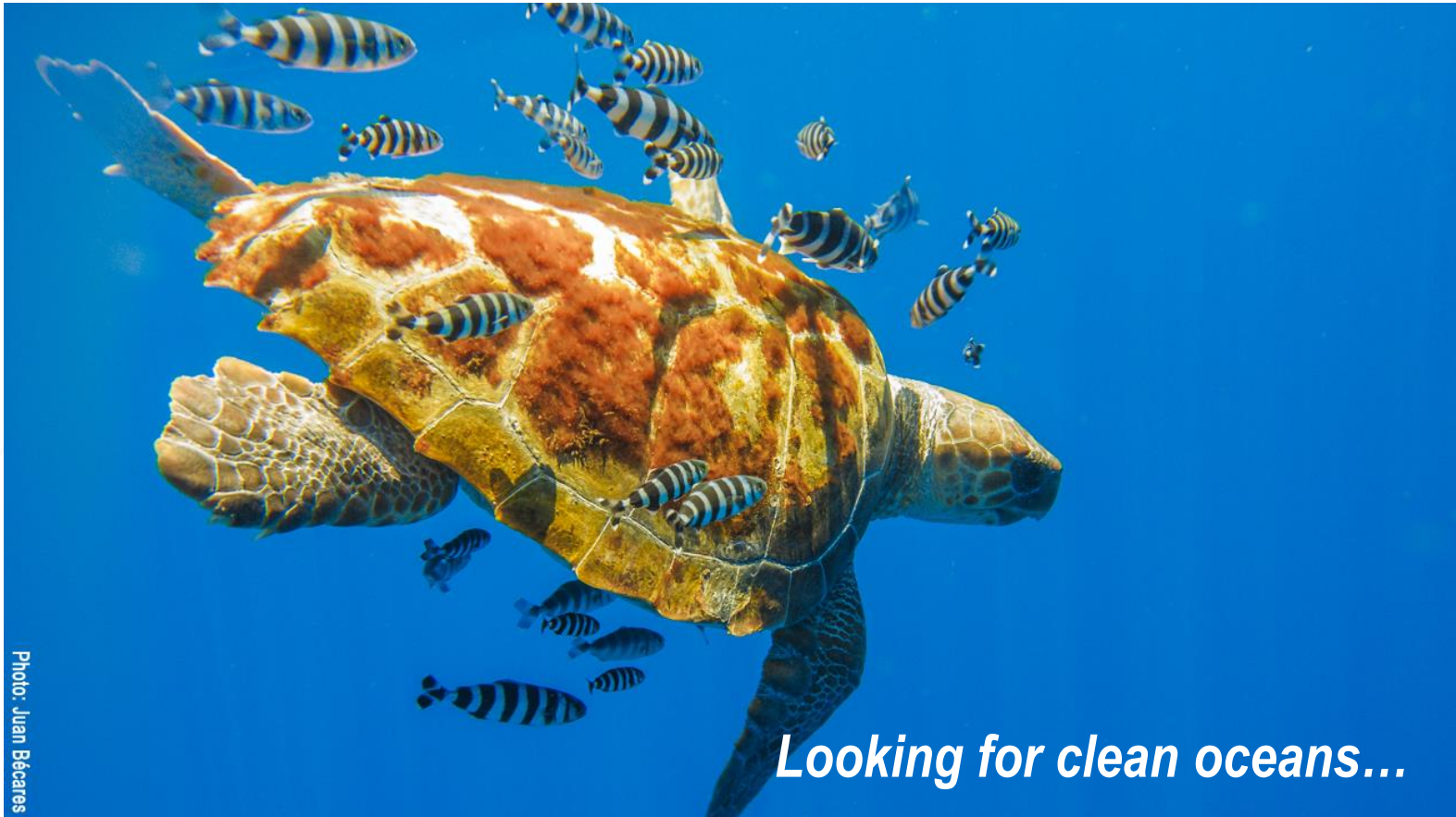


Photo: Juan Bécáres

Looking for clean oceans...



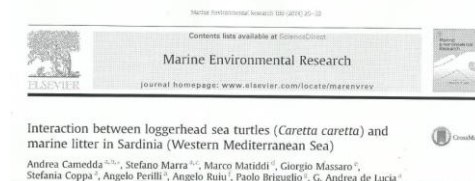
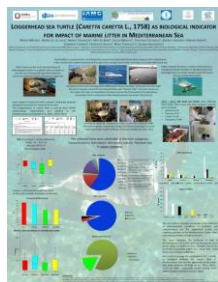
Activity 4: Implementation of the indicator of litter ingestion in UNEP/MAP – EcAp process (Barcelona Convention)



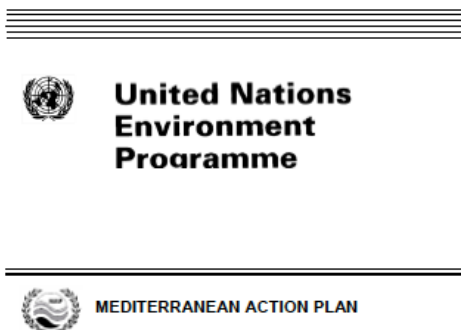
ISPRA
Istituto Superiore per la Protezione
e la Ricerca Ambientale

- The INDICIT proposal focuses on indicator 10.2.1 :

“Trends in the amount and composition of litter ingested by marine animals.”

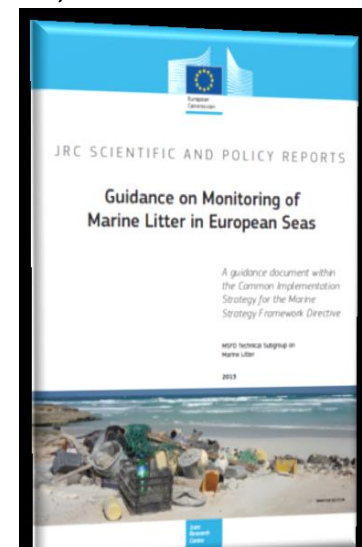


Expert researchers have chosen the sea turtle *Caretta caretta* (Linnaeus, 1758), as target species for monitoring litter ingested by marine organisms in the Mediterranean Sea, like the Fulmar in the OSPAR countries (Matiddi *et al.*, 2011; MSFD-TS, 2013; UNEP (DEPI)/MED, 2014)



Correspondence Group on Monitoring, Pollution and Litter

Athens (Greece), 8-9 May, 2014

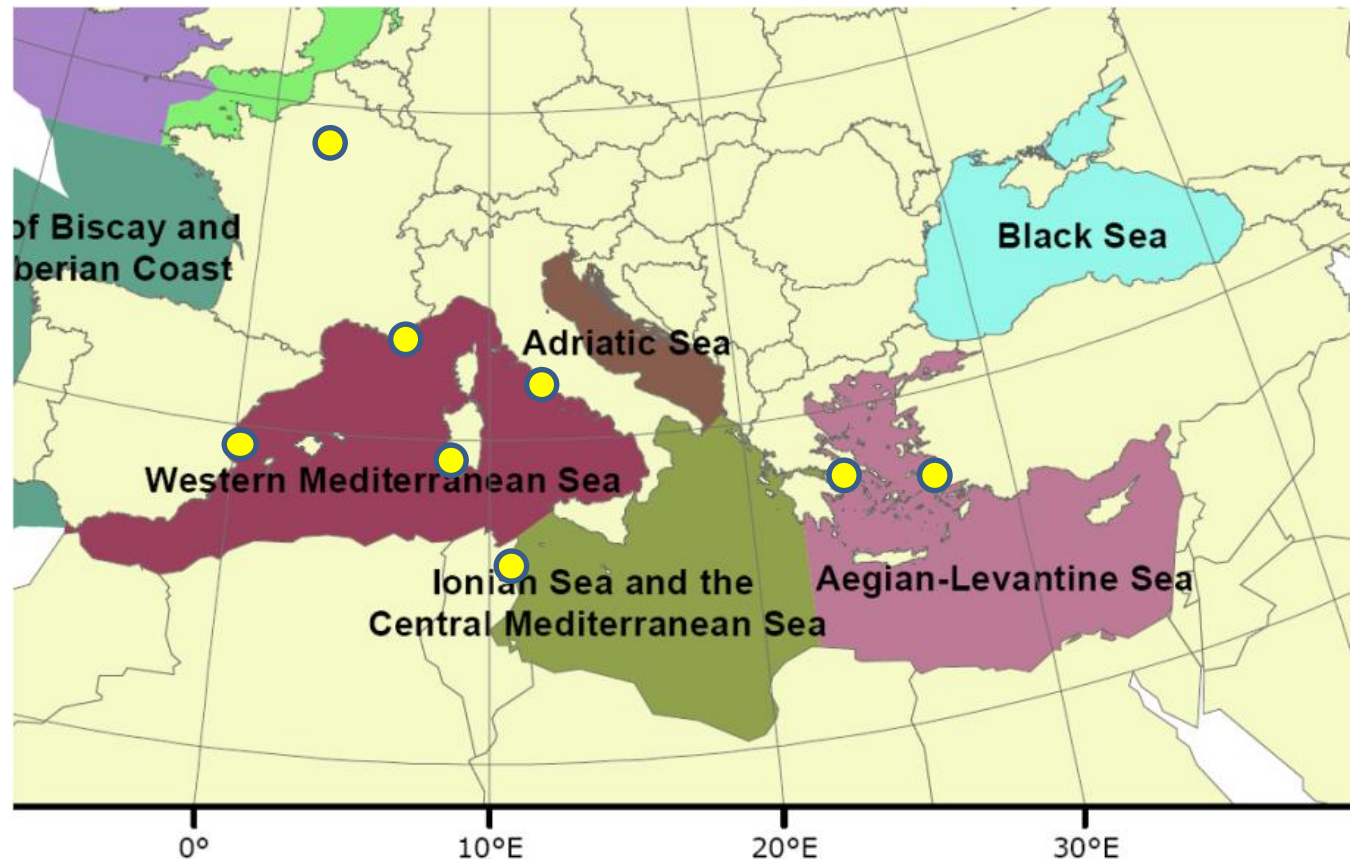




Activity 4:

Implementation of the indicator of litter ingestion in the Mediterranean basin (ISPRA, IAMC-CNR, UVEG, CNRS, MNHN, HCMR, PAU-DEKAMER, INSTM)

- Task 4.1: Identification of the local stakeholders to be mobilized in Italy, Greece, France and Spain: sub-contractor with Rescue centres, stranding networks, laboratories, universities, etc.

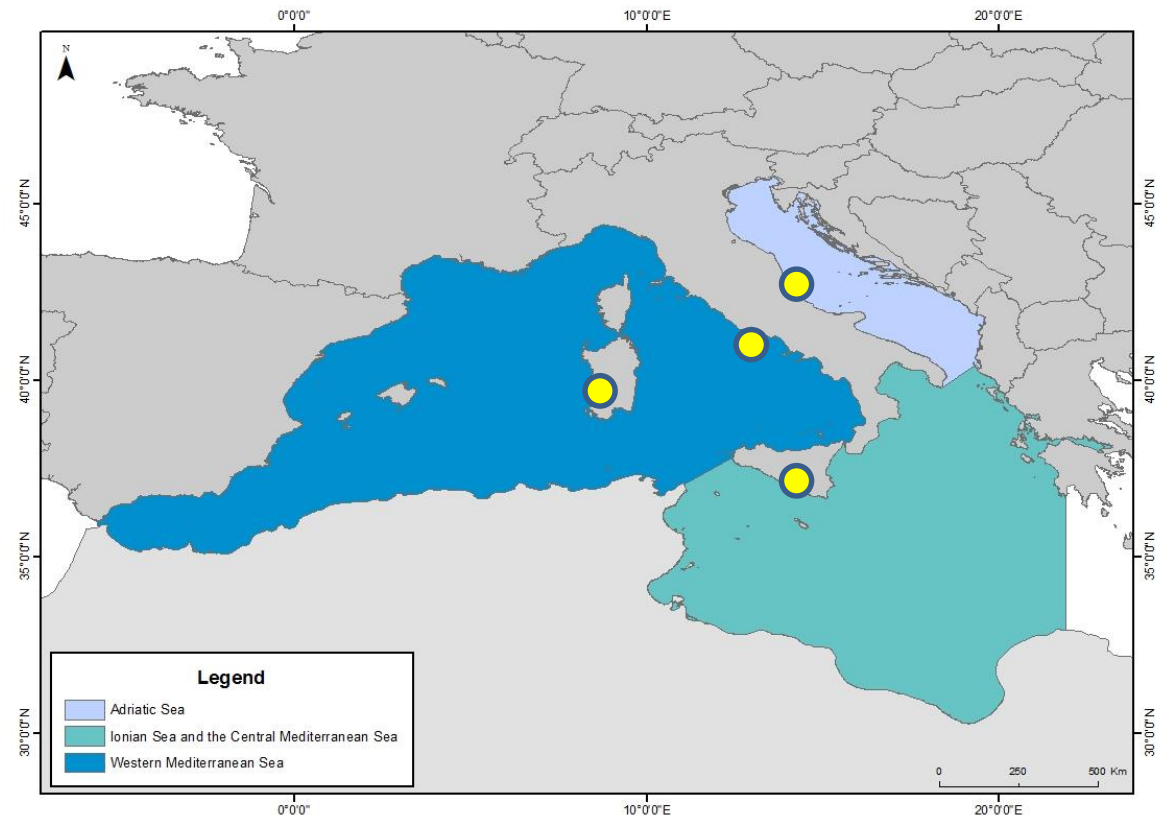




Activity 4:

Implementation of the indicator of litter ingestion in the Mediterranean basin (ISPRA, IAMC-CNR, UVEG, CNRS, MNHN, HCMR, PAU-DEKAMER, INSTM)

- Task 4.1: Identification of the local stakeholders to be mobilized in Italy, Greece, France and Spain: sub-contractor with Rescue centres, stranding networks, laboratories, universities, etc.





Activity 4:

Implementation of the indicator of litter ingestion in the Mediterranean basin (ISPRA, IAMC-CNR, UVEG, CNRS, MNHN, HCMR, PAU-DEKAMER, INSTM)

- Task 4.2: Local training on the established protocols for data collection to the identified stakeholders:
- MSFD TS-Marine Litter protocol of 2013 entitled “Litter in biota”
- Harmonizing the protocol among the partners (Activity 2)
- Dissemination of guidelines; video tutorial (Task 5.1)
- Training course (Task 2.3) : National delegates belonging to non partner Mediterranean countries will be invited through UNEP/MAP and advisory board



Activity 4:

Implementation of the indicator of litter ingestion in the Mediterranean basin (ISPRA, IAMC-CNR, UVEG, CNRS, MNHN, HCMR, PAU-DEKAMER, INSTM)

- Task 4.3: Sharing of already available data in the common databases:
- Share every stakeholders' available literature and data on debris ingestion by dead and by live individuals in the RSC area
- This task will be carried out by participants involved in Task 2.3 in order to train the stakeholder to fill in, clean and update the standard templates of the common databases



Activity 4:

Implementation of the indicator of litter ingestion in the Mediterranean basin (ISPRA, IAMC-CNR, UVEG, CNRS, MNHN, HCMR, PAU-DEKAMER, INSTM)

- Task 4.4: Collection of new data and uploading to the common databases
- New data (2017/2018) will be collected by partner and sub-contractor on litter ingestion
- If available information on individuals' movements, habitat use according to individuals' life stage, diet, digestive transit time will be collected for a better knowledge.



Activity 4:

Implementation of the indicator of litter ingestion in the Mediterranean basin (ISPRA, IAMC-CNR, UVEG, CNRS, MNHN, HCMR, PAU-DEKAMER, INSTM)

- *Task 4.5:* Validation and implementation of the GES (baseline or trends) and indicator s' criteria with the stakeholders at the RSC scale, and evaluation of each Member states/sub-regions' distance to the target of GES
- The aim of this task is to validate the GES produced thanks to the results of data analysis (Activity 2)

INDICIT

*“Implementation of the indicator of marine litter on sea turtles and biota
in RSC and MSFD areas” (INDICator Impact Turtle)*



WORKPACKAGE 5

Communication and dissemination

1st workshop

Françoise CLARO, claro@mnhn.fr

Skype: francoise5410

WP5 Participants

- Leader: MNHN (Françoise Claro)
- Participants: all
- Proposals of participants including a special budget :
 1. DEKAMER: translation in turkish language of leaflets, tutorial video, webpage
 2. INSTM: translation in arabic language
 3. ISPRA: documentary on impact of litter on sea turtles (available on website)
 4. HCMR: co-organization of the dissemination workshop

WP5 Objectives

- Providing tools to the concerned stakeholders within/outside INDICIT area
(for monitoring debris' impact on marine life)
- Communicating about the project for raising awareness
(context, objectives, results)

WP5 Tasks/ Activities (1)

5.1. dissemination of tools developed for monitoring impact of litter in sea turtles

- Plan for dissemination (Feb 2017)
- Website (April 2017)
- Tutorials= guides written with WP2, 3 & 4 (online pdf)
- Video tutorial for data collection (Dec 2018)
- International exchanges: conferences, meetings, dissemination to stakeholders
- Indicit dissemination meeting(Dec 2018)
- Peer review publications

WP5 Tasks/ Activities (2)

5.2. communication activities

- Plan of communication (Feb 2017)
- Project visual identity (Indicit logo+ graphic charter + acknowledging EU support) (Feb-> April 2017)
- Updating Website
- Communication through institutional channels with support of partners com dpts (websites, journals, newsletters): general objectives, results, conclusions
- Documentary (?)

WP5 Expected results/ outputs & use

- Visibility, dissemination of results (knowledge, tool kit for monitoring)
- Raising awareness
- Broad audience : stakeholders to the general public, area of project to general

Deliverables **(EU, internal com, support for external com, structuration of monitoring):**

1. *Inception and progress reports*
2. *Plan of dissemination*
3. *Plan of communication Website*
4. *Tool kit*
5. *Dissemination meeting*

Methods (when? who?)

February 2017

- Create google drive **Françoise**
- Build excel list of contacts (Indicet partners, rescue centers/ stranding networks responsables) **All**
- Work on documents (plan of com, plan of dissemination, text of presentation for website, press release, leaflet) **All**
- Orders: logo, website, preprojects **Françoise**; video tutorial **Marco**

March 2017

- validation/ finalization of website **WP leaders ?**

July 2017; March, Oct & Dec 2018; Feb 2019: workshops **All**

Plan for dissemination of results

Deadline FEBRUARY 2017

1. Discussion (WP leaders & workshops, all WP5 workshop)
2. Writing (MNHN)
3. Updated Plan along with inception, progress and final reports (MNHN)

Identify users of the intranet website or google drive

Plan of dissemination & international exchanges

- Contribution to plan by each partner = All
 1. list suggestions on common table (conferences, meetings, events...)
 2. list of contacts to whom tools should be disseminated => mailing list
- Dissemination:
 1. Option 1: MNHN disseminates to mailing list
 2. Option 2: sharing to be decided

Indicit dissemination meeting

Athens, december 2018?

- Organization: **MNHN & HCMR**
- List of Invitees:
- Provisional agenda:
- Proposed partner participation:

Tutorials

- Guides:
 1. Writing: WP 2,3,4 leaders
 2. Graphism MNHN
 3. Consultation MNHN
 4. Placing online MNHN
- Video: co-supervision ISPRA CNRS MNHN

International communication & peer review publications

- Convention (agreement on sharing data, conditions/rules for communication and publication)?
- Topic
- Reasonable Planning ?
- Which journals ?

Plan of communication (PoC)

= Communication through institutional channels with support of partners
communication dpts (websites, journals, newsletters):

- Write a plan for each partner com dpt: **All**, list of expected com activities and medias on googledrive
- Write a text for general objectives **Françoise**
- Amendements/ Validation **All**
- Write a text on results (press releases, websites...) **workshops ?**
- Validation **All**
- Write a text on conclusions **workshops ?**
- Validation **All**

PoC provisional table of content

1. Executive summary
2. Target audiences
3. Messages
 - Description of the project
 - Objectives of the PoC
 - Message per audience
 - How the project is contributing to priority topics for environment
 - how is EU contributing to the achievement of the project (mentionned in any output)
4. Channels and tools (digital, press, events, publications, audiovisual, multipliers, internal
 - Target medias (interpersonal/mass medias) international (reasons for priorities) and per country
 - Websites: provisional architecture of Indicit WS, list of other websites linking to this WS
 - List of medias targeted/country*List of reviews
 - Tools: documentary, flyer...
 - Events: list, relations, invitations
6. Planning: table
7. Evaluation indicators

Documentary

- Mock up: **ISPRA**
- Validation: **All**
- Translation: **?**
- Place documents online (website): **Françoise**

PS: reducing impact of our project

*DIRECTORATE GENERAL FOR ENVIRONMENT (example by reducing the environmental impact of its activities => EMAS
(http://ec.europa.eu/environment/emas/index_en.htm)*

website

Deadline MARCH 2017

- Format= public part + *private part for the partners?*
 1. Discussion on MNHN proposal for validation by all partners at Kick off meeting
 2. Designing by MNHN sub-contractant
 3. Consultation by mel for validating the draft mock-up
- Updating
all partners send infos and documents to Francoise / Cc leaders

website

Validation pre draft mock-up

Several infos/picture are needed from you, please sent to claro@mnhn.fr or go to google drive for up load them

INDICIT LOGO

INDICator
Impact
Turtle

MENU



ABOUT INDICIT

ACTIVITIES

PARTNERS

PUBLICATIONS

TRAINING

TABS



Title
Abstract

Titles
Abstracts

Click on Logos:
Institution,
team

Reports
Publications

Protocols
Guidelines

Click on team:
Personal
page

Slideshow
(pictures needed!)

Text



UNION EUROPEENNE

Search:

Username:

Password:.....

login

NEWS

Press releases
Waiting medias
publication of an
Any announcement

Needed for the website (1):
to be sent to claro@mnhn.fr

1) For each institution:

- logo HD
- Link of the website
- Abstract of the general missions/skills

Needed for the website (2): *to be sent to claro@mnhn.fr*

2) For each research team:

Contact person (choose who will represent the team)

Name and link of the research unit webpage

3) For each researcher:

Name

Portrait

Mel

Link of you professional personal page (if existing)

Pictures of activities for the website



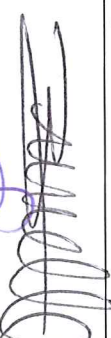



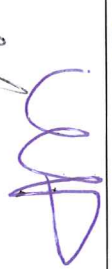



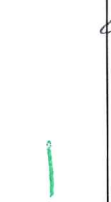

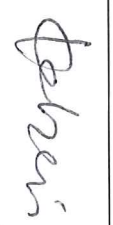

INDICIT Kick-off meeting









February 9, 2017

Occitanie Europe - Brussels



Attendance Sheet

No	Name of participant	Participant organisation	Morning	Afternoon
1	BASKALE Eyup	PAU-DEKAMER		
2	BRUNELLE Léa	MNHN (admin)		
3	CLARO Françoise	MNHN		
4	DARMON Gaëlle	CNRS		
5	DE LUCIA Giuseppe Andrea	CNR-IAMC		
6	HAROUN Ricardo	ULPGC		
7	KABERI Eleni	HCMR		

No	Name of participant	Participant organisation	Morning	Afternoon
18	TSANGARIS Catherine	HCMR		
19	VALE Maria	FRCT		
20	Mohammed BRADAI	INSTM	Excused	Excused
21		DRAM - Azores Gov.		
22				
23				
24				
25				
26				
27				