



1ST IMDOS STEERING COMMITTEE* MEETING

Meeting report - 8th January, 2025

*Note that the "Steering Committee" title is being discussed and may be modified in the near future



Executive summary

The newly formed IMDOS Steering Committee held its first meeting as a hybrid meeting on 8th January 2025 in Paris, France. The meeting was attended by the members of the Advisory Board and the Work-Program sub-committee. The full list of in-person and online participants can be found in Appendix A at the end of the report.

The meeting included sessions showcasing the history and current achievements of IMDOS as well as presentations of successful international cooperation examples. The discussions focused on the way forward to establish an implementation plan, in line with the IMDOS Strategy adopted in November 2023. The sections below of this report provide brief accounts of the consecutive agenda items. The full meeting agenda can be found in Appendix B and contains links to the PowerPoint presentations from the Session 1.

The meeting resulted in identifying a concrete list of activities for the next 1-3 years of IMDOS operations, as detailed in Section 2.2 below. This list will be subject to further consultations and revisions within the individual IMDOS Task Teams.

Below is a summary of key decisions and actions identified as critical for SC operations, parallel to any IMDOS community activities planned for the following years.

- To seek a clear and legal mandate from a UN organization or an international commitment from UN member states to strengthen the position of IMDOS;
- To better communicate the IMDOS Strategy to current and potential partners in order to establish a common identified goal and manage any existing or potential conflicts of interest;
- To map active marine debris communities and initiatives to ensure adequate coordination within IMDOS as well as effective partnership building;
- To further clarify the "steering" vs "advising" role of the group, possibly leading to modifications in the naming of the IMDOS "Steering Committee" and its "Sub-Committees";
- To better define the rules for IMDOS SC membership while ensuring adequate flexibility in the proposed IMDOS governance structure;
- To nominate two Co-Chairs to lead the IMDOS SC;
- To develop a fundraising strategy to increase resource available for IMDOS and its Task
 Teams:
- To develop a strategy for centralized and open communication on marine debris observation issues;
- To establish deliverables and timelines for selected IMDOS activities while developing the IMDOS Implementation Plan;
- To promote the development of a common database / platform to help sharing data, protocols, guidelines, models related to marine debris observations;
- To ensure ECOP representation in each IMDOS Task Teams.



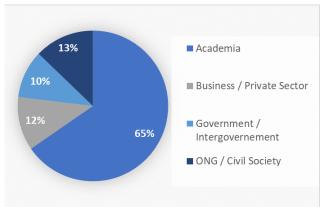
1. IMDOS & successful cooperation examples

1.1 IMDOS General Presentation (Daphné Lecellier, GEO Blue Planet)

The idea of a global marine debris observing system arose at the OceanObs'19 Conference breakout session on Marine Debris, with a plan for harmonized approach to marine debris monitoring described in a derived white paper. There is indeed a wide variety of studies on Marine litter relying on different tools and protocols to capture the information, from citizen initiatives to scientific expeditions and ROVs, leading to non-unified datasets which hinders comparability.

IDMOS has been developed as a joint project between GEO Blue Planet, GOOS and UNEP-GPML, with the aim of supporting the development of a global interoperable marine debris monitoring system, benefiting both the policymakers and the research community. The mission of IMDOS is to provide coordination to harmonize existing guidelines, to generate standardized data, to facilitate open access to data, to inform regional and global indicators and to support the establishment of federated data management systems. 12 strategic objectives have been set up by the interim steering committee encompassing Engagement & Coordination, "System Integration" and "Expertise & Guidance".

An interim Scientific Committee has been established in 2022 with broad geographical representation. It has adopted the IMDOS Strategy in November 2023. To establish the present Steering Committee, a call for Participation was open from July to October 2024. We received about 100 responses, from 33 countries and across all sectors: academia, businesses and civil society.





The secretariat presented the proposed IMDOS governance structure based on an international **Steering Committee** formed by two sub-committees:

The **Advisory & Sponsors sub-committee** will be providing advice on high level strategic directions and connections. It will identify and, where possible, contribute resources. (exofficio seats). We envisage for the Advisory sub-committee to meet once a year.



- The **Work Programme sub-committee** will be responsible for coordinating IMDOS activities. It is be made up of Task Teams co-chairs. The Work Programme sub-committee will meet every other month and once a year with the Advisory sub-committee.

IMDOS work programme is proposed to be composed of 11 Task Teams organized in "Thematic Data Groups", "Technical coordination activities" and "Engagement activities". GEO Blue Planet will be especially supporting the 3 task teams under "Engagement activities". More ideas were already suggested, and extra topics could be included, however the will was to start with fewer task teams to get the work started. More Task Teams could be added in the future once the 11 are running. Respondents to the survey showed a great interest in joining the Task Teams, with between 20 to 40 people selecting each Task Team.

Th	ematic Data Groups	Particle Size	Observing Platform	Compartment
	1 Remote Sensing	Macro	Remote Sensing	Sea surface
	2 Sea Surface Microplastics	Micro	In situ	Sea surface
	3 Seafloor Litter	Macro	In situ	Seafloor
	4 Modelling	All	Modelling	Sea surface and Water Column
	5 Beach Litter	Macro	In situ (+ remote sensing by drone)	Coastlines

Technical coordination activities

- 6. Data Harmonization and Management
- 7. Design of Monitoring System
- 8. Development of Indicators

Engagement activities



- 9. Data for Policy
- 10. UN Global treaty
- 11. Regional Observing Systems/Groups

For the Task Teams, the Secretariat envisaged a meeting every 2 months, but it can depend on the Task Team and the habits of the different communities. The size of the Task Teams and the selection process is to be decided by the Steering Committee, we recommend constituting groups between 8 to 12 people (no more) and we aim for broad geographical representation.

The next milestone for IMDOS will be the One Ocean Science Congress in Nice from 3 to 6 June, directly followed by the 3rd conference of the United Nations on the Ocean (9-13 June). There will be many occasions to showcase the work of the IMDOS community with planned keynote (Alex Turra), oral presentation (Daphne Lecellier) at the congress, and events at the EU Digital Ocean Pavilion.

1.2 Successful examples of international cooperation



This session aimed to highlight examples of successful international cooperation when addressing marine debris monitoring challenges. These examples are meant to help determine the most efficient mechanisms for advancing coordination of marine debris observations by the IMDOS community, and if possible, build upon the achievements of the presented initiatives.

The Global Partnership on Plastic Pollution and Marine Litter (Natalie Harms and Nao Takeuchi, UNEP-GPML)

GPML is a multi-stakeholders initiative which brings together governments, civil society, academia, private sector to address marine pollution. It was launched in 2012 at the RIO+20 summit and is linked with the GPA – Global Program of Action. It contributes to the 2030 agenda (especially SDG14.1) and several UNEA Resolutions. The Secretariat is provided by UNEP.

The GPML provides a mechanism for cooperation and coordination, for sharing ideas, knowledge, experiences and resources, but also for identifying gaps and emerging issues, harnessing worldwide expertise. The activities are organized into 5 actions tracks: science policy linkages; national actions plans & strategies; harmonization of data, standards and methodologies; financing; awareness raising and environmental justice.

There are several Communities of Practices (COP) under GPML. The data harmonization COP and modelling and methodologies harmonization COP will merge. The 3rd CoP is on informing and enabling action and focuses on national action. All COP look at data across the plastic lifecycle.

The Digital platform is mandated by UNEA 4.6: to strengthen coordination and cooperation, and for establishing a multistakeholder platform to foster action. The platform computes open-source data from worldwide sources. It aims to be the single point of access on data on plastic pollution.

The digital Platform comprises 4 pillars:

- A knowledge hub to facilitate learning with a library compiling different resources.
- A data hub representing the whole plastic life cycle, including country's dashboard.
- A community hub to facilitate networking
- A workspace to support countries in developing national source inventories.

GPML digital platform is showcasing different datasets as it has linkages with other data portals. The GPML digital platform is the qo-to online space for plastic pollution experts for:

- measuring cumulative progress
- harmonization of methodologies, data and glossary
- streamlined data validation services
- curated knowledge hub

Questions / Comments

The following key points were raised during the discussion after the presentation:

In response to the question of how to best reconcile the activities of GPML CoPs with IMDOS Task Teams, one could consider two different but equally important needs identified: 1/ showcasing existing data products to stakeholders to demonstrate the value of harmonized data originating from marine debris observations, and 2/ setting up a sustained system that enables to deliver these products as routine operation. A complete system should ensure that data is flowing to keep these products sustained according to internationally agreed metadata and data standards. IMDOS and the GPML may have different but complementary roles to play in that scheme.



- It was clarified that the GPML digital platform is a place to bring together different data sets, to work with different partners ensuring interoperability and to help visualize different data sets along the life cycle. How the different datasets complement each other and inform different parts of the lifecycle.
- It was noted that changes happened recently in the GPML according to the Plastic Treaty, including the fact that the name of GPML changed to Global Partnership on Plastic Pollution and Marine Litter, to capture the upstream indicators of generation of litter. It's also important to keep the focus on the downstream indicators of litter in the environment, as it can help guiding policies and assessing the effectiveness of policies.
- It was proposed that the global system could be seen as having 3 different elements with IMDOS providing guidance on "how-to-do" with respect to marine debris observations and monitoring; with day-to-day operations and data generation performed by countries and/or projects; and with UNEP GPML providing stakeholders with access to harmonized data and information and potentially tracking progresses on the Treaty implementation.
- In connection to the last point, the example of OSPAR was quoted where monitoring of litter ingested by sea turtles was used to measure the effectiveness of implementing the EU directive on single use plastics.
- The need to ensure interconnectivity of the different elements of the system was emphasized.

Seafloor Litter (Georg Hanke, JRC)

Georg Hanke presented the achievements of the seafloor litter community with regard to harmonization of methods and data on the EU and global level. In his presentation "Out of sight but not out of mind" it was highlighted that we observe seafloor litter from different sources, sizes and types. We can spot accumulation areas on the seabed, due to dumping and oceanographic processes, that are impacting ecosystems.

The presentation highlighted 3 monitoring technics: trawling, observation (shallow seafloor) and imaging. To draw conclusions from the different techniques of observations, we need metadata and data harmonization and/or standardization to be developed as early as possible to ensure broad uptake by the observing community.

It was noted that it is important to link with biodiversity experts/researchers to ensure that non-destructive survey methodologies are used, and to maximize the potential for synergistic marine debris and marine biodiversity observations during field sampling campaigns, making them cost-effective and more fit-for-purpose. With the growing need for establishing MPA and biodiversity surveys, there will be high potential for additional coincident marine debris data.

Several Regional frameworks requested seafloor litter monitoring to be established. Data is indeed required as the seafloor is the "final" sink of marine litter therefore it is needed to have holistic understanding of litter sources. We need data across all environmental compartments, and at the global scale, thus we need collaboration with all the regions (Regional Seas Conventions, Arctic...). The seafloor litter community was established first at the European level and went beyond (Japan, USA, China). It gathers today around 60 participants, thus providing a very strong basis for further coordinated activities under the IMDOS umbrella.

Questions / Comments

The discussion after the presentation largely focused on the question of whether debris clean-ups are possible to combine with seafloor monitoring efforts. It was noted that:

- There are citizen-based projects such as PADI "dive against debris" which can explore this possibility, but the community is waiting for the first successful case study.
- Other solutions noted included payment for environmental services for fisherman that remove marine litter with their net (e.g. in Greece).



- There are "fishing for litter" activities and there could be ROV technics to remove plastic from the deeper seafloor, but these are extremely sophisticated. Also impact assessments should be done as trawling for litter can do more ecological harm than benefits.
- The need for greater engagement in discussions with the deep-sea mining and other relevant industries was noted in the context of both acquiring more data (e.g. underwater cables) and clean-up operations.

Harmonization of surface microplastics monitoring methods and data (Atsuhiko Isobe, Kyushu University)

Atsuhiko Isobe presented the achievements of the Marine Plastic Litter Monitoring Data Sharing Project conducted by the Ministry of Environment Government of Japan (MOEJ) in collaboration with the international research community. In particular, the presentation highlighted the Atlas of Ocean Microplastics (AOMI) which was publicly launched in 2024 and is a database and an atlas for several parameters associated with surface microplastics in the ocean. AOMI is available online at: https://aomi.env.go.jp/

Until the publication of the guidelines the different sampling methods and reported units used in research papers hindered the synthesization and comparability of the abundance of microplastics. Harmonization was needed, as well as shared guidelines and protocols. These harmonization efforts then enabled the development of data products and eventually AOMI.

There are 3 layers accessible to users in AOMI: fundamental data (abundance, location, time), raw data and processed data (fibers removed) to be used by researchers. The data submitted on AOMI website goes through quality control by Kyushu University according to criteria agreed with the international group of experts.

Questions / Comments

The discussion after the presentation focused on the next steps in the development of AOMI and its connection to other regional and global data centers. In particular the group raised the following points:

- When assessing gaps in data one should focus on identifying hotspots and increasing our ability to detect trends in changing marine debris stocks and fluxes. To this end, IMDOS will convene the Task Team on monitoring system design which will identify priorities for global observations based on optimal combination of available methods. Any data product development such as AOMI should go hand in hand with efforts to promote regular submission of data to ensure regular updates to data products without which it will be difficult to ensure regular scientific assessments.
- The importance of monitoring rivers and atmospheric transport was mentioned in this context as being essential to any advice related to mitigating debris pollution.
- There is a need for further discussions and consultations with relevant stakeholder groups to identify the most useful means of data and information display, not just via AOMI, but any data products related to marine debris, to maximize the impact of observations.

1.3 Panel discussion

During this session the three speakers, as well as the other meeting participants (through slido), were asked to respond to two questions which reflect some key challenges facing IMDOS. Below is a brief summary of that discussion.

1. What is the one essential ingredient for successful global cooperation?

The participants identified a number of essential ingredients most notably mentioning the following:



- Willingness to steer the cooperation. The importance of identifying the needs and the driving forces was highlighted: who will be driving the work (secretariat)? A platform to showcase the work can serve as a motivation / incentive, in addition to the broadly recognized need for harmonization. This needs to be accompanied by a clear mandate from a UN organization or an international commitment, as well as commitments for long-term funding.
- A **common goal** that is clearly defined. A common identified goal helps the community to move to the same direction. Aim, objectives, and deliverables should be "SMART".
- A common database / platform to help sharing data, protocols, quidelines with the world.
- Centralized and open communication to facilitate that lasting international collaboration and the ability to expand on the existing networks.
- 2. What would be the one challenge that you think IMDOS will encounter and how do you think we could overcome it?

Governance / Mandate / Conflict of interest

- A main challenge to manage will be conflict of interest. The IMDOS members have also other goals: researchers might pursue their own projects and policy-makers might be driven by up-coming elections. Ideally, everyone needs to step back from their interest and work towards the common goal.
- Thus, there needs to be a solid **framework and/or governance structure**. As for now, IMDOS does not have **a clear legal mandate**. Work has to be done to convince overarching processes and policies to give IMDOS that mandate.

Human resources / Technology / quality control

- **Human resources** are essential, especially for data quality control. This leads to the need of **fundings** to be able to employ people.
- Data collection from the field currently requires intensive human resources, thus a challenge would be to **develop technology for global monitoring**.
- Quality assurance & quality control, long-term quality control of data, and harmonization were often cited as a challenge to overcome.

Clear and common outcome

- Having clear definitions of the outcomes and outputs, the mid- to long-term outcome and the
 expected impacts might help to strengthen the cooperation. How the work will be organized among
 the 11 Task Teams and how they will contribute to the wider need of data needs to be elaborated.
- Ensuring coordination between **different ongoing activities and aligning with existing reporting standard** like SDG14.1 to create a global indicator was also mentioned.
- For some, defining a goal that is **agreed by all countries** and **uniting many groups** will represent a challenge.
- Maintaining long-term, coordinated, and global participation will be challenging and will require long-term funding.



2. Terms of Reference & Action Plans

2.1 ToR

Presentation of a ToR draft - Artur

The ToR is helpful to clarify how the group will operate and to build a common understanding. It will be based on the IMDOS strategy adopted in 2023 and its strategic objectives.

A ToR draft was presented and discussed at the meeting, with the aim to be adopted at next SC meeting.

Steering Committee structure

- The Work programme sub-committee is responsible for developing and overseeing the execution of IMDOS implementation plan and focuses on near term to midterm activities.
- The advisory and sponsors sub-committee has an overarching role to provide advice on the high-level strategic directions and connections, identifying and where possible contributing resources to the implementation of the IMDOS ToR.
- The Steering Committee should be led by two co-chairs self-nominated.
- The proposed length of the term is 3 years, with the possibility to renew it for another 3-year term. Co-chair term can be extended to 9 years.
- The Steering Committee should be gender and geographically diverse.

Meetings periodicity

- The full steering committee will meet once a year and members are encouraged to attend in person, although the current fundings are not enough to support the whole SC.
- Therefore, the meeting would last 2 days or longer. It would ideally be back-to-back with another (UN) meeting.
- The Work program would engage in periodical teleconferences. Specific frequency does not need to be written in the ToR.
- The co-chair would hold frequent communication (bimonthly up for discussion).
- Members should nominate someone that can step in if they are absent.

Please refer to Appendix C for the full ToR draft, as presented.

Open discussion

Objectives and outcome

- The high-level objectives are set, but the SC also should decide on the first priorities and the core work for each of the task teams.
- More activities could be added in the long-term Action Plans and the terms of references could give
 more details than just being a summary of the larger objectives => The Secretariat chose to
 distinguish between the terms of reference for the Steering Committee from any terms of reference
 for the task teams themselves, as the activities and operation of the task teams may be different
 from on the organization at the Steering Committee level.
- The SC needs to focus on uptake and use as well, and prepare what will happen once IMDOS produces advice and how to ensure its impact? => An answer could be to link with UN /UNEP and to leverage GOOS.



- The SC needs to set a **timeline for deliverables**, in order to be accountable for it. Goals are already stated in the IMDOS 2023 Strategy and will be implemented as fundings get available.
- The SC needs to define, at the strategic level, **what is the end game (5-10 years)** and then it needs to devise a plan to deliver operationally towards that goal, within a defined timescale.
- This year the SC needs to focus both on the Action Plans for each Task Teams and on overarching targets. These plans should be reviewed by the end of the year. Therefore, the role of the annual Steering Committee meetings would be to plan the following year and to assess what has been done in the previous year.
- The question of whether or not setting KPIs (key performance indicators) arose.
- A different (technical) approach was suggested: first identifying the requirements, then proposing methodologies and protocols, evaluating which are the most appropriate, and finally promoting the result. It can be counterproductive to start promoting something not finished => The IMDOS strategy document is already out, and the first draft of the implementation plan should be written as soon as possible

Membership / SC structure / Mandate

- As IMDOS is not a legal entity, there needs to be a structure to explain how to be part of IMDOS.
 The SC also expressed is willingness to keep some flexibility at the same time. People showing
 interest in singing-up up to IMDOS need to know the expected commitments. Setting a time frame
 can help members to feel obliged to participate. Therefore, the SC needs to agree on a target a
 3-year target seems doable in academia.
- IMDOS structure is not so rigid in fact, and it needs to keep some flexibility.
- There is a legitimacy issue as there is no mandate and members might have divergent interests. Having a clear and robust governance structure helps to vent off criticism that might come from the outside. In the long term the SC will also need to manage a conflict-of-interest strategy, to fend off interference from industry-related parties.
- Being part of IMDOS does not require financial commitments, although working time could be considered as an in-kind contribution from the member's institution. *Does it need to be stated on the ToR?*
- [semantics issue] IMDOS might work more as an advisory committee than a steering committee in terms of decision taking. Steering is linked to a mandate while there is none.
- A general objective of IMDOS is to better align the different sampling efforts: IMDOS could work as an umbrella. Whether the groups are called *task teams* or *working groups*; a *steering* or *advisory*, it's arbitrary, but we all need to be comfortable with the overarching aim.

Connection with existing communities

- Members of the Steering Committee should act as "champions" on behalf of their respective communities. They will ensure engagement and communication among the different communities and partners. => The Steering Committee gathers different organizations and initiatives. The list is not exhaustive and can be reconsidered with time. As the number of seats is limited, SC members have a crucial role to play in transferring the information and sharing the feedback to and from their respective communities.
- IMDOS is built on existing initiatives. The role of **IMDOS Steering Committee is not to decide** on the strategy for these groups, nor on UN guidelines and Regional Seas Conventions. =>
 IMDOS will not set new objectives for these groups but will rather ask representatives of these groups to share their objectives so they can be gathered in a single document.
- IMDOS meetings are essentially about **transfer of information**. It was suggested to name the Task Teams co-chairs "liaisons" if that makes more sense.

Co-chairs

• What is the role of the Steering Committee co-chairs? => The co-chairs are the link between the Secretariat and the Steering Committee. They would have shorter and more frequent meetings



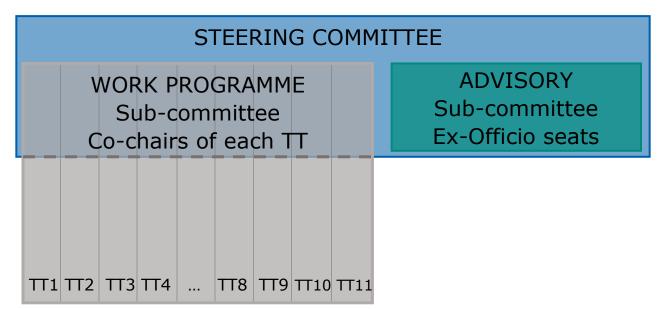
- with the Secretariat for day-to-day matter. The co-chairs will be in charge of: either taking the decision themselves or asking the opinion of the whole Steering Committee members on the matter.
- It was suggested to held elections for the co-chairs of the Task Teams to make the process more democratic and transparent.

UNEP / GPML / COP

UNEP plans to organize a Communities of Practices workshop in February. CoPs on methodology harmonization and data harmonization will be combined and subgroups of experts will be created according to the plastic life cycle: 1/ plastics in the economy, 2/ plastics in the waste management, and 3/ plastics in the environment, with the aim to identify the key indicators that would have to be monitored in priority. => How can this organization be connected with IMDOS?

Diagram

It was noticed during the meeting that having 2 sub-committees could be confusing and that it would help to have a diagram.



Slido questions & comments

- The working groups should elect their respective chairs to be more democratic and should have full autonomy to decide the membership of their task team. => The current process was put in place to get the work started, but it can be envisaged for the next period / round.
- The co-chair should be someone with guaranteed long-term support from his/her institute.
- Co-chairs should be elected, not self-proposed, as well as the task teams leads.
- The two co-chairs could be: 1 representative from the Work Program Committee and 1 from the Advisory Committee.
- There needs to be a conflict-of-interest strategy to avoid interference from industry-related groups.

2.2 Task Teams Action Plans - Year 1

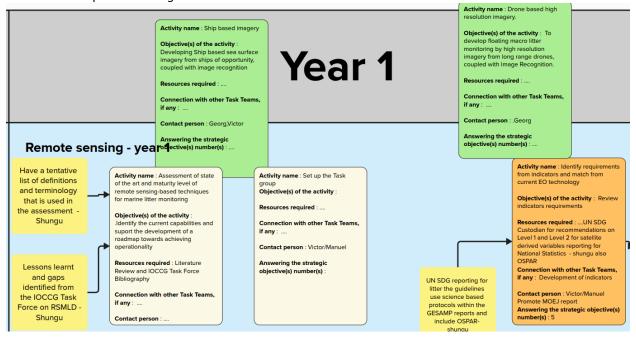
During the discussion, the Steering Committee focused on actions for year 1 and on identifying which activities are already on-going and/or funded. The objective of the next Steering Committee meeting will be to come up with an implementation plan, not only for the Task Teams, but also for IMDOS. For that, there needs to be a prioritization of the Task Teams' activities. Each Task Team, once formed, will



work on its implementation plan. Their implementation plan will need to answer one or more strategic objectives of IMDOS.

TT1 - Remote sensing

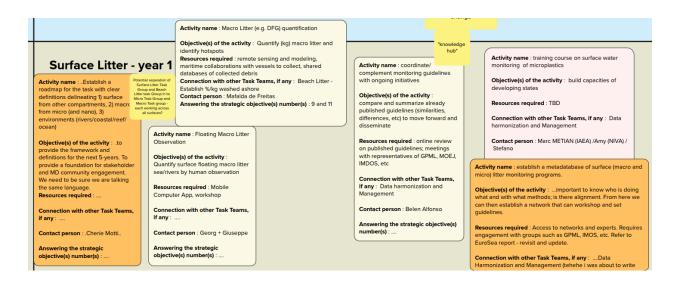
- No activity is funded yet, all suggestions are aspirational. The Task Team should begin with a review / state of the art, with the aim of identifying requirements for indicators. Then, it should link with the indicators TT.
- The Task Team also identified the need to define and use common terminology.
- The MOEJ has made a report and guidelines on drones, and plans to publish guidelines on monitoring by camera next year.
- The topic of floating macro litter and where does it fit within IMDOS should also be addressed.



TT2 - Surface Litter

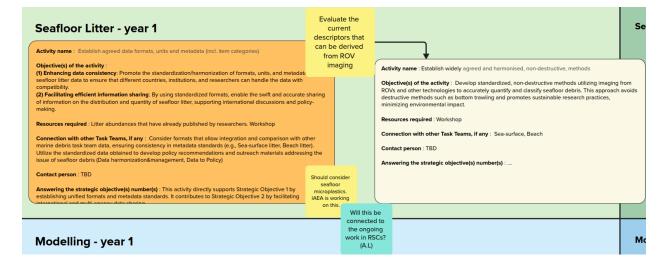
- There are already ongoing activities with IAEA on surface water and sand beach surveys. IAEA also runs programs on capacity building, training and transfer of science.
- The Task Team needs to develop protocols on sediments in coastal areas and to link with the Seafloor TT.
- A report / living document on existing observing and monitoring efforts is on-going with the EuroSea project.





TT3 - Seafloor Litter

- For the first year of implementation, two activities could be envisaged: establish 1/ agreed data format and metadata and 2/ agreed methodologies. These activities are already on-going.
- It was suggested to work across all indicators rather than in silos in each TT (e.g. beach litter) => One option should be to convert data in mass unit. All the compartments have a different maturity but should follow the same strategy.
- The need to broaden geographical mobilization was highlighted.
- One additional activity could be to develop a model for seafloor plastic litter: where they come from and what their distribution is.



TT4 - Modelling

Activity 1 : Provide a community model to researcher

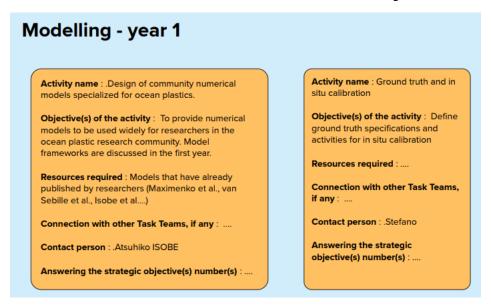
- Designing a community numerical model which is open to the public. IMDOS could be providing
 the website or the platform from where the model could be downloaded.
- The first year could be dedicated to the design of the model. There are many numerical models, the Task Team could organize a workshop or a seminar on how to design the community model.



• A question was raised on how to link the model with the Digital Twins of the Ocean?

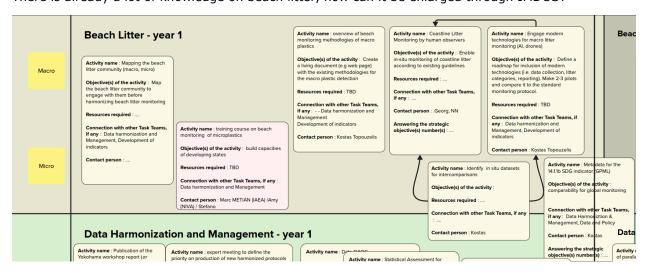
Activity 2: Ground truth and in situ calibration to be integrated in the models.

- Example from Hawaii: the research team has a model for the north pacific garbage pack and is working with fishermen to collect and detect marine debris in order to validate the model.
- Example from the Plastic litter project (on-going) of the Aegean University: the project uses artificial plastic targets on the sea surface for calibration and data validation. The project runs every year.
- An activity could be to gather data requirements from modelers to determine which type of data they need.
- Connection with data harmonization and remote sensing Task Teams.



TT5 - Beach Litter

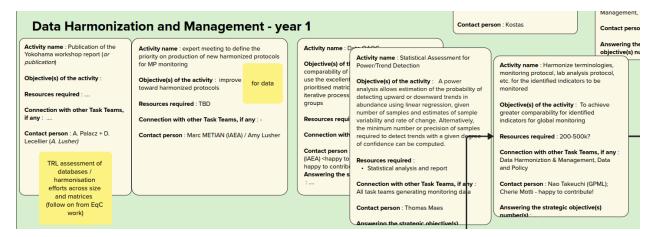
There is already a lot of knowledge on beach litter, how can it be enlarged through IMDOS?



TT6 - Data harmonization & management

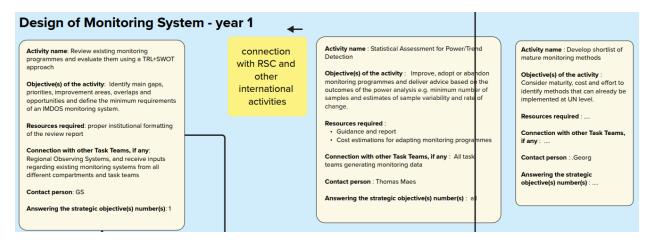


Strengthening the link with the UNEP GPML Platform to harmonize metadata and standards, among others.



TT7 – Design of monitoring system

There is an on-going project with Toste to make an assessment of the maturity of the monitoring methods.

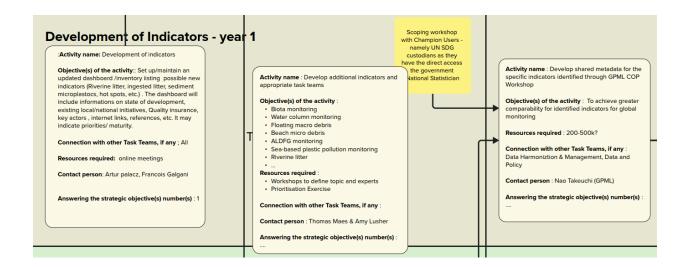


TT8 – Development of indicators

Activities could include:

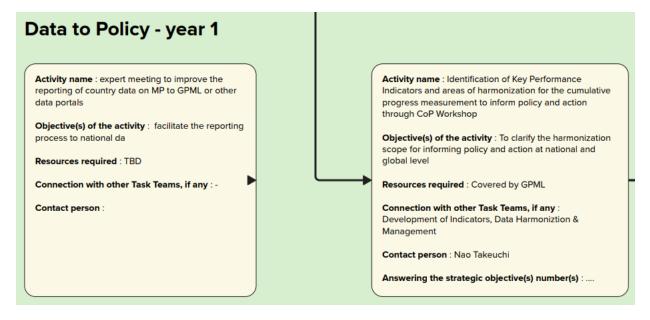
- To plan for a dashboard or an inventory of new indicators which could include: state of development, quality insurance, key actors, existing initiatives and maturity.
- Mapping existing indicators Marine plastic litter EOV
- To work on the EOV specification sheet for approval by GOOS in the next 12-18 months
- To connect with the GPML and the remote sensing TT.





TT9 - Data to policy

- To organize an expert meeting to improve the reporting of country data.
- To connect with GPML CoPs.

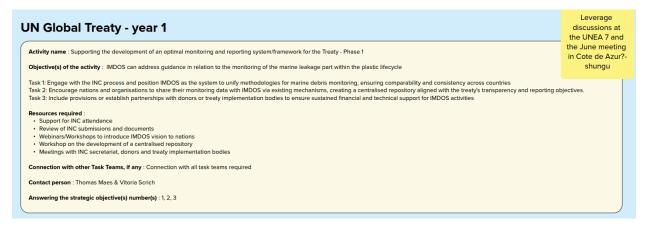


TT10 - UN Global Plastics Treaty

- In the wider context of the Global Plastic treaty, IMDOs focuses on a specific part that is leakages
 in the ocean. Although leakages are not the biggest part in the Treaty, it is important to raise
 awareness and has been key to developing policies.
- We need to advocate IMDOS to the INC and policymakers. It is difficult to ask for additional
 monitoring in Europe and should therefore come at very low costs. The Task Team needs to
 define priorities and to find which indicators would be the most useful to inform action and
 policies at the national and global level.

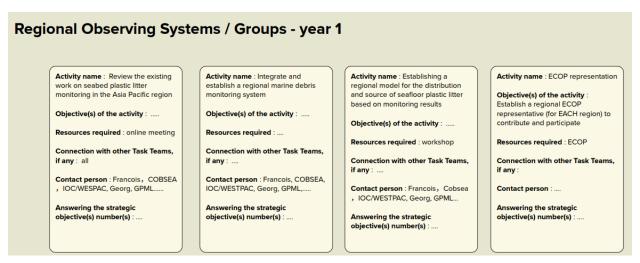


- Focusing on measuring changes and/or specific functions, such as environmental harm. When assessing the maturity of the indicators, one should not only look at the feasibility of implementing them but also at their ability to detect trends.
- Leveraging the international 2025 events such as UNEA7 and UNOC3 as "one team IMDOS".



TT11 - Regional System

The first-year activity could be collecting regional data which is needed for models.



Cross-cutting issue

- Having ECOP representation in every Task Team, especially in the Regional Groups TT.
- The anchoring point of the implementation plans are the strategic objectives.
- Following a bottom-up approach, the first step would be to map the communities.
- The objective for the first year is to come up with an implementation plan for IMDOS as well as the Task Teams Action Plans. These documents could then be used to support fundraising.
- Next steps: Daphne and Audrey will convene one-on-one meetings for each Task Team to figure
 out how to gather their respective communities, consult with them and ensure that the priority
 activities answer the needs of each community.
- Future step: planning the participation of IMDOS in OceanObs'29 to showcase the 10-year progress.



3. Funding discussion

Past & Current situation

- Past fundings: IMDOS started 100% pro bono until the Ocean19's paper. IMDOS then received fundings from projects EuroSea (2019-2023) and EU4OceanObs (2021-2027). Secretariat activities have been covered by Mercator Ocean International and the Institute of Oceanology Polish Academy of Sciences (IO PAN).
- GEO Blue planet has committed to supporting several Task Teams operating at the science-policy interface, however, more dedicated secretariat resources need to be identified to ensure coordination of activities in other proposed Task Teams.

Future projects

• **EU project BioGeoSea**: coordinated by Toste Tanhua (GEOMAR, Germany), will start in mid-2025 for 4 years. A dedicated task will bring additional support to IMDOS, with ca. 1.5 full time equivalent (FTE) to be hired at IOPAN as part of the distributed IMDOS Secretariat. Expected hiring date: late 2025-early 2026.

Some proposed activities:

Key supported Task Teams:
Data Harmonization & Management
Design of Monitoring System
Technical Innovations
Development of Indicators

Update the Marine Plastics Debris EOV Specification Sheet and present the EOV for formal acceptance by the GOOS Steering Committee

Promote guidelines for harmonisation, standardisation, and quality control of marine debris data

Further develop an international roadmap towards a federated and interoperable data management system for marine debris (dedicated workshop)

Deliver a readiness level assessment of the publicly available marine debris data products and existing observing technologies

There is also funding for a dedicated workshop.

- Upcoming Horizon call published in Spring deadline in September: "Strategy for marine litter assessment" with an international component.
- Submit a project to **SCOR**; deadline is October (SCOR meeting in Colombia). They prefer to support academia (transparency issue) and could support the Data harmonization or Indicators Task Team. They can provide support for more than 2 years.
- Call on the Ocean in the **Belmont Forum**, focusing on transdisciplinary science and including traditional knowledge.
- Being endorsed by the **Ocean Decade as a Program or a Project**. It could help to foster additional fundings.
- **CYTED medical program** for science and technology for development.
- **COST proposal** : https://www.cost.eu/funding/open-call-a-simple-one-step-application-process/ Deadline is 21 October 2025 at 12:00 (noon) CEST.



What to do now?

- The Secretariat will organize a dedicated meeting to outline a fundraising strategy.
- GOOS Central Office will explore possibilities to offer a consultancy at IOC-UNESCO to support IMDOS operations in short-term.
- Priority will be set to fund participation in key IMDOS-related workshops. However, we
 encourage SC members to explore funding alternatives through their own project and/or
 institution budgets.

4. Next Steps

- Finalize IMDOS Terms of References and Implementation plan for the next SC meeting / October 2025.
- Coordinate a UN Ocean Conference side event.
- The next meeting could take place: in Nice in June or at the end of 2025 or back-to-back with INC5.2

5. List of Appendix

- A. Participants list with affiliation
- B. Agenda of the meeting, including the <u>links to the presentations</u>
- C. Draft Term of References as it was presented during the meeting



Appendix A: List of Participants

Title	First Name	Last Name	Task Team / Ex-Officio	Participation
Dr.	Manuel	Arias	Remote Sensing	online
Dr.	Victor	Martinez Vicente	Remote Sensing	online
Dr.	Maria Belen	Alfonso	Surface Litter	In-person
Dr.	Cherie	Motti	Surface Litter	online
Dr.	Ryota	Nakajima	Seafloor Litter	In-person
Dr.	Melanie	Bergmann	Seafloor Litter	online
Pr.	Atsuhiko	Isobe	Modelling	In-person
Dr.	Konstantinos	Topouzelis	Beach Litter	online
Dr.	Amy	Lusher	Data Harmonization and Management	In-person
Dr.	Giuseppe	Suaria	Design of Monitoring System	In-person
Dr.	Toste	Tanhua	Design of Monitoring System	1
Dr.	Artur	Palacz	Development of Indicators	In-person
Dr.	François	Galgani	Development of Indicators	online
Ms.	Nao	Takeuchi	Data for Policy	online
Dr.	Georg	Hanke	Data for Policy	In-person
Dr.	Thomas	Maes	UN Global treaty	In-person
Ms.	Vitoria	Scrich	UN Global treaty	online
Mr.	Mahesh	Pradhan	Regional Observing Systems/Groups	online
Pr.	Daoji	Li	Regional Observing Systems/Groups	online
Ms.	Natalie	Harms	UNEP / GPML	online
Ms.	Mafalda	de Freitas	ECOP	In-person
Dr.	Kirsten	Gilardi	GESAMP	1
Dr.	Marc	Metian	IAEA	online
Dr.	Yutaka	Michida	IOC	online
Dr.	Joanna	Post	GOOS	In-person
Pr.	Shungu	Garaba	IOCCG	In-person
Dr.	Stefano	Aliani	SCOR	In-person
Pr.	Alex	Turra	Ocean Decade	In-person
Dr.	Audrey	Hasson	GEO Blue Planet / Mercator Ocean Intl	In-person
Dr.	Patrick	Vincent	Mercator Ocean Intl	In-person



Appendix B: Agenda

Date: January, 8th - Paris

Location: Zamansky Tower, 24th floor. Sorbonne University, Paris.

ZOOM link: https://us02web.zoom.us/j/81343118549

ID of the meeting : $813\ 4311\ 8549$

Objectives:

(1) Officially launch the IMDOS Steering Committee

(2) Move from Strategy to Implementation via launch of the IMDOS Task Teams.

Expected outcome:

Gathering views on Task Teams action plans.

Time	Description	Speakers
8.30- 9.00	Arrival - Registration	
9.00 - 9.30	Tour de table / introduction	
9.30-10.15	Presentation of IMDOS	GEO Blue Planet
	- Overview	(30' + 15' questions)
	- Strategy	
	 List of the Task Teams 	
	 Expectations for the Task Teams 	
	- Plan for UNOC-3	
	 Past and current funding of IMDOS 	
10.15 -10.30	Successful examples of thematic global	Nao Takeuchi or Natalie Harms
	coordination (1): GPML	(UNEP GPML)
10.30-11.00	Coffee break	
11.00-11.15	Successful examples of thematic global	Georg Hanke (JRC)
	coordination (2): seafloor litter	
11.15-11.30	Successful examples of thematic global	Atsuhiko Isobe (Kyushu University)
	coordination (3): surface microplastics	
11.30-12.30	Plenary Open Discussion:	Moderated by GEO BP
	How do we build on these successful	
	initiatives when developing the IMDOS	
	Implementation Plan (and thus the work of	
	the Task Teams)?	



12.30- 13.30	Lunch Break - On-site catering	
13.30-13.45	Introduction of the afternoon session	GEO BP
	- Expectations	
	- How to use MURAL tool	
13.45-14.30	Discussion on the Steering Committee	Lead by Artur & GEO BP
	Term of Reference :	
	- Membership	Click to access:
	- SC co-chair position	The slides
	- Representativity	The ToR draft document
	 Organization of the work 	
	 Frequency of meetings 	
14.30-16.00	Discussion on the action plans of the Task	Moderated by GEO BP
With open	<u>Teams</u>	
breaks &	Using MURAL board	
coffee		
16:00-17.00	Open discussion - Synthesis of the Task	Moderated by GEO BP
	Teams action plans :	
	 How does it fit together as an 	
	Implementation Plan ?	
	 What are the priorities for the first 	
	12 months ?	
17.00-17.30	Funding discussion	Moderated by GEO BP
17.30-18.00	Next steps and conclusion	Moderated by GEO BP
18.00	Cocktail	





Appendix C: Draft ToR – as presented

Integrated Marine Debris Observing System (IMDOS)

Terms of Reference for the IMDOS Steering Committee

The Terms of Reference (ToRs) of the International Marine Debris Observing System (IMDOS) - a joint project of the GEO Blue Planet, the Global Ocean Observing System and the UN Environment Program - are determined by the mission of IMDOS to provide coordination and guidance to lead the marine debris community in establishing a sustained global observing system and facilitating open access to data.

The IMDOS Steering Committee (SC) is the primary decision body responsible for overseeing the implementation of the ToRs according to the <u>IMDOS Strategy</u>, approved in 2023 by the interim IMDOS Steering Committee.

Composition of the IMDOS SC

The IMDOS SC will be composed of two sub-committees:

- Work Programme Sub-Committee which will be:
 - o composed of Co-Chairs of all IMDOS Task Teams;
 - responsible for developing and overseeing the execution of the IMDOS Implementation Plan which will detail the proposed short- to mid-term activities of all the IMDOS Task Teams, in line with the overall IMDOS Strategy;
 - appointed through an open call and selected by IMDOS Co-Chairs and Secretariat primarily based on their scientific expertise related to the technical aspects of IMDOS implementation.
- Advisory & Sponsors Sub-Committee which will be:
 - o composed of ex-officio representatives of relevant intergovernmental bodies, international organizations, programs or projects of a global reach;
 - responsible for providing advice on high level strategic directions and connections, identifying and, where possible, contributing resources to the implementation of the IMDOS ToRs;
 - o appointed by invitation by the IMDOS SC and confirmed by nomination from the relevant organizations.



The IMDOS SC will be managed by:

- <u>two Co-Chairs</u> who will be:
 - o nominated or self-nominated out of the current members of the IMDOS SC;
 - o providing a mixture of scientific expertise and strong policy or funding linkages.
- IMDOS Secretariat who will be:
 - recruited from IMDOS parent organizations and other sponsor organizations;
 - providing coordination and communication services for the IMDOS SC and IMDOS Task
 Team operations.

Appointment of IMDOS SC members will aim to reflect an appropriate range of scientific and policy expertise, while ensuring in so far as possible a geographic and gender balance.

All IMDOS SC members will be appointed for one 3-year term with the possibility to extend service for a maximum of two terms. For a member who subsequently becomes Co-Chair, the maximum period of service may be extended up to 9 years, with a maximum period of 6 years as Co-Chair. Appointments will normally begin at the start of the calendar year.

The responsibilities of the IMDOS SC

Members of the IMDOS SC will be collectively responsible for the long-term implementation of the following strategic objectives as identified by the IMDOS Strategy:

- 1. Advocate for the transition to a long-term, coordinated, global marine debris (MD) observing system.
- 2. Discover and engage with existing and proposed MD monitoring, remote sensing, and numerical modelling initiatives to propose coordination under a common framework.
- 3. Foster communication and synergies within the expanding MD community, and with researchers and decision-makers.
- 4. Advise on the development of MD information products for assessment reports for all stakeholders.
- 5. Provide recommendations on the design and evolution of a global MD observing system.
- 6. Give guidance on assessment and harmonization of MD monitoring methodologies.
- 7. Promote guidelines for harmonization, standardization, and quality control of MD data towards federated and interoperable data management systems.
- 8. Ensure open access MD data following the Findability, Accessibility, Interoperability, and Reuse (FAIR) principles.
- 9. Enhance synergies between in-situ and remote sensing MD observing components for their integration through compatibility and complementarity.



- 10. Integrate the modelling and observing MD capabilities to enable the development of interactive virtual representations (digital twins) and observing system design.
- 11. Integrate citizen science and innovative MD observing initiatives.
- 12. Support technological advancements and innovations to increase technical readiness levels of all MD observing elements

Expected commitment of individual IMDOS SC members

• Attend, in person or remotely, one annual in-person meeting of the IMDOS SC, nominally lasting two full days.

Expected commitment of individual IMDOS SC Work Programme Sub-Committee members

- Participate in the periodical teleconferences expected to be no more than four times a year (planned at least 4 weeks in advance with sufficient flexibility on proposed dates).
- Provide input to the agenda for the quarterly teleconferences.
- Conduct bi-monthly online meetings of the IMDOS Task Team if appointed as a co-chair of any.

Under certain circumstances when SC members are not able to participate in the scheduled meetings, SC members can consult with the IMDOS Secretariat and Co-Chairs about nominating a replacement.

