GPML data harmonisation

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GPML

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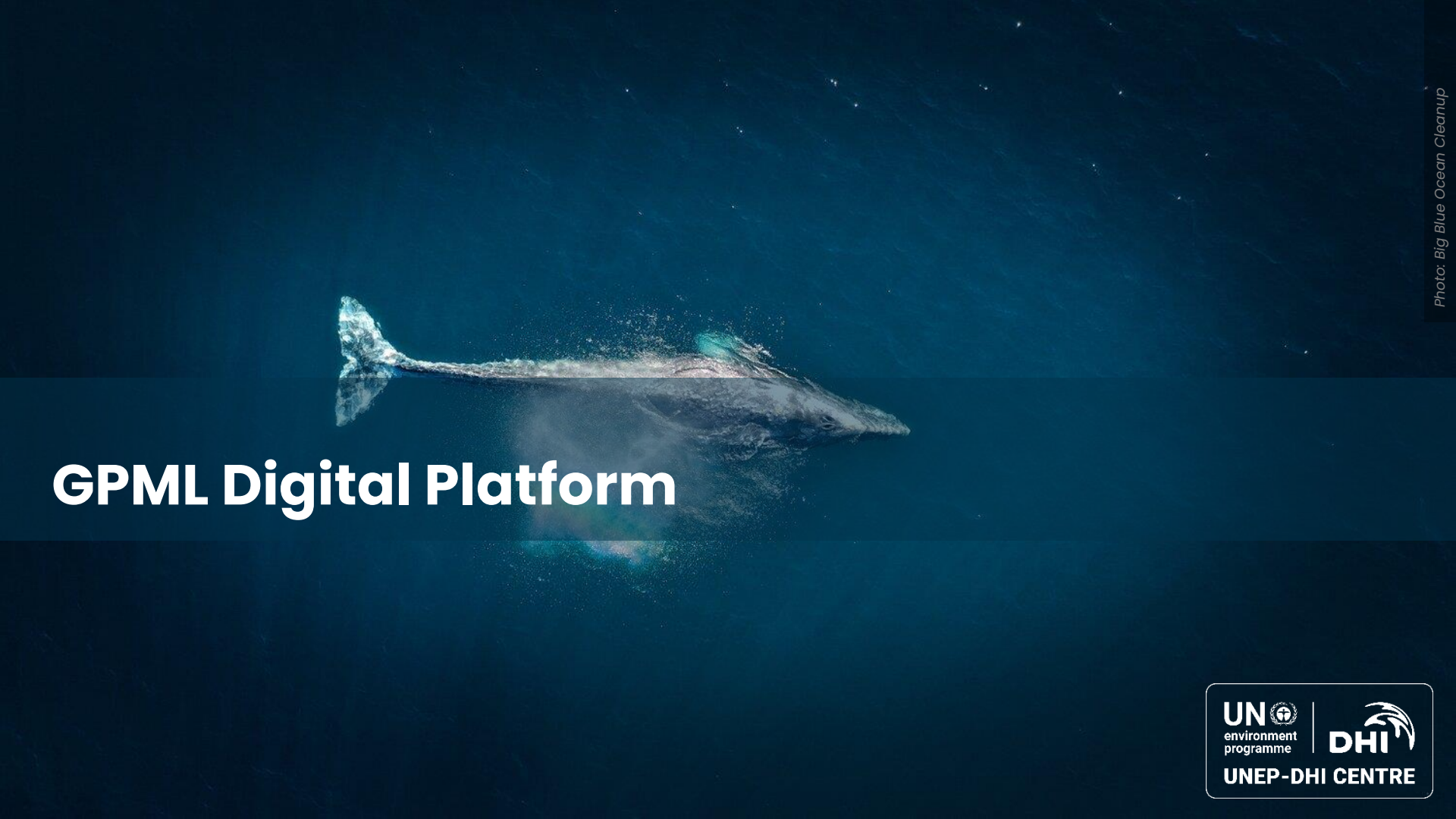
What is GPML?

- Global Partnership on Plastic Pollution and Marine Litter
- A multi-stakeholder partnership bringing together actors working on marine litter and plastic pollution prevention and reduction
- Central part of GPML's work is the Digital Platform
- Focus today on data harmonization and the microplastic data available in the platform



GPML Digital Platform

Photo: Big Blue Ocean Cleanup

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GPML Digital Platform

Data and knowledge hub for informed and evidence-based actions among stakeholders

Knowledge hub

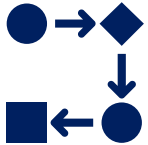
Facilitate learnings through sharing best practices, case studies, guidelines, tools, technical resources, training courses, masterclass, etc.

Data hub

Showcase quality assured data throughout the plastic lifecycle collected and visualized. National dashboard to support source inventory development and measuring progress.

Partners hub

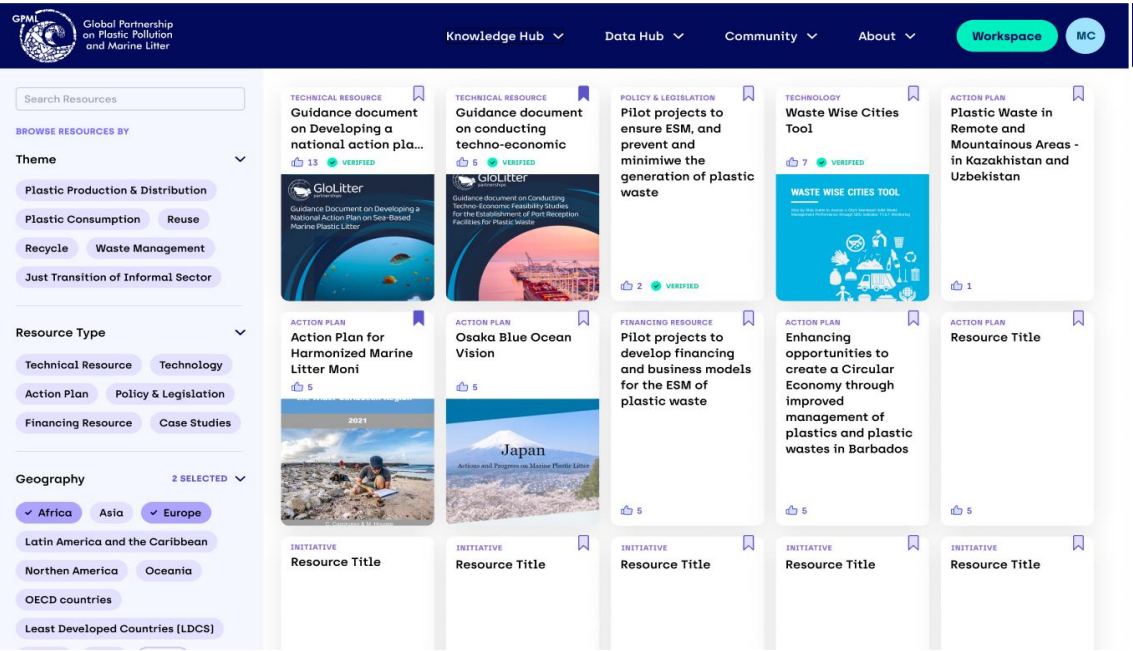
Facilitate networking with like-minded individuals and organizations for consorted and coordinated actions. Window for joining the GPML network is also provided here.

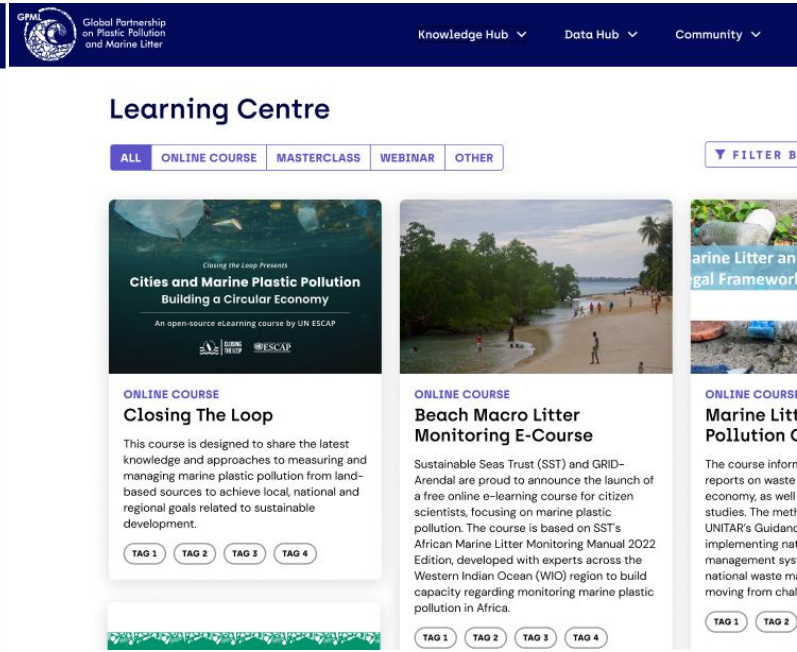


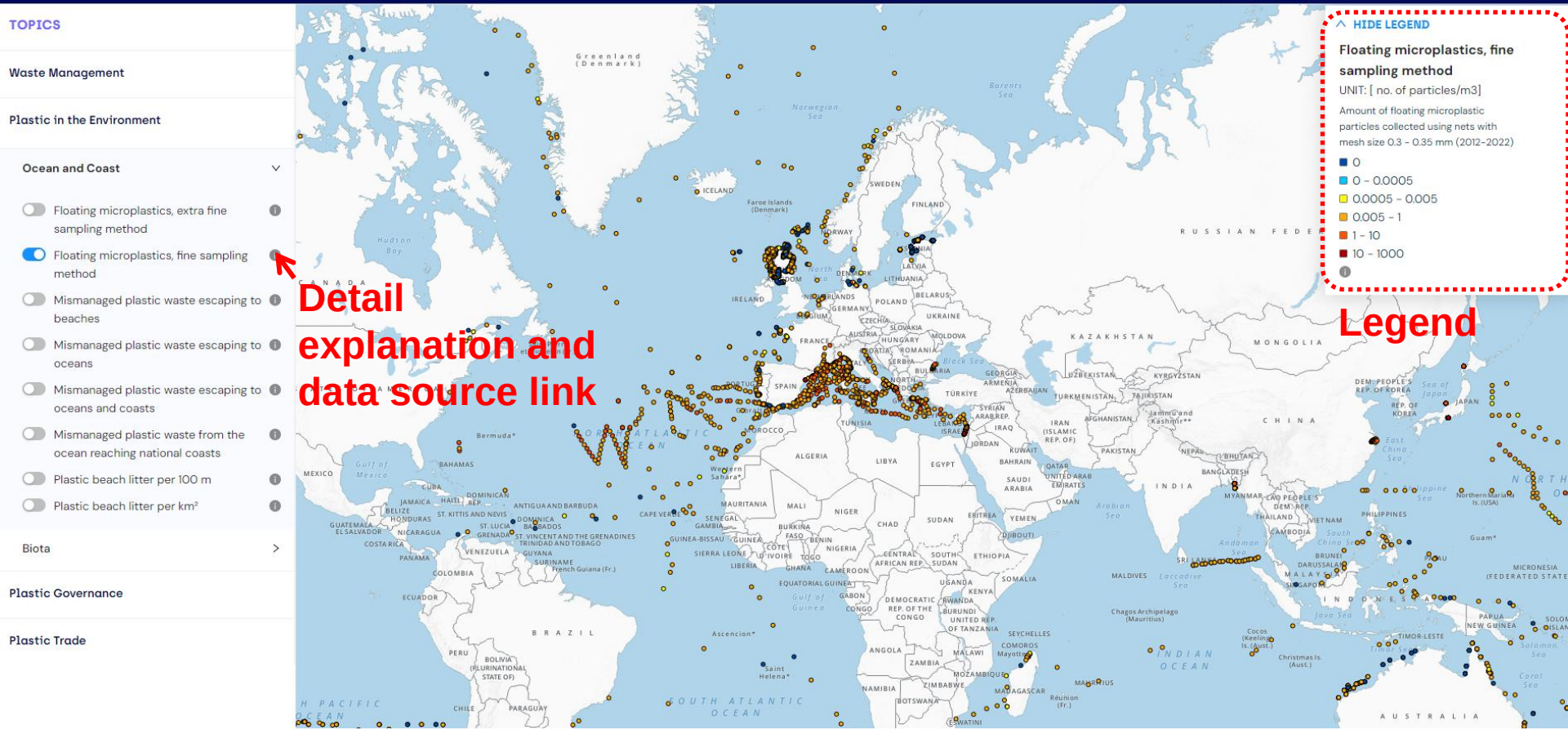
Workspace

Workflow to support countries in developing national source inventory towards national strategy/roadmap/action plan with step-by-step guide and data and knowledge materials.

Knowledge Hub






TOPICS
Waste Management
Plastic in the Environment
Ocean and Coast
Floating microplastics, extra fine sampling method
Floating microplastics, fine sampling method
Mismanaged plastic waste escaping to beaches
Mismanaged plastic waste escaping to oceans
Mismanaged plastic waste escaping to oceans and coasts
Mismanaged plastic waste from the ocean reaching national coasts
Plastic beach litter per 100 m
Plastic beach litter per km²
Biota
Plastic Governance
Plastic Trade
Detail explanation and data source link
HIDE LEGEND
Floating microplastics, fine sampling method
UNIT: [no. of particles/m3]
Amount of floating microplastic particles collected using nets with mesh size 0.3 - 0.35 mm (2012-2022)
0
0 - 0.0005
0.0005 - 0.005
0.005 - 1
1 - 10
10 - 1000
Legend

NATIONAL DASHBOARD

Senegal

Development ongoing

Compare countries data on in a map view

View global data →

SENEGAL

Waste Management

Data last updated: 02-20-22

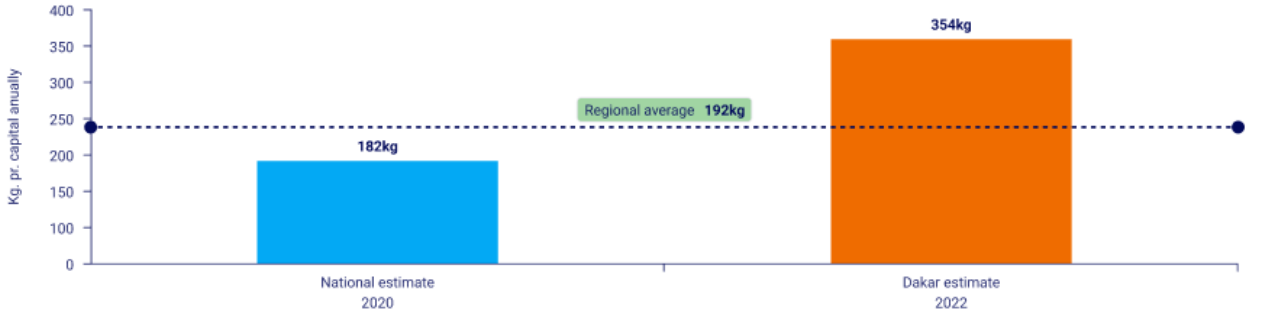
Request Data Update

An estimated **3.209.000 tonnes** of municipal solid waste (MSW) were generated in Senegal in 2020, of which [no data]% is collected and [no data]% is recycled. The estimated municipal solid waste generation per capita at the national level in Senegal is **0.5 kg** per person daily, **95%** is collected.

51.463 tonnes of plastic waste were recorded as generated in the waste composition survey in Dakar in 2022. Primary data collected in Dakar on the MSW generation indicate that the amount of plastic waste generation from MSW annually per capita was **354 kg**.

It was estimated that **39%** of the generated plastic waste in Dakar was leaking from the MSW management system into the environment in 2022.

Per capita MSW generation (kg/person/day)



Data provided by UNEP. See source here

Introductions

This workflow tool has been created to assist your team with the development of a plastics strategy for your country. Some key steps are suggested for consideration while in the 'create' phase. The workflow will be further developed to assist with the phases of 'implement', 'report', and 'review'.

The workflow and resources associated with each suggested step are designed to facilitate and accelerate the activities of the 'create' phase of your plastic strategy. Such resources include data, documents, templates, case studies, relevant organizations (governmental and non-governmental) as well as individuals active in the space.

Step 1: Establishment of a National Steering Committee & Project Team

This step assists in the establishment of a National Steering Committee (NSC) with representation from necessary government agencies as well as relevant non-governmental organizations. The NSC should aim to meet 2-4 times per year to assist with and drive the roadmap/strategy/plan. A project team should be established to assist the NSC, consisting of consultants and focal points, to lead the implementation of the project with the guidance of the NSC and UNEP.

Step 2: Stakeholder consultation

Consultation should aim to understand the current issues faced by various stakeholders, as well as their role in solving the problem (actors) and how proposed activities of the national plastics strategy may affect them positively or negatively. Different stakeholders may also have access to important data. This step of the workflow provides guidance on organizing a comprehensive stakeholder consultation process to ensure all relevant sectors and stakeholders are consulted.

Step 3: State of Knowledge on Plastic Data

Data is at the core of understanding the issues and current state of play, as well as the tracking of trends to determine effectiveness of the national plastics strategy. This step will help in compiling existing data and information into a State of Knowledge Report. This could include identification of areas in need of additional data collection, leading to additional secondary data collection..

Step 4: Legislation & Policy Review and Analysis

An analysis of the legal and policy framework in your country can help identify current goals and targets that the national plastics strategy should aim to achieve, as well as gaps in this framework that the strategy could help close. This allows for the identification of priority areas to track and the type of data needed to do so. In this stage, together with UNEP's guidance, a review and analysis of the legislative and policy landscape as it pertains to marine litter and plastic pollution would be conducted.

Mark as Completed
Next →

Data Harmonisation

Photo: Big Blue Ocean Cleanup

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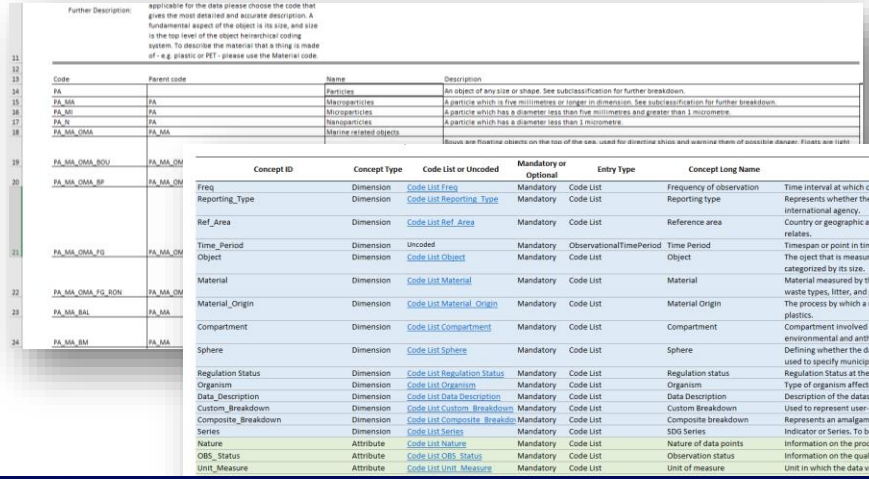
GPML data work

- Database of plastic data relevant for decision makers, covering the entire plastic life cycle
- Including microplastics data, but also many other types of data
  - Currently two microplastics layers based on data fra EMODnet, MOEJ, and NOAA
- Do not monitor data but collect and show data from other sources
- Input from experts very important

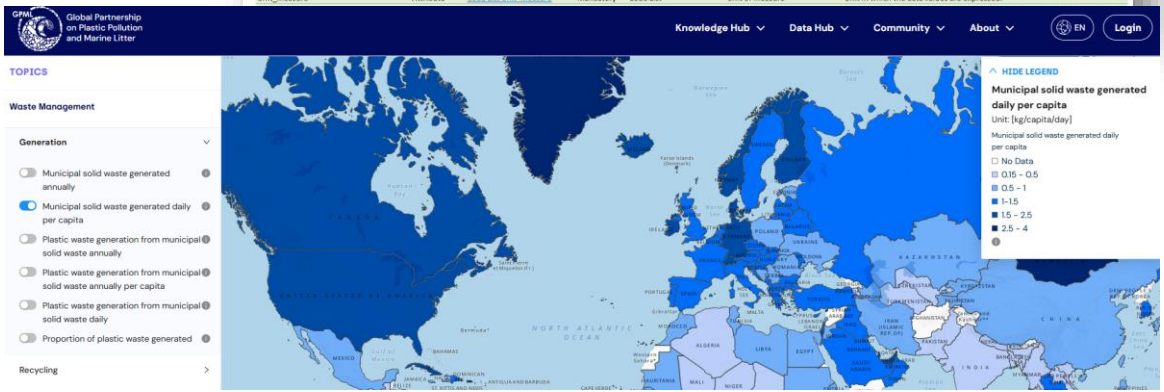
Data Harmonisation CoP

Data harmonisation matrix

- Data harmonization matrix to support harmonising diverse datasets across various dimensions of plastics lifecycle
- Indicators uploaded and visualized in the GPML Data Hub covering all aspects of plastics

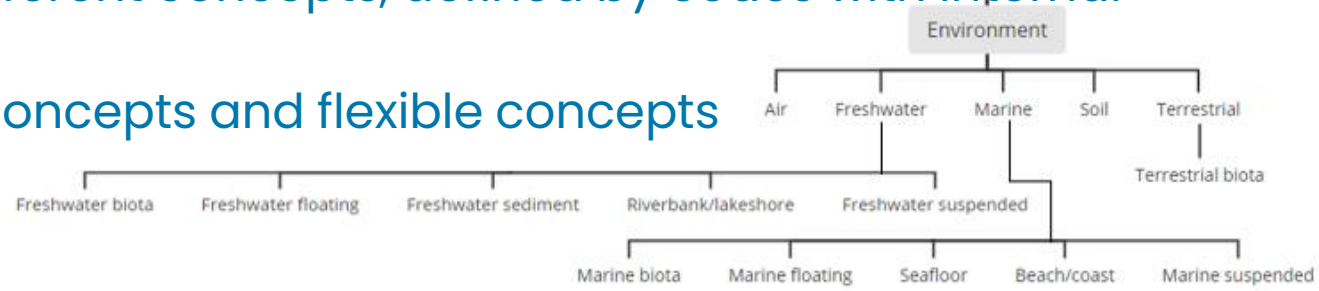


Concept ID	Concept Type	Code List or Uncoded	Mandatory or Optional	Entry Type	Concept Long Name	Concept Description
Freq	Dimension	Code List Freq	Mandatory	Code List	Frequency of observation	Time interval at which observations occur over a given time period.
Reporting_Type	Dimension	Code List Reporting_Type	Mandatory	Code List	Reporting type	Represents whether the official series is reported by a national, regional, or international agency.
Ref_Area	Dimension	Code List Ref_Area	Mandatory	Code List	Reference area	Country or geographic area to which the measured statistical phenomenon relates.
Time_Period	Dimension	Uncoded	Mandatory	ObservationalTimePeriod	Time Period	Timespan or point in time to which the observation actually refers.
Object	Dimension	Code List Object	Mandatory	Code List	Object	The ojject that is measured in the observation, which is fundamentally categorized by its size.
Material	Dimension	Code List Material	Mandatory	Code List	Material	Material measured by the series observations. This concept includes both waste types, litter, and produced materials.
Material_Origin	Dimension	Code List Material_Origin	Mandatory	Code List	Material Origin	The process by which a material originates, namely virgin plastics vs recycled plastics.
Compartment	Dimension	Code List Compartment	Mandatory	Code List	Compartment	Compartment involved in the series measurements. This can be both environmental and anthropogenic.
Sphere	Dimension	Code List Sphere	Mandatory	Code List	Sphere	Defining whether the data relates to production, waste, or pollution. Also used to specify municipal solid waste.
Regulation Status	Dimension	Code List Regulation Status	Mandatory	Code List	Regulation status	Regulation Status at the moment of its entry in the Matrix.
Organism	Dimension	Code List Organism	Mandatory	Code List	Organism	Type of organism affected.
Data_Description	Dimension	Code List Data Description	Mandatory	Code List	Data Description	Description of the dataset, often related to a process or methodology.
Custom_Breakdown	Dimension	Code List Custom_Breakdown	Mandatory	Code List	Custom Breakdown	Used to represent user-defined breakdowns.
Composite_Breakdown	Dimension	Code List Composite_Breakdo	Mandatory	Code List	Composite breakdown	Represents an amalgamation of infrequently used breaksowns.
Series	Dimension	Code List Series	Mandatory	Code List	SDG Series	Indicator or Series. To be assigned by GPML.
Nature	Attribute	Code List Nature	Mandatory	Code List	Nature of data points	Information on the production and dissemination of the data (e.g. if the
OBS_Status	Attribute	Code List OBS_Status	Mandatory	Code List	Observation status	Information on the quality of a value or an unusual or missing value.
Unit_Measure	Attribute	Code List Unit_Measure	Mandatory	Code List	Unit of measure	Unit in which the data values are expressed.



Data harmonisation matrix

- Based on strategy adopted for SDG reporting
- Each observation uniquely identified
- Storing essential information about the data point
- Suitable for qualitative and quantitative data at global, regional, national and sub-national levels
- Foundation for indicators calculation database – main focus on data issued at country-level
- Columns with different concepts, defined by codes with internal hierarchy
- Some free-text concepts and flexible concepts



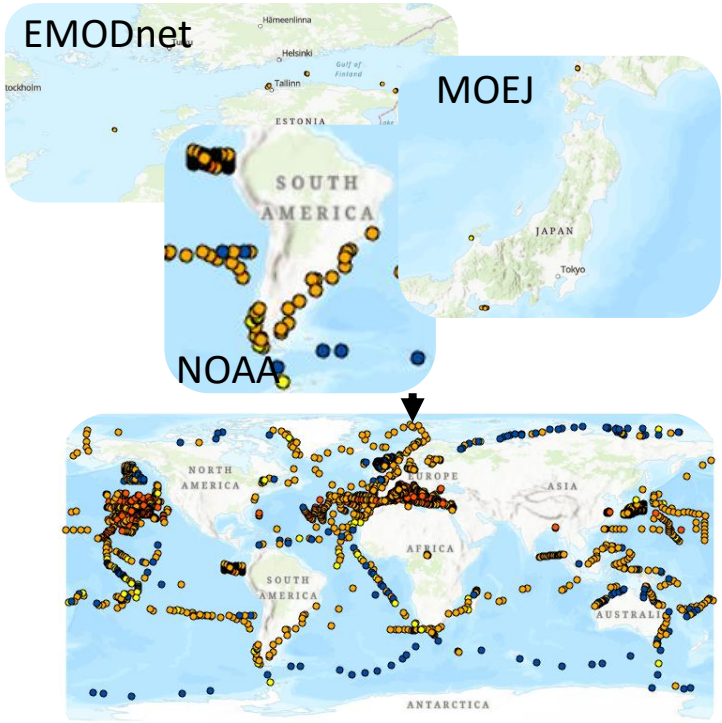
Harmonised microplastics dataset

EMODnet: Floating microplastic in oceans primarily around Europe

Ministry of Environment Japan: Floating microplastic in oceans surrounding Japan

NOAA: Floating microplastic in oceans surrounding USA

Harmonized dataset of floating microplastic based on three different underlying datasets



Nets w. mesh size 0.300-0.335 mm, 2012-2022

Challenges in harmonising microplasitc datasets

- Which data are comparable?
- Which information needs to be tracked?
- How do we find the balance between retaining the important metadata, but also showing information at a level that can be taken in by decision makers?
- Different levels metadata by different data providers
- Even within data from the same data providers, there may be data points which should not be visualised in the same layer

Microplastic data in the Data Hub

Thank you

Photo: Big Blue Ocean Cleanup

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