Global Partnership on Marine Litter

UN environment programme 1972-2022

The Global Partnership on Marine Litter Digital Platform on Plastic Pollution and Marine Litter

Integrating Marine Litter Monitoring to Inform Action

29 June 2022

Global Challenges & Solutions Needed

From **Duplication and lack of data and information**

→ To Integrated knowledge and data

From **Lack of harmonization**

→ To Promoting unified approaches

From **Lack of coordinated action**

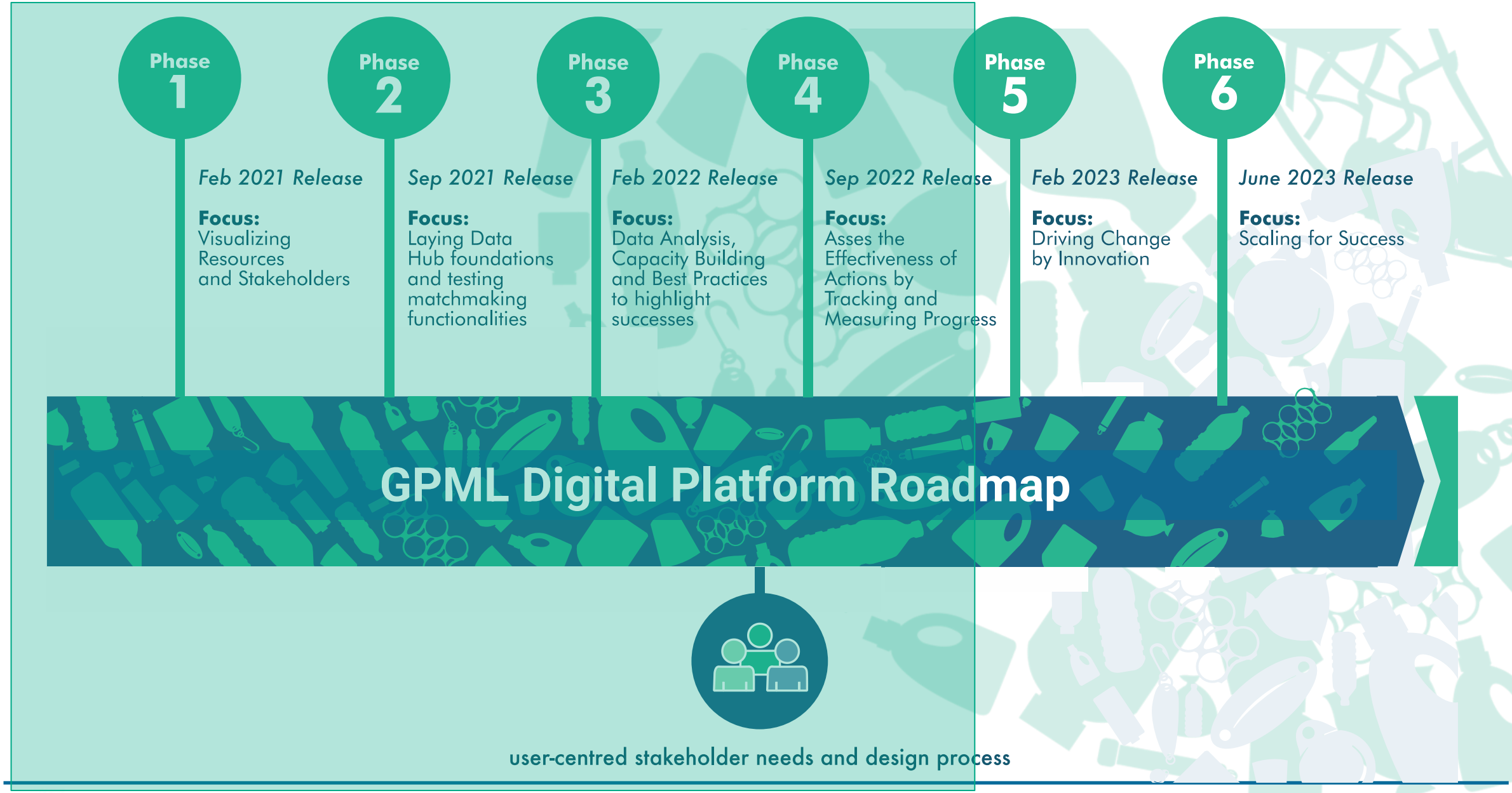
→ To A common framework to develop and implement action plans and measure progress

From **Lack of ad hoc and regular collaboration among stakeholders**

→ To Co-developed solutions

How?

The GPML is working with a wide range of Partners to create a common Digital Platform that brings together curated data, information, and innovative technologies and convenes stakeholders across sectors to give access to all.



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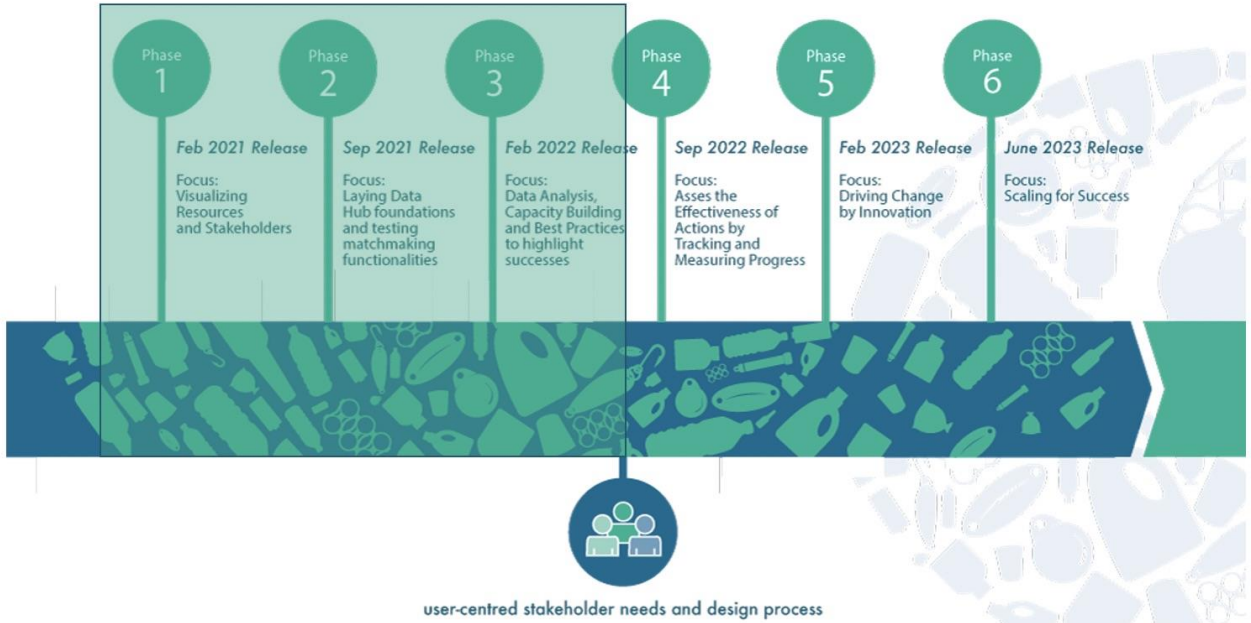


What have we achieved?

In numbers the GPML Digital Platform has brought together:

1614 Resources

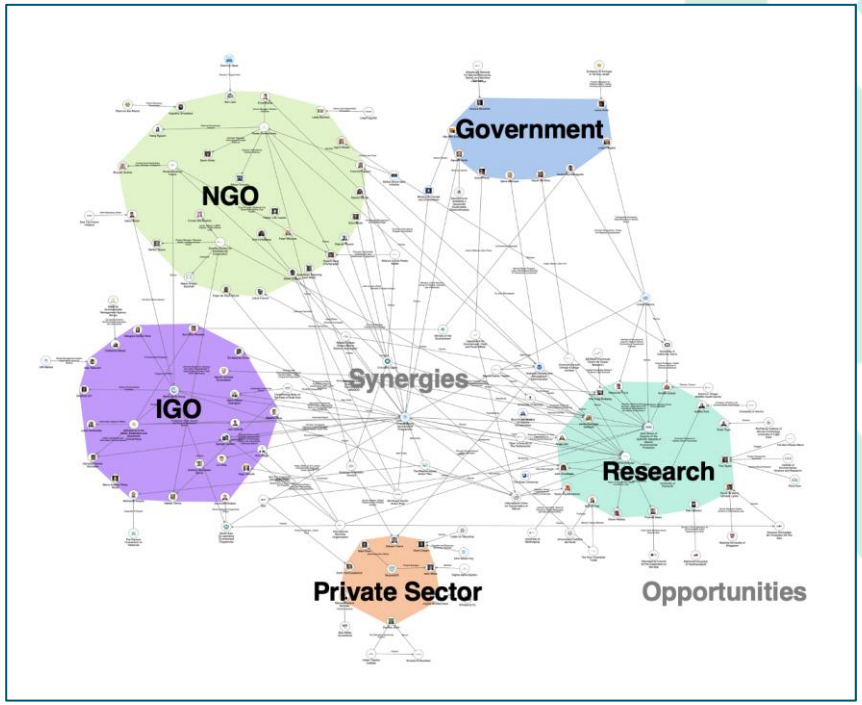
247 Data sets

40+ Partners

1636 GPML Network

57 Action Plans

Multi-stakeholder Engagement



Multi-stakeholder Forum

Global Partnership on Marine Litter

01 Science - Policy

02 National action plans

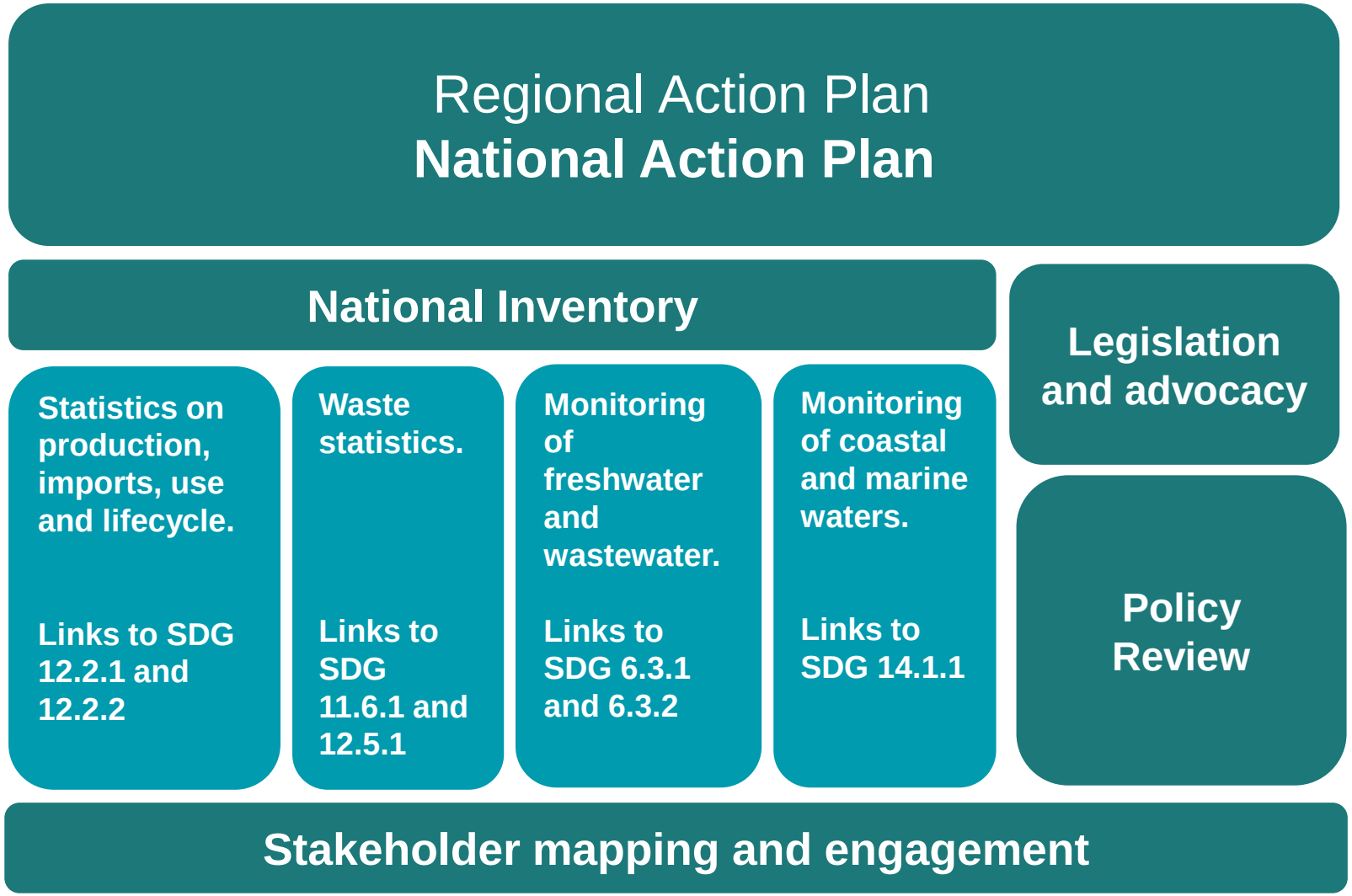
03 Guidelines, standards and harmonization

04 Sustainable and innovative financing

05 Access to all

- From **Lack of coordinated action**
  - To A common framework to develop and implement Action Plans and measure progress
- From **Lack of harmonization**
  - To Promoting unified approaches

National Source Inventory Approach



- University of Wollongong: Concept development and indicator recommendation
- UN-Habitat: waste statistics, including municipal waste flows, major leakage points
- UNEP:
  - legislation review and policy support
  - monitoring of freshwater, coastal and marine waters and pilot testing
  - Harmonize methodologies and models
  - Knowledge management
  - Freshwater risk models

The objective is to produce a comprehensive and evidence-based National Action Plan to support and guide countries towards eliminating ML & plastic pollution.

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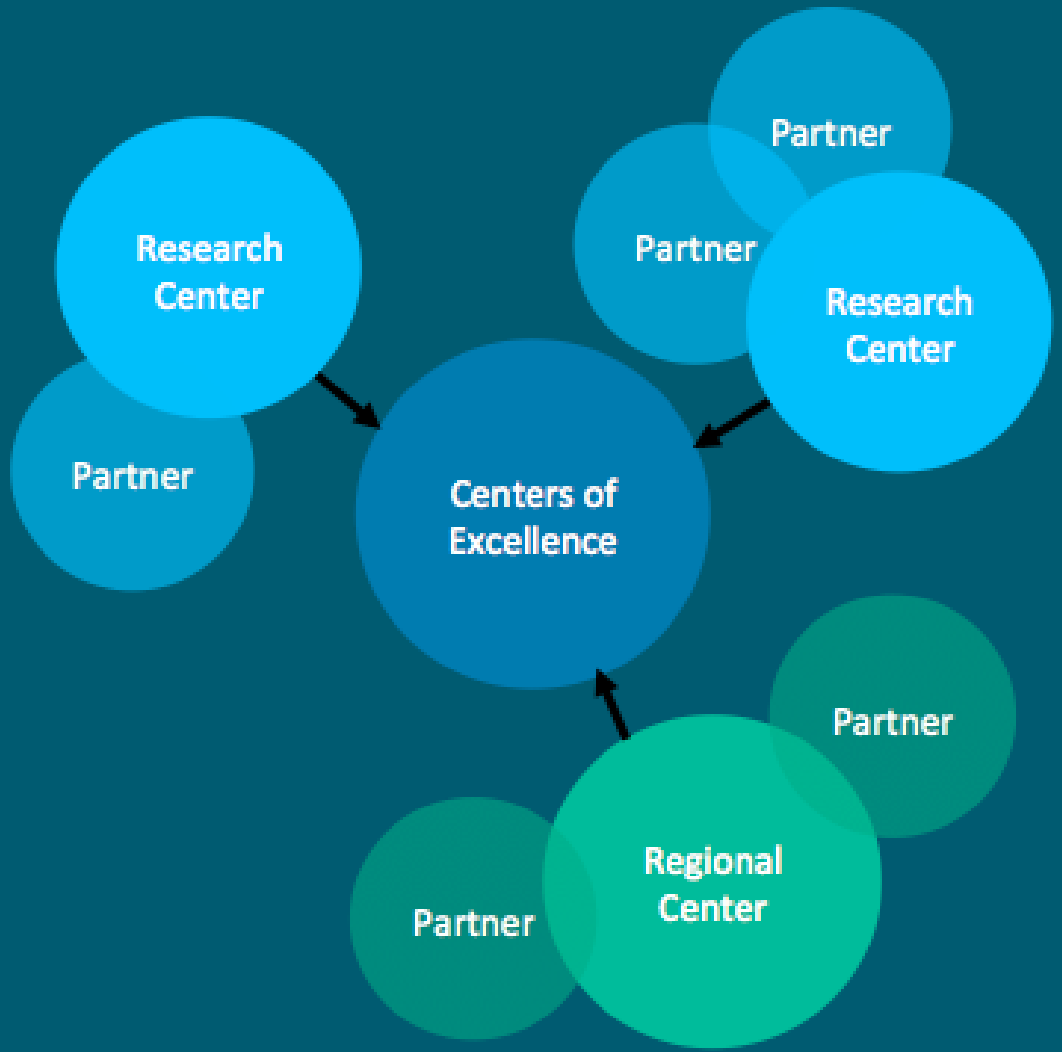
Communities of Practice

- Informal communities who meet regularly to discuss good practices or contribute to a project
- Three types
  - Geographic
  - Topical
  - Cross-cutting

Centers of Excellence

- Formal entities responsible for establishing good practices, contributing to data governance, and creating technical links to the GPML Digital Platform
- Two types
  - Geographic ("Regional Center")
  - Topical ("Research Center")



Communities of Practice

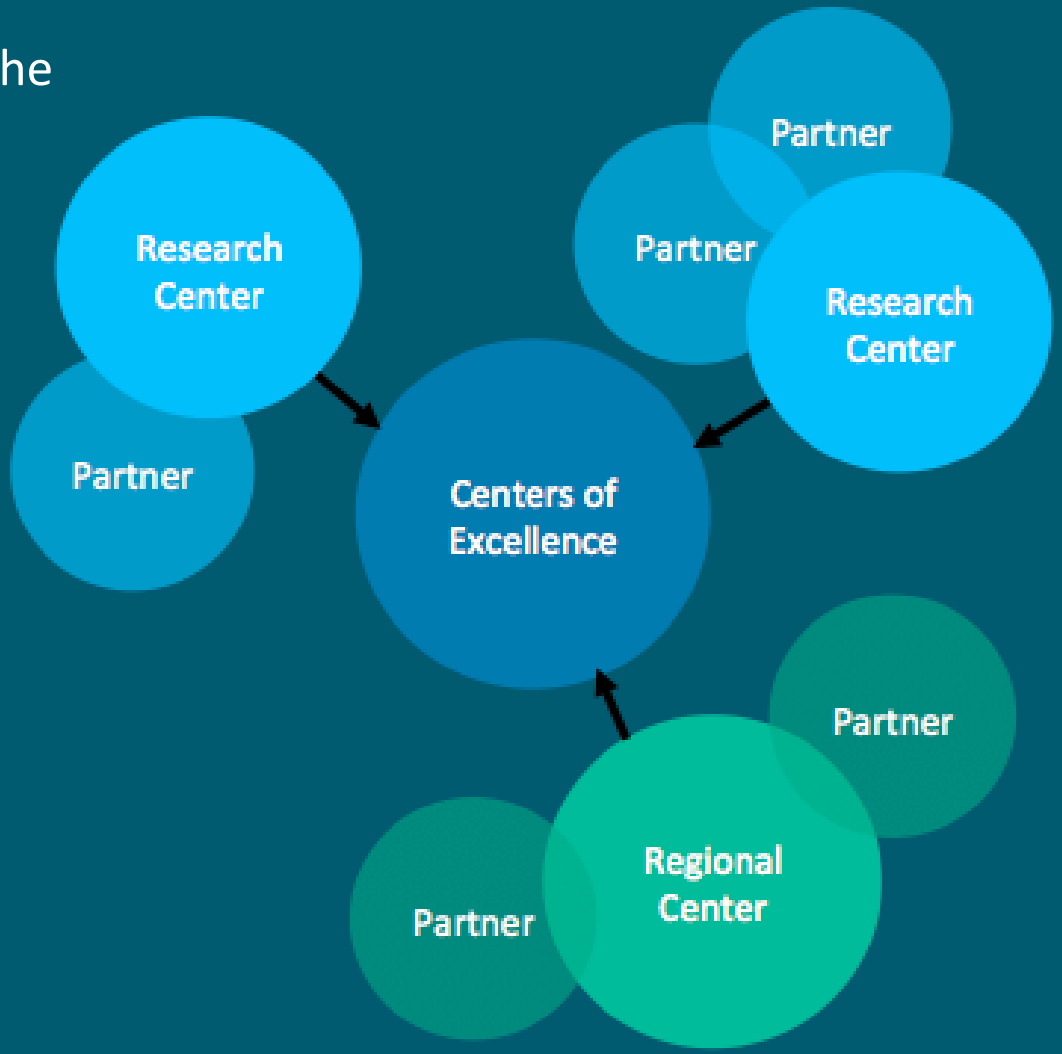
Progress To Date:

- Data Harmonization CoP – Measuring actions progress using National Sources Inventories, Data Layers & Indicators
  - 10+ data partners coordinating harmonization across the lifecycle
  - 1 harmonised framework
  - 50 categories across the lifecycle
- Models & Methodologies CoP
- Ontology CoP – definitions and glossary
- Capacity Building CoP – coming soon

Centers of Excellence

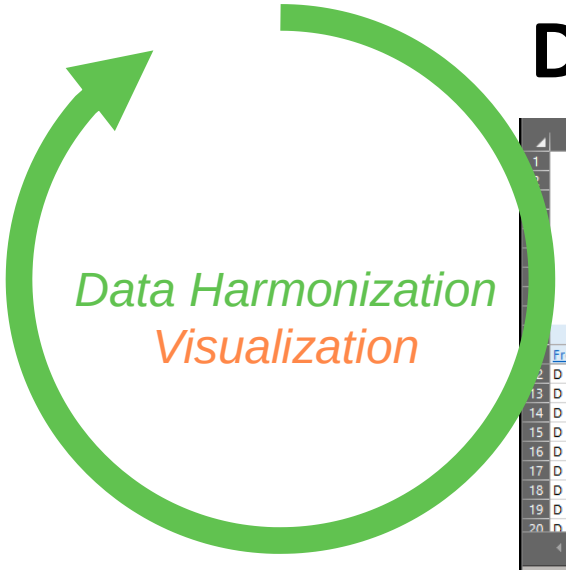
Progress To Date:

- Pilot development of Centres of Excellence in the LAC region with global roll out expected
- Knowledge sharing and capacity development through Center of Excellences



Data Harmonization Workflow

Data layer → harmonization & interpretation → visualization on GPML platform → analysis categories



Data Harmonization matrix

GPML Digital Platform data layers Dataset Metadata collection

To find more information acout all Dimensions and Attributes, see the Concept Scheme tab.
Use the drop-down menus to select the code for each code list. If a cell does not have a dropdown menu, enter the value manually.
To find more information about the codes in each concept code list, click the concept heading to go to that code list sheet.

Indicator or Series Name: Water surface and water column - macro

Dimensions								Attributes									Meaure
Freq	Reporting_Type	Ref_Area	Custom_Breakdown	Time_Period	Waste_Type	Media_Type	Series	Nature	OBS_Status	Unit_Measure	Base_Period	Time_Detail	Time_Coverage	Source_Detail	Comment_TS	Latitude	Longitude	OBS_Value
D	SN	208	_T	21-04-2022 - 16-0	MA	F	EN_WBE_DHI_WM	M	F	T_PER_D		22-04-2022	20220422T000000	UNEP-DHI		56.44375	9.983333333	0.04
D	SN	208	_T	21-04-2022 - 16-0	MA	F	EN_WBE_DHI_WM	M	F	T_PER_D		23-04-2022	20220423T000000	UNEP-DHI		56.44375	9.983333333	0.04
D	SN	208	_T	21-04-2022 - 16-0	MA	F	EN_WBE_DHI_WM	M	F	T_PER_D		24-04-2022	20220424T000000	UNEP-DHI		56.44375	9.983333333	0.04
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D	SN	208	_T	21-04-2022 - 16-0	MA	F	EN_WBE_DHI_WM	M	F	T_PER_D		23-04-2022	20220423T000000	UNEP-DHI		56.44166667	9.983333333	0.02
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D	SN	208	_T	21-04-2022 - 16-0	MA	F	EN_WBE_DHI_WM	M	F	T_PER_D		23-04-2022	20220423T000000	UNEP-DHI		56.38125	9.895833333	0

Summary Sheet | Dataset Metadata | Concept Scheme | Observations Metadata | Code List Freq | Code List Reporting_Type | Code List Ref_Area | Code List Custom_Breakdown

Workspace & Action Plans Workflow

National Sources Inventories, Layers & Indicators

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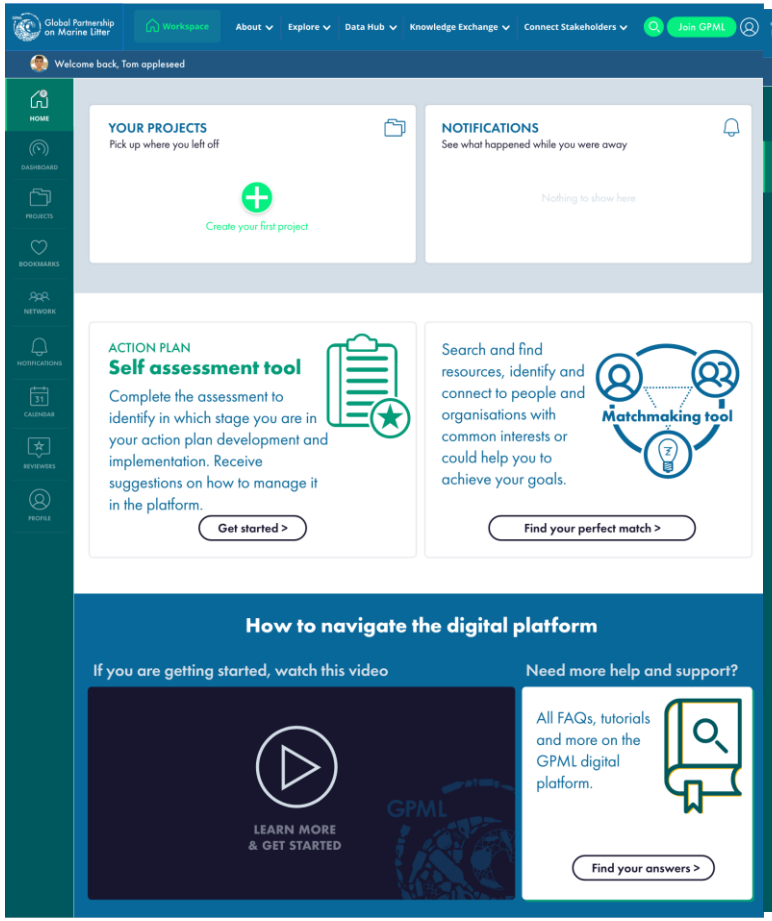
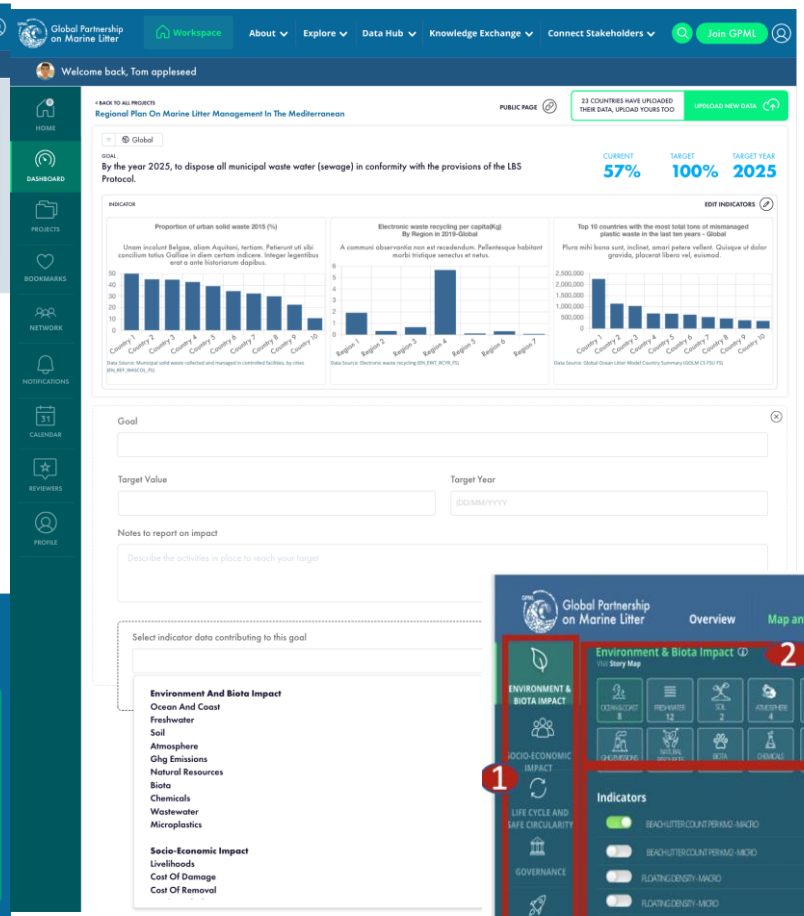
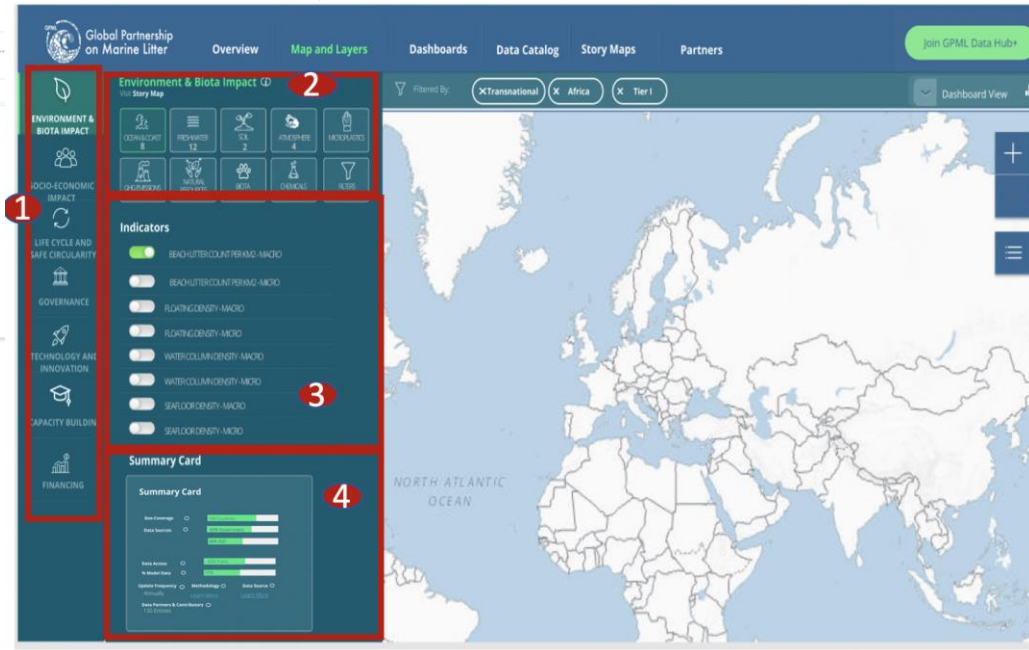






DATA HUB

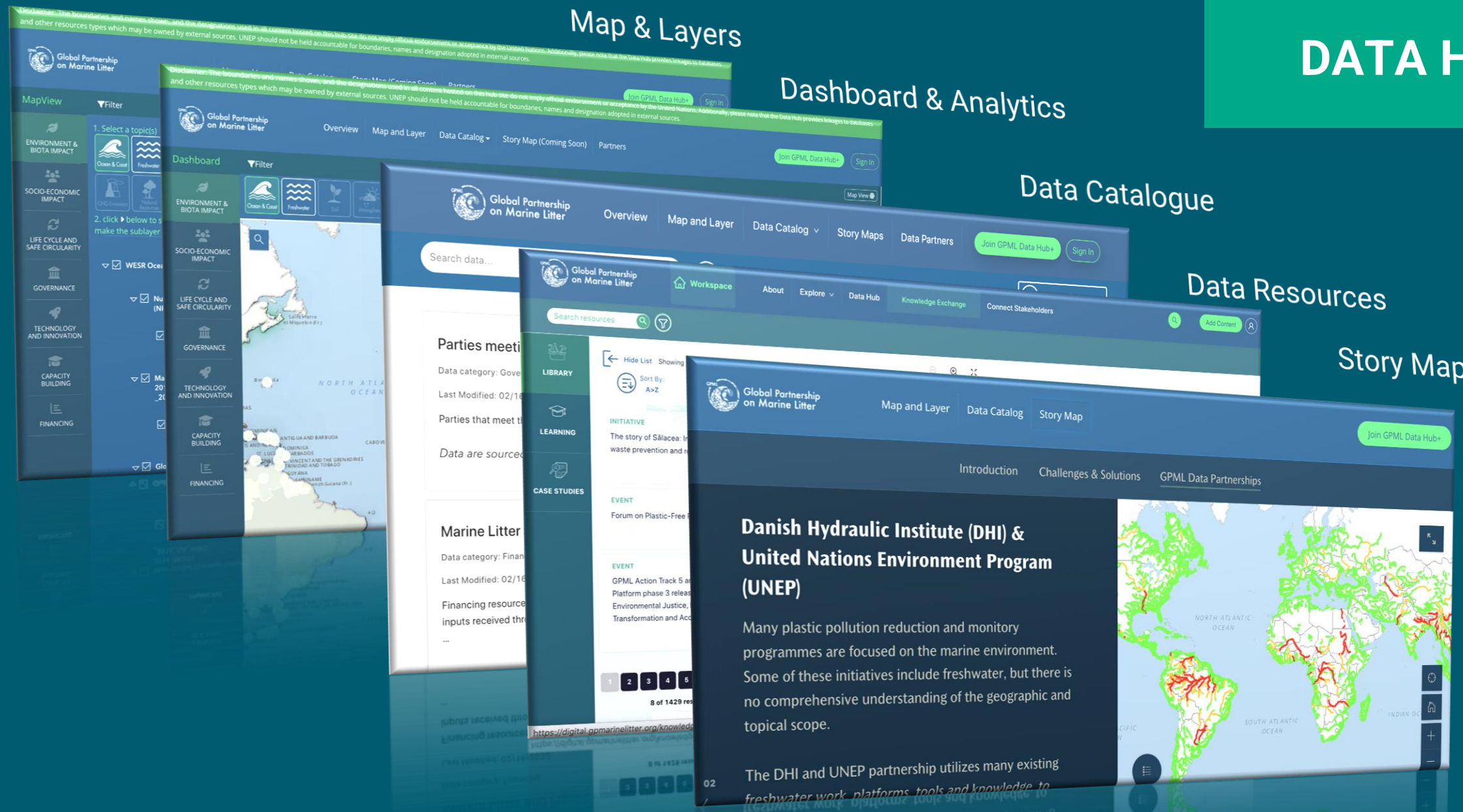
Map & Layers

Dashboard & Analytics

Data Catalogue

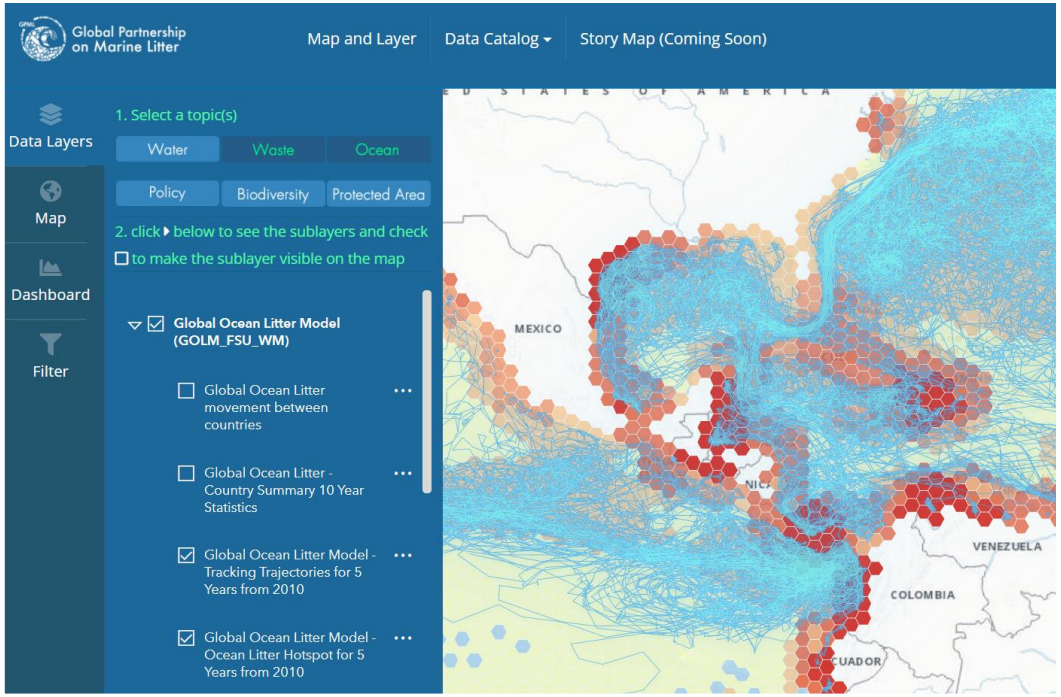
Data Resources

Story Maps



+ Communities of Practice

Examples: Data Layers



Leakage Hotspots Models

Tracking Marine Litter With a Global Ocean Model

Where Does It Go? Where Does It Come From?

Operational risk and warning system for macro plastic litter

- *Plastic generated in catchments*
- *Runoff and river discharge from Global Hydrologic Model*
- *Mobilization of Plastic*
- *Plastic load & relative river load*
- *Seasonal forecasts for early warning*

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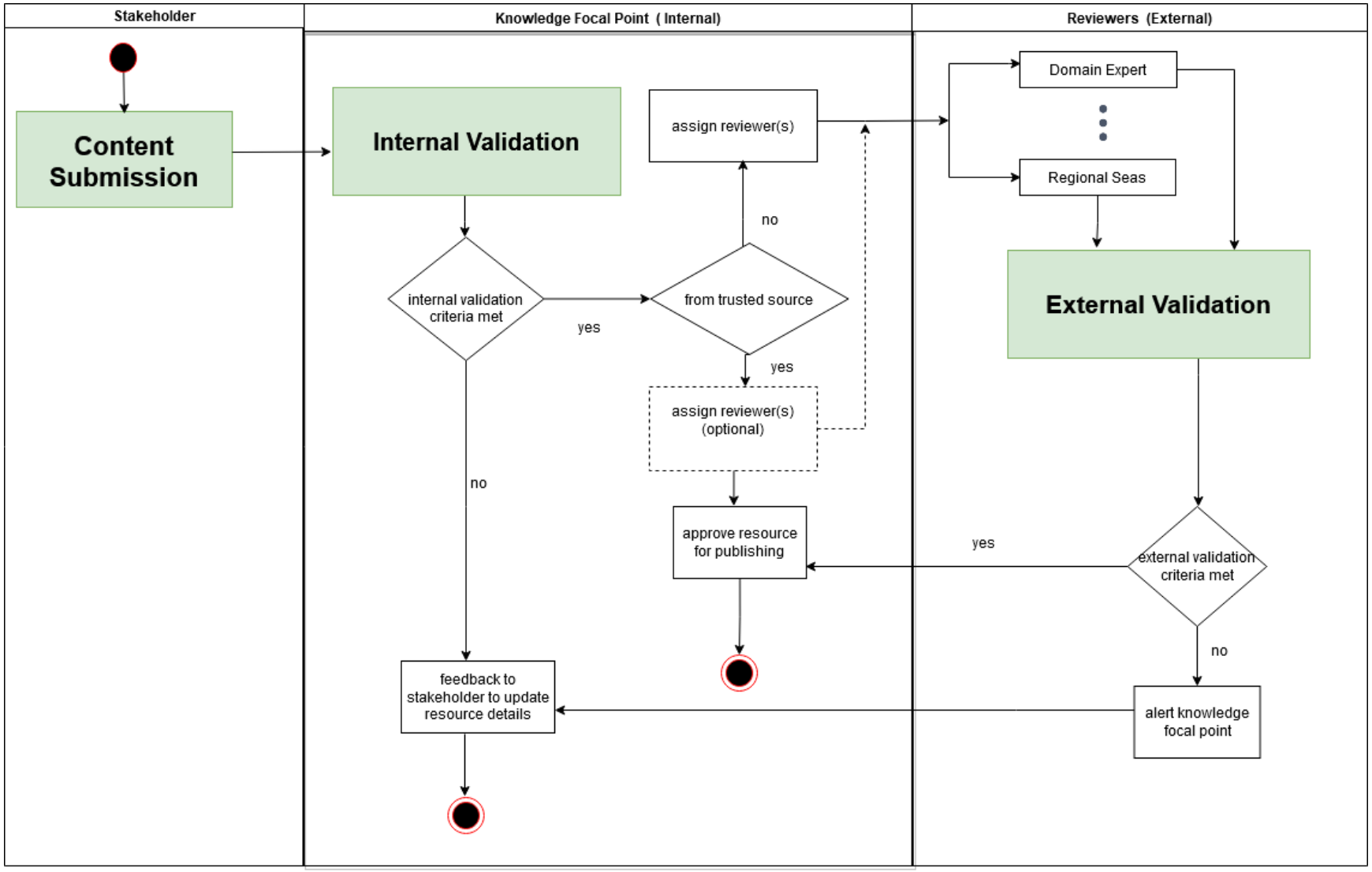
Validation Mechanism + Curation



What's the advantage?

- Access to curated data across the lifecycle and source to sea
- Discovering and suggesting existing datasets on marine litter and plastic pollution through the Data Catalogues
- Visualisation and Analysis to support decision making
- Story maps to better understand the meaning of data

How can I contribute?

ADD YOUR DATA

SIGN UP & MANAGE YOUR DATA

JOIN COMMUNITIES OF PRACTICE

HELP US TO VALIDATE DATA

SUGGEST DATA PARTNERS

JOIN A TRAINING

- From **Lack of ad hoc and regular collaboration among stakeholders**
  - To Co-developed solutions

Connecting Stakeholders

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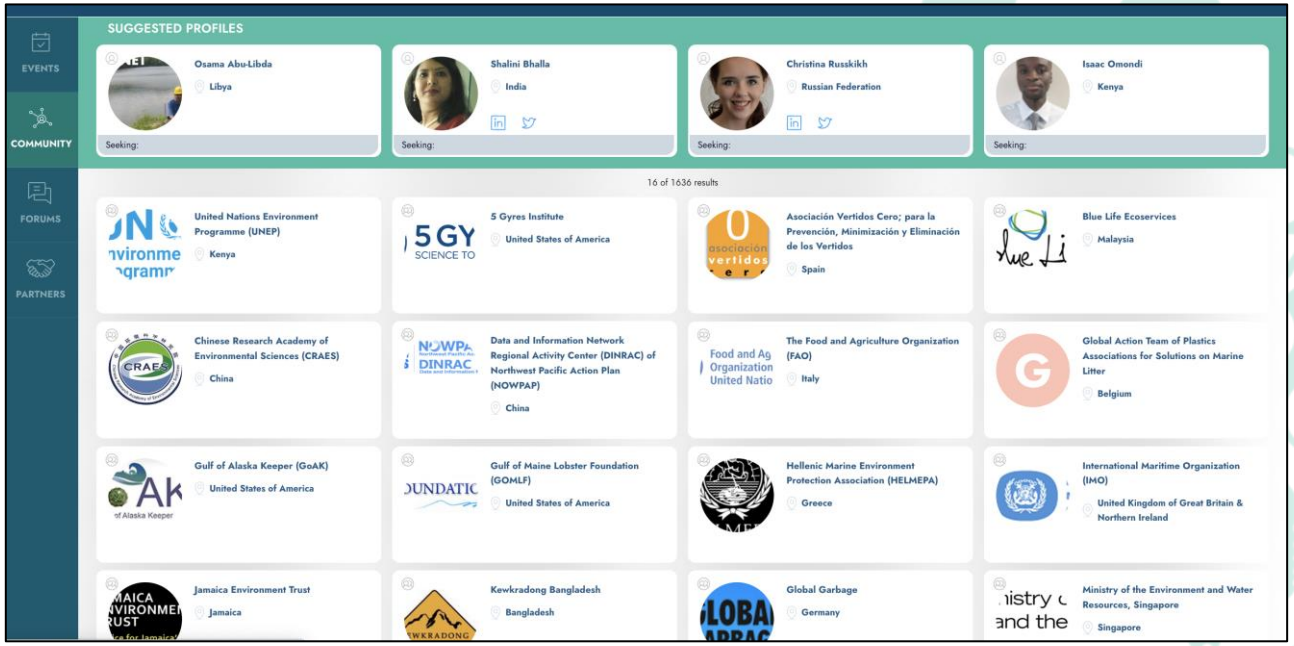
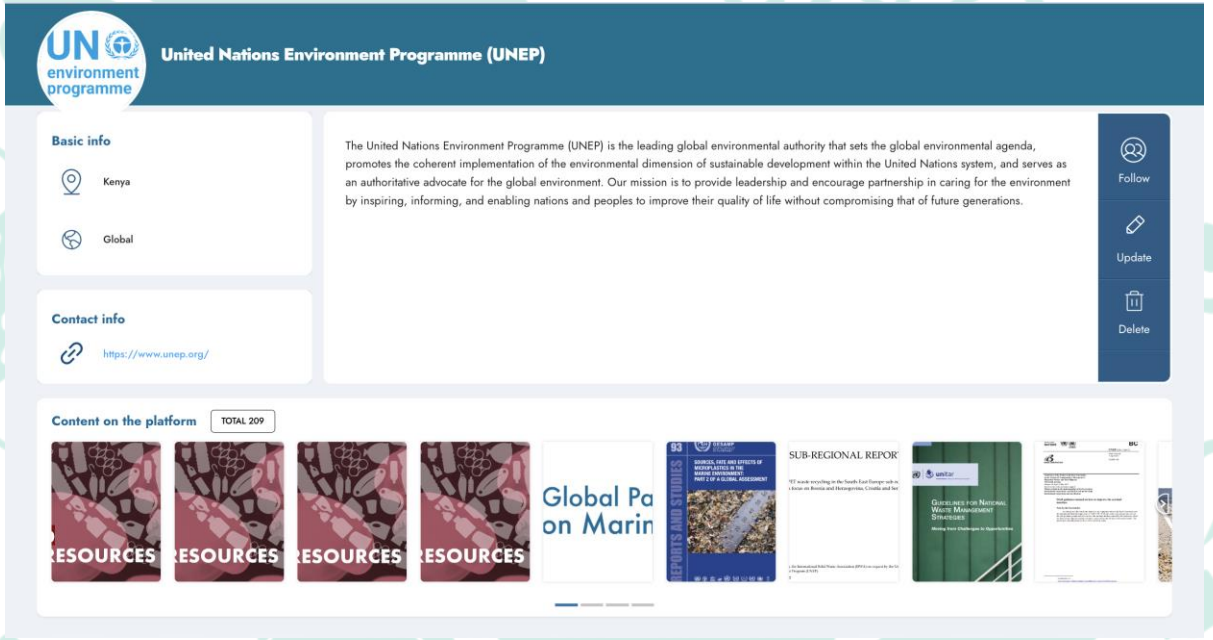




Meet and Greet

Welcome to the GPML community!

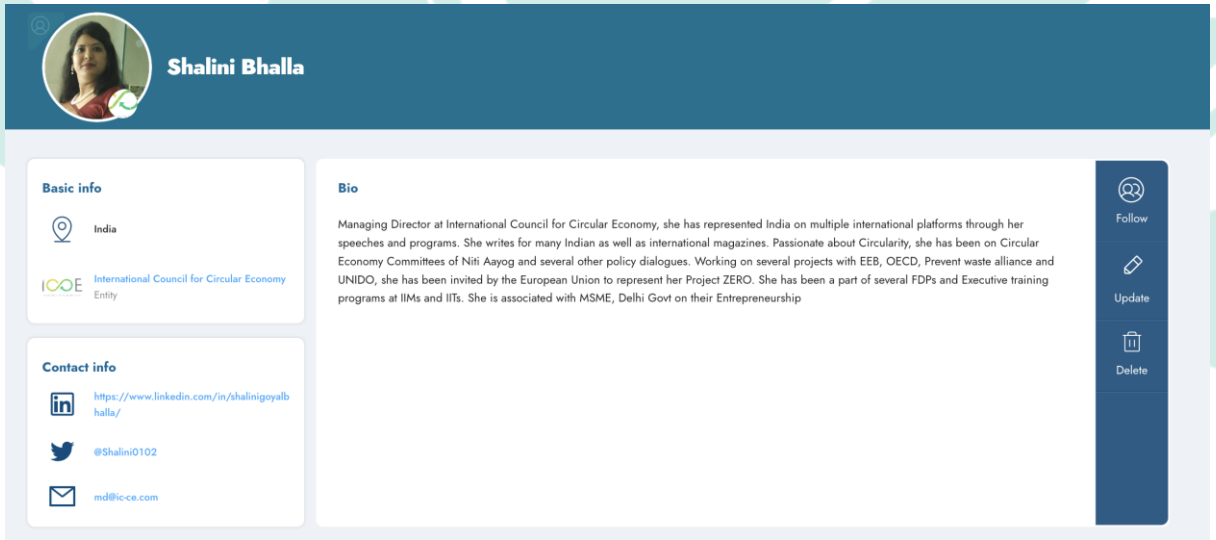
Ontology

Dear Expert,

Issue Briefs

Dear Community,

Data Harmonization



What's the advantage?

- You can match with other individuals, governments and organizations sharing similar goals
- You can collaborate with other by joining a community of practice to co-develop solutions
- You can tap into a network of likeminded people

How can I contribute?

JOIN GPML

CREATE A PROFILE

ADD YOUR EVENTS

DISCOVER THE COMMUNITY

JOIN A COMMUNITY OF PRACTICE

RECOMMEND PARTNERS

- From **Duplication and Lack of Data and Information**
  - To Integrated Knowledge and Data

Capacity Development

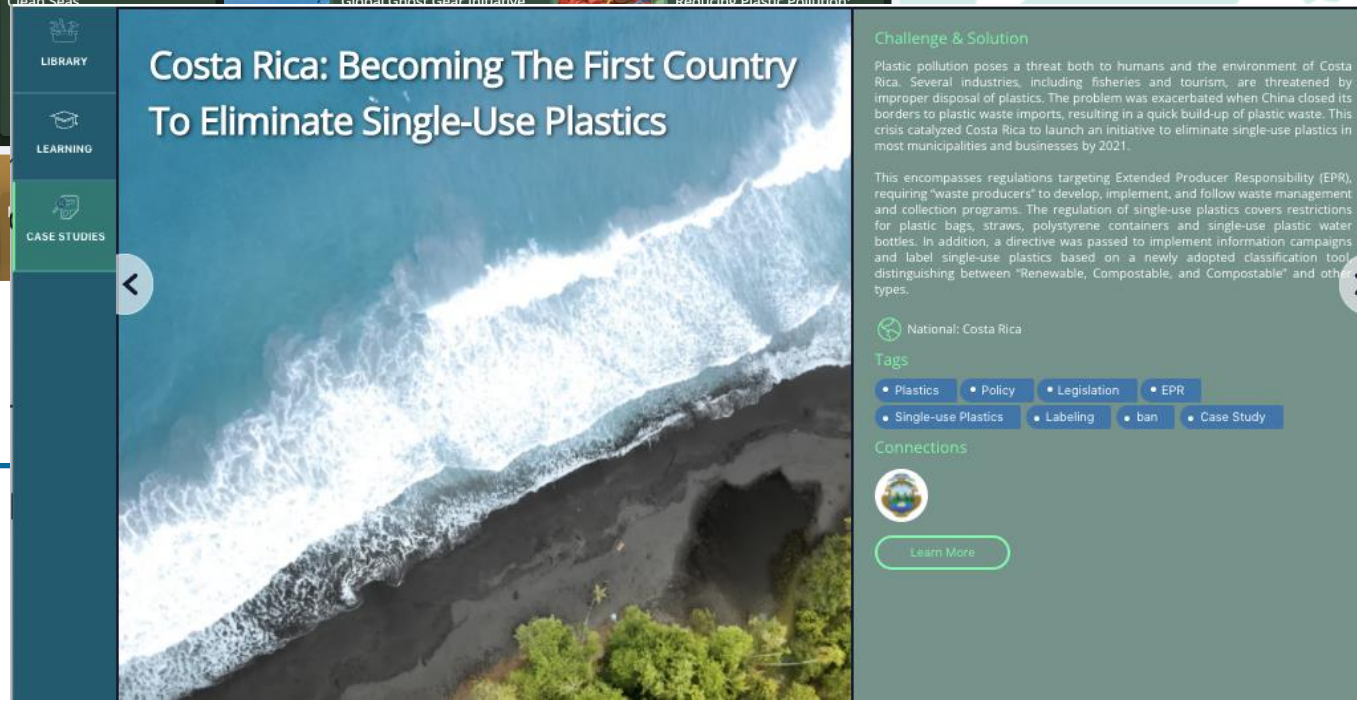
Marine Litter and Plastic Pollution MOOC
32,000 participants, 10 languages

Harmonizing Monitoring & Assessment
Training of Trainers (17 countries)
Baseline setting & brand audits

Application of monitoring guidelines through pilot approaches in collaboration with countries

Masterclasses on monitoring and assessment and unnecessary, avoidable and problematic plastics

Case Studies



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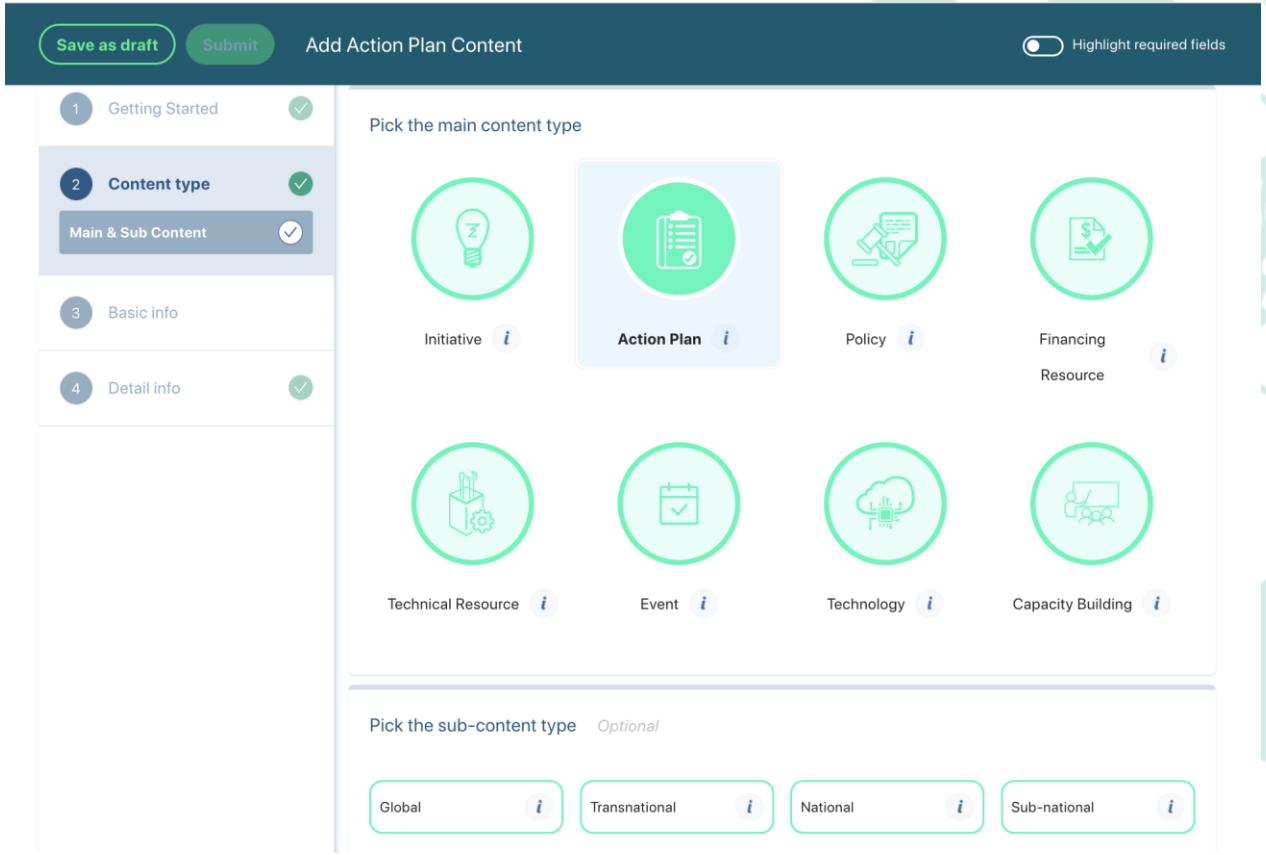
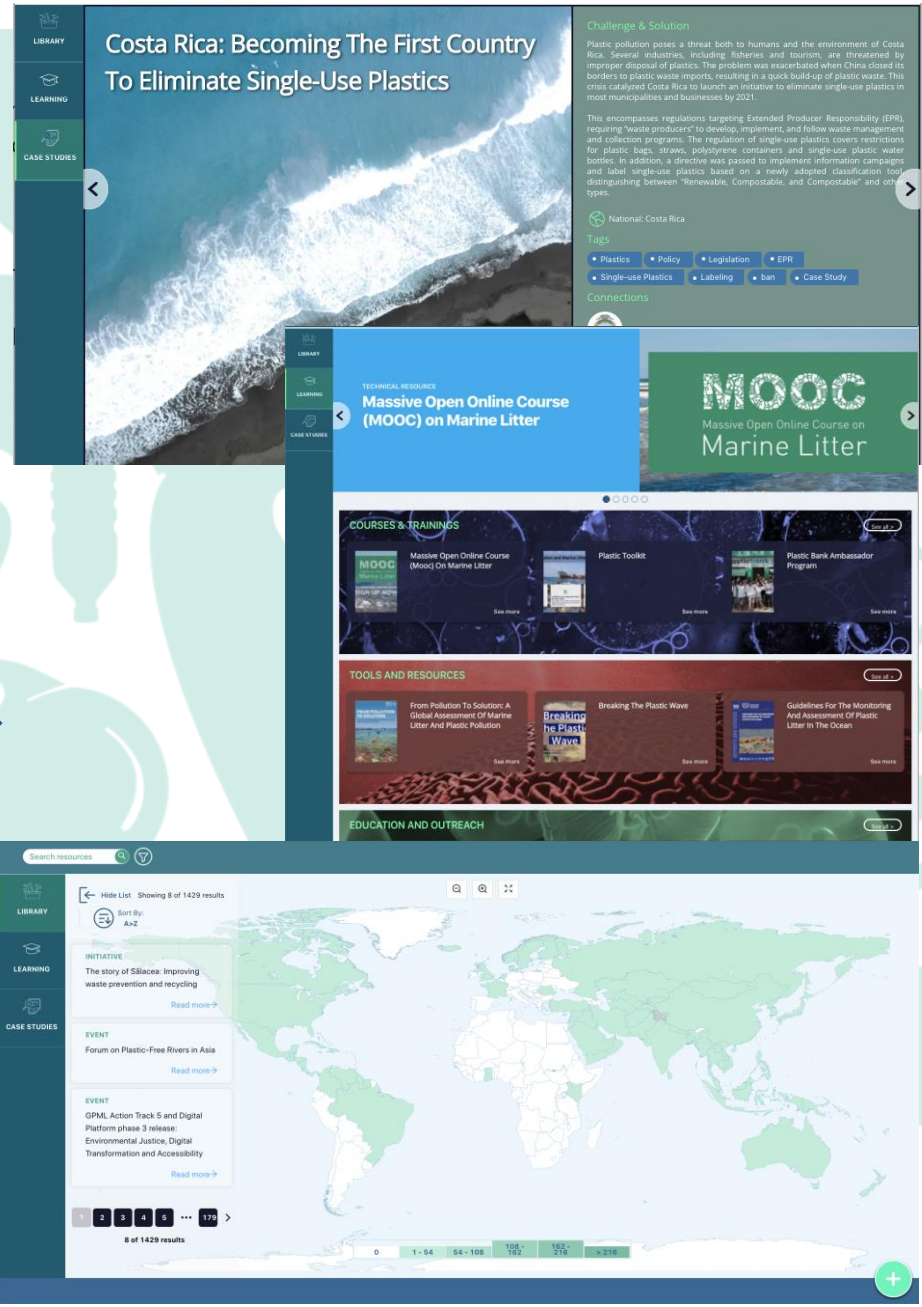
Crowdsourced Platform





What's the advantage?

- Access a wide range of resources to learn about the marine litter & plastic pollution
- You can obtain a certification through the MOOC
- We currently counting 1,429 including Action Plan, Technical Resources, Financing Resources, Events, Policies, Initiatives, and Technologies.

How can I contribute?

ADD RESOURCES

SIGN UP & MANAGE YOUR RESOURCES

JOIN A TRAINING

HELP US VALIDATE RESOURCES

SUGGEST A KNOLWDGE PARTNER

What is coming next?

From Foundations to AI Experiences

GPML Digital Platform Roadmap

Phase 1

Feb 2021 Release

Focus:
Visualizing Resources and Stakeholders

Phase 2

Sep 2021 Release

Focus:
Laying Data Hub foundations and testing matchmaking functionalities

Phase 3

Feb 2022 Release

Focus:
Data Analysis, Capacity Building and Best Practices to highlight successes

Phase 4

Sep 2022 Release

Focus:
Asses the Effectiveness of Actions by Tracking and Measuring Progress

Phase 5

Feb 2023 Release

Focus:
Driving Change by Innovation

Phase 6

June 2023 Release

Focus:
Scaling for Success

user-centred stakeholder needs and design process

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Making Data Meaningful

Examples:

1. AI Insights and Predictions
2. Tracking & measuring progress and trends
3. Automated Assessments
4. Countries/Regions dashboards
5. Sub-national data analysis
6. Data stories & capacity building
7. National Sources Inventories
8. Recommender System
9. A space where users can manage their data, resources, connections, notifications, services and work
10. Gamification and AI Assistant
11. AI Assistant for complex decision-making
12. Digitised assistance for Action Plan creation, implementation, reporting, updating

Understand, connect and coordinate a stakeholder ecosystem with AI

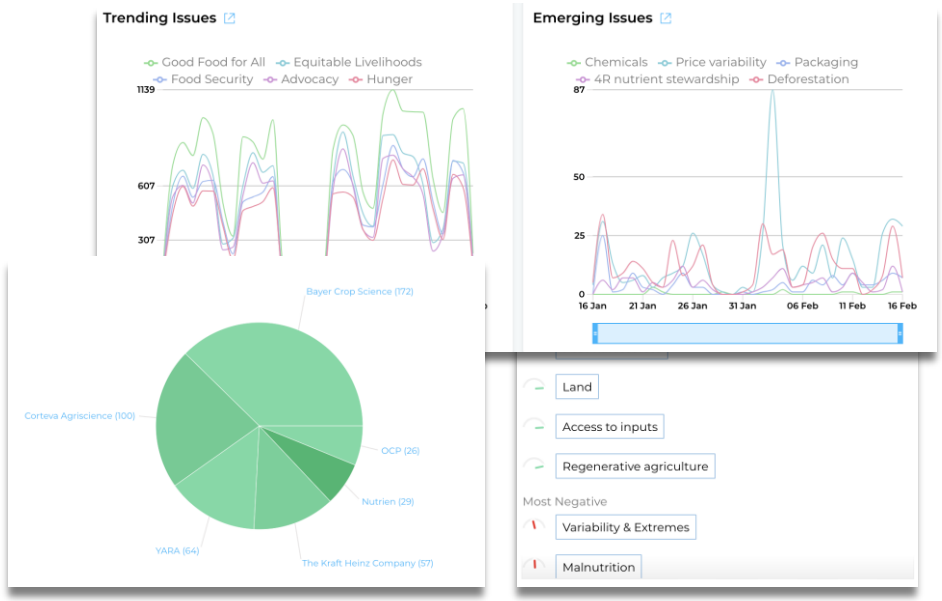
TSC.ai – The Stakeholder Company Stakeholder

- GPML Strategic Partner
- Software start-up with a mission: digitally transform the way organizations interact with the world and partner for impact
- Invented issue & stakeholder management intelligence: Atium

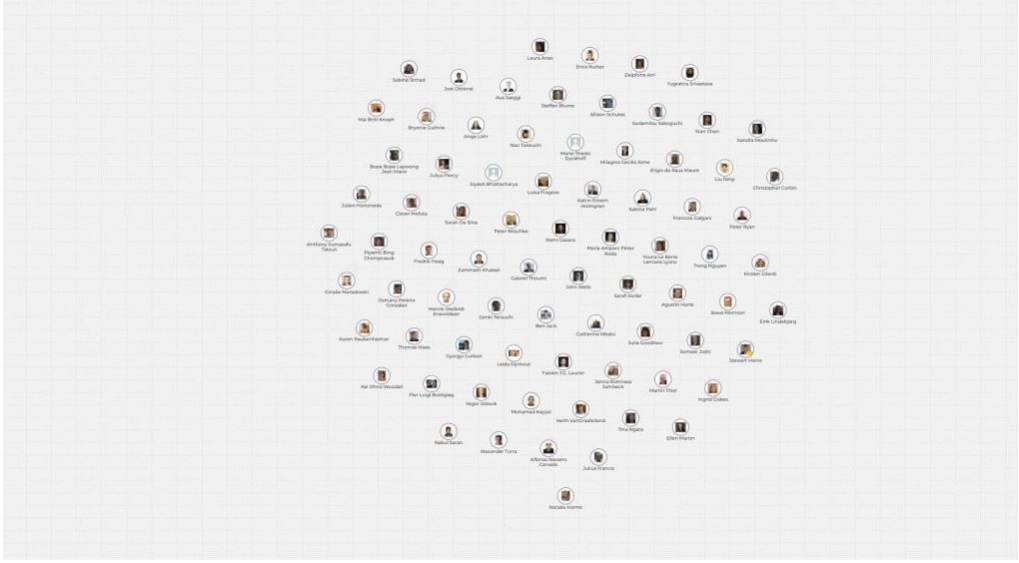
Exploring Atium Use cases for registered stakeholders on the GPML Digital Platform:

- ❑ **Global sensing** – identify the key issues highlighted by the multitude of voices in the GPML network
- ❑ **Multi-stakeholder engagement** - identify who does what, where and uncover engagement pathways
- ❑ **Cross-sectoral mobilization** - break down complex networks, identify synergies and gaps to deliver meaningful impact

Understand the voice of your ecosystem



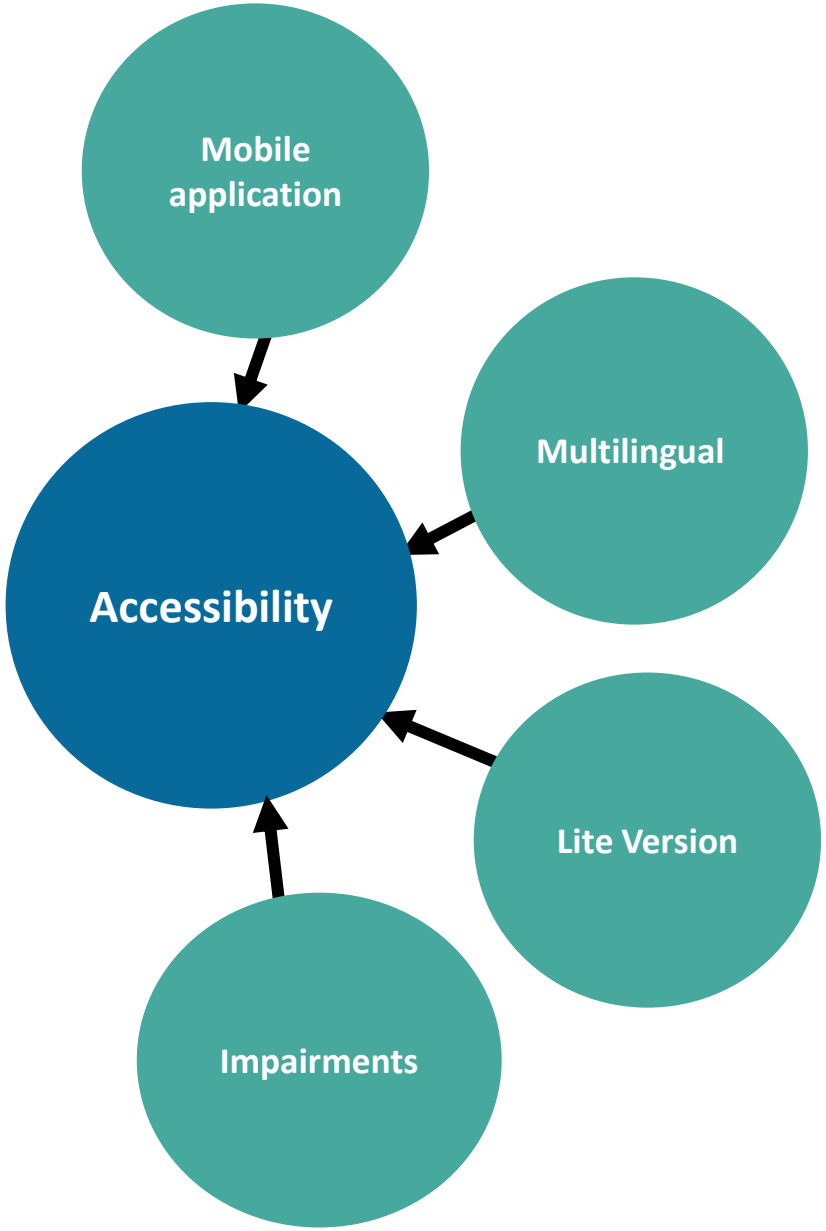
Map your network, identify pathways and opportunities



Enabling Access To All

To enable **Access To All** the platform should:

- Cater for all types of users and needs
- Be accessible via mobile versions
- Have lite versions for users with limited computing resources.
- Cater for impairments (audio, visual among others)
- Be accessible in multiple languages



Join the GPML family to help us shape the Digital Platform!

https://digital.gpmarinelitter.org/signup

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7TH INTERNATIONAL MARINE DEBRIS CONFERENCE
18th - 23rd September 2022
BUSAN, REPUBLIC OF KOREA

United Nations Avenue, Gigiri
PO Box 30552 – 00100 GPO Nairobi, Kenya

www.gpmarinelitter.org