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TECHNOLOGIES FOR OBSERVING AND MONITORING PLASTICS IN THE OCEANS

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TECHNOLOGIES FOR OBSERVING AND MONITORING PLASTICS IN THE OCEANS

Aim

Roadmap / White Paper around the observing/monitoring theme.

Goals

Determine the strategy for monitoring the plastics in the ocean.

Objectives

Assess the means of observation and the methods of detection, according to indicators to define.

White Paper

the challenge
the status
the goals / scope

Deadlines

- * Oceans 2015
 - * Jan. Abstract
 - * March Paper
- * OceanObs 2019
 - * being cited
 - * March

1. Introduction

R.G.; Sergio

2. Plastic and Oceans (the system) Play

* what do we know?

F.G.

3. Observing + monitoring

(R.G., Kramp, F.G.)

* what is available?

* what is in development?

* system + data integration

N.D. (SAR)

Sergio

4. Trajectories of the system

(Play, Garcia, ...)

5. Bottleneck

* stakeholders Nils
* policy makers F.G.
& options

Marta

6. Roadmap

ROADMAP



Disseminating routinely the advances (conferences etc.).



6 months: Better understanding of the plastic pollution impacts on citizens (ex. Blue Planet TV programme in the U.K.).



6 months: to create a motion design about the plastic challenge or other other video materials. Patrice Brault, Ludovic Fouille



6 months: Steering group



6 months: International Plastics Litter Coordination Group

- 1: Monitoring
- 1a: Indicators
- 1b: technologies
- 2: Policies
- 3: Reports

Nils Hareide, Martin Kramp



6 months: Discussion on EOVs: Are plastics an EOV? Sanae Chiba.



6 months: Seed funding



6 months: Define accurately what microplastics are.



6 months: The UN/Gesamp report on strategies/methods on plastic monitoring - regional seas. Francois?



6 months: Structure our community. Hans-Peter Plag



6 months: Summary of available technologies to detect, observe and monitor microplastics in the ocean. Determine data gaps.

Sergio Martinez, Javier Busquets-Mataix, Catherine Dreanno



6 months: Common goals & work alignment

ROADMAP



2 years: EOVs to indicators (SDGs etc).
Sanae Chiba



2 years: Sustained funding



2 years: Microplastics monitoring in water column becomes real.



2 years: Creating a collaborative virtual group



2 years: Platform and meta data structure



2 years: Implementation strategy for observing network



2 years: procedures described and collaborative work



2 years: Data strategy, policy, and archive



2 years: Targets and performance indicators



2 years: Processing platform from multi-sources "Plastic" observations



2 years: Co-Creation of knowledge event (participatory modeling) to ensure that evidence-based decision and policy-making is possible.
Hans-Peter Plag



2 years: Organizing National Advisory Groups (stakeholders).



2 years: Defining some terms of reference to support long-term monitoring.
Francois ?



2 years: Sanitary impacts of microplastics



2 years or 5 years: Full picture of plastics life cycle and life time processes of fragmentation, biofouling, and sedimentation.



2 years or 5 years: An appropriate sorting of fishing gears in port facilities and subsequent upcycling.
Marta Riuz

ROADMAP

-  2 years or 5 years: An appropriate sorting of fishing gears in port facilities and subsequent upcycling. Marta Riuz
-  2 years or 5 years: Full picture of plastics life cycle and life time processes of fragmentation, biofouling, and sedimentation.
-  5 years: full plastics and microplastics monitoring and mitigating plastics presence
-  5 years: Mitigate plastics presence
-  5 years: Reducing Plastics Waste
 - single use items
 - biodegradable items
 - new design
-  5 years: Discarding of fishing nets stopped.
-  5 years: Change of customers' practices
-  5 years: Gather all scattered survey and inventory data of microplastics in one database. Sanae Chiba
-  5 years: Pollution treatment - depollution systems (macroplastics) fully functioning.
-  5 years: Directive (FR, EU): economic model for marine litter recycling.
-  5 years: Plastic inventory and fluxes: input sinks:
 - 3D map; surface, water column, sea bed
 - Input/sources: rivers, coasts, ships
 - sinks: ... close budget.
 - 5years+: trendsSanae Chiba
-  5 years: Ban single-use of plastics on cruise and cargo ships.
-  5 years: establishment of rigorous protocol to pass scientific outcome to policy (International UN Decade of Oceans). Sanae Chiba.
-  5 years: Global governance effort on plastics (with focus on oceans) leading to a convention.
-  5 Year Goal: Reduction of plastics inflow into the ocean by 50% (from 8 million tons to 4 million tons per year).