

Introduction to

P.O.D.E.M. project



watch
the
waste

P.O.D.E.M. / portail d'observation des déchets en mer / observation portal of sea garbage

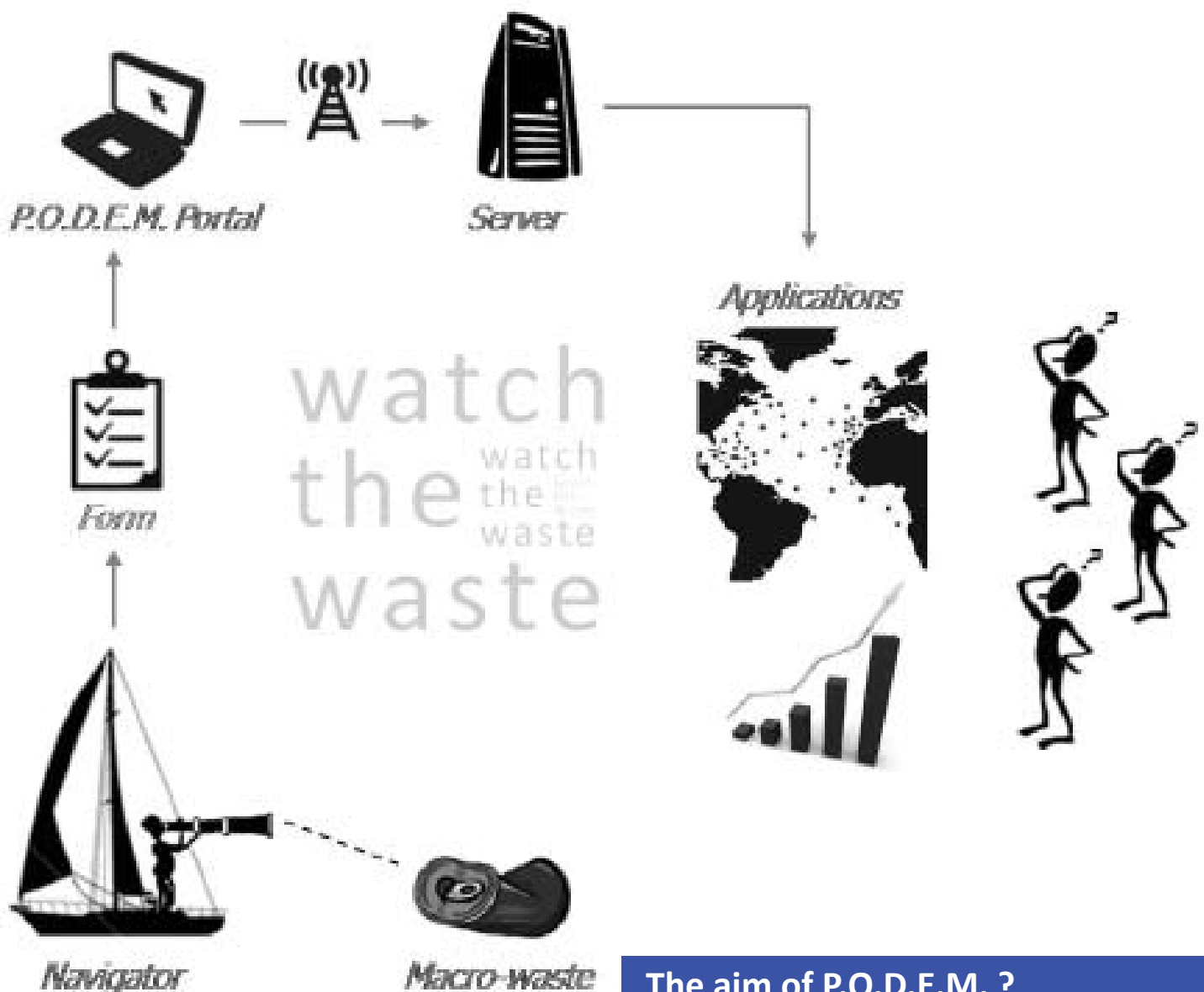
A c t t o s e n s i t i z e

This project is based on the development of a **web platform**, collecting detailed information about all **floating garbage** signalled by other associations, yachtsmen or sea professionals.

Filled by seamen themselves, this data base will be used for numerous applications:

- Garbage mapping, including characteristics, location and precise date time of their discovery
- Statistic tools
- Research of correlated results with other phenomena: weather forecasts, sea roadsroutes, coastal observations...coast characteristics.

Beyond a strictly functional project, PODEM is supposed to become a dynamic tool to sensitize sea users/customers on the major problems linked to the issue of waste pollution.



The aim of P.O.D.E.M. ?
Give a visibility towards what has been
abandoned in seas.

P.O.D.E.M. project is articulated in 3 steps

1 - FIELD STUDY AND DIALOGUE

Network development: federation of associative and institutional actors around this topic...
North Atlantic Expedition and localisation tests of a Sargasso Garbage Patch
Define the technical and functional specs of the interface

2 - TECHNICAL DEVELOPMENT

Development and testing of the interface and hardware
Research for the optimal interface

3 - OPERATIONAL LAUNCH

Portal inauguration: Launch and worldwide opening of the portal, marketing campaign targeting professionals.

Why P.O.D.E.M.?

Numerous seamen feel very sorry when meeting floating garbage during cruises. Same reaction for fishermen, who often damage their fishing nets because of this pollution. More and more racing boats are forced to give up competition because N.I.F.O. (non identified floatable object) impact.

Even worse, we can deplore an increasing number of mutilated or killed animals because of macro-waste. And it is the only emerged part of the iceberg...

Macro-wastes have a huge impact on the environment before reaching our coast!

Unfortunately, lack of information drives to lack of mobilization and the ways to fight this pollution are too often unexplored. The only existing action is concentrated on littoral approach of the problem. There is yet no federating proposal around the topic of floating sea waste.

A "Garbage Patch"?

Defined as a sea waste agglomeration, the expression has been invented after the discovery, by Charles Moore, of the Great Pacific plastic Vortex. Floating garbage is concentrated on patches because of ocean's currents. The total plastic weight of such patches could rise up to 8 millions of tons.

One of the main goals of PODEM is to prove existence of such phenomenon in North Atlantic and then, to provide at any time a global vision of these formatting continents.



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P.O.D.E.M. wants to be a concrete answer to these still neglected problems

1 - Field study and Dialogue (Oct 2009 – June 2010)

GOALS

>>> Federate partners network

Gather associations, public institutions and companies concerned by macro-waste issues around PODEM project.
Inventory the existing sensibilizations strategies of sea users to macro-waste issue.
Present ambitions and constraints of PODEM project and draft the specification of PODEM portal

>>> Prove the existence of a North Atlantic Garbage Patch

Developp a synthetic identification protocol for garbage patches in association with other existing initiatives.
Find one or more agglomerate garbage zones on our route.

According to **existing sampling protocols**, expedition shall **prove existence of a North Atlantic Garbage Patch**.

The main goal of this first step can be resumed as a **feasibility study of an interactive mapping of floating garbage**.

REALIZATION



For an “eco-logical” field study

What is essential for us is to develop a local approach of the research: concrete experience in sea users' conditions.

From this is born the project to sail around North Atlantic Ocean.

To be faithful with the ecological spirit of the project, we choose the sailing boat as mobile observatory. This means of conveyance is in fact the best way to go through huge distance without increasing our impact on environment.

On our sailing boat, we will be able to live in quite same conditions as future PODEM portal users.

Why North Atlantic?

Our aim is to experiment the project in many different conditions. By choosing this track in North Atlantic Ocean, we will cross various environments and we will follow routes widely used as well by commercial vessels as by sailing boats.

> Environment diversity :

From coastal areas (France, Spain, Portugal) to island areas (Madeira, Canaries, Cape Verde, West Indies, Caribbean, Acores) but also deep sea when crossing the Ocean.

> Weather and current diversity :

Our track will meet depression systems well known under our latitudes but we will also benefit from seasonal conditions and strong currents such as trade winds and the Gulf Stream. We will also go across vortex areas as previously described (favorable to garbage patch) particularly in the South East of Florida, in Sargasso Sea.

> Economic and sociologic diversity :

Formerly used for the triangular market, the routes we will take are now followed by commercial vessels (from European coasts to Cape Verde), by deep sea sailors (transatlantic) and by coastal pleasure boats (West Indies and Caribbean).



2 - Technical development (June 2010- June 2011)

>>> Find the most adapted interface to use as the portal

Define a simple solution to signal floating garbage by sea customers.

Define a precise and adapted typology to provide the right parameters to the data base.

Example: a standard form following two main criteria:

- *Simplicity: Same for each user, easy to use, understandable by each user, typed and saved in few seconds*
- *Accuracy: to use the gathered data base in numerous applications*

In any case, PODEM shall reach a good balance between simplicity of use and quantity of information.

This phase consists on the P.O.D.E.M. portal technical development.

Although the detailed specification of the portal is the outcome of the experiment step, we can already put the main lines forward :

> Data capture:

Data capture by sea users will be done by fulfilling a common observation form either directly online, or on a paper copy later sent by the waste watcher to the association.

> Data base :

The data base, hosted on a dedicated server, will be fed in real time by fulfilling forms on web interface.

> Data interpretation :

The access to data interpretation will be done on the same web interface as for form filling. Applications such as mapping and statistics resulting of the data base and updated in real time will be available to public. Infinity of other applications could be developed, the sky is the limit !

3 - Operational launch (end 2011)

This will be achieved at the early of the touristic season to impact on a wide public.

Several ways could be considered to promote PODEM:

- Viral marketing toward amateurs and professional sea users
- Posters, presentation booklet, and forms displayed in port authorities.
- Events organization around the practical use of the portal.
- Partnership with other associations acting on other project for ocean protection.
- Partnership with sailing races by involving competitors in the use of the portal.

And further ways of development...

- Use PODEM as a global solution to sensitize and to study detritic pollution of oceans: PODEM could act for a constructive reflexion on maritim reglementation concerning identification and recovery of macrowaste issues (IMO/MARPOL: appendice V.)
- Develop software solutions to integrate PODEM to existing mapping and/or tracking devices (portable or fixed GPS, Mobile phone, PDA etc...)
- Use PODEM as an experiment tool to improve models of floating objects drift prediction. (This will be a real progress for man over board recovery operation)
- Expand the tool to coastal waste watching.

How support us ?

You are interested by the originality of the project and you wish to take part in its realization, several solutions are offered to you :

>>> Moral support :

- Check regularly our website (<http://watchthewaste.free.fr>) and get information about the evolution of the project
- Post a link towards 'watch the waste' on your website.
- Diffuse to all your contacts the existence of this initiative
- Promote the project through your favorite social network site

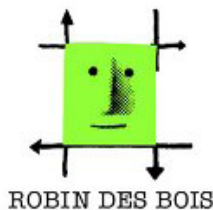
>>> Technical support :

- Your competences and your networks can be useful for us. Do not hesitate to contact us!

>>> Financial support :

- Support financially the project and take advantage of french tax arrangement for gifts to non-profit associations. Become a member and benefit from the system of gifts with works.
- Become partners of the project: to obtain an assessment of our financial standing, contact us!

They support us :



and "le CEDRE", l'ADEME (French National Agency for Environmental Research - PhD Allocation), IFREMER, FNADE, Hydr'Océane...

... and you ?



Contact us

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<http://watchthewaste.free.fr>