

Plastic Odyssey On-board Lab

Call for candidates

- Lebanon, October 2022 -

PLASTIC ODYSSEY

Plastic Odyssey is a collective adventure in the fight against plastic pollution that brings together researchers, engineers, scientists, experts from many fields, citizens, women and men who have the desire to act in the four corners of the world.

Our ambition? Connect all these changemakers to share good ideas, multiply local initiatives around the world, and accelerate the transition to a plastic-free world.

In 2022, Plastic Odyssey begins its 3-year global expedition with a tour of the Mediterranean sea, connecting Marseille to aboard a 40-meter research vessel, embarking on board a team of 20 multidisciplinary explorers as well as an experimental recycling workshop. In each stopover, Plastic Odyssey welcome onboard several project leaders involved locally in the fight against plastic pollution and developing solutions for the recovery of plastic waste.

On this occasion, Plastic Odyssey is launching a call for applications for the first stopover in Lebanon.

The On-board Lab Program

The ship will be on stopover in Beirut in October 2022. The floating laboratory session #2 in Lebanon will take place during 10 days between October 22, the 24th and November 22, the 2nd.

Project leaders will be welcomed aboard the Plastic Odyssey ship to tackle an identified waste problem and develop one or more solutions for recycling plastic waste. The goal of the program is to enable project leaders to benefit from the expertise of Plastic Odyssey and its partners to build a



strong international community in plastic recycling and foster the development of plastic recycling centers.

Projects

The projects targeted by our call for applications concern the creation of a local sector in plastic recycling or the search for an outlet for plastic waste in order to meet a locally identified need. The aim of the program is to accompany the participants in the launch of plastic recycling centers.

The stage of maturity and progress of the submitted projects is broad: prototyping, seeding, deployment, industrialization, scaling or replicability. Plastic Odyssey Lab will favor projects whose solution(s) also address an environmental or social problem existing in a given territory. Highlighting this issue in the application files is strongly advised.

The workshop on board has been designed to treat the following plastics:



HDPE Plastic : rigid or flexible



Polypropylene Plastic : rigid or flexible



LDPE Plastic : rigid or flexible



Polystyrene Plastic : rigid

Other plastics are difficult to recover on board, and therefore to exclude:



PVC Plastic

- Thermoset or brominated plastics

- Expanded polystyrene



Plastic Odyssey On-board Lab program

The program has been designed to last 2 weeks. Candidates will be welcomed within the team aboard the plastic odyssey ship, a former oceanographic vessel transformed into a floating recycling laboratory. Project leaders will have access to different parts of the vessel:



The Program is divided between field works, machine demonstration, case studies and networking sessions

Time for practical session

The program will be organized around practical workshops on board, prototyping recycled products on the embarked machines and learning how to use it, but also field visits of existing recycling projects, ...

Time for case studies, and networking

During the time on board, participants will be working in small groups on case study to deep dive different existing business models of recycling centers. Sessions are also organized to meet inspiring entrepreneurs, and exchange on some Plastic recycling center's success stories.



The On-board Lab Mindset : building a community

It is important that the projects submitted correspond to the core values that drive Plastic Odyssey. Here are our three founding principles:

Open source: the experiments carried out will be carried out in an open logic or creation of commons, in order to share the learnings with a global community of innovators. The scope of open source will be discussed on a case-by-case basis with project developers. Plastic Odyssey aims to build a community of entrepreneurs that will support and learn from each other in the field of recycling plastic.

Frugal innovation: projects developed during this program must take into account the depletion of resources and create according to the following principles: utility, accessibility and sustainability.

Virtuous solutions: the solutions designed must be part of a virtuous approach, that is to say, combine the resolution of environmental problems and meet a need (do not recreate a waste).

The training program takes place during the stopovers of the Plastic Odyssey ship. Project leaders will therefore live the adventure and daily life of the crew members, will have access to the events that take place during the stopovers and will meet the partners and personalities welcomed on board.



Terms of the call for applications

Candidates will be invited on board during 10 days. Precise starting and finishing dates and program will be communicated shortly to the laureates of the call for candidates. Our expedition covers the lunches and transportation during the field visits for the duration of the program. They will share daily life with the rest of the team, for an extraordinary collective adventure! Nevertheless, we ask our candidates to take in charge their own accomodation fee in Beirut for the duration of the program .

Selection process

Project leaders submit an application file via the dedicated form (see below). The Plastic Odyssey team will make a pre-selection based on these files. The shortlisted projects will be invited to present their project individually through visioconference in front of a jury composed of Plastic Odyssey and its support committee. At the end of these presentation interviews, the selected projects will be officially announced.

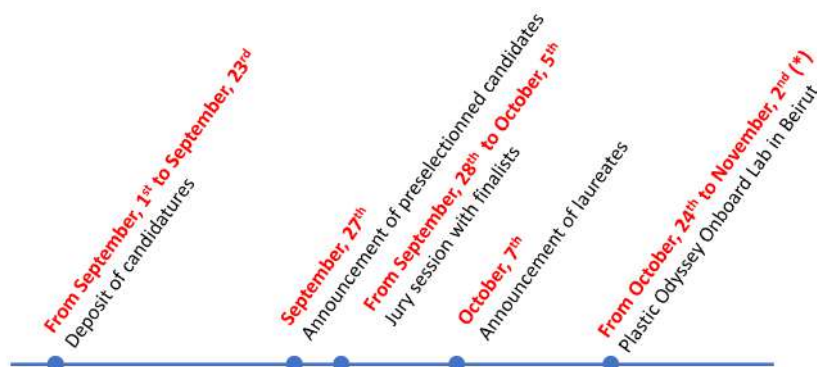
Selection criteria

Candidates who submit a project can have very varied profiles: maker, craftsman, entrepreneur, association, etc. The selection is not made on the profile of the project leader but on the consistency of the project with the proposed working method and technologies on board. Particular attention will be paid to:

- The general coherence of the project and its clarity.
- The anchoring of the project in the founding principles of the state of mind of the program
- The relevance of the identified problem and the proposed response (innovation, social and environmental impact, etc.)
- The technical feasibility and economic viability of the proposed solution
- Projects that have a local and territorialized dimension in both the problem and the solution will be studied with particular attention

Indeed, the action of Plastic Odyssey is precisely in the adaptation of plastic valorization technologies to the context and local populations.

Key dates



(*) Exact starting and finishing dates of the program will be communicated to laureates



How to candidate ?

Click on the link to fill out the application form :

<https://airtable.com/shrzIVQFWUBCHVuOU>

The following elements needs to be filled in the form:

- A problem to which the project leader wishes to respond, its context and why it is important to address it
- The geographical context in which the project is part
- The solution envisaged
- The development axes to be worked on during the program
- The necessary equipment, the technical needs and help that Plastic Odyssey and/or its ecosystem could provide
- The economic models envisaged and their advantages / disadvantages
- The deliverable envisaged at the end of the program

The application form can be completed by uploading project presentation files, format of your choice (pdf file, video, model), or a portfolio, book of previous achievements, references, or a CV to provide additional information on the project leader and support the application. Several documents can be attached if relevant.



If you have any questions, send an email to lab@plasticodyssey.org with the subject line "Call for applications Lebanon - information".



Appendix – Technical equipment on board



A recycling workshop

- A knife Shredder
- A film agglomerator
- A washing/drying tank
- A centrifuge
- A single-screw extruder
- Profiled dies (round, square, rectangular)
- Machined molds
- Mechanically welded molds
- A hydraulic press with 50T trays
- A plate and mold oven
- A drying table
- A turb-oven
- A pyrolysis unit

A laboratory

The laboratory enables the assessment of waste to establish a database. A plastical material library with waste and associated transformed products is also built during stopovers.

A mechanical workshop

- A CNC milling machine
- A conventional lathe
- An MMA + TIG welding machine
- Standard mechanical tools (screwdriver wrenches, sockets, etc.)
- Portable electrical: screwdriver drill, grinder, circular saw, jigsaw, saber saw, impact bolter
- A 30T workshop hydraulic press
- A drum
- A 10 bar compressor

