# **INdIGO**

## **INnovative fishing Gear for Ocean**







Newsletter 2 - MARCH 2021



INdIGO was launched one year ago in Lorient, with the 10 project partners. To mark this occasion we have produced a 2nd newsletter giving an update of all the work in progress.

The headline news is: the first prototypes of new biodegradable nets, the first versions of which are expected by the end of 2021. We also focus on the fishermen survey, which is in progress until the end of March.























## IN THE NEWS



## FIRST PROTOTYPES BY THE END OF THE YEAR

We're ready! After long months of work, the manufacture of the prototypes of biodegradable nets will soon be able to begin.

The partners first had to consider all the constraints and technical properties that needed to be considered. These are linked to the manufacture of the nets, their use by the fishermen, their durability and their end of life.

Two prototypes of biodegradable nets will be produced: a fine fishing net made from monofilament and a catching net for mussel culture made from multifilament. As the aim is to adapt the lifespan of the materials to their use, the mussel net will degrade faster than the fine net.

During March, the work will consist of developing the raw material mix. This mixture will be specific to each prototype. It will then be transformed into yarn and knitted into netting.

In addition, at each stage of the manufacturing process, tests will be carried out in the laboratory and in real conditions. The aim is to evaluate the behaviour of the net at sea, as well as the degradation and ageing of the materials. Finally, toxicity will be checked on several trophic levels (microalgae, bivalves, crustaceans, fish larvae, etc.).

The partners involved in the manufacturing process are: UBS, NaturePlast, Filt, Smel The partners involved in the tests are: UBS, IRMA, Smel, Cefas, Ifremer

For more information visit: <a href="http://indigo-interregproject.eu/en/about-indigo/work-">http://indigo-interregproject.eu/en/about-indigo/work-</a> packages/

# FREQUENTLY ASKED QUESTION



### WHAT IS A BIOPLASTIC?

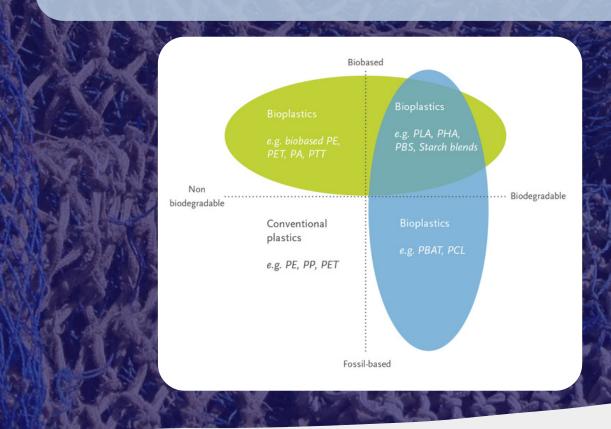
The term bioplastic can refer to materials with different origins and end of life.

It actually includes 3 families of polymers:

- Biosourced and biodegradable polymers (PLA, PHA...)
- Biosourced and non-biodegradable polymers (PA 11, bioPE, bioPET...)
- Non-biosourced and biodegradable polymers (PBS, PBAT, etc.)

Biosourced polymers are partially or entirely made from organic materials, derived from renewable resources (materials from biomass, whose stock can regenerate over a short period of time on a human scale, containing traces of carbon 14).

Biodegradable polymers can decompose under the action of micro-organisms (bacteria, fungi, algae) into various residues such as water, carbon dioxide, methane... and a new non-toxic biomass. Biodegradability depends on the chemical structure of the polymer and the characteristics of the environment in which it is placed.



## **PROFILES**



MORGAN DEROINE
SCIENTIFIC COORDINATOR OF THE INDIGO
PROJECT (IRMA)

After a scientific university course, Morgan completed a doctorate on the study of the ageing of biopolymers in the marine environment. One of her ambitions is to propose a realistic alternative to reduce plastic waste in the ocean over the long term by designing plastic materials differently, depending on the intended application and integrating the notion of end of life.

Within the INdIGO project, Morgan is the scientific coordinator: she is in charge of steering the project and ensuring that the work carried out is in line with the work programme. More specifically within IRMA, she is involved in the production of prototypes of the different filaments to make the new biodegradable fishing gear as well as monitoring their degradation in the marine environment.



CLAIRE ALLANOS
EUROPEAN PROJECT MANAGER (UBS)

Specialised in European project management, Claire has worked for several years in Brussels and in French Guiana on programmes funded by the European Union. Very concerned by environmental issues, she resumed studies in 2018 in communication on climate and environmental issues.

At the beginning of 2020, she joined the Université Bretagne Sud where she is in charge of the implementation of the INdIGO project by leading the partnership, coordinating the administrative and financial aspects and developing appropriate communication actions. What she likes about INdIGO: the international dimension of the project, the possibility to exchange with many actors concerned by the topic of plastic pollution of the oceans and the opportunity to be part of a very dynamic partnership that tries to bring concrete solutions!

# AND ALSO

# THE FISHERMEN SURVEY IS STILL ONGOING

INdIGO wants to involve fishermen in order to develop new innovative fishing gear and to improve the recycling of existing used fishing gear. Objective: to better understand their profession and take into account their needs and expectations.



Around a hundred fishermen have already taken part in the survey launched in December by the project partners. The survey has two objectives:

- to find out more about abandoned, lost or discarded fishing gear. What happens to them? How can their recycling be improved?
- to identify what might or might not encourage the adoption of fishing gear biodegradable in the marine environment.

Laurent Guyard, a fisherman from Granville (Normandy), took part in the survey. He explains: "It is important for fishermen to take part in this survey because they are the first to be concerned by the subject. There is a need for a real awareness, which has been beginning to emerge for some time. Their response and involvement is very important for the success of the project, and the questionnaire will help the team to move in the right direction. »

### To take part in the survey: **CLICK HERE**

In addition, Tabatha Thiebaut-Rizzoni, a phd student on the INdIGO project, spent a day on a gillnetter vessel from Lorient in order to understand how fishermen work and how nets are used and handled. Her observations will help improve the design of prototype biodegradable nets.

Read the story of Tabatha's experience (in French)

The partners involved in the survey are: LabSTICC (UBS), Smel, Cefas

# IN BRIEF

#### **GOOD PRACTICE**

The Preventing Plastic Pollution project is another project funded by the Interreg France (Channel) England Programme which aims to reduce the impacts of plastic pollution in the marine environment. The project aims to identify and target plastic accumulation points, integrate behavioural change within the population and implement effective alternatives.



INdIGO has in particular contacted the Iroise Marine Park, a PPP partner, which is developing numerous actions related to maritime activities. These include the setting up of channels for collecting and recycling used fishing gear and support for the creation of alternatives to plastic in maritime construction (boats and fishing gear).

To find out more: <a href="https://fr.preventingplasticpollution.com/">https://fr.preventingplasticpollution.com/</a>

### **FISH & CLICK**



After a first phase of dissemination of the citizen science programme on the French coast, Fish&Click is now also available in England.

This will make it possible to collect more observations in order to produce an inventory of fishing gear lost at sea or on the shore.

To participate:

https://fishandclick.ifremer.fr/

### 2ND ONLINE WORKSHOP 26 MAY 2021



Save the date!

The 2nd INdIGO workshop will be organised online on 26 May 2021 by the English partners of the project.

It is entitled "The circular economy for fishing gear: challenges and opportunities".

The programme and registration information will be available soon.

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Please encourage your colleagues and contacts to join the INdIGO Interest Group to be kept up to date with the project, its events and activities and research.

Sign up at the following link:



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