

Iodysséus, the proof of a sailing oceanography

Our story

This is the story of a meeting between a sailor and a marine biologist, two individuals from different worlds with a shared passion for the ocean. Together, they formulated the idea of advancing science aboard sail-powered research vessels – to study plankton and raise awareness by sharing their passion with as many people as possible. They established the Iodysséus programme in 2016, assembling a multidisciplinary team.



- 20 years of offshore racing
- 9 Transatlantics
- North Atlantic Record singlehanded
- 1 Route du Rhum
- 3 Solitaires du Figaro

ERIC DEFERT
PROFESSIONAL OFFSHORE SKIPPER



PIERRE MOLLO
MARINE BIOLOGIST

- Authored books on marine biodiversity
- Directed 20 educational short films and 6 full-length films, including *Planet Plankton* in 2012 with Jean-Yves Collet
- Co-production of a pictorial symphony *The voice of the Ocean*



And a multi-skilled team.
Skipper, biologist, legal adviser, news reporter, business developer, partner attender

Our values

Iodysséus harnesses all the advantages of **ocean yacht sailing by offering fast, economical, flexible and eco-friendly oceanography**.

We operate within the framework in the United Nations Decade of Ocean Science for Sustainable Development.

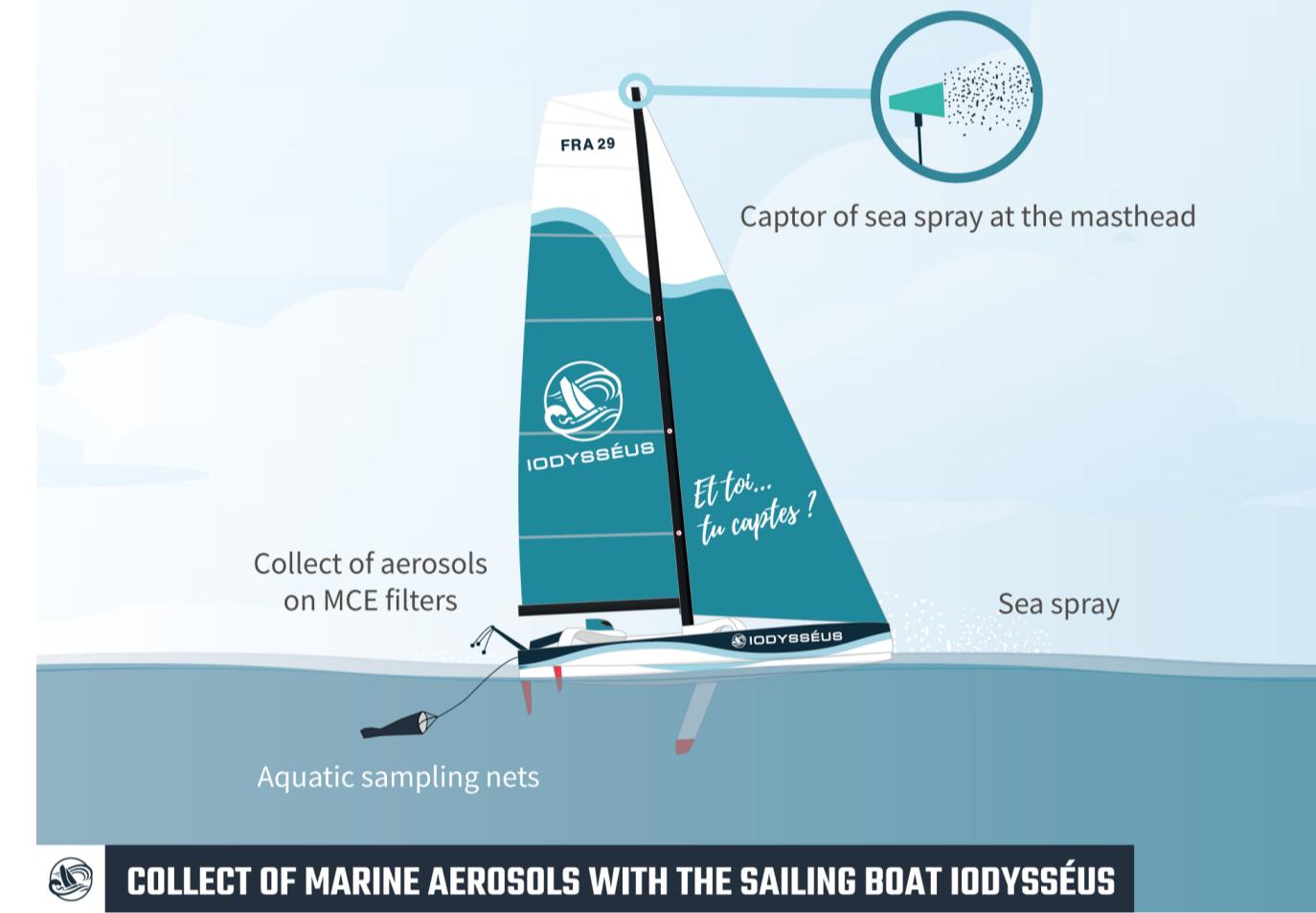
The continents were discovered by sail, and we believe that sailing remains the most elegant way to conduct oceanic research. Moving at the speed of nature, close contact is the best way to understand and study all that our planet has to offer.

Mission

The **Iodysséus team** is made up of seasoned, passionate **sailors and scientists** who believe in pushing boundaries by combining **sport and science**.

We specialise in the capture of **microorganisms from aerosols** (also called flying plankton) for marine laboratories and the biotech industry. Iodysséus also collects data on **surface water parameters**, gas exchanges at the air-sea interface, and more. We make a societal impact by supporting the **development of biotechnology**.

We also raise awareness for worthy causes: sustainable development, protection and preservation, the importance of biodiversity, and the **role of plankton in climate regulation**.



What we offer

Iodysséus offers a range of services:

Applied research: capture of microorganisms and live delivery to laboratories (potential molecules of interest for biotechnology).

Fundamental science: continuous measurement of surface water parameters for research (CNRS, Max Planck Institute). Iodysséus also offers **launch and retrieval of ocean monitoring floats** at sea.



Water column

- Research up to 2000m depth
- Launch and retrieval of biogeochemical floats



Surface parameters

- Temperature
- Salinity
- Chlorophyll a
- pCO₂
- Dissolved Oxygen
- CDOM



Air samples

- Aerosols capture on filters (MCE membranes)
- Impinger

Our achievement 2019: Sailing on the bloom

3 Expeditions

3500 Nautical miles



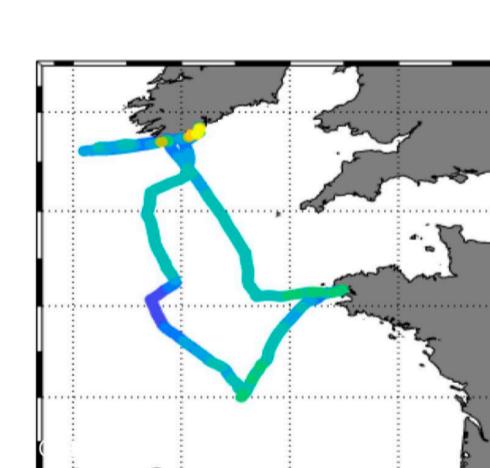
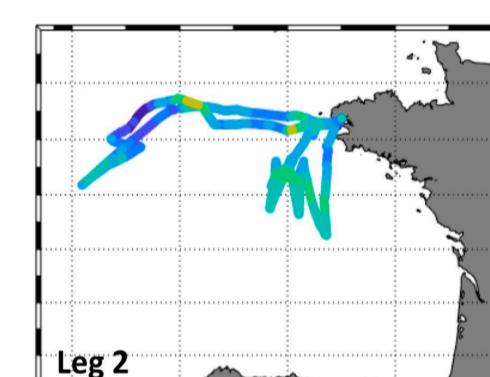
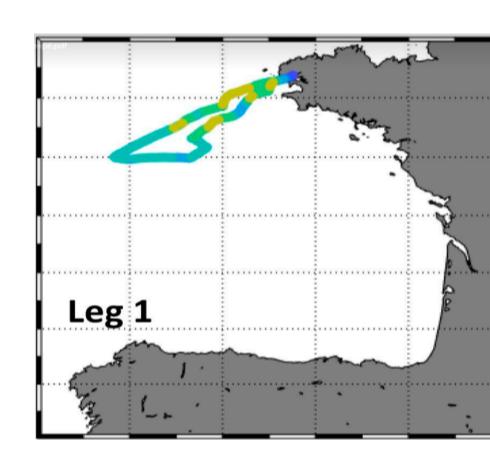
28 days at sea

5 crew members:

2 sailors, 2 biologists and 1 news reporter

2 biogeochemical floats launched & retrieved

72 Samples (atmospheric and aquatic). Samples are still being analyzed. Results will be soon published.



Advantages of sailing oceanography

Environmental friendly & quality

Wind is the only source of energy used to propel our vessels, reducing our carbon footprint and ensuring that aerosol samples are free of fuel exhaust pollution.

Speed & responsiveness

Our racing vessels allow us to reach open ocean quickly and return with live microorganisms.

Adaptability & flexibility

Our expeditions allow us to adapt our services to our partners' needs, meteorological conditions, and the biological phenomena to be targeted. Our flexible team has an intentionally small workforce in order to deploy quickly with minimal preparation.

Economical

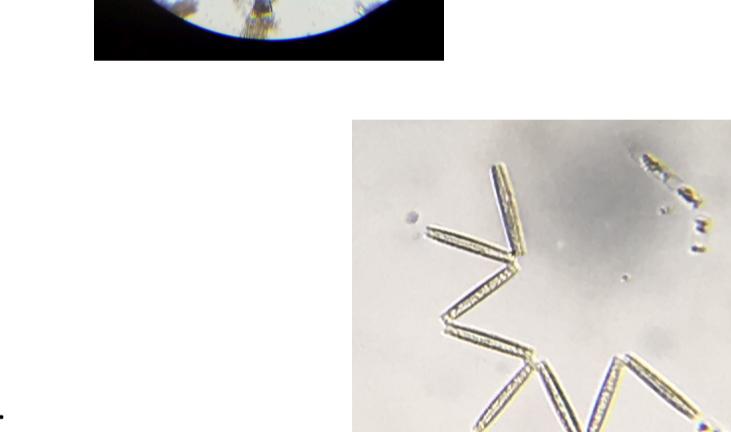
Compared to research vessels or to any motor vessel, sailing is the most economical type of oceanography. A 3-week Iodysséus campaign costs as much as a single day at sea on a diesel-powered research vessel.

Public interest & media

Our programme has been very well received by the general public. Offshore racing benefits from media coverage and an audience of over 10 million people. Sporting achievements gain importance with global and societal challenges.

Respect for the ocean & elegance

For any skipper, or anyone with a sense of respect for the sea, the ocean is more than just a playground. Sailing has long been associated with historic discoveries, inspiring the public with a sense of adventure and hard work.



Curing diseases

Nanotechnology is inspired by the diatom exoskeletons to target tumours while avoiding side effects. Soon, new antibiotics from marine molecules will combat resistant bacteria.

Creating cosmetics

Many laboratories are working on formulating a natural sun cream with no effect on marine life such as coral. Microorganisms from aerosols are resistant to UVA-rays.