

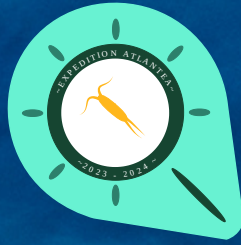


# Atlantea Expedition

A project by SAILOWTECH

SCIENCES - RAISING AWARENESS - ENVIRONNMENT





# Our missions

1.

## SCIENCES

- **Participate in the study of plankton and the dangers that threaten its environment**

Plankton is a major indicator of the ocean's health. Yet there is a cruel lack of information about it. Atlantea will contribute to the global scientific effort to understand planktonic organisms!

- **Testing more environmentally-friendly measuring instruments**

In partnership with various laboratories, Atlantea will be a testing platform for prototypes of simpler, more robust and environmentally-friendly measuring instruments. In other words, low-tech instruments for measuring the ocean. The long-term aim is to disseminate these instruments on a large scale to encourage participatory science!

2.

## RAISING AWARENESS

- **Sharing our knowledge of plankton**

On social media and in universities and schools along our route, the crew will popularize what they have learned about plankton and open discussions on the various low-cost ways of observing it.

- **Creating links between the people we meet at stopovers, France and Switzerland**

The crew will share the ecological actions of coastal populations encountered at stopovers on its social networks, and in a more personal way with children from French and Swiss schools.

3.

## ENVIRONMENT

- **Sailing with awareness and care for the environment**

Moving around on a sailboat, paying attention to waste production and the use of resources, which are limited on board, as well as being attentive to the biodiversity and environment the crew will be crossing, is a priority!

- **Use and encourage low-tech and frugal technologies**

To reduce the environmental footprint of scientific instruments and our life on board, the boat is equipped with low-tech and frugal instruments, i.e. more accessible, less expensive and more durable instruments that meet a precise need.

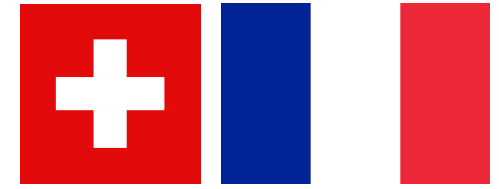


# The crew

The crew is made up of young friends aged between 20 and 24, working or studying in Switzerland. For most of them, it was their ties with Brittany and Normandy that initially drew them to the ocean. Today, it's above all a wind of adventure and a love of science that has brought them this far!

Whether sailing instructors, engineers or students of environmental science, mechanics, information systems or life sciences, the crew comes from a wide range of backgrounds! Gathered around their common passions, from science to education to sailing, this adventure is an opportunity to undertake a meaningful project that will provide real tools for tomorrow's explorers.

During the Atlantea expedition, there will always be between five and six people on board. Four crew members will make the entire voyage, while the others will take turns at the halfway point. Prior to departure, the crew has been trained in meteorology, mechanics, safety and technique by the Escale Formation Technique training center. Group dynamics and human management were coached by two sports psychologists prior to departure.



**Yann-Arthur** ♂  
Captain



**Andréa** ♀  
First mate



**Margot** ♀  
Scientific coordinator



**Thibault** ♂  
Treasurer



**Lola** ♀  
Crew member



**Servane** ♀  
Crew member



**Hugo** ♂  
Crew member



## The sailboat

The Carlina sailboat is provided by the Ocean Trotter association for the Atlantea expedition.



**Ocean Trotter's** aim is to make as many people as possible aware of the ocean, its preservation and its mysteries. Their members didn't hesitate for a moment before entrusting us with their Carlina sailboat for the Atlantea expedition. Carlina is a beautiful 44-feet (13.5 m) aluminum keelboat. She is designed to accommodate a crew of six.



**Romain Bazile** is the founder of Ocean Trotter. He advised us on the budget, the technical preparation of the expedition and the administrative aspects associated with the trip. During the expedition, Romain will be our router and one of our main points of contact ashore.





# The itinary

## Few numbers

Departure is scheduled for early October from Brest, France. The crew will then sail for a year around the North Atlantic Ocean.

**6**  
crew  
members

**12**  
months on  
the sea

**1** ocean, giving its name to the expedition

**20k**  
kilometers  
crossed,  
13k nautical miles

**5**  
seas

**~15**  
lands crossed



One year from October 2023



# Onboard laboratory



## Observe the invisible plankton: the marine microbiome!

We will help develop measuring instruments and collect data to analyze the DNA and structure of different types of microscopic plankton. Sharing the data with the scientific community on an open-access basis will enable us to identify the different species of microscopic plankton on our route, and their abundance.

**In collaboration with :** Plankton Planet (CNRS), Genorobotics (EPFL), le Dudin Lab (EPFL)

## Understanding the environment: pollution and variations

The study of biodiversity cannot be dissociated from an understanding of its environment. Environmental measurements will enable us to understand the context in which plankton live. We are particularly interested in measurements associated with climate change, such as temperature, chemical pollution and ocean acidification. chemical pollution and ocean acidification, or even the largest organisms living along the coast.



**In collaboration with:** le SENSE Lab (EPFL), le Konkar Lab, Département F.-A. Forel des Sciences de l'Environnement et de l'Eau (DEFSE à l'UNIGE), Plankton Planet (CNRS)

## Why the plankton?

The plankton represents



of the marine  
biomass



of the planetary  
oxygen

It also forms the basis of the food chain. Sensitive to climate change, it is vital to the health of the Ocean. To study it is to understand the Ocean!



## Aware field science and low-tech innovation

All the instruments we take on board are minimally invasive, and measurements are made in such a way as to have a minimum impact on the environment. have minimal impact on the environment, and will be shared with the scientific to the scientific community. They are rooted in a frugal, low-tech approach approach to science.

Some measurements are made with innovative prototypes designed to enable long-term participatory science, where non-scientific sailors could take measurements in the field. They are therefore designed to be more accessible, simpler, less costly and more sustainable.



# Raising environmental awareness

## Raising awareness through knowledge

## Engaging through wonder

Along the Atlantea expedition route, we'll have the opportunity to meet many new people. These coastal populations are the first to be affected by climate change. During our stopovers, we'll be seeking out their testimonies, encouraging local initiatives that share our values, and exchanging our respective knowledge by creating links with Switzerland and France.

### During stopovers

#### Supporting existing local initiatives

During our stopovers, we will encourage initiatives in low-tech, low-cost science and ocean preservation by participating in local actions and giving them visibility on our communication networks.

#### Making knowledge accessible

We plan to speak at schools and universities to explain what plankton is and its importance for the Ocean. We also hope to talk to local researchers, who will be able to share their progress and thoughts with us.

### Remotely

#### In French and Swiss schools

During the trip, we'll maintain close contact with pupils from the Swiss schools of Vivaly and Bethusy, and the French schools of Sud Goëlo and Lantic. These children will experience the adventure with us through calls, videos and letters with their teachers. They'll be following the plankton saga with us!

#### On our social networks

During our trip, you can follow our adventures on our social networks! Educational content, testimonials and artistic productions will be shared on our communication networks. Of course, we'll also be answering any questions you may have - dialogue is always open!



# Reducing our environmental impact

Environmentally aware navigation

We have signed Longitude181's international charter for eco-responsible yachting.

Financial support from organizations and individuals who share our values

Low-tech tools on board to reduce our environmental footprint



We are supported by the Low-tech Lab to take an active part in referencing and documenting low-tech technologies and lifestyles through membership of the program

**Low-Tech Lab explorer**



Norwegian pot



Foldable solar oven



Multifunction crankset



Foldable solar lamp



# The association behind the project SAIL OWTECH



## SAIL

- Go into the field with the least polluting means of transport possible
- Proving that small-scale science on a pleasure boat is possible
- The boat as a vector of inspiration for managing limited resources

## LOW-TECH

- Responding to a targeted and necessary need: frugal science and sobriety in on-board lifestyles
- Promoting accessibility to knowledge: popularization and education for all ages, sharing of scientific data and open-access documentation, co-development of measurement tools for participatory science.
- Include sustainability in all our thinking, from price to ecology to interculturality.

## ACTIONS



### Sciences

Supported and supervised by the Ecole Polytechnique Fédérale de Lausanne (EPFL), here are our scientific goals:

- Involve students in the development of more sustainable scientific instruments and methods for understanding the ocean.
- Promote field science on sailboats on the EPFL campus.
- To contribute to a better understanding of plankton, on several scales, across the globe, and to understand the surrounding environment in order to better preserve it.

**EPFL**

**Already 10 student  
academic projects  
since January 2023!**

One year after our creation :

**30** awareness-raising workshops and conferences

**900** people reached

**between 8 and 80** years old

The first Ocean Camp supported by the  
Explore base in Lausanne!

### We protect what we understand!

Sailowtech wants to open up a proactive, realistic and unifying  
dialogue around understanding the Ocean.

**Bringing ocean issues back to Switzerland through science and  
links with France!**



**Raising  
awareness**



Let's talk !

Contact us

atlantea@sailowtech.ch



Follow us

 [www.sailowtech.ch](http://www.sailowtech.ch)



@sailowtech



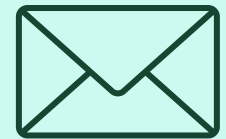
Sailowtech



Sailowtech



Sailowtech



[sailowtech.ch/newsletter](http://sailowtech.ch/newsletter)

Support us

Participate in crowdfunding on [linktr.ee/sailowtech](http://linktr.ee/sailowtech)

Become a partner

Talk about us!

Talk to us!





**Andréa Montant**  
Communication manager  
**[communication@sailowtech.ch](mailto:communication@sailowtech.ch)**

**Sailowtech**  
**[contact@sailowtech.ch](mailto:contact@sailowtech.ch)**