

# FOREL HERITAGE ASSOCIATION

## MISSIONS & VISION

### THE ASSOCIATION

To support the Swiss and international scientific community in better understanding climate change and developing solutions, the FOREL Heritage Association provides a mobile research platform: a sailing vessel (FOREL) dedicated to polar and subpolar research.

### THE KEY ROLE OF POLAR REGIONS

Polar regions are key indicators of climate change and play an important role in anticipating its effects on our planet. They offer a unique field of study for scientists from many disciplines, such as glaciology, oceanography, biology, and atmospheric science.

### CLOSE TO COASTAL AREAS

FOREL focuses on coastal areas that are difficult to access for large oceanographic vessels. Thanks to its maneuverability, it enables advanced research in dynamic coastal environments.

### SHARING KNOWLEDGE

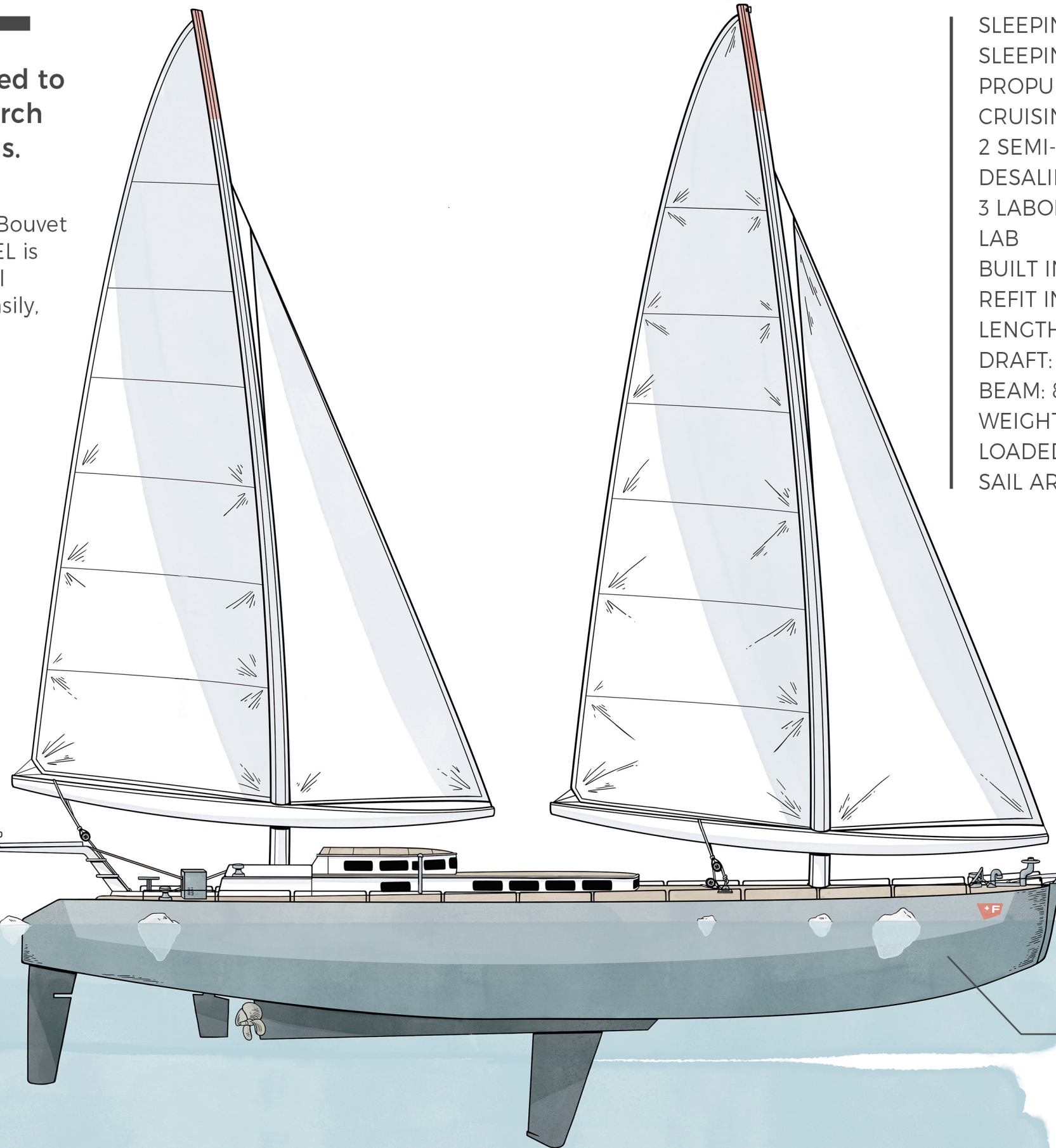
The FOREL Heritage Association aims to make scientific programs carried out on board FOREL accessible to a wider audience. Through its educational mission, the association creates connections between scientists, the general public, and Indigenous communities.

# FOREL VESSEL

**A research platform dedicated to coastal oceanographic research in polar and subpolar regions.**

Designed in collaboration with Luc Bouvet and Olivier Petit, the schooner FOREL is equipped with a self-tacking staysail system, allowing it to be handled easily, even by a single person.

**THE CTD ROSETTE** is a system of 12 bottles used to collect water samples at different depths. Using a deck winch, it can reach depths of up to 1000 meters. Associated sensors measure conductivity, temperature, pressure, salinity, and dissolved oxygen.



SLEEPING PLACES FOR CREW : 6  
SLEEPING PLACES FOR PASSENGERS : 6  
PROPULSION: 2 × 400 HP  
CRUISING SPEED: 6.5 KNOTS  
2 SEMI-RIGID TENDERS  
DESALINATOR: 300 LITERS PER HOUR  
3 LABORATORIES: WET LAB, DRY LAB, CLEAN LAB  
BUILT IN BRAZIL IN 2000  
REFIT IN FRANCE IN 2023  
LENGTH OVERALL: 28 M  
DRAFT: 3.11 M  
BEAM: 8 M  
WEIGHT: 75 TONS (LIGHT) / 120 TONS (FULLY LOADED)  
SAIL AREA: 285 M<sup>2</sup>

**THE HULL** is made of aluminum. This material was chosen for its light weight, its ability to deform in case of impact, and its good performance in cold environments.

RADAR

CORK DECK COVERING

ATMOSPHERIC AIR INTAKE

2 ENGINES OF 400 HP EACH

INTERNET ANTENNA

12 SOLAR PANNELS (180 W)

WINCH for sampling down to 1000 m depth

SUCTION ARM used to remove fumes, vapors, or dust in the laboratory

CTD ROSETTE stored on a deployment platform

WET LAB Laboratory dedicated to sampling, filtration, and handling organisms and sediments

TECHNICAL ROOM WORKSHOP

MAIN SALOON A central multifunctional space that plays an important role in life on board

DRY LAB Laboratory with a controlled atmosphere, dedicated to electronic equipment and data storage

FERRY BOX A compact system of sensors that continuously measures surface seawater (temperature, salinity, turbidity, oxygen, pH)

CLEAN LAB Laboratory equipped with filtered air systems for sensitive analyses (trace metals, DNA, pollutants)

AIRLOCK Space to change before entering the clean lab

