Rothschild & Co
Asset Management

POLARPOD

Polar POD report

2025

An enormous project in the service of science

The Polar POD project was born of a unanimous observation: the Southern Ocean is the planet's main oceanic carbon sink, but this key player for the climate remains unknown because of the particularly hostile sailing conditions. It is difficult to navigate for traditional boats and they cannot stay there for long. In order to take measurements, sheets and samples in situ throughout the year, **Jean-Louis Étienne** and his team have designed a station that drifts around Antarctica like a satellite, driven by the circumpolar current.

12

countries involved

4

scientific objectives

24,000

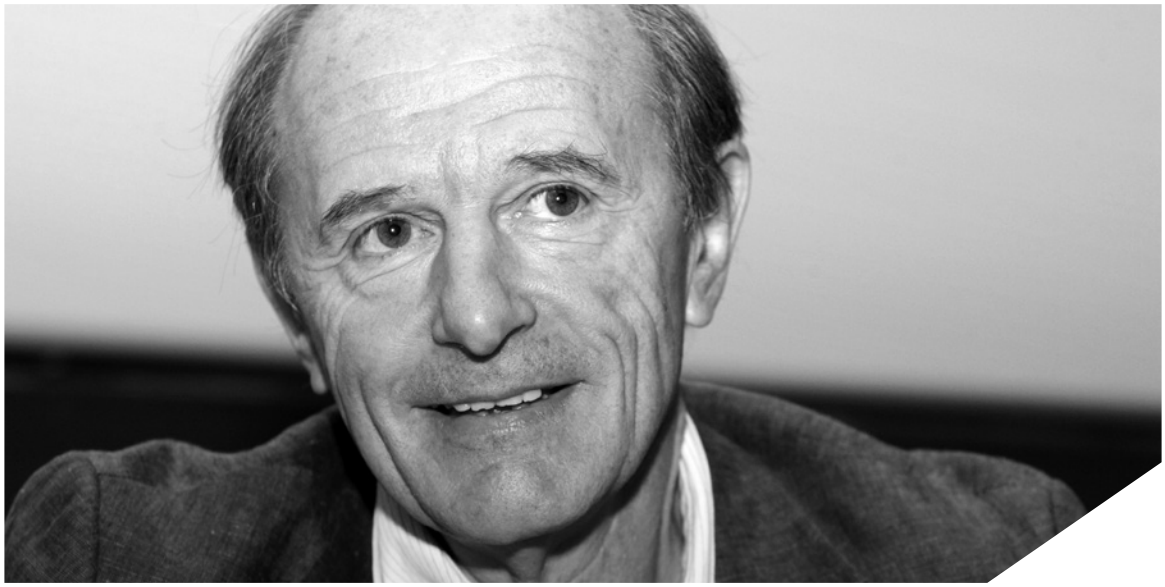
kilometres to cover

43

scientific institutions

8

crew members on board the Polar POD



The mad idea of an insatiable adventurer

As a doctor specialising in sports biology and nutrition, Jean-Louis Etienne quickly put his skills at the service of a dream: to explore and survey the world. After several Atlantic crossings, he embarked in 1977 on Eric Tabarly's boat for the Round the World Race. He then took part in numerous expeditions to the Himalayas, Patagonia and Greenland, before embarking on his first major personal adventure on 14 May 1986, becoming the first man to reach the North Pole solo by pulling his own sled for 63 days. He then successfully completed the longest Antarctic crossing ever and led several educational expeditions with the aim of raising awareness of the polar regions and understanding their role in life and climate. In the spring of 2002, Jean-Louis Etienne carried out the Banquise Mission, a three-month drift on the North Pole ice floe for a programme of measurements and information on global warming. In 2004, he led an expedition to Clipperton Island to carry out an inventory of the biodiversity and environmental status of this French atoll in the Pacific. He then became Director General of the Oceanographic Institute - Albert 1st Prince of Monaco Foundation between 2007 and 2008, before making the first crossing of the Arctic Ocean in a balloon in 2010. The Polar POD expedition, a long-standing project, is his «cathedral» and the culmination of a lifetime of service to discovery and science.

The Southern Ocean, an unknown giant

Located in the Southern Hemisphere, the Southern Ocean is an oceanic ring 20,000 kilometres in circumference around Antarctica. Driven by the Antarctic Circumpolar Current and pushed by westerly winds, it joins the Indian, Pacific and Atlantic Oceans. This stormy ocean, nicknamed “Furious 50s” because of its extreme climatic conditions, remains little explored. However, its cold waters contribute to 50% of the CO2 absorption of the world’s oceans and constitute an important reserve of marine biodiversity. The mission of the Polar POD and its crew will be to drift along the circumpolar current to circumnavigate Antarctica twice. This journey of more than 24,000 kilometres should take between two and three years.

The Polar POD, a technical and technological challenge

The Polar POD is a vertical vessel without a hull or engine that gives its name to the new scientific expedition led by Jean-Louis Etienne. Designed by the SHIP ST naval engineering office in Lorient and inspired by the FLIP, an American military listening vessel developed during the Cold War and converted into a research platform, this 100-metre high, 1,000-tonne oceanographic station will have the mission of braving the Southern Ocean and its rogue waves. Towed horizontally to its study area, it will be tipped into a vertical position by filling the ballast tanks. Its 150-ton ballast should ensure sufficient stability to provide its eight crew members with good working and safety conditions throughout the year. Ecological, silent, with an autonomy of 6 months and with the advantage of not disturbing its environment, the Polar POD will allow the acquisition of data and observations over the long term which will be transmitted to researchers, oceanographers, climatologists, biologists...

Persévérance, the fellow traveller of the Polar POD

A 42-metre-long aluminium schooner with 33-metre-high masts is the Polar POD's supply vessel, responsible for replenishing supplies, collecting samples and relieving its crew every two months. Specially designed for navigation in the polar oceans, this sailing vessel is able to face, all year round, the extreme sailing conditions of the Southern Ocean. It also has an eco-tourism function before, during and after the expedition, and takes board passengers to combine participatory science and discovery.

A revolutionary scientific expedition

The data and observations made by the Polar POD crew will be made available to the international scientific community and the general public. The data are based on 4 research areas:

Atmosphere-sea exchanges: to accurately measure the CO_2 absorption capacity of the Southern Ocean in all four seasons.

Ground truth for Earth observation satellites: calibrating the measurements made by the satellites from observations made on the ground (weather conditions, sea state, wind and waves and ocean colour)

Census of marine life: using highly sensitive hydrophones to capture the underwater sound universe, analysis of micro-organisms and observations of seabirds

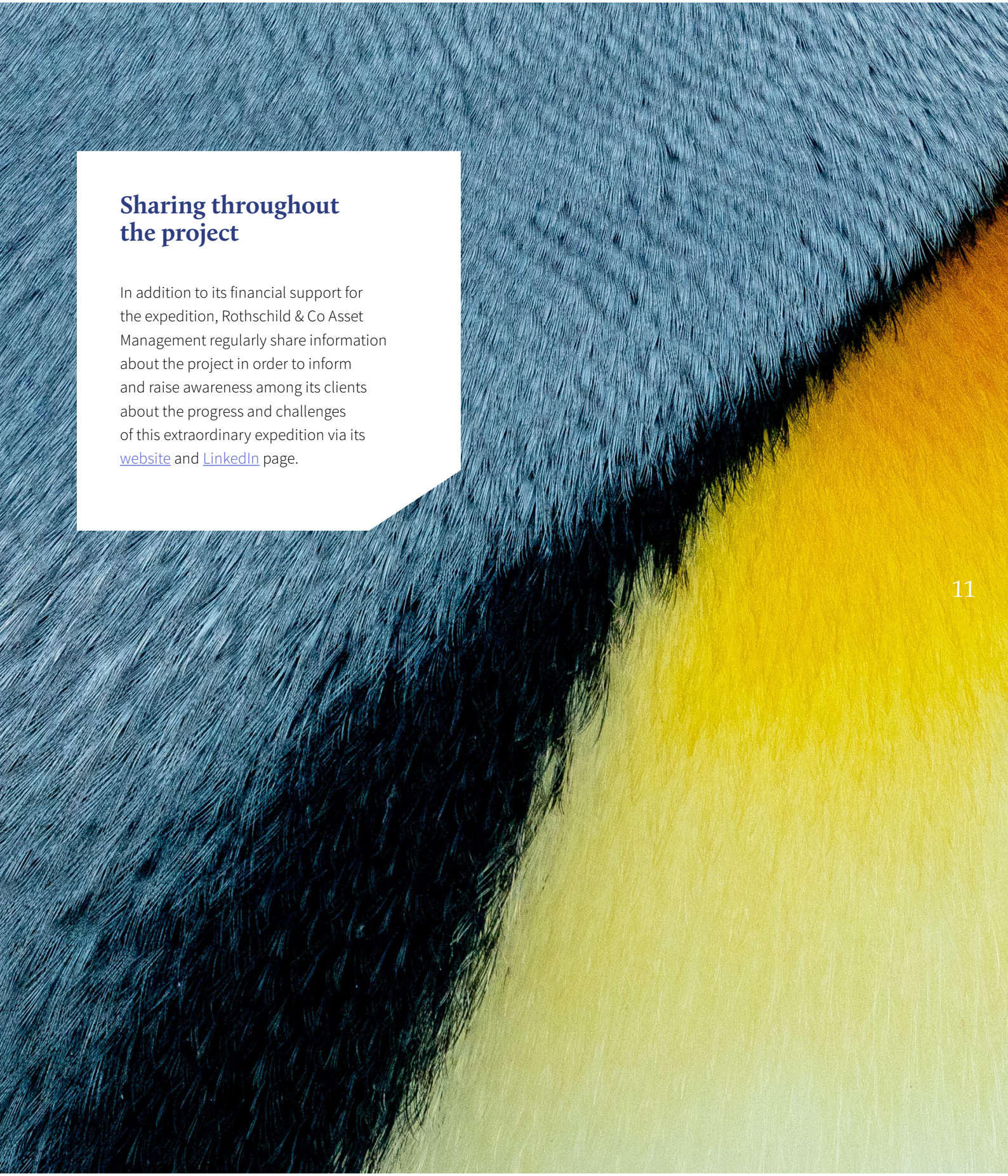
Measuring anthropogenic impacts: although very remote, a wide range of anthropogenic pollutants have been detected in the Southern Ocean

An educational ambition, to make people dream in order to raise awareness

Beyond its scientific aspect, the expedition will also aim to offer the educational community the opportunity to follow an expedition related to the theme of climate change and marine biodiversity from day to day. Through a programme built in consultation with the French Ministry of Education, Polar POD will be an opportunity to run an international educational project on Earth and Environmental Sciences in collaboration with the International Union for Conservation of Nature (IUCN) in “real time”. On land, a minibus dedicated to the expedition will criss-cross France to meet schools, colleges and places of scientific, technical and industrial culture.

Involving a maximum number of partners

In order to carry out his project, Jean-Louis Etienne has called on public and private organisations for its development and financing. As such, in 2021, Rothschild & Co Asset Management became a member of the Support Committee and signed a sponsorship agreement for the benefit of the Polar POD expedition. As part of this partnership, the Rothschild & Co Group's asset management company is donating a fraction of the management fees from two of its funds dedicated to climate issues to the Polar Ocean association in order to help finance the Polar POD expedition.



Sharing throughout the project

In addition to its financial support for the expedition, Rothschild & Co Asset Management regularly share information about the project in order to inform and raise awareness among its clients about the progress and challenges of this extraordinary expedition via its website and LinkedIn page.

2012

Jean-Louis Etienne imagines the project

2015

Launch of the project

2021

Launch of the tender process for the construction of the ship

2022

Setting up of the pedagogical tools and the educational programme

Construction of Perseverance begins

2023

Launch, sea trials and cruises begin for Persévérance

Start of PolarPODibus tours

2025

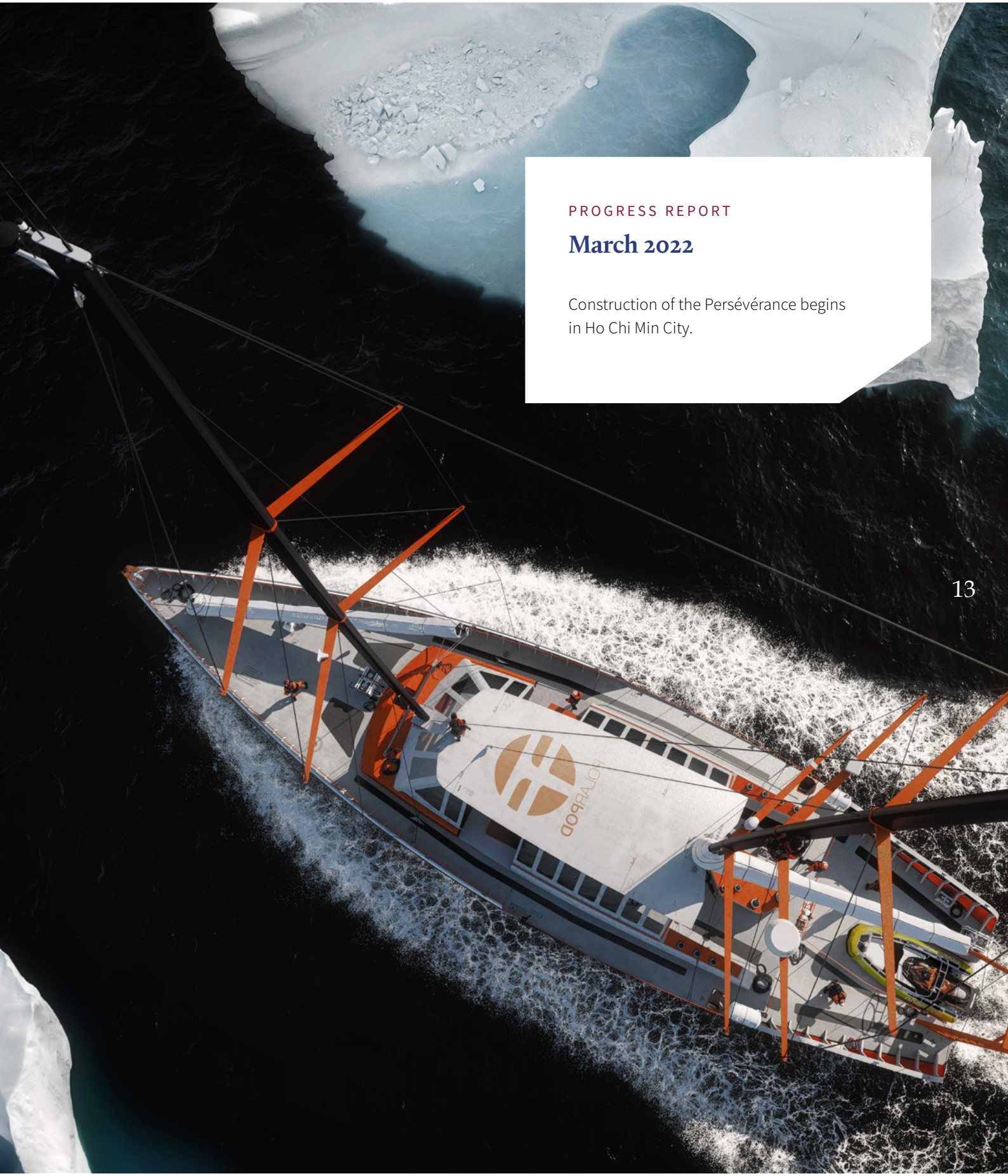
Polar POD construction launched

2027

Sea trials of the Polar POD and launch of the expedition

2027 – 2030

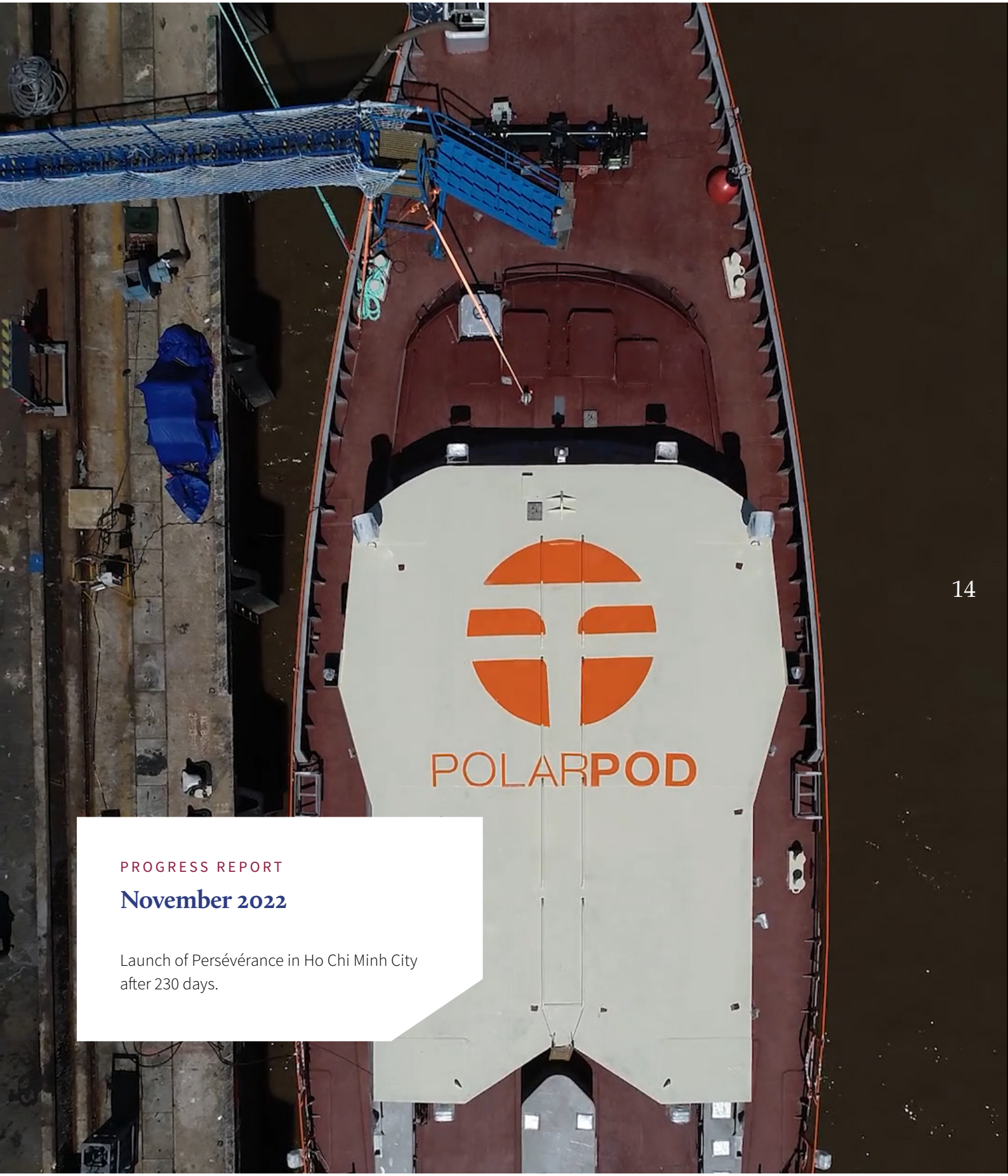
Antarctic circumnavigation



PROGRESS REPORT

March 2022

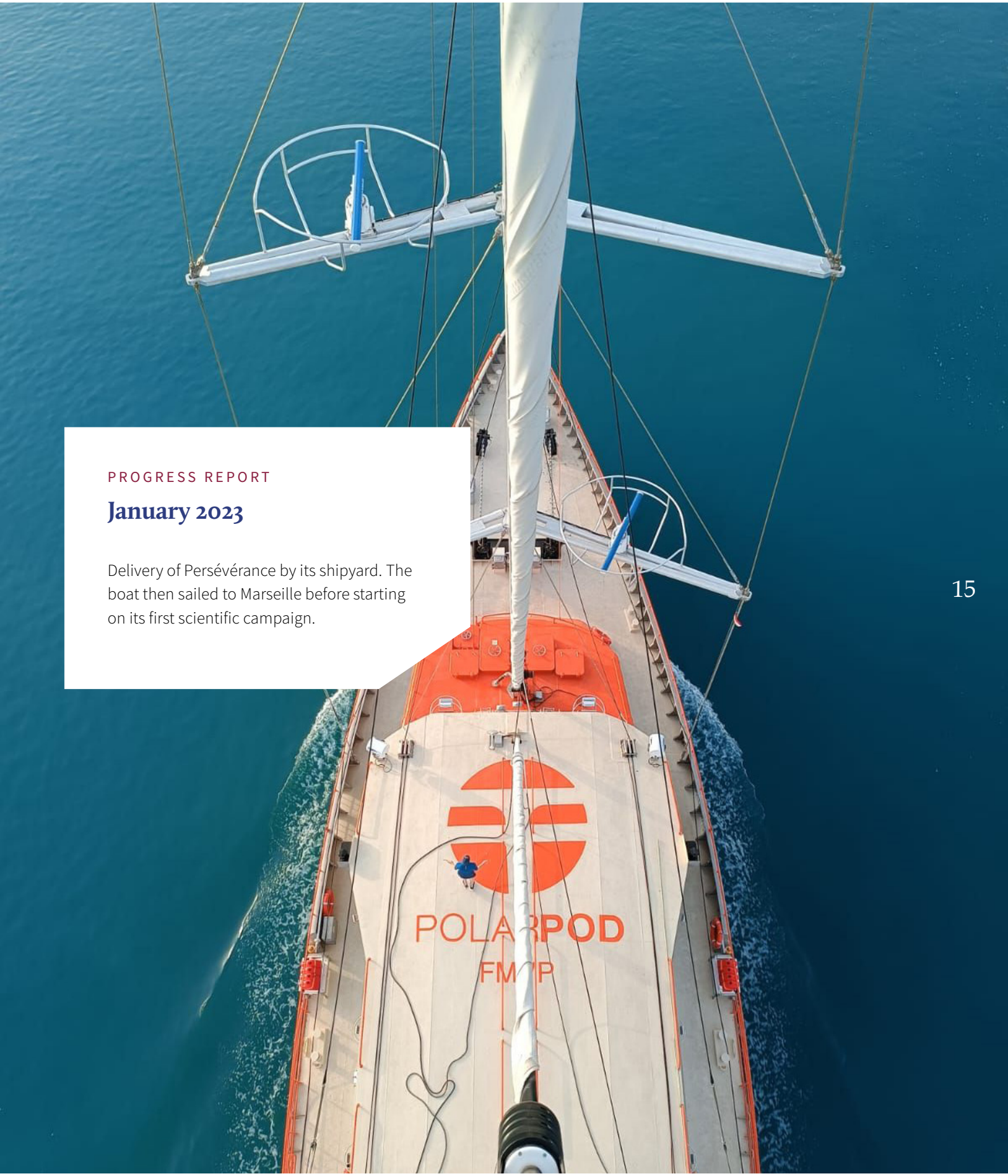
Construction of the Persévérance begins in Ho Chi Min City.



PROGRESS REPORT

November 2022

Launch of Persévérance in Ho Chi Minh City after 230 days.



PROGRESS REPORT

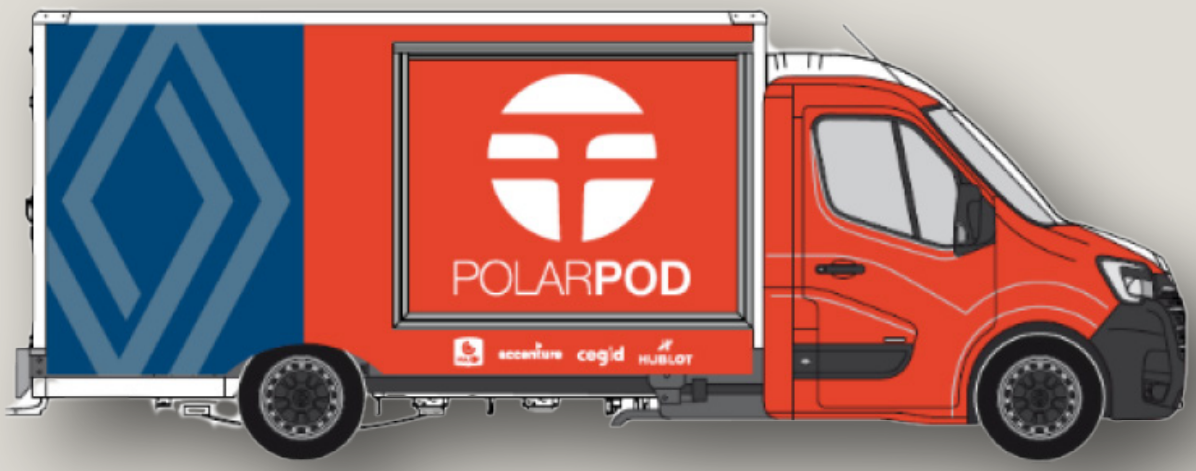
January 2023

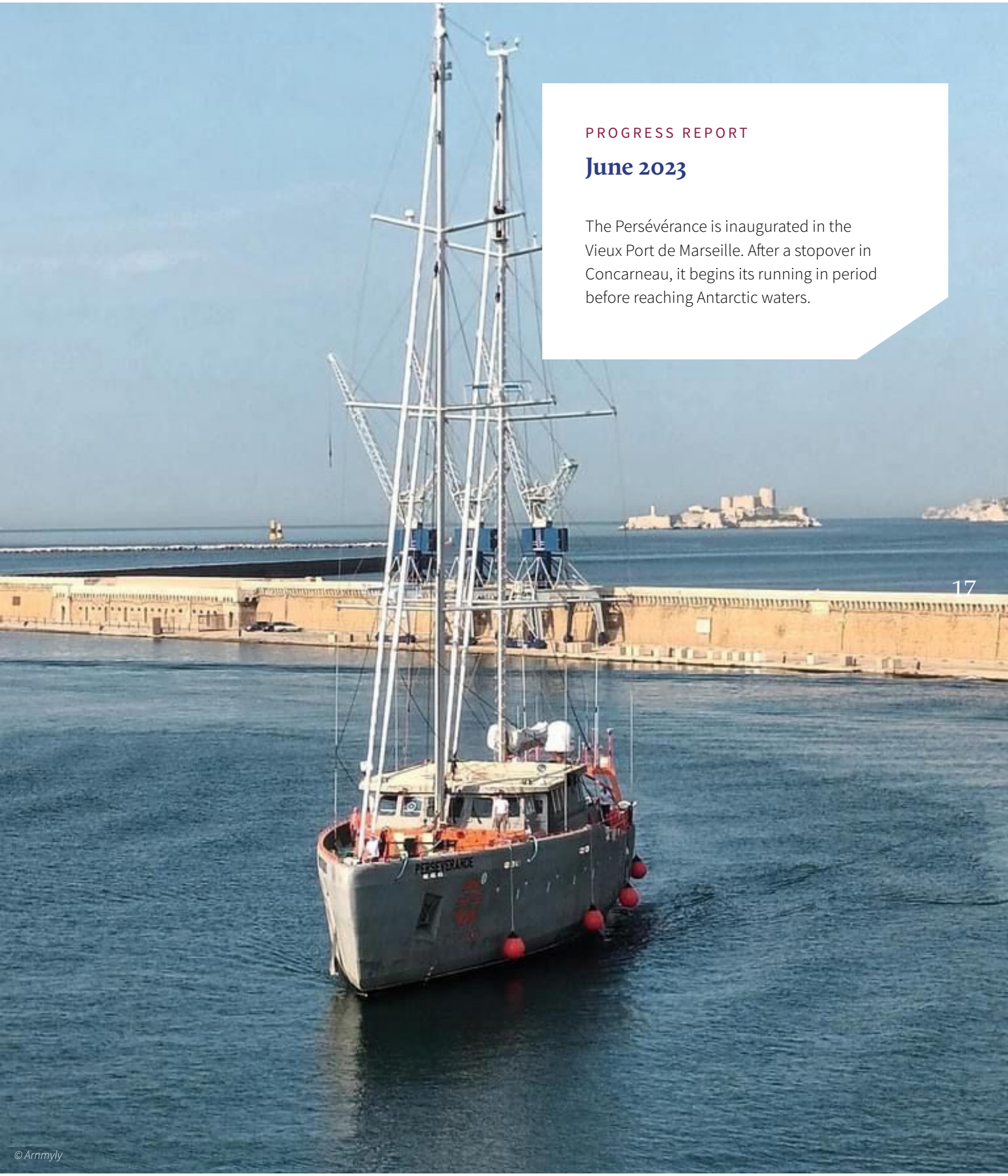
Delivery of Persévérance by its shipyard. The boat then sailed to Marseille before starting on its first scientific campaign.

PROGRESS REPORT

January 2023

The PolarPODibus begins its educational campaign in middle schools across France.





PROGRESS REPORT

June 2023

The Persévérance is inaugurated in the Vieux Port de Marseille. After a stopover in Concarneau, it begins its running in period before reaching Antarctic waters.

© Arnmyly

PROGRESS REPORT

December 2023

The sailing vessel Persévérance begins its first scientific campaigns in the Antarctic's Deep South.

© Férial

PROGRESS REPORT

January–December 2024

The Persévérance sailing ship continued its scientific campaigns in Antarctica and the Arctic throughout the year.

Rothschild & Co Asset Management
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