European Pavilion

Digital Ocean

Nice | France

2 - 13 JUNE 2025

Competitive sailor collect ocean data

12 June 2025

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ocean & climate

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Lucie Cocquempot

Ifremer / EuroGOOS

Context

Democratizing marine data collection
Oceanography and sailing

The Vendée Globe is a solo, non-stop, around-the-world sailing race without assistance. Held every four years, it starts and ends in Les Sables-d'Olonne, France. Known as one of the toughest races in the world, it pushes sailors and their boats to the limits.

For the 2024-2025 edition, race managers decided to commit to science

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Context

Vendée Globe x UNESCO x IMOCA Class partnership since early 2024

- Vendée Globe 2024-2025 target: 50% of fleet equipped
- Vendée Globe target 2028-2029: 100% of fleet equipped

Stakeholders

- SAEM Vendée, IMOCA Class, UNESCO, GOOS, OceanOPS, Decade of the Oceans
- Scientific partners: OceanOPS, *Ifremer*, MétéoFrance, CNES, and other technical suppliers

Budget

- 2024-2025 :
  - 15,000 euros for general project coordination (by SAEM Vendée to OceanOPS)
  - Instruments loaned to skippers by scientific partners
  - 1 support person on IMOCA Class side + SAEM Vendée
- 2028-2029: to be defined

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Fabrice AMEDEO
NEXANS-WEWISE


Romain ATTANASIO
FORTINET - BEST WESTERN

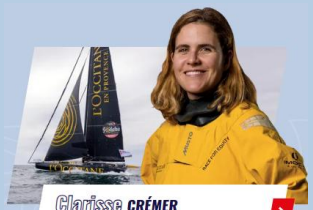

Arnaud BOISSIÈRES
LA MIE CÂLINE


Louis BURTON
BUREAU VALLÉE


Antoine CORNIC
HUMAN IMMOBILIER

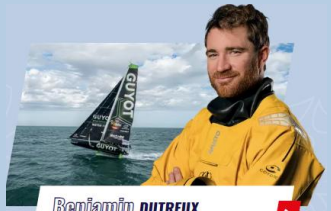

Manuel COUSIN
COUP DE POUCE


Samantha DAVIES
INITIATIVES-CŒUR


Clarisse CRÉMER
L'OCCITANE EN PROVENCE


Louis DUC
FIVES GROUP - LANTANA ENVIRONNEMENT


Sam GOODCHILD
VULNERABLE


Benjamin DUTREUX
GUYOT ENVIRONNEMENT - WATER FAMILY


Oliver HEER
TUT GUT.


Pip HARE
MEDALLIA


Sébastien MARSSET
FOUSSIER


Nicolas LUNVEN
HOLCIM - PRB


Boris HERRMANN
MALIZIA - SEAEXPLORER


Paul MEILHAT
BIOTHERM


Tanguy LE TURQUAIS
LAZARE


Yoann RICHOMME
PAPREC ARKÉA


Maxime SOREL
V AND B - MONBANA - MAYENNE


Szaboles WEÖRES
NEW EUROPE


Kojiro SHIRAISHI
DMG MORI GLOBAL ONE


Guirec SOUDÉE
FREELANCE.COM


Denis VAN WEYNBERGH
D'IETEREN GROUP


Jingkun XU
SINGCHAIN TEAM HAIKOU

THE 25 SKIPPERS COMMITTED TO SCIENCE

Return of experience 2024-2025

- 25 skippers equipped (out of a fleet of 40 skippers)
- 10 types of onboard instruments :
  - 10 Argo floats … Ifremer
  - 8 weather buoys
  - 2 Argos Marget II beacons
  - 5 Mintaka stations
  - 5 Calitoo photometers
  - 2 TSG Gaillard … Ifremer
  - 4 OceanPack … Geomar / Ifremer
  - 1 Planctoscope
  - 1 Microplastics laboratory … Ifremer
  - Eodyn buoys
- 1 workshop at UNESCO headquarters
  4 highlights in the Vendée Globe village

TO DEPLOY

ARGO Floats

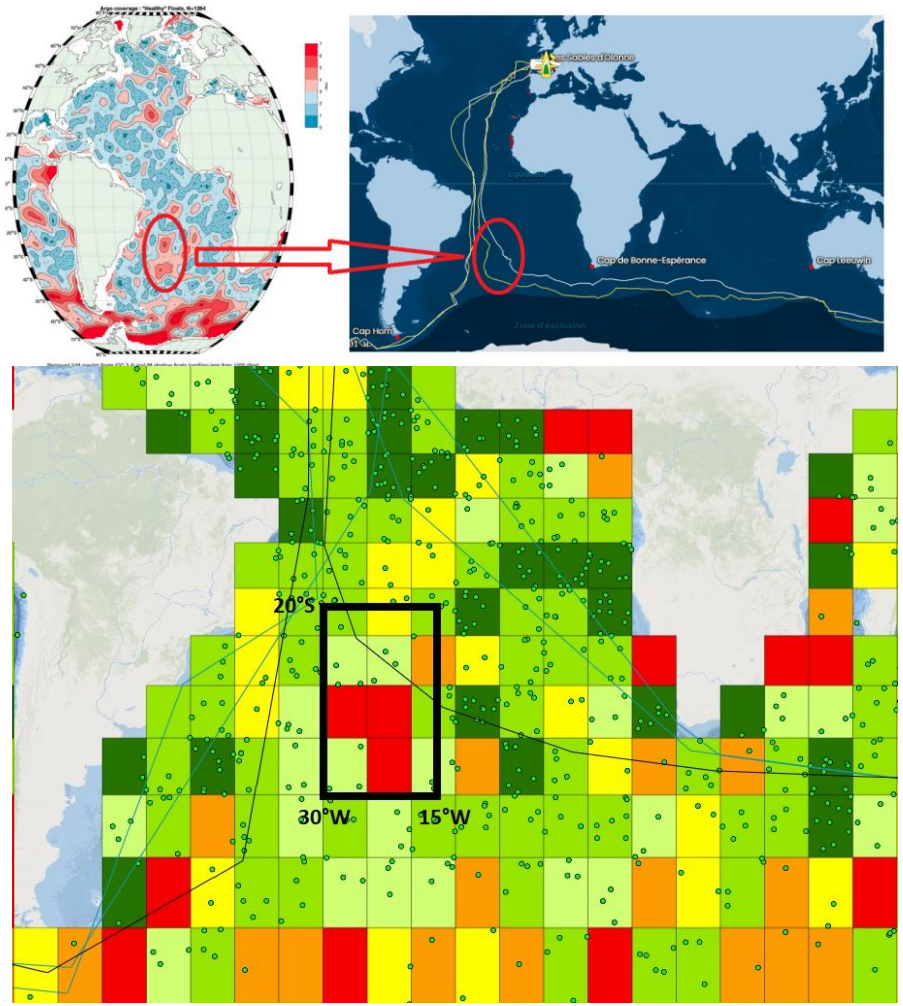
Provided by IFREMER

10 Argo floats assigned: Fabrice AMEDEO; Yoann RICHOMME; Oliver HEER; Jingkun XU; Kojiro SHIRAISHI; Sam GOODCHILD; Sébastien MARSSET; Guirec SOUDEE; Maxime SOREL; Szabi WEORES

Data collected: temperature and salinity
Operational services: in-situ data for operational modeling (weather, oceanography)
Climate services: Monitoring global thermohaline circulation, understanding regional and global changes in ocean heat content.

Weight and dimensions: 20kg; 1.70m high
Operation: drifts to 1,000m, then 2,0000m and rises every 10 days / data sent by satellite (Iridium)
Educational program: Adopt a float (Ifremer educational program)

Deployment: ARGO DAY



ON BOARD

Microplastics

Supported by IFREMER

1 long-term partnership: Fabrice AMEDEO

Data collected:
Microplastics concentration from continuous sub-surface seawater filtration using OceanPack[tm]
Weight and dimensions: approx. 16 kg, 75 cm × 55 cm × 25 cm
Power consumption: power supply 24 V DC, designed for low energy usage, optimized for sailing yachts.

Operation:
- Continuous sub-surface seawater filtration (three mesh sizes used: 300 µm, 100 µm, and 30 µm)
- Sieves retrieved every 24 hours
- Inter-laboratory validation of analytical methods (Ifremer, Ubordeaux, IRD)

Interest: To support the development of predictive models for microplastics dispersion

ON BOARD

TSG Gaillard

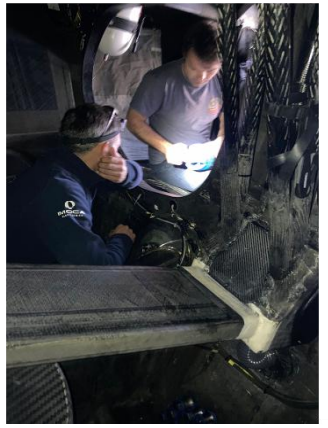
Provided by IFREMER

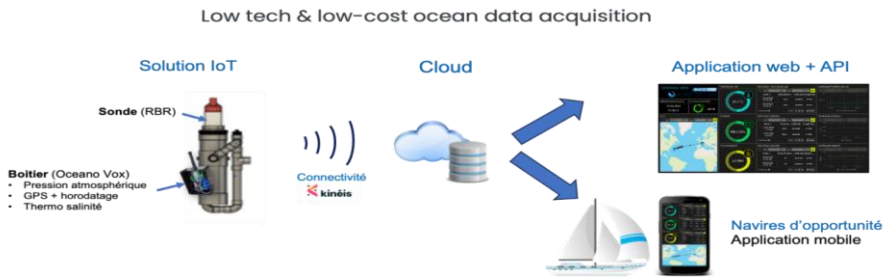
2 TSG Gaillard entrusted to: Romain ATTANASIO, Antoine CORNIC

Data collected: continuous temperature and salinity measurements
Weight and dimensions: approx. 10 kg with cables and hoses, 26 x 61 x 17 cm
Power consumption: 1.5 watts at 24 V

Operation: A plug-and-play tool that requires no training. The measuring system requires very little maintenance
Interest:

1. **To co-develop an affordable and simple solution** for the continuous collection of in-situ quality temperature and salinity measurements from surface oceans.
2. 2. Develop a first version of the device with Vendée Globe skippers, **then extend the solution to the world of recreational sailing.**





ON BOARD

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2024-205 Dialogue with society

1 workshop at UNESCO headquarters
4 highlights in the Vendée Globe village:

- Distribution of scientific instruments on decks
- Vendée Globe Club event
- Skippers briefing
- Dedicated round table

Media relay

Relay via PR agency. TV, radio, press coverage, etc.
Highlighting of committed partners

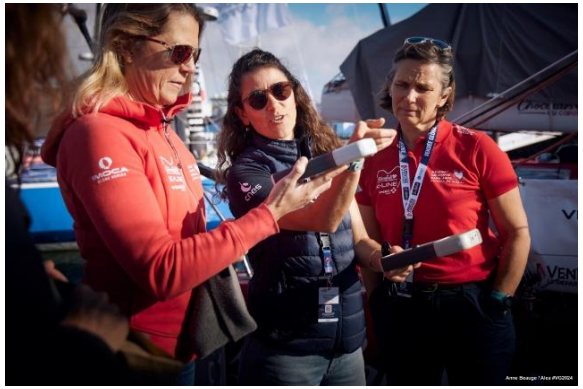
Website:

5 dedicated articles + relay of all deployments

Vendée Live (TV Show):

Dedicated program Fr + En
Relay of pictures of deployment

2024-205 Dialogue with society



2024-205 Dialogue with society

VENDÉE GLOBE: CAP SUR LA SCIENCE

NATIONAL GEOGRAPHIC
Audience : 1,4M

14/12/2024

Voile : comment le Vendée Globe tente de réduire son impact sur l'environnement

L'organisation et les skippers de la course au large ont encore accentué leurs actions pour la préservation de l'environnement lors de cette édition, qui s'élancera le 10 novembre.

Théo Gicquel

FRANCEINFO
Audience : 2,2M

27/11/2024

FRANCE 2 – Météo Climat
Audience : 4,4M

20/02/2025

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Actions for SDG 14: Solutions