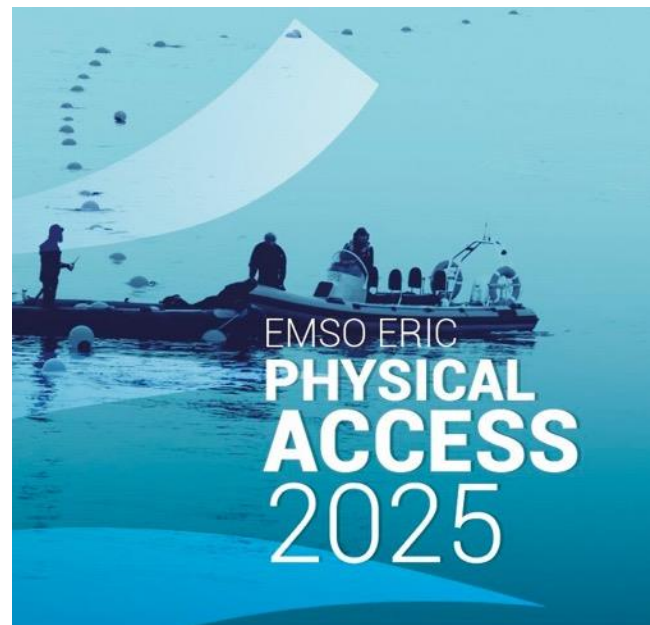


SERVICES FOR PHYSICAL ACCESS



*Joaquin del Rio (UPC), Simo Cusi (EMSO-CMO)
EMSO Strategic Workshop
Rome, 11-13th March 2025*

EMSO Physical Access

A gateway to EMSO infrastructure



- **Service** started in 2022
- **Physical** vs Virtual
- Similar to TNA calls from EU funded projects
- **Permanently established** as an EMSO ERIC Service
- Every **January** the call is launched with some updates

EMSO Physical Access

A gateway to EMSO infrastructure



- It is a service for **external users** from the **public** and **private** sectors (SMEs and Industry)
- Offers **access** to EMSO Sites for **testing technologies** and realizing **scientific experiments**
- The **access duration** does not have a specific limit, but usually is **2 years or less**

EMSO Physical Access

A gateway to EMSO infrastructure



- Users can bring their **own equipment or system** to be tested/used to complement that of the site.
- Users can also install their equipment on existing EMSO platforms either in **stand-alone** mode or **connected** to them
- **Several sites** can be accessed within a single project

EMSO Physical Access

A gateway to EMSO infrastructure



- **Regional Facility** members assist the user with **logistics, deployment/recovery, data access, interfacing of equipment, co-development and training**
- **EMSO ERIC** provides up to **15k€** for travel, consumables, shipping, operations and hardware adaptations

EMSO Physical Access

A gateway to EMSO infrastructure



- Each Regional Facility has **different** equipment and know-how.
- **Test sites** are shallow (20m) cabled observatories ideal for easy logistics, connectivity and technical support



EMSO Physical Access

A gateway to EMSO infrastructure

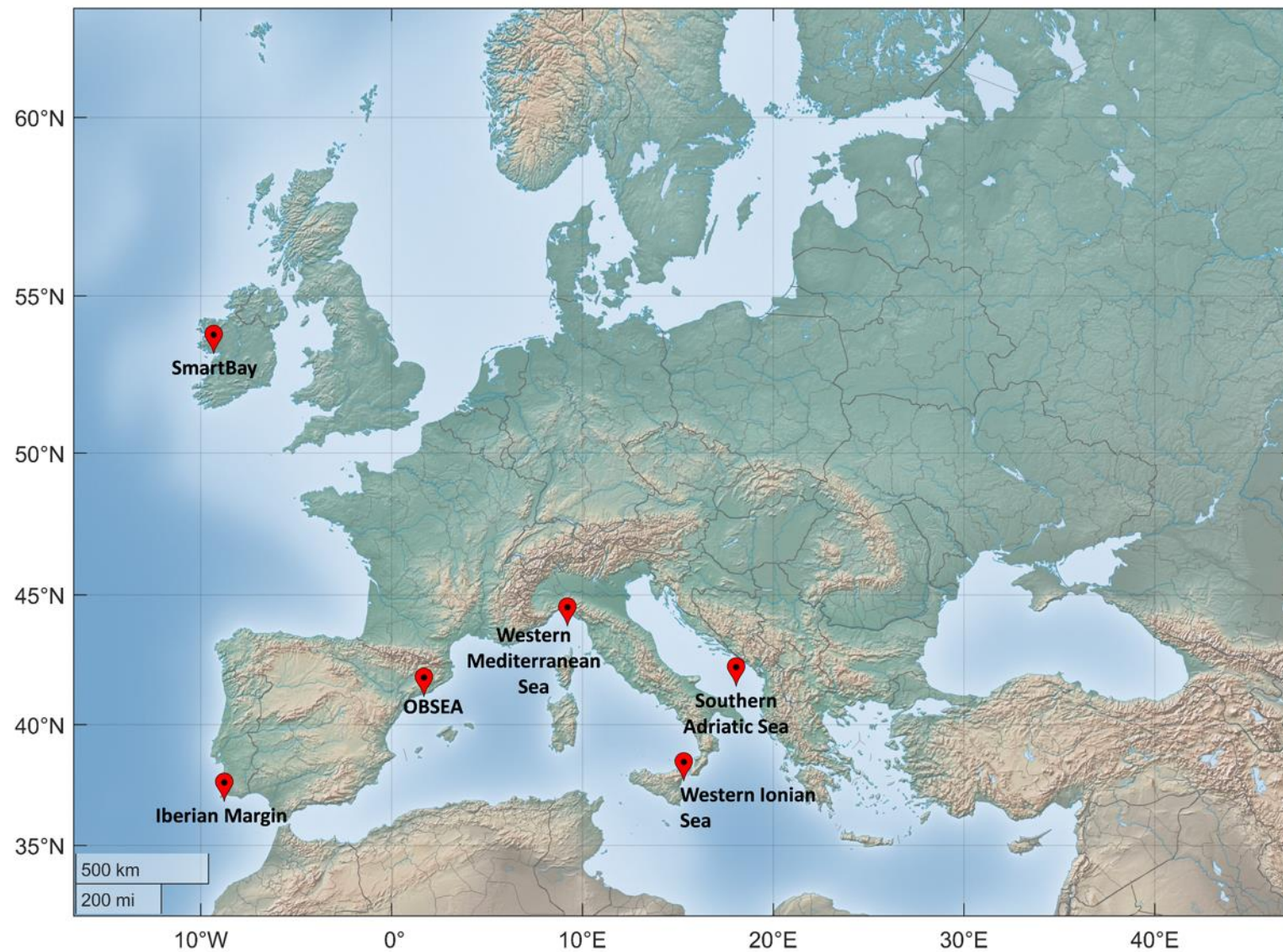


- Each Regional Facility has **different** equipment and know-how.
- **Observatory sites** provide **long time-series** of scientific data of the seafloor and water-column at depths up to almost 4000m. Some are **cabled** too.



EMSO Physical Access

A gateway to EMSO infrastructure



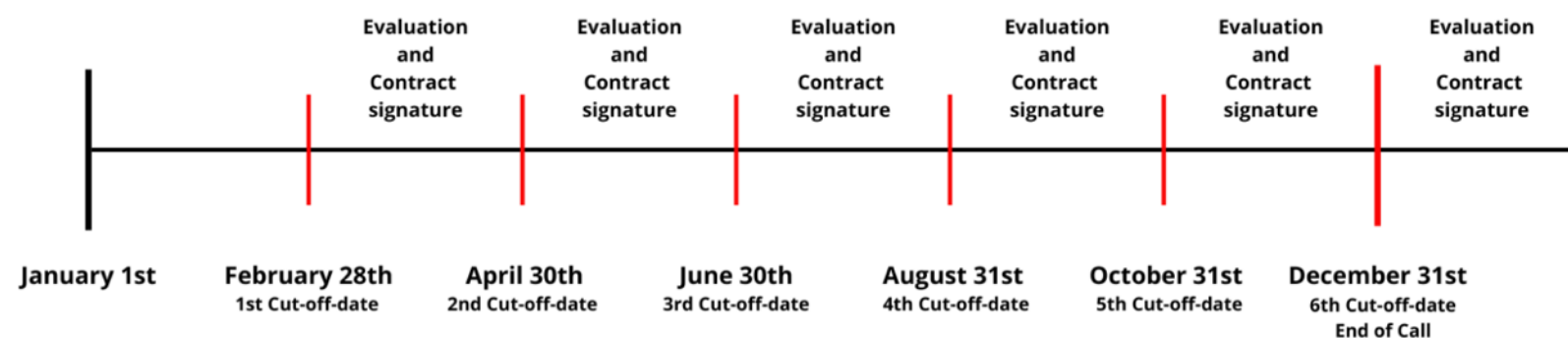
- In 2025 **six facilities** are available to provide access
- **SmartBay** and **OBSEA** as cabled **shallow test sites**
- **Iberian Margin, Western Mediterranean Sea, Southern Adriatic Sea and Western Ionian Sea** (cabled) as **deep observatory sites**

EMSO Physical Access

A gateway to EMSO infrastructure

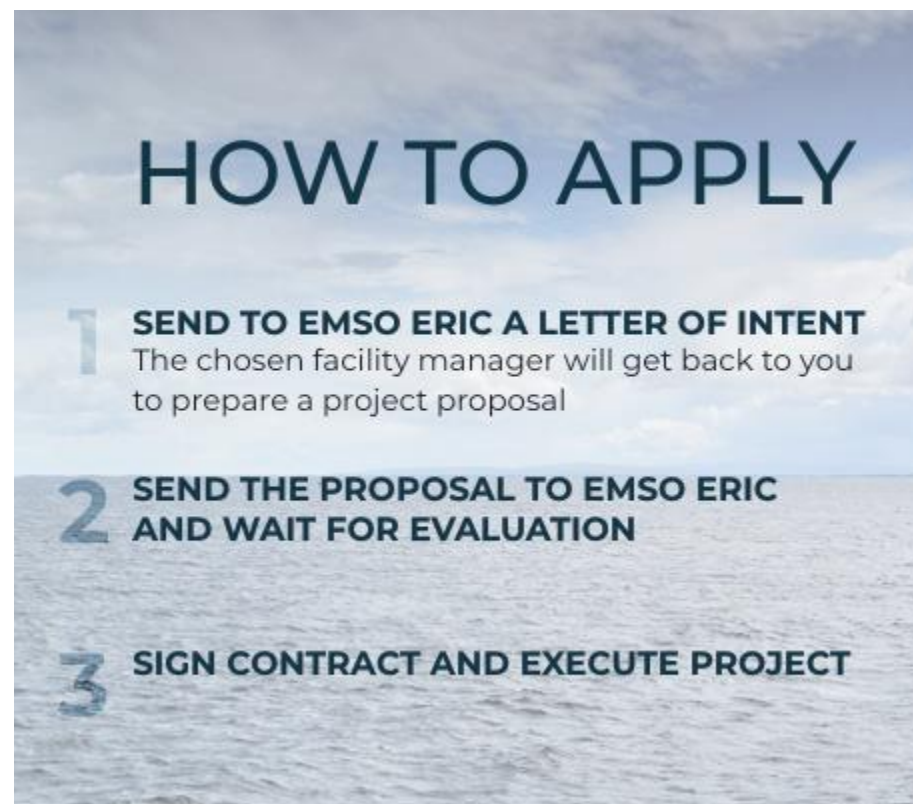


- **Procedure** is easy, consisting of a **letter of intent** (1 page) and a **project proposal** (6-10 pages)
- **Cut-off dates every 2 months** to speed up the process



EMSO Physical Access

A gateway to EMSO infrastructure



Evaluation Criteria (& maximum number of pages)	Max score	Threshold
Scientific and technical objectives (Potential interest for the EMSO community, Originality and innovation, European relevance) – 2 pages	10	7
Quality of the methodology and implementation: clarity, adequacy in relation to set objectives, work plan, adequacy with the infrastructure (incl. e.g. prior scientific, technical or logistical arrangements, risk table) – 3 pages	10	7
Scientific/technical excellence of user group – 2 pages	10	7
International collaboration. 4 points if the user is from a different country than that of the access provider. 3 points if the user group is multinational (i.e. members working in entities from two or more countries).	7	3
Bonus points. Links or potential for seeding links with European Industry (for Research Institutions) or Innovation and potential new products or patents (for SMEs and Industries) – 1 page	8	–
Total score	45	30

- **Evaluation** by external expert can take 1-1.5 months.
- Project can start after agreements are signed, usually **5-6 months** after deadline

EMSO Physical Access

A gateway to EMSO infrastructure



- Two agreements to be signed:
 1. **User-EMSO** for the grant, data policy, communications, report.
 2. **User-Facility** for project specific and operational clauses

EMSO Physical Access

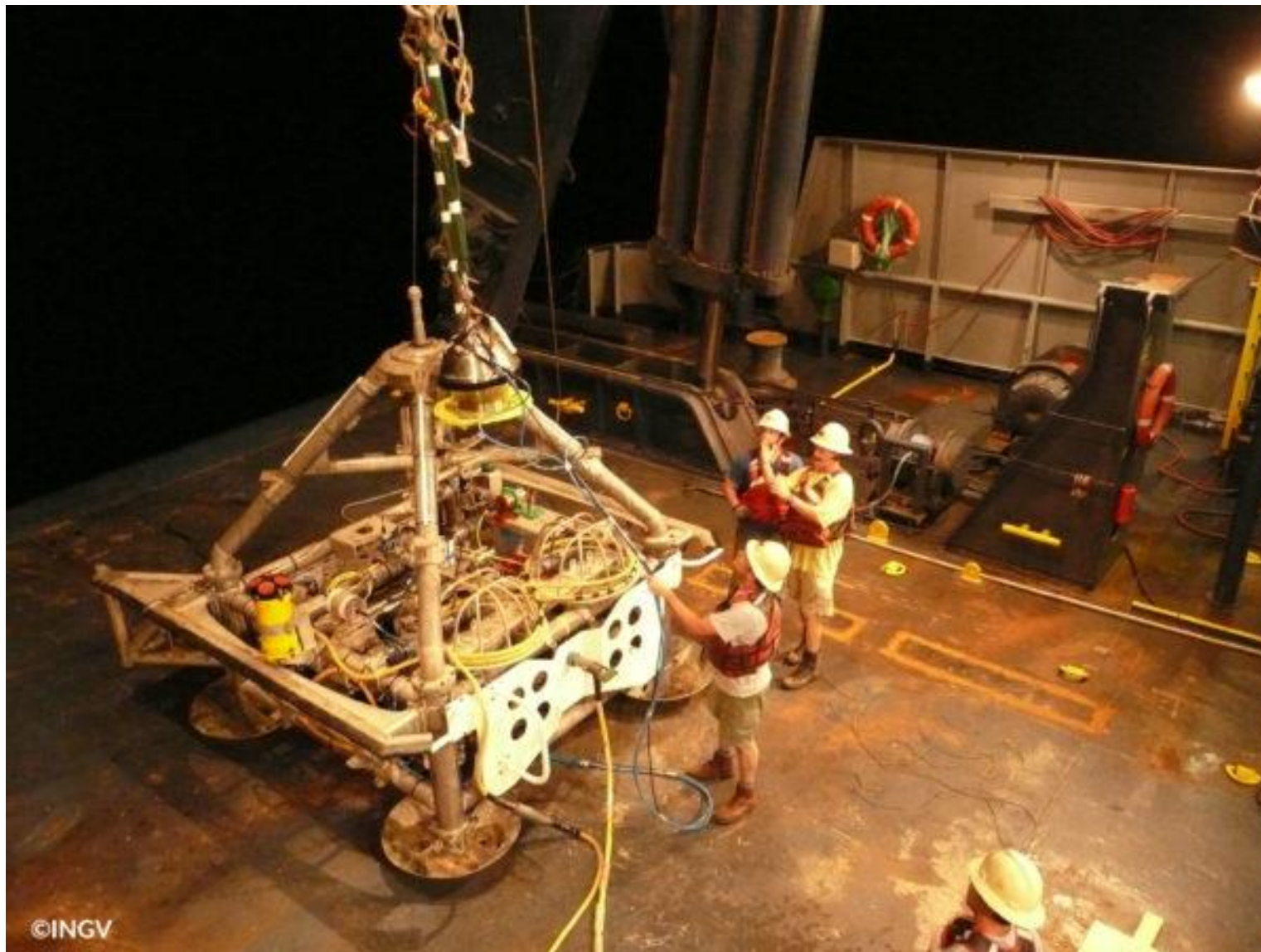
A gateway to EMSO infrastructure



EMSO can be your **partner** for testing **new developments** at sea, in real ocean conditions, helping advance your technologies with the support of **experienced** engineers and scientists.

EMSO Physical Access

A gateway to EMSO infrastructure



The process is **simple** and the execution period is **flexible**, allowing you to focus on the project developments **without time constraints or continuous reporting.**

EMSO Physical Access

A gateway to EMSO infrastructure



- **Ten projects** have been granted access and funds:
- 2 of them to SMEs
- 1 of them to a large industry
- 2 other projects have private sector actors in the project

EMSO Physical Access

A gateway to EMSO infrastructure

Project Name: SEASNAKE – Sea trials for biofouling of a dynamic umbilical

Project Reference: EE-PA_202210_01

User: Research Institutes of Sweden (Sweden)

Host Facility: Western Mediterranean Sea (Italy)

Keywords: materials, corrosion, biofouling, umbilical cable, long-term exposition, antifouling painting

Access Units granted: 222.0

Funding granted: 11000 €



EMSO Physical Access

A gateway to EMSO infrastructure

Project Name: Levels and air-sea exchange of persistent organic pollutants in the marginal sea of Europe: contribution to the global monitoring effort
AQUA-GAPS/MONET

Project Reference: EE-PA_202310_01

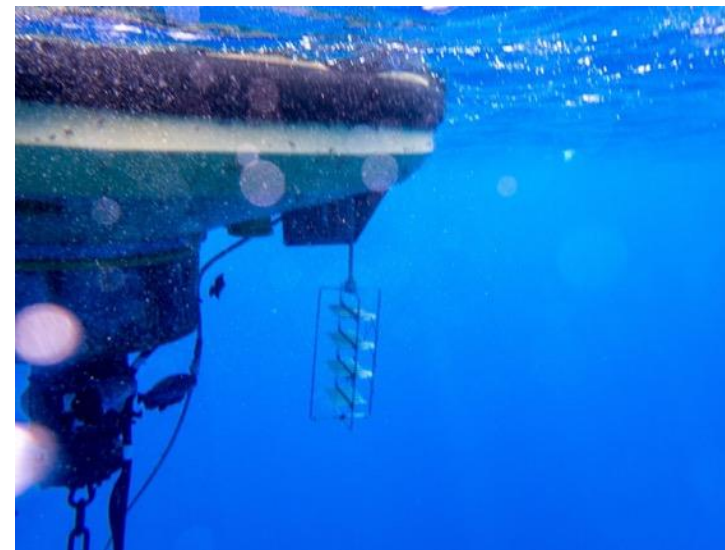
User: Masaryk University (Czechia)

Host Facility: Cretan Sea (Greece)

Keywords: persistent organic pollutants, contaminants, air-sea exchange fluxes, seasonal variations

Access Units granted: 182.0

Funding granted: 1200 €



EMSO Physical Access

A gateway to EMSO infrastructure

Project Name: CUPIDO – Calculating the strength of the Plastic pump In counteracting the Deep export of Oceanic carbon

Project Reference: EE-PA_202208_01

User: British Antarctic Survey (United Kingdom)

Host Facility: Southern Adriatic Sea (Italy)

Keywords: microplastics, seasonal variation, zooplankton, deep ocean layer, plastic pump, carbon pump

Access Units granted: 241.4

Funding granted: 9000 €



Project Name: FOOD – Future Ocean Observation Drifter

Project Reference: EE-PA_202404_01

User: CLS – Collecte Localisation Satellites (France)

Host Facility: OBSEA (Spain)

Keywords: wooden drifter, prototype, plastic reduction, testing, telemetry, sensors

Access Units granted: 60.0

Funding granted: 5000 €

Project Name: Seagrass Blue – SGB

Project Reference: EE-PA_202402_01

User: Seagrass Blue, Eauligo SARL (France)

Host Facility: OBSEA (Spain)

Keywords: carbon removal, seagrass, biodiversity, floating farm pods, marine bee AUVs

Access Units granted: 75.0

Funding granted: 15000 €

Project Name: SEALS – Submarine noise-Evaluation & Analytics using Low-cost Sustainable-sensing

Project Reference: EE-PA_202306_01

User: National Oceanography Centre (United Kingdom)

Host Facility: Western Ionian Sea (Italy)

Keywords: distributed fiber optical sensors, DFOS, big data streams, algorithms, noise

Access Units granted: 49.0

Funding granted: 10745 €



EMSO Physical Access

A gateway to EMSO infrastructure

Project Name: Calibration-free pH Sensors

Project Reference: EE-PA_202204_01

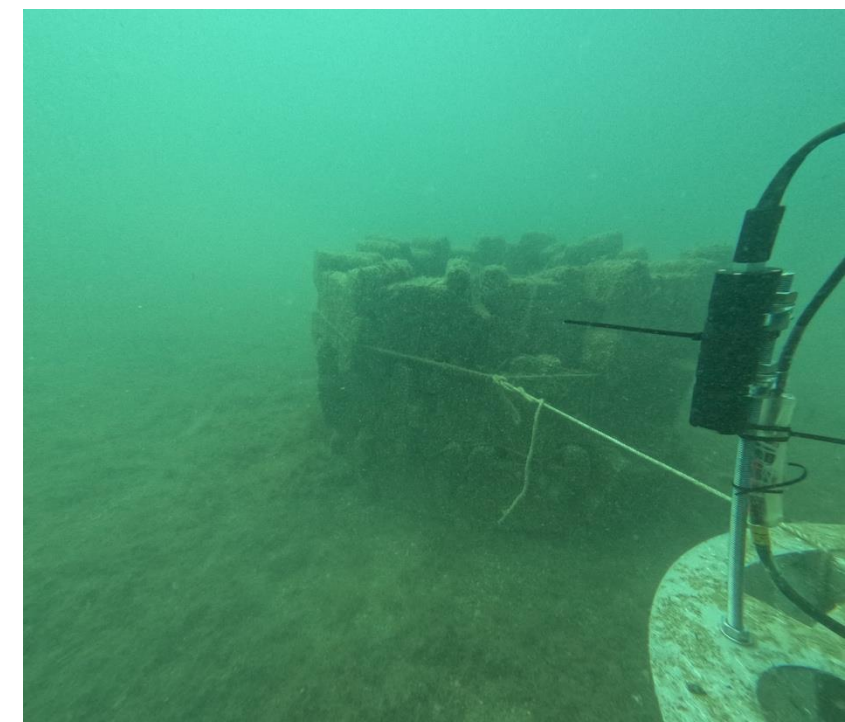
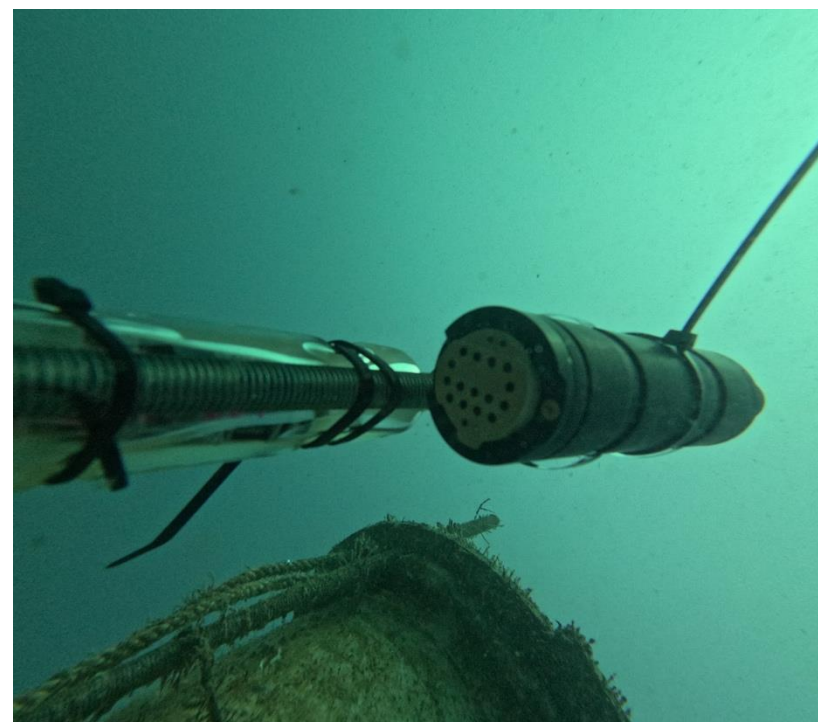
User: ANB Sensors Ltd. (United Kingdom)

Host Facility: OBSEA (Spain)

Keywords: pH sensor, validation, biofouling, user experience, long-term deployment

Access Units granted: 189.0

Funding granted: 10800 €



EMSO Physical Access

A gateway to EMSO infrastructure

Project Name: TRIPLE-VTESTS

Project Reference: EE-PA_202204_02

User: University of Bremen/Marum (Germany)

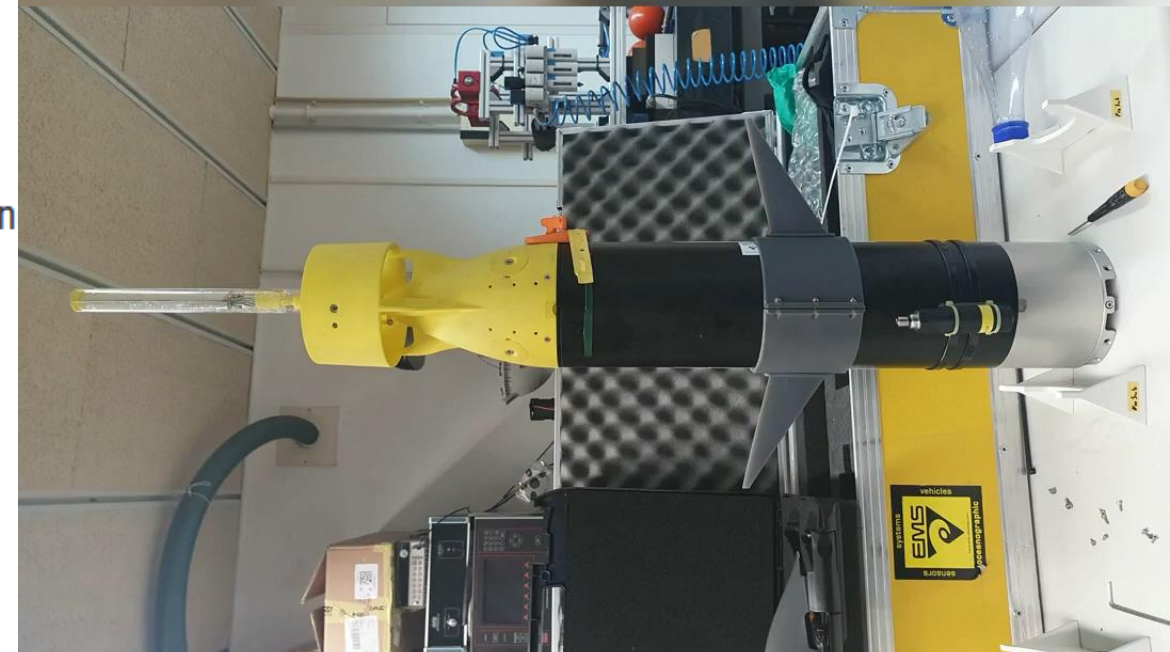
Host Facility: OBSEA (Spain)

Keywords: autonomous underwater vehicle, USBL, Doppler velocity log, artificial intelligence

Access Period: 06/02/2023 to 19/02/2023

Access Units granted: 14.0

Funding granted: 11000 €





- Project Name: Wood buoy
- Host: Obsea
- User: CLS
- Funding 5000



Project Name: Seagrass Blue – SGB

Project Reference: EE-PA_202402_01

User: Seagrass Blue, Eauligo SARL (France)

Host Facility: OBSEA (Spain)

Keywords: carbon removal, seagrass, biodiversity, floating farm pods, marine bee AUVs

Access Units granted: 75.0

Funding granted: 15000 €



EMSO Physical Access

A gateway to EMSO infrastructure



Email: physical-access@emso-eu.org
Website: <https://emso.eu/physical-access/>

Thank you for your attention!

Email: physical-access@emso-eu.org
Website: <https://emso.eu/physical-access/>