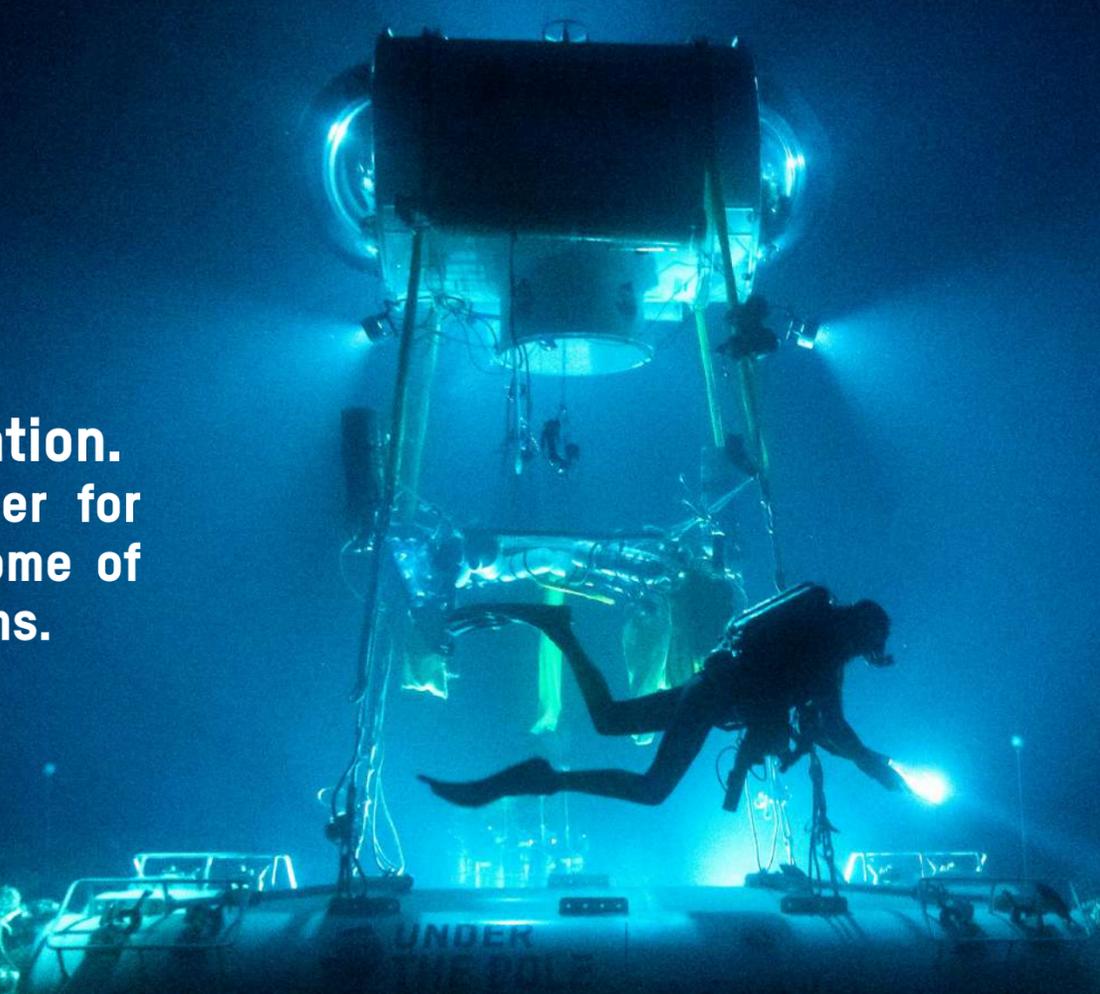




# CAPSULE II

DEEPLIFE PROGRAM • 2027 • FRENCH POLYNESIA

*Pushing the limits of Ocean exploration.*  
**Imagine living and working underwater for days at a time, with full access to some of the Ocean's most mysterious ecosystems.**



2021-2030  
Décennie des Nations Unies  
pour les sciences océaniques  
au service du développement durable

## Pushing the limits *of Ocean exploration*

Integrated within Under The Pole IV - DEEPLIFE (2021–2030), officially recognized as a project of the United Nations Decade of Ocean Science for Sustainable Development, the CAPSULE II Program will take place in French Polynesia, in the Pacific, in 2027.

Over several months, the Capsule - a light, non-impactful and fully autonomous underwater habitat - will become a refuge and laboratory for scientific divers to live and work in total immersion, for several consecutive days, with an access to the mesophotic zone (30-200m deep).

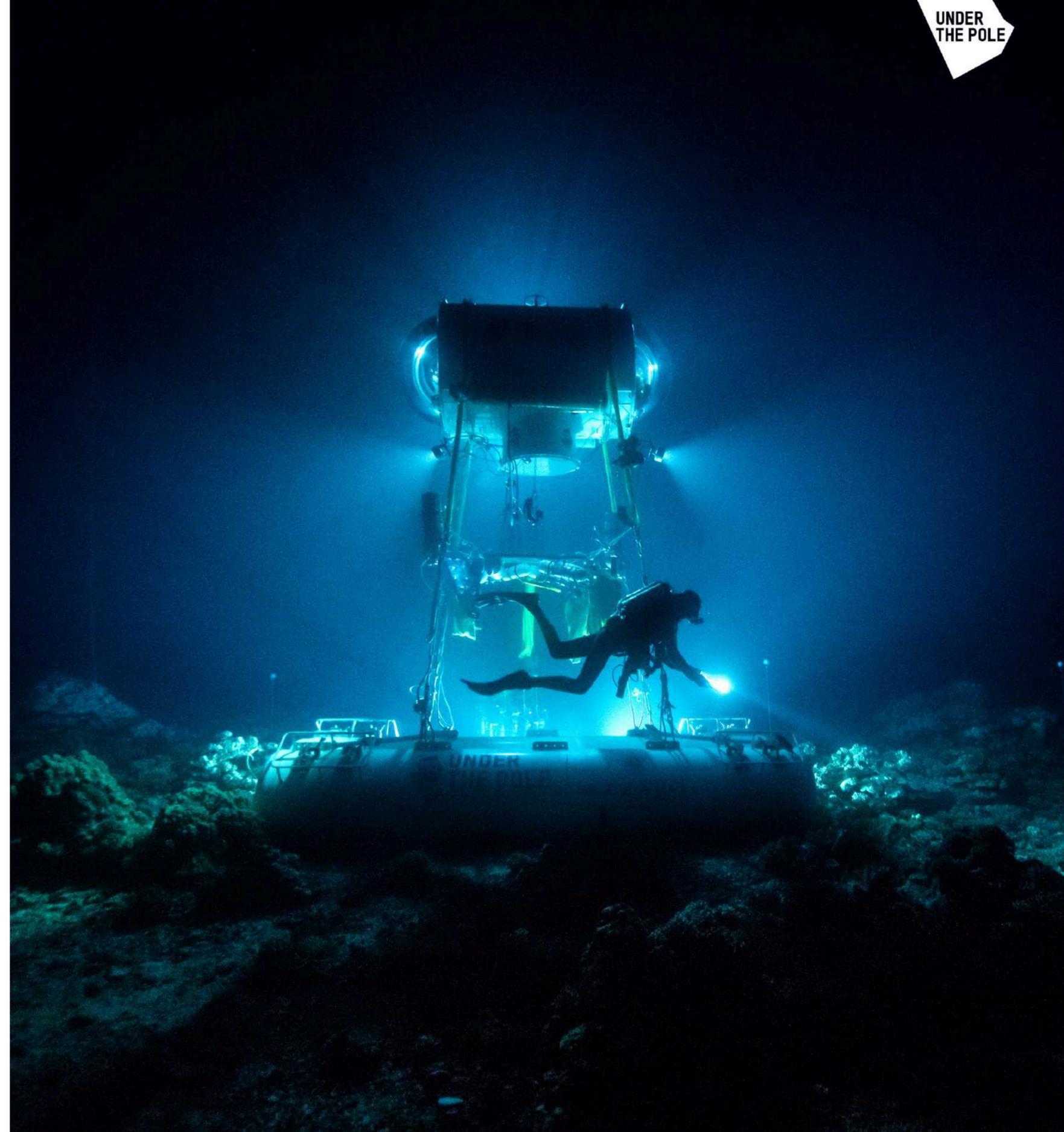
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### ***Building on a proven success***

In 2019, the first CAPSULE program in Moorea (French Polynesia) was a resounding success. For four months, it enabled continuous observation of marine life and revealed a new perspective on mesophotic (30-200 meters deep) coral ecosystems.

Highlights from the first CAPSULE Program:

- ◆ Unprecedented long-duration ecological insights and in-situ observations;
- ◆ High-quality data for scientific publications, including studies on fish behavior; the first *Acropora* sp. coral in situ spawning, and hyperbaric medicine
- ◆ Strong public engagement and international media resonance.



## Going deeper *with CAPSULE II*

Building on this success, CAPSULE II will push the limits even further. By combining the Capsule's extended immersion capacity with the precision of deep-rebreather diving, scientists will be able to study fragile, ecologically essential but little-known ecosystems in unprecedented detail.

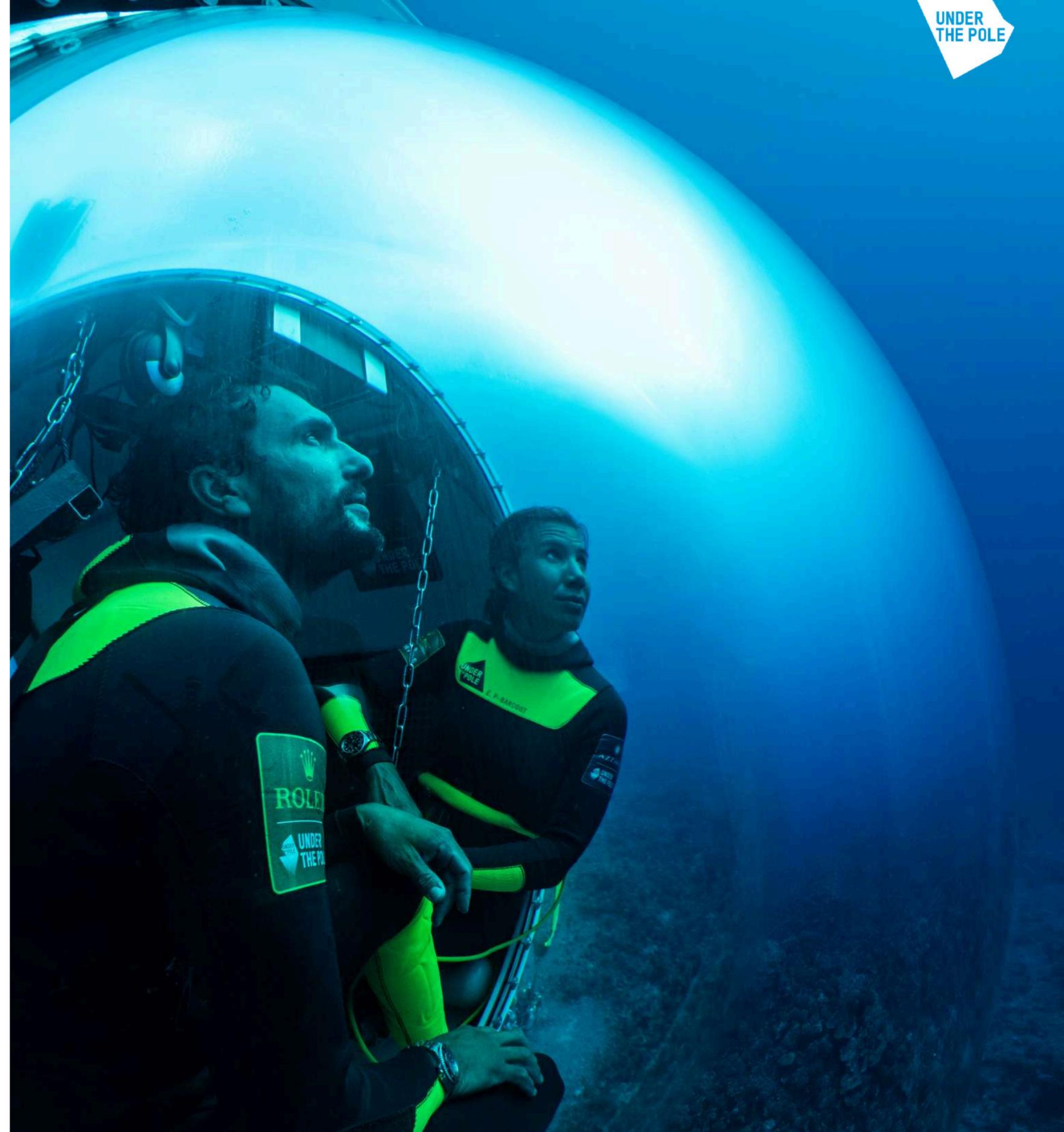
- ◆ Extended underwater stays, up to 5 days at a time;
- ◆ Deeper and longer exploration into the mesophotic zone (30-200 meters deep);
- ◆ A scientific focus on Marine animal forests (mainly mesophotic coral ecosystems), key ecosystems studied within the DEEPLIFE program;
- ◆ Continuous, long-term, in-situ scientific observations at depth.

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### ***Unveiling and protecting a hidden world***

The CAPSULE II Program will help fill critical knowledge gaps and build a stronger scientific foundation for the conservation and sustainable management of mesophotic ecosystems.

Beyond its scientific goals, the program's findings will help bring mesophotic ecosystems to light - supporting ongoing advocacy efforts to strengthen their recognition and protection, as called for by the IUCN in 2025.



## *The Capsule concept – inspired by Himalayan exploration*

Just as Himalayan climbers rely on advanced base camps to rest and acclimatize, the Capsule acts as an underwater advanced camp for deep divers.

Entirely autonomous, it operates without any physical connection to the surface, though radio communications and light resupply operations when needed.

Supported on the surface by the WHY, Under The Pole's exploration vessel, the Capsule enables longer and deeper missions, serving as a staging point for extended rebreather dives into the mesophotic zone.

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### ***Two Capsules: expanding the frontier***

Inside the Capsule, divers can rest, conduct research, observe their surroundings and safely decompress, turning what would normally be short dives into multi-day underwater expeditions.

This innovative approach, based on saturation diving, enables humans to live and work efficiently and safely at depth for up to five days at a time, dramatically increasing the duration and scope of underwater scientific operations.

*Capsule 1* stationed at  
approx. 15 meters deep

*Capsule 2* stationed in the  
30 meters deep zone,  
extending research further  
into the mesophotic zone



## Get involved

**CAPSULE II represents a bold scientific, technological and human adventure. For partners, scientists and supporters, it offers a unique opportunity to:**

- ◆ Contribute to pioneering research;
- ◆ Advance ocean knowledge, especially of underexplored and understudied mesophotic ecosystems;
- ◆ Support the protection of these critical ecosystems;
- ◆ And inspire a deeper connection between people and the Ocean.

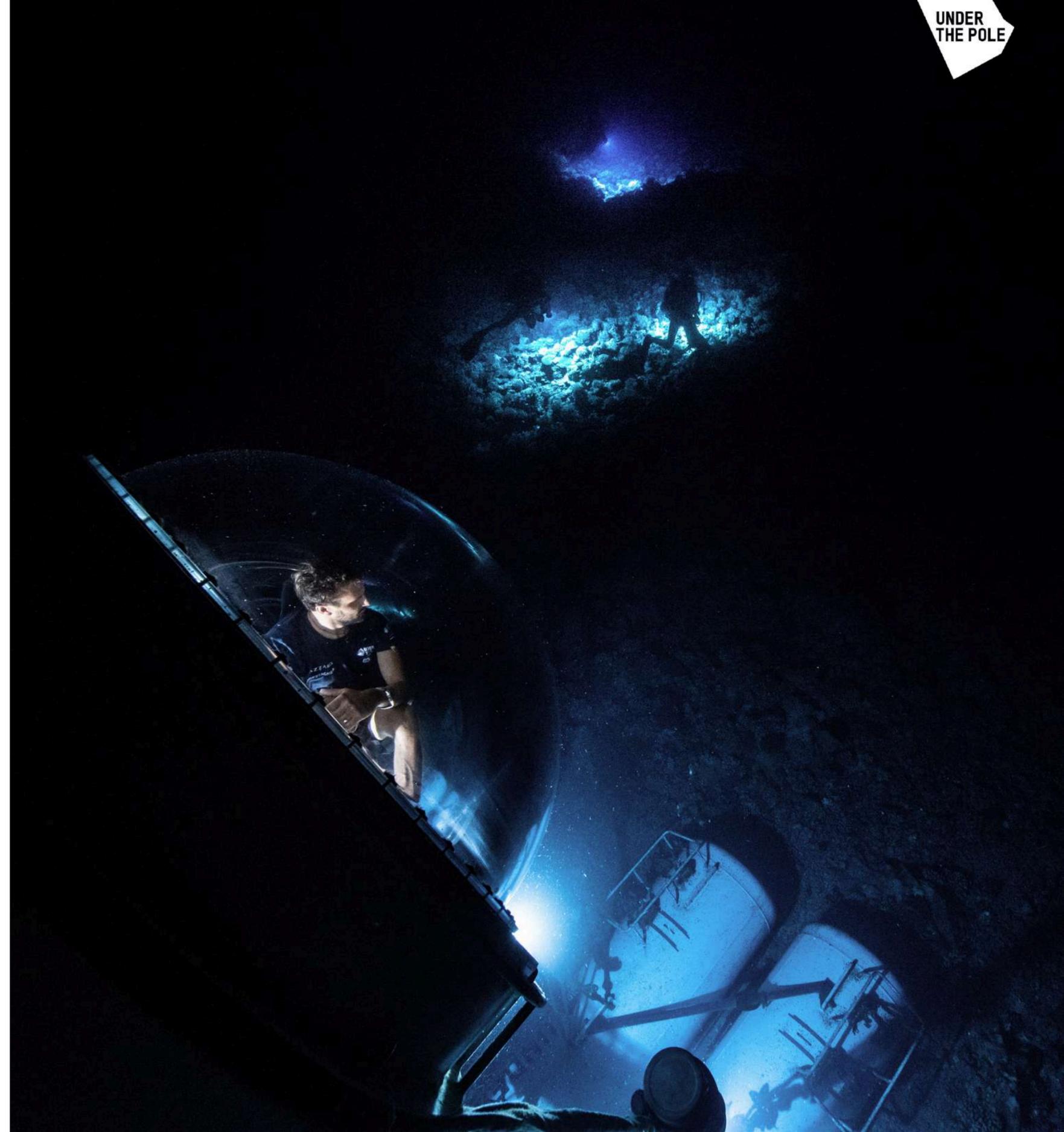
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### ***Unveiling and protecting a hidden world***

CAPSULE is not just a scientific tool, it's also a powerful way to awaken public curiosity and inspire action.

Through selected public participation, but also live broadcasting, the program will offer unique opportunities to experience life underwater and connect audiences with the beauty and fragility of mesophotic ecosystems.

**Interested in being part of the mission?  
Contact Under The Pole to explore collaboration opportunities.**





Under The Pole is an organization founded in 2008 by Emmanuelle and Ghislain Bardout, dedicated to advancing knowledge of and preserving the oceans. Its work is built around scientific diving expeditions around the world, outreach and awareness-raising activities for schools and the general public, and advocacy efforts within institutional and policy-making spheres.

**Our vision:** Underwater exploration, both a tremendous source of inspiration and an essential tool for understanding the ocean, is a powerful lever for their protection.