

EXPEDITION X

Autonomous underwater micro drones



X P D X

D E F E N C E



EXPEDITIONX

EXPLORATION TECHNOLOGY

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OUR MISSION

Accelerate Discovery

Inspire a new generation of explorers, equip them with tools for discovery, and accelerate humanity's quest for knowledge.

1 95% of the ocean is unexplored; most underwater drones reach only 100m, but the ocean averages 3,700m deep.

“ We have explored less than 0.001% of the deep ocean.

“ The deep ocean impacts our survival, yet remains poorly understood.



National Oceanic and Atmospheric Administration

2 Deep-sea exploration drones cost over €100,000 and need expensive logistics to operate.

“ More deep submergence vehicles are needed globally. Access to lower-cost, easy-to-use technologies suitable for deep water would be transformative globally.

UUV Market

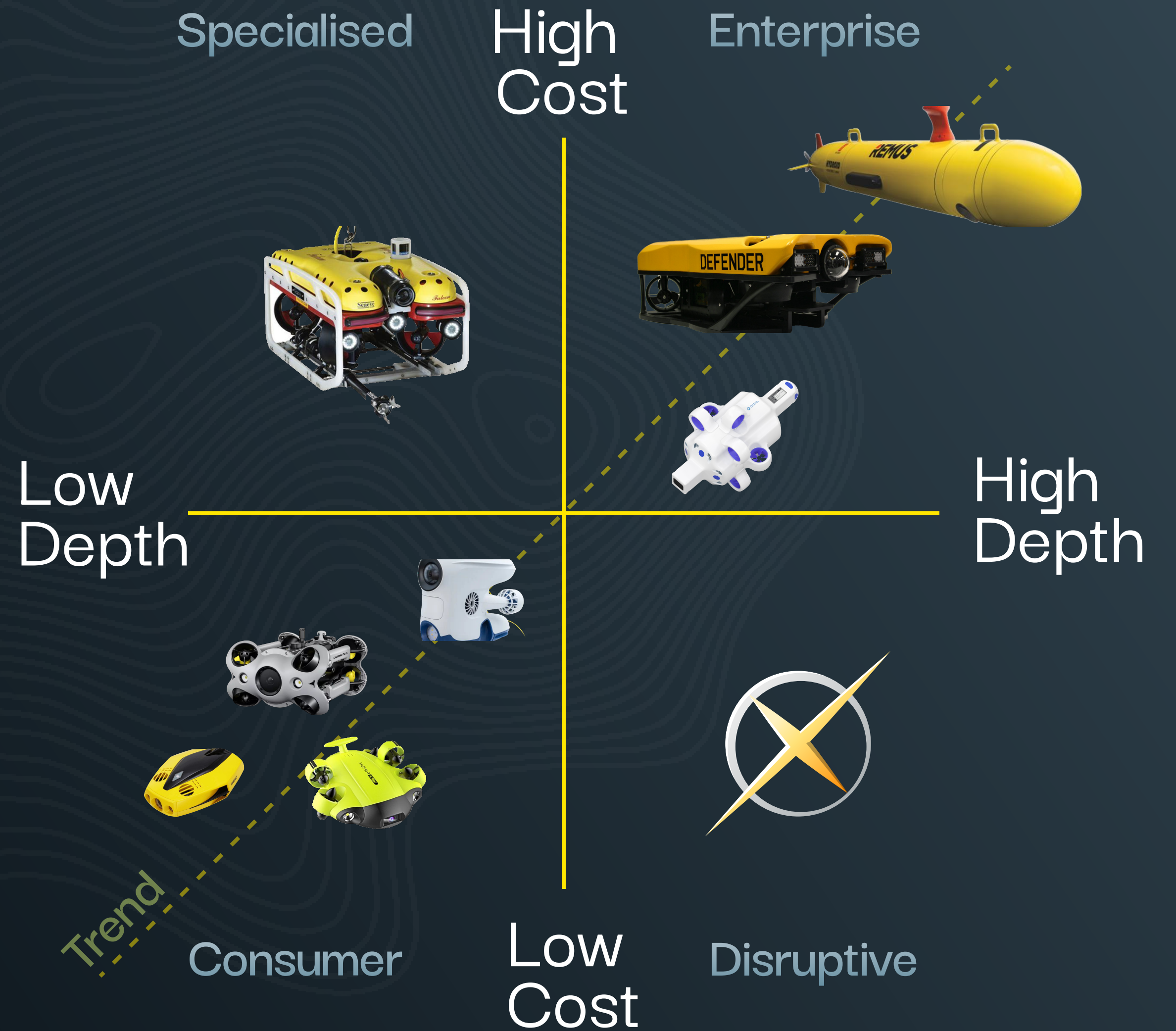
Unmanned Underwater Vehicle

2024: €4.8 Billion

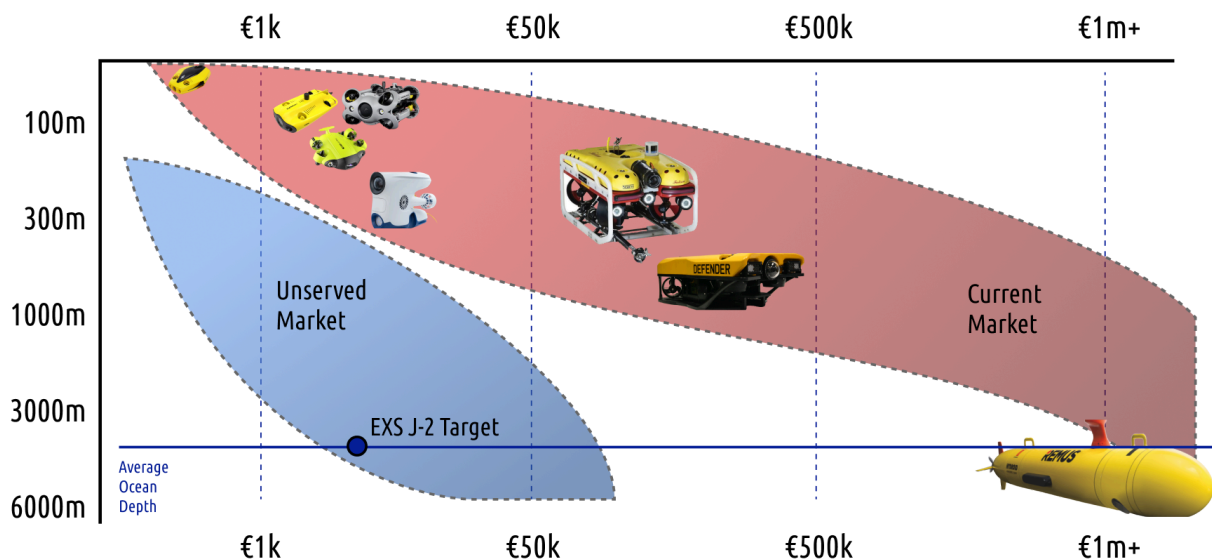
2030: €11.1 Billion

Source: [Markets And Markets](#)

The market is dominated by low-depth / high-cost solutions.



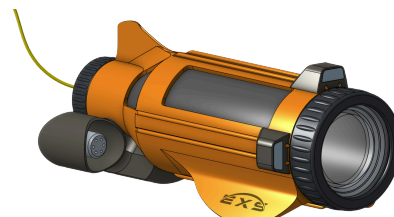
Currently, underwater drones with significant depth capabilities are prohibitively expensive, with costs ranging from hundreds of thousands of euros to millions of euros. Additionally, because of the logistics these drones require, they can cost tens of thousands of euros per day to operate.



The current underwater drone market compared to our target market.

There is no widely accessible solution for deep-sea research, nor are there cloud-based systems for collecting, analyzing, standardizing, and sharing data from these drones. Furthermore, existing underwater drone brands have failed to inspire the public to explore, in the way companies like [DJI](#) have for the aerial drone market.

Exploration Systems mission is to “inspire a new generation of explorers, equip them with tools for discovery, and accelerate humanity’s quest for knowledge.” Our solution is the J-2: a compact, affordable, deep-sea exploration drone. At just 12 cm wide and 30 cm long, the J-2 will be portable enough to fit in a backpack, with a target depth capability of 3,700 meters.



CAD Render of the J-2 drone.

We have an audacious goal of lowering the cost of deep sea exploration from over €100 per meter to under €3 per meter. The J-2 will be the world’s first consumer-grade drone for deep-sea exploration with fully autonomous operation at no additional cost. Designed with open-source principles in mind, it will support customization by tech-savvy users, offering unparalleled flexibility.

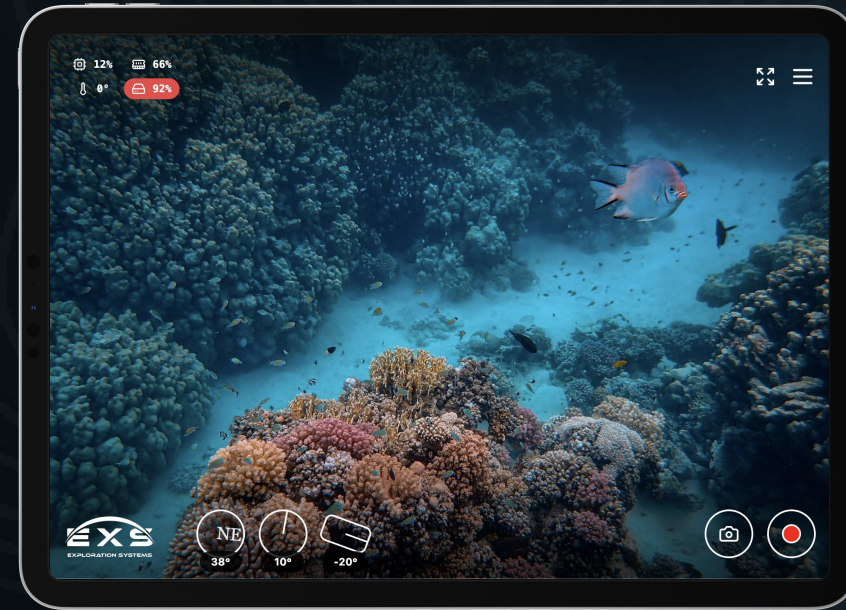
To support our vision of building a vibrant user community and crowdsourcing oceanographic data from future J-2 users, we are making our drone control software open-source and developing a free cloud platform that will enable users to seamlessly capture, store, and analyze video and sensor data from connected drones. This open, collaborative approach will encourage innovation, while also providing a powerful infrastructure for data sharing and real-time analysis to advance scientific discovery and ocean exploration.

Project Proposal

Under the Horizon Europe call “Science for Community – Building the Marine Citizen Science Data Network,” we propose a 12-month project in 2025 focused on finalizing the commercialization of the J-2 prototype for mass production by 2026. Our objectives are clear, measurable, and achievable within the grant’s timeline, with a focus on cost reduction, performance (depth, size, weight), and technical readiness.

We aim to contribute to the grant’s mission in the following ways:

MILESTONES - PAST



July 2024

Mission Control

Version 1 of Mission Control completed



September

Proof Of Concept

Pressure tested and tested in open water

Typeform

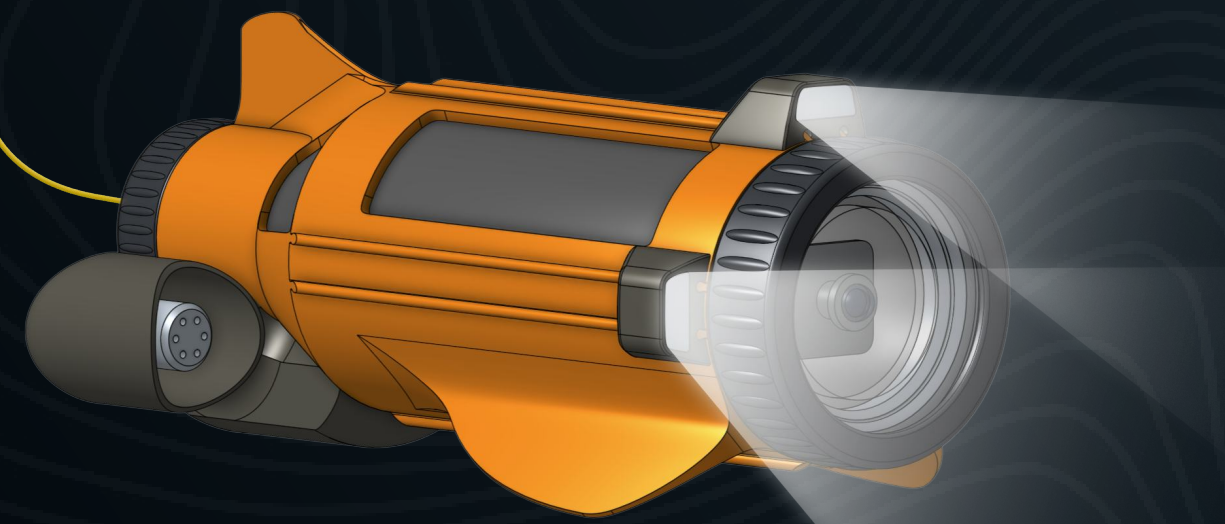
October

Customer Survey

Functionality validation survey and pilot signup

→ **2025**

MILESTONES - FUTURE



June 2025

Launch Pre-Order

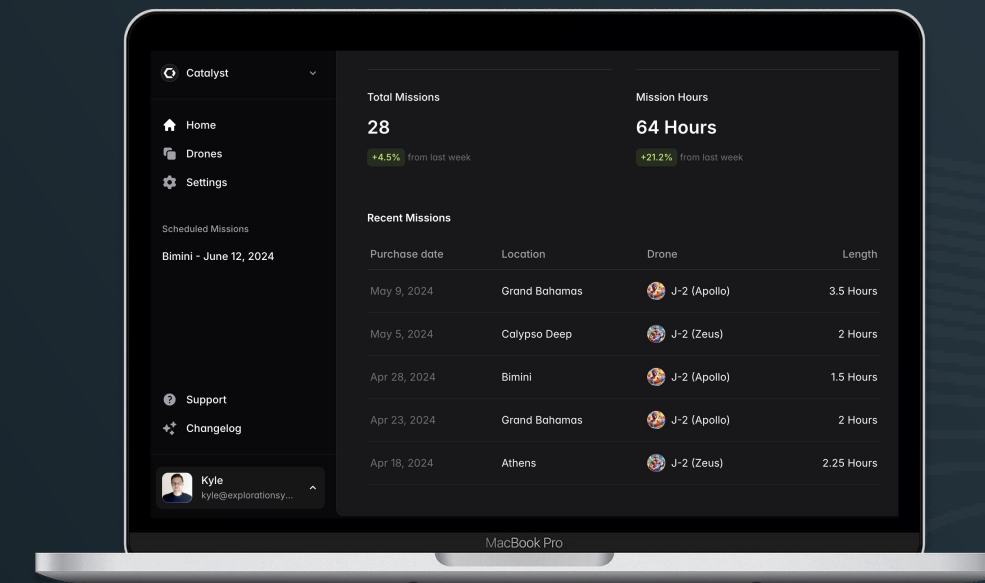
Our design is finalised and pre-orders open



September

Atlantis Expedition

Test our drone at the Azores Plateau.



October

Pilots Begin

Launch pilots with industry partners



Q1 2026

Launch Product

Start shipping pre-orders to first users

WHY WE'LL WIN

1 We're Not Just About Technology

We're focused on creating an **inspiring brand** that ignites the human instinct to explore.



Prof. Maritime Archaeology

Helsinki University

“The underwater drones your company is working with sound extremely interesting from the academic point of view and I would be most grateful if something like that would be made available for research purposes as well.”

2 We'll Disrupt The Market

We'll be the first to offer **low-cost autonomous underwater drones** for the consumer segment.



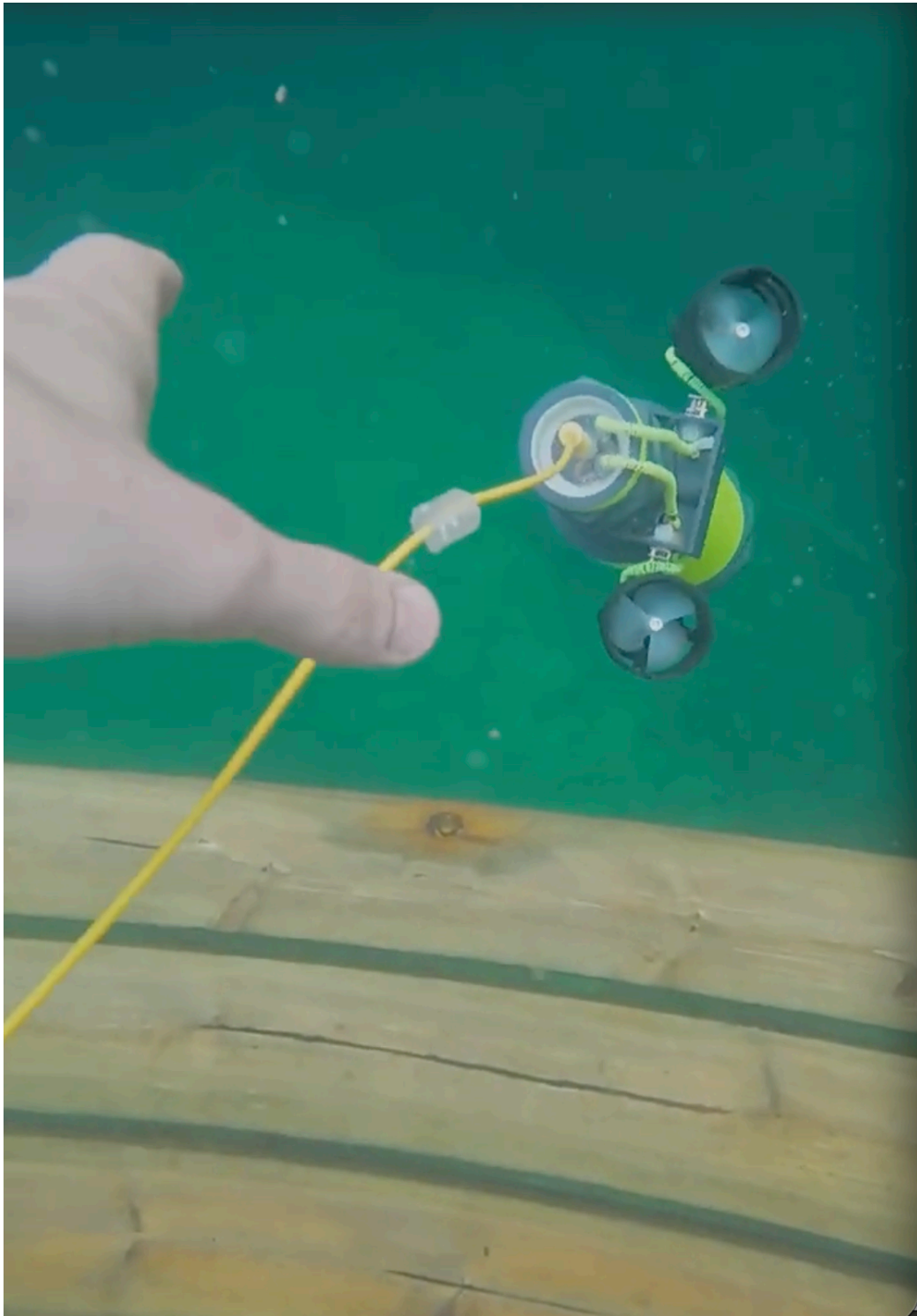
UnchartedX

500,000+ Subscribers (YouTube)

“I'd love one [drone]. Back in 2020 I had plans to do some underwater exploration off the Florida coast with a few people. I had rented one of the tethered submersible drones, but unfortunately the pandemic put an end to those plans.”

3 We're Community Centric

We'll actively engage our users to **foster brand loyalty** and drive the discovery of new products.





Target: €600k

Goals:

- Finalise the first commercial drone version
- Finalise our cloud software & AI autopilot
- Launch content creation strategy via YouTube

64%

Personnel Costs
Including Contractors

4%

**Content
Creation**

16%

Goods & Services
Legal, Materials, Cloud, Office

13%

Equipment
Development & Testing

3%

**Travel &
Events**



X P D X
D E F E N C E

Scaling underwater
surveillance through
autonomous μ -drones

X P D X P R O B L E M

Maritime defence faces mounting challenges, from underwater smuggling to sabotage.

Current underwater monitoring methods are unscalable, relying on random checks conducted by divers, manually operated drones, or costly AUVs.



7kgs of Cocaine found
attached to a ship's hull.

X P D X S O L U T I O N

Our μ -Drones offer an autonomous, cost-effective, and highly scalable solution for maritime security.

Enabling rapid on-site inspections, or deployment as an autonomous swarm for continuous underwater monitoring in permanent installations.



μ -drone (micro-drone) vs Pringles

X P D X U S E C A S E

“Parasite smuggling” has sharply increased since the start of the 2020s. Drug-filled packages are covertly attached to ship hulls, often escaping detection. Currently, detection relies on random manual spot checks, a costly and time-consuming process that leaves gaps in port security.

A μ -drone swarm could provide continuous port surveillance, scanning hulls and relaying data to our cloud, where it is analysed for anomalies in real-time.



XPDX DRONE

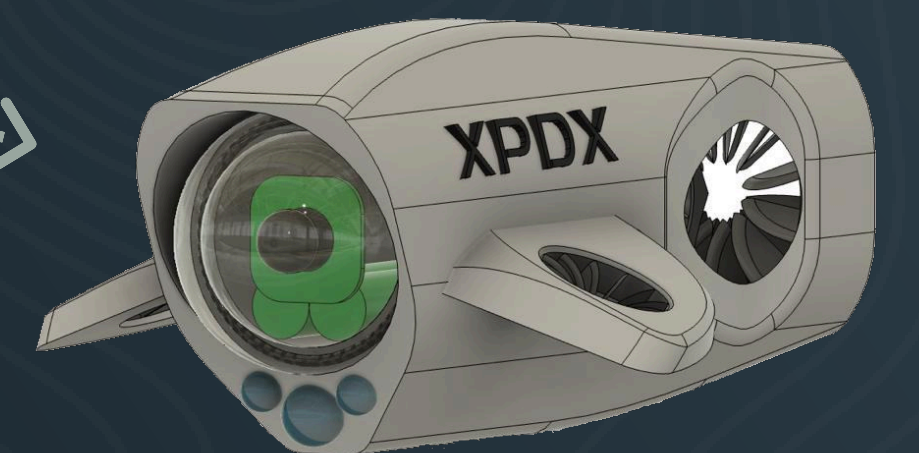
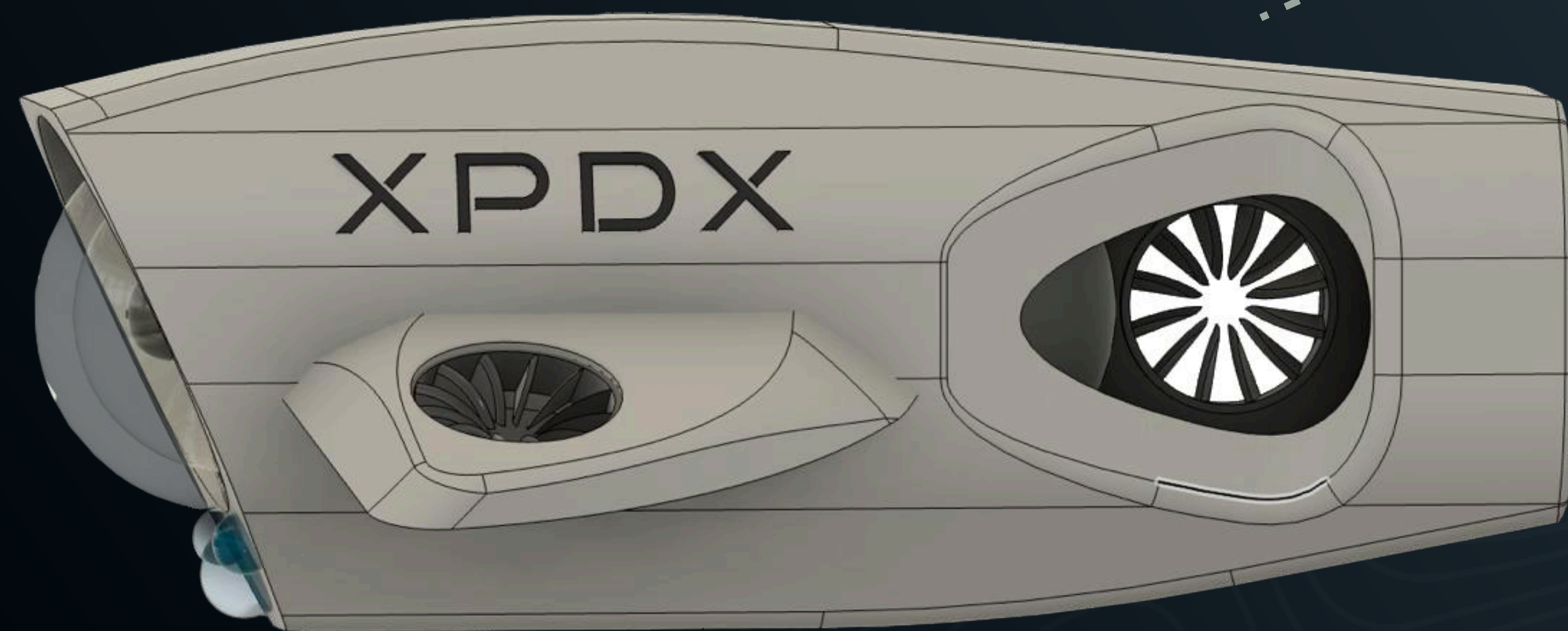
FULLY
AUTONOMOUS

3D SONAR
SCANNER

REAL-TIME
CLOUD CONTROL

4K
IMAGING

SWARM
CO-OPERATION



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Why Now

Underwater drones are too large, expensive, or shallow-limited

Rise in geopolitical, environmental, and smuggling threats underwater

Regulatory, defense, and research sectors need scalable inspection tech

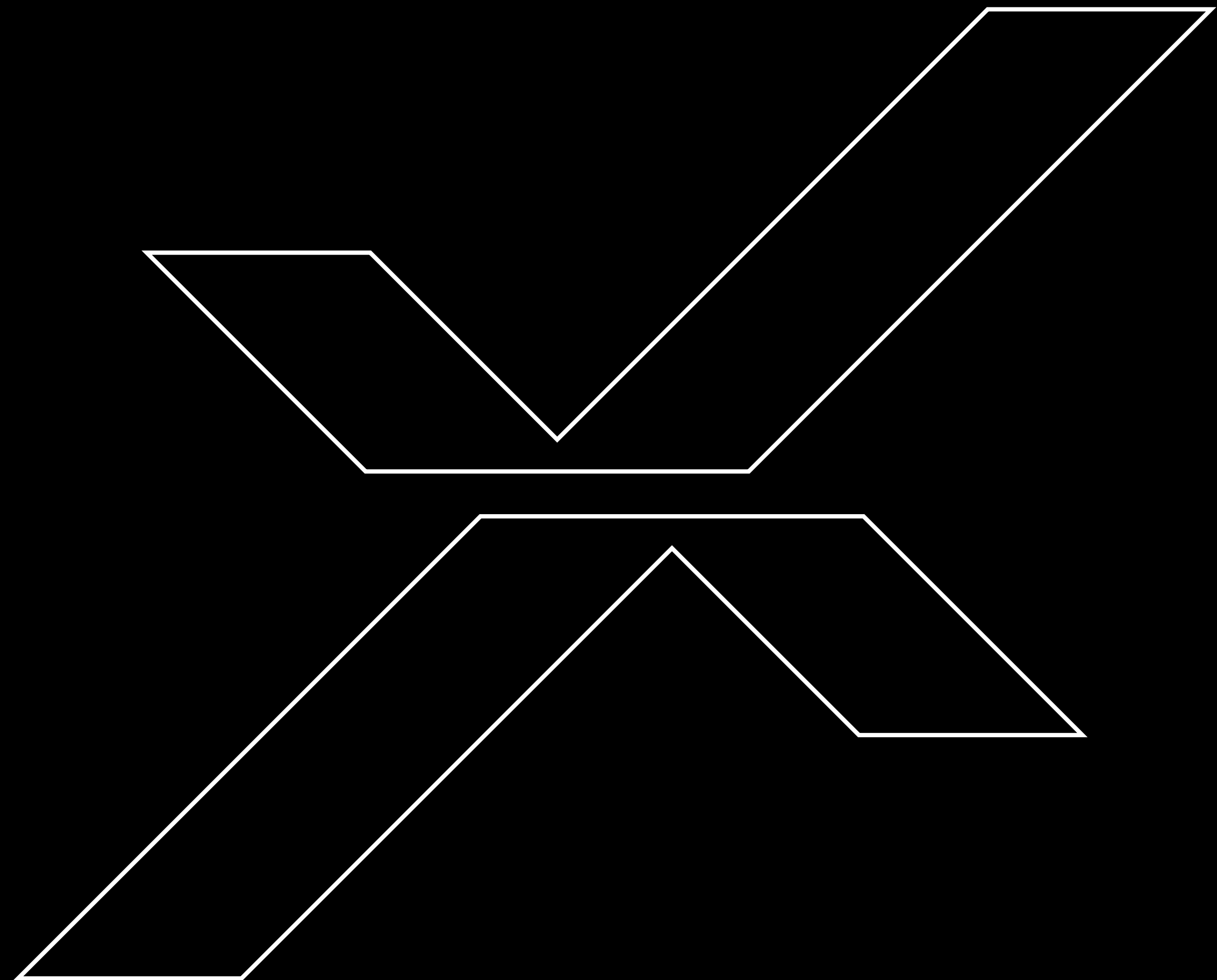


The Problem

Enterprise drones are logistics-heavy, require teams & vessels, cost €100K to €1M+

Spot-checking underwater assets isn't scalable so threats remain under-monitored

Lack of accessible tools limit further ocean research and exploration



Our Solution

Micro underwater drone: low-cost, small, highly capable (autonomous, 1000m+ depth)

Cloud-connected for remote operation, fleet management, and real-time analysis

Supports multiple sensors including multi-spectrum and sonar imaging



Traction & Team



Kyle Ueckermann
Co-Founder, CEO



Joonas Holmi
Co-Founder, CTO



Studio Partner

Tech validated through prototype testing (2024–2025), 3rd gen prototype underway.

Early interest from defence orgs in Singapore, Europe, Brazil, Angola, United States, and Dubai.

Backed by Unicorn Machine's GTM expertise, operational support, and product resources.

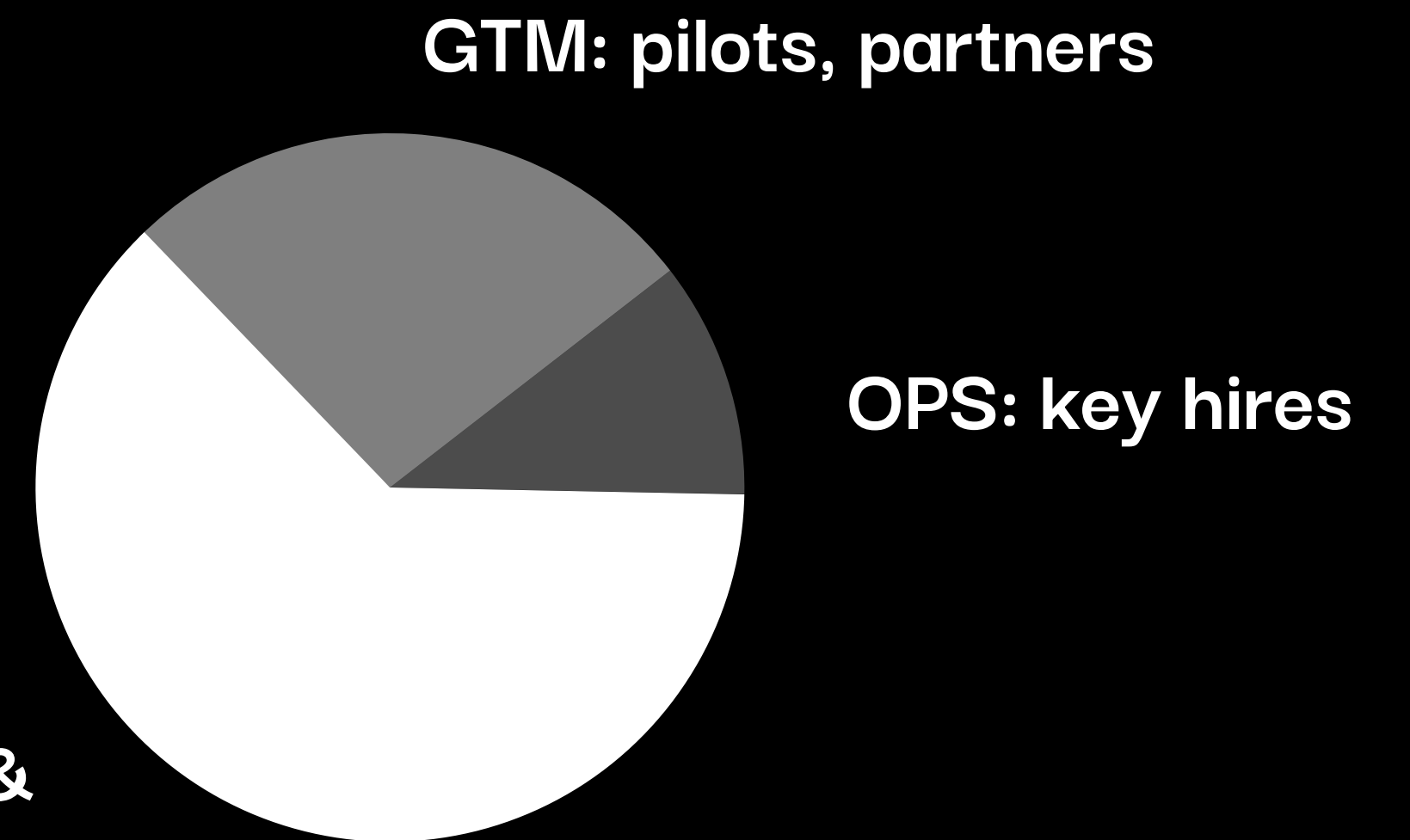


Roadmap & Raise

Raising

€400K

Product:
core hardware &
software



Roadmap

- Q1-Q2 2026
Complete 3rd generation prototype

- Q2-Q3 2026
Launch small enterprise pilots (ports, pipelines)

- Q4 2026
Deploy first autonomous drone swarm pilots

