

Q4 2024

# BLUE COMPASS

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Investment Trends Monitor



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## Objective of the Report

This report provides a comprehensive analysis of venture capital (VC) investment trends in the Blue Economy during 2023-24, specifically in Q4 2024, offering insights into sectoral performance, emerging technologies, and shifting investor priorities.

It highlights which industries are gaining *momentum*, which are plateauing, and what factors — such as economic uncertainty, regulatory changes, and technological advancements — are driving these shifts.

Additionally, the report examines regional investment patterns and the evolving role of key investors.

By mapping these dynamics, it aims to support stakeholders in identifying opportunities, understanding risks, and anticipating future trends in Blue Economy innovation and investment.

### INTERACTIVE REPORT

All graphics are interactive. Click to explore and learn more.

## Hub Azul Portugal Message

In May 2023, [Hub Azul Portugal](#) launched the [Hub Azul Dealroom](#), a global digital platform for Blue Economy innovation, in partnership with key industry players. Our goal was to bridge a critical information gap in this complex and rapidly evolving ecosystem, which spans multiple sectors and intricate value chains, all of them being transformed by significant shifts in technology, market dynamics, and regulatory framework.

In February 2024, we took this one step further with the Blue Compass, a quarterly report analyzing investment trends based on Hub Azul Dealroom data.

Now, with a stronger ecosystem of 1,700+ startups and 3,100+ investment rounds, we're launching an enhanced version, offering clearer insights into deals, startups, investors, and technology—complemented by expert perspectives.

We're honored that the European Commission has recognized Hub Azul Dealroom as a key data source in the [Blue Economy Report 2024](#). For us, this is a clear validation that we are tackling a relevant need in the market, and drives us to provide even more accurate insights in the future.

The Blue Economy faces major challenges, and reaching the ambitious goals we've collectively set, depends on understanding the investment landscape. The Blue Compass enhances transparency, helping stakeholders support the right technologies, develop effective business models, and build sustainable value chains in this evolving ecosystem.



**Carlos Costa Pina**  
President of Fórum Oceano

**Key**  
**Takeaways**

# 1. **Bluetech & Ocean Observation emerged as a major investment sector in 2024**

Driven by AI - and IoT- based monitoring solutions, increased efficiency demands in ports and shipping, and heightened concerns over subsea infrastructure security due to geopolitical tensions.

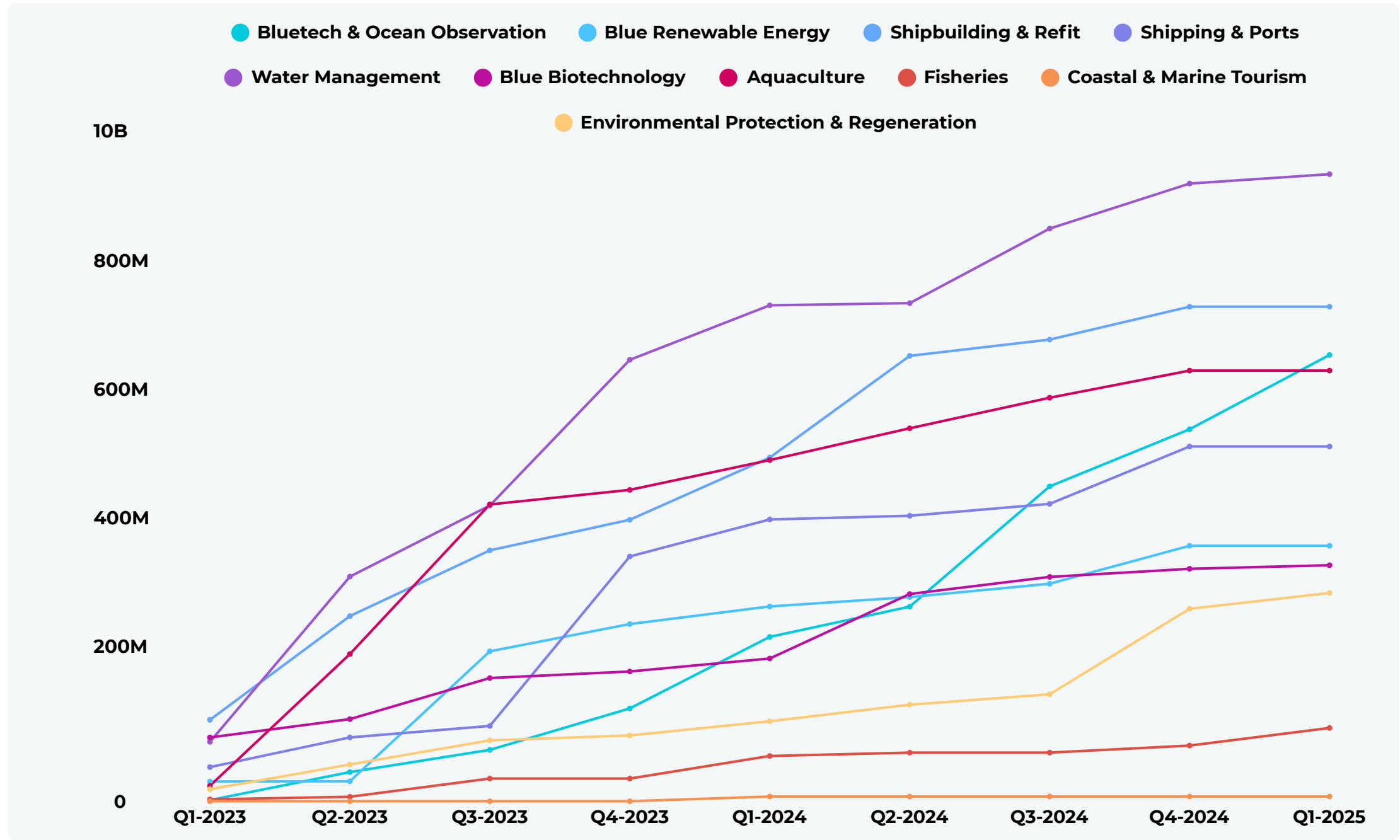
# 2. **Environmental Protection & Regeneration saw record VC investment in Q4 2024**

Supported by advancements in carbon capture technology, increased data collection capabilities, regulatory shifts like shipping's inclusion in the EU Emissions Trading System, and a growing focus on circular economy models.

# 3. **Blue Biotechnology faced a sharp decline in investment in 2024**

Due to economic uncertainty and the lingering effects of pandemic-driven resource allocation, though AI and gene-editing breakthroughs may drive a rebound in 2025.

# Cumulative Investment Trends in 2023-24



### — Steady investment in key sectors.

Water Management, Shipbuilding & Refit, and Aquaculture saw consistent funding, especially in early 2023.

### — Bluetech & Ocean Observation on the rise.

Investment surged in 2024, likely driven by the growing commercial relevance of dual-use technologies (defense + civilian).

### — Shipping & Ports, Blue Renewable Energy, and Blue Biotechnology have stalled.

After a strong first half of 2023, investment has plateaued, possibly related to economic uncertainty making investors more risk-averse.

### — Environmental Protection & Regeneration gains momentum.

Traditionally a low-investment sector, it saw significant growth in late 2024, driven by investments in DNA analysis, environmental monitoring, and the green industry.



To scale up offshore renewable energies, we need to ensure several factors, among which we can highlight the following: Development of energy policies, Regulation, Financing, Supply chain, and Human Resources.

**José Pinheiro**  
CEO of Ocean Winds

[Link to full interview](#)



# Q4 2024 Investment Snapshot

— **Environmental Protection & Regeneration leads the quarter.**

The sector saw €132M in VC rounds—over three times its 2023-24 quarterly average and a 723% increase quarter-over-quarter (QoQ).

— **Bluetech & Ocean Observation and Water Management slow down.**

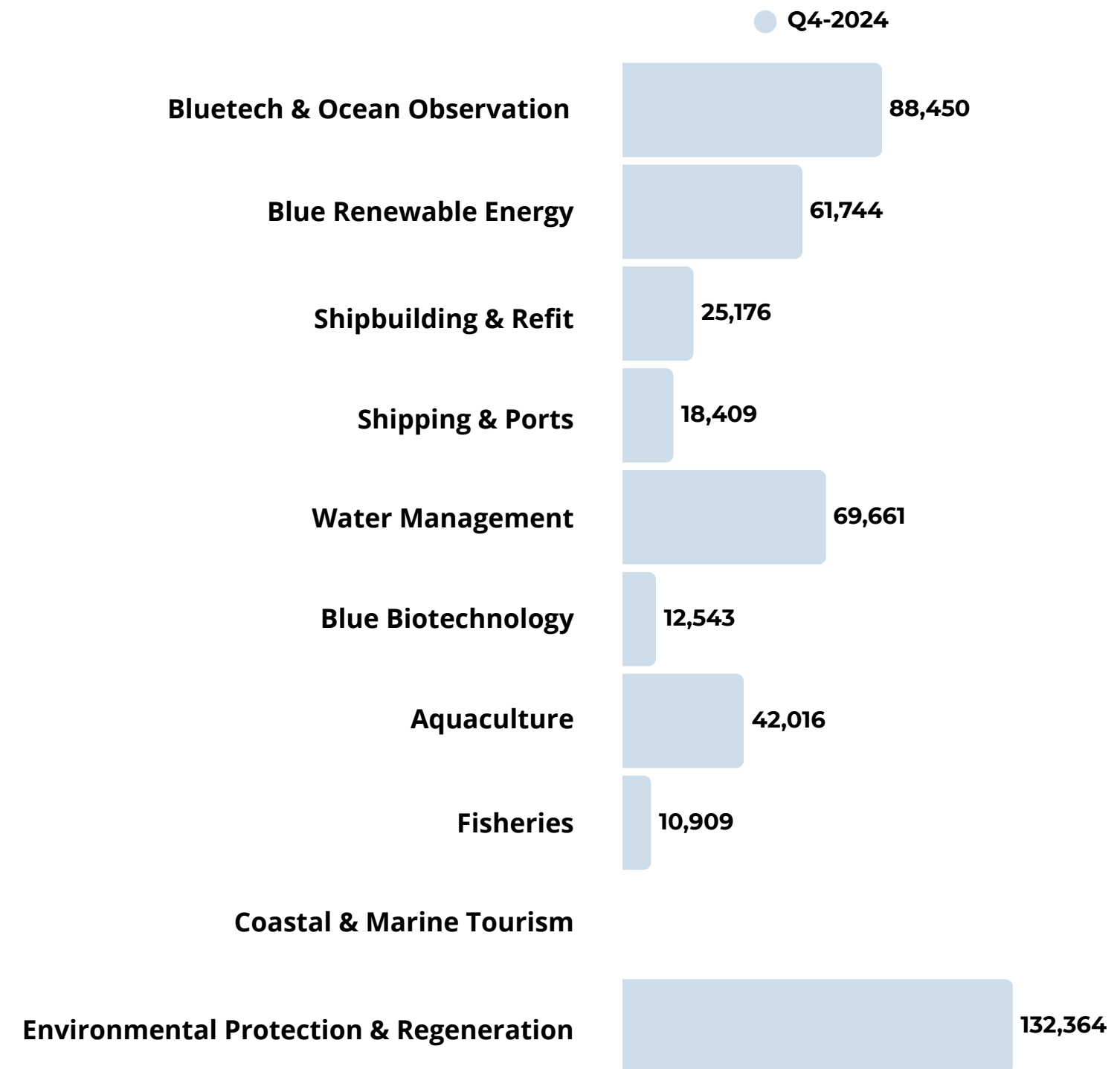
Despite a solid quarter, both sectors saw a sharp decline from Q3, with investment dropping 52% and 53% QoQ, respectively.

— **Shipbuilding & Refit shows signs of downfall.**

After reaching a peak of €157M in Q3, investments sharply dropped to €25M in the following quarter, indicating a significant QoQ decline.

— **Aquaculture remains steady.**

2024 maintained consistent investment levels each quarter, following a record-breaking second half of 2023.



# Notable Investments...



## in Blue Tech & Ocean Observation

The sector showed a healthy combination of early and late-stage investments.

The focus was on the development of UAVs, of integrated solutions with spatial technology, of automated navigation solutions and robotic solutions for algae production.

**TEKEVER**

\$74 m  
Nov 2024 - Series B  
**Portugal**

**VATN**

\$13.0m  
Nov 2024 - Seed  
**USA**

**Ulysses**  
Ecosystem Engineering Inc.

\$2.0m  
Nov 2024 - Seed  
**USA**



**Eight Knot**  
\$2.04m  
Oct 2024 - Seed  
**Japan**



## in Blue Renewable Energy

The investment pipeline represents the technological and operational challenges for which it is currently developing solutions.

Investments included offshore wave energy technologies and floating offshore infrastructures, but also digital solutions to increase efficiency and marine operations.

**CorPower Ocean**

\$16.0m  
Feb 2025 - Late VC  
**Sweden**

**GAZELLE**  
WIND POWER

\$12.1m  
Nov 2024 - Early VC  
**Ireland**

**Glint Solar**

\$8.0m  
Nov 2024 - Series A  
**Norway**



\$6.4m  
Dec 2024 - Seed  
**The Netherlands**



# Notable Investments...



## in Shipbuilding & Refit

This quarter's investments reflect the industry's movement towards more sustainable designs and operations.

They include electrification technologies, filtering technologies that reduce CO2 and SOX emissions, alternate propulsion systems (wind) and new fuels technologies.

**CANDELA**

\$14.23m  
Nov 2024 - Series C  
**Sweden**

**Carbon Ridge**

\$9.5m  
Oct 2024 - Early VC  
**USA**



Value Maritime  
\$2.0m  
Nov 2024 - Seed  
**The Netherlands**

**GT WINGS**

\$1.4m  
Dec 2024 - Seed  
**UK**



## in Shipping & Ports

The focus is on digitalization of processes in shipping, including remote navigation services, predictive data analytics solutions, digital twins of ships and overall digital infrastructure for the maritime industry.

**SYROCO**

\$9.3m  
Dec 2024 - Series A  
**France**

**portcast**

\$6.5m  
Nov 2024 - Series A  
**Singapore**

**NYSHEX**

N/A  
Nov 2024 - Series C  
**USA**

**SEAFAR**

\$6.2m  
Nov 2024 - N/A  
**Belgium**

# Notable Investments...



## in Water Management

Investment in this sector has focused significantly on wastewater treatment solutions, offshore desalination and components (membranes) for the production of clean water.



\$15.0m  
Nov 2024 - Late VC  
USA



\$12.0m  
Nov 2024 - Series B  
USA



\$11.0m  
Nov 2024 - Series A  
Canada



\$5.6m  
Nov 2024 - Series A  
UK



## in Blue Biotechnology

These investments tackle seaweed farming and carbon capture challenges, and focus on creating regenerative inputs for agriculture.



\$8.06m  
Dec 2024 - Series A  
Denmark



\$2.96m  
Nov 2024 - Series A  
Canada



\$2.5m  
Oct 2024 - Seed  
USA



\$384k  
Dec 2024 - Seed  
South Korea

# Notable Investments...

## in Aquaculture

These investments explore new genome editing solutions to accelerate the breeding process, in the technology of recirculating aquaculture production, in sustainable fish farms and in seaweed farming.



**Regional Fish Online**

\$25.8m  
Dec 2024 - Series C

**Japan**

**THE KINGFISH COMPANY.**

\$17.36m  
Dec 2024 - Private Placement VC  
**The Netherlands**



THREE-SIXTY AQUACULTURE

\$4.34m  
Nov 2024 - Series A

**UK**



**두번째바다**

\$384k  
Dec 2024 - Seed  
**South Korea**

## in Fisheries

The latest investments explore B2B marketplace solutions that aim to accelerate harvest-to-consumption times, as well cold value chain developments in developing countries.

**captain fresh**

\$12.0m  
Dec 2024 - Late VC

**India**

**KeepITCool**  
Deliver while still fresh

N/A  
Dec 2024 - Early VC

**Kenya**

# Notable Investments...



## in Environmental Protection & Regeneration

These investments explore improvements in next-gen DNA analysis and environmental monitoring, technologies for the removal of CO2 from the atmosphere and the production of green fuels for industry and transportation that increase circularity.

### BCR

BASECAMP RESEARCH

\$60.0m

Oct 2024 - Series B

**UK**



### Liquid Wind

\$54.56m

Nov 2024 - Late VC

**Sweden**



### PLANETARY

\$11.4m

Oct 2024 - Series A

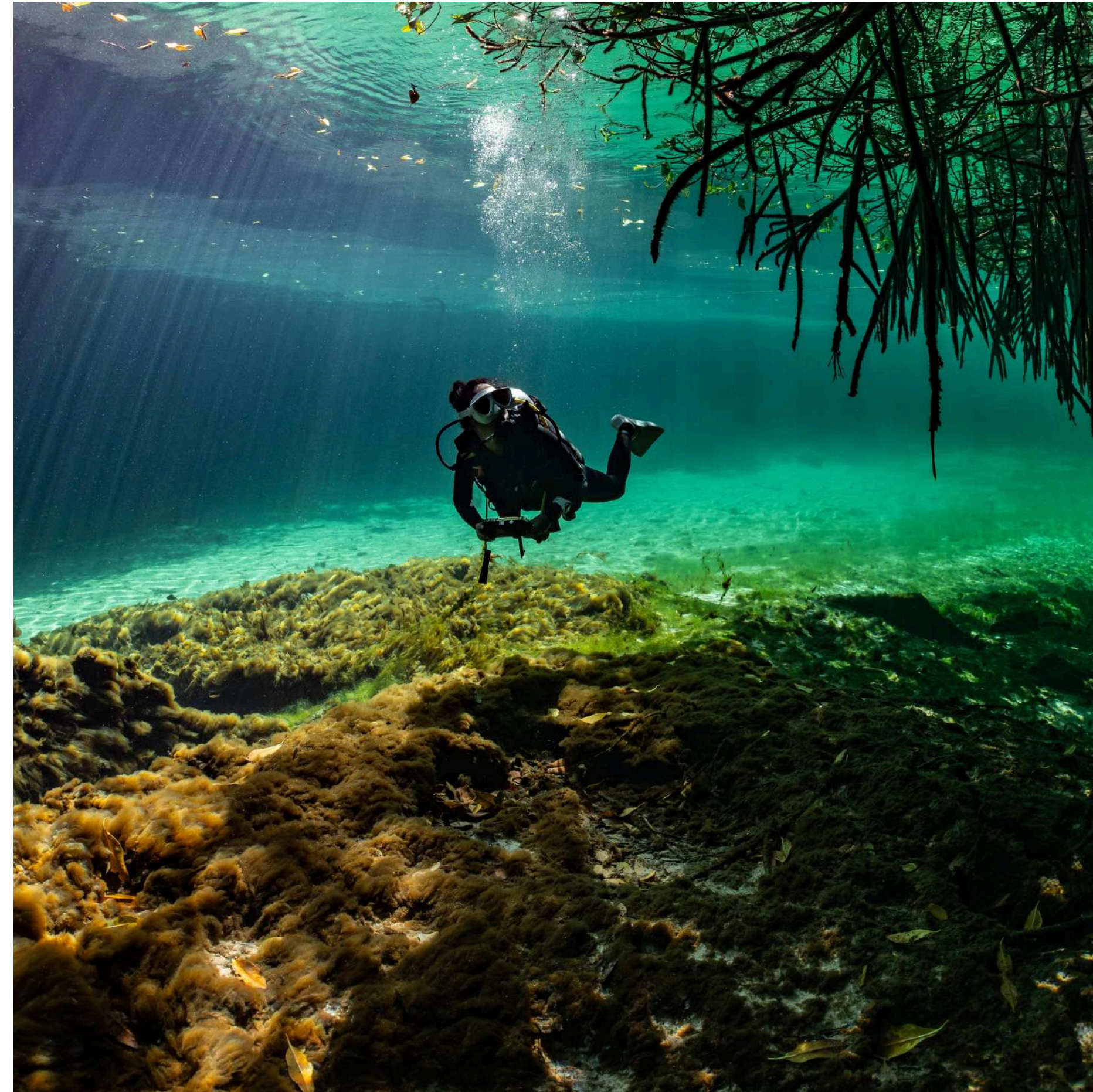
**Canada**

### Carbon Ridge

\$9.5m



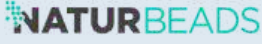
Oct 2024 - Early VC

**USA**



## Notable Investors

## Investments

	Katapult Ocean	>	 \$6.4m Dec 2024 - Seed The Netherlands	 \$2.8m Oct 2024 - Early VC USA	 \$9.5m Oct 2024 - Early VC USA
	ReGen Ventures	>	 \$2.0m Nov 2024 - Seed USA		 \$5.3m Oct 2024 - Seed USA
	Iberis Capital	>	 \$74 m Nov 2024 - Series B Portugal		 \$16.0m Feb 2025 - Late VC Sweden
	FutureTech Ventures	>	 \$374m Dec 2024 - Seed Portugal		 \$2.14m Nov 2024 - Seed The Netherlands
	Eco River Capital	>	 \$12.0m Nov 2024 - Series B USA		 \$5.3m Oct 2024 - Seed USA
	CDP Venture Capital	>	 \$1.2m Dec 2024 - Seed Italy		 \$9.67m Nov 2024 - Series A UK

### Featured Investor of the Quarter



Katapult Ocean

**Name:** Katapult Ocean  
**Launch Date:** Apr 2018  
**Location:** Oslo, Norway  
**Founders:** Maren Hjorth Bauer

The Norwegian blue investment pioneers remained highly active in Q4 2024, adding GBM Works, Carbon Ridge, and Open Ocean Robotics to their growing portfolio.

As in previous quarters, Katapult Ocean maintained a diverse sector and technology approach, investing in fuels from agricultural waste for transportation and industry, solar-powered autonomous vessels, and nearshore/offshore foundation installation technologies. Their strategy continues to focus on early-stage rounds and investment consortia, partnering with multiple investors to maximize impact and scalability.

Sector of the  
Quarter

“

If we focus solely on offshore wind energy, there is currently 70 GW of installed capacity, and it is expected to be 600 GW by 2050.

”

**José Pinheiro**

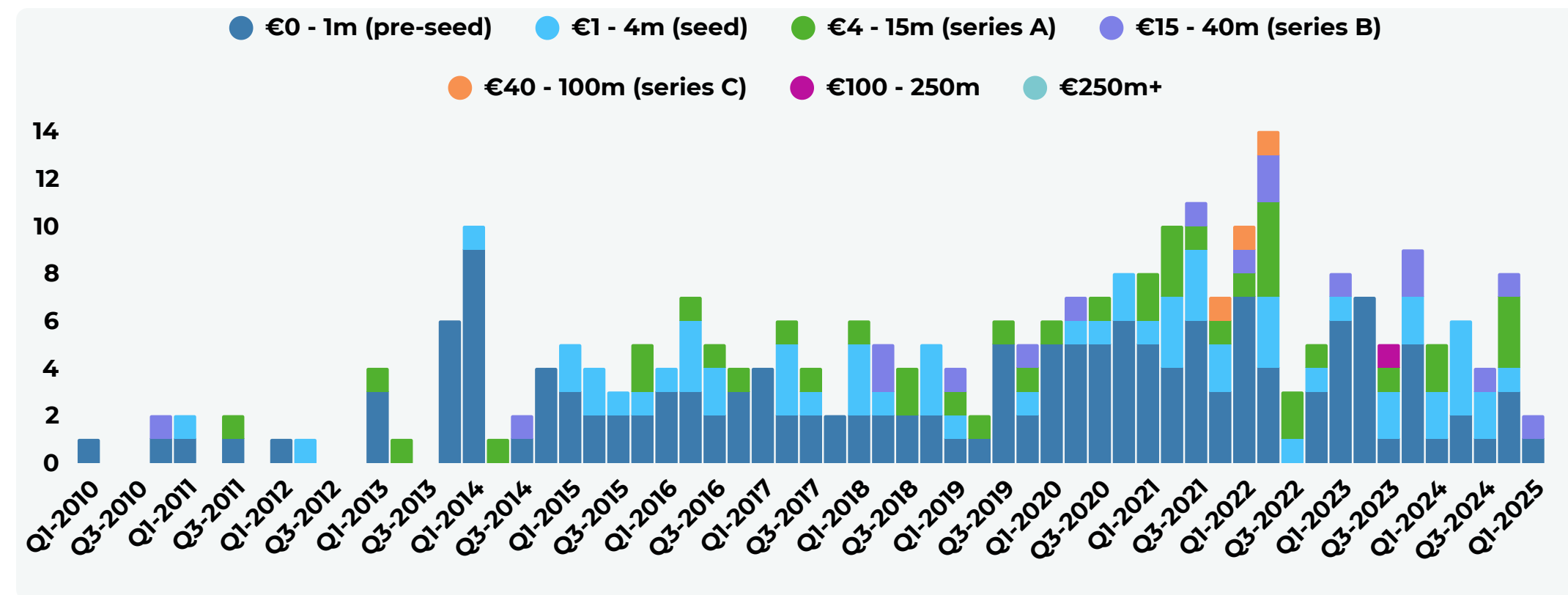
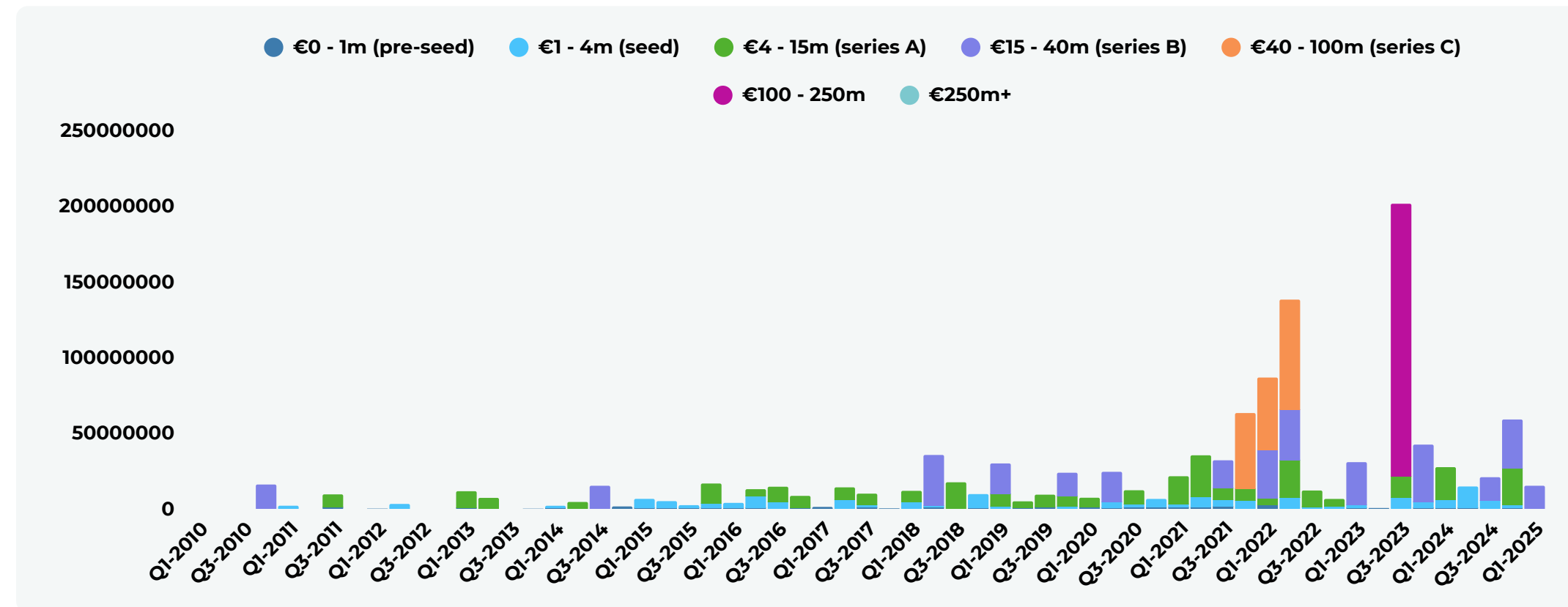
CEO of Ocean Winds

BLUE

RENEWABLE ENERGY



# Blue Renewable Energy



— **Interest rates induced a slowdown, but there are early signs of a rebound.** The sector’s steady growth was disrupted by the increase in interest rates, leading to a period of reduced VC investment—apart from a £150M outlier investment in Venterra Group in 2023. Q4 2024 marked the first quarter since before the war with a balanced and healthy mix of funding rounds, suggesting a potential turnaround.

— **Energy security concerns are accelerating regional commitments.** The Ukraine invasion reinforced the urgency of energy independence, prompting governments to prioritize offshore renewables—especially in Europe—creating a long-term demand signal for investors.

— **Floating infrastructure leads investment priorities, but bottlenecks remain.** While fixed infrastructure technologies have reached higher maturity, investment remains strong in floating infrastructure, electrical components, and marine cables, alongside digital solutions that enhance efficiency and reduce maintenance costs.

In spite of that, challenges in integrating offshore renewables into existing grids and the need for large-scale energy storage solutions remain critical hurdles for sector-wide scalability.

— **Mitigating environmental impact in operations is gaining traction.** VC activity is increasing in installation technologies designed to reduce environmental impact, such as noise mitigation solutions, indicating a growing investor focus on sustainability in offshore energy deployment.



## Key Technologies

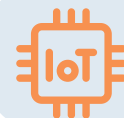
The Blue Renewable Sector has seen critical technologies that are shaping the landscape:



Floating offshore wind infrastructure



Electrical components, especially for locations farther away from shore



Monitoring and efficiency technologies, namely using IoT and spatial data



Smart marine cables



Predictive and unmanned maintenance technologies

## Featured Startup of the Quarter



**Name:** Fibersail

**Launch Date:** Aug 2016

**Location:** Porto, Portugal

**Founders:** Pedro Pinto, Hugo Rocha, Vasco Serpa

Fibersail markets a reliable and cost-efficient shape sensor, that is installed on the blades of turbines to measure and monitor each blade's deflection. This allows operators to control blade load, optimize rotor performance and reduce O&M costs by constantly managing between maximized performance and maximized lifetime modes.

Fibersail is on a mission to empower the deployment of rotor-load-controlled wind turbines, that will pave the way for a far more competitive wind industry.



Wave energy, tidal energy and ocean solar energy are at a less mature technological stage. In order to meet the targets, we need offshore energy systems that guarantee more energy from renewable sources and, desirably, a lower levelised cost of electricity (LCE).

**Bernardo Silva**  
Manager at [INESC TEC](#)



[Link to full interview](#)



# 1. From niche to necessity: Bluetech & Ocean Observation steps into the spotlight

Investment in this sector surged in 2024, driven by AI - and IoT- based monitoring solutions, rising efficiency demands in ports and shipping, and heightened concerns over subsea infrastructure security due to geopolitical tensions.

# 2. Carbon markets and circularity fuel the rise of Environmental Protection & Regeneration

Q4 2024 saw record VC investment in this sector, supported by advancements in carbon capture technology, regulatory shifts like shipping's inclusion in the EU Emissions Trading System, and growing investor interest in circular economy models.

# 3. Blue Biotechnology stumbles, but AI and gene-editing may spark a 2025 comeback

Investment in the sector declined sharply in 2024 due to economic uncertainty and pandemic-driven resource allocation, though emerging technologies could drive renewed investor confidence.

# 4. Water, Shipping & Ports: A steady bet for long-term transformation

Both sectors remained attractive in 2023-24, with long-term shifts toward sustainability, resource security, and operational efficiency ensuring continued investor interest.

# 5. Investment flows reflect regional strengths—but no US slowdown yet

Blue Renewable Energy remains European-dominated, Fisheries attract Global South investors, and despite election-related uncertainties, US VC investment shows no significant early signs of reduction.

## About Hub Azul

Hub Azul, Infrastructure Network for the Blue Economy, is part of the Recovery and Resilience Programme and its main objective is to contribute to the decarbonization and digital transformation of the blue economy, making it “more competitive, more cohesive, more inclusive and more sustainable”, taking advantage of the opportunities opened up by the energy and digital transitions.

Several regional hubs were created based on a set of infrastructures and skills that allow the organization of innovation ecosystems in the area of the blue economy, covering the entire national territory, which must be leveraged and articulated, in a network, to exploit complementarities and synergies.

The overall management of this network of regional hubs is the responsibility of Hub Azul and its Strategic Management Board, as provided for in the governance model of the National Strategy for the Sea 2021-30 and set out in Order no. 12495/2021, of December 22, “Determines the governance model of the “Hub Azul, Infrastructure Network for the Blue Economy” (TC-C10-i1) and configures one of the functional articulation mechanisms provided for in the governance model of the National Strategy for the Sea 2021-2030.

## Blue Team

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Hub Azul Portugal Lead Manager

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Innovation Manager

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