



## Let's talk about Marine Biodiversity

📅 9 June 2025 – 10:30 am - 1:30 pm CEST

📍 Inspire Area – European Digital Ocean Pavilion

🌐 United Nations Ocean Conference 2025

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### Abstract

## BGC-ARGO floats - Revolutionizing Ocean Observations: Science for a Sustainable Future

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Think of the high seas—vast areas of the ocean beyond national jurisdiction that are our global commons. These waters, covering two-thirds of our planet, are critical for regulating the climate, absorbing carbon, and sustaining marine life. Yet, they face unprecedented threats from climate change and human activities. To protect and manage these waters effectively, we need robust science and innovative tools. Enter the BGC-Argo Program, a fleet of autonomous ocean robots that revolutionize how we monitor the ocean. These floating sentinels measure vital biogeochemical processes, from carbon storage to ocean health, providing real-time data from surface waters to the deep sea.

But we are not stopping there. The next generation: eBGC-Argo is here. These enhanced floats are equipped with cutting-edge sensors to study the ocean in unparalleled detail. They measure plankton ecosystems, track carbon transfer from surface to depth, and even use artificial intelligence to classify marine organisms. By deploying these technologies, we can better understand how the ocean supports life and evaluate the impacts of emerging solutions like marine carbon dioxide removal.

This data doesn't just inform science; it empowers governance. Whether protecting biodiversity hotspots like the Central American Thermal Dome or creating a baseline for carbon management strategies, eBGC-Argo provides the insights policymakers need to act decisively.

