How to monitor the Ocean with IN-SITU observations

4 June 2025 – 10:30 am - 6:00 pm CEST

Inspire Area – European Digital Ocean Pavilion

United Nations Ocean Conference 2025

Abstract

SMART Cables for Observing the Ocean and Earth: Present and Future.

Emma Heslop – IOC-UNESCO
Jérome Aucan – Pacific Community / JTF Smart Cable
Jean Aude – Alcatel Submarine Network
Jean Marc Daniel - IFREMER

The main objective is to demonstrate that SMART Cables are decisively transitioning from concept to reality, with the first two operational systems scheduled for installation in 2026, representing a total investment exceeding €200M. The Atlantic CAM system, supported by €50M from the European Union, will connect mainland Portugal with the Azores and Madeira in a ring configuration across the eastern North Atlantic, while the Tamtam system, backed by French government support, will link New Caledonia and Vanuatu across the tectonically active Vanuatu Trench. These pioneering projects demonstrate a viable financial structure combining development bank funding, government support, and industry participation, with clear frameworks for both capital expenditure and operational costs including data infrastructure management.

This panel brings together experts from climate and ocean sciences, geophysics, earthquake and tsunami early warning, the subsea telecom industry, and government stakeholders to discuss these groundbreaking projects and future SMART Cable systems planned for both hemispheres. This talk will foster cross-sectoral dialogue, highlighting not only technological advancements and essential partnerships for global scaling but also the business case for investing in SMART Cables. Through interactive discussions, we will explore how this innovative initiative supports SDG 14 by enhancing climate monitoring and disaster resilience through unprecedented open-ocean observations. Special attention will be given to the system's unique capability to provide continuous, real-time measurements of ocean temperature, bottom pressure, and seismic activity, offering critical data for both climate change research and disaster risk reduction in previously unmonitored regions of the deep ocean to support policy decisions.