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## Implementing Global Innovative Noise-Monitoring Technologies

**Michel André**

Universitat Politècnica de Catalunya, BarcelonaTech (UPC), Laboratory of Applied Bioacoustics (LAB), Spain  
(michel.andre@upc.edu)

The rising threat of underwater noise pollution, driven by expanding human activities at sea, poses severe risks to marine biodiversity and ecosystem health. Addressing this urgent issue is critical for sustainable ocean stewardship and aligns with broader efforts to mitigate environmental footprints in marine settings. This proposal will open with an immersive media presentation (depending on the available conference facilities). This introductory experience is designed to bring attendees closer to the ocean's natural soundscape, underscoring the profound, often hidden impacts of anthropogenic noise.

An international expert panel will then share recent findings on how underwater noise affects marine mammals and entire marine ecosystems, highlighting specific sources such as offshore wind farms, shipping, and other industrial activities, focusing on recent development and solutions. The discussion will emphasize the importance of collaboration among scientific, regulatory, and industry stakeholders, showcasing the necessity of unified efforts to mitigate the effects of noise pollution effectively. To support this, the panel will introduce innovative noise-monitoring technologies that provide standardized, reliable data essential for developing regulatory frameworks. These technologies are foundational to advancing global standards that can reduce underwater noise and protect marine life across regions.

The session will feature a diverse panel of speakers, balanced in gender and geographic representation, follow-up from a recent international event collaboratively organized by JPI Oceans, LAB-UPC, IOC-UNESCO, and the OCEANOISE conference series (<https://www.youtube.com/watch?v=xKjc40fIFal>) and the UN Ocean Decade Conference Satellite Event "Listen to the Ocean". Through an interactive format, the session encourages audience participation, creating a space for meaningful dialogue on actionable steps toward reducing noise pollution and contributing to a sustainable ocean environment.