

A lack of data is not the problem—Deploying smart data pipelines for marine renewables

Authors:

Dr. Christine Ward-Paige, eOceans Research and Consulting

Abstract ID: 105

Submitted: March 24, 2026

Call:: MRC 2026 Research & Technical Track - Call for Abstracts

What Theme Are You Submitting for?: Social Considerations and Coexistence

Presenter Name: Dr. Christine Ward-Paige

Focus Area: Offshore Wind

Keywords: , Coexistence, Data governance, Data ownership, Indigenous communities, Marine renewable energy, Socioeconomic decision making, Stakeholder engagement

Expanding marine renewable energy—including offshore wind, tidal, wave, and river current projects—is as much a social challenge as a technical one. Success depends on coexistence with fisheries, tourism, transportation, coastal and Indigenous communities, and the protection of marine ecosystems. Yet fragmented, siloed, and inaccessible data constrain equitable participation, trust, and informed socio-economic decision-making—slowing projects, raising costs, harming reputations, and undermining community support.

Using case studies, we show how a dual-use, knowledge-flow system—eOceans— enables stakeholders to contribute, co-interpret, and visualize environmental, operational, and socio-economic data in one place in real time, while preserving data ownership and governance. Partners—including fishers, NGOs, communities, and rights holders—engage directly with insights as they are gathered, supporting inclusive governance, transparency, and evidence-based decision-making.

Lessons from collaborative conservation, tourism, and research demonstrate how this shared approach delivers decision-ready intelligence—accelerating regulatory processes, strengthening trust, aligning projects with community and socioeconomic priorities, and supporting responsible management. Applied to marine renewables, this approach increases speed, reduces uncertainty, improves coexistence, and ensures projects succeed both technically and socially.