



## Summary report: NAUTILOS SATELLITE EVENT AT OCEAN DECADE CONFERENCE – SUSTAINED OBSERVATION FOR THE BLUE ECONOMY

Date: 09 of April 2024

Place: Barcelona, Spain



The workshop "Beyond Climate Change: Sustained Observation in Support of the Blue Economy," organised by Nautilus in collaboration with experts from EurOcean, ISTI - CNR, EMODnet, EuroGOOS, ETT SpA, and CSIC, provided valuable insights to advance ocean knowledge and support blue economic activities. Central to the discussions was the crucial role of sustained ocean observation in supplying indispensable data for the blue economy, addressing climate change impacts, and facilitating informed decision-making.

Highlighted during the event was the Nautilus Project's objective to bridge observational gaps by developing cost-effective sensors and samplers integrated into existing platforms, thus contributing to a more comprehensive understanding of ocean processes. Additionally, emphasis was placed on the significance of environmental data for societal challenges and the blue economy, with a particular focus on the role of aggregators in collecting, standardising, and sharing marine data to support evidence-based management and maritime industries.

The significance of sustained, long-term ocean observations in generating reliable data for decision-making was underscored, together with the acknowledgment of the fragmented nature of Europe's ocean observing landscape and the need for better integration and collaboration among various observing efforts. Moreover, there was a call to promote international cooperation and coordination to support long-term ocean observation efforts, stressing the need of sustained observations to provide comprehensive data for coastal forecasts, environmental assessments, and policymaking.

Success stories of public-private partnerships, such as using volunteer commercial ferries for data collection, were shared, highlighting the importance of engaging the public and industry in ocean observation efforts and developing accessible technologies that are not only cost-effective but also easy to maintain for non-specialists.

During the side event, the global importance of the ocean was reiterated, underlining its essential role in climate regulation, heat absorption, weather patterns, and resource provision. This conveyed the need for global observation efforts to grasp the impacts of climate change and identify critical tipping points.

Further discussions centred on the necessity of high-quality data for decision-making processes, particularly in supporting sustainable management of ocean resources and the blue economy. It was highlighted that integrating ocean observations into decision-making processes, alongside public-private partnerships, is essential for addressing the needs of multiple sectors effectively.

The importance of international collaboration was reaffirmed, with the importance on the role of citizen science and complementary observation methods in filling data gaps, especially in polar regions. Additionally, the importance of robust data management practices, including adhering to FAIR data principles, providing metadata, and ensuring data trustworthiness through trusted repositories, was pointed out.

Attention was drawn to the need for clear strategies to make data available to various data infrastructures and to enhance communication and public engagement in ocean research. It was suggested to integrate traditional knowledge, such as indigenous knowledge, with modern techniques to improve data quality and understanding.

Challenges regarding data rescue, particularly for indigenous and local data, were acknowledged, necessitating more resources and efforts to rescue and digitalise archival data effectively. Finally, discussions revolved around the importance of collaboration in meteorological and air-sea interaction research, with examples such as the global network of weather balloon launches cited as models that could be applied to ocean observation initiatives.