



»How advanced technologies drive a zero-pollution blue economy«

Before the official launch of the Innovation Platform »Sustainable Sea and Ocean Solutions [ISSS](#)«, SINTEF and Fraunhofer organized a EU Green Week Partner Event in June 2021, outlining how the restoration of our oceans and a sustainable blue economy can be achieved. We fully support the [notion](#) of building back a cleaner, fairer, and more sustainable economy, contributing to the Commission's Action Plan »[Towards Zero Pollution for Air, Water and Soil](#)«. As the blue economy is a complex, multi-faceted industry with many conflicting interests, there is a need to balance ambitions and demands related to the sustainable harvesting and utilization of the oceans, as well as their restoration and preservation. The transition requires innovative technologies and shared infrastructures, created by trustworthy collaborations and reliable investments.

Fraunhofer and SINTEF develop and use state-of-the-art infrastructure, applied research, ecosystem understanding and environmental observations to fast-track innovations for a sustainable future.

Fraunhofer creates the [Ocean Technology Campus](#) with regional and nationwide partners from all sectors, which will turn Rostock into a leading location for technological underwater research. As a network and exchange platform, the Campus covers the whole innovation chain and offers a versatile testing area off the coast, open for research and industry partners. The core of the project is the [Digital Ocean Lab](#), an undersea site for testing ideas and simulations under controlled conditions in a real-world environment. Fraunhofer's research group »[Smart Ocean Technologies](#)« operates on the Campus to develop pioneering marine technologies for the sustainable use of the ocean. SINTEF leads the [OceanLab](#) consortium in the Trondheim Fjord, which will host one of the world's most advanced array of data collection platforms for marine research and offers a geographically interesting location due to the combination of coastal regions and the access to the open sea. Researchers benefit from diverse marine environments, subsea facilities, test areas, and different types of data buoys. As part of the future [Ocean Space Centre](#), the lab contributes to research on underwater robotics, aquaculture, autonomous shipping and the environment. Like Fraunhofer, SINTEF envisions accessible and shared research infrastructures to create an exchange platform, thereby facilitating the shift to a green blue economy with key-enabling technologies.

Our panelists agreed that international cooperation and the exchange of data and knowledge needs to be deepened and efficiently used to tackle some of the biggest challenges, like plastic pollution waste management, unexploded ordnance, and overfishing. In their opinion, ocean labs should be used to connect with young people, support and enable citizen science, and accelerate innovation cycles by easy access for SMEs and Start-ups. Legal aspects should be taken into consideration, since varying national and international laws hamper collaborative research.

Embracing the need for international collaboration, shared research infrastructures and intelligent technologies to drive the Green Deal and enable a zero-pollution blue economy, SINTEF and Fraunhofer have joined forces with eight other European research and technology organizations. To master Europe's industrial competitiveness and innovation leadership for the ocean's responsible utilization, they initiated the Innovation Platform »Sustainable Sea and Ocean Solutions [ISSS](#)«.