

Further Innovation Fields in the Cluster:

OCEAN LENSE

Efficient monitoring to ensure the conservation and to quantify the impact of human activities on marine systems. Data are collected as comprehensively as possible and with high temporal frequency over long periods of time.

SUSTAINABLE OCEAN USE

Preserve marine ecosystems, even though resources are already being used intensively – e.g. with offshore wind or production of marine biomass in aquaculture facilities.

OCEAN OPEN INNOVATION

Cross-organizational collaboration among partners, building a functioning innovation ecosystem, and improving value chains.



OUR VISION

We use the seas in harmony with ecology and economy and thus contribute to the protection of the oceans.

OUR MISSION

We want to position the Ocean Technology Campus as an international leading center for underwater technology and the sustainable use of the oceans.

"We want to overcome

underwater digitization so

challenging and support the industry with digital

interfaces, new services

face future tasks."

and marine technologies to



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DIGITAL MISSION





THE OCEAN **TECHNOLOGY CAMPUS**

The Campus sets out to strengthen German marine technology by opening up important markets and setting impulses for a worldwide knowledge-based sustainable use of the oceans - and it does so at one of Germany's most traditional maritime locations, Rostock, with its exceptionally high density of marine and maritime

The Campus combines science, industry and unique testing sites as an innovative engine targeting renewable energies, food supply, climate change, marine pollution and others.

With the synergy of a comprehensive understanding of the ocean ecosystem through excellent research and a sustainable use of the marine habitat through innovative technologies at the highest level lies the key to reconcile ecology and economy.

DIGITAL MISSION

Digitalization has become an important driver for the ocean technology. It provides the basis for autonomous operation of vehicles or inspection robots, enables efficient planning, monitoring and documentation of missions, and allows data from a wide range of sources to be linked for evaluation or model building.

The innovation field Digital Mission aims at the development of efficient architectures and digital data services for efficient evaluation with a clear focus on sensors and video data as well as the utilization of current AI methods.

The goal is to build a data economy for the underwater domain – an "internet of underwater things".

PROJECTS

OTC-DaTA

Framework as a uniform system and software architecture to improve the handling of digital data (from user, control and external data sources).

OTC-motionProbe

Modular and autonomous in-situ sensor system for monitoring object movements caused by sea state loads or currents.

OTC-STONE

Software for automatic localization and measurement of rocks in acoustic datasets based on neural networks for a reliable and effective mapping of stones on the seafloor.

OTC-SMOC

ALTOW

Transient simulation of cable movement and investigations on the fatigue behavior of UW high-voltage cables as fundamentals for a Structural Health Monitoring.

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