

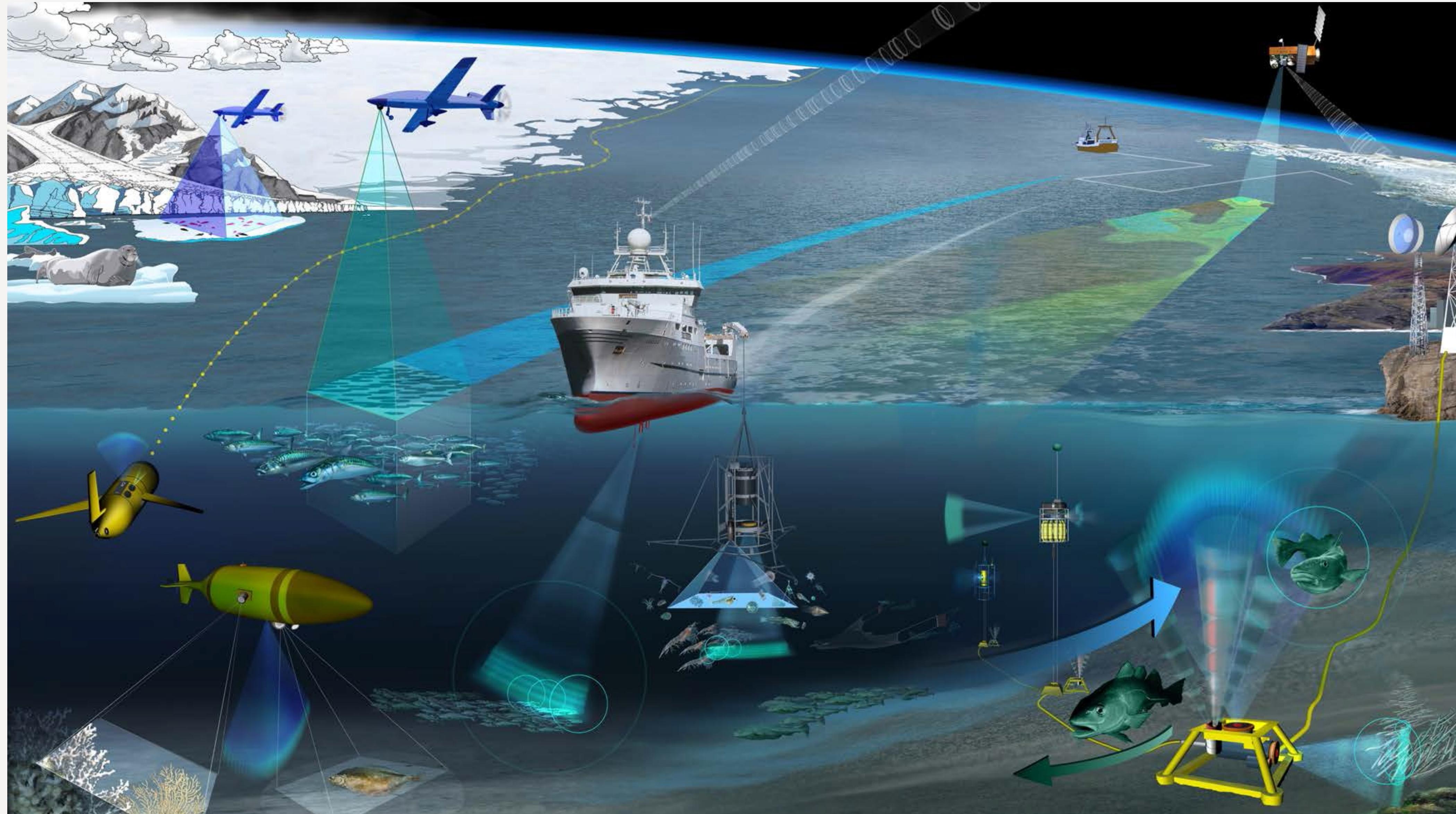
NORWEGIAN OCEAN OBSERVATION LABORATORY

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Development and use of marine technologies have the potential to vastly increase our understanding of the oceans.

Environmental monitoring, resource management, food production, energy production, transport and maritime security, are areas of increasing global importance.

The development of marine technologies is a key in providing the necessary knowledge base for future decision making, research and value creation.

OCEANOGRAPHIC OBSERVATORIES

Mobile platforms with a unique ability to design data collection, both in time and space. Together with anchored rigs, they provide new information to be used in climate research and oceanographic monitoring (physical, chemical and biological).

Drifting buoys

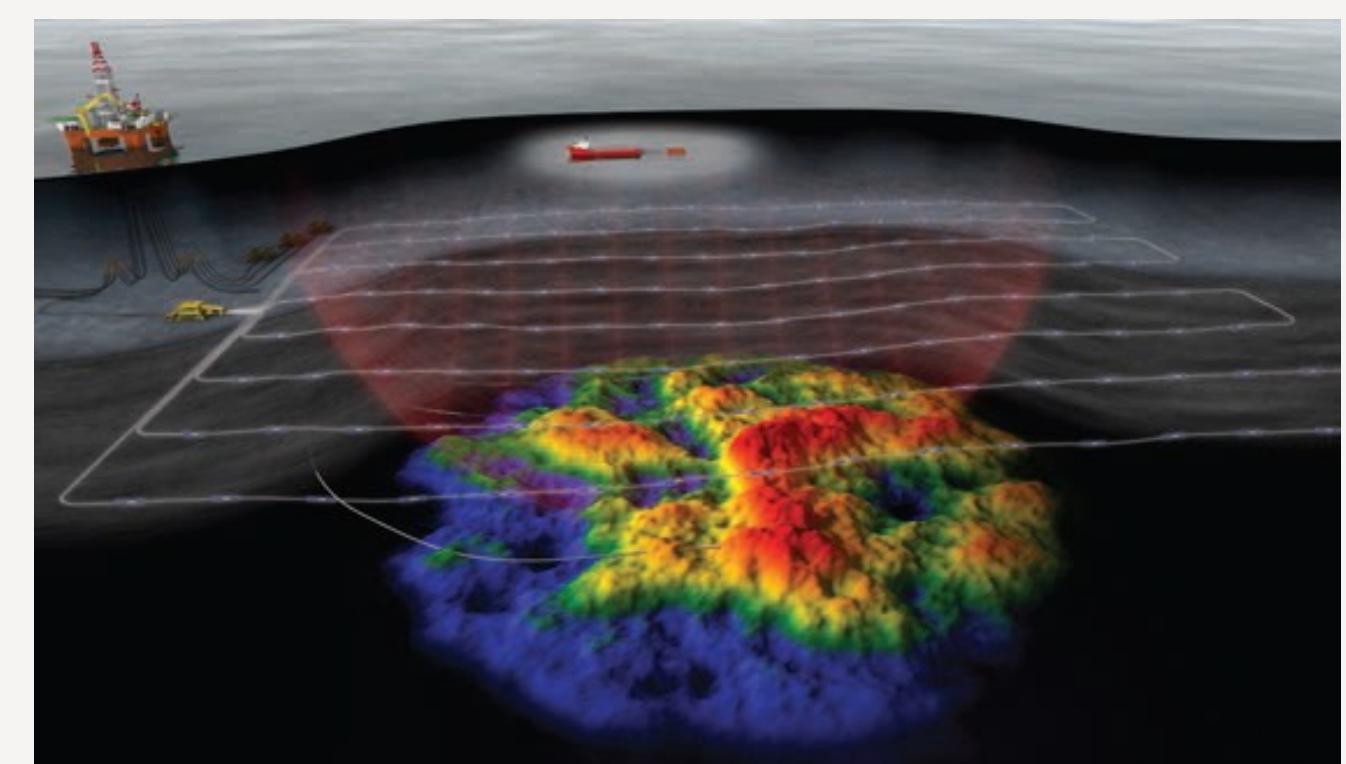
Measuring everything from temperature to salinity, oxygen and chlorophyll in the upper 200m of the ocean

Air drones

Remote controlled airplanes measuring wind close to the sea surface.

Underwater glider

Measuring water inflow from the Atlantic Ocean to the Norwegian Sea



INFRASTRUCTURES

Seabed observatories

Stationary monitoring provides information on the status of the ecosystem and key knowledge on marine organisms and their environment.

Lofoten – Vestrålen Cabled Observatory

Includes a wide range of marine sensors. Resolves processes at the individual level (cm) and covers a section from the coast to 2,000 meters deep.

Stereo camera

(see figure below)

Determines species and size of organisms and enables calculations of the organisms orientation and behavior.



Low-frequency acoustics

Low-frequency acoustics (defense technology) solve processes at population level 30 -70km – a new dimension in our understanding of the ecosystem.

Sensor networks

Octio's seabed sensor networks (see figure left) monitor the ocean's sound image and the seabed's internal structures.

Acoustic identification

Utilizes differences in the acoustic reflectivity to distinguish species from each other. Automatic acoustic identification enables further analysis from autonomous platforms.

Partners:

[Institute of Marine Research](#)
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