NOON Norwegian Ocean Observatory Network

Processes monitored
- Oceanography and Climate: flow toward the Arctic, CO2 uptake and acidification, bottom boundary layer physics, sediment transport
- Geohazard: earthquake, sediment slides, tsunamis, magnetic storms, hydrate melting, seismic monitoring
- Geobiology: Methane seepage
- Biodiversity: macro- and microbial diversity, biological processes
- Marine biology/fishery: fish migration, juvenile drift, biological processes
- Geothermal: propagating temperature increases from the water into the seabed

Consortium
- University of Bergen
- University of Oslo
- University of Tromsø
- Christian Michelsen Research
- Institute of Marine Research
- Uni Research
- SINTEF
- Statoil

Manager NOON: Jürgen Mienert, UiT +47 997 94 063, jurgen.mienert@uit.no

www.oceanobservatory.com

NOON’s main goal is the establishment of cable-based ocean observatories in Norway for a permanent interactive presence in the ocean
What do we want to achieve?

- Develop the next generation in marine science technology for a permanent interactive presence in the ocean
- Observing system that can assess impact of global climate change on physical, biological and biogeochemical characteristics of ocean environments
- Develop a national strategy in collaboration with an international research infrastructure

Why cabled ocean observatories?

- Continuous presence in the ocean
- Sampling frequencies of subseconds
- Real-time multidisciplinary, interactive experiments
- Establish GEOSS components for understanding climate, biodiversity and ecosystems in the high north. (http://www.earthobservations.org/)

The planned research infrastructure gives:

- Control over main water masses entering the Barents Sea Ecosystem
- Control over different depth regimes (shelf and deep sea)
- Cover an ocean region of global importance and of high sensitivity to climate change

About COSMOS

COSMOS - Cabled Ocean for a Sustainable Monitoring of Ocean System is a NOON initiative, aiming at keeping under surveillance the main changes in water masses entering the Nordic and Barents Sea

Sketch of node with sensors

2010-2011: Fjord (Masfjorden, Hardanger)
2012-2016: Vesterålen Margin
Svalbard Margin
Ocean Ridge
After 2016: Svalbard Ocean Ridge
Snøhvit