Targeted monitoring in offshore wind farms
The need to understand cause-effect relationships in the marine benthos

A two-track monitoring strategy needed...

Offshore wind farm monitoring should ideally comprise two parallel and complementary monitoring tracks.

Baseline monitoring
- Focus on a posteriori resultant effect quantification
- Observing rather than understanding impacts
- Basis for halting activities
- Spatial area-specific
- Most often mandatory

Targeted monitoring
- Focus on cause-effect relationships of selected, a priori defined impacts
- Understanding rather than observing impacts
- Basis for mitigating activities
- Spatially generic
- Most often not mandatory

Disentangling possible cause-effect relationships...

Zooming into targeted monitoring: An example...

Next to the baseline monitoring, the targeted monitoring aims at unravelling and hence understanding the underlying causes of a selected set of priority effects, such as the reef effect of offshore wind farms.

Management support... The understanding of alterations is inevitable for future predictions of ecological implications in the benthos system. The integrative approach of targeted combined with baseline monitoring will lead to scientifically sound advices for possible mitigating measures for existing, but also future offshore wind farms.

Participants at the ICES Workshop on Effects of Offshore Wind Farms on Marine Benthos (WKEOMB) Facilitating a closer international collaboration throughout the North Atlantic Region

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