Procedures to Improve Sensor Data Quality

Contribution to Session 4

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Poster abstract:

The oceans play an important role in aspects of global sustainability, including climate change, food security and human health. Because of its vast dimensions, internal complexity, and limited accessibility, efficient monitoring and predicting of the ocean forms a collaborative effort of regional and global scale. A key requirement for ocean observing is the need to follow well-defined approaches. Summarized under "Ocean Best Practices" (OBP) are all aspects of ocean observing that require proper and agreed-on documentation, from manuals and standard operating procedures for sensors, strategies for structuring observing systems and associated products, to ethical and governance aspects when executing ocean observing.

In Task 6.2 we have developed new tools, and organized workshops with outcomes of Best Practice manuals and scientific publications. The focus has been on improving accuracy of trace element measurements in seawater and also of marine omics analysis, and enhancing reliability, interoperability and quality of sensor measurements for dissolved oxygen, nutrients and carbonate chemistry measurements.

We will present example outcomes of Task 6.2 in this poster presentation.

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Poster abstract:

Acquisition of high-quality nutrient data is critical for implementing North Sea monitoring programmes mandated by UK and EU directives, in addition to identifying pollution events and understanding photosynthetic marine processes. Advances in 'lab-on-chip' sensor technology show potential for increasing economic viability, spatial resolution and scientific robustness of surface