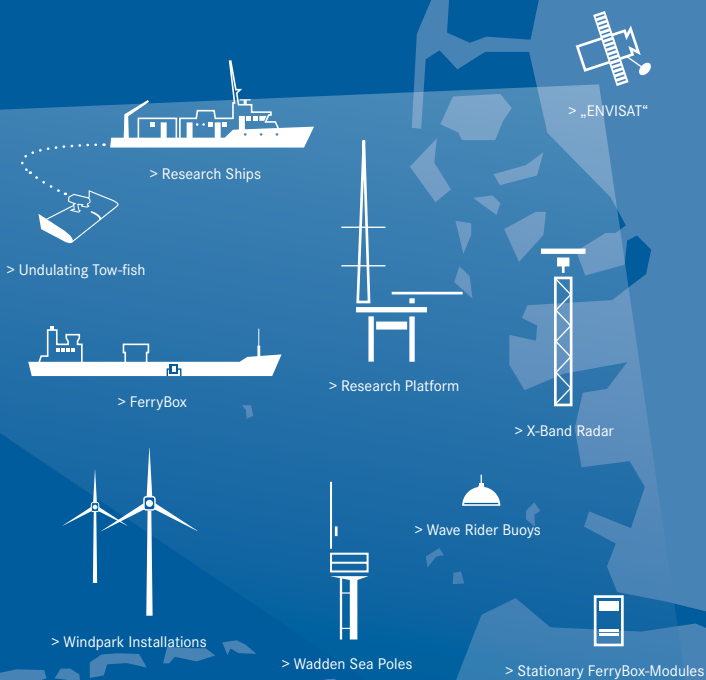


COSYNA.

A scientific view of coastal waters.



- > DATA ANALYSIS
- > THEMATIC MAPS
- > FORECASTS BASED ON MODELS
- > SCENARIOS BASED ON MODELS



COSYNA – COASTAL OBSERVATION SYSTEM FOR NORTHERN AND ARCTIC SEAS

AN INTEGRATED SYSTEM MADE UP OF OBSERVATIONS AND MODELS

OBJECTIVE

BY BRINGING TOGETHER OBSERVATIONS AND MODELS:

- > current environmental conditions of ecosystem parameters are recorded, e.g. phytoplankton, material flows, sand movements,
- > resilient forecasting models for physical and biological ecosystem parameters are developed for routine use,
- > long-term effects of climate change and human intervention are documented,
- > scenarios of possible future changes are derived from observation models, and
- > information needed for coastal management is generated.

IMPORTANT QUESTIONS

- > How will the magnitude and distribution of currents, sea state, temperature, salinity and radiation budget change over the long-term?
- > What effects will these changes have, amongst other things, on the stability of our coast lines?
- > How is the bio-geochemical condition of the Wadden Sea and North Sea changing?
- > How large is the material exchange between the Wadden Sea, the estuaries and the North Sea?
- > What controls the appearance of algae blooms? Under what conditions do toxic algae dominate?
- > What significance do individual events have on annual primary production?
- > What immediate and long-term effects do wind farms have on the physical dynamics and biological processes?

COSYNA is being developed in co-ordination with the “Konsortium Deutsche Meeresforschung (KDM)” (German consortium for Sea Research) and the responsible monitoring authorities of the German republic and the federal states.

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