The Wadden Sea Long Term Ecosystem Research (WaLTER) project:

Using the SeaDataNet infrastructure to provide access to integrated environmental and socio-economic data from the Dutch Wadden Sea

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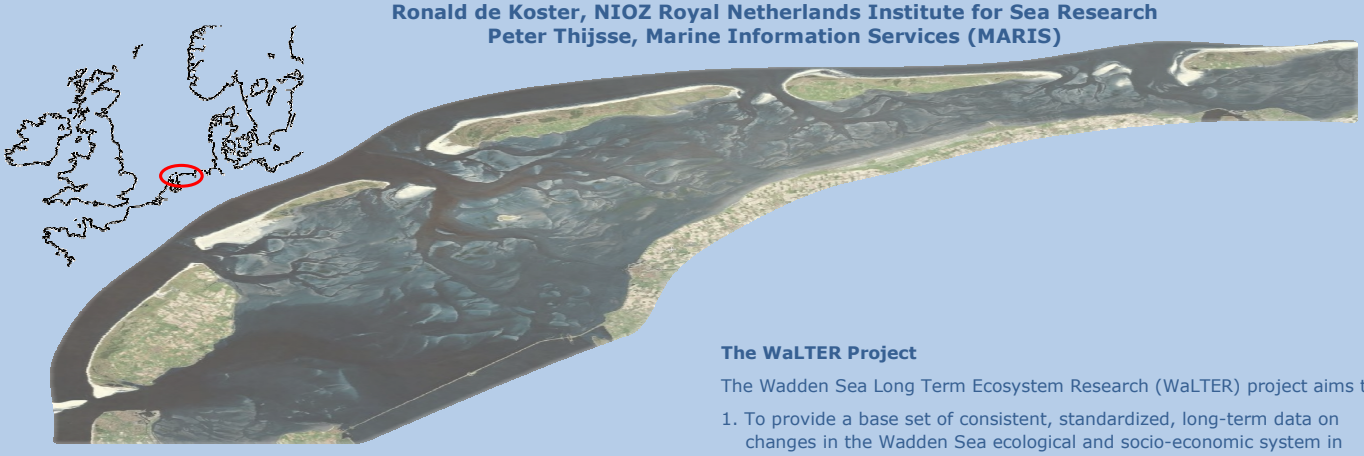


Introduction

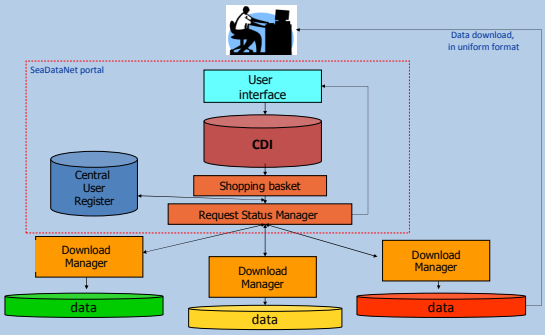
The Wadden Sea, an UNESCO World Heritage Site along the Northern coasts of The Netherlands, Germany and Denmark, is a very valuable, yet also highly vulnerable tidal flats area.

It is noted for its ecological diversity and value, being a stopover for large numbers of migrating birds. The Wadden Sea is also used intensively for economic activities by inhabitants of the surrounding coasts and islands, as well as by the many tourists visiting the area every year.

A whole series of monitoring programmes of both ecological and socio-economic parameters is carried out by a range of governmental bodies and institutes, to study the natural processes occurring in the Wadden Sea ecosystems as well as the influence of human activities on those ecosystems.

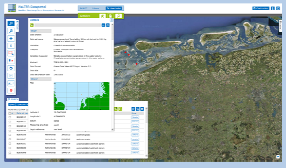
Yet, the monitoring programmes are scattered and it is difficult to get an overview of those monitoring activities or to get access to the data resulting from those monitoring programmes.

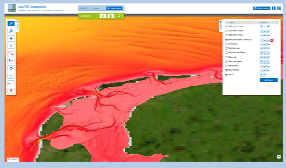
The Wadden Sea Long Term Ecosystem Research (WaLTER) project was set up to address these issues.



WaLTER Data Access Infrastructure

The WaLTER data access infrastructure is a distributed system of data providers, with a centralized data access portal. Technically, it makes use of the existing data access infrastructure of the Netherlands National Oceanographic Data Committee (NL-NODC), which has been operational since early 2009.
The NL-NODC system is identical to and in fact developed by the European SeaDataNet project, in which the NL-NODC is the Dutch partner.

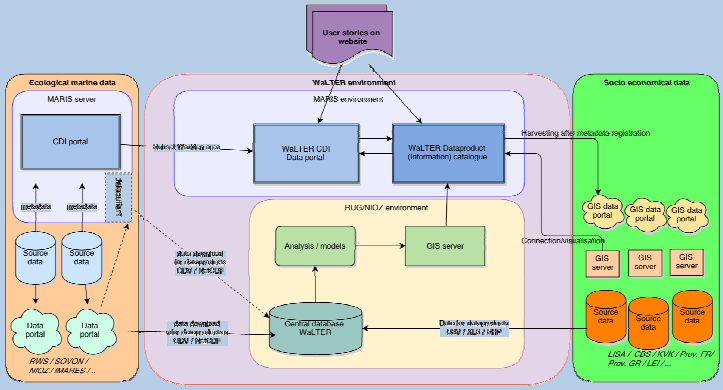




The WaLTER Project

The Wadden Sea Long Term Ecosystem Research (WaLTER) project aims to:

1. To provide a base set of consistent, standardized, long-term data on changes in the Wadden Sea ecological and socio-economic system in order to model and understand interrelationships with human use, climate variation and possible other drivers.
2. To provide a research infrastructure, open access to commonly shared databases, educational facilities and one or more field sites in which experimental, innovative and process-driven research can be carried out.



Ecological/environmental AND socio-economic data

The big challenge for the WaLTER project will be to incorporate socio-economic data into a system which was originally designed for environmental data. Most environmental data are point data with a relatively simple structure. Each parameter value is associated with a location, time, unit, method, etc. Socio-economic data have a more complex structure and are often parameter values based on polygons which change over time (because the borders of municipalities and provinces have changed). Socio-economic data can better be characterized as information.

The WaLTER project serves the environmental data through a SeaDataNet CDI data portal, while the socio-economic data/information is being served through a specially developed WaLTER Data Product Catalogue.

Benefits and pitfalls of using the SeaDataNet infrastructure in a regional setting

Benefits:
Data stored at source – distributed knowledge on the data
Central overview of available data
Central download of (distributed) data
Pan-European standardisation
Easy to install at new partners
Modular system: will still function well if partners stop participating

Pitfalls:
Long-term commitment required from partners
No detailed database queries possible with this distributed system
Not well suited for information layers – requires product catalogue approach

WaLTER is managed by: NIOZ Royal Netherlands Institute for Sea Research, IMARES, Wageningen UR, SOVON Dutch Centre for Field Ornithology, Radboud University Nijmegen, University of Groningen, Common Wadden Sea Secretariat.
In collaboration with: NAM, Staatsbosbeheer, Natuurmonumenten, Province of Fryslân, Ministry of Economic Affairs, Agriculture and Innovation, Ministry of Infrastructure and the Environment.

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