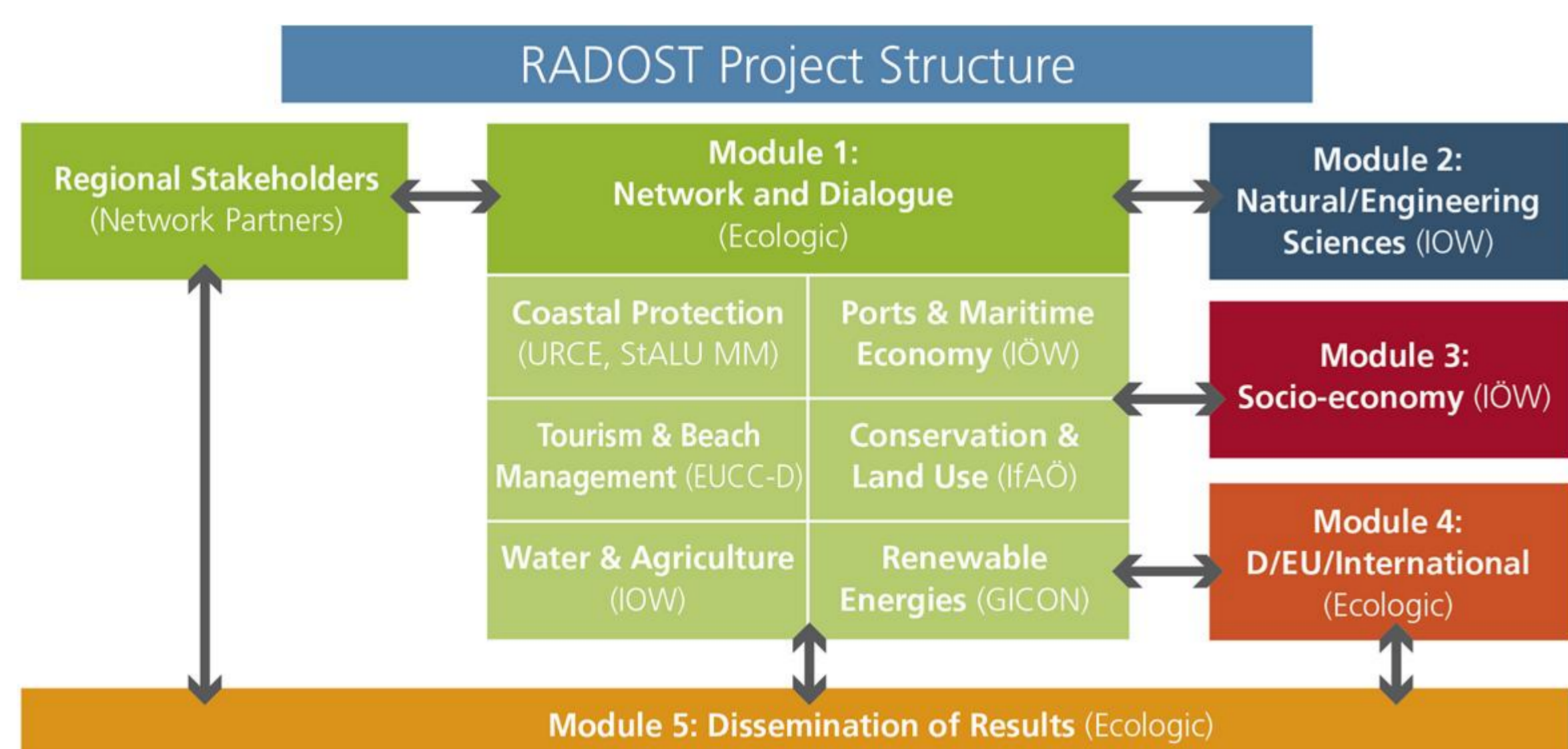


Since July 2009, the German Baltic Sea coast has been one of seven model regions for climate change adaptation funded by the German Ministry of Education and Research. The research project RADOST (Regional Adaptation Strategies for the German Baltic Sea Coast), with 17 consortium partners and roughly 150 associated partners, focuses on fostering close dialogue between scientists and users of climate information. Research, dialogue and networking activities concentrate thematically on six focus topics; and geographically, on six focus areas (see graphic below). 16 implementation projects illustrate the economic opportunities provided by responses to climate change.



Within the focus topic “**Coastal Protection**” threats to the coast from sea level rise, extreme events and changes in currents and sediment transport are being analyzed and suggestions for future protection measures, especially for sandy coasts, are being developed.

The focus topic “**Tourism and Beach Management**” aims at making use of positive climate change effects (e.g. extension of the bathing season due to global warming), but also preparing against threats for water quality and beach maintenance.



The focus topic “**Water Management and Agriculture**” examines how alterations in water temperature, rainfall and river discharge patterns might exacerbate existing problems with excessive nutrient input, and develops guidelines on how to deal with these issues.



The focus topic “**Ports and Maritime Economy**” analyzes climate change challenges and adaptation options for the different ports in the region.

The focus topic “**Conservation and Land Use**” examines how climate change will influence marine ecosystems and interact with multiple existing uses of the natural environment.

The goal of the “**Renewable Energies**” focus topic is to assess the impact of climate change on the regional potential for geothermal, wind, solar and biomass energy generation.



RADOST Focus Areas and Focus Topics



The knowledge base for RADOST is built through extensive **research in natural and engineering sciences**, including combined modelling of hydrodynamics (water levels, sea state, currents) and sediment transport, water quality and ecosystems. In addition, **socio-economic analyses** assess the possible consequences of both climate change and adaptation options for the regional economy.

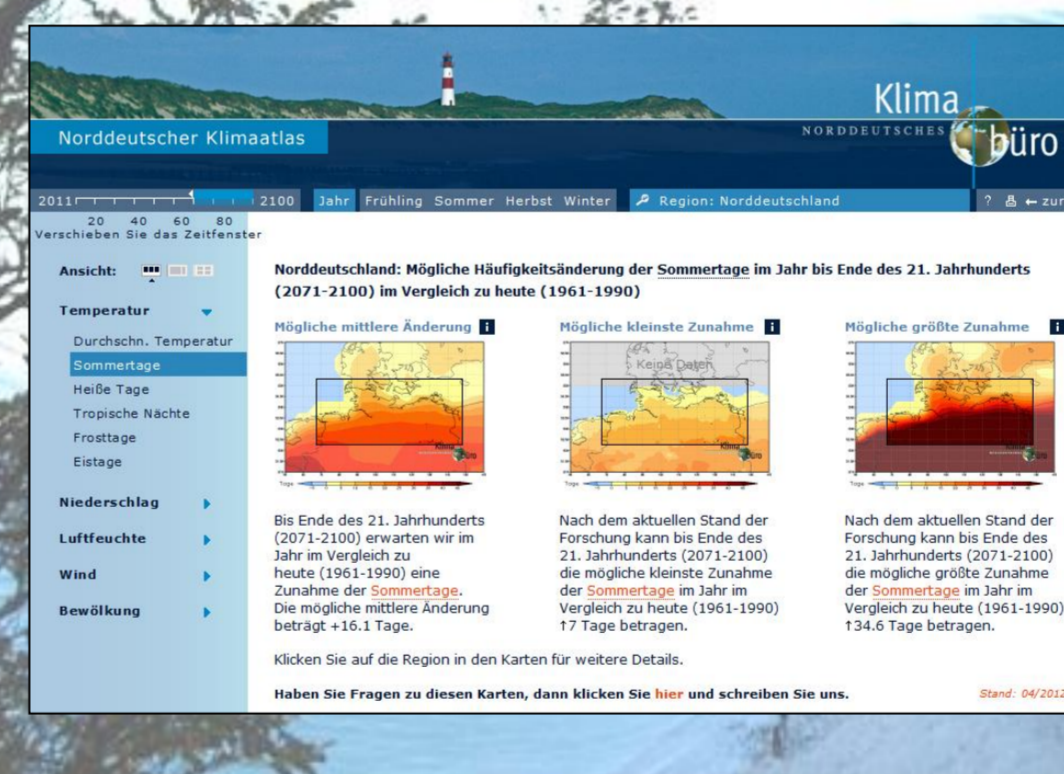
The regional dialogue is complemented by **exchange of information on the national and international level**, with a particularly focus on other Baltic Sea states and the east coast of the USA.

Further Information

Further information on RADOST is available at: www.klimzug-radost.de/en

The RADOST website also features the RADOST Journal Series and the RADOST Newsletter

Information on climate change at the German Baltic Sea coast is available at: www.norddeutscher-klimaatlas.de

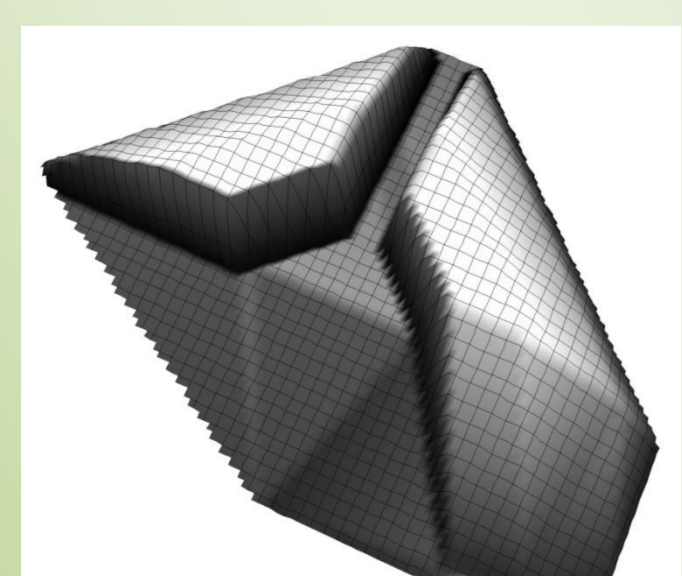


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Implementation Projects (examples)

Innovative methods of coastal protection

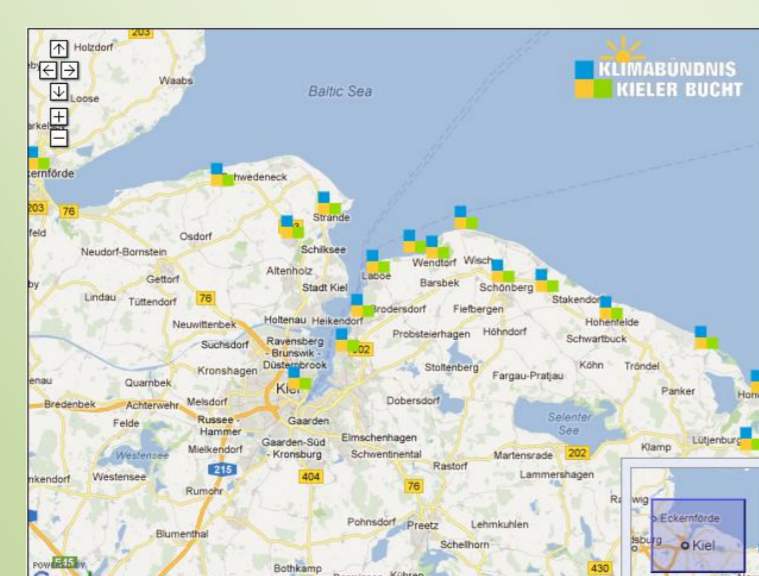
The construction of artificial reefs has the potential to not only stabilise beaches, but also to create attractive diving grounds, thereby generating new opportunities for the tourism industry.



Example for model of surfing reef

The Bay of Kiel Climate Alliance

The “Bay of Kiel Climate Alliance” is a network of tourism stakeholders in the Bay of Kiel region. Its goal is to join forces to enable the local tourism industry to meet future climate change adaptation and mitigation challenges.



www.klimabuendnis-kieler-bucht.de

Future strategies for aquaculture

This implementation project aims at reshaping the fishing industry in the Kiel Fjord in a climate-proof manner. Integrated aquaculture concepts can make a valuable contribution to preserving water quality and biodiversity.



Harvest of brown algae

Fostering eelgrass and bladder wrack populations

Eelgrass and bladder wrack serve as key indicators of water quality under the EU Water Framework Directive. Project activities include a mapping of their populations, and an analysis of likely climate change impacts in order to design restoring measures.



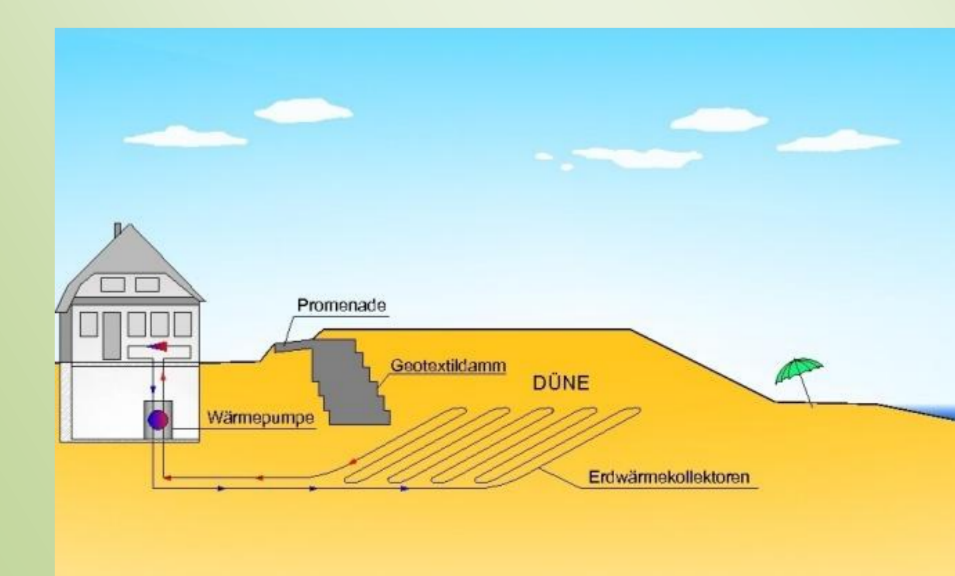
Eelgrass (*Zostera marina*)



Bladder wrack (*Fucus vesiculosus*)

Coastal protection and geothermal energy

This project deals with the technical possibilities for the extraction of heat or cold from the coastal area or the sea. It illustrates how the direct or indirect thermal use of sea water can be incorporated in coastal protection measures.



Coastal geothermal energy generation