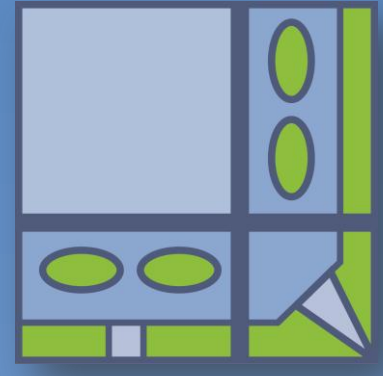


# A new ILTER task force for the trilateral Wadden Sea area

UNESCO World Heritage Site  
Natura 2000 protected area



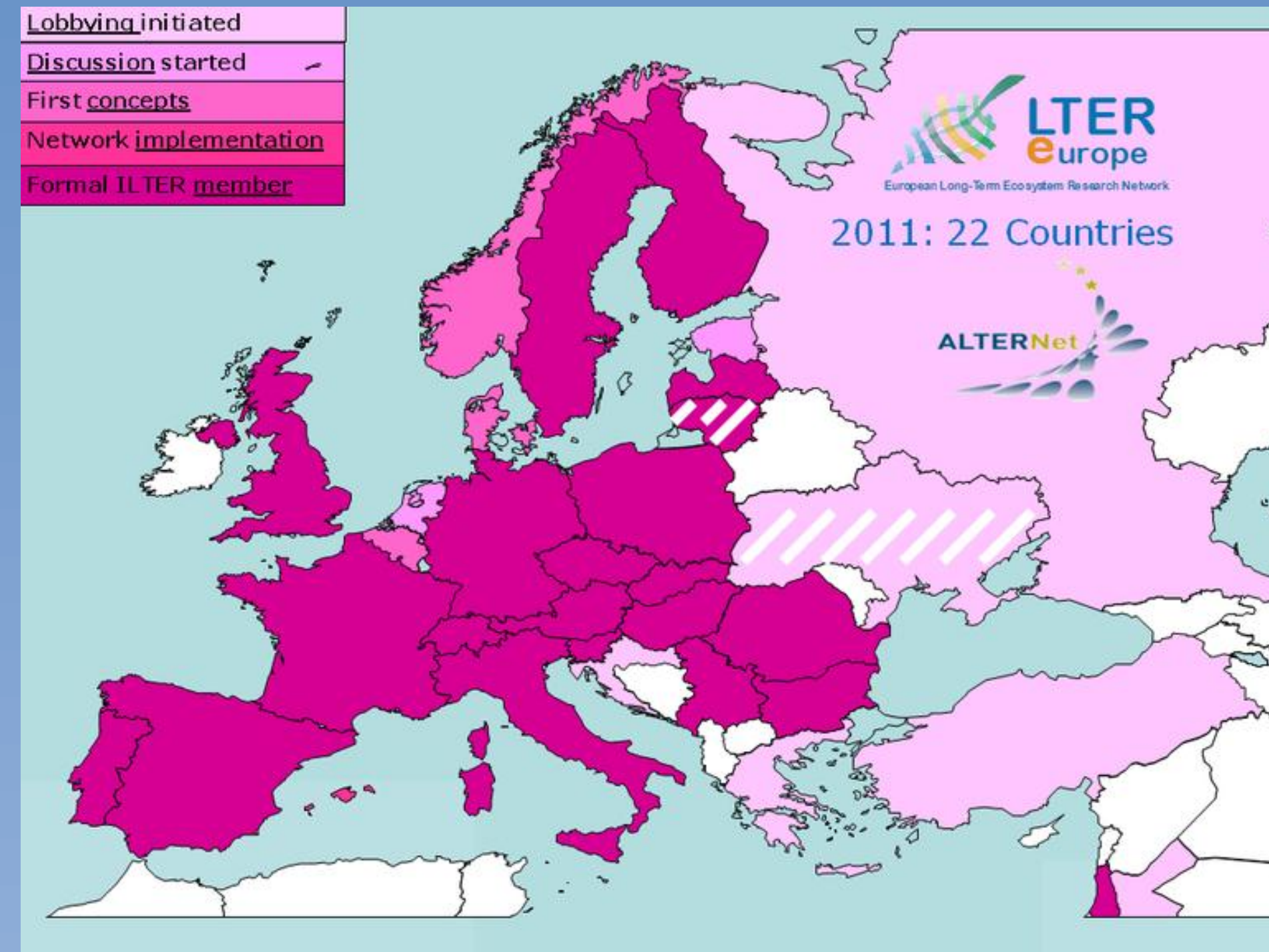
**WaLTER**  
Wadden sea Long-Term Ecosystem Research

dr. Rob Loke, IMARES Wageningen UR, The Netherlands

dr. Bruno Ens, Sovon Dutch Centre for Field Ornithology, The Netherlands

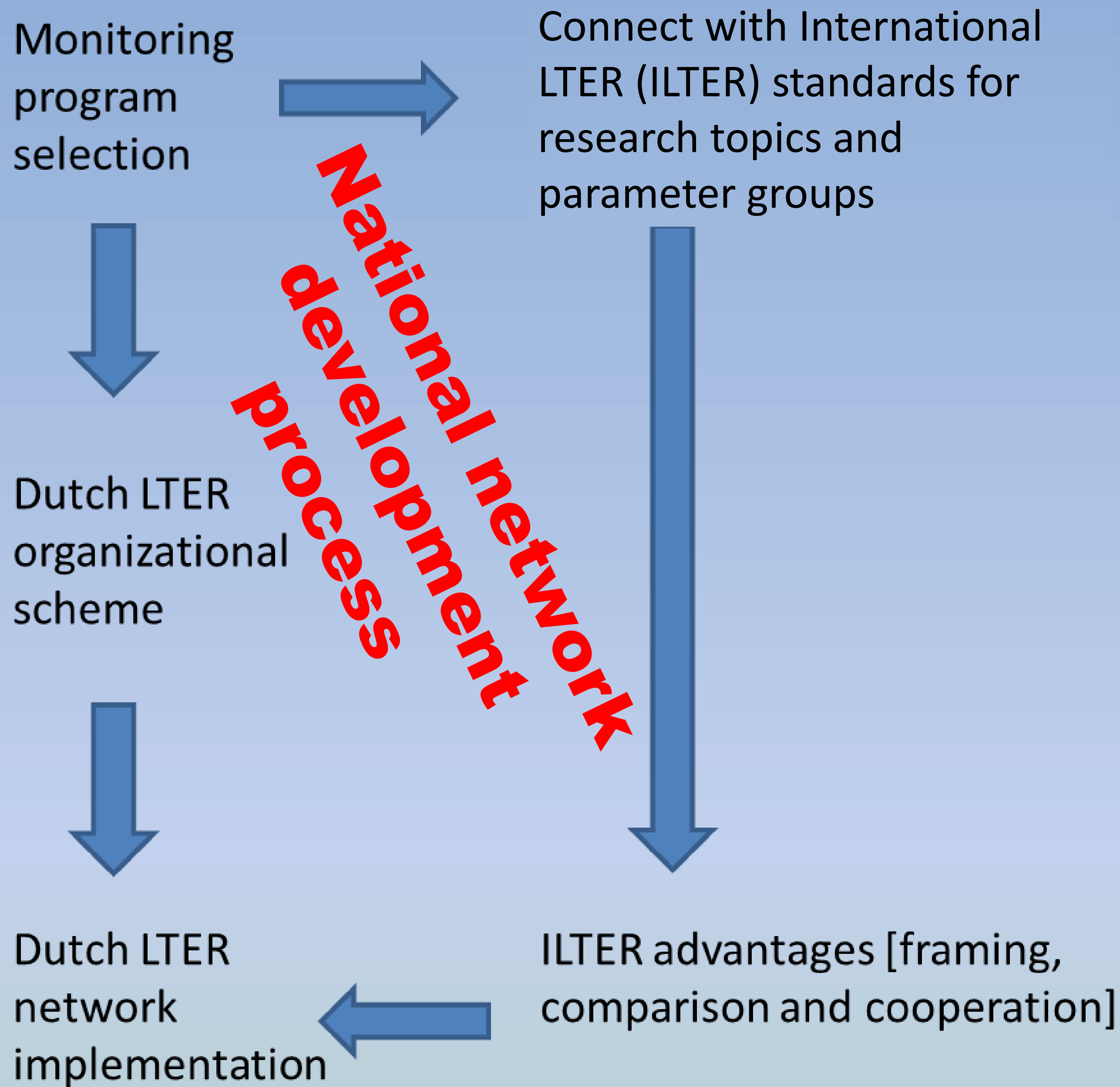
## Abstract

WaLTER is currently setting up an inventory of governmental monitoring programs for the Wadden Sea area in ILTER terms. It can be used for concise evaluation as well as to show where there is room for cost effective extension by including newly emerging technology such as pattern recognition in combination with satellite remote sensing.



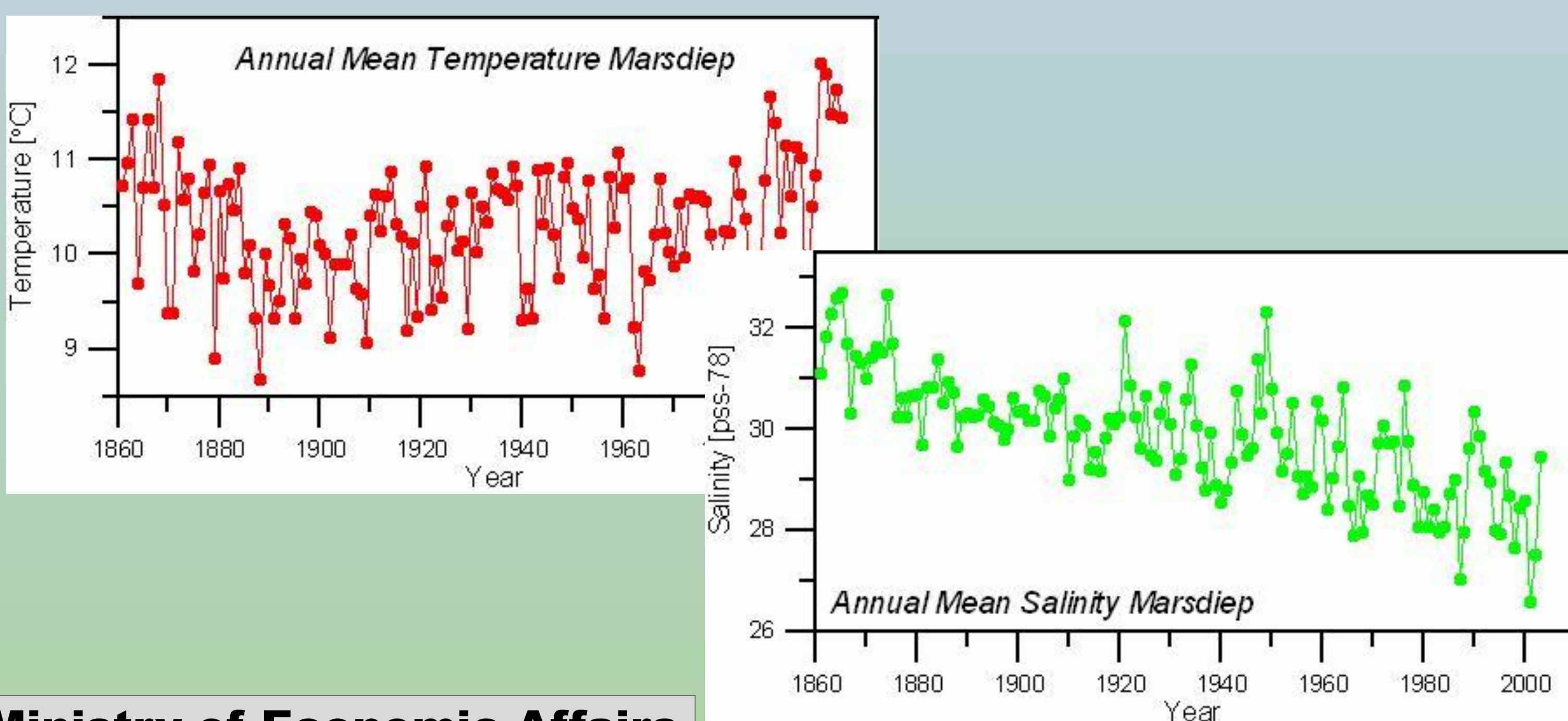
## ILTER

International LTER (ILTER) is a multifunctional in-situ research network and process structuring and optimizing distributed research infrastructure as well as a scientific community using this infrastructure. It catalyses the development of research projects meeting societal knowledge needs. It also helps to streamline and harmonize the sector of environmental research on the institutional, national, European and global level. Contact points in the Netherlands are Bruno Ens and Rob Loke.



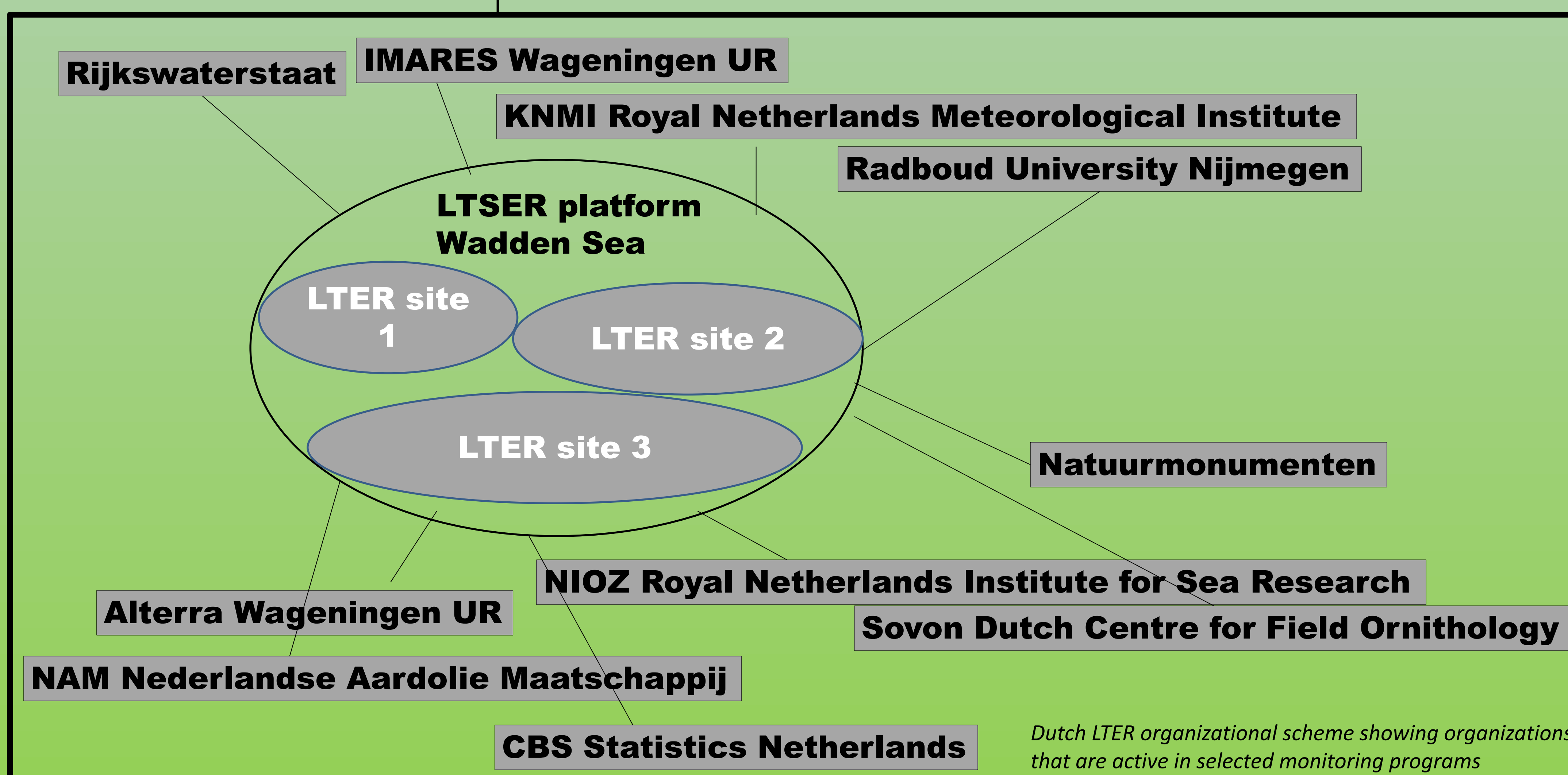
## Parameter groups in ILTER standard

Meteorology and Climate -	X	X
Air chemistry -		
Deposition - wet, dry		
Total nitrogen input - eutrophication	X	
Gas household - on the system level: CO2 and greenhouse gas input/output		
Hydrology - precipitation, hydrological status, runoff	X	
Hydrological model and balance - on the system level	X	
Key fluxes of energy and matter within the system - litterfall, stemflow etc.		
Carbon sequestration model and balance - on the system level		
Surface water properties - rivers, lakes, chemistry and physics	X	X
Ground water properties - ground water and springs chemistry and physics		
Sediments properties -	X	X
Soil properties - chemical and physical properties	X	
Soil array measurements - moisture, gas exchange...		
Ecosystem and habitat structure - e.g. forest structure, grass canopy structure, river morphology etc.	X	X
Phenology - of plants and/or animals		
(Key) primary producers inventories - inventories, structure, productivity,	X	X
(Key) primary producers chemistry - C, N, major ions and trace elements	X	X
Biomass aquatic -	X	
Biomass terrestrial - e.g. forest inventory, grass biomass, biomass above ground and below ground...		
Biodiversity overall -		
Biodiversity of plants - autotrophic compartment	X	
Biodiversity of animals - heterotrophic compartment	X	
Biodiversity of microbes -		
Biodiversity, genetic -		
Land cover terrestrial - terrestrial inventories and maps	X	X
Land cover remote sensing - e.g. CORINE LandCover	X	X
Terrain model - high resolution, e.g. LIDAR	X	X
Land use - monitoring and inventories of predominant/driving land use (forestry...)		
Ecosystem management - information on ecosystem management affecting/driving the respective system, including conservation measures etc.		
Ecosystem services - quantitative information on ecosystem services of respective system	X	
Demography - if relevant for the scale of the site	X	
Economic indicators - if relevant for the scale of the site	X	



Ministry of Economic Affairs

Ministry of Infrastructure and the Environment



Dutch LTER organizational scheme showing organizations that are active in selected monitoring programs

## Summary

Dutch LTER network implementation can benefit from organizational structures that are legally embedded in Dutch law for about 25 monitoring programs of the Dutch Wadden Sea area

In order to accommodate worldwide international cooperation for the international Wadden Sea area, an ILTER task force will be formed

<http://www.walterproject.nl>  
<http://www.lter-europe.net>  
<http://www.ilternet.edu>

present in selected monitoring programs  
remote sensing potential