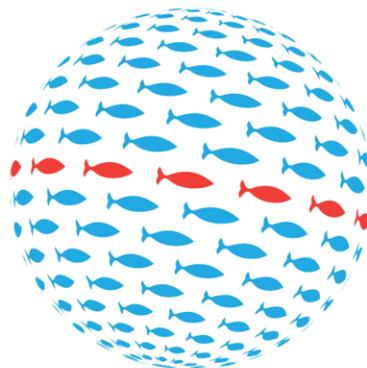


# swimway

wadden sea



# Swimway Wadden Sea

Policy analysis

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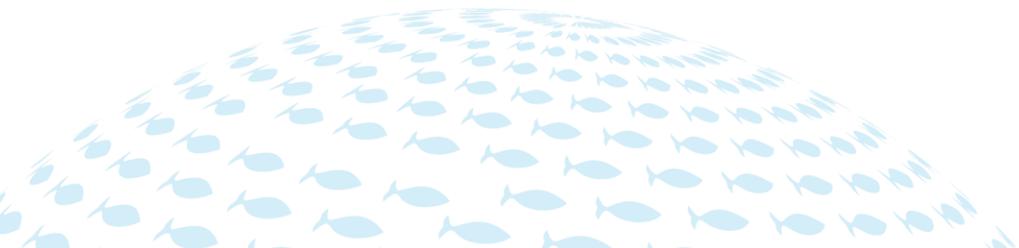
# Target

Introduction:

Fish targets have been formulated at a trilateral level (CWSS, 2010)

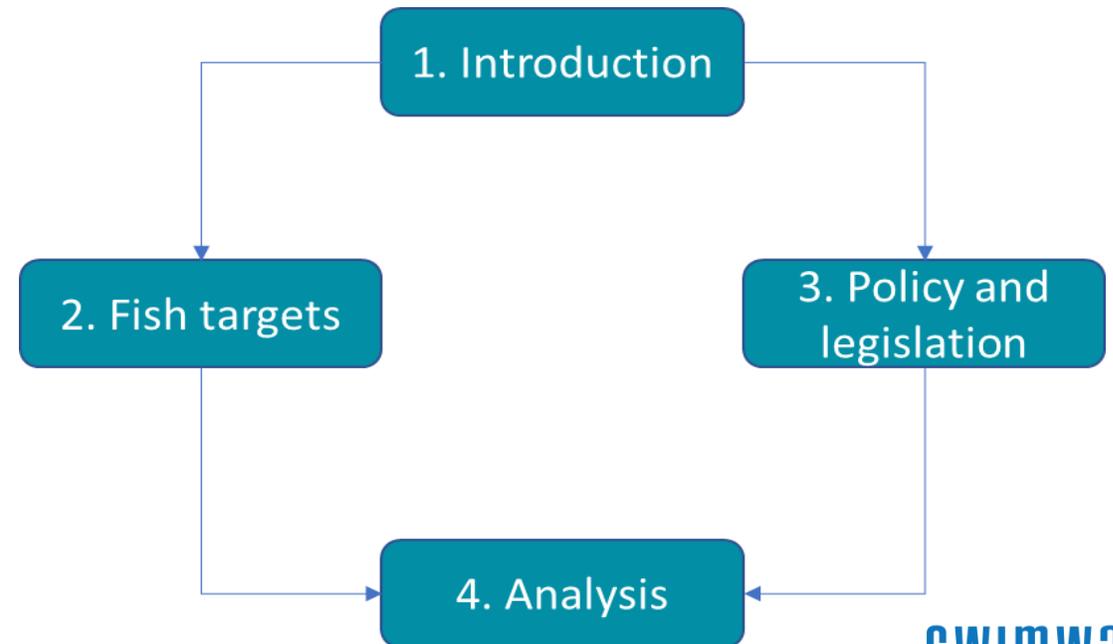
Requested:

Analysis of effectiveness of policy and legislation (Eu and national) in supporting the achievement of the Trilateral Wadden Sea Fish Targets



# Approach

- Starting points for the policy review
  - Fish targets
  - Relevant EU policy and implementation in national legislation
  - Analysis
- 
- Summarised presentation for DK, D and NL



# Starting points

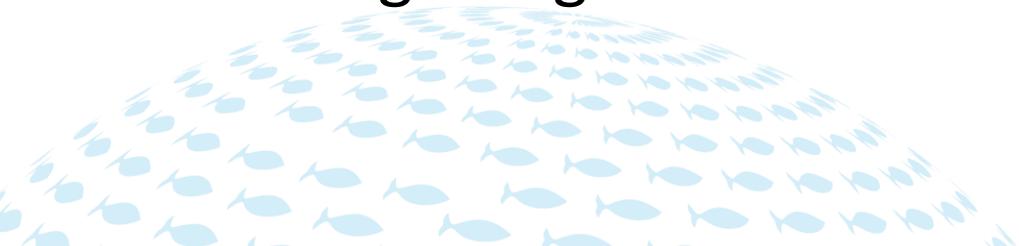
- The idea was:
  - to describe the ecological demands and threats of fish species by guilds;
  - address in what way policy does or can help to fulfil the demands and mitigate the threats.
- However:
  - the knowledge on the specific needs of Wadden Sea fishes is limited;
  - the needs of fish species within ecological guilds are diverse;
  - while a number of the threats are known, it is unsure which threats are most important and if there is a causal pressure-impact relationship.
- Result:
  - it is not possible to assess the effectiveness of policy and legislation with a set of ecological guild specific parameters;
  - so, we looked at the way policy may be able to support the achievement of the Fish Targets.



# Fish targets

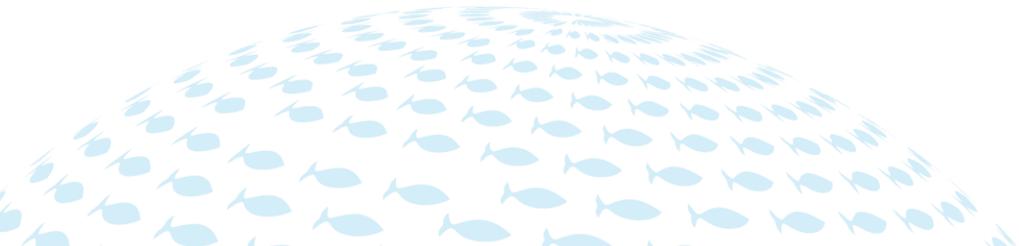
## Trilateral Wadden Sea Plan (CWSS 2010)

1. Viable stocks of populations and a natural reproduction of typical Wadden Sea fish species;
2. Occurrence and abundance of fish species according to the natural dynamics in (a)biotic conditions;
3. Favourable living conditions for endangered fish species;
4. Maintenance of the diversity of natural habitats to provide substratum for spawning and nursery functions for juvenile fish;
5. Maintaining and restoring the possibilities for the passage of migrating fish between the Wadden Sea and inland waters.



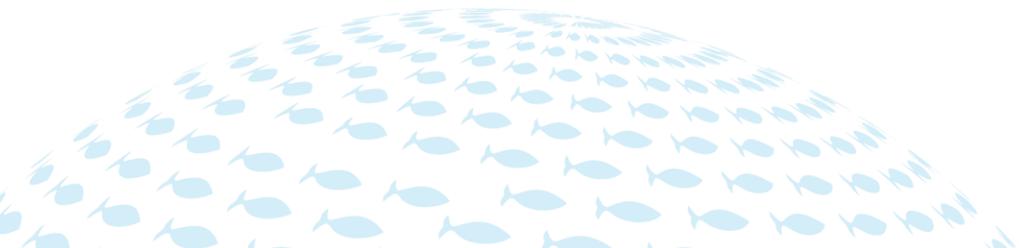
# Relevant policy and legislation

- Birds and Habitats Directive (BHD; Natura 2000)
- Water Framework Directive (WFD)
- Marine Framework Strategy Directive (MSFD)
- Common Fisheries Policy (CFP)
- Eel Directive (ED)



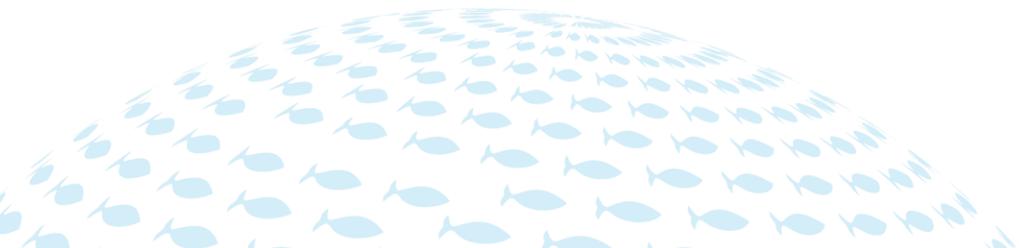
# Birds and Habitats Directive

- Few fish species listed on Annex II of the HD, mostly diadromic species
- Few measures for fish in the Natura 2000 Management Plans
- No measures in the Management Plans to enhance habitat quality for the characteristic fish species of the N2000 habitats
- The management plans contain a number of management measures that should lead to the restoration of the Wadden Sea ecosystem, it is assumed that fish will benefit from this.



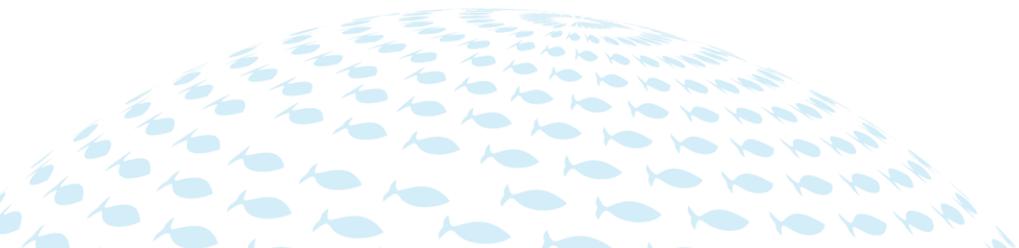
# Water Framework Directive

- The WFD measures aim mainly at:
  - Reducing nutrient inputs into the Wadden Sea
  - Remove barriers for diadromous fish
- Ecological condition
  - No part of the Wadden Sea is in a good ecological condition
  - Most parts of the Wadden Sea are designated as “Coastal Waters”, without fish as ecological parameters.



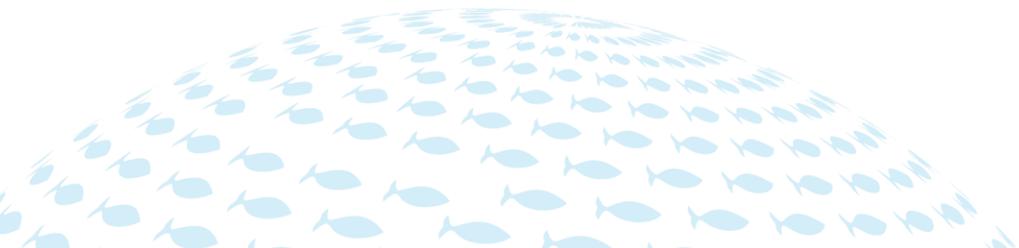
# Natura 2000 / WFD

- Both directives can be used to force the implementation of measures
  - However the burden of proof of necessity lies with the appropriate authorities.
  - Specific fish targets are, however, lacking in Natura 2000 and WFD
- This has to be underpinned with conclusive research on the impact of the anthropogenic use of the ecosystem
  - We need to be able to pinpoint the factors which have the most impact on fish species
  - And we need to unravel causal relationships between pressures and impact



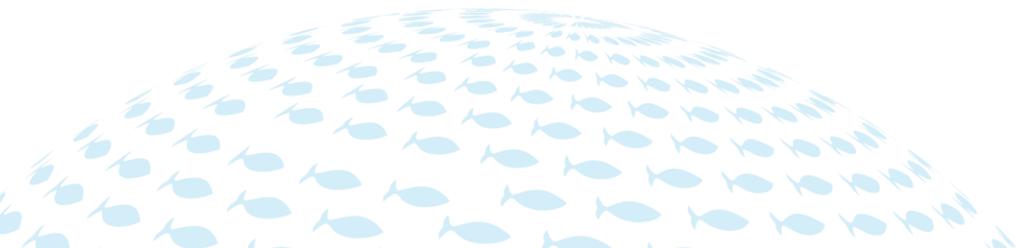
# Marine Strategy Framework Directive

- Aims to
  - achieve Good Environmental Status (GES) of the EU's marine waters by 2020.
  - protect the resource base upon which marine-related economic and social activities depend.
- Measures aim mainly at reducing the input of nutrients and limiting the impact of fishing with bottom towed gear.
- A significant part of the programme of measures consists of various existing measures under other legislation



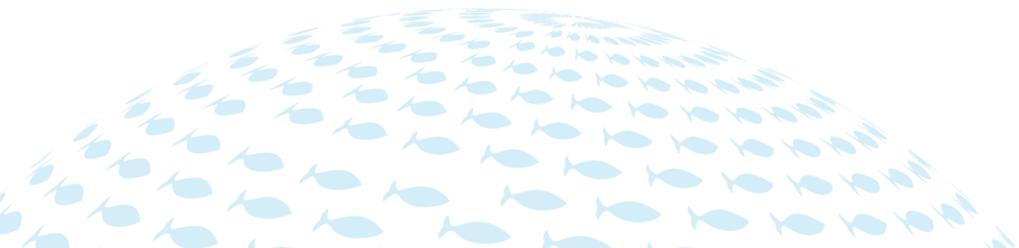
# Common Fisheries Policy

- Mostly relevant for the commercially interesting species
- Allowed catch of many commercial species is adjusted to the size of the population
- CFP should help to ensure sufficient recruitment for most species
- It contains rules to limit the amount of by-catch, of which other (target) species may benefit



# Eel Directive

- Aims at only one species, by reducing the anthropogenic mortality
- Measures are implemented in the national eel management plans by imposing
  - fishery restrictions,
  - reduction of mortality in hydropower plants and
  - easing of barriers on the migration routes
  - including protected zones in migration areas
- Those measures may also prove effective for other (migrating) species



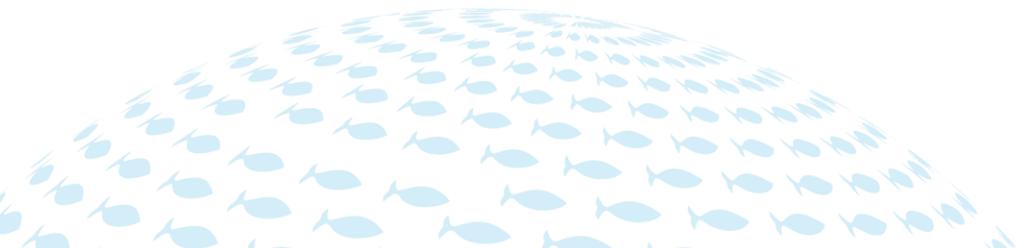
# Conclusions (1)

- Fish ecosystem requirements are known to a limited extent: a further definition of Wadden Sea fish communities and restoration targets is needed
- Review on threatened species and causes of decline (abundance, species composition, etc) is required
- Major threats are known, but their impact is not; the most important causal relations are unknown, thus it is insufficiently known how the fish targets can be achieved
- That makes it difficult to formulate what policy is needed to achieve the goals



# Conclusions (2)

- Current policy can be an effective instrument in realising the fish targets, but we have to find out which problems need to be addressed , but it must then be clear what the policy and legislation must regulate
- This calls for research specifically aimed at pinpointing the bottle necks for the achievement of the Fish Targets



# Discussion

- Do we need to make the WaddenSea/Swimway fish targets more specific?
- What research is needed to be able to implement effective policy measures?
- Would it be helpful to use the ecological guilds to make the fish targets more SMART?
- Would it be possible and helpful to create a number of ecological indicators to monitor conservation status and developments?
- Are there any no-regret measures we can implement immediately?

- ...



**swimway**  
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