

# BE-AWARE II Project Seminar

Trondheim (Norway): 26-28 January 2015

- Task F:  
Sensitivity Analysis  
-Preliminary results and planned outcomes

# Sensitivity

## Features 1

Shoreline Habitats

Open sea habitats

Ecological feature.	Surface oil spill				Chemical dispersed oil			
Shoreline and Coastal Habitats	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter
Exposed rocky shores and reefs < 20 m	3	3	2	2	3	3	2	2
Exposed rocky shores and reefs > 20 m	1	1	1	1	2	2	2	2
Sheltered rocky shores and reefs < 20 m	4	4	3	3	4	4	4	4
Sheltered rocky shores and reefs > 20 m	2	2	2	2	4	4	4	4
Littoral chalk communities	4	4	3	3	4	4	3	3
Sandy beaches	2	2	1	1	2	2	1	1
Shingle beaches	3	3	3	3	3	3	3	3
Tidal sand and mud flats	4	4	4	4	4	4	4	4
Salt marshes	4	4	4	4	4	4	4	4
Large shallow inlets and bays	3	3	3	3	3	3	3	3
Estuaries	4	4	4	4	4	4	4	4
Coastal lagoons	4	4	4	4	4	4	4	4
Underwater sandbanks < 20m	3	3	2	2	3	3	3	3
Underwater sandbanks > 20m	1	1	1	1	2	2	2	2
Biogenic reefs < 20 m	4	4	4	4	4	4	4	4
Biogenic reefs > 20 m	2	2	2	2	4	4	4	4
Maerl beds	4	4	3	3	4	4	4	4
Seagrass beds (Zostera sp., >5% (OSPAR))*	4	4	4	4	4	4	4	4
Kelp forests**	4	4	4	3	4	4	4	4
Open Sea Habitats								
Open water column (< 20 m)	2	2	1	1	2	2	2	2
Deep sea water column (> 20 m)	1	1	1	1	2	2	2	2
Deeper sea floor (>20 m)	1	1	1	1	2	2	2	2
Seamounts	1	1	1	1	2	2	2	2
Coral gardens and sponge aggregations	2	2	2	2	3	3	3	3
Carbonate mounds	2	2	2	2	3	3	3	3
Lophelia pertusa reefs	2	2	2	2	3	3	3	3
Sea-pen and burrowing megafauna	2	2	2	2	3	3	3	3



# Sensitivity

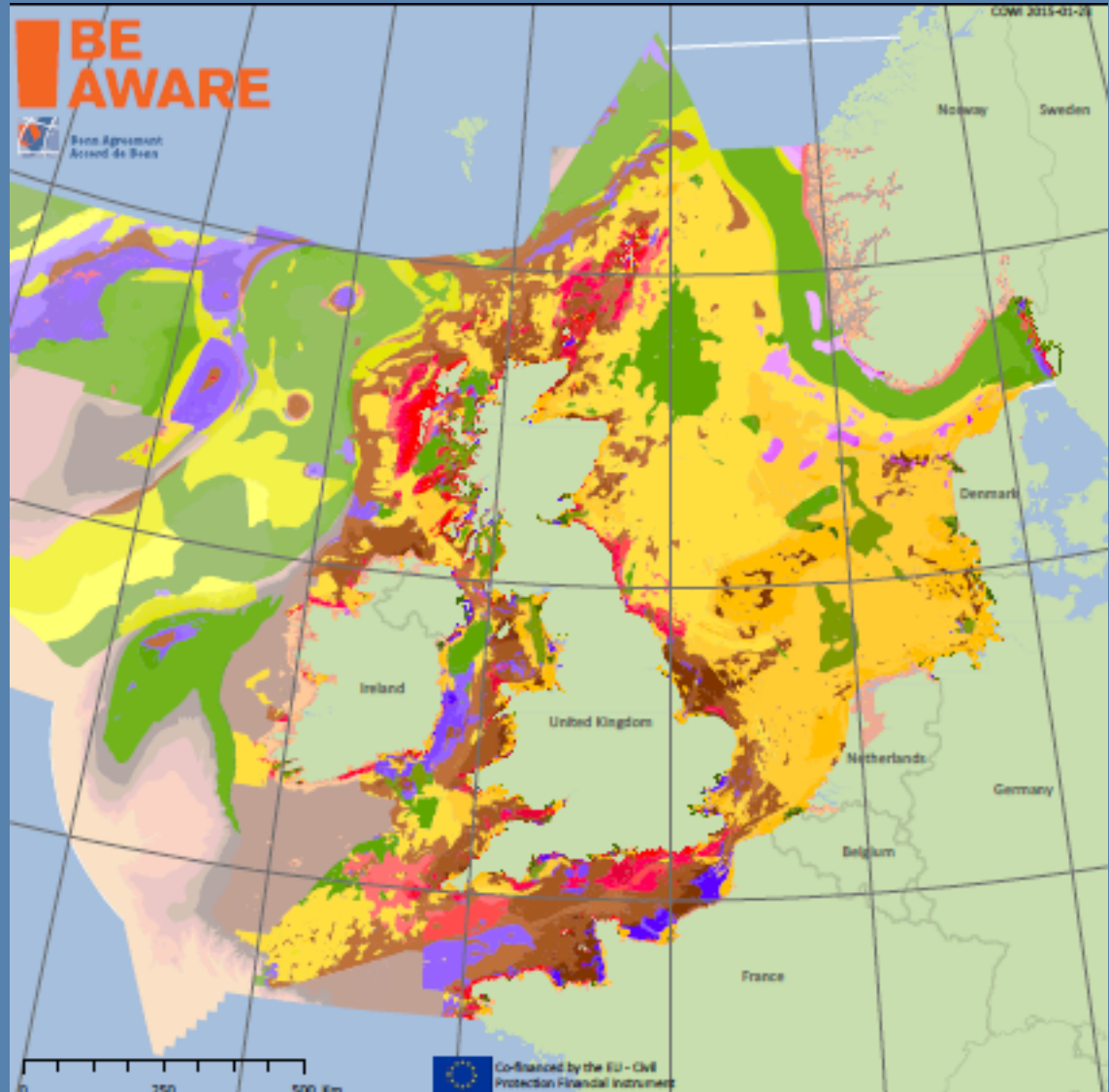
## Features 3

### Socio economy

Socio-economic feature.	Surface oil spill				Chemical dispersed oil			
	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter
Offshore fisheries	2	2	2	2	2	2	2	2
Coastal fisheries (incl. fishing harbours)	3	3	3	3	3	3	3	3
Shellfish/seaweed (algae) harvesting	3	3	3	3	3	3	3	3
Fish farms	3	3	3	3	3	3	3	3
Shellfish cultures	3	3	3	3	3	3	3	3
Algae cultures	3	3	3	3	3	3	3	3
Amenity beaches	3	4	3	2	2	3	2	1
Marinas	2	3	3	1	1	1	1	1
Tourism activities	2	3	3	2	1	2	1	1
Densely populated town and communities	2	2	2	2	1	2	1	1
Surfing hot spots	3	4	3	3	1	2	1	1
Main recreational fishing locations	3	4	3	2	3	3	2	2
Cruise liner stops	1	2	1	1	1	1	1	1
Heritage sites	4	4	4	4	2	2	2	2
Ports	2	2	2	2	1	1	1	1
Mineral extraction sites	1	1	1	1	1	1	1	1
Renewable energy sites (OWF)	1	1	1	1	1	1	1	1
Water intakes	3	3	3	3	3	3	3	3

# Sensitivity

## Habitat classes (EMODnet)

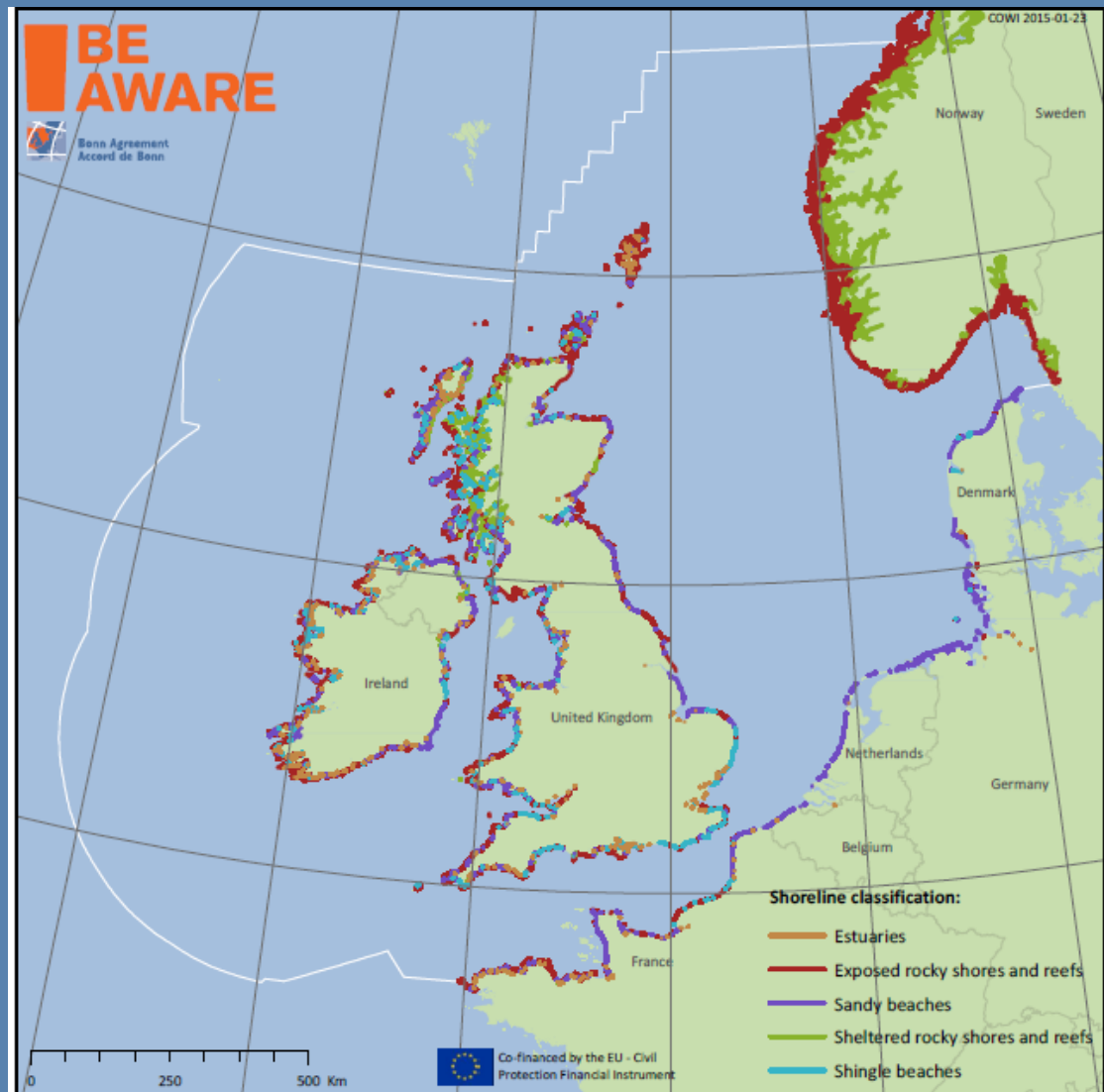


# Sensitivity

## Habitats

### Shoreline classes

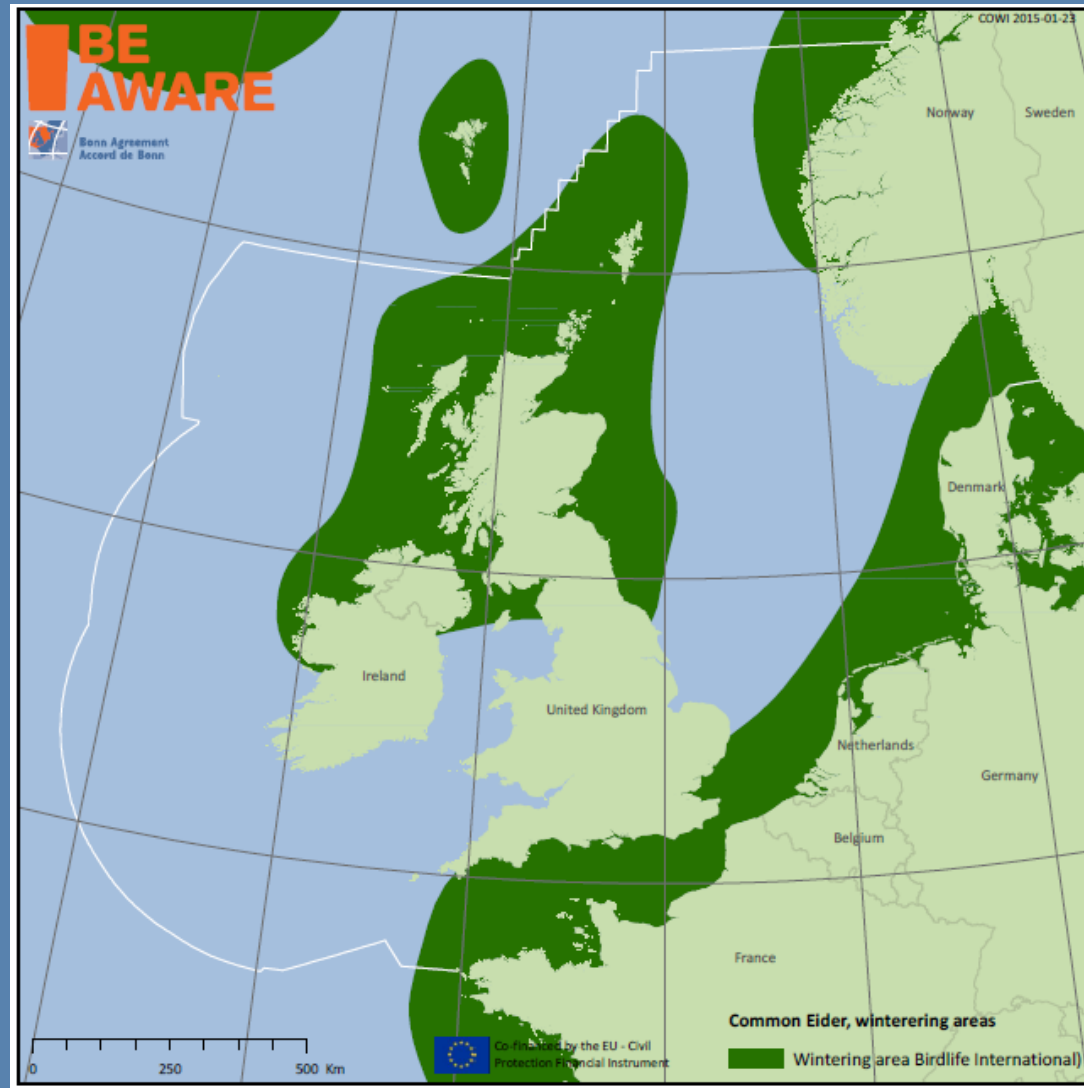
- Estuaries
- Exposed rocky
- Sandy beaches
- Sheltered rocky
- Shingle beach



# Sensitivity

## Species

Common Eider,  
wintering area

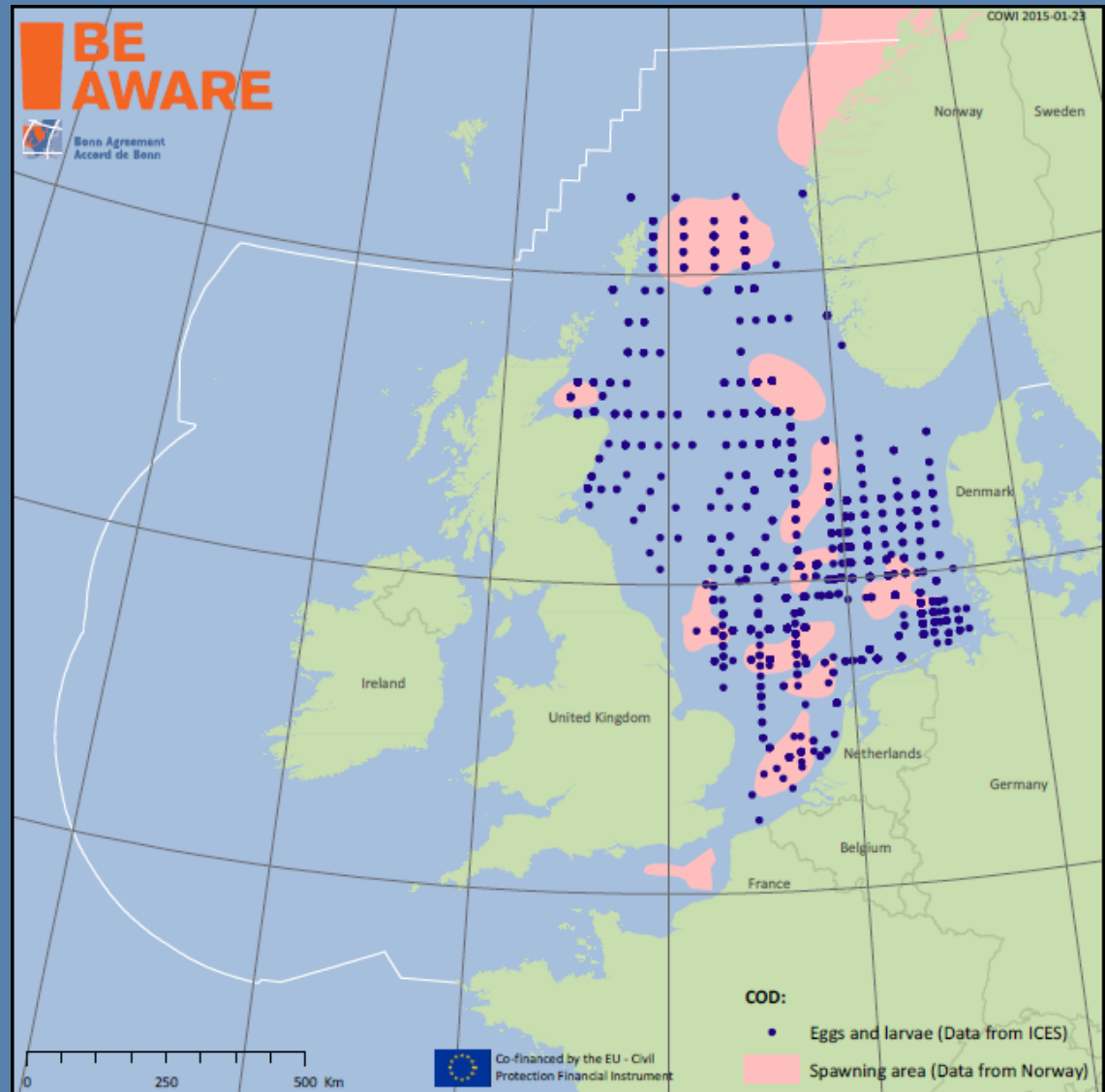


# Sensitivity

## Species

Cod:

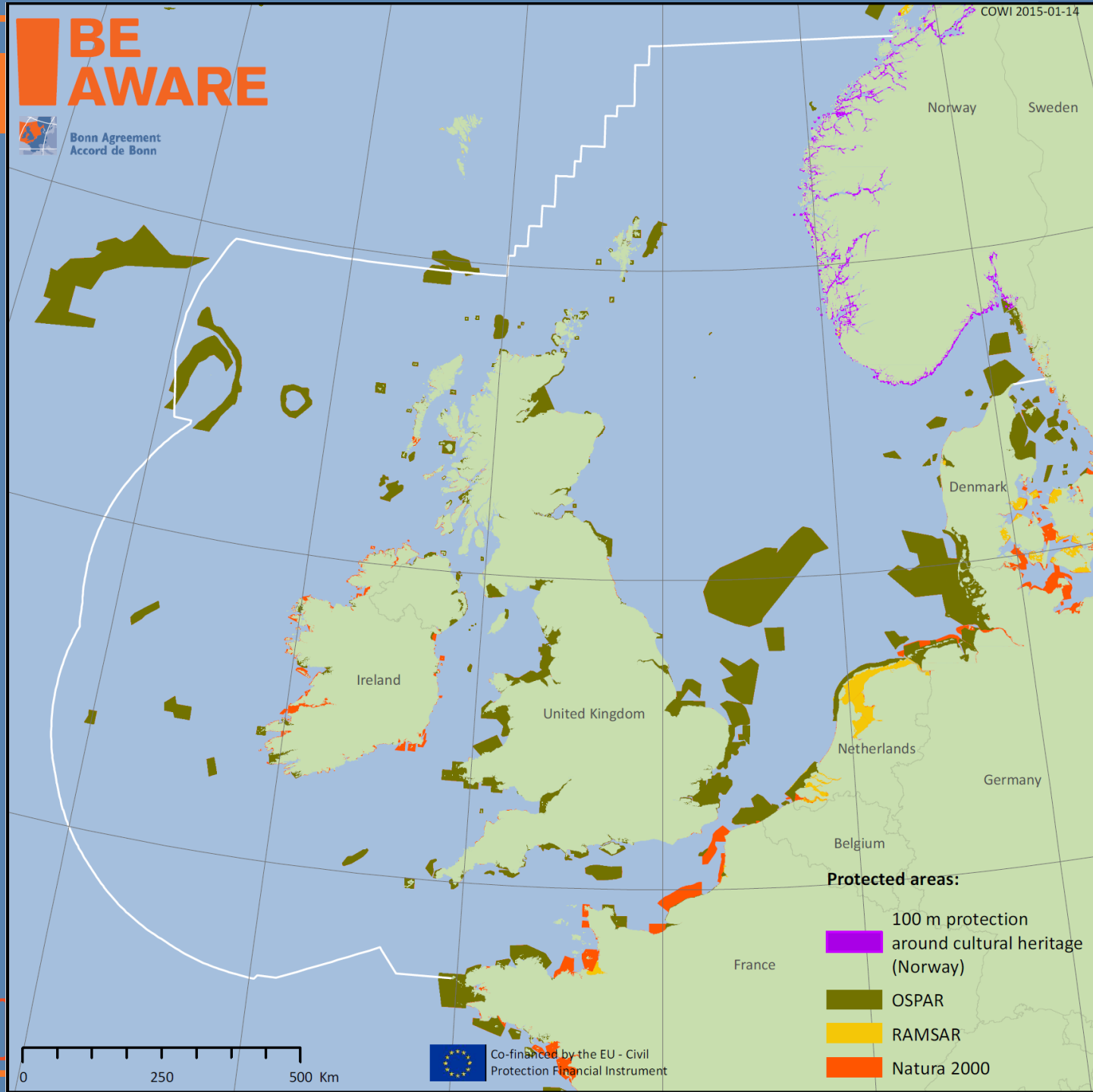
- Eggs and larvae
- Spawning area





Sensitivity

Protected  
areas



COWI 2015-01-14

## Sensitivity

# Socio economic tourism

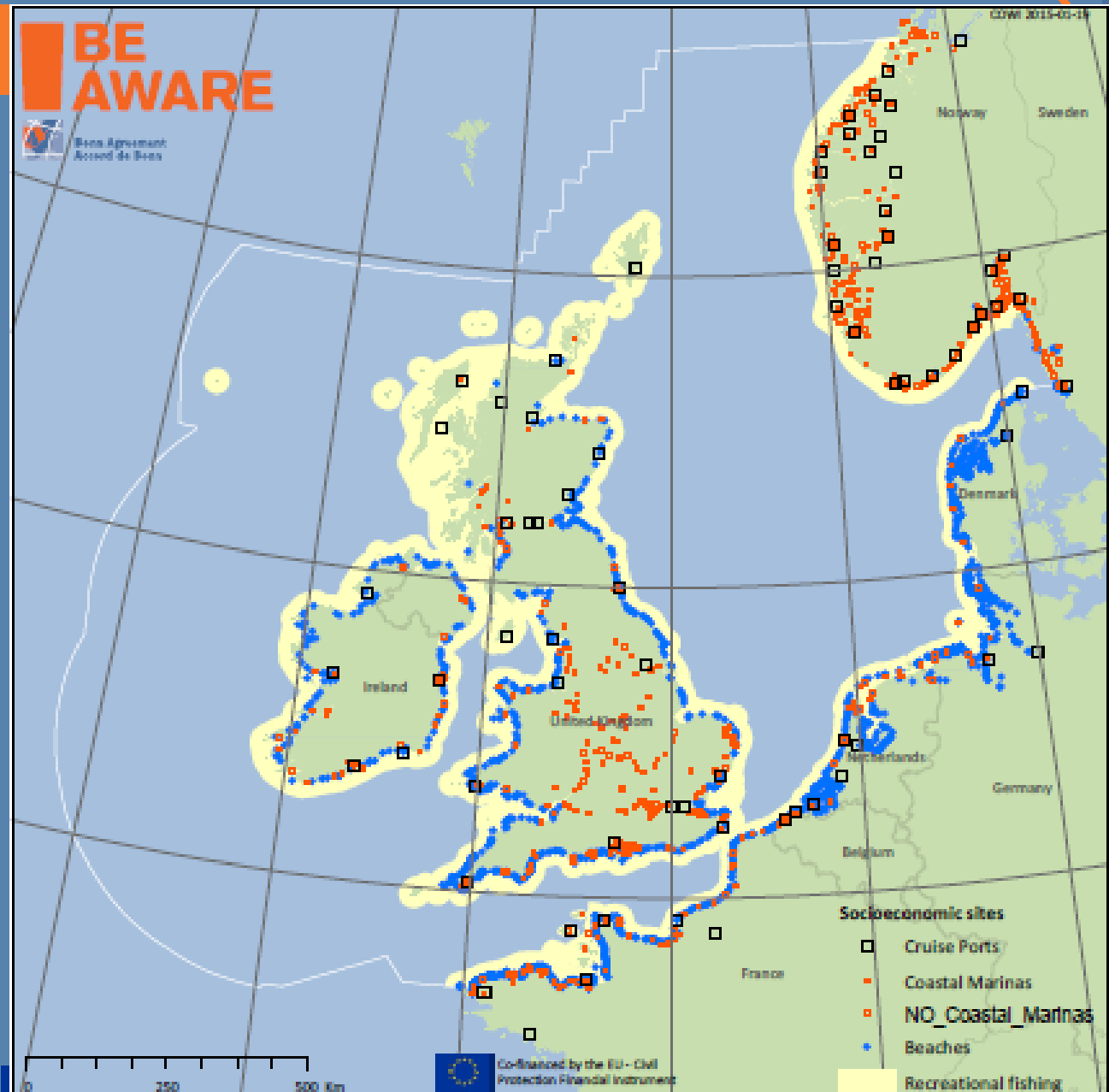
Cruise ports

Coastal marinas

Coastal marinas (NO)

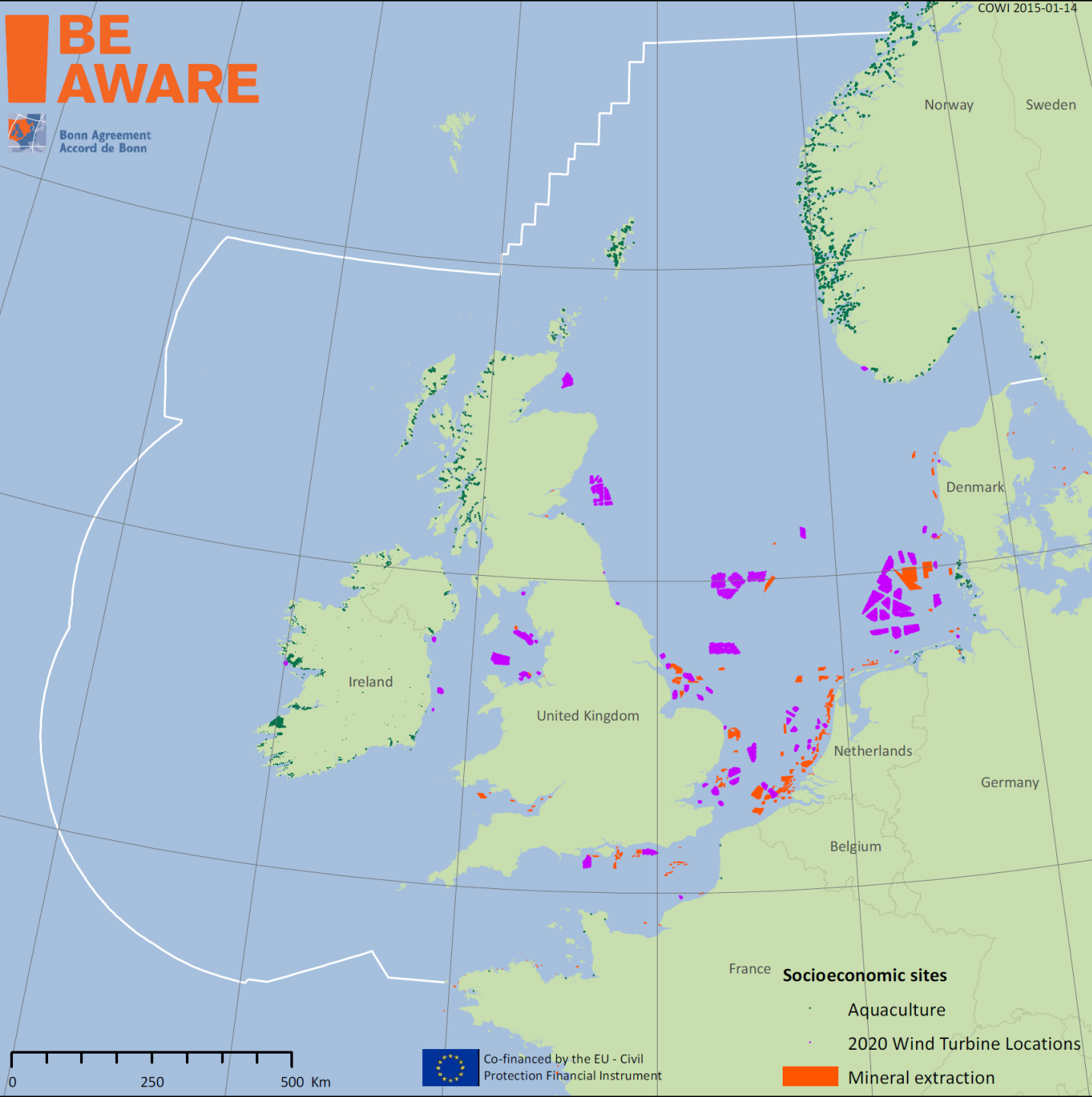
Beaches

Recreational fishing



## Sensitivity

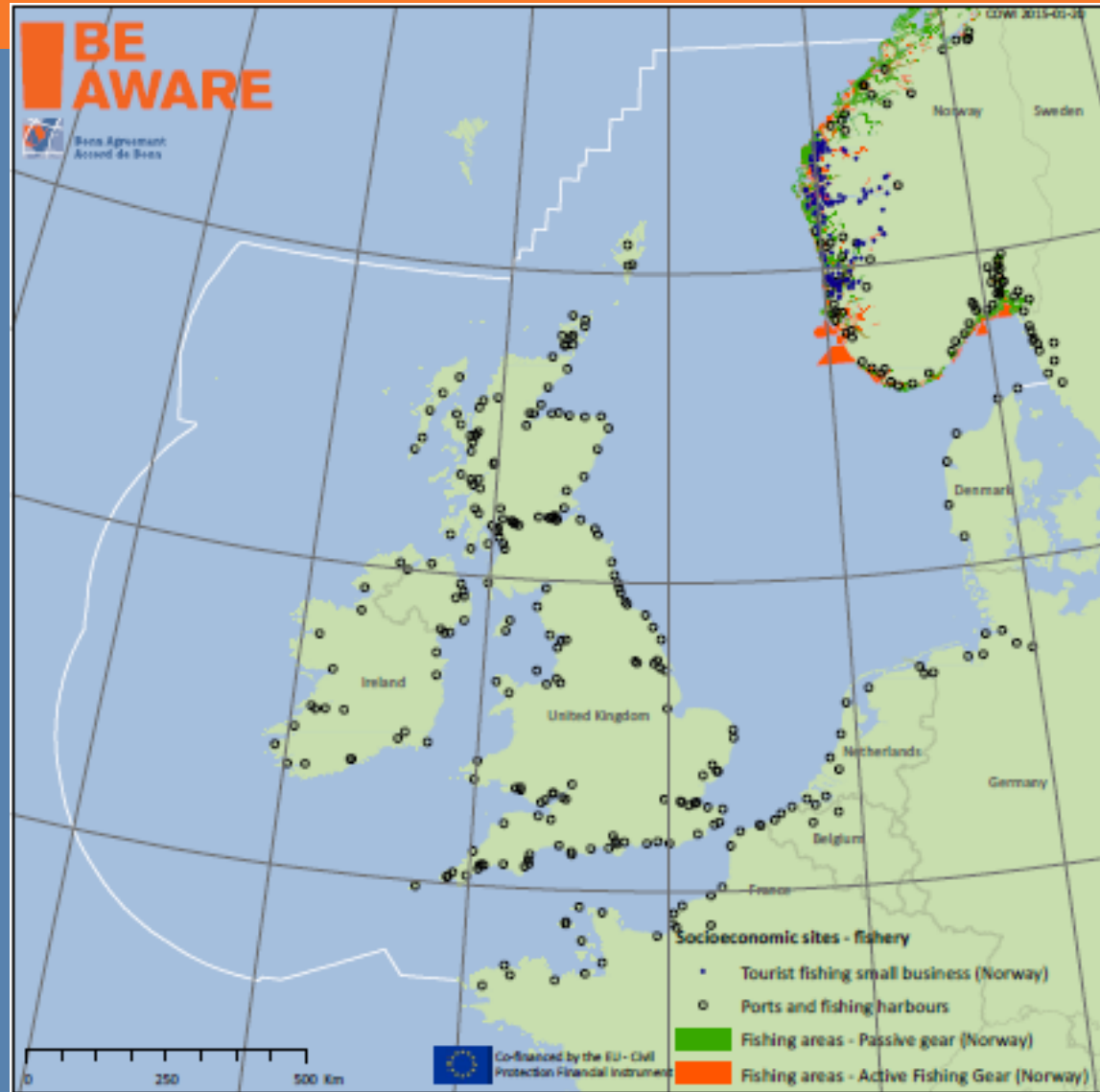
Socio  
economy  
windfarm,  
aquaculture,  
mineral  
extraction



# Sensitivity

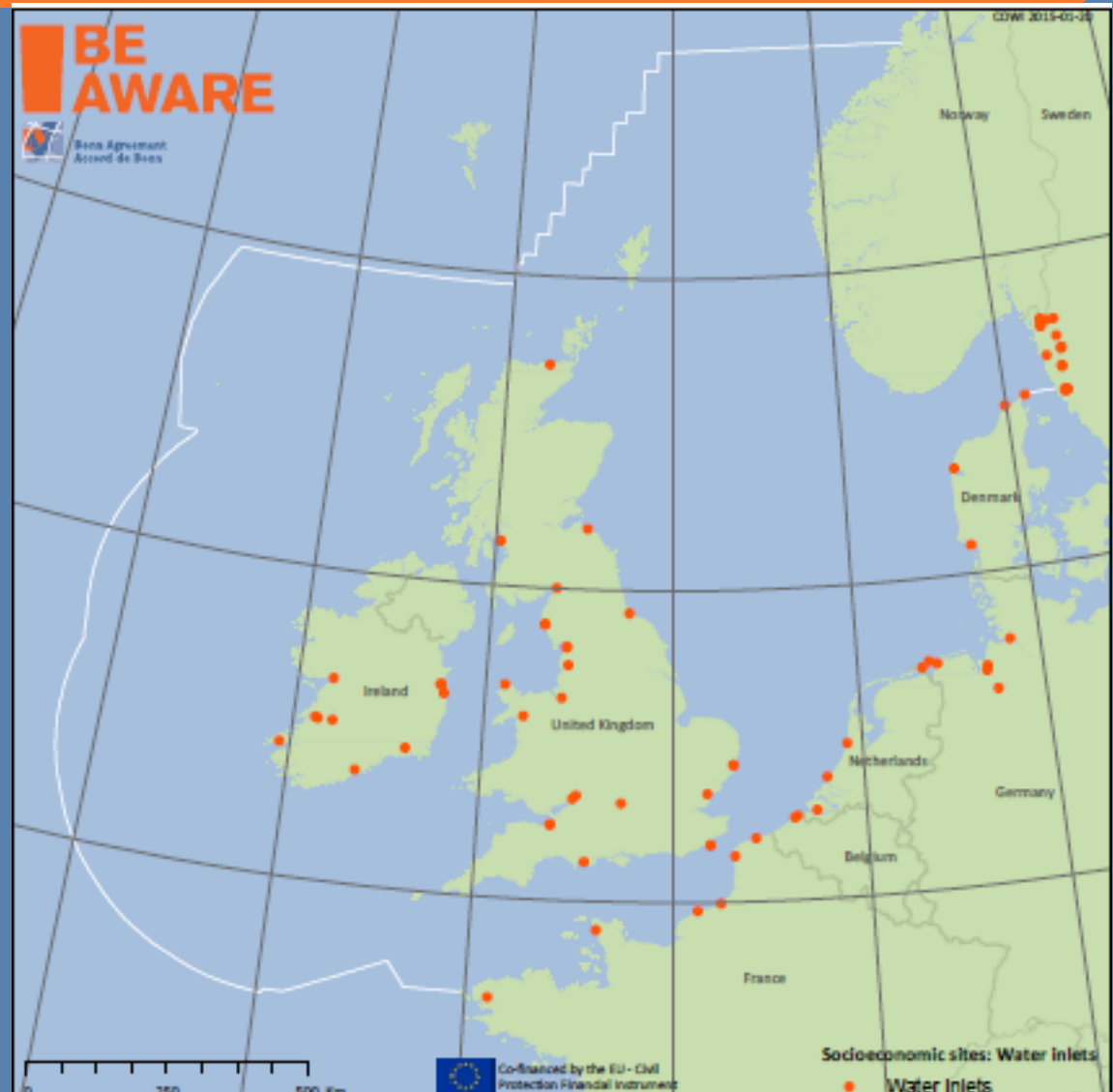
## Socio economy Fishery

- Tourism (NO)
- Fishing harbours
- Fishing, pas (NO)
- Fishing, act (NO)



# Sensitivity

Socio  
economy  
- Sea water intakes



## Sensitivity

# Doubtful features

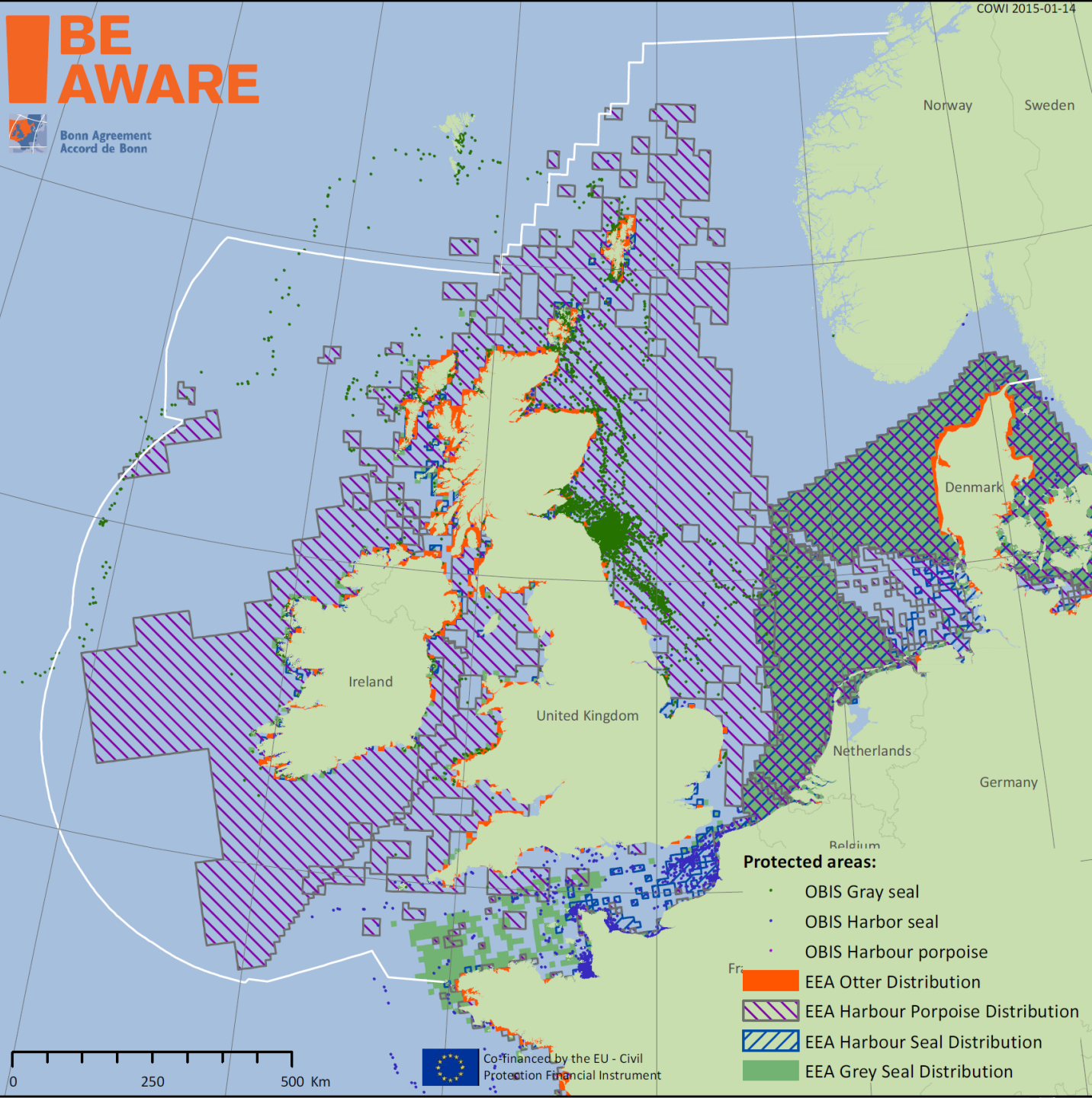
possible rejected

## Sensitivity

Species  
Marine  
mammals

Not selected

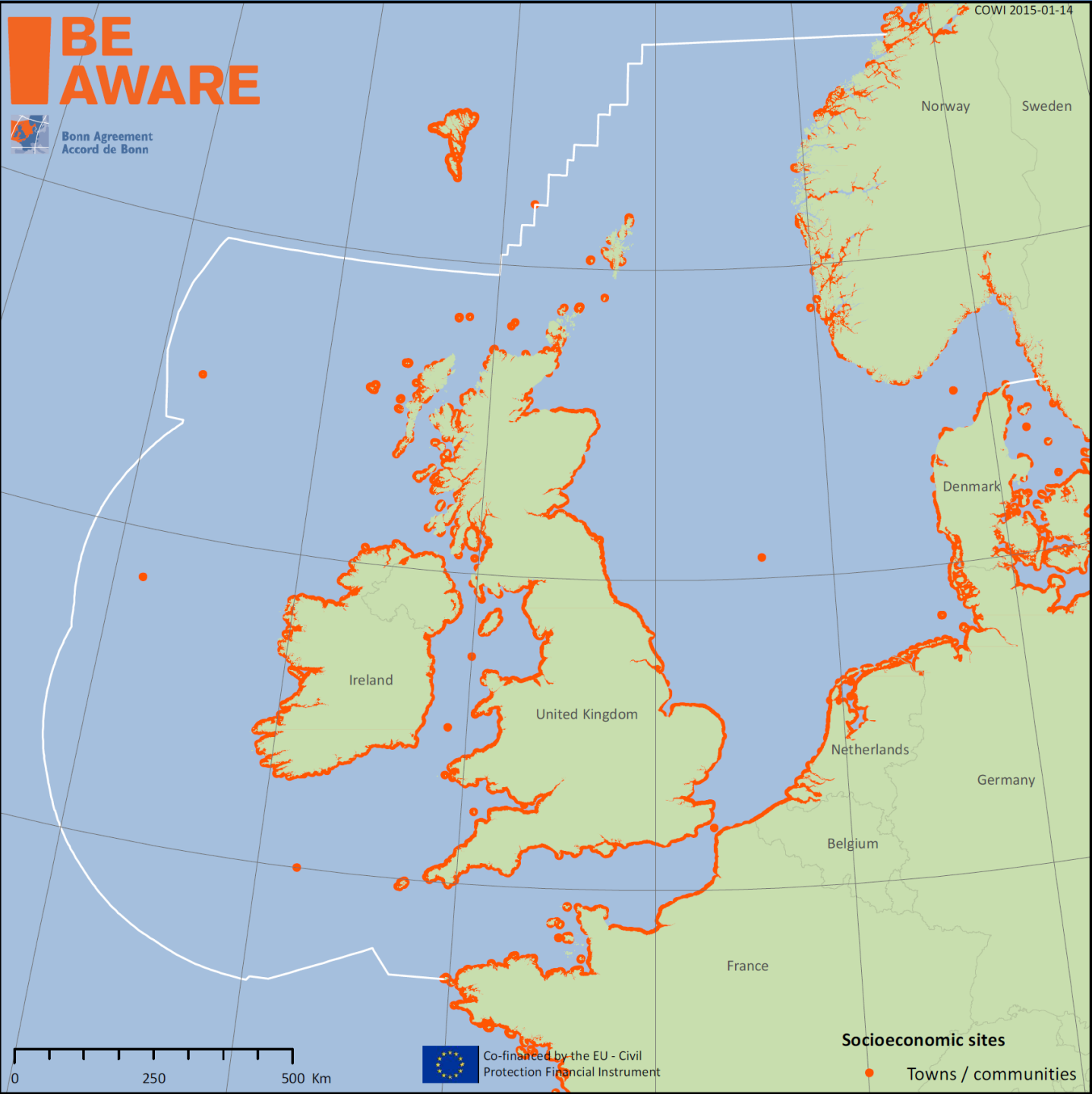
because:  
uncomparable quality  
of  
parameters  
(nations,  
species)





## Sensitivity

Socio  
economy  
Communities  
**Not selected**  
because:  
No differen-  
tiation





# Sensitivity

The way forward: For surface/watercolumn/socioecon:

"Impact"

+

Sensitivity

=>

"Damage"

