



Ministry of Infrastructure and the  
Environment



## Maritime Spatial Planning

### THE CHALLENGE

Live it, understand it, decide.

Noordzeedagen 2016  
Lodewijk Abspoel

6 oktober 2016



## Policy approach eMaritime Spatial Planning

- ✓ think big
- ✓ think long term
- ✓ think Eco and Euro systems
- ✓ think human(s)
- ✓ separate fact from fiction
- ✓ think land-sea interactions
- ✓ think spatial



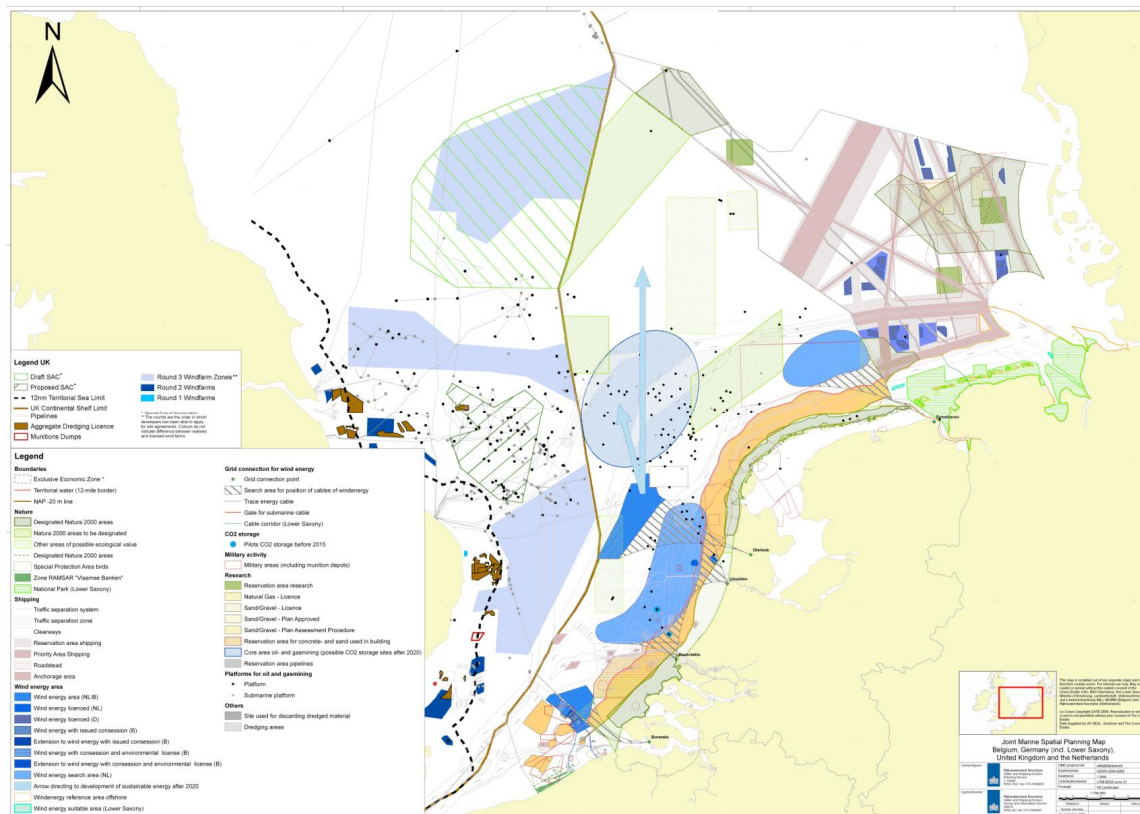


Use the Maritime Spatial Planning – policy model.  
Think all these things at the same time:



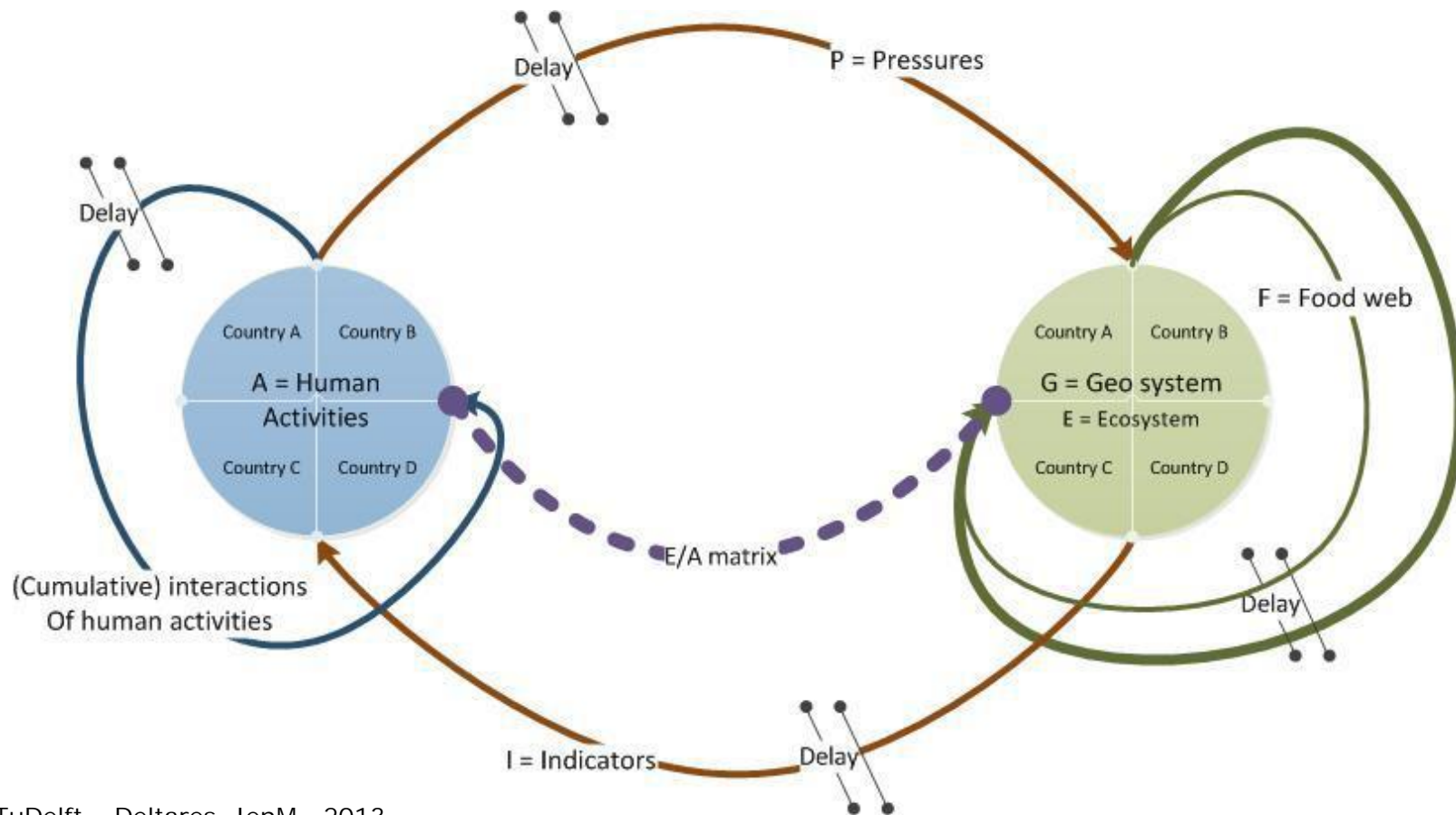


Do not 'believe' in 2D maps with system 1 but use system 2. Have a peek of the combined maritime spatial map of southern North Sea (2010) and separate fact and fiction:





# Understand the interaction of €- & eco-systems



© TuDelft – Deltares -IenM - 2013



## Organise playful “political” discussions

- On national level connect:
  - Central government
  - Regional government
  - Local government
- On EU level connect:
  - Council
  - European Parliament (intergroup Seas, rivers, islands, coastal areas)
  - European Commission
- Global level





## Marine Spatial Planning Challenge 2011

- Multi-player, computer supported role-playing game about Integrated, Eco-based Marine Spatial Planning
- Based on the Baltic case (Kattegat/Skaggeak)
- Played in Lisbon 2011, VHL University 2012, Reykjavik 2013, University of Sevilla 2014, ICES training course 2014, University of Montreal and New Brunswick 2014, University of Waterloo 2015.
- Circa 60 – 100 players





# Game material MSP challenge 2011

MSP in 6 steps

MSPchallenge2011

MARITIME SPATIAL PLANNING IN 6 STEPS

Start the process by assessing the need and will to undergo an MSP process based on a vision, planning principles and a defined legal framework and strategies.

Identify the social, economic and environmental requirements of coastal areas for

- Laws and regulations - MSPchallenge2011

1. Common international and European legislation and agreements are applicable to the Sea of Colours (such as the SEA Directive).
2. Ecological principle: Sustainable spatial development: social and economic demands must be consistent with ecological functions.
3. Restrictions apply due to United Nations Convention on the Law of the Sea (UNCLOS).
4. There is a safety zone around oil and gas platforms. One platform therefore has a claim of 5Nm2.
5. There is a safety zone around each wind turbine. A turbine therefore has a claim of 1Nm2. For safety reasons the rule of thumb forbids sailing within wind turbine safety zones.
6. Cables and pipelines are allowed in the entire sea. Spatial claim is 1Nm wide.
7. Empty oil platforms can be used for CO2 storage. CO2 capture and storage (CCS) is a promising technology.
8. There is a safety zone of 2Nm around shipping lanes.
9. The whole Sea of Colours outside of the 12 nm zone is open to all users. All users are allowed to fish. Fishing within priority lanes for other users is not allowed without the agreement of the governments around the Sea of Colours.
10. Given military areas cannot be altered. Coastal defence structures cannot be combined for safety reasons.
11. The treaty of Malta is forcing countries to protect the sea.
12. Aquaculture is allowed in all areas. However, the location is highly unknown.



- Porto Blue -

General objective: Optimize the interests and spatial claims of the national port and network of ports in the sea of colours by interacting strategically in the Maritime Spatial Planning process.

Sectoral interests: Port handling, containers shipping, handling, cruise shipping, anchorage.

Performance indicators: Optimization of the spatial claims for Shipping lanes, priority or exclusive area for Shipping lanes.

Main task: Interact strategically with planners, stakeholders and scientists to reach your goals and protect your interests in the MSP process.

Main activities: Negotiate, lobby, to reach goals and protect interests. Gather and present or provide data and information for MSP. Participate in IBC (Sea of Colours International Business Convention). Assess quality of draft and final MSP from own objectives.

Spatial claims: All areas with a depth of no more than 50 meters are interesting for offshore wind development. 1 turbine will give 0.8MW and takes 0.4Nm2 net safety zone. Your ambition is to realize 1000 turbines (1000/1000) in the planning period. Building is more likely if no fisheries, sailing is allowed. Wind turbines and MPAs could be in conflict try to solve that issue. Floating turbines is a new experimental technique. Total energy is promising, find at least 1 test location.

- country profile -

MSPchallenge2011

- Seagreen offshore -

General objective: Optimize the interests and spatial claims of the sustainable energy industry in general and Sea of Colours in particular by interacting strategically with the planners of, and stakeholders in the Maritime Spatial Planning process for the Sea of Colours.

Sectoral interests: Renewable energy: wind, algae for bio mass and sea (wave and tidal), carbon capture and storage.

Performance indicators: Optimization of the spatial claims for Sustainable Energy measured by: Total area x quality of areas in MSP indicated as general, priority or exclusive area for wind farms, solar panels, algae farms and blue energy.

Main task: Interact strategically with planners, stakeholders and scientists to reach your goals and protect your interests in the MSP process.

Main activities: Negotiate, lobby, to reach goals and protect interests. Gather and present or provide data and information for MSP. Participate in IBC (Sea of Colours International Business Convention). Assess quality of draft and final MSP from own objectives.

Spatial claims: All areas with a depth of no more than 50 meters are interesting for offshore wind development. 1 turbine will give 0.8MW and takes 0.4Nm2 net safety zone. Your ambition is to realize 1000 turbines (1000/1000) in the planning period. Building is more likely if no fisheries, sailing is allowed. Wind turbines and MPAs could be in conflict try to solve that issue. Floating turbines is a new experimental technique. Total energy is promising, find at least 1 test location.

- The basic game rules -

objective

1. The main objective in the game for each of the four countries Red, Green, Yellow and Blue is to draw up a Maritime Spatial Plan (MSP) for the Sea of Colours.
2. The approved MSP of each country and the process that led to it, will be presented at the Annual Conference of the Sea of Colours (RCSC) on 3<sup>rd</sup> November 2011, 17:30h in Lisbon.
3. The final MSP for each of the countries should define the planning horizon, indicate the various spatial functions (exclusive, combined and general use) and present a limited set of (inter)national policy guidelines that will enforce the MSP.
4. The MSP also includes a brief description of the process which was followed and policy instruments which have been used.

- energy from wind, algae and sea -

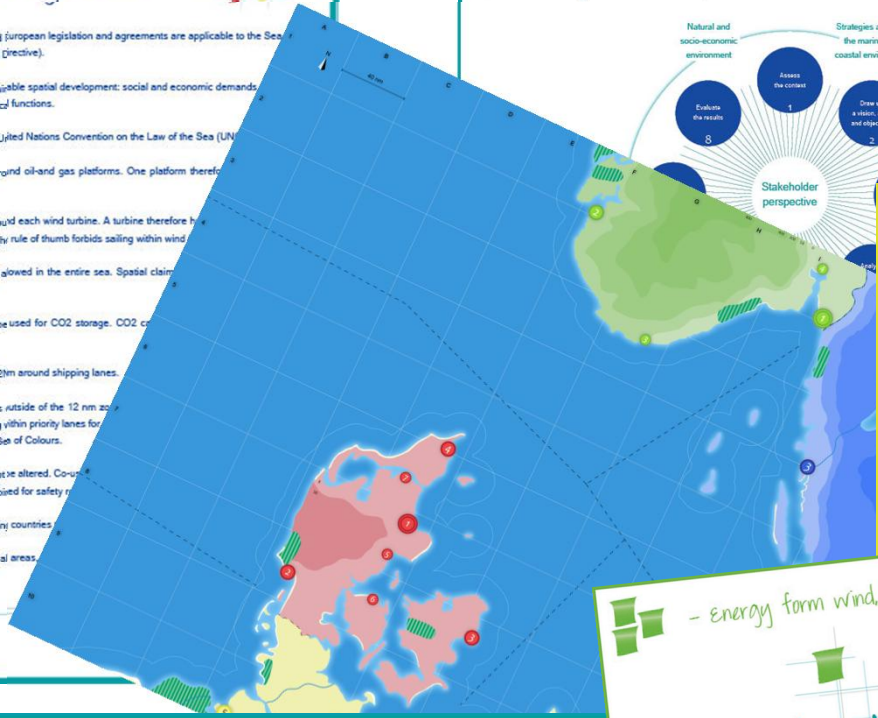
MSPchallenge2011

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Fellow

International Passenger and

MSPchallenge2011







## Impression (MSP Challenge 2011 - Lisbon)

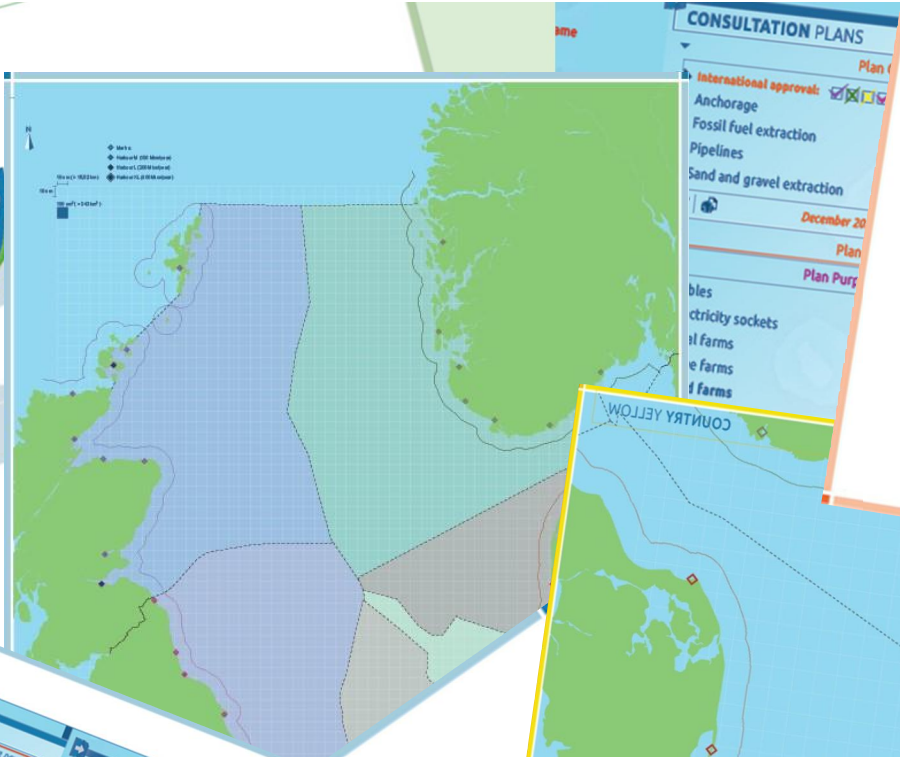




# Maritime Spatial Planning Challenge 2050



# MSP Challenge 2020



# MSP Challenge 2020

**FUNCTION LAYERS** All layers in group are invisible

**ENVIRONMENT LAYERS**

**ECOLOGY LAYERS** Menu bar closed  
Click arrow or menu bar = open/close menu

**PRESSURE LAYERS** Some layers in group are visible  
Click icon = hide all visible layers

- Noise
- Sediment disturbance
- Hard substrate
- Contaminants
- Barrier
- Marine litter
- Reduced visibility

Visible layer  
Click icon or name = show/hide layer

**DESIGN PLANS** make new plan  
design your plans  
Click bar = open new plan menu

**CONSULTATION PLANS**  
International consultation board: consultation  
Look into the plans of other countries and give your o

Name: Enter plan name here (max. 37 characters)

Select layers:  Aquaculture  Pipelines  
 Anchorage  Recreational areas  
 Cables  Sand and gravel extraction  
 Dredging deposit areas  Tidal farms  
 Electricity sockets  Wind farms  
 Fossil fuel extraction  Wave farms  
 Military areas  Wood farms  
 Natura2000 areas

Realization: 2020

Determine a name for your plan. This name distinguishes your plan from other plans.  
This name is used to identify your plan on the international consultation board.  
Set the start date for realization of your plan. This date is used to determine the order of realization of your plan.  
The functions will be built in the order of realization of your plan.  
Some functions are not available for all countries.

OK CANCEL

## G.O.D. GAME OF DIRTY



when the initiators convince G.O.D. that...

(international court they can turn to G.O.D.

hours during the game.

tool.

in the MSP tool for their own country

ative version of the MSP tool.

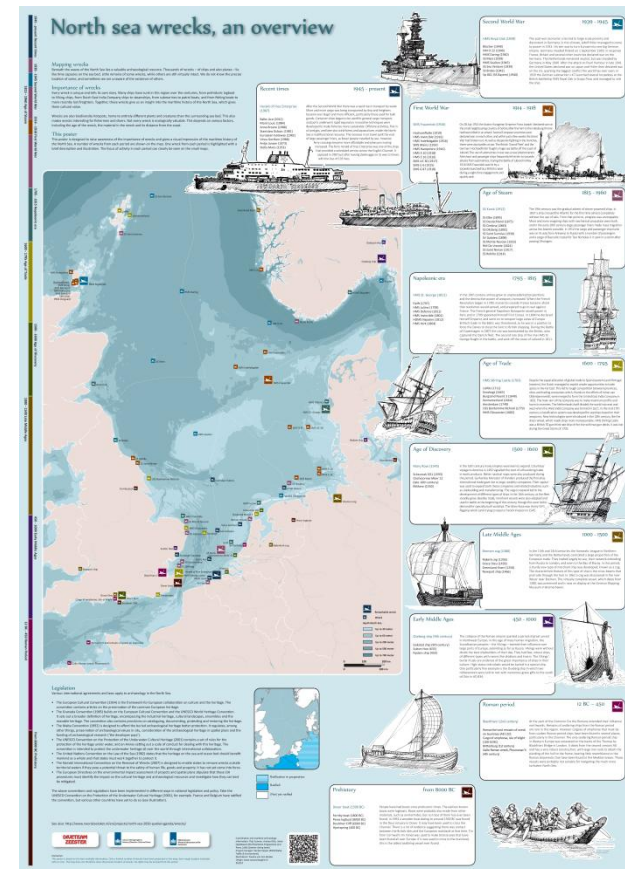
urn for help to the helpdesk.

## COUNTRY GREEN

# Challenge 2020



# Additional Game Material MSP Challenge 2050

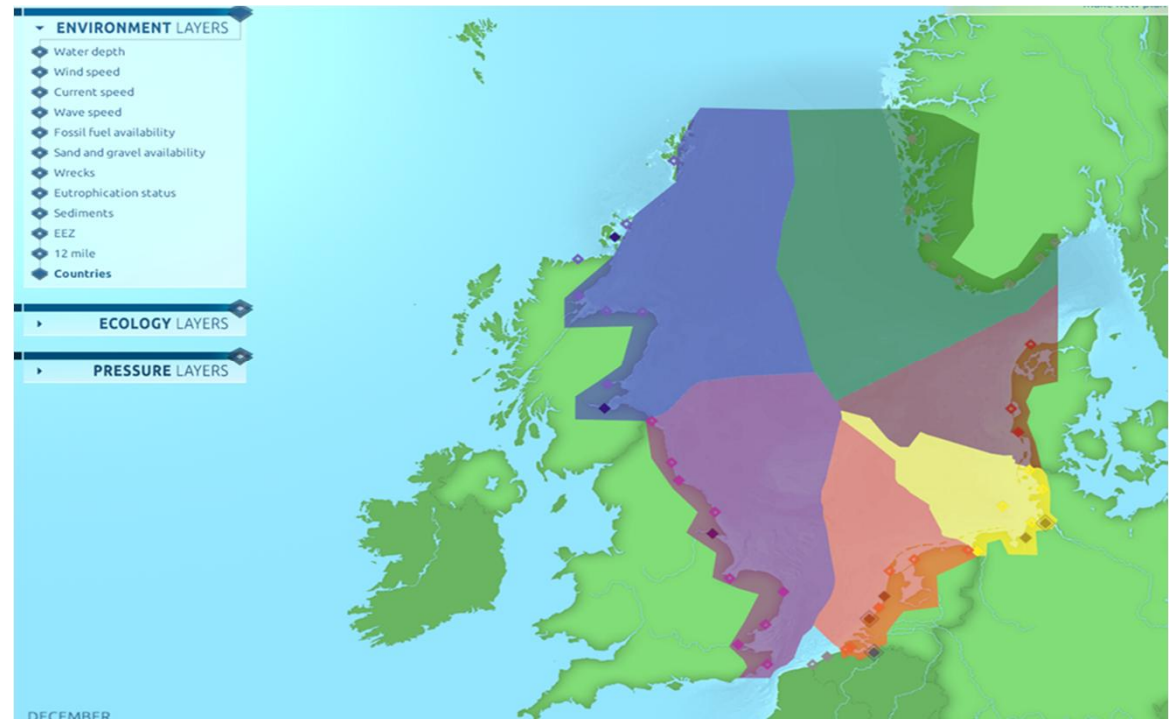




## Game world

### 6 Countries

- Orange
- Yellow
- Red
- Green
- Indigo
- Purple





## 2D to 3D zooming

Zooming

Animation

Visualization

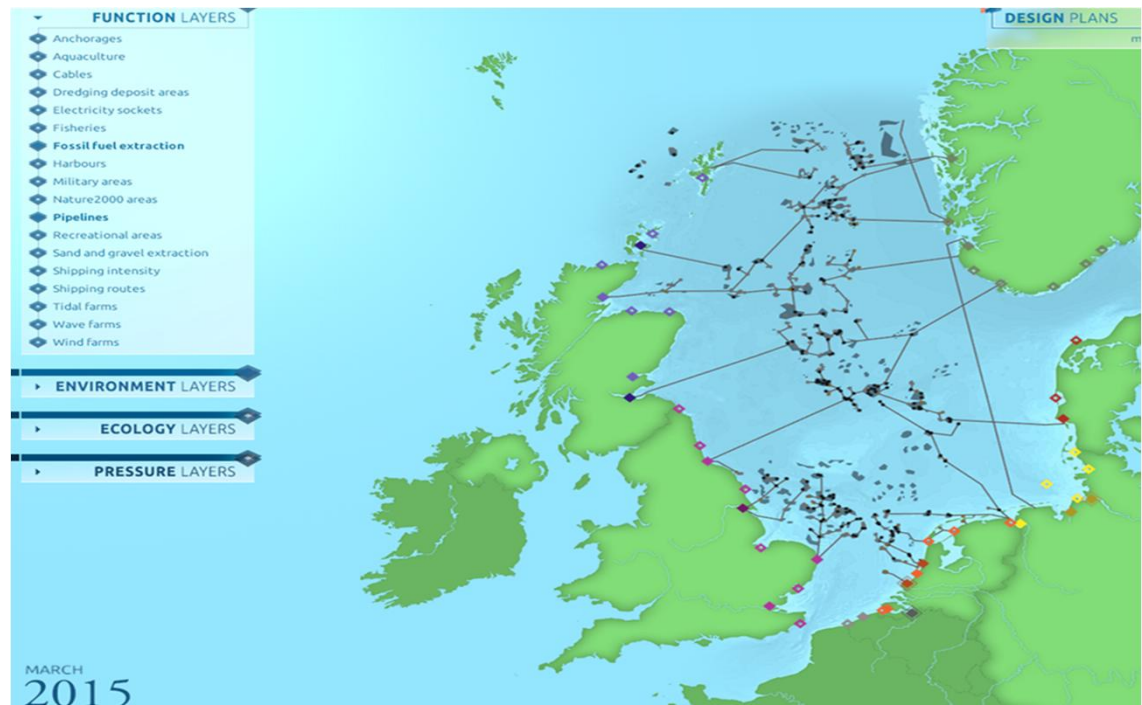




# Function layers

18 functional layers

- Shipping
- Wind energy
- Cables
- Aquaculture
- Military
- Oil and Gas
- Etc.



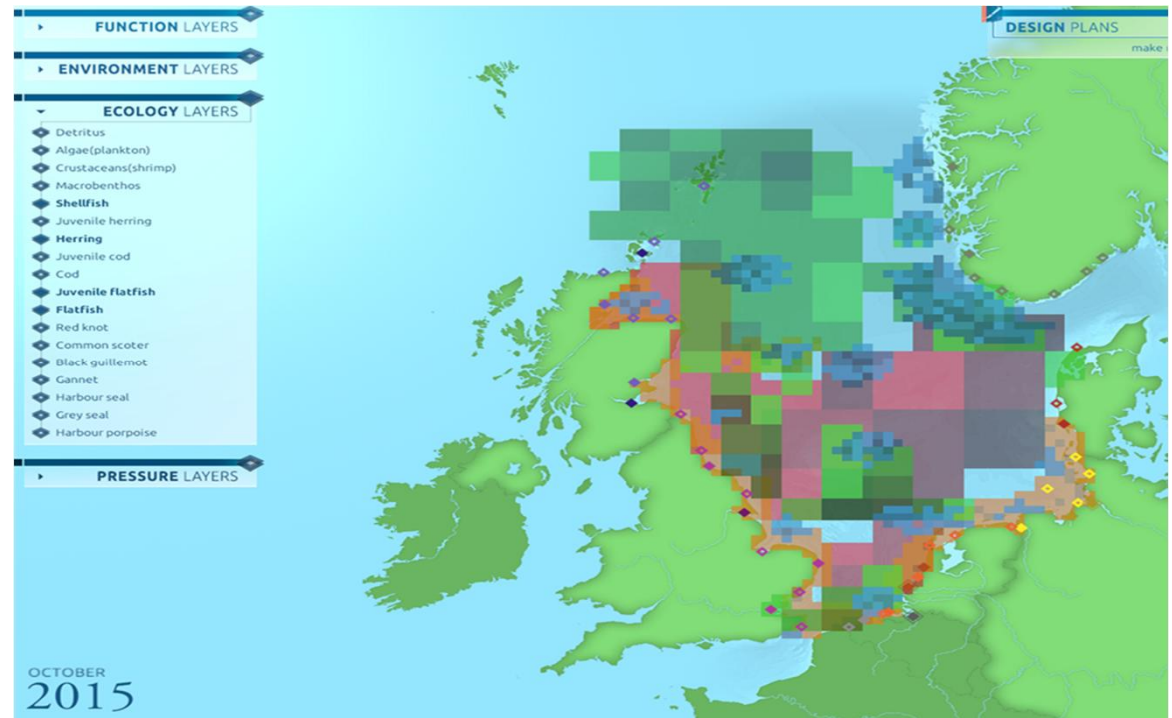
Click and select one or more layers



## Ecology layers

### Ecology layers

- Algae
- Shell fish
- Fish
- Birds
- Sea mammals
- Etc.

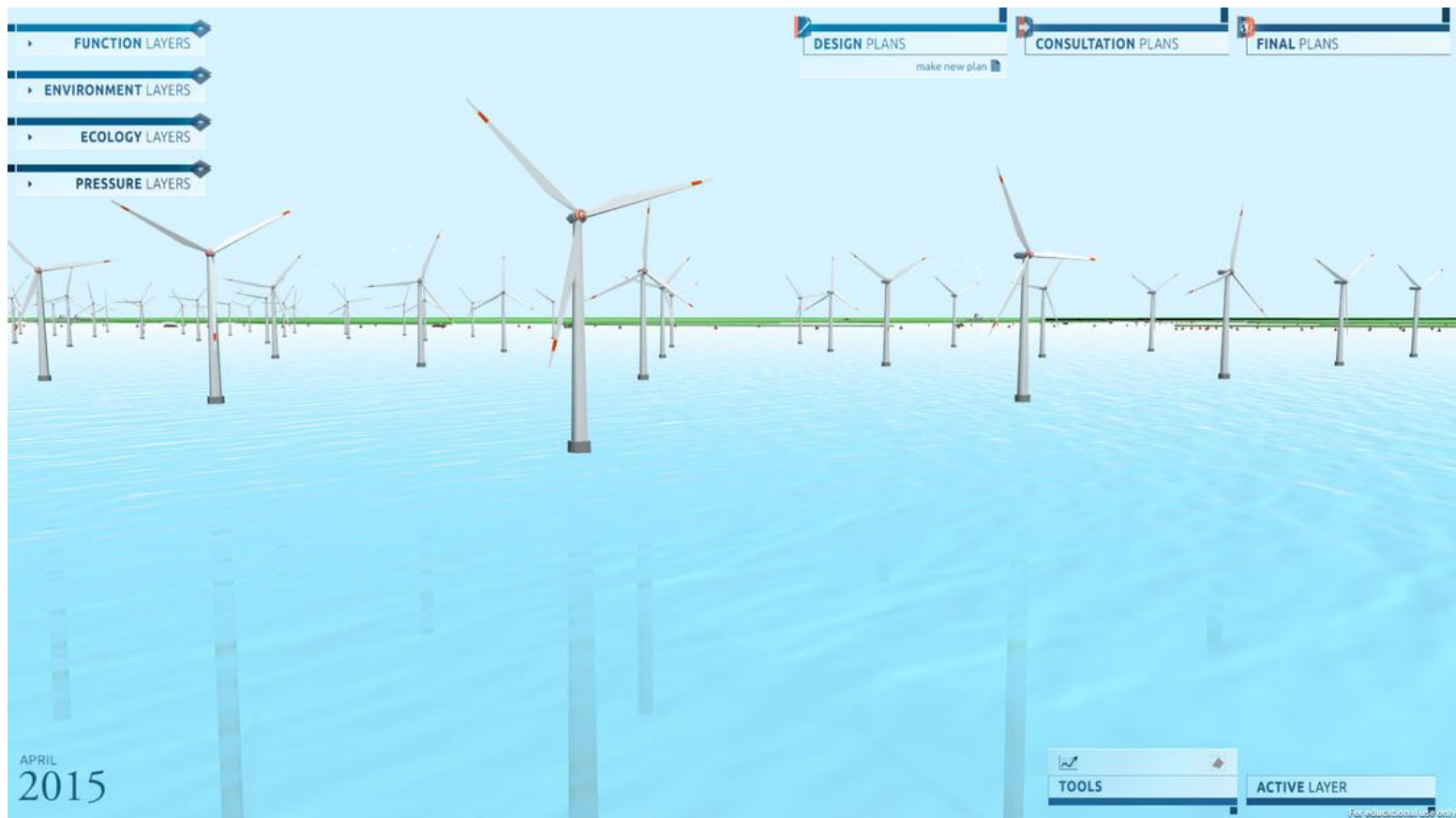


Click and select one or more layers



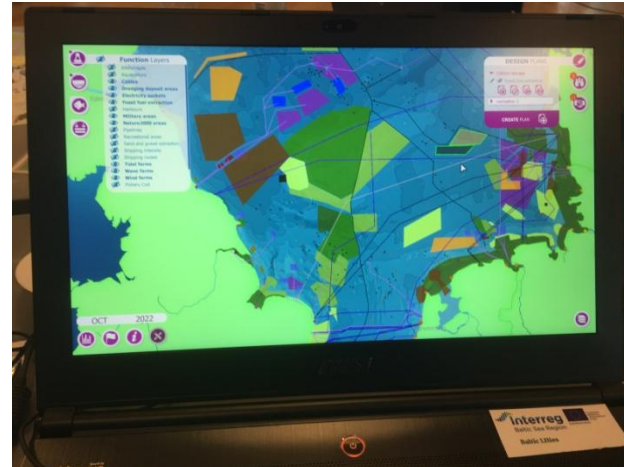


# See what you've build and your performance



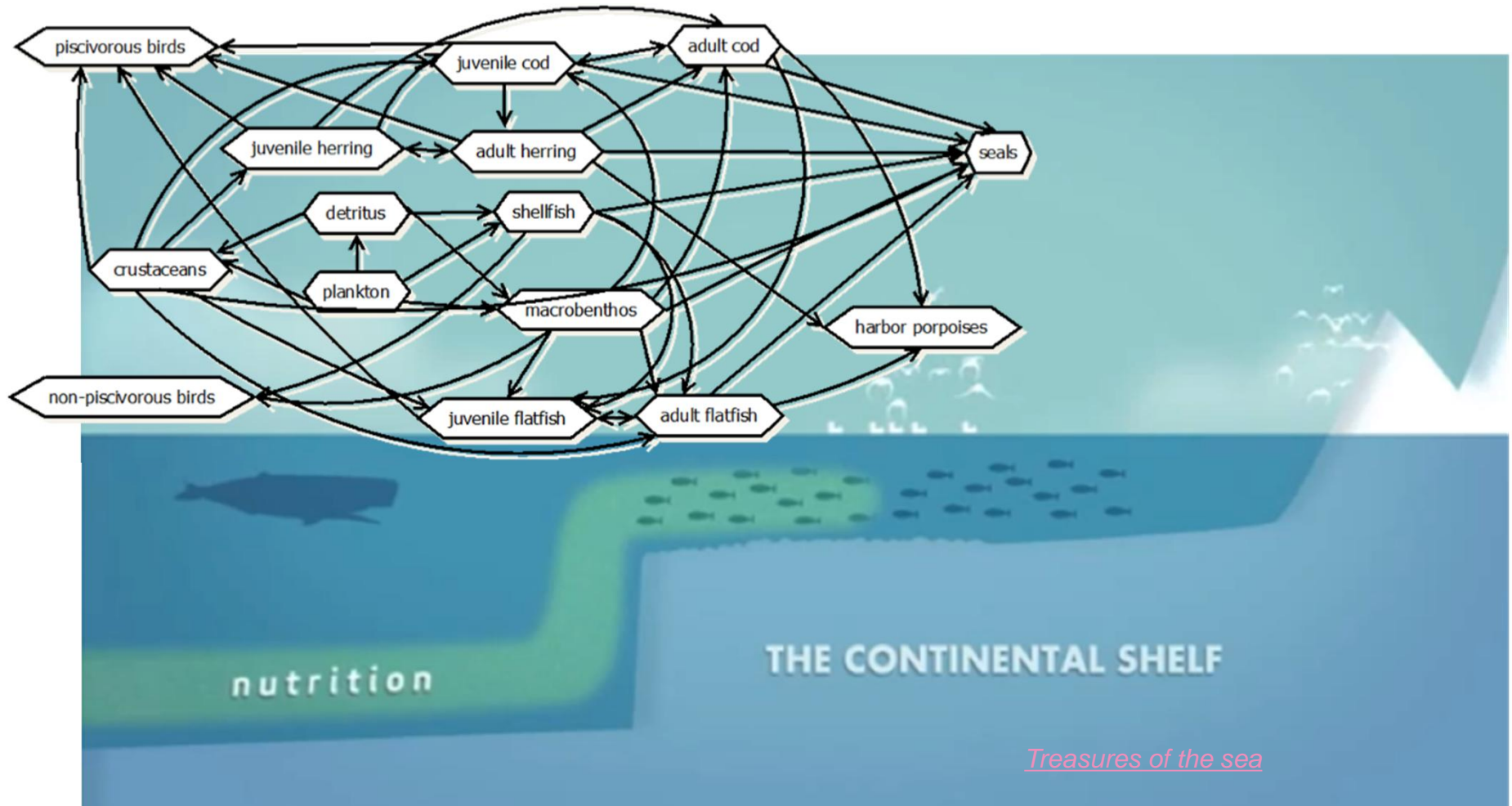


# Impression MSP Challenge 2050 North Sea edition Kopenhagen June 2016



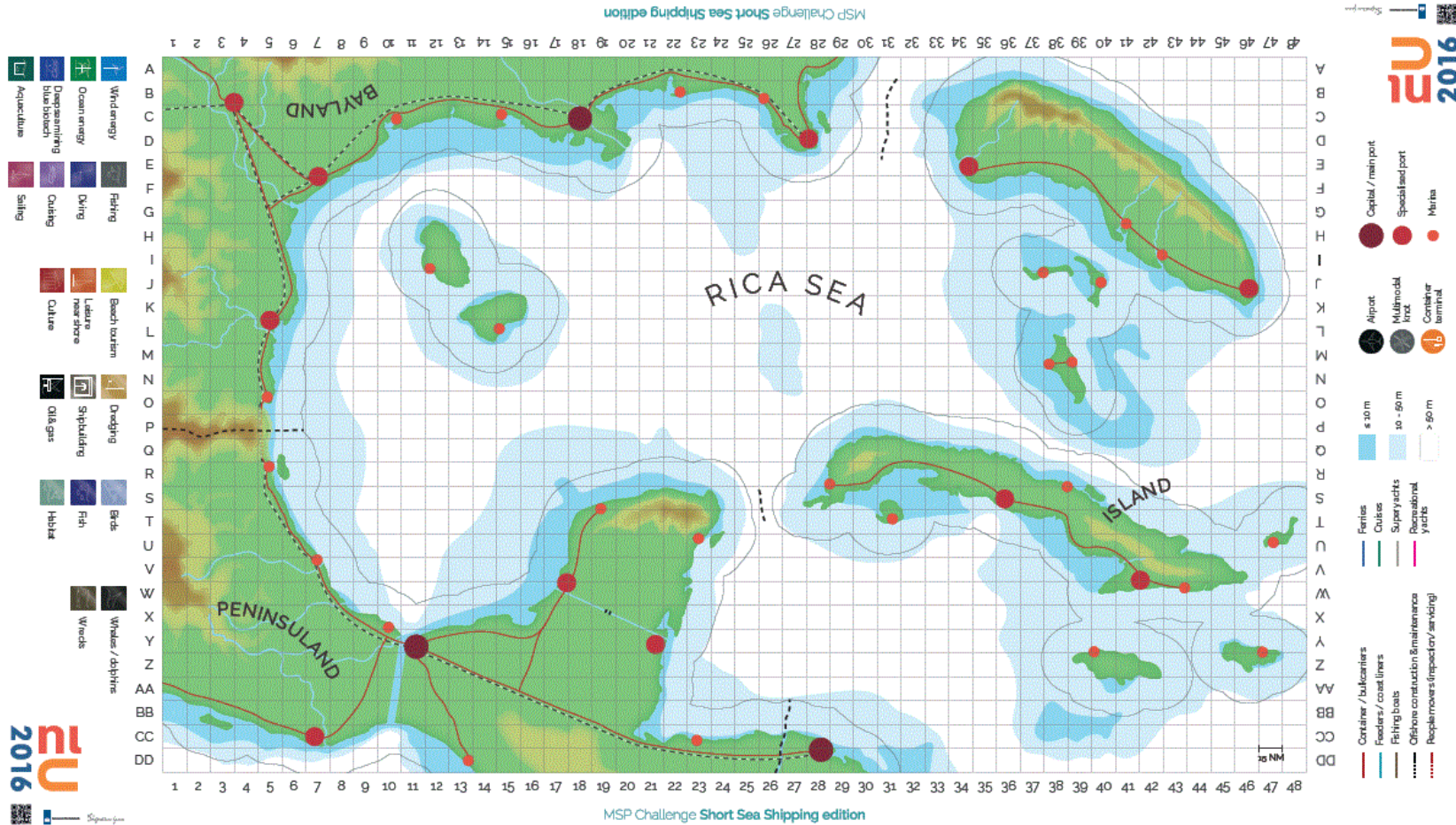


## MSP challenge: integration ecopath foodweb





# MSP Challenge Short Sea Shipping edition EUNL





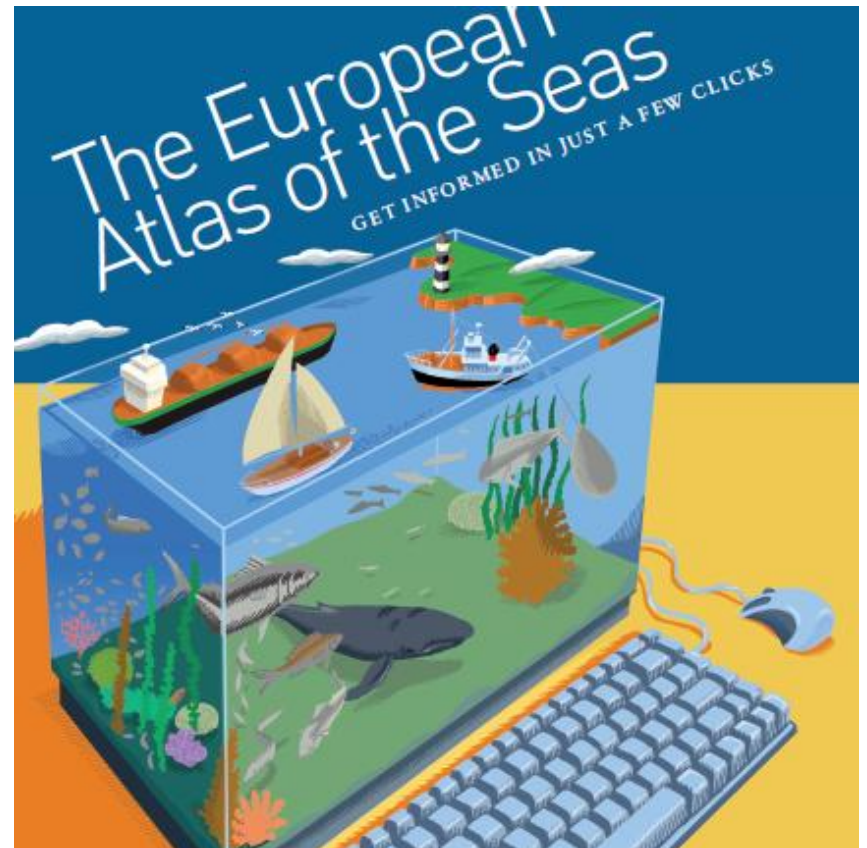
# Impression MSP Short Sea Shipping Challenge



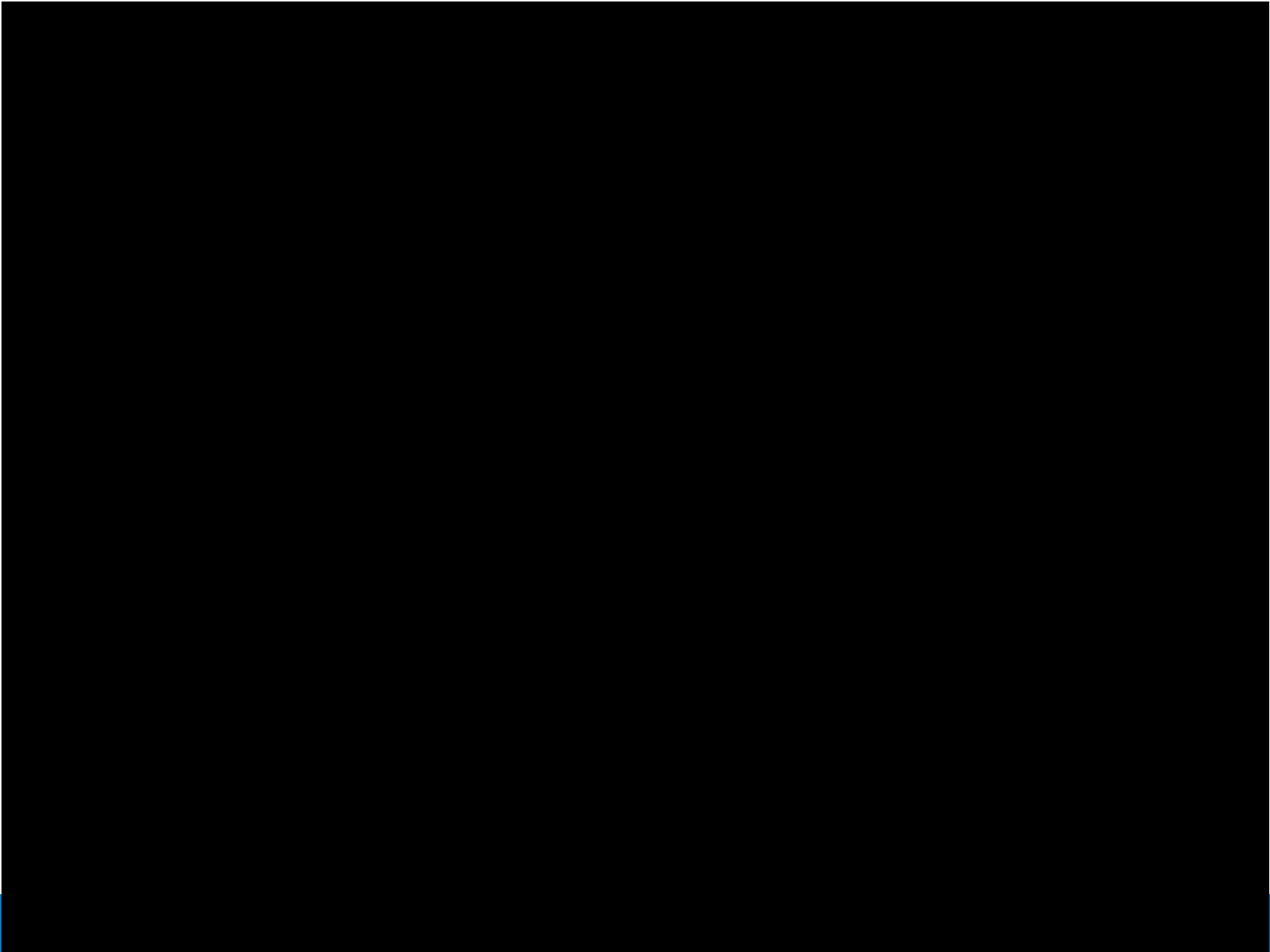


Help us build the  
Digiquarium – visit  
[www.mspchallenge.info](http://www.mspchallenge.info)

1. The Marine and Maritime Spatial Challenges have been inspired by the logo of DG Mare's Atlas of the Seas.
2. Do you believe in the power of gaming and the possibility to get an up and running digital aquarium to manage our seas in a sustainable way?
3. Than support us in the quest to build the Digiquarium and serious game towards a clean, healthy and productive ocean of tomorrow!



# Maritime Spatial Planning Challenge 2050 - trailer





## Partners & developers



Government of  
the Netherlands



IMARES

WAGENINGEN UR

Deltares

Enabling Delta Life



ICES

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*Signature Games*



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the barn

