The struggle to get MSP data



Baltic LINes

Coherent Linear Infrastructures in Baltic Maritime Spatial Plans

Manuel Frias, HELCOM Secretariat
2nd International MSP Forum
La Reunion (FR) 26-29 March 2019

HELCOM

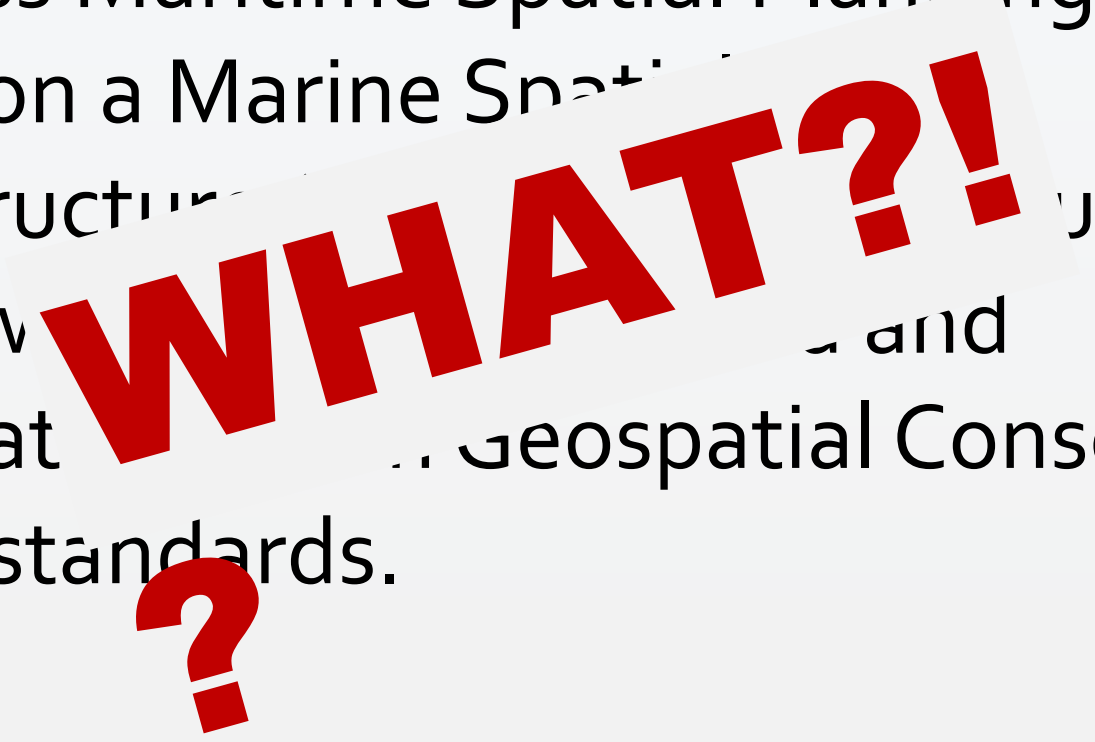
Interreg Baltic Sea Region

EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

Three years ago HELCOM started the development of a system to access data, a system to…

…access Maritime Spatial Planning data based on a Marine Spatial Data Infrastructure (MSDI) from which users can view and download data and metadata in Open Geospatial Consortium (OGC) standards.

…access Maritime Spatial Planning data based on a Marine Spat… Infrastructur… …users can viev… …and metadat… …Geospatial Consortium (OGC) standards.



Let me explain in plain English…

We have developed a system that potentially:

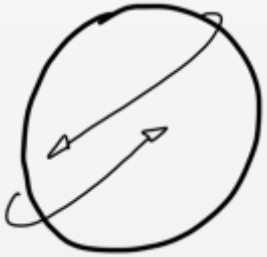


Can make the work
of MSP planers
more effective

We have developed a system that potentially:



Can make the work of MSP planers more effective

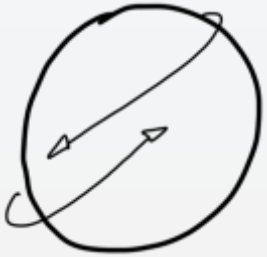


Will help make coherent plans across borders

We have developed a system that potentially:



Can make the work of MSP planers more effective

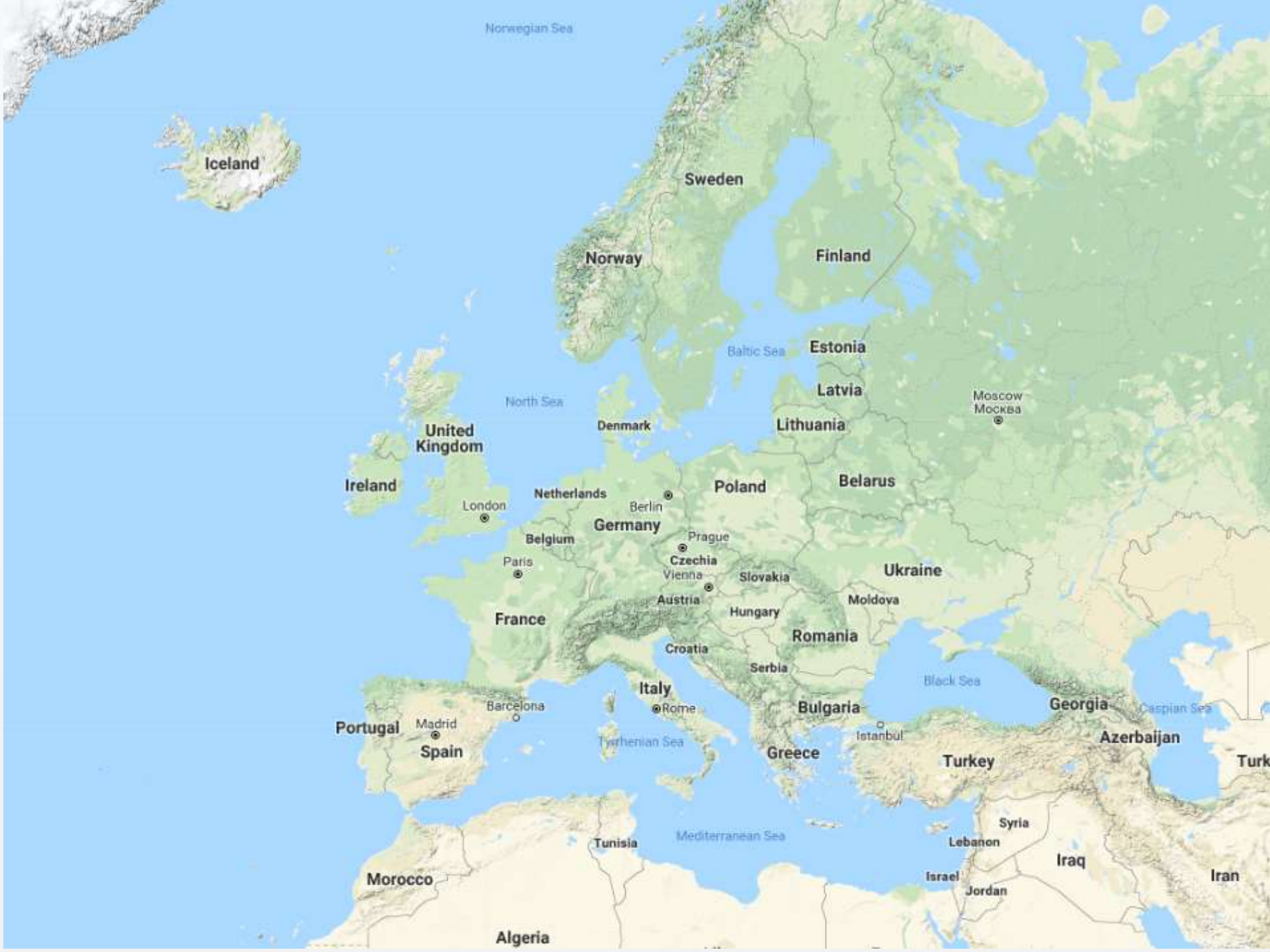


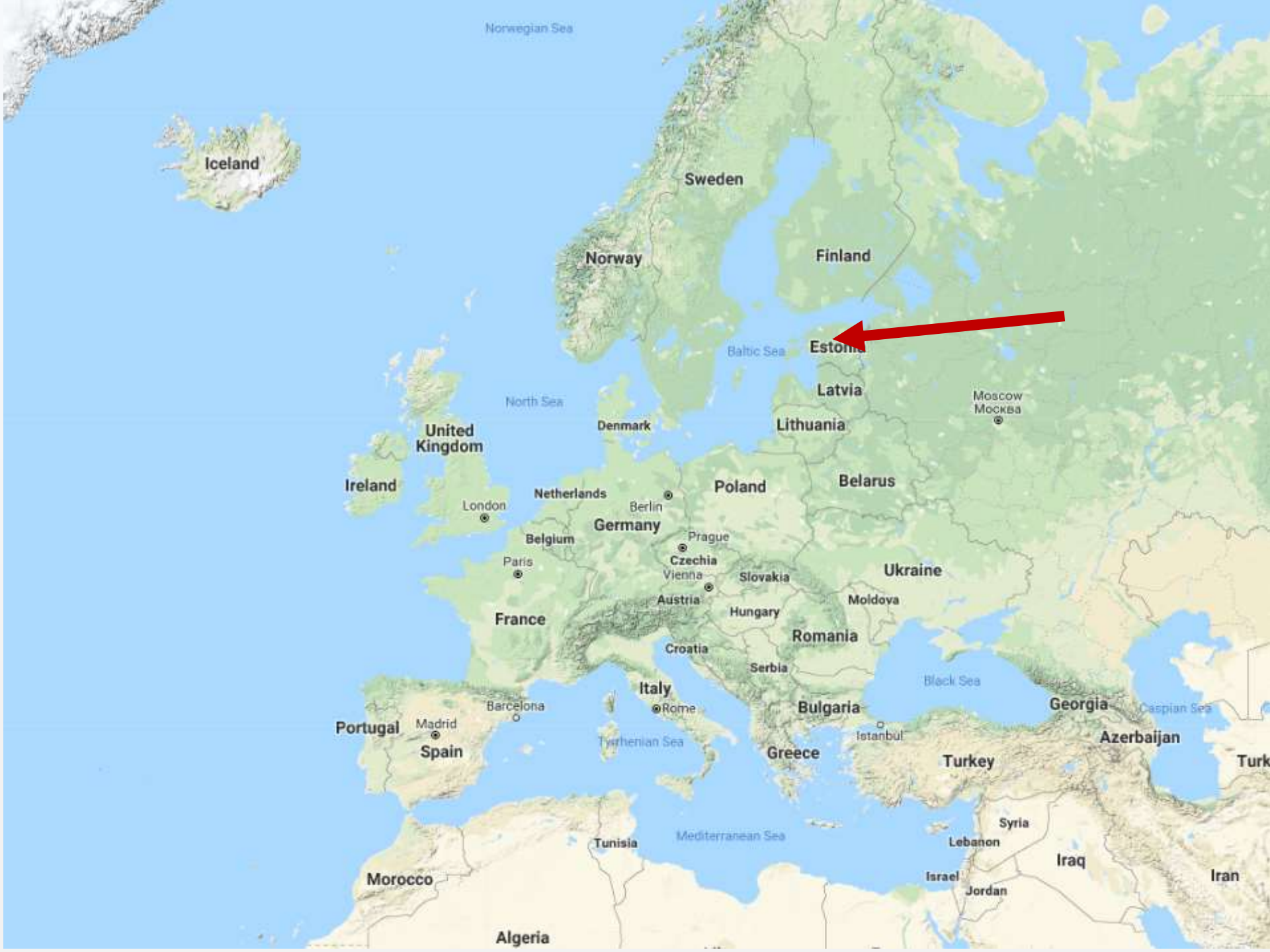
Will help make coherent plans across borders



Will contribute to a better environment and blue growth

But first let me introduce the Baltic Sea


Norwegian Sea
Iceland
Sweden
Norway
Finland
Baltic Sea
Estonia
Latvia
Moscow
Москва
North Sea
Denmark
Lithuania
United Kingdom
Ireland
Netherlands
Berlin
Poland
Belarus
London
Germany
Belgium
Prague
Paris
Czechia
Vienna
Slovakia
Ukraine
Austria
Moldova
Hungary
France
Romania
Croatia
Serbia
Black Sea
Italy
Barcelona
Rome
Bulgaria
Georgia
Caspian Sea
Portugal
Madrid
Istanbul
Azerbaijan
Spain
Tyrrhenian Sea
Greece
Turkey
Syria
Tunisia
Mediterranean Sea
Lebanon
Iraq
Morocco
Israel
Iran
Jordan
Algeria


Norwegian Sea
Iceland
Sweden
Norway
Finland
Baltic Sea
Estonia
Latvia
Moscow
Москва
North Sea
Denmark
Lithuania
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Ireland
Netherlands
Berlin
Poland
Belarus
London
Germany
Belgium
Prague
Czechia
Paris
Vienna
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France
Romania
Croatia
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Black Sea
Italy
Barcelona
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Bulgaria
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Portugal
Madrid
Istanbul
Azerbaijan
Spain
Tyrrhenian Sea
Greece
Turkey
Syria
Tunisia
Mediterranean Sea
Lebanon
Iraq
Morocco
Israel
Iran
Jordan
Algeria


Low levels of salt
Norwegian Sea
Iceland
Sweden
Norway
Finland
Baltic Sea
Estonia
Latvia
Lithuania
Moscow
Москва
North Sea
Denmark
United Kingdom
Ireland
Netherlands
Berlin
Poland
Belarus
London
Germany
Belgium
Prague
Czechia
Paris
Vienna
Slovakia
Ukraine
Austria
Moldova
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Iraq
Morocco
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Iran
Jordan
Algeria

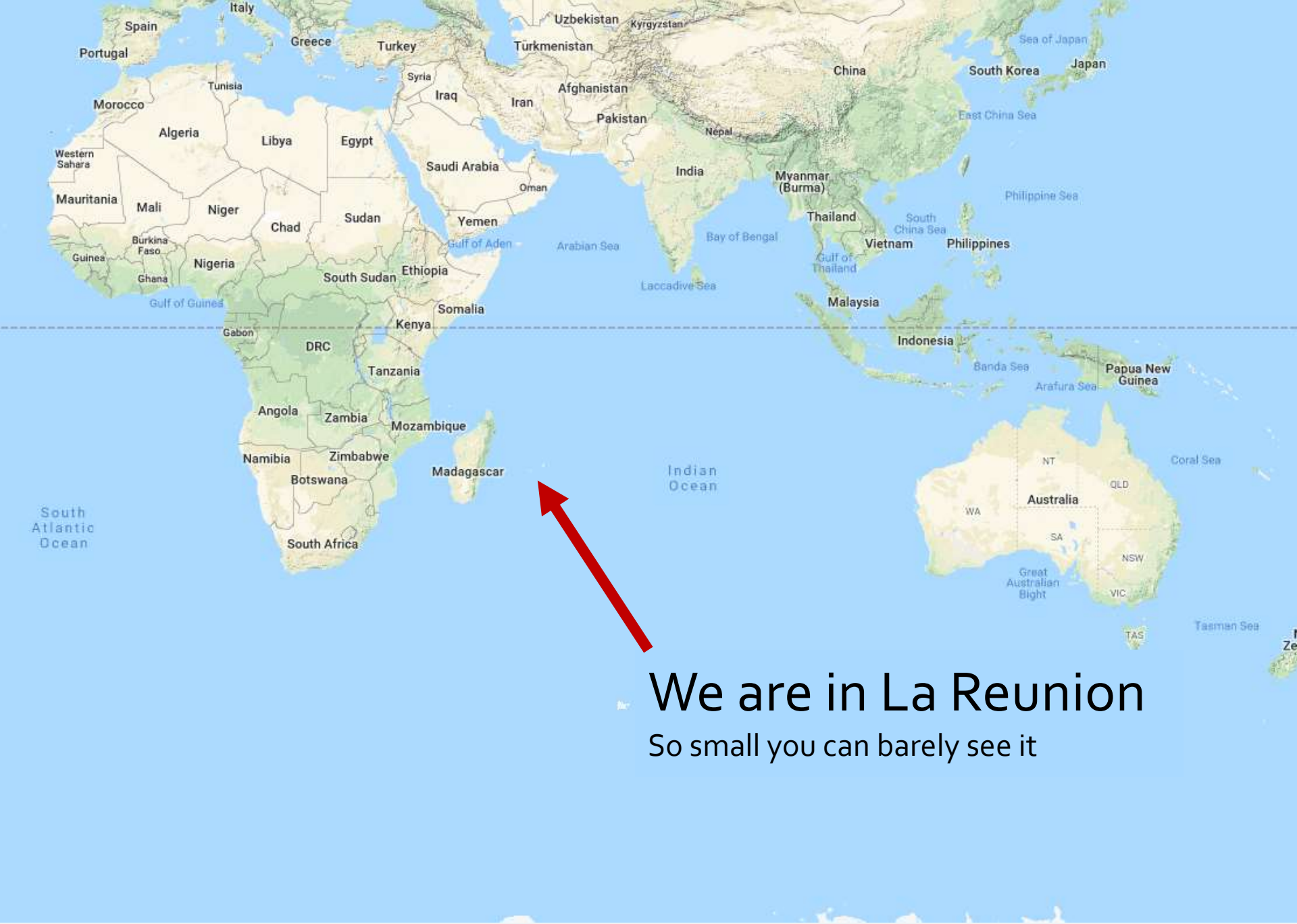

Low levels of salt
Shallow waters
Norwegian Sea
Iceland
Sweden
Norway
Finland
Baltic Sea
Estonia
Latvia
Lithuania
Moscow
Москва
North Sea
Denmark
United Kingdom
Ireland
London
Netherlands
Berlin
Poland
Belarus
Germany
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Tunisia
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Iraq
Morocco
Israel
Iran
Jordan
Algeria


Low levels of salt
Shallow waters
85 millions population
Norwegian Sea
Iceland
Sweden
Norway
Finland
Baltic Sea
Estonia
Latvia
Lithuania
Moscow
Москва
North Sea
Denmark
United Kingdom
Poland
Belarus
Berlin
Germany
Prague
Czechia
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Lebanon
Tunisia
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Morocco
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Jordan
Iran
Algeria


Low levels of salt
Shallow waters
85 millions population
Very small
Norwegian Sea
Iceland
Sweden
Norway
Finland
Baltic Sea
Estonia
Latvia
Lithuania
Moscow
Москва
North Sea
Denmark
United Kingdom
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Syria
Lebanon
Tunisia
Mediterranean Sea
Iraq
Morocco
Israel
Iran
Jordan
Algeria


Low levels of salt
Shallow waters
85 millions population
Very small
You don't believe it?
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Iceland
Sweden
Norway
Finland
Baltic Sea
Estonia
Latvia
Lithuania
Moscow
Москва
North Sea
United Kingdom
Denmark
Poland
Belarus
Berlin
Germany
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Ukraine
Austria
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Moldova
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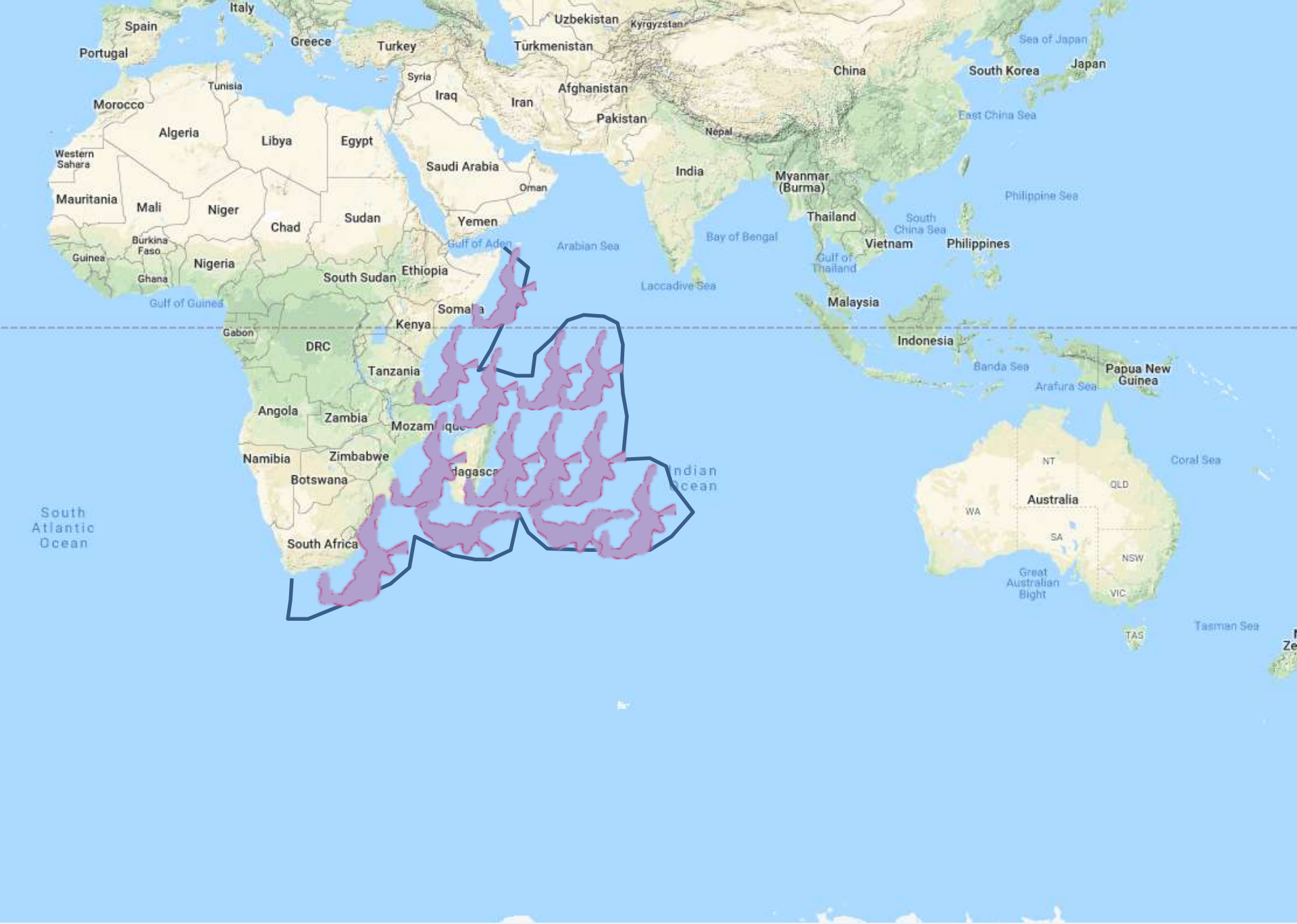


We are in La Reunion

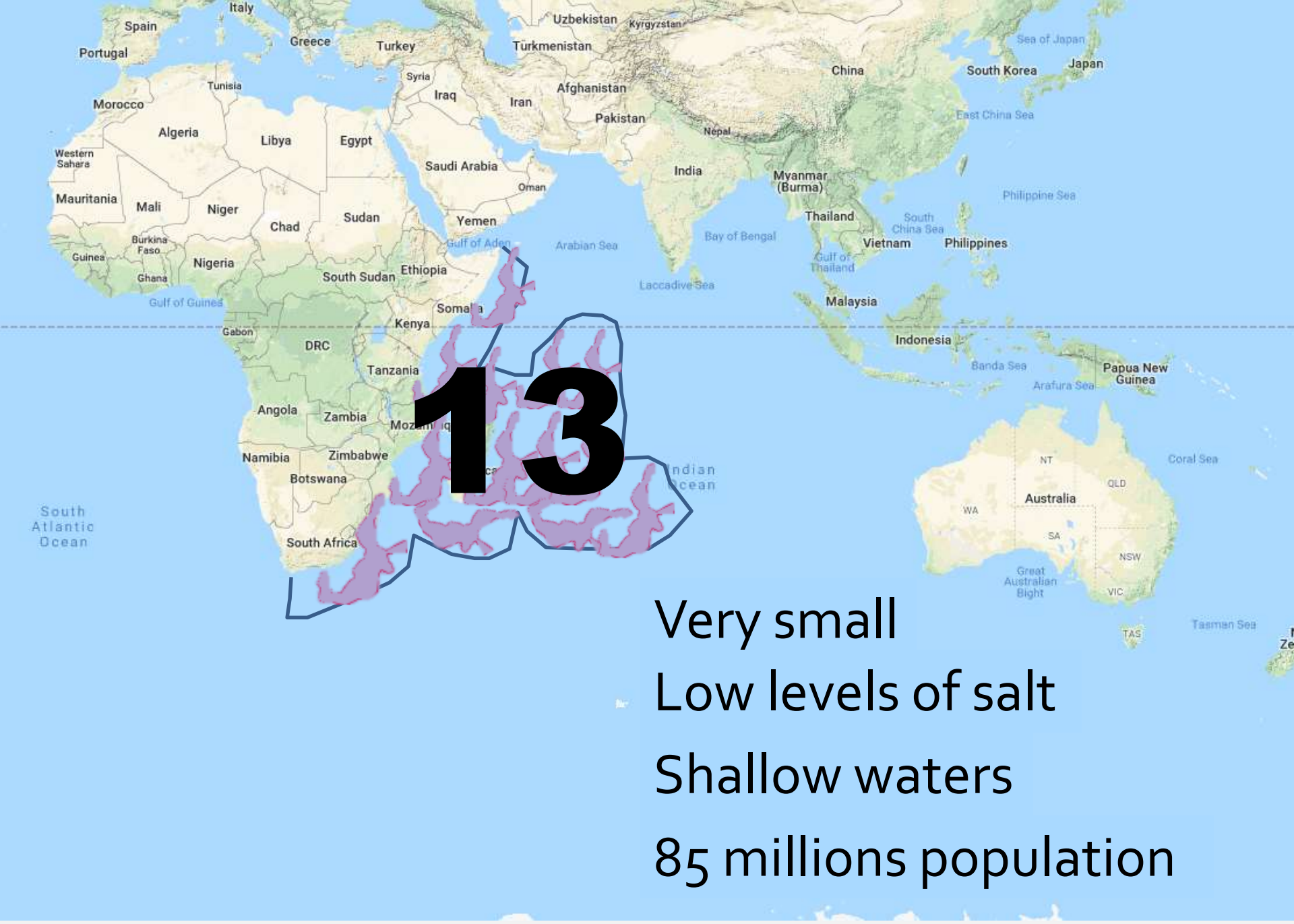
So small you can barely see it

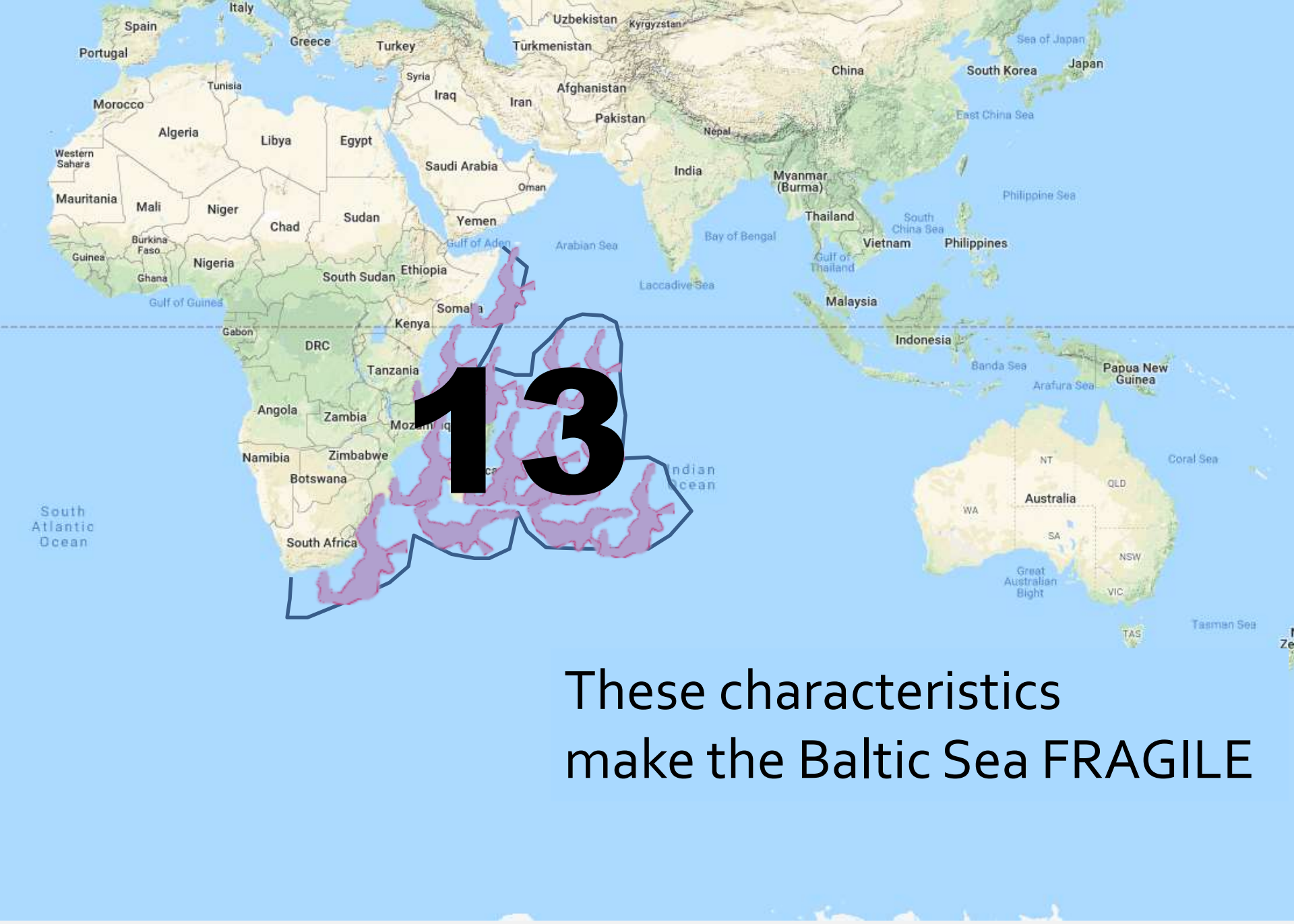

This is the area of the Nairobi Convention


How many Baltic Seas fit in here?


Spain
Italy
Portugal
Greece
Turkey
Uzbekistan
Kyrgyzstan
Turkmenistan
Sea of Japan
China
South Korea
Japan
Tunisia
Syria
Iraq
Iran
Afghanistan
Morocco
Pakistan
East China Sea
Algeria
Libya
Egypt
Nepal
Western Sahara
Saudi Arabia
India
Myanmar (Burma)
Oman
Philippine Sea
Mauritania
Mali
Niger
Chad
Sudan
Yemen
Thailand
South China Sea
Gulf of Aden
Arabian Sea
Bay of Bengal
Vietnam
Philippines
Burkina Faso
Guinea
Nigeria
Ethiopia
Gulf of Thailand
South Sudan
Laccadive Sea
Ghana
Gulf of Guinea
Malaysia
Somalia
Kenya
Gabon
DRC
Indonesia
Tanzania
Banda Sea
Papua New Guinea
Arafura Sea
Angola
Zambia
Mozambique
Coral Sea
NT
Namibia
Zimbabwe
Madagascar
Indian Ocean
QLD
Australia
Botswana
WA
South Atlantic Ocean
SA
South Africa
NSW
Great Australian Bight
VIC
Tasman Sea
TAS


13
Spain
Portugal
Italy
Greece
Turkey
Uzbekistan
Kyrgyzstan
Turkmenistan
Sea of Japan
China
South Korea
Japan
Tunisia
Morocco
Syria
Iraq
Iran
Afghanistan
Pakistan
Nepal
East China Sea
Algeria
Libya
Egypt
Western Sahara
Saudi Arabia
India
Myanmar (Burma)
Oman
Philippine Sea
Mauritania
Mali
Niger
Chad
Sudan
Yemen
Thailand
South China Sea
Gulf of Aden
Arabian Sea
Bay of Bengal
Vietnam
Philippines
Burkina Faso
Guinea
Nigeria
Ghana
South Sudan
Ethiopia
Gulf of Thailand
Laccadive Sea
Gulf of Guinea
Malaysia
Somalia
Kenya
Gabon
DRC
Indonesia
Tanzania
Banda Sea
Papua New Guinea
Arafura Sea
Angola
Zambia
Mozambique
Coral Sea
NT
QLD
Australia
WA
Namibia
Zimbabwe
Botswana
SA
NSW
South Atlantic Ocean
South Africa
Great Australian Bight
VIC
TAS
Tasman Sea


13
Very small
Low levels of salt
Shallow waters
85 millions population



These characteristics
make the Baltic Sea FRAGILE



The state of the Baltic Sea was worsening dramatically in the 60's and 70's

In 1974 countries signed the Helsinki Convention to restore its health



HELCOM

We came to La Reunion to talk about maritime spatial planning (MSP). What is the role of HELCOM in MSP?





We need to talk about VASAB, another intergovernmental organization





VASAB was created after the collapse of the Soviet Union to increase the territorial coherence of the Baltic Sea countries

HELCOM

VASAB
VISION & STRATEGIES
AROUND THE BALTIC SEA



Planning

HELCOM

VASAB
VISION & STRATEGIES
AROUND THE BALTIC SEA





Environment

Planning

HELCOM

VASAB
VISION & STRATEGIES
AROUND THE BALTIC SEA





Environment

Planning

They thought it was a good match! A new group was created almost ten years ago



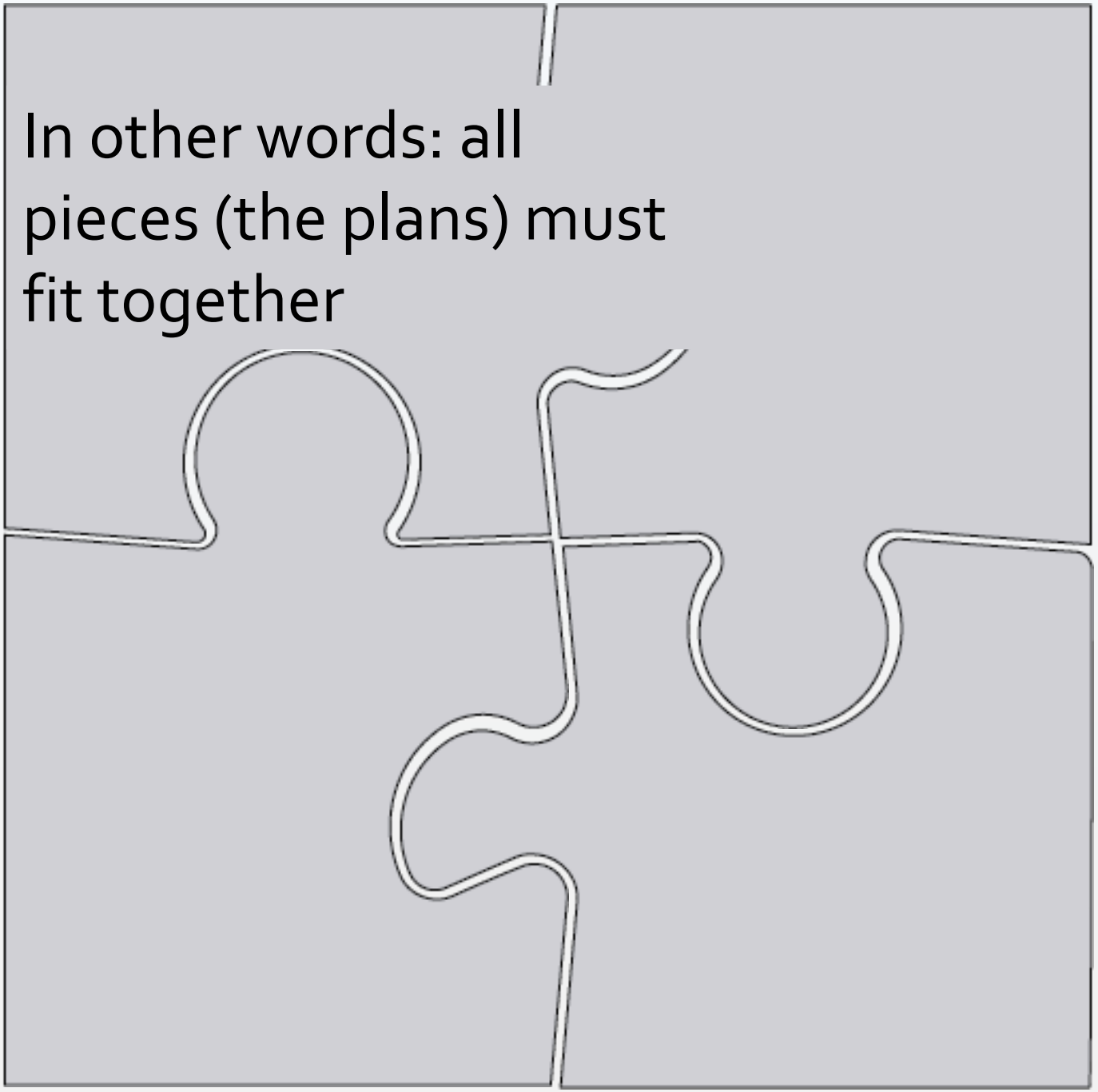
HELCOM-VASAB MSP Work Group



HELCOM-VASAB MSP Work Group

Its objective is to ensure that plans are coherent across borders

In other words: all pieces (the plans) must fit together

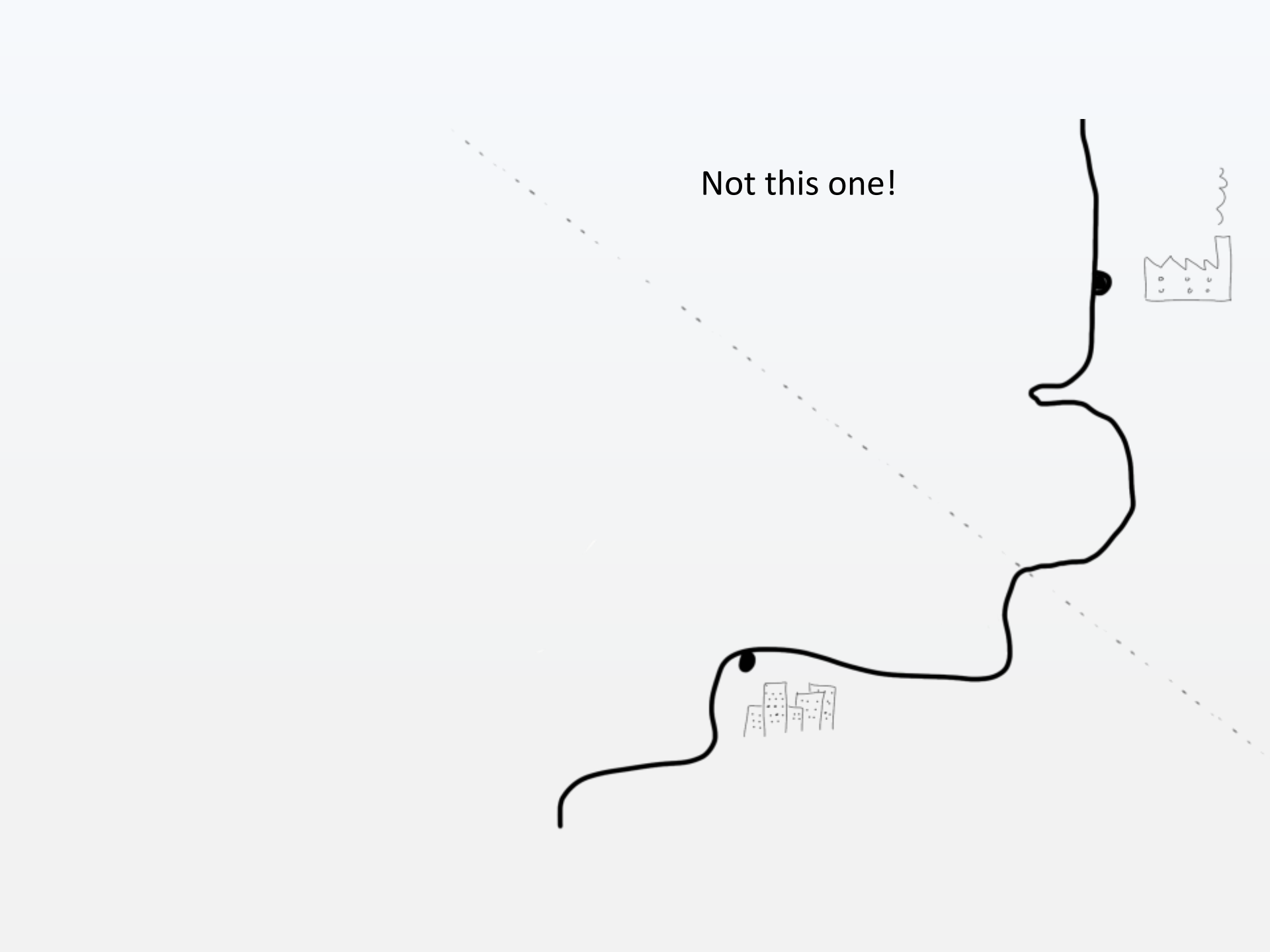


To do plans countries need data. Getting data is a difficult task. But it’s even more difficult to get up-to-date data from your neighbours.

Why is it important to work with up-to-date data from your neighbours? Let me give you an example.

Imagine you are an MSP planner in this country.

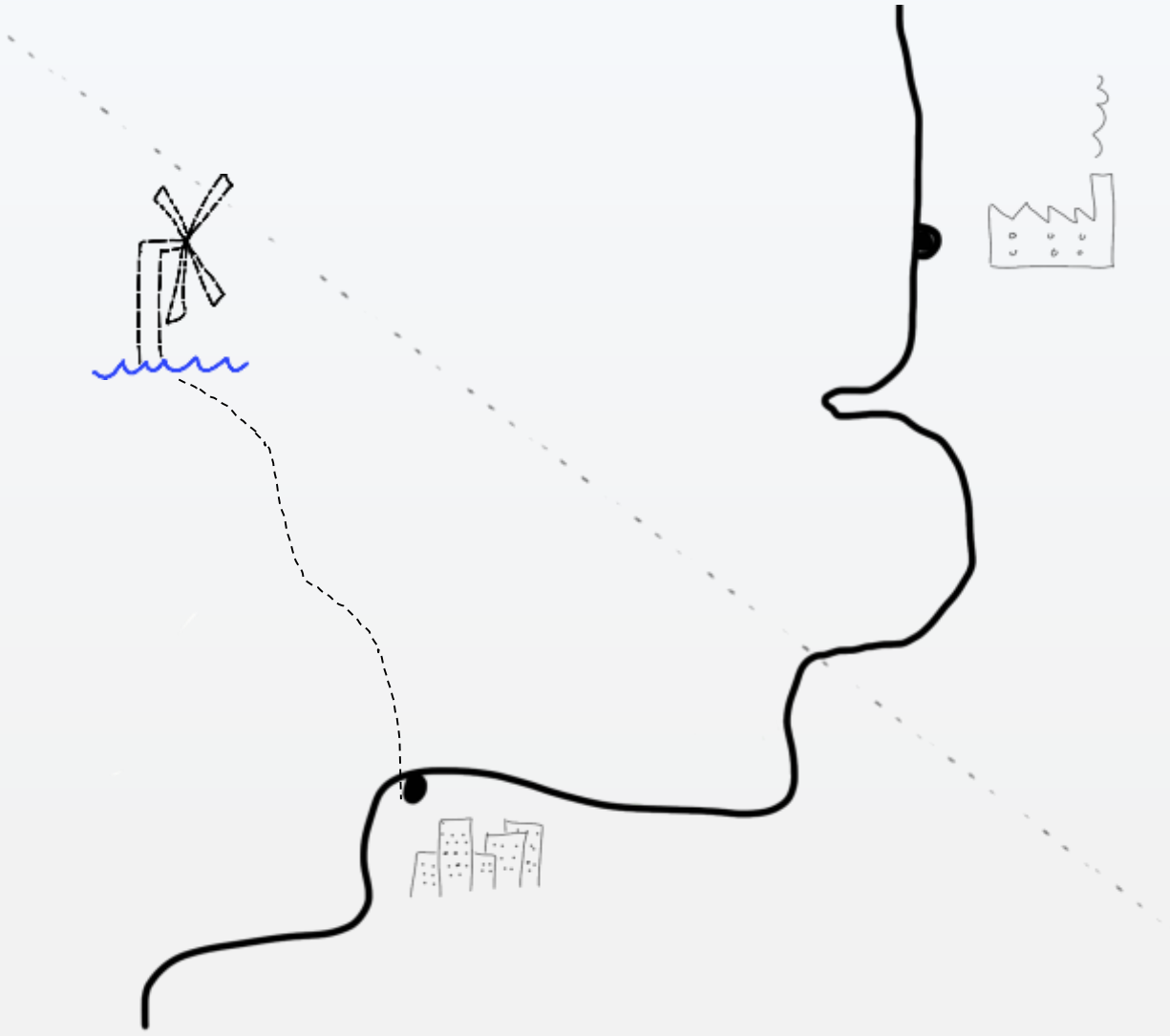



Not this one!

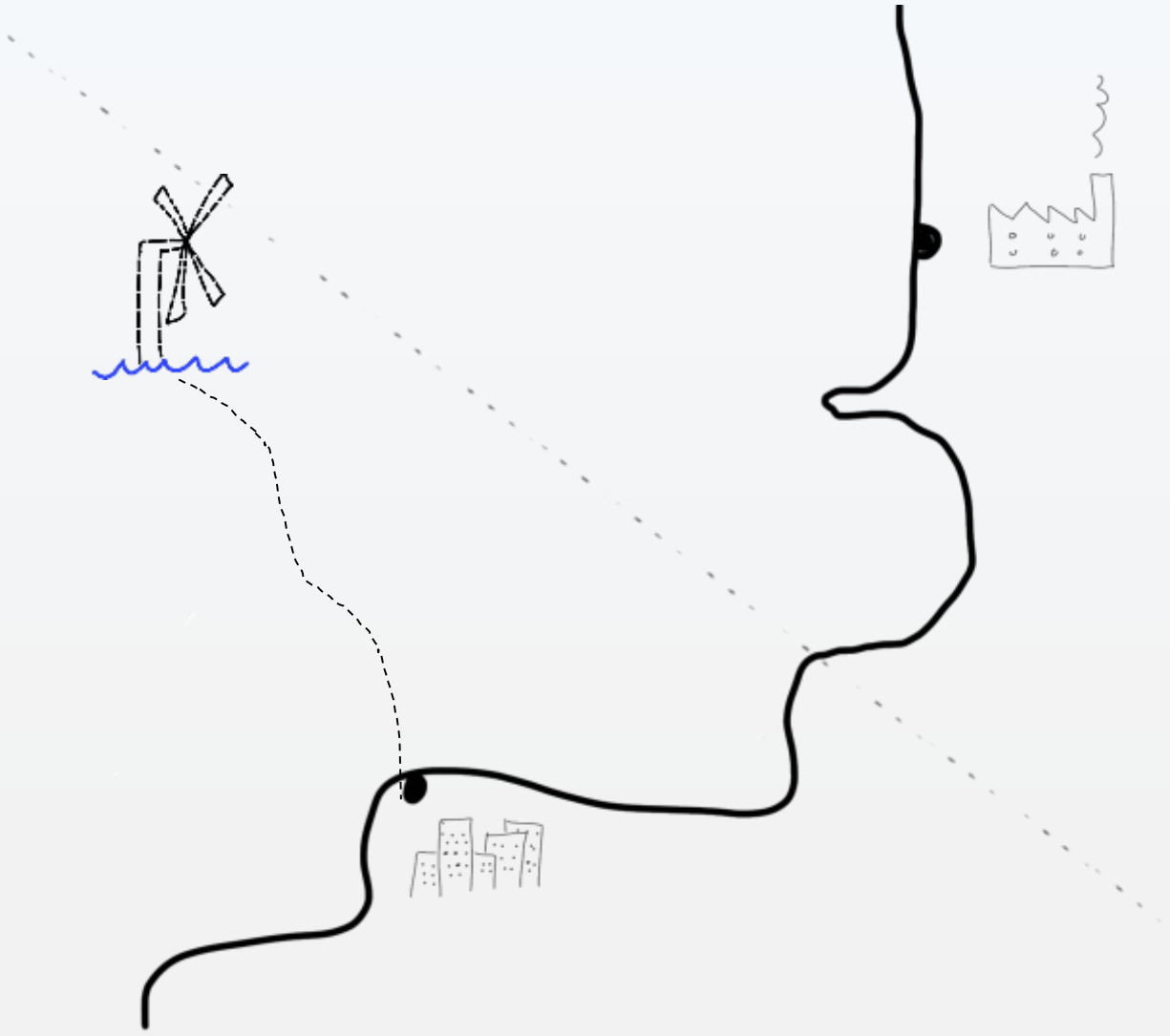
But this one...



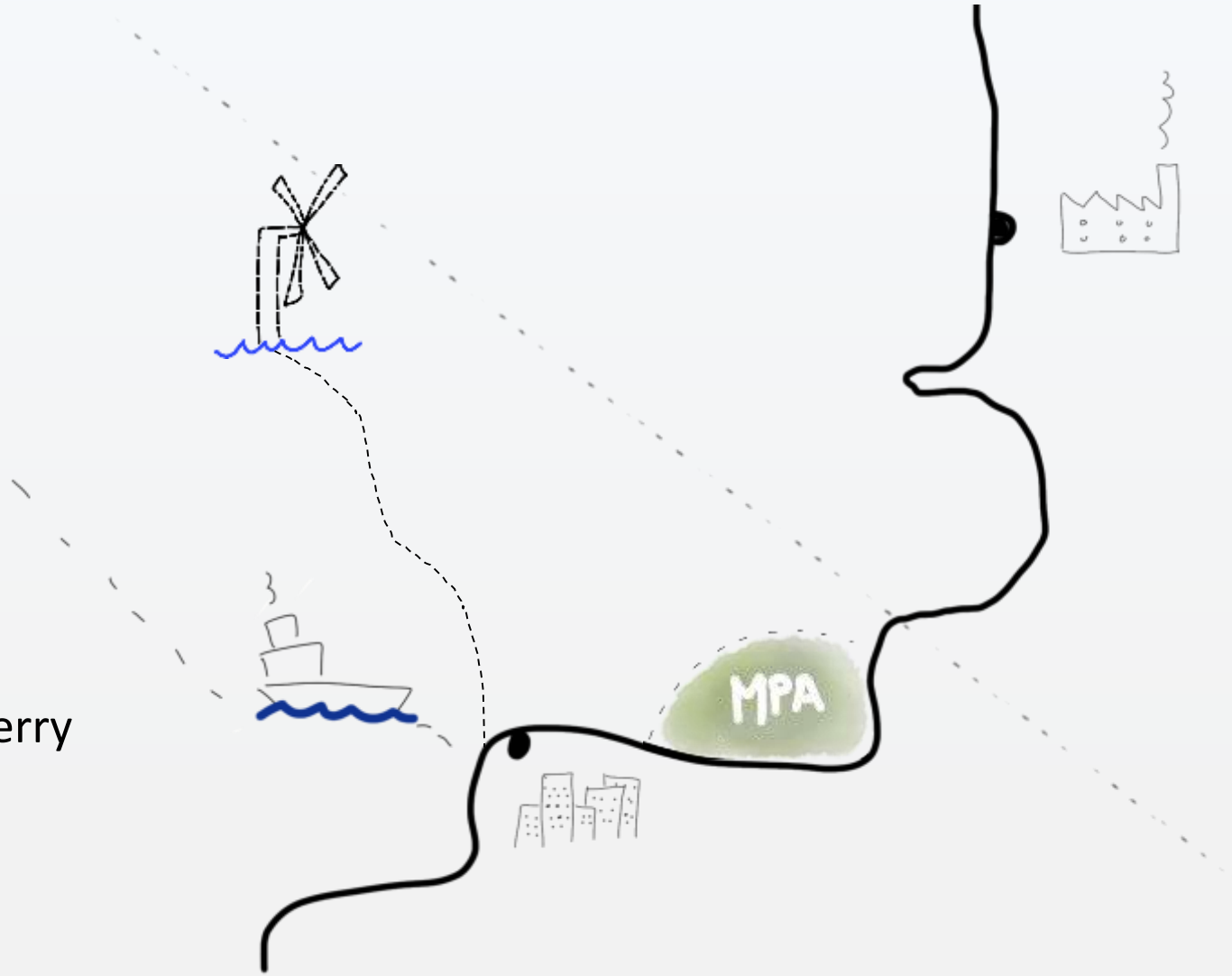
Imagine you are planning an offshore wind farm here.



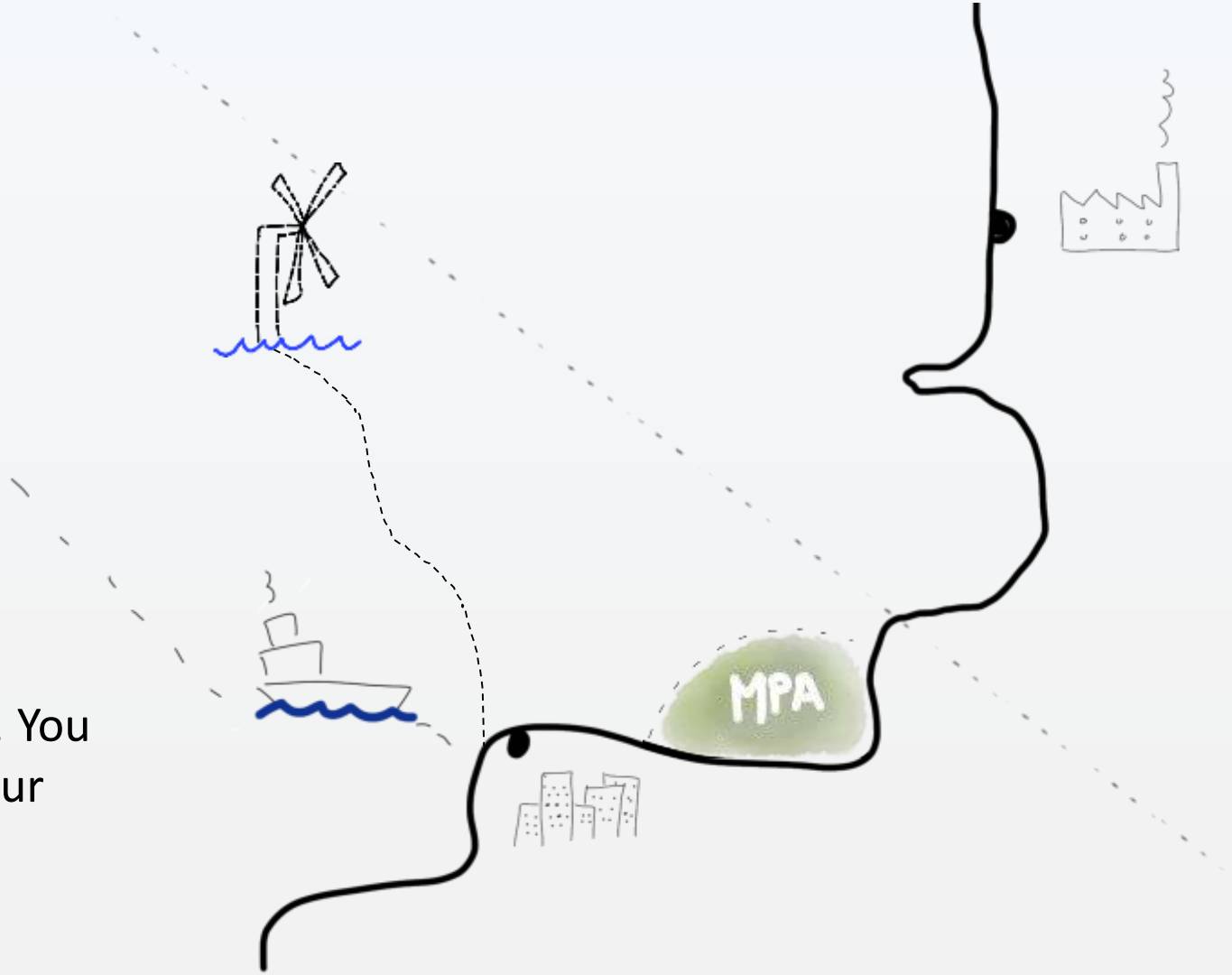
Getting data from your country is relatively easy.



You know where the ferry lines and the Marine Protected Areas are.



But that’s not enough! You need to know what your neighbour is planning.



Where do you get data from your neighbour?

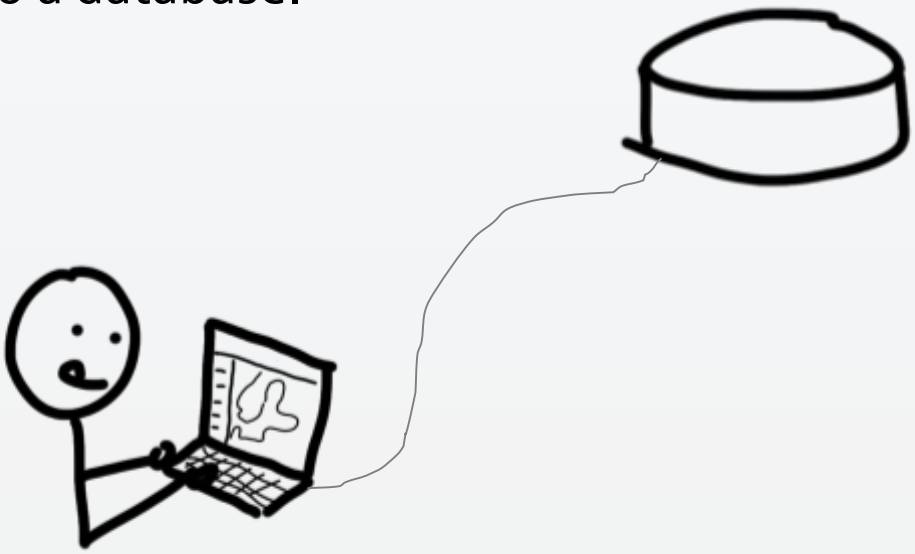


Before the BaltcLINes project planners had

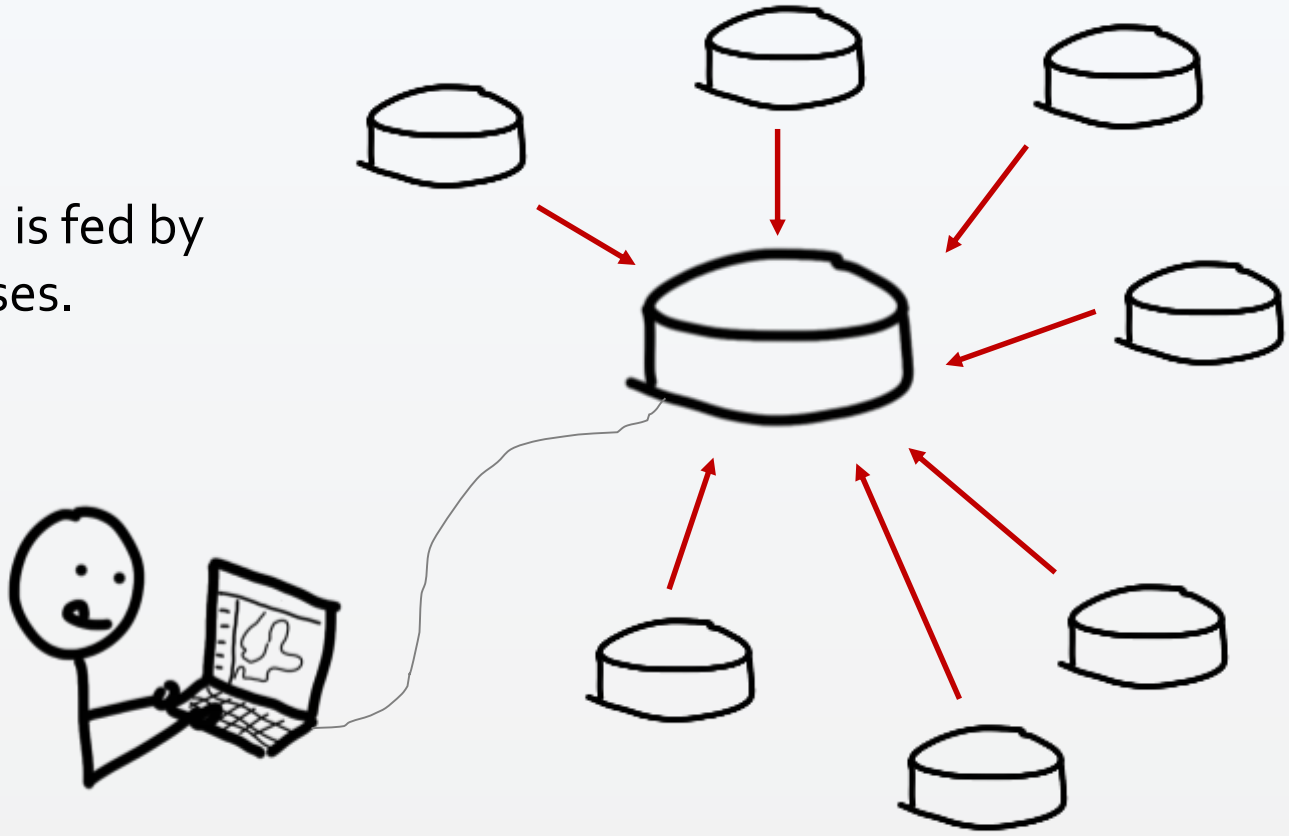
1 option

A centralized database.
How does it work?

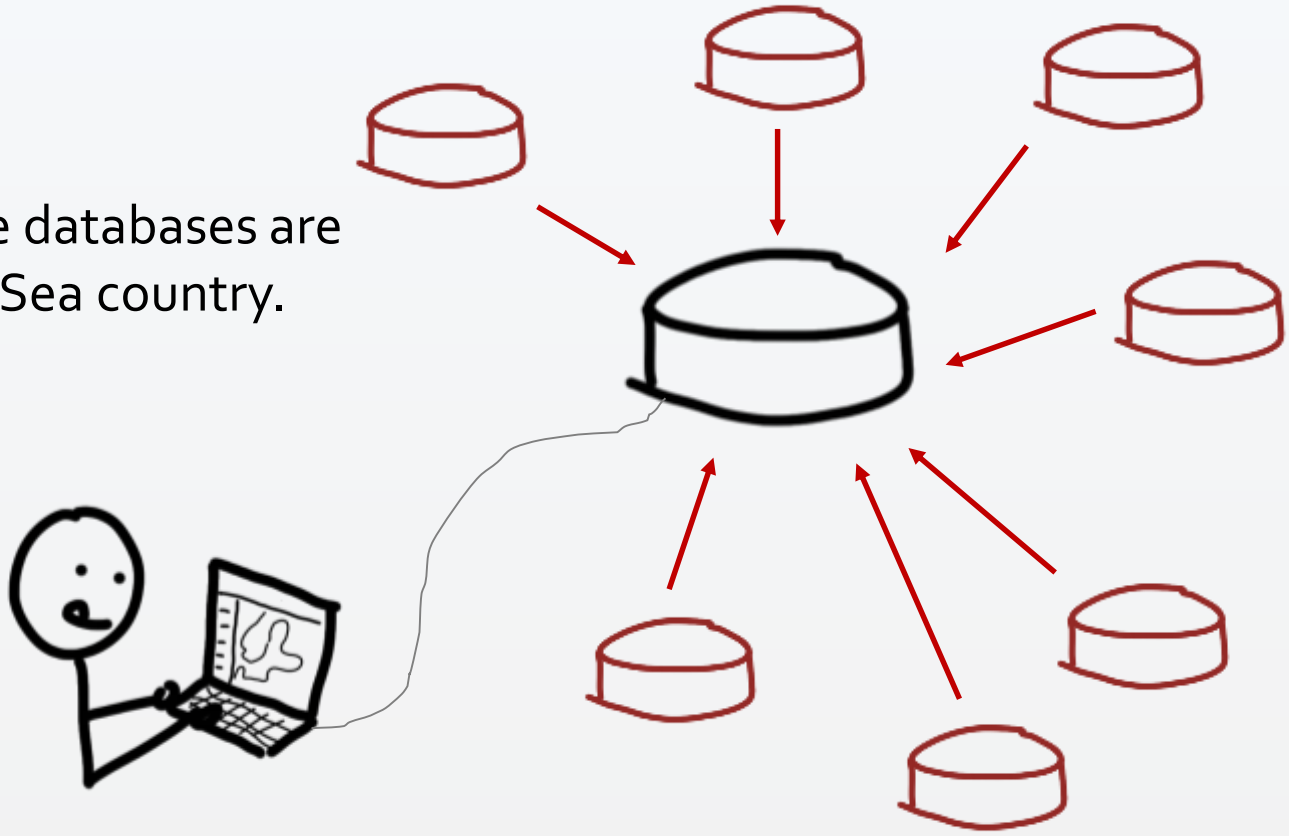
You connect to a database.



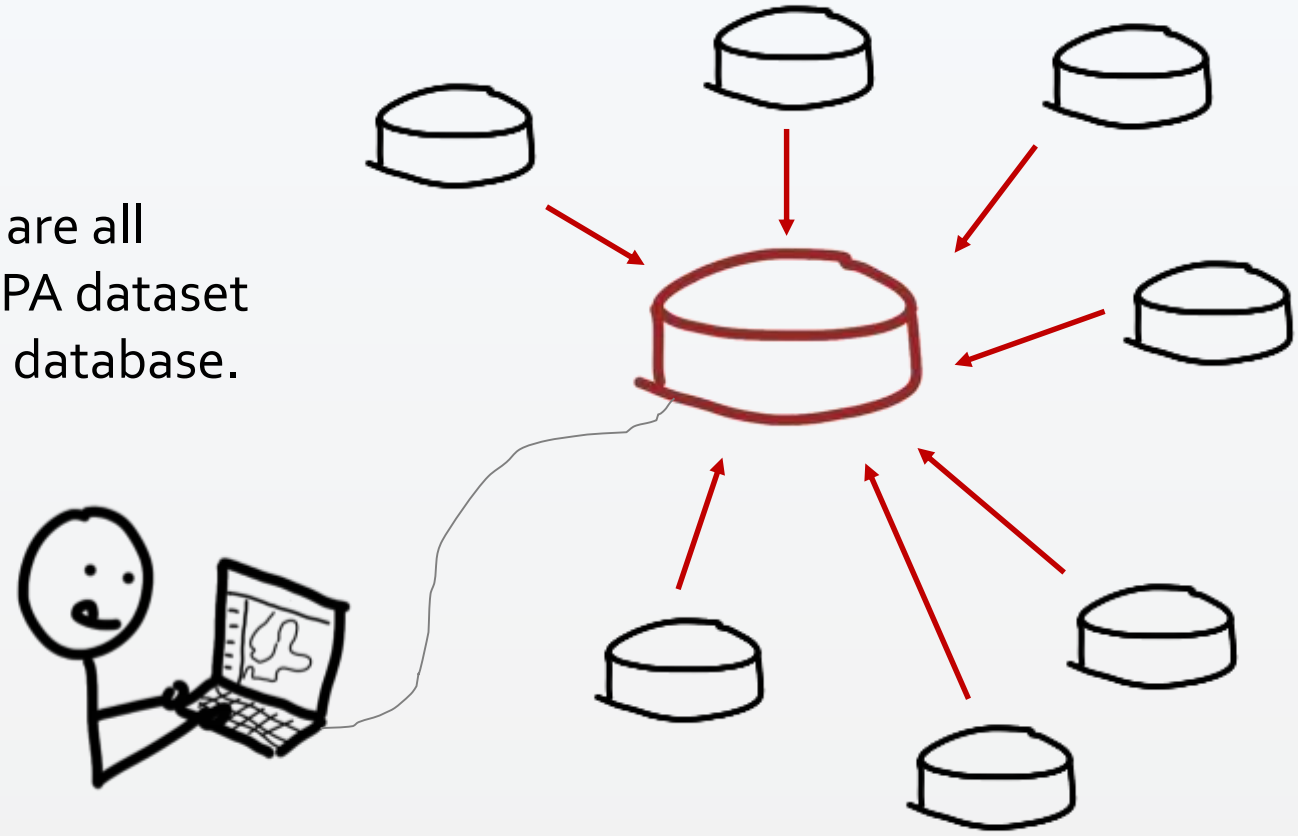
This database is fed by many databases.



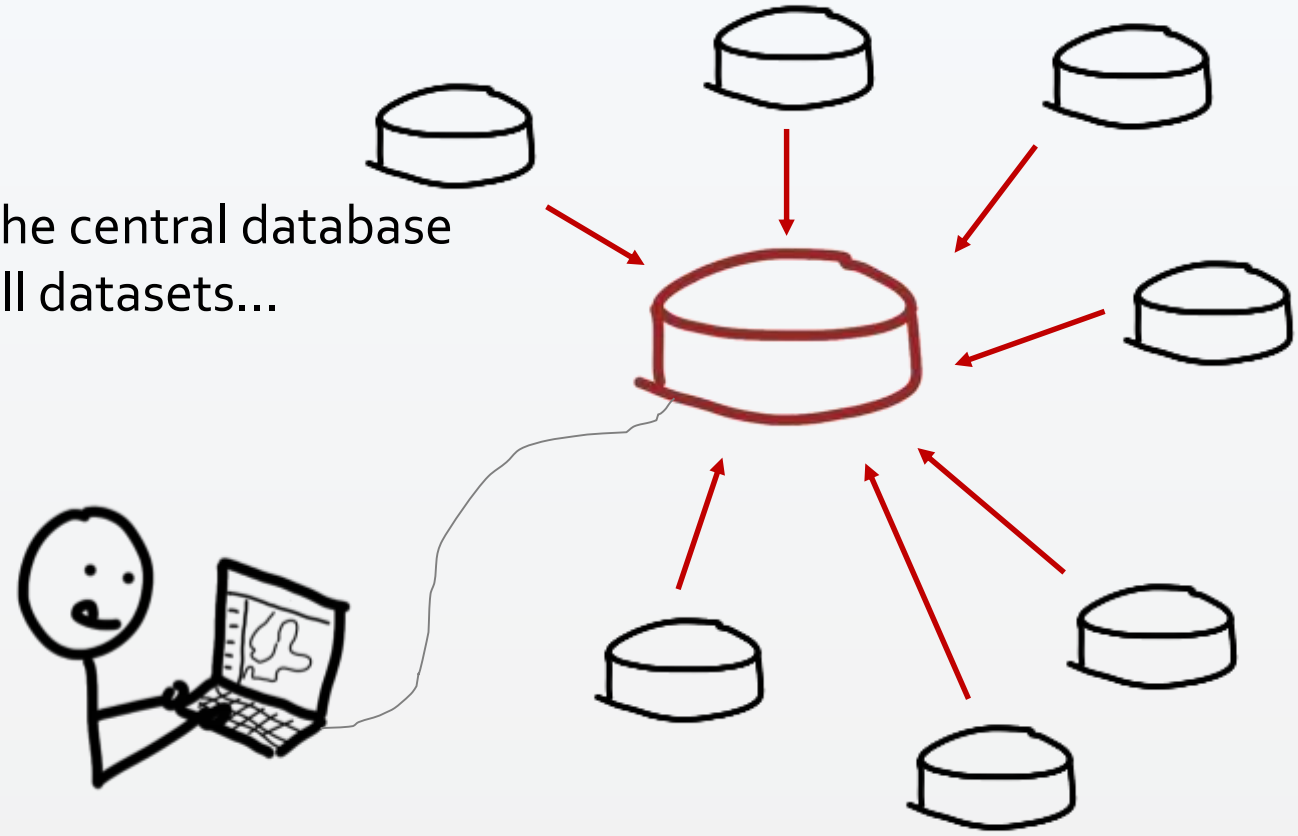
Imagine those databases are in each Baltic Sea country.



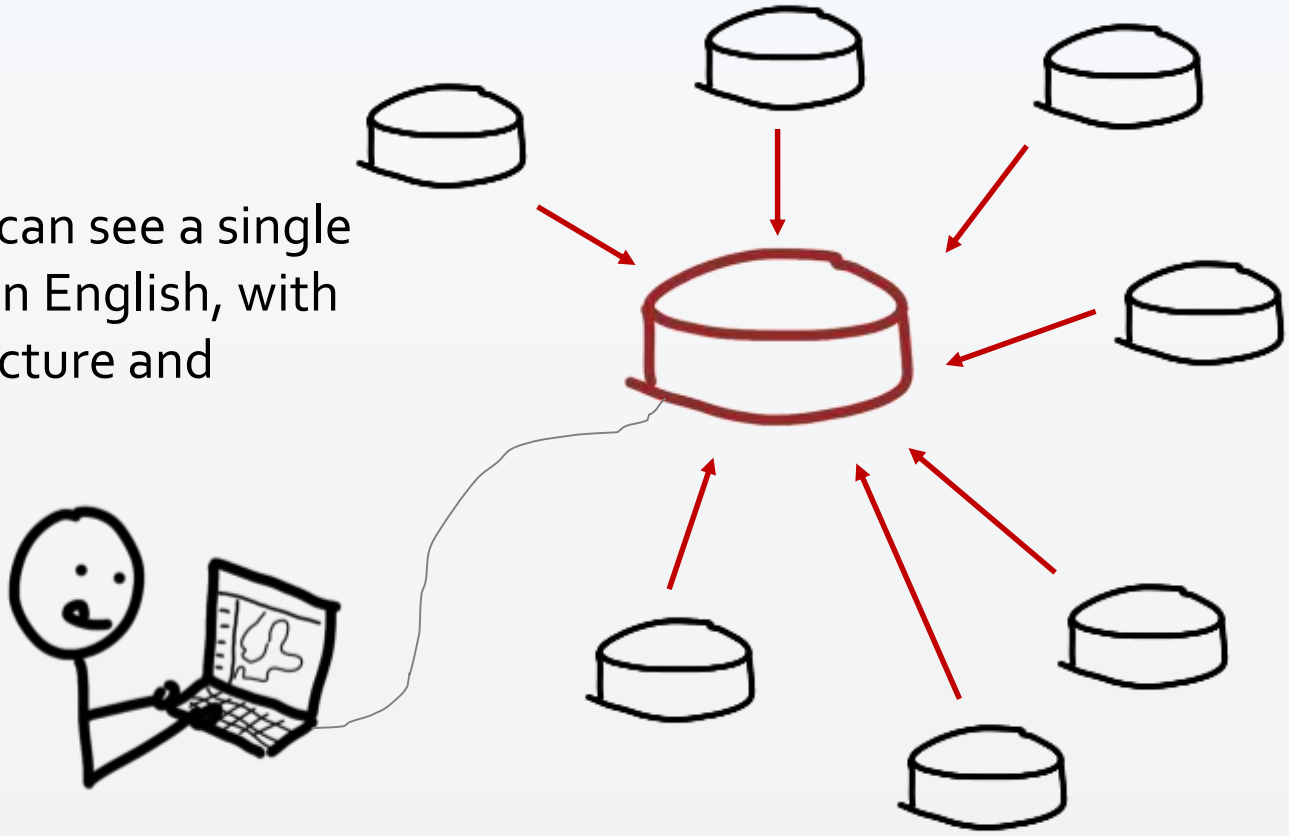
Imagine they are all sending an MPA dataset to the central database.



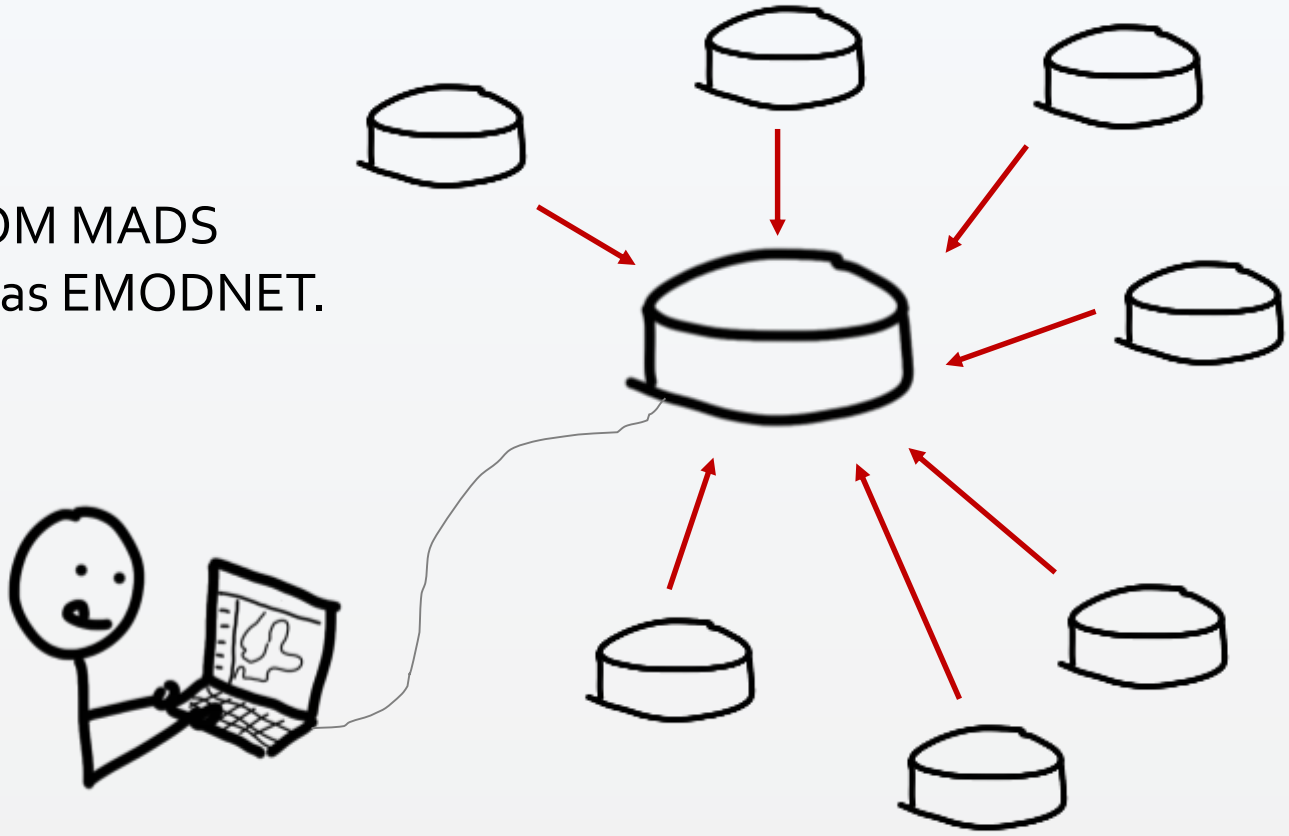
Someone in the central database harmonizes all datasets…



…so that you can see a single MPA dataset in English, with the same structure and symbology.

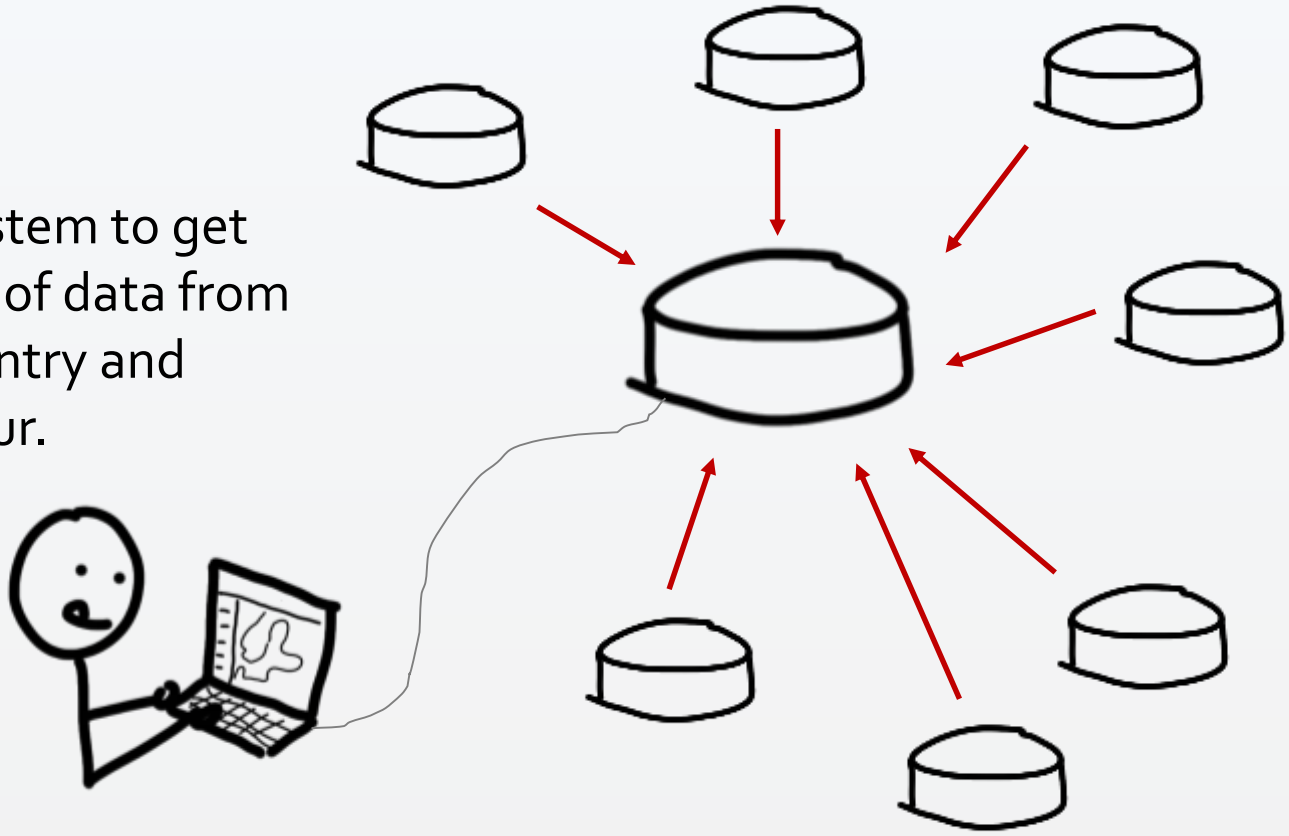


So the HELCOM MADS
works as well as EMODNET.



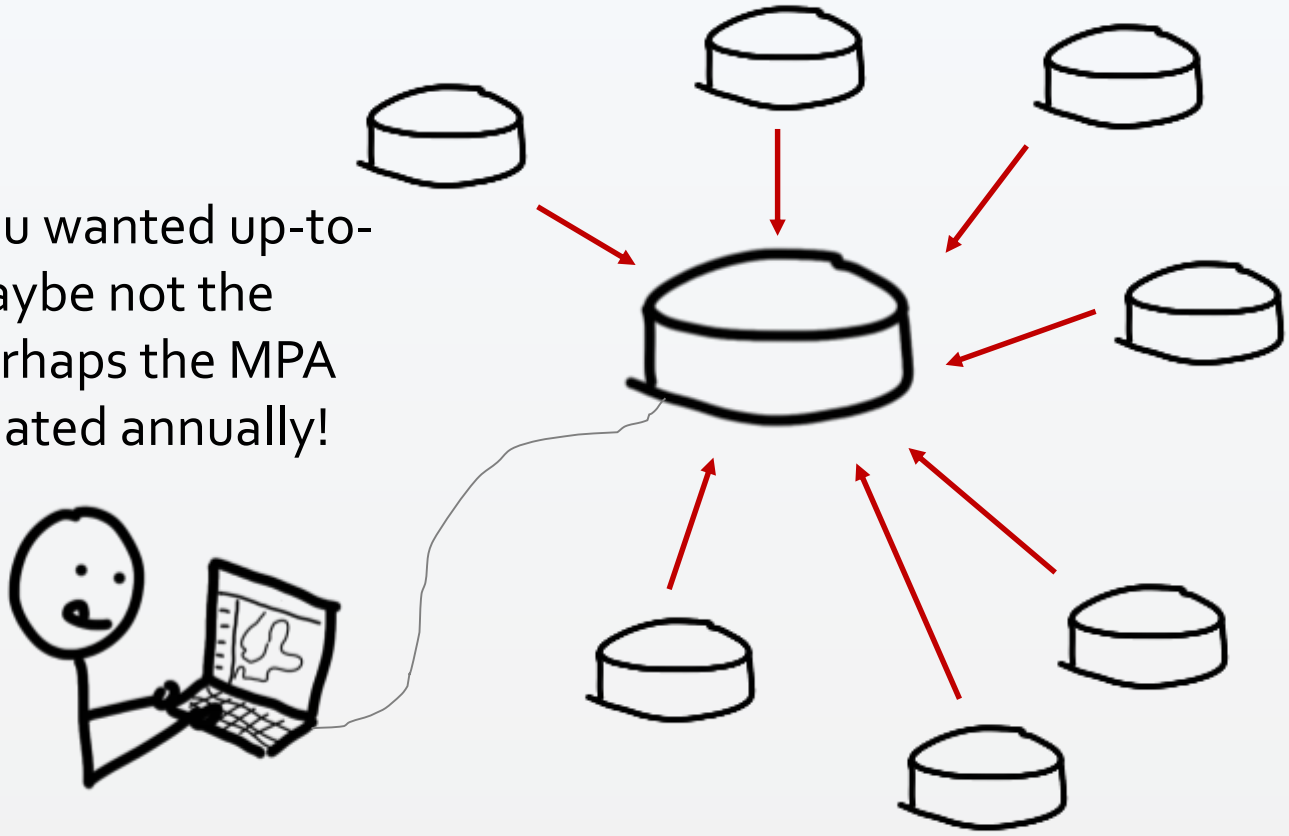
HELCOM Map and Data Service

It’s a great system to get huge amount of data from your own country and your neighbour.



HELCOM Map and Data Service

But what if you wanted up-to-date data? Maybe not the best place. Perhaps the MPA dataset is updated annually!

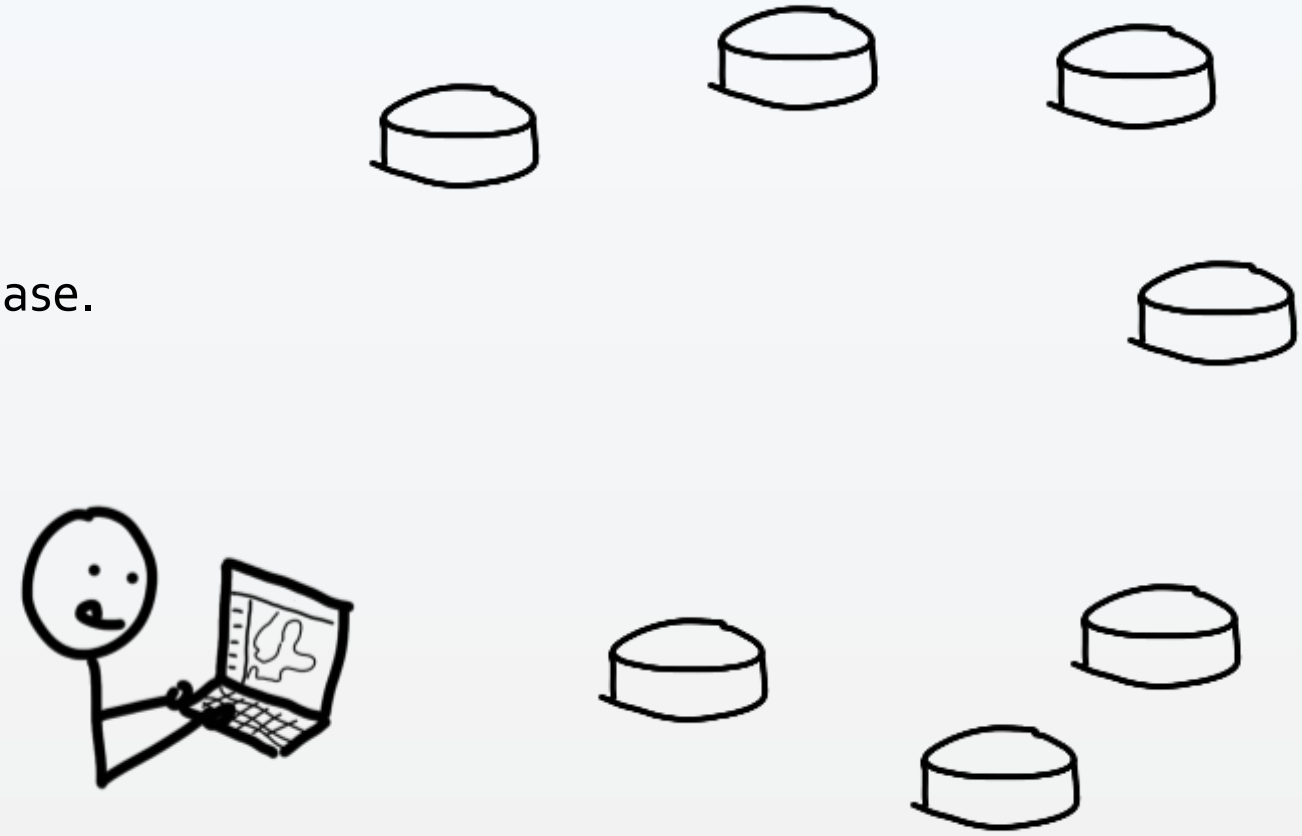


And that’s why now MSP planners have a…

2nd optio

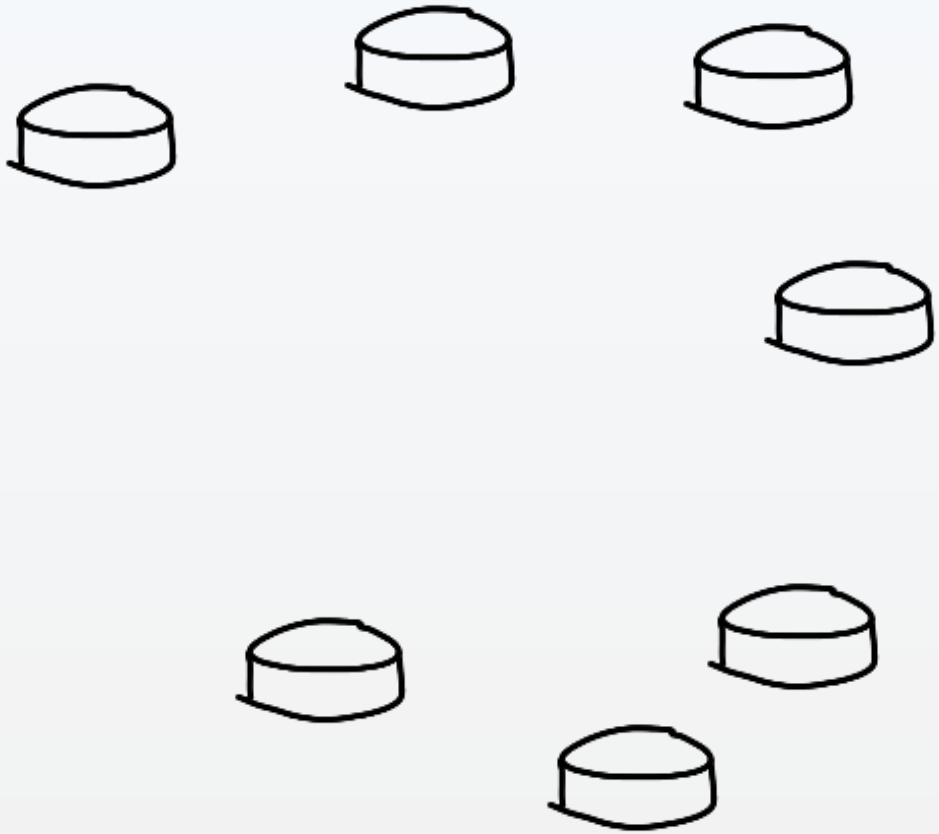
A tool to access
decentralized data.
How does that work?

There is no
central database.



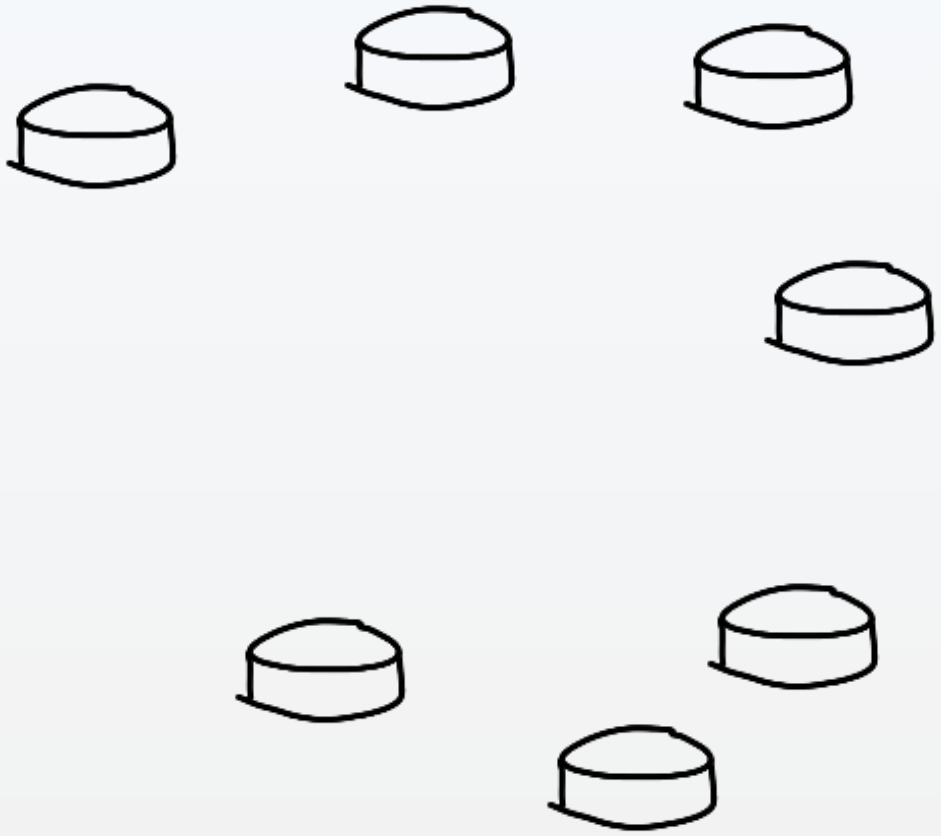
So how do you access those databases?



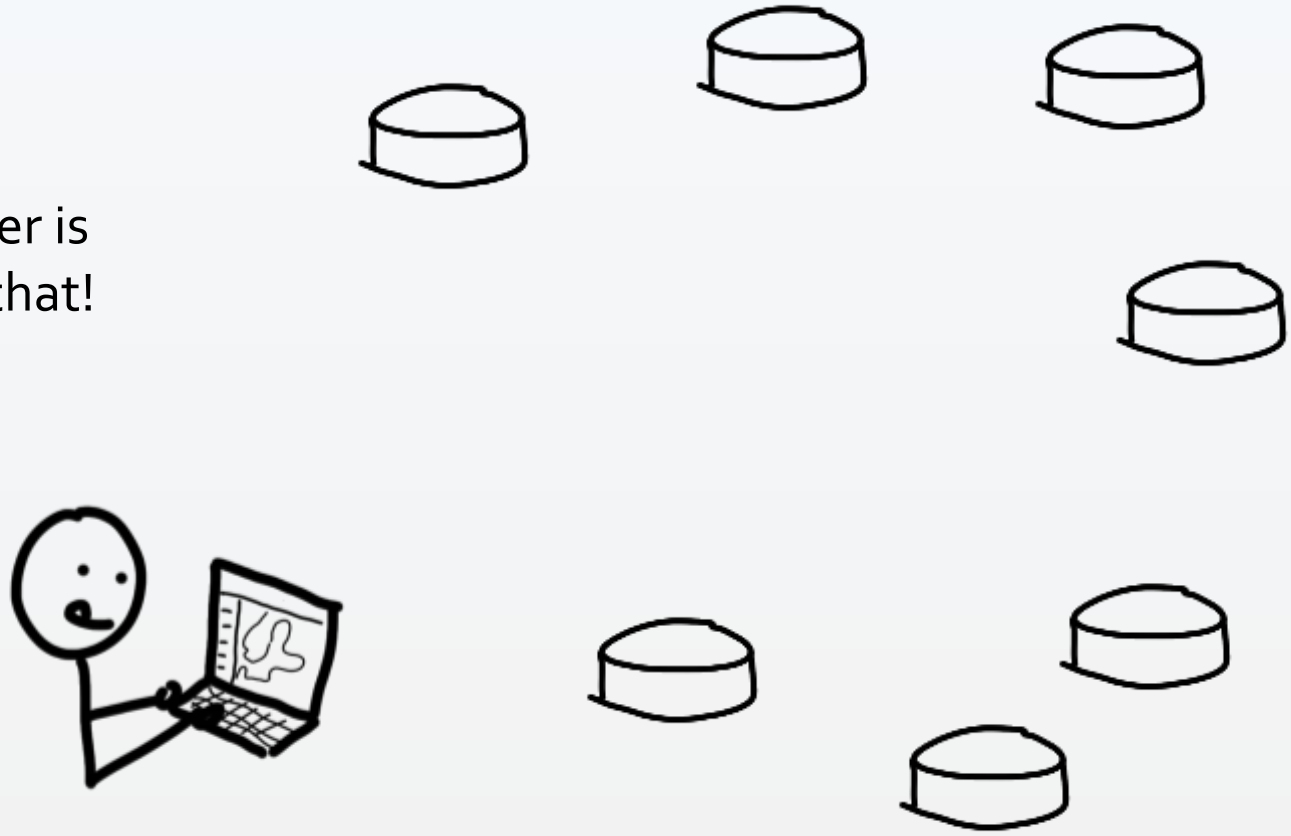


Shall we build another one? Shall we merge all?

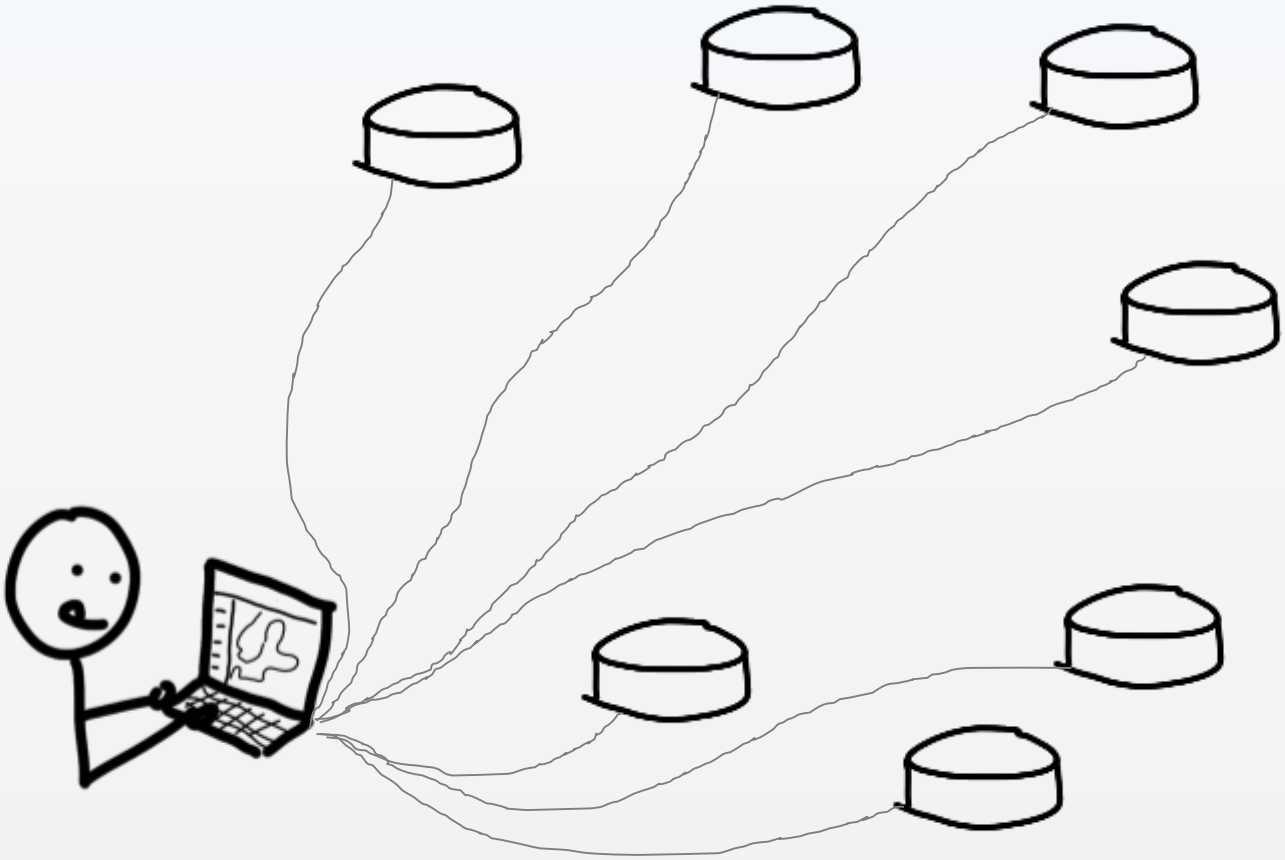




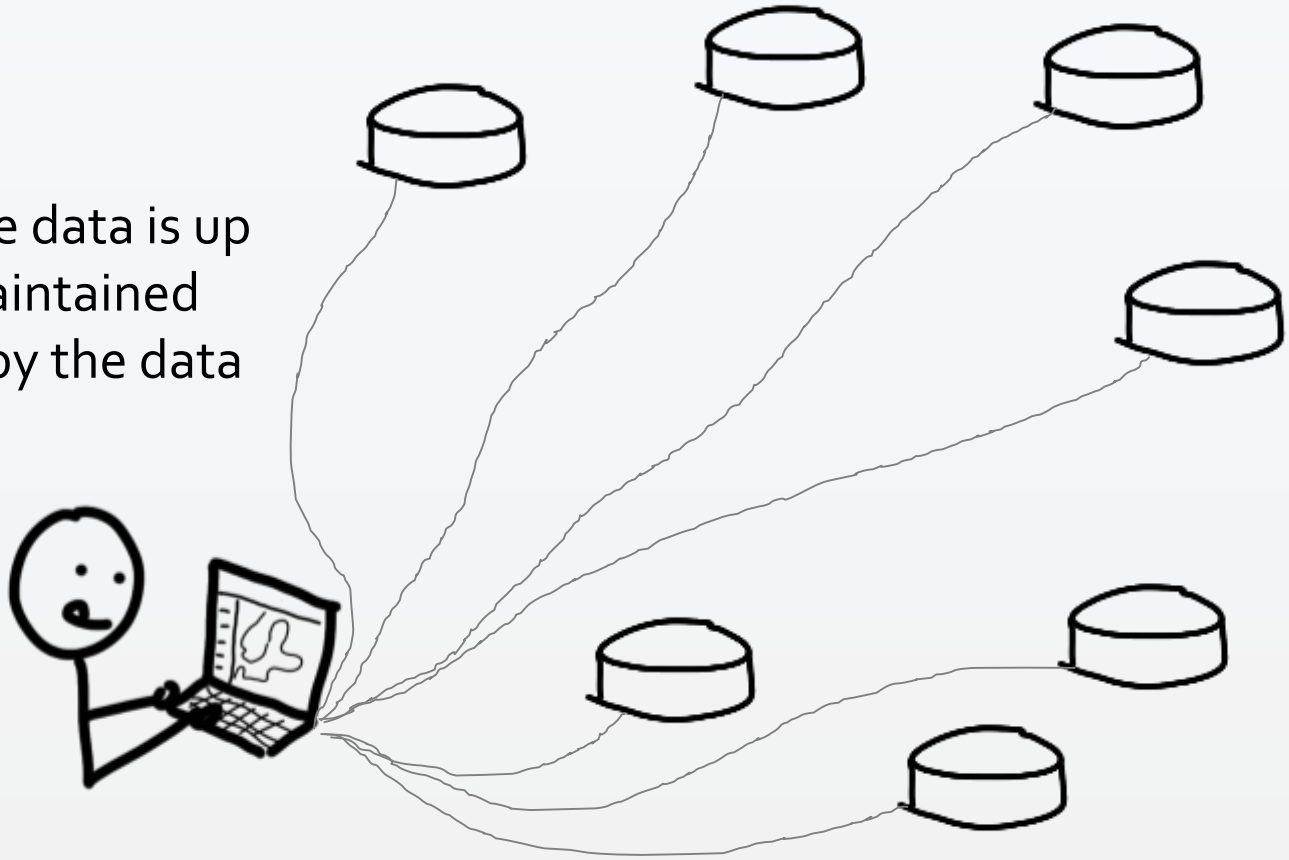
No! The answer is simpler than that!



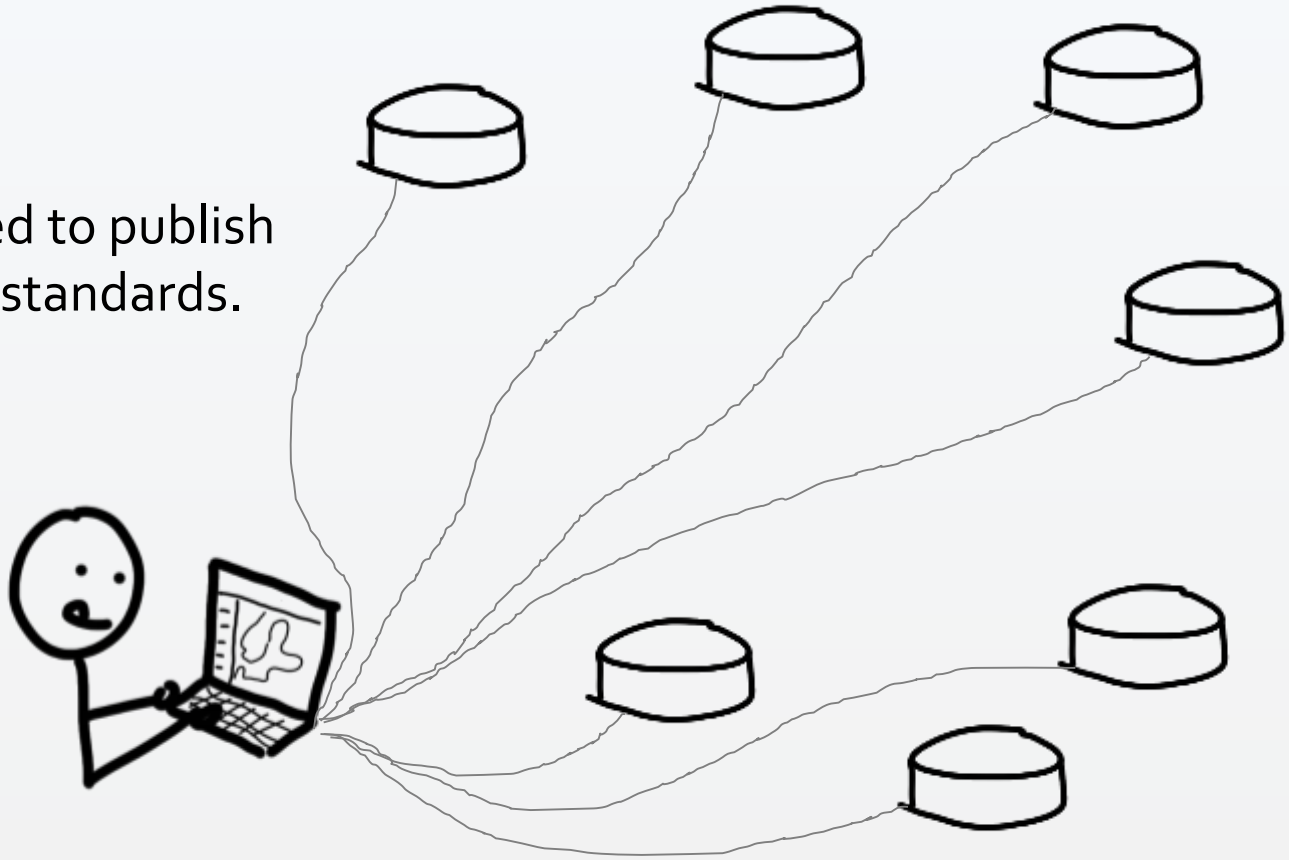
You access
them directly!



You are sure the data is up to date—it's maintained and published by the data providers.



They only need to publish them in open standards.



This is what HELCOM has built…

This is what HELCOM has built…

The first time MSP planners can search data from the original source…

...and it’s called...



BASEMAPS

Baltic Sea Map Service

BASEMAPS

Interreg Baltic Sea Region

HELCOM

Admin

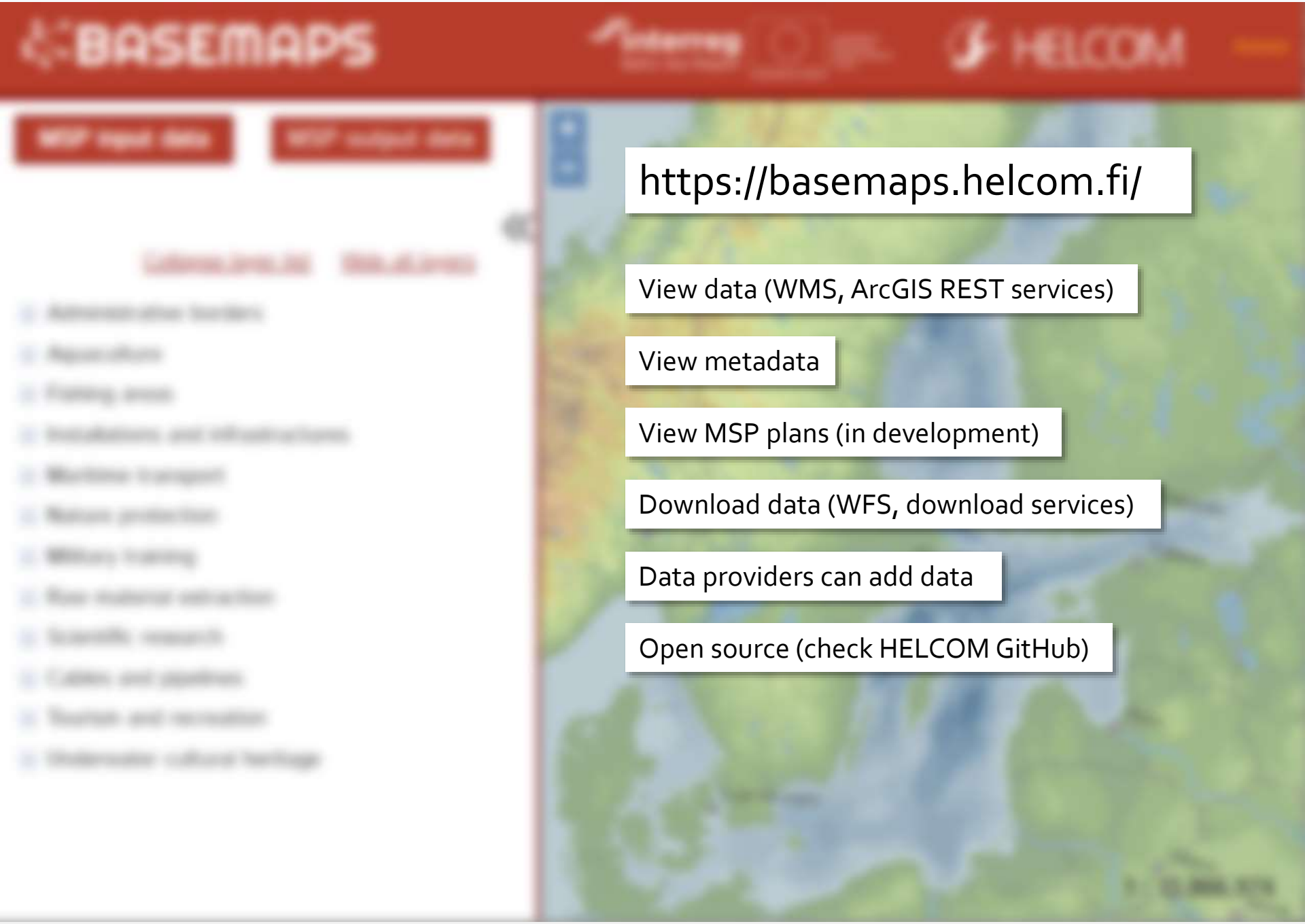
MSP input data

MSP output data

Collapse layer list Hide all layers

- Administrative borders
- Aquaculture
- Fishing areas
- Installations and infrastructures
- Maritime transport
- Nature protection
- Military training
- Raw material extraction
- Scientific research
- Cables and pipelines
- Tourism and recreation
- Underwater cultural heritage




BASEMAPS
HELCOM
https://basemaps.helcom.fi/
View data (WMS, ArcGIS REST services)
View metadata
View MSP plans (in development)
Download data (WFS, download services)
Data providers can add data
Open source (check HELCOM GitHub)


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