NorthSEE and Baltic LINes

Dr. Kai Trümpler, German Federal Maritime and Hydrographic Agency (BSH)
Shipping

Jeroen van Overloop, Directorat General Shipping
Ships
Oldest boat
Historic

door Jeroen Van Overloop
Now
Some for fun
Where?
Why in MSP?
Shipping is the blood of the economy
At any time more than 80% of all transported good are on board of a ship
Vulnerable
Why else?
Energy
Dr. Andronikos Kafas, Marine Scotland
How a seed became a tree
Or how we built a system based on an MSDI to access MSP data
You have seen maps about a lot of uses: wind farms, shipping, environment... Now, what do we need to make all those maps?
Data, of course.

The problem is...
...data is always very difficult to get.
That’s why the Maritime Spatial Planning community in the Baltic Sea planted a seed seven years ago.
Seven years ago, a project called BaltSeaPlan acknowledged the problem and recommended to build a...
...hold on tight to your seats...
...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.
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.

...and this is exactly what we have developed in BalticLINes.
I guess some of you, are thinking “wow, that sounds so exciting”.

[Sketch of a stick figure with arms raised in excitement]
But I am afraid many of you are thinking “what the hell is this guy talking about?”
Let me explain in plain English...
We have developed a system (think of Google Maps for MSP) that potentially:
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Can make the work of MSP planers more effective
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Can make the work of MSP planers more effective

Will help make coherent plans across borders
We have developed a system (think of Google Maps for MSP) 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
It all started with this seed. HELCOM have been watering the seed for three years with much love and care.
We were not alone. We had the support of the Aalborg University and the Finnish Environment Institute.
And this would have not been possible without the support of all the wonderful people in the BalticLINes project.
Do you want to see the result?
Before that, let me explain WHY we did it.
As I said, it’s very difficult to get data. 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 a 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.
And 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 and with the same symbology.
So the HELCOM MADS works as well as EMODNET.
It’s a great system to get huge amount of data from your own country and your neighbour.
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 option
Use 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...
https://basemaps.helcom.fi/
Let me finish with the seed.
We have been nurturing it for three years.
And we got a nice tree.
Now it’s the turn of the MSP community to take care of it.
How? By publishing data in open standards
Please, don't let the tree die!
Data providers: publish data in open standards!
MSP Challenge
Simulation Platform
MSP Challenge

Your sea basin too? Let’s build it!
Texel, NL
Apr 2018
MSP Challenge
Simulation Platform
www.mspchallenge.info
Identification of planning criteria

Riku Varjopuro (BalticLINes)
Starting from the planning issues
Jointly agreed planning criteria to avoid mismatches?
<table>
<thead>
<tr>
<th>Country</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE</td>
<td>A set of criteria is used by the MSP authority</td>
</tr>
<tr>
<td>DK</td>
<td>A set of criteria is used by the energy authority</td>
</tr>
<tr>
<td>EE</td>
<td>No use for a fixed set of planning criteria</td>
</tr>
<tr>
<td>FI</td>
<td>Not needed for MSP, regional sets of criteria are used</td>
</tr>
<tr>
<td>DE</td>
<td>A set of criteria is being developed</td>
</tr>
<tr>
<td>LV</td>
<td>A set of criteria is used in MSP</td>
</tr>
<tr>
<td>LT</td>
<td>A set of criteria is used in MSP</td>
</tr>
<tr>
<td>NL</td>
<td>A set of criteria is used by the MSP authority</td>
</tr>
<tr>
<td>NO</td>
<td>No existing criteria</td>
</tr>
<tr>
<td>PL</td>
<td>Research projects have developed sets of planning criteria</td>
</tr>
<tr>
<td>SCOT</td>
<td>A set of criteria is used by the MSP authority</td>
</tr>
<tr>
<td>SE</td>
<td>An indicative list exists, but always case by case</td>
</tr>
</tbody>
</table>
General Provisions of Ships' Routeing

- Course alteration should be as few as possible
- Route junctions should be avoided
- Make optimum use of water depth and navigable areas
- Design traffic lanes to be fully usable (from edge to edge)
- Take traffic density, other uses and sea room available into account

- Description of the area
- Cooperation between States
- Traffic Considerations
- Hydrographic survey
- Alternative routeing measures
- Offshore structures nearby

(Joint) proposal for an internationally recognized recommended/ mandatory routeing system, e.g. TSS or ATBA

Wish/ need to establish IMO routeing systems to improve the safety of navigation areas
- with high traffic density,
- restricted sea room,
- limited depth or
- unfavourable weather conditions

National governers

Calculation for a round turn to starboard in a shipping lane (see COLREGS 8, P13)

The required room is:

1. Start of the round turn. A round turn is not started right away. Normally one first deviates from the course, while observing the other vessel. This requires time. In the meantime one deviates from the original track. The minimum distance required for this manoeuvre is 0.3 nautical miles.
If a country has a case by case approach, would it use commonly agreed planning criteria?
Identification of planning mismatches and suggestion for planning solutions

Assessment of national approaches and planning criteria (differences)

Step-wise approach for the planning of ship corridors and ORE infrastructure in MSP
Planning Guidance for Offshore Renewable Energy Installations

1. Step: Defining the need for development / political goals for offshore renewable energy installations
2. Step: Mapping the existing designations and installations
3. Step: Mapping suitable areas (general planning criteria)
4. Step: Mapping the conflicts and synergies with other uses and activities
5. Step: Defining the priority areas for offshore-related energy

Planning Guidance for Offshore Energy Cables

1. Step: Consider political frameworks / targets and future demand
2. Step: Suitability of areas
3. Step: Stocktake: Analyzing / Mapping conflicts and synergies with other uses
4. Step: Consider local sea interactions (connections to onshore grid)
5. Step: Define cable corridors based on the analysis and application of planning criteria / planning principles

IDENTIFICATION OF TRANSNATIONAL PLANNING CRITERIA

Work Package 4.2

Planning Guidance to the designation of Ship Corridors

1. Step:
   - Transfer / re-transfer of NWEs: Location of areas concerning NWEs
   - Transfer of existing NWEs: relocation of existing NWEs
   - Identification of areas for the new NWEs

2. Step:
   - Identification of areas concerning re-transfer of existing NWEs
   - Identification of areas concerning new NWEs

3. Step:
   - Identification of areas concerning re-transfer of existing NWEs
   - Identification of areas concerning new NWEs

4. Step:
   - Identification of areas concerning re-transfer of existing NWEs
   - Identification of areas concerning new NWEs

5. Step:
   - Identification of areas concerning re-transfer of existing NWEs
   - Identification of areas concerning new NWEs

6. Step:
   - Identification of areas concerning re-transfer of existing NWEs
   - Identification of areas concerning new NWEs
Learn more:
https://northsearegion.eu/northsee/project-downloads-library/
https://vasab.org/project/balticlines/project-outputs/

And the sessions of this conference!