





#### ADDRESSING MUSSEL FARMS IN MSP

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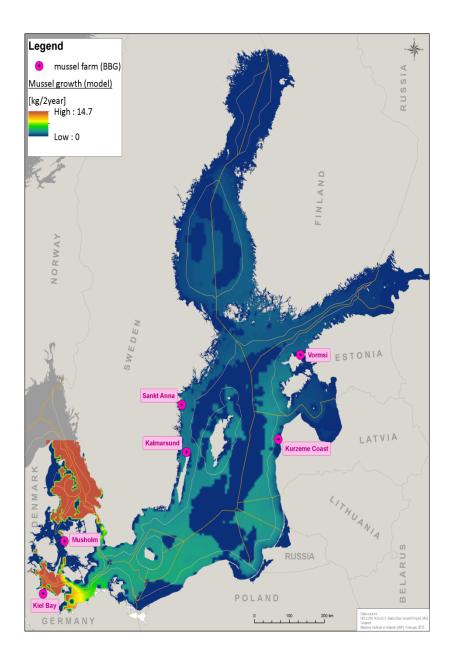
#### Mussels in the Baltic

The optimum conditions for the mussels to growth:

- water temperature near 20°C,
- water salinity: the optimal salinity is 26 PSU,
- oxygen concentration over 5 ml·dm<sup>-3</sup>,
- chlorophyll-a concentration from 3 μg·dm<sup>-3</sup> and higher.

In practice, this means that there are not too many optimal areas in the Baltic for the growth of mussels.

BUT ... mussels will grow anywhere anyway<sup>©</sup>, so what matter is the prupose.



### Mussel farms in the Baltic

So far (status of February 2019) there are three types of maricultures that have been established in the Baltic:

- mussel farms (in Denmark, Germany, Sweden, Finland (Åland), Estonia and Latvia),
- algae cultivation (Estonia, Latvia, Denmark and Sweden) and
- fish maricultures (in Denmark, Finland and Sweden).

While fish farming is carried out on a commercial basis in the Baltic (Denmark and Finland), the majority of mussel farms and algae cultivation sites are or were established as pilot research in projects such as AQUABEST, SUBMARINER, SEAFARM and Baltic Blue Growth. Only a few of them are based on commercial basis (in Denmark and Sweden).

### Interactions and synergies

### The most important **interactions** are:

- mussel farming transport,
- mussel farming fishery,
- mussel farming tourism and recreational activities as kayaking, surfing etc.,
- mussel farming environmental protection,
- mussel farming offshore wind farms.

## Synergies

Four potential combination of mariculture activity with other maritime uses have been identified:

- mariculture and offshore wind energy production (in Denmark, Estonia, Germany, Latvia, Sweden),
- mariculture and tourism (in Sweden),
- mariculture and wave energy production (in Denmark),
- mariculture and environmental protection (in Estonia and Latvia).

Przedrzymirska J., Zaucha J. et al. (2018). Multi-use concept in European Sea Basins, MUSES project. Edinburgh

### Approach – stimulation

- MSP process cyclical decision making process on how the maritime space is to be used
- Maritime Spatial Plans coverage: national vs. local
  German and Swedish case
- Ultimately, a strong sector with political support will find its place in the maritime space – Denmark
- There is no mariculture sector in majority of BSR countries so 'standard' planning process should simply ignore mussel farms (no claims for spaceno space for them).

### Approach – stimulation

- In case there is no sectoral plan for maricultures, our approach suggests planners still to consider a potential of maricultures.
- What we propose is to some extend in opposition to the assumption that planning is a reflection of political and strategic processes and is reactive rather than creative.
- Challenges: MSP is based on an involvement of the sector's stakeholders so... whom and how to engage?, how to avoid a mistrust?
- This is our ,contribution' to minimising barriers for future sector development.
- BUT... definitely, MSP is not the main and only driver for the sector's development.

# Thank you for your attention!









