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<b>Document title</b>	SOM platform activity-pressure linkage geographic scale
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### Background

One component of the SOM approach is quantitatively linking activities to the pressures they cause; as outlined in Step 3 of the [SOM approach document](#) (DS-3). Information on the linkages between activities and pressures is available, for instance, in the activity-pressure linkage matrix of the [TAPAS project](#), and in more detail in similar matrices of the [DEVOTES project](#). Additional pressure specific information can be gathered from other HELCOM projects and reports, including HOLAS II and PLC 6. These data sources will serve as the starting point for a process where expert validation will be used to confirm or adapt the prior data to specific sub-regions. HELCOM Working Groups, Expert Groups and Expert Networks would be invited to participate in the expert validation process. This will produce a set of activity-pressure linkage matrices identifying the proportion of a pressure attributable to each activity.

This document presents the proposed sub-basin groupings for which separate activity-pressure linkage matrices will be constructed. Participants in the HELCOM SOM Platform have contributed to the proposal.

### Action requested

The Meeting is invited to take note of the information.

## Activity-pressure linkage geographic scale proposal

It is clear that a single Baltic wide (HELCOM geographic scale 1<sup>1</sup>) activity-pressure linkage matrix is not able to account for the obvious spatial variation across the Baltic Sea region. However, using all 17 sub-basins from HELCOM geographic scale 2<sup>1</sup> would require analyses at a level of detail that exceeds project capacity. Additionally, existing options, such as the PLC sub-basins, do not account for all the relevant pressures. Therefore, it is proposed that 6 sub-basin groups based on HELCOM geographic scale 2<sup>1</sup> will be used for the activity-pressure linkage matrix. This will retain large scale geographic variation but facilitate the analyses. Basin physical features, the Baltic Sea Pressure Index and its component data layers, and expert input from the SOM platform were considered when defining these groupings.

- North
  - Unifying features: High latitude, moderate aquaculture, agricultural inputs uniform across basins
    - Bothnian Sea
    - The Quark
    - Bothnian Bay
- Åland Sea (including Archipelago Sea Coastal waters)
  - Unifying features: High aquaculture activity and agricultural phosphorous inputs, high proportion of shoreline
    - Åland Sea
- Northeast
  - Unifying features: similar fishing and agricultural activity
    - Gulf of Riga
    - Gulf of Finland
- Central
  - Unifying features: Lack of bottom contacting fishing effort, low aquaculture activity, high proportion of pelagic waters
    - North Baltic Proper
    - Western Gotland Basin
- South
  - Unifying features: Bottom contacting fishing effort, presence of longline fishing effort, low aquaculture activity, high proportion of pelagic waters
    - Eastern Gotland Basin
    - Gdansk Basin
    - Bornholm Basin
    - Arkona Basin
- Southwest
  - Unifying features: Bottom contacting fishing effort, similar agricultural nutrient contributions, high shipping activity, high proportion of shoreline
    - Kattegat
    - Great Belt
    - The Sound
    - Kiel Bay
    - Bay of Mecklenburg

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<sup>1</sup> [HELCOM sub-divisions of the Baltic Sea](#)