How to harmonise data and metadata for Marine Spatial Planning

Wanda Holzhüter (1), Hanna Luhtala (2), and Kerstin Schiele (1)

(1) Institute for Baltic Sea Research Warnemünde, Rostock, Germany (wanda.holzhueter@io-warnemuende.de), (2) University of Turku, Finnland

The need for harmonised data management in Marine Spatial Planning (MSP) is a complex procedure and subject of discussions since MSP started to evolve. Several national and international efforts and agreements (e.g. INSPIRE, HELCOM VASAB recommendations) on consistent data management have been developed. Although, 'space' and 'time' have been recognised as key information for MSP, their categorisation within MSP datasets has not been addressed so far.

In MSP, data and information are primarily processed with Geographic Information Systems (GIS). But most information on social and socio-economic data which are also relevant for MSP are non-spatial evidence.

We present a conceptual approach to categorise the spatial and temporal dimension of data and two options for the practical implementation: within the dataset or within the metadata. It allows an easy and intuitive classification for a more transparent and detailed data management. Additionally, we propose a way, how non-spatial data and spatial data can be organised in the same GIS-system, allowing analyses based on 'space' and 'time' by users as well as advanced automated instruments in a more exhaustive manner.

It is essential to analyse activities taking place in the 3-dimensional sea space with regard to the space they occupy and affect. The introduced classification enables the differentiation of the vertical and the horizontal dimension and it allows the selection and focus on operations taking place e.g. only on the sea surface or the seafloor.

An integrated overview about all relevant information for MSP processes will enable more effective and more transparent knowledge building and decision making.