

EMOVER: an estuary management game as a tool to enhance communication and learning

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Within the Interreg IVB North Sea Region project EMOVE an Estuary Management game has been developed. The project dealt with three different estuaries: the Weser (Germany), the Göta-Älv (Sweden) and the Schelde (Belgium and The Netherlands). The essential outcomes of the project are described in a Governance Vision on adaptive estuarine management (EMOVE partners, 2015).

To facilitate the cooperation and communication with stakeholders in the estuaries new innovative tools were explored. Visualisations with different levels of interaction have been made. The first one is a 3D virtual representation of the development of salt marshes. A virtual 3D presentation shows how a tidal flat eventually evolves into a salt marsh.

The second one is an interactive 3D virtual model of the Göta-Älv in Sweden, where rising sea-level is expected to cause large areas to face flooding issues in the future. The model was used in dialogues with stakeholders where the potential impacts and different measures were discussed.

The third one is a serious game, EMOVER, about the management of estuaries. The main aims of the game are to let stakeholders experience the cohesiveness and complexity of estuaries and to increase the knowledge about dominant physical processes. It concerns a fictive estuary and the underlying calculations are based on known empirical relationships. The game was developed in cooperation with several stakeholders from the Schelde estuary and water management students. The player can select different options of the management of the estuary and the game ends after 200 virtual years of management which takes 10-20 minutes to complete. The player sees an overview of the management decisions and their effect on the estuary for the functions shipping, nature, resistance against flooding and available farmland. When played in a guided meeting, the game can bring the discussion between the stakeholders to a higher level.