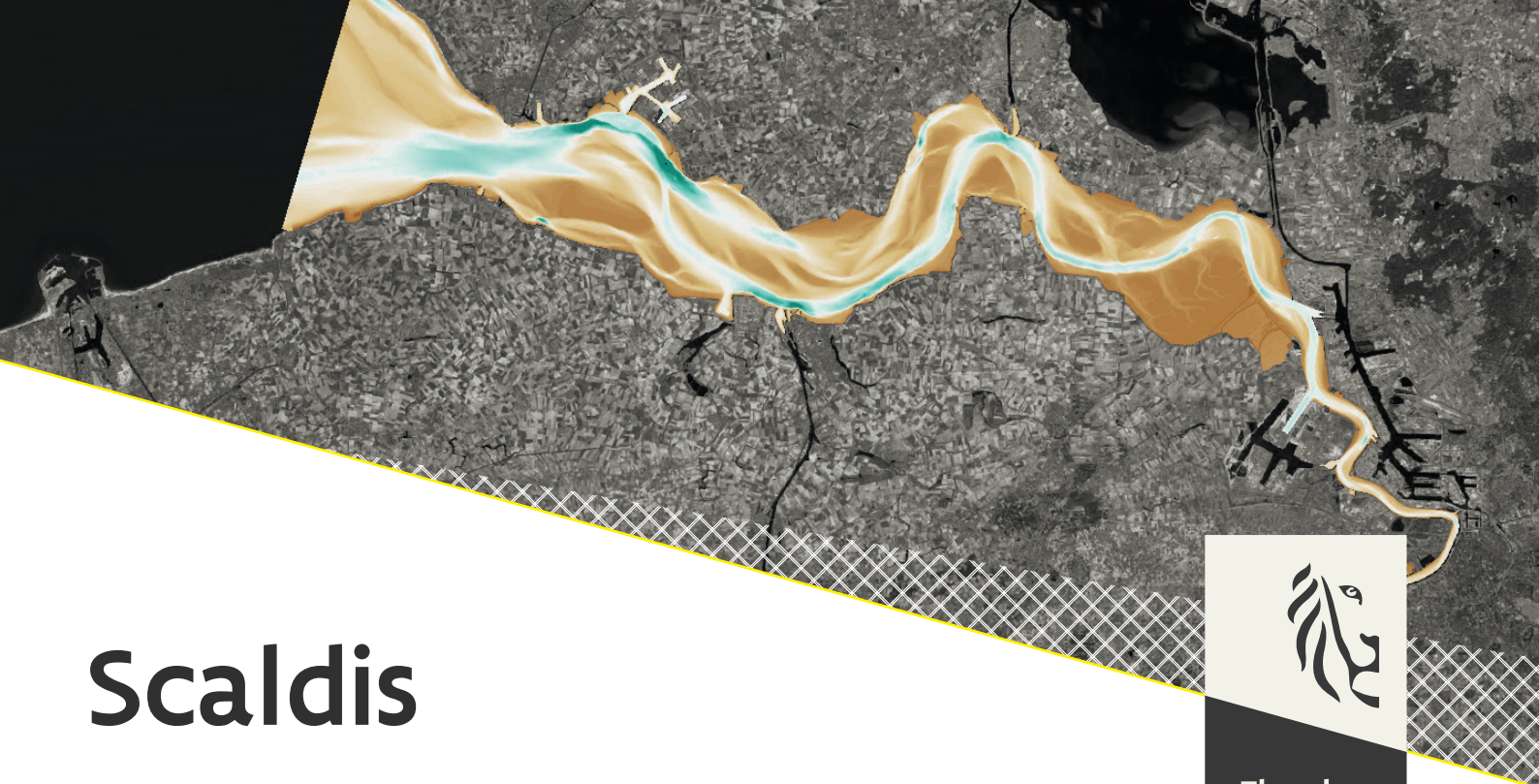




Scaldis



Flanders
State of
the Art

Scaldis is the reference model for 3D hydrodynamics of the Scheldt estuary. It contains both the Western Scheldt (the Netherlands) and the Sea Scheldt (in Belgium), including all tributaries up to the limit of tidal intrusion. The model is updated yearly with the most recent bathymetry, and re-calibrated every six years. This extensive calibration is done based on measurements of water level, flow velocities (both measured on fixed locations and on sailed transects) and salinity.

Applications

The model is applied in scenario analysis to determine the effect of measures on hydrodynamics and sediment transport. Based on the hydrodynamic model, also a mud and a sand transport model have been developed. The flow fields from this model are implemented in different shipping simulators and have been published as a flow atlas. The model results also serve as input for the ecotope maps of the Scheldt that are made every year by the Research Institute for Nature and Forest (INBO).

Characteristics

- Scaldis is a 3D model with 5 layers
- The grid resolution varies from 150m downstream, to 5m upstream
- The model grid is aligned to the stream lines
- The model is implemented in TELEMAC

Reference

