

PORT OF GDAŃSK: NUMERICAL MODELLING OF SEDIMENT TRANSPORT AND WATER QUALITY

GDAŃSK, POLAND



INFO:

Location: Gdańsk, Poland

Client: Arup

Project Date: June 2022

SCOPE OF WORK:

- Literature reviews
- Hydrodynamic modelling
- Report preparation and delivery

PROJECT DESCRIPTION:

The Port of Gdańsk is a seaport located in the city of Gdańsk on the southern coast of the Gulf of Gdansk and is one of the largest seaports on the Baltic Sea. The Gdańsk Deepwater Container Terminal (DCT) is the only truly deep-water container terminal in the Baltic Sea and is the primary gateway for Polish traffic and Baltic transshipment operations. DCT has plans for a 37 Ha expansion of a Terminal 3 (T3) which will include capital dredging and land reclamation.

As part of the environmental impact assessment for this project we conducted a detailed numerical modelling study that was focussed on sediment transport and water quality effects of the proposed development on Stogi Beach which lies adjacent to the port. The project included a beach morphology evolution study and hydrodynamic numerical modelling aimed at quantifying potential water quality issues affecting the coastal zone due to the development of T3.

