

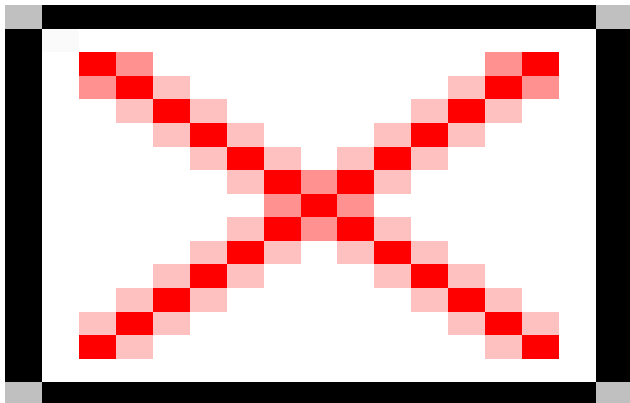
IMDC
Impact assessment / Climate change

Location:

Belgium

Client:

Ministry of the Flemish Community



Project Contact Information

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Socio-economic study of a new inland waterway connection for the Belgian harbours

The Ministry of the Flemish Community engaged Technum-IMDC-Resource Analysis to evaluate the socio-economic consequences of a new inland waterway connection for the ports of Zeebrugge and Oostende, as part of the Trans-European network.

IMDC was in charge of the nautical design of the canal and the hydrological aspects.

The following alternatives were identified and studied:

- Rehabilitation of the existing canal Gent-Oostende
- Rehabilitation of the flood channel of the Leie
- Design of a new 4400 Ton canal (N49)
- Design of a new 9000 Ton canal (N49)

From a technical (nautical) point of view the following aspects were studied for the alternatives: the general lay-out of the canal (width, bends,?), required cross section to accommodate the design ships, required cut and fill, embankments, locks and gates.

In view of the large inundations in the study area during recent years, a hydrodynamic model was constructed to evaluate the consequences of the new canal :

- The effect of the canal on the hydrodynamic regime of the river Leie especially during flood
- The consequences (anticipated to be positive) as a flood mitigation measure for the city of Gent
- The effect of the canal on the water levels in the canal Gent-Terneuzen, which is the link of the port of Gent to the river Scheldt and the sea (the allowed variations in water level are limited to about 0.2m under all circumstances)
- The effect of the new canal on flooding conditions in all villages along the canal
- The effect of the canal on the hydrological regime in the polders along the canal