



RHOMBUS

GLOBAL PROJECT

The Dutch Provinces of South Holland, Gelderland, North Brabant and Limburg, together with the national Ministry of Infrastructure and Water Management, the Port of Rotterdam and the so called 'Topsector Logistics', have developed a comprehensive infrastructure vision named "Topcorridors". This vision aims to develop the transport corridors in the East and in the Southeast of the Netherlands to become Europe's most sustainable and innovative transport corridors.

The Topcorridors, among others, connects the multimodal freight hub of Rotterdam with that of Duisburg and Antwerp. In addition, the Topcorridors region contains several important urban nodes and vital multimodal transport hubs. The Topcorridors include and connect all relevant freight transport modes, being rail, waterways, and road. The Dutch inland waterways are crucial for freight transport in the region, as well as on the European level, where the Topcorridors are benefitting the TEN-T Core Network and the TEN-T Corridors. The Topcorridors geographical position makes it an essential connection between the TEN-T main port of Rotterdam and other urban nodes and multimodal hubs in the European hinterland.

Topcorridors programme and its ambition

Optimal and sustainable management of freight transport will be one of the most important challenges over the coming decades, both for the logistics and shipping industries and for the authorities at various levels (federal government, provinces, and municipalities). Efficient and safe freight flows and logistics are essential for sustainable growth and competitiveness of the Topcorridors regions as well as for Europe. For the development of excellent freight transport corridors, a sustainable economic approach that includes the public and private sectors is a critical pre-condition.

Within the Topcorridor program, goals are set regarding the economic growth and activity, environmental impact and sustainability, and the safety and quality (accessibility) of the corridors. The figure below shows the different goals and related criteria.

One of the main objectives of the Topcorridors vision for 2030 is to retain and strengthen its position as a high quality corridor for freight transport, both within the Netherlands and as part of the TEN-T. To achieve this, a programme has been developed that contains different projects for improving the waterway, rail and road transport modes, in order to improve the entire TEN-T network in the Netherlands. This Topcorridors approach is embedded in Dutch national infrastructure policy, called BO-MIRT.

As part of the program, more than 80 projects have been identified that contribute to the Topcorridors goals. Among which the improvement of facilities for inland waterway transport. In order to match the Topcorridors vision with TEN-T the Rhombus initiative has been developed

Rhombus

The figure below shows the Rhombus concept, that contains synchro modal solutions for the waterway system that connects Antwerp - Paris – Liege – Venlo – Nijmegen - Rotterdam. The following canals and rivers, which are the Albert canal, Schelde –Seine -Meuse and Juliana canal and the river Waal, comprise the Rhombus.

The Rhombus concept includes the following strategic aspects:

- Modal shift from road to waterway transport, contributing to reduction of congestion on the TEN-T core network.
- Crossborder cooperation between NL and B and parts of NRW as the Meuse also services NRW.

- Rhombus provides more robust transport solutions;
 - the Rhombus form allows access from both sides
 - the canalised Meuse and Albert canal provide the Rhombus with a stable water level and is less vulnerable for low waterflows;
- the 24/7-operations that have been operational since 1-1-2020, allow for continuous accessibility.
- Envisaged projects along Rhombus allow upgrading the route to CEMT Vb (part of it is VI) and justify earlier EU-investments in Rhombus (increasing height of bridges in Albert canal).
- Increasing sustainability:
 - Rhombus contributes to modal shift;
 - Projects along Meuse contribute to flood risk protection;
 - Shortened routes on Rhombus allow for application of 'shuttle services'-concepts that provide opportunities for electric and /or H2-ships.
- Rhombus strengthens the Mainports and Inland hubs resulting in less congestion in the Rotterdam and Antwerp harbour and higher volumes for Inland hubs.
- Integrated approach of org-, soft- and hardware (waste transport, Clean Energy Hubs, digitalising transport (prediction of ETA and waiting times, management system for locks and bridges).
- Rhombus links the Rhine-Alpine- and North Sea-Med corridor. By shortening the distance between the Meuse in Limburg and Rhine in NRW (50 km), exchange can take place between these corridors, which reinforces both TEN-T-corridors
- Military transport (one of the functions of the TEN-T-network) from seaports to the hinterland is facilitated by Rhombus and its terminals.
- Economic development will be supported in areas serviced by Rhombus.

