

## Aim & objectives

Twin hub network, a European Interreg IVB project, aims at making intermodal rail transport within, to and from North West Europe more competitive, in particular between seaports and inland terminals. Improving rail competitiveness enables to shift freight flows from road to rail, providing a more sustainable and robust transport network and increasing the network connectivity and territorial cohesion within North West Europe. The project pursues improvements in the performance of rail services by bundling the intermodal rail flows of different seaports in the Dunkirk-Amsterdam range, in particular the flows of Antwerp and Rotterdam.



Trains exchange load units in a hub terminal

### Advantages of such bundling:

- larger trainloads
- higher service frequencies
- higher network connectivity: serving more inland terminals and seaports
- better utilization of the rail infrastructure
- including inland terminals and seaport terminals with smaller flows
- in case of larger trainloads the bundling also supports the more efficient utilization of track infrastructure

## Twin hub concept

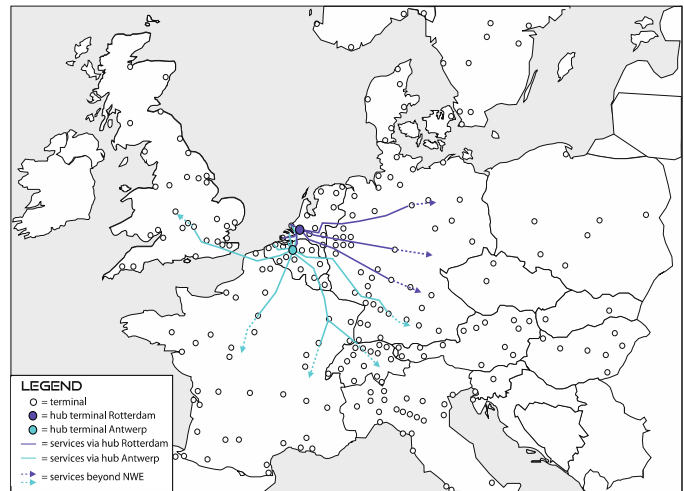
Twin hub is a title for a set of hub-and-spoke networks. Each of these consists of trains which meet at the hub to mutually exchange load units.

The trains of a hub-and-spoke network:

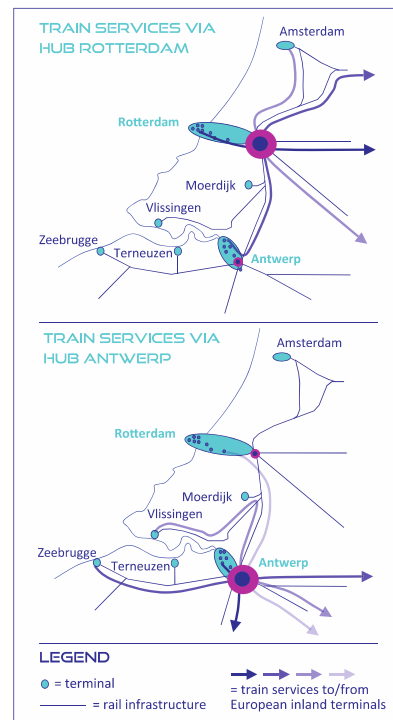
- start at different seaports;
- meet at the hub to exchange load units;
- continue their journeys to different inland terminals v.v.

The Twin hub network has two hubs, located at the gravity points of the flows:

- region of Rotterdam
- region of Antwerp



Example of potential Twin hub train services from/to European inland terminals



Train services via hub Rotterdam and hub Antwerp

Which hub is used primarily depends on its geographical orientation. Trains to the south are likely to use the Antwerp hub, ones to the northeast the Rotterdam hub.

In this configuration each seaport and inland terminal represent a spoke.

The difference with a network with a single hub is not the number of hubs visited, but the expansion of the size of the service area by rail of both ports.

## Project structure

1. Identification of promising Twin hub networks
2. European pilot Twin hub service network
3. Towards programming and planning required infrastructure
4. Analyze societal benefits related to the performance improvements