

North European Container Traffic Modell

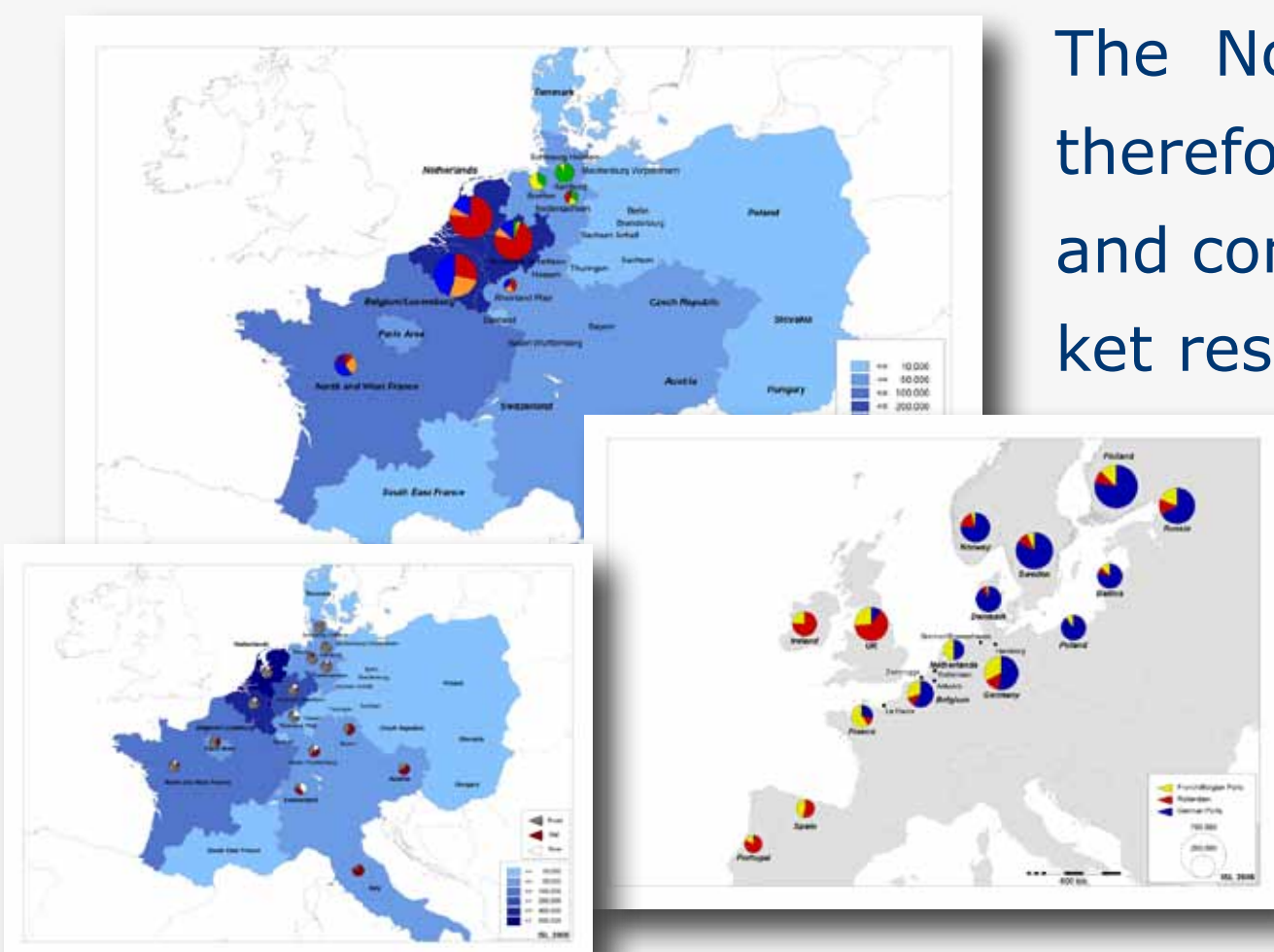
Analytical Focus

The North European Container Traffic Model (NECTM), developed by the Institute of Shipping Economics and Logistics (ISL) and IHS Global Insight, is an integrated TEU-based model for the North range ports including deepsea and shortsea traffic as well as hinterland and transshipment regions for the ports of the Hamburg-Le Havre range (Le Havre, Zeebrugge, Antwerp, Rotterdam, Bremen/Bremerhaven, Hamburg).



The model

- differentiates transshipment volumes from hinterland traffic,
- identifies the volumes and modal split of container traffic with the various corresponding hinterland regions of the North range ports,
- assesses the container traffic volumes between the North range ports and corresponding shortsea destinations,
- provides the basis for forecasts of port traffic and hinterland transport volumes using IHS Global Insight's World Trade Service (WTS).



The North European Container Traffic Model therefore is a flexible tool for benchmarking and competition analysis, and for detailed market research on intra-European shortsea traffic volumes and deepsea trades. Results can be presented in customised databases, tables, graphs and figures, according to different regional aggregates or for selected market segments.

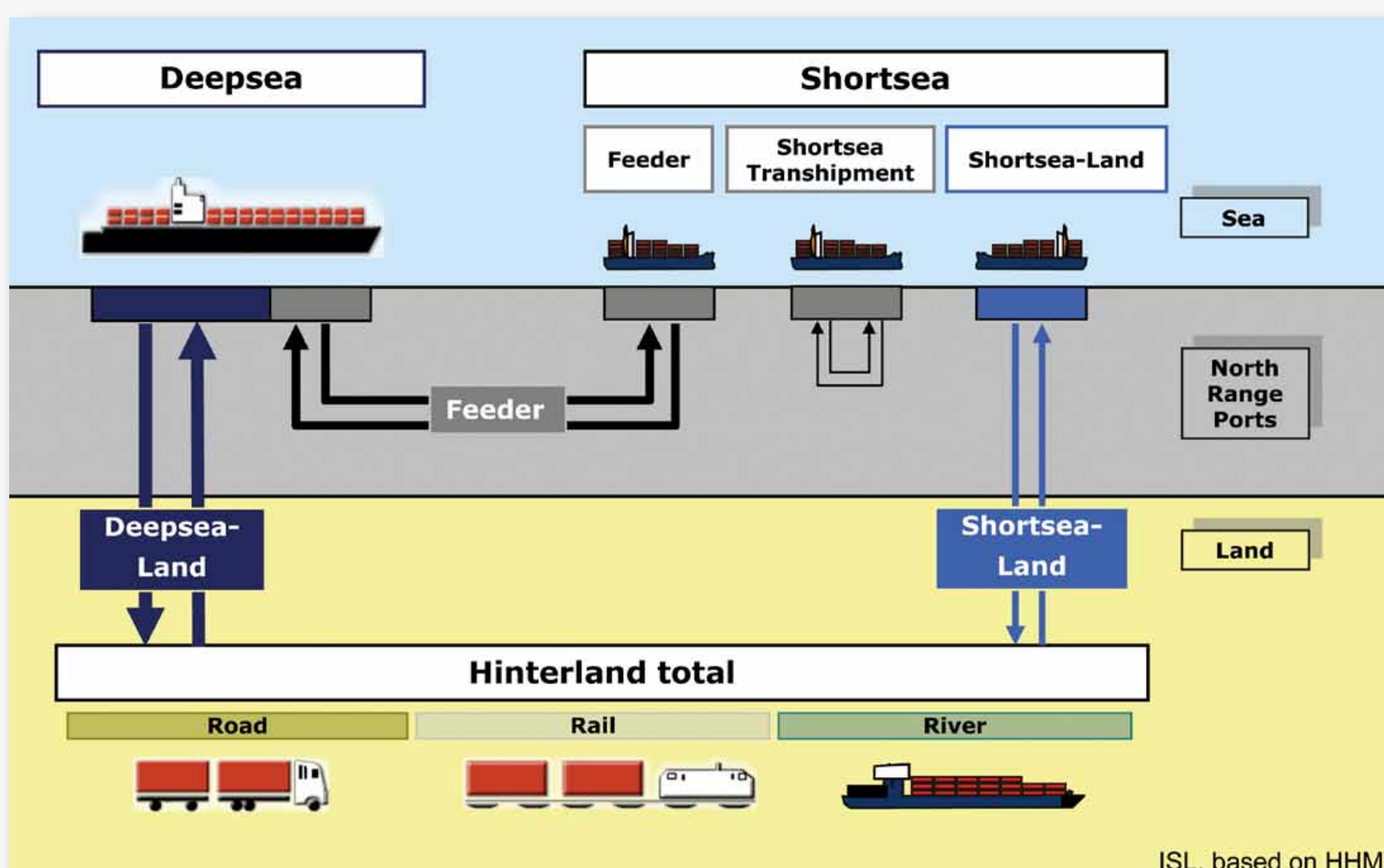
Conceptual Approach

The model comprises two modules covering the whole range of European container traffic to and from the North range ports.

The assessments of both modules are based on a split of port traffic volumes since reliable intra-European trade and transshipment data are not available. In a first step, shortsea traffic volumes are split into intra-European shortsea trade and transshipment volumes (short haul). Second, these transshipment volumes are used as a basis for the corresponding split of deepsea traffic into transshipment (long haul) and direct inland transportation. Main model components are:

- The Shortsea Traffic Model (STM), providing analytical assumptions on the split of shortsea/transshipment, is primarily based on industry information (survey).
- The Hinterland Model, an “all-source” consolidated database measuring the landside split of container traffic.

Structure of the Container Traffic Model



Advantages

- A learning model conceptualised as a multi-client project for ports, ship operators, forwarders, and other clients from trade-related industries.
- Integrates quantitative and qualitative information from various sources, including specific interviews and surveys.
- The model's multi-level structure allows the incorporation of very detailed information for calculations, while protecting confidential information at the output end through customised aggregation.
- Interface with IHS Global Insight's World Trade Service, a foreign trade database including regularly updated short, medium and long-term forecasts.

Reference Projects

The Position of the Port of Rotterdam in Hinterland regions

During the pilot study conducted for the port of Rotterdam for the base year 2003, a large part of the methodology of the North European Container Traffic Model was developed. To differentiate between deepsea-land and transshipment volumes, ISL conducted the first Shortsea Shipping Survey among shortsea and feeder operators. The hinterland distribution of deepsea volumes was based on origin/destination data from IHS Global Insight's World Trade Service and intense supplementary desk research. Special attention was also paid to the role of distribution centres in the ports' hinterlands.



Source: ECT Rotterdam

Container Traffic Model „Port of Hamburg“

The study for the port of Hamburg included an update of the container traffic model for all major North range ports (base year 2005), including a new round of the Shortsea Shipping Survey. In order to improve the hinterland data robustness, a large-scale hinterland survey covering more than 20 per cent of Hamburg's truck traffic was conducted among forwarders, distribution centres and transport companies in order to calibrate the model. The results were combined with the World Trade Service data and subsequently used for the latest container traffic forecast for the port of Hamburg.



Source: HHLA Hamburg

Contact

The Institute of Shipping Economics and Logistics (ISL) is one of the leading maritime research and consulting institutes in Europe. More than 60 employees work together in interdisciplinary project teams in the three departments Logistics Systems, Maritime Economics and Transport and Information Logistics, in practice-oriented research and development projects.

ISL has a wide range of services to assist its clients in market studies and forecasting. Wide-ranging analytical skills have been built in data analyses and transport modelling for the whole European transport market and especially with respect to port developments. Included in the various analytical approaches are modal split assumptions with regard to land and sea transport. Moreover ISL is focussing on the compilation of transport and trade statistics and the provision of analytical data. ISL has a long tradition as information provider not only with its information centre but also with the world-wide distributed statistical publications.

Your ISL Container Traffic Model team

Michael Tasto | +49(0)421/220 96-73
Sönke Maatsch | +49(0)421/220 96-32

portbase@isl.org