

BEST PRACTICE FACT SHEET (No. 9)

VOLVO

The "8" and "EuroBridge"



Main Achievements

- Organising efficient rail operations through 5 countries (with different languages), with 5 rail operators and no transparency between them, governments demanding return on rail infrastructure investments, several unions of transport workers,
- Robust solution by having two operations working in parallel, the EuroBridge acting as a back-up for the "8" when required.
- 1 100 truck movements from Gothenburg to Norway have been removed.

Main Innovations

- Harmonisation of rail operations in 5 countries with different cultures and languages
- Common quality handbook for the complete operation used by all operators
- Organisational set-up and use of KPIs that have resulted in very reliable services (95% reliability in arrival times).

Motivation

- Reducing logistics cost
- Reducing the environmental impact of transport

Main companies involved

- Volvo Logistics
- Rail: Green Cargo, Railion Denmark, DB Cargo, Railion NL, SNCB
- SSS: DFDS Tor Line.

Implementation date

- Fully operational since 2002

Transport/Geographical characteristics

- Linking the Sweden to Belgium
- Intermodal – road, rail, waterborne



Winner 'Intermodal Award' EIA
– edition 2005

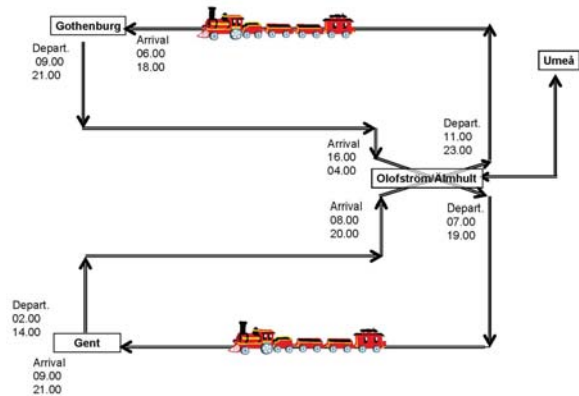
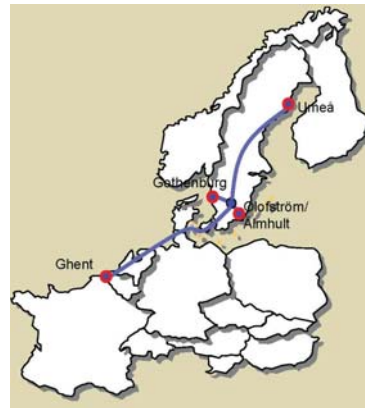
Starting Point

Volvo's factories are recognised as "peripheral" in relation to customers. This result in a distance handicap compared to other vehicle manufacturers. Transport efficiency is decisive to compensate for the distance handicap. When starting the activities, Volvo already had a premium, sustainable operation. The cost, however, was not optimal and the environmental impact could be reduced.

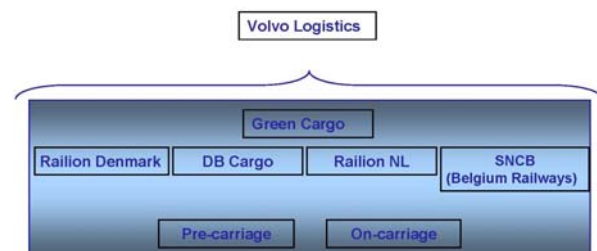
The "8"

The "8" operates two trains per day in each direction:

- Olofström- Gothenburg-Olofström
- Olofström/Umeå-Ghent-Olofström/Umeå



Volvo Logistics acts as the manager of the supply chain. Volvo logistics then interacts with Green Cargo, who has the complete responsibility for organising the rail transport activities from origin to destination.



Quality

Two essential quality criteria are used:

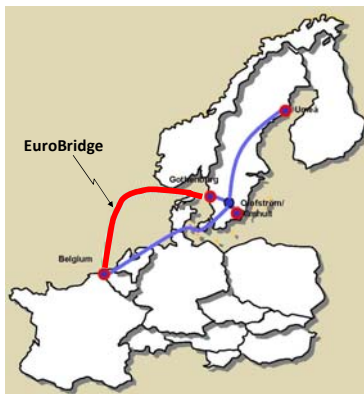
- Reliability of the service in time
- Quality of cargo delivered (the same condition in origin and destination).

The measured reliability in time is 95%, despite difficult weather conditions, the need to organise rail transport in 5 countries (with different languages), governmental demand for return on rail infrastructure investments, and involving many unions of transport workers.

The approach to secure the quality of the cargo delivered has been to develop procedures for damage prevention, where the transport service providers have been involved with the Volvo Damage Prevention at the Risk Management department.

EuroBridge

Transport between Gothenburg and Ghent is crucial to Volvo's operations. As a consequence, Volvo has an additional independent service between these locations, the Short Sea Shipping operation EuroBridge offered by DFDS Tor Line. When necessary, the EuroBridge may function as a backup for the "8".



Results and experiences

The two systems have been operating successfully for a number of years. EuroBridge functions well as a backup for the "8" when required.

The solutions would not have been developed without Volvo Logistics' initiative and determination. This is another example where innovative transport solutions are not created by transport service providers, but by their customer.

Key performance indicators (KPIs) are used extensively by all participants in the operations.

A single security handbook covering the complete operation from Ghent to Gothenburg was achieved, used by all companies involved.

The main strengths of the solution are efficiency, reliability, robustness and low cost of operation.

- The efficiency measured in reduced lead times.
- The reliability (95% in relation to the time schedule) for a just in time production set-up

with very little warehousing, this parameter is very important.

- Robustness achieved by having redundancy between a rail-based operation and one using short sea shipping.
- Low cost through high utilisation of transport resources

Main benefits

The benefits of the Volvo Logistics transport solution (The "8") may be summarised as follows:

- The solution is reliable with precision better than 95%
- Using the "8", the round trip time between Olofström and Gothenburg was reduced from 30 hours to 20 hours, including terminal handling time.
- Using the "8", the round trip time between Gothenburg and Ghent reduced from 90 hours to 64 hours, including terminal handling time.
- Compared to road only transport, the solution is less environmentally harmful
- The solution is flexible and able to handle fluctuations in volumes (carrying different number of wagons)
- The solution has a significant potential for expansion
- It is a good showcase for efficient intermodal solutions

In addition, the EuroBridge has been developed to increase the reliability of service and has reduced the lead time from Gothenburg to Gent from 42 to 36 hours. The extra time has enabled service Brevik in Norway once a week with cars from Gent. In 2004, 8804 cars were transported from Gent to Brevik using EuroBridge. Earlier these cars were first transported to Gothenburg and then to Norway using trucks. As a result of the new schedule of EuroBridge, 1100 truck movements from Gothenburg to Norway were eliminated.

Main success factors

- Strategic decisions and persistence from Volvo Logistics
- Willingness to adapt in all participating rail operators
- Organising the operation with clear door-to-door responsibilities

More Information

Contact:
Gina Hernefjord
Volvo Logistics Corporation
76100
ARH9
SE-405 08 Gothenburg
Sweden
Phone: +46 31 661780.
E-mail: gina.hernefjord@volvo.com

