

NexTrust Pilot 2.1, 2.2 & 2.3 Summary Case Study: “Full-truck-load” (FTL) transportation via road



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Fundamentals

The freight supply chains across Europe account for 25% of the CO2 and particulate emissions. In addition, the lack of collaboration in the use of motive and warehousing assets leads to high levels of inefficiency when looked at from a European perspective although for individual organisations their operations appear optimised particularly for Customer Service.

Actors in the supply chain: manufacturers, importers, retailers, exporters and logistics companies are generally reluctant to pilot or utilise new methodologies or new routes to market as there are many examples of costly implementation failure.

NexTrust a EU grant funded Horizon 2020 project (Grant 635874) was setup to bring together like minded actors in the supply chain to raise asset utilisation levels and reduce Green House Gas emissions through collaborative pilots.

The most important aspects for successful collaboration were:

- Careful planning of the project
- An agreement to, transparently, share the savings generated net of any additional costs
- Agreements on the planning and administrative processes to be used
- Routes to deal with any disagreements
- **Importantly** the use of a Trustee to receive data, analyse the best matched routes and distribute back the plans. This would be a daily (at least) dynamic process. The Trustee also covered the confidentiality and anti-trust concerns about the pooling of data.

Pilot set-up and objectives:

- 2.1 Cross-shipper, FTL collaboration on closed loop and round trips (backhauls)

- 2.2 Cross-shipper, FTL collaboration, specifically for the transport of fresh and frozen foods
- 2.3 Cross-shipper, FTL collaboration on continuous movements (re-loads)

Methodology

The methodology used across all the pilots was based on a 3 Step process which was an operationally enhanced version of the CO3 methodology.

The 3 Steps are:

- **Identification:** freight flows and potential partners
- **Preparation:** Selecting best matches, benefit sharing agreement, administration, contracts
- **Operation:** supporting execution, monitoring agreed KPIs



To ensure that collection and analysis of the result data was consistent and verifiable, the results were audited and confirmed by Vlerick University before any publication.

Pilots 2.1, 2.2, & 2.3 focus on “Full-truck-load” (FTL) transportation via road, to reduce the impact of full-truck load shipments (FTL) on environment as well as the empty mileage, i.e. percentage of trucks running empty across Europe.

The examined sector:

- Road transportation accounts for approximately 75% of total GHG emissions among the inland transport modes in EU.
- About 24% of trucks in Europe are running empty
- European transport market extremely fragmented: Thousands of shippers purchase transport services separately, while at the same time hundreds of thousands of transport companies offer their services independently

The aims of the pilot:

- Build a pro-active collaboration among shippers
- Establish “lane combinations” instead of fixed single lanes, offering to carriers the maximum operational flexibility, and at the same time providing improved predictability in transport flow balance.

The concept:

- Identify empty vehicle kilometers on the road to match them up with trucks of other shippers sharing similar routes.
- A neutral hub, offered by GIVENTIS, collecting data and facilitating the process of matching up users that could share trucks.

The pilots in Europe:

- **Shippers:** Fifteen multi-national shippers involved in the pilot cases, including: Beiersdorf, Danone, Diageo, Greenyard Frozen, KCC, Mondelez, Nomad Foods, Panasonic, Philips Lighting, Tesco, Unilever and YSCO.
- **Trustees:** Giventis International (GIV), Pastu Consult (PAS), 2degrees, and ALPEGA (Wolters Kluwer Transport Services).
- **Audit company:** Mazars (MAZ)

The results:

The pilots’ results demonstrated the tremendous market benefit which can be achieved through horizontal collaboration:

- 2016/17: optimisation of 21,480 shipments of 6 shippers to 61 roundtrip (closed loop) lane combinations across Europe.

- 2017/2018: optimisation of around 100.000 FTL shipments of 9 shippers into 198 roundtrip combinations, creation of 377 continuous move combinations, entire number of collaboration combinations: 575.
- Estimation of a reduction of up to 40% of greenhouse gas emissions (GHG) and up to 46% of empty vehicle kilometres on single freight lanes

Conclusions

Shippers cooperated pro-actively to reduce the environmental impact and create logistic efficient chains, for first time in European logistics, on such large scale, succeeding the transformation of the existing fragmented logistics to a “cross-shipper” efficient connected trusted transport network. Increase of competitiveness, in terms of efficiency and sustainability, and reduction 30% - 80% in GHG emissions in European logistics are possible.