



## GREEN STRING CORRIDOR

**Company/organisation:**

Coop  
- Buyer of transport services

**Industry or sector:**

Retailing/ food sector

**Company Size:**

1,009 employees

**Name of initiative:**

Rail-based transport

**Type of change:**

Modal shift and material reduction

**Impact:**

Overall carbon footprint reduction by over 10 percent

**Aspect of vision:**

Strategically-placed transshipment, choice of transport, platform

**Pillar:**

Corridors

**Year of implementation:**

2009

**Region:**

Helsingborg and Stockholm

## Logical Logistics: Gains from Trains

### *The Coop Train Intermodal Transport Solution*

Coop is a leading actor in the Swedish food retail market, which is owned by the consumer cooperative Kooperativa Förbundet (KF). Coop's goal is to create economic benefits while encouraging its members to contribute to sustainable development through their consumption. Since 2009, Coop Logistik has used trains as an important part of the company's transport solution for providing Coop's 750 stores with groceries.

Coop Logistik uses intermodal traffic with trains running to its own intermodal terminal in Bro, north of Stockholm. There, loaded trailers are lifted on the train for further transportation of the daily goods south to Helsingborg. The "Coop Train" then returns to the terminal in Stockholm, loaded with new groceries from the south of Sweden as well as imported goods. Through this solution, Coop is leading the development of a standardised intermodal transport system within the Swedish food retail sector.



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## The Need for an Intermodal Change

The shift from truck to train represents one of the best opportunities for limiting the environmental impact of the transport sector. Coop, a leading actor in the Swedish food sector, pursued such a shift as part of a large-scale upgrade of their logistics system. Until changes occurred over the past 5 years, Coop's logistics had been severely neglected, and a number of changes were needed in order to strengthen the company. As such, Coop decided to initiate three major structural changes. First, the company went from nine regional production terminals to three collocated terminals in Bro, Enköping and Västerås. Second, the company initiated the Coop Train, an intermodal transport shift from road to rail. Third, the company went from managing its own vehicle fleet to instead contracting out its transport needs to an arms-length operator.

Coop's new logistics structure is based on a rail solution between Stockholm and Helsingborg, which serves as a "main artery" and streamlines the entire transport chain from supplier to store. This means better filling ratio and a reduced number of transports by truck. With this combination, using trains for long distances and trucks for the last stretch to warehouses and stores, a transport solution with reduced environmental impact and high flexibility is achieved.

### Efficiency – good for the environment, good for business

According to Carl-Fredrik, the practical reason for implementing the Coop Train was an idea that the transport up north from Scania to Stockholm could pay for the transport back down south. With this solution, 36 trailers were shifted to one train, which generates cost savings while improving the environmental footprint of Coop's transport. The Coop Train initiative involved an explicit combination of cost-efficiency and environmental aspects. Carl-Fredrik Bernmar, Head of Supply Chain Development at Coop Logistik, says that initially the environmental aspects were the major reason for initiating the Coop Train project. Before the implementation of this intermodal change, Coop had signed the business sector's "climate call", with the goal of reducing carbon dioxide emissions by at least 30 per cent by 2020.

Over time, however, the cost-saving aspects and profitability have increased in both importance and magnitude. Ultimately, the resulting changes have been predicated on a combination of less transport, more efficient flows, lower cost, and reduced impact on the environment. According to Carl-Fredrik, the transport business is a highly competitive sector, meaning that transport companies are extremely good at managing and streamlining their flows. A logical solution is a simple solution, and train system solves multiple needs. "Logistics is logical", Carl-Fredrik says. The train system has proven to be a success. However, up until the time Coop implemented their approach, nobody in the industry had been fully successful with such a solution in Sweden. Without successful examples to follow, the initiative included a high degree of uncertainty. Previous solutions, Carl-Fredrik recalls, had not proved to be profitable in the long run. As such, no other actors were interested in cooperating with Coop on this initiative.



Change came when a strategic cooperation agreement with Green Cargo was established, which allowed Coop to develop a vision for intermodal transport. Yet, when Coop first implemented the intermodal transport system in 2009, problems with weather conditions and other disturbances emerged. Now, the transport system has worked well for a longer period of time, which has built trust in the system and also means that occasional disturbances can be accepted to a greater extent. Coop's belief in the potential of an intermodal transport solution has paid off and, more importantly, proven to be profitable. Today, Coop's intermodal transport system is cost-efficient, and the gains from using trains increase over longer distances.

## Environmental Impacts

By using trains, Coop Logistik has reduced its use of trucks to deliver goods to its retail locations, which has in turn reduced carbon dioxide emissions for a large share of the company's transport between southern Sweden and Stockholm. The switch has eliminated truck trips by 25,000 per year which accounts for a reduction in carbon dioxide emissions of 6,700 tons per year. For this solution, Coop was also awarded the Swedish logistics and transport award in 2010 in the category of "Mobility Solution of the Year" on the grounds that "the company in a short time managed to redirect its entire logistics to railway with major environmental benefits" .

Through the Coop Train solution, the company's overall carbon footprint is reduced by over 10 per cent . In total, Coop reduced its greenhouse gas emission by 52 per cent between 2008 and 2012 . Other positive environmental benefits include reduced noise, reduced road wear and reduced risk of accidents. Moreover, this means that Coop customers can now buy goods that are transported in a climate-friendly way.



There is a direct link between cost-efficient solutions and environmental benefits. Economic gains achieved from implementing the Coop Train also equal cheaper products for Coop's customers. Reinforcing the efficiency gains is the opportunity for increasing market share through the greening of their transport system. Coop sees a high degree of customer awareness in terms of demanding ecologically-produced foodstuff.

Carl-Fredrik predicts that, with increasing transport prices, consumer prices will increase and eventually customer awareness will play an additional factor.

If the current trend continues, customers will demand products that are environmentally-friendly in their whole supply chain, including demands for sustainable transport. Carl-Fredrik predicts the Coop Train benefits to further increase over time. The reasons for this are the upward trend of rising fuel prices as well as an increasing environmental awareness of customers. As such, Coop believes that the Coop Train leaves them one step ahead of competitors.



## The Transport Dilemma: Managing Risk

The Coop Train is a success story in terms of environmental and cost-saving benefits. The use of intermodal transport systems in the region could assist in replicating these gains throughout the STRING region. Coop's modal shift shows that former major barriers, such as higher transport costs and poorer delivery security of intermodal transport solutions to and from the Öresund region, can be solved.

At the same time, an intermodal strategy also generates increased requirements for extensive, fast and reliable systems. Since both the railway and roads suffer from capacity problems, a business' choice of transport eventually comes down to what is most beneficial in terms of lead-time.

## The risk premium of train freight

According to Coop, rail transport becomes profitable starting at distances around 300-500 kilometres. There is still a great potential for many further intermodal transport changes to take place within the retail sector and beyond. According to Carl-Fredrik, train transport riskier than using trucks. Rail disturbances have major implications for the company's business. If a disorder occurs during a truck transport, it is relatively easy to fix, but not much can be done to mitigate a disruption in rail traffic. It is sometimes possible to redirect the train but on some rail routes, such as certain distances in Denmark, there is only one track.

Simply put, transporting goods only by rail involves a high risk premium for the company. With the current state of infrastructure, it remains optimal for businesses to spread their risks by diversified transport systems.

## Implications for Policy-Makers

While the industry and politicians agree on the need for reducing the number of cars on the roads, this ambition needs increased rail capacity. Much of the public debate concerns personal transport, but the same is also true for goods transport. According to Carl-Fredrik, increased rail capacity on the heavily trafficked lines should be top priority, and is more important than getting faster trains. While it would also be beneficial for companies to cooperate on intermodal transport solutions, both economically and environmentally, Swedish competition law prevents this possibility.

The establishment of a common transport corridor for competing companies would thus require the initiative of a third, intermediary party.

Finally, Carl-Fredrik believes that the Fehmarn Belt Fixed Link and the Green STRING Transport Corridor will have positive effects for Coop's transport. If the rail capacity is large enough, and if there are no bottlenecks, this may be the missing link enabling goods to be transported directly from continental Europe up north to Sweden. As such, this may also substitute for some of today's sea transport lines.

Carl-Fredrik defines the Coop Train intermodal transport solution as a "quantum step", which has made a radical change to Coop Logistik's business structure and its work with sustainable transport. While Carl-Fredrik admits that it could have been safer to test the project in a smaller scale at first, he also says that this would have meant a risk of never getting started at all, and thus no quantum step. For the moment, the business development at Coop involves logistic optimisation, that is, smaller adjustments of the Coop Train quantum step. As the head of supply chain development at Coop you need to think constantly about logistics. "In this business, you're only as good as your last delivery", Carl-Fredrik concludes. What is now needed for the next step to take place is increased rail capacity, reliable systems and competition-neutral transport corridors.

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