

Cycling innovations - Best Practice by EIT Climate-KIC

Bike freight company - MOVEBYBIKE

The idea was born when a father and son living in Malmö needed a way to move their things without the use of a car. The company idea is based around the ability to move freight by bicycle. In 2012 a bicycle freight forwarding company was founded. The focus today is primarily deliveries, with a strong focus on e-commerce.

MOVEBYBIKE is run as a franchise model, in which the company shares experiences and knowledge with initiators that wants to set up operations elsewhere. The company has between 30–40 000 deliveries per year in Malmö. Freight transport by bicycle provides a higher level of safety (both objective and subjective) in urban areas compared to larger delivery vehicles. This is particularly important in areas where children are present, e.g. near pre-schools, schools, sports clubs.



Context

Malmö is one of Sweden's most dense cities and has currently just over 330 000 inhabitants. Even though the city is the fastest growing big city in the country, the municipality plans to grow by densification. About 15% of all trips in Malmö are today done by bicycle, and the ownership of cars is lower than the country average. The city is also flat. This indicates that the city is a very suitable place for transport by bicycle.

MOVEBYBIKE uses specially-designed electrically assisted cargo bicycles to carry freight transport. These vehicles generate approximately a tenth of the CO₂ emissions of light electric vehicles. Freight transport by bicycle is not only a sustainable transport solution but is also a time-efficient solution in urban areas, since bicycles do not get caught in congestion, and in the City of Malmö, have a dense network of cycle tracks to use to move around the city.

The cargo bicycles used by MOVEBYBIKE are designed to carry large volumes (rather than based on weight). They can carry containers, meaning that the company can pick up goods and parcels directly from transshipment areas (e.g. from a train). This avoids extra transshipment costs in terms of time spent re-packaging goods into trucks.

The deliveries are mostly parcels from e-commerce, but the company also offers other transport solutions such as the "bicycle bus". The municipality is collaborating with MOVEBYBIKE and the "bicycle bus" is used to transport kids in preschools during excursions.

Driving forces

The founders themselves worked as an engine in the project since they themselves were very engaged and believed in their idea. The timing was suitable as well since the e-commerce has intensified since the company was founded.

The localisation of the company (in Malmö) has also worked in favour for the growth of the company, since the municipality has aimed to prioritise bicycle traffic over car traffic.

The company has promoted themselves as being Sweden's greenest freight forwarder. As well as the public organisations, many companies in Malmö have a strong sustainability focus, so this also supports the growth of the company.

Barriers

During the first years of operation, the company found it hard to find suitable bicycles that were of good enough quality. The company had problems with bicycles not being big enough or breaking. The sector also lacks standards for bicycle containers. Some of these barriers have partly been overcome by the founding of an affiliated company, created to design and produce their own bicycles. Electrically-assisted bicycles of the type they use today are classified as mopeds, which makes certain legal requirements (e.g. that they are not allowed on all bicycle paths, and they need to be type approved).

Another barrier is that freight terminals are often placed in the outskirts of the city, which then makes the ride with bicycles longer. The terminals are most often planned for trucks or cars and might not be as easily accessible by bicycle. The company is trying to overcome this by creating micro-terminals in more central places in the city, thus decreasing the travel distance for delivery.

Initially, the company tried to cooperate and deliver to the municipality, but expressed that procurement was problematic, and that it was both very hard and time-consuming for them to join contracts with city authorities. One of the founders also expressed that they perceived a lack of support for bicycle deliveries when it comes to actions such as closing down streets for larger distribution vehicles.



Foto: One of the transport solutions from MOVEBYBIKE: A bicycle bus for pre-schools..

Success factors

MOVEBYBIKE focused on volume, rather than weight from the outset. This has proven to be an important success factor, allowing the transport of a wider variety of goods, and reducing transshipment costs by making it possible to carry goods directly from trains or freight terminals.

Even though the company promoted itself as offering a green and sustainable mode of transport, most companies have been more interested in time efficiency. Freight transport by bicycle has proved to work very well in the central urban parts of the city, with bicycle delivery managing to be both quicker and more reliable compared to delivery by trucks. This is an important selling point which allows the company to make contracts with the end consumer.

The company has created their own IT support solutions, enabling them to make it suit their needs. The IT solution is an important aspect to ensure the smooth running of deliveries, and to optimise efficient deliveries.

Barriers (cont.)

Another problem is that the delivery market is dominated by several large freight forwarding companies. Smaller players such as MOVEBYBIKE often work as subcontractors to larger companies, but this is problematic since the profit margin is very small for subcontractors. MOVEBYBIKE instead aims to deal directly with customers and e-commerce companies.

There are many barriers in the freight transport sector in general to new players with a more sustainable angle taking a position in the market, since the margins are small, and the willingness to pay for freight transport low. For example, no e-commerce site offers the customer the opportunity to choose a sustainable delivery of parcels. In those cases where there is a choice option, it is only possible to choose between the big companies or price/speed. This is symptomatic of a larger problem relating to the low cost of unsustainable freight transport.



Scaling potential

MOVEBYBIKE was initially inspired by a similar company in Montreal, Canada, who shared their ideas and knowledge with the founders. By gaining knowledge and learning how to avoid beginner mistakes, the start-up process was made easier for the Malmö based company.

MOVEBYBIKE has already expanded their business to other Swedish cities due to an increased interest from customers. The model has been implemented in other locations in Sweden through a franchising model.

Bicycle deliveries are most efficient in dense urban areas, which might indicate that the key engine for this type of solutions is both densification as well as a reduction of motorised vehicles in the city centres, and a network of cycle lanes. This kind of innovation might therefore be successful in most dense urban areas.

MOVEBYBIKE has found that a bigger profit and efficiency is made when dealing directly with costumers. It is more difficult and less profitable to work as a subcontractor.

There is also a need to look at the barriers to new freight logistic solutions, for example location-based barriers such as terminal locations, barriers linked to contract such as the difficulty to choose delivering method at ecommerce sites, and barriers related procurement rules.

Find out more?

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