



GREEN STRING CORRIDOR



Reducing costs and CO₂-emission by reusing packages

The perspective of a specialised small German logistic provider

The logistic service provider GST Worldwide Logistics GmbH (GST) is headquartered in Glinde – a small town 20 minutes from the city of Hamburg. With approximately 10 employees, it is a small company. GST was founded in 1998 and has been in the market for 15 years. All the company's operations are managed from the headquarters, with activities world-wide. GST is a new generation logistics management company offering comprehensive services and management functions for everything to do with returnable containers and their logistics. Manufactured from durable plastic, returnable transit packaging products are specifically designed for multiple trips over an extended life. They offer a rapid return on investment and a lower cost-per-trip than single trip packaging products.

The services that GST offers in reusable packaging are:

- Global pooling: Meaning that all logistics involved with returnable equipment is coordinated and controlled with the logistics chain.
- Advice and planning: It is vital to offer tailor-made solutions and concepts for each company. GST is specialised in the automotive and pharmaceutical industries.
- Management and controlling: Meaning a constant monitoring of the whole logistics chain optimizing process and saving costs.

Company/organisation:

GST
- Buyer of transport services

Industry or sector:

Packaging and logistics

Company Size:

10 employees

Name of initiative:

Reusable packaging and integrated services

Type of change:

Integration of services

Impact:

39 percent reduction in CO₂ emissions

Aspect of vision:

Strategically-placed transshipment points, innovative platform

Pillar:

Solutions

Year of implementation:

1998

Region:

Hamburg



DEN EUROPÆISKE
UNION
Den Europæiske
Fond for
Regionaludvikling



Interreg IVA
ØRESUND – KATTEGAT – SKAGERRAK

Bundling and packaging

Supporting the logistics sector through service and product innovation

GST Worldwide Logistics GmbH (GST) is a logistics provider headquartered in Glinde, a small town 20 minutes from the city of Hamburg. GST takes its name from the middle letters of the family name of the owner, Enrico Plogsties. With approximately 10 employees, it is a new generation logistics management company offering comprehensive services and management functions for everything to do with returnable containers and their logistics. In a very direct way, GST supports the logistics industry in becoming greener. GST was founded in 1998 and has been in the market for 15 years. All the company's operations are managed from the headquarters, with activities world-wide.

New market opportunity

GST was founded by Enrico Plogsties. He founded GST because he was convinced that there was a potential for the services that GST is providing: "In my years as managing the logistics department in different companies, I found out that there was a need for optimizing logistics by reusing and pooling".

Integrated products and services

GST produces manufactured packaging and container systems from durable plastic, returnable transit packaging products are specifically designed for multiple trips over an extended life. They offer a rapid return on investment and a lower cost-per-trip than single trip packaging products. In addition, GST provides a number of services to reinforce the impact of its plastics products. The services are integrated with the products, meaning that GST is as much a provider of services as it is of products. When the former German environment minister Klaus Töpfer started implementing the "green dot" packaging recycling system in the late 80s, more emphasis was put on reusing of packages, and according to Enrico this opened up a new potential for companies for optimizing their logistics chain.

Plogsties was responsible for implementing one of the first reusing concepts in the airfreight industry. In the last company, where Enrico was employed, he tried to implement the reusing concept but the company was not interested in implementing the reusable concepts.

He decided to start up the company GST focusing on the reusing concepts, and integrated his company into the local supply chain serving the logistics cluster.

But it was only when he was able to combine services and logistics solutions with the new green packaging that he was able to lure companies to his services. Business increased rapidly. As a manager of GST, Enrico has generally experienced that there is a demand for the services that GST can offer, as many companies have a lack of transparency in their supply line and need to have more control of their transport: "There is a need for a higher level of quality and stability, which we can offer". This business model innovation allows for a greater concentration of freight



Enrico mentions a recent example of a large German pharmaceutical company that lost control of its logistics chain: "They had a huge problem as they continuously had a massive loss of boxes for transportation. They simply did not have the sufficient transparency in their supply line and had no control of their boxes, which meant that they had really high transport costs. Also, they had no idea how much waste they were generating". Because of these high costs on transport, the company finally decided to make use of a specialised logistics provider, which allowed them to begin to take advantage of our range of services and products.

A significant factor in generating new business is the sustainability of the product GST offers, "We provide a green product, as reusing packages and pooling of customer containers is clearly reducing CO₂-emission", Enrico stresses. Reusable packaging containers generate 29% less total greenhouse gas emissions and require 39% less total energy. Besides reducing CO₂-emission, reusable packaging replaces the one-trip disposable packaging that has a negative environ-

The benefits and challenges of reusable packaging

mental impact by reducing waste and possible landfill. Reusable packaging containers produce 95% less total solid waste on average.

Enrico sees GST as an open and flexible company that has its primary focus on the key targets of its customers: "We always make sure that our customers' key targets are achieved in order to keep them satisfied. For instance one of our customers is a large multinational company, and their production line is very dependent on having deliveries from us without any delays". As Enrico highlights, GST is focused on understanding its customers' value chain, and thus GST aims at integrating its services with the green value chain of the relevant industries.



GST is offering a green logistic product

Enrico thinks that green logistics in recent years has become an increasingly important driver for buyers of logistics services, and he regards the green aspect as a positive side-effect of the services that GST has: "We offer services that are optimal and green, and additionally our customers can save money by reusing". However Enrico is confident that in the end the customers are looking into the costs, and thus the constant focus of GST is to bring down costs for its customers. As Enrico draws it up the companies would like to have a greener image, but they are not willing to pay for it unless there is a clear reduction in their costs.

The obvious benefits of reusable packaging are the elimination of disposal costs and the need to repeatedly purchase packaging, but Enrico also highlights the operational benefits, as GST has designed the packages aiming at easier packaging, handling and stocking. GST has developed plastic containers. Enrico has experienced that these are very solid containers that can be stacked upon each other: "In this way the loading is clearly optimized, when you can load more boxes on a track. With a lower number of tracks used, the lower the level of CO₂-emission". Thus, it is very difficult to distinguish between types of benefits: environmental gains are generated by the efficient packaging, which is reinforced by the highly efficient stacking system.

Full complement of transport services – the added value of integrated business models

GST offers a pooling service where packaging and logistics are offered at a fee, and the pool is monitored through a web-based application. With a pooling system, the packaging circulates in a closed loop so no company in the link will face problems with either unnecessary packaging or investment in physical units, and helps limit the upfront costs of switching to a new system. This also creates a much more efficient system by concentrating goods into fewer trips and using smart logistics to optimize routes.

Technology as an enabler

Technology is a significant enabler of the business model used in GST. Enrico points out that a system-wide packaging change, where a set of customers have agreed to participate, is more complex than the "closed loop" type of a delivery system: "These supply chain applications require a great deal of management and coordination, and thus we have a developed a web-based portal, where all the management is done". The empty packages may be interchangeable, and are often distributed to be refilled in a separate logistical system from that which delivered them. Based on his experience from previous projects related to reusable packaging, one of the first actions that Enrico took in his company was implementing a computer-based portal that could handle the complexity.

Another major advantage is that hidden costs will be visible and the total cost lower. Transparency is key to making the hidden costs and the hidden CO2 emissions known to the various clients who use GST's services. As Enrico argues, "people need to see the impact of their decisions. Only then will they change their behavior."

With the pooling services, one of the challenges is to maintain a constant overview and control the 1.5 million parts of equipment that GST has to handle on a world-wide basis. As Enrico puts it: "There is a high level of complexity here. We constantly have to bring different supply chains together, meaning bringing everything from different warehouses to different mentalities together under one roof. To control this is a large challenge". According to Enrico, managing a fleet of returnable containers is harder than it looks: "Containers are routinely misdirected or lost, and they are rarely tracked in system-wide information systems. Yet it is vital to control such a large and constantly moving investment, to make it match supply and demand".

Main barriers and opportunities for developing business

A lack of transparency is the primary barrier to developing a business model such as the one adopted by GST. Enrico considers the main barrier to be the low level of general knowledge of suppliers in the reusable packaging services: "There is only a handful of small companies that do the same as we do, and especially in the beginning the buyers were not willing to pay for our services. It was difficult to convince the customers that we could offer tangible benefits".

According to Enrico, this means that it usually takes a lot of time for the companies before they make a final decision. This is also a key area where the public sector could have impact. "People need to know the impact of their decisions. Right now, the impact they make in terms of waste is hidden within different types of costs. If there were a common method of calculating costs – environmental and financial – then we would see a big change in the way people make transport decisions."

Ironically, Enrico highlights that the economic crisis was an opportunity for GST to be an established supplier of reusable packing: "A lot of our companies are manufactures from the automotive and pharmaceutical industries, and in good times they are mainly focusing on their production line, but when they face a more difficult such as the economic crisis, they start looking more thoroughly into where they can save costs". In this way the companies realised that GST could offer them a service that could reduce costs. The environmental benefits were a positive byproduct, though there is some indication that it could become the primary benefit in the near to long term.

Company contact:

**Enrico Plogsties
GST Worldwide
Logistics GmbH**

Biedenkamp 1a
21509 Glinde
Germany
+49 402 4835 817

e.plogsties@gstmultibox.de
www.gstworldwide.de

Project contact:

**Sandrina Lohse
Region Zealand
Consultant**

Alleen 15
4180 Sorø
Denmark
Mobil: +45 2494 3843

sloh@regionsjaelland.dk
www.stringcorridor.org

