

# supply chain strategy

A newsletter from the MIT Center for Transportation & Logistics

## Tetra Pak Takes Control of Global Transportation

**GLOBAL VIEWS OF SUPPLY CHAINS ARE OFTEN IMPAIRED BY DIFFERENCES** between national and regional transportation networks, making it difficult for companies to improve the management of freight flows across international markets. Swedish food processing and packaging enterprise Tetra Pak aims to remove these obstacles with the launch of a global transportation-management system in February 2009.

The system encompasses all modes and will give the company a single, real-time view of freight movements across the 165 countries in which it operates. Tetra Pak will analyze its shipments in new ways, enabling it to cut costs and raise the efficiency of its multinational transportation operations. And the company will control freight decisions for North America and Europe centrally, an uncommon approach to the management of goods movements across international time zones.

The new system will elevate transportation from its tactical base to a more strategic level, in line with other major components of global supply chains. This is particularly true for land modes, opening up new possibilities such as the sharing of best practices between countries.

### Standard Procedures

Tetra Pak is one of three companies in the Tetra Laval group, a private company started in Sweden that is headquartered in Lausanne, Switzerland. With net sales of €8.6 billion (\$12 billion), Tetra Pak supplies equipment and packaging products for food that cover every stage of the production process. For example, if the product is milk, the enterprise provides processing equipment and packaging that takes the product from the cow to the supermarket shelf.

The other two companies in the group are DeLaval, which provides complete systems for milk production and animal husbandry, and Sidel, a maker of filling and blowing equipment for plastic bottles. Tetra Pak is the largest company in the group.

Tetra Laval Group Transport & Travel department is based in Sweden and negotiates transportation contracts in collaboration with the company's plants across the globe. The contracts for some €300 million per annum (\$384 million) represent about 80 percent of the organization's total transportation spend and include €102 million (\$130 million) on road and rail modes, €52 million (\$67 million) for sea and ocean freight, and €23 million (\$30 million) for express services.

"Just like many companies in the world today, we are a process-oriented company," said Kristian Malm, Global Procurement Road Freight. The standard process for procuring freight in the company is supplier management. "Everyone in supplier management is working with the same process," he said.

Whether procuring transportation to meet the specific needs of a new factory or qualifying a possible carrier for an existing operation, Tetra Pak requires transportation providers to complete a request for information, a standardized questionnaire that rates the providers in five areas: health, safety, environmental performance, quality, and service. “This is managed by us in Sweden, not the local office,” said Malm. For example, Tetra Pak’s U.S. plant in Denton, Texas, might relay details of a possible new carrier to Malm’s office, which takes care of the qualification phase. Once that is satisfactorily completed, the contracting phase begins.

“We review the business needs, and we challenge our factories to continuously improve our processes before we go out and request a rate for a service,” said Malm. This is done via a request for quotation, which includes key parameters such as freight volumes, routes, and rates and is sent to qualified transportation companies. Negotiations with freight companies are carried out jointly between the office in Sweden and factory shipping departments. For instance, Malm recently spent some weeks in Denton in negotiations with prospective carriers. “We will establish what we call a target based on all the offers we received,” he said, and communicate the feedback to the carriers. “They come in with a second offer and again in cooperation with the factories, we select and contract suppliers.”

Ongoing relationships with carriers are shared between local offices and the central procurement office in Sweden. “We own the contract but the factory is utilizing the service,” he said. A process within supplier management called Supplier Base Management involves regular review meetings with carriers during which metrics such as cost, claims levels, and on-time delivery are evaluated. The financial health of service providers is monitored continuously. Tetra Pak is currently updating the metrics it uses to assess transportation suppliers, said Malm.

## **Going Global**

About a year ago, the company started a project to develop a global management system for freight transportation. It is based on a control tower concept, where a tailored package of information services is used to help manage logistics activities. The term has become highly fashionable in the field and is interpreted in a number of ways, pointed out Malm. “We call it the Tetra Pak Logistics Control Tower, and it’s based on our needs and no one else’s,” he emphasized.

The service will be provided by Transportation Management Center (TMC), which is a division of the U.S. company C. H. Robinson Worldwide Inc., one of the largest non-asset-based third-party logistics companies in the world. C.H. Robinson is headquartered in Eden Prairie, Minn., and the TMC organization is based in Chicago.

Tetra Pak already contracts with C. H. Robinson for transportation, but, as Malm stressed, this freight business will remain separate and distinct from the contract with TMC. When Tetra Pak set out to look for a third-party provider of control tower services, it used the same contracting procedure it deploys to appoint carriers with one additional step: The company specified what it wanted to pay for such services.

Going forward, “we will keep the procurement activity within Tetra Pak because we know our customers and our business best,” Malm said. Moreover, outsourcing the contracting process to a third- or fourth-party logistics services provider would deprive Tetra Pak of valuable market intelligence and expertise, he noted.

## **Single-Sourced Information**

The new venture has two primary operational goals. First, to rationalize the way Tetra Pak’s worldwide transportation network is managed. “Today all of our factories do it differently and manually; they call or e-mail carriers, and there is no systems integration with the carriers,” Malm explained. Second, to improve visibility in the supply chain. The supply chain segment that runs from the time a customer places an order to its dispatch from the relevant factory is well-tracked, “but after that we are blind,” he said. Important milestones such as when loads are delivered to customers are not sufficiently visible, and the causes of delays and other service disruptions are often difficult to discern.

Why did the company opt to appoint a single third-party provider to improve the management of worldwide transportation services? For starters, “there is no 3PL that can service the whole world,” observed Malm. As part of the deal, TMC is expanding its global footprint in line with Tetra Pak’s needs. A control tower currently being established in Amsterdam, Netherlands, will cover Europe, and TMC’s facility in the United States will run the system’s North American region. Control towers in other parts of the world will be opened as the system develops.

Another reason for going the third-party route is that Tetra Pak avoids having to make a huge investment in its own IT capabilities. Also, using a single provider and keeping its existing network of carriers “saves us money in the design and development of the technology; we will have one global Web site where we can track all of our shipments,” Malm said.

The Web site he referenced will be Tetra Pak’s window on global freight movements for all modes of transportation. TMC will function as a clearinghouse for information on the whereabouts and progress of every Tetra Pak shipment. Notifications of key events such as load arrivals will be delivered by the site. “The reporting is updated every day, but the Web portal is real-time,” said Malm.

Initially, the flow of information will take place between TMC, Tetra Pak, and carriers, but there are plans to bring customers into the loop by integrating the site into Tetra Pak’s e-business system. That will give customers a single information source on the status of their orders within the end-to-end supply chain.

## New Horizons

The analytical potential of unifying the many different streams of information in this way is seemingly limitless. As Malm explained, Tetra Pak contracts with about 130 carriers in different modes, and each entity supplies statistical and operational data in different ways. That makes meaningful analysis very difficult at best and impossible at worst.

By replacing this with a single portal, Tetra Pak will be able to analyze its global transportation network in ways that were not possible previously. For example, “we will be able to analyze waiting times per factory, routes, loading accuracy, lots of things that add cost today,” he said. The way freight services are delivered will go under the same microscope, revealing new efficiencies since “there is a lot of cost that is hidden as an added service,” said Malm. Another possibility is the sharing of best practices between carriers, regions, and countries.

These improvements are expected to add up to sizeable cost reductions for Tetra Pak. Malm cited two specific examples: the consolidation of carrier invoices through TMC and the consolidation of freight. In terms of the latter, the global view of shipments should highlight opportunities for combining loads from plants that are in the same geographic area but historically have acted independently on the dispatching of freight services.

Risk management is another area of operations that should benefit from the control tower concept. Armed with a much clearer, broader view of freight movements, Tetra Pak will be better able to evaluate the systematic risks posed by localized disruptions. “And the analyses will help different factories to allocate product,” observed Malm.

In the context of a global supply chain, Tetra Pak’s control tower will bring an international dimension to freight transportation that is generally lacking, particularly on land. “We have seen it in parcel shipments and ocean how these services have become more global, but road lags behind, especially when you are procuring freight in different parts of the world,” he said. At a fundamental level, “what we are talking about is traveling from A to B on wheels; it should not be that different depending on where you are in the world.”

The other dimension that the control tower adds is strategic. “At our factories, shipping departments will change from being operational-tactical to more strategic, and they will analyze what they are doing to continuously improve their processes,” Malm explained.

The control tower system will be launched in the United Kingdom in February 2009. Coverage will expand in 2009 to encompass Europe and North America, and the rest of the world will follow later. ♦



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