



## Sweden Standardizes on Reusable Packaging for Grocery Industry

Manufacturers and wholesaler/retailers throughout Sweden are moving their goods out to 3,500 retail stores on reusable transport packaging, saving time and cost in material handling, reducing product damage, making the supply chain more efficient, and reducing carbon emissions. Each year, around 7 million plastic pallets transport 125 million reusable crates of goods from producers to everyday commodity stores in Sweden, making it the first country in the world to standardize reusable packaging for an entire industry.

Almost every perishable product for every grocery chain in Sweden is delivered in one of six standardized reusable crates on a reusable plastic pallet. The supply chain includes the majority of Swedish food manufacturers and about 200 additional food manufacturers throughout Europe that export their goods to the Swedish trade. Since the program's inception in 2001, nearly 1 billion crates have been delivered, replacing the same number of single use packaging. Svenska Retursystem created and operates the pooling system.

### MEASURABLE IMPROVEMENTS:

- About 25% savings versus equivalent disposable packaging. Annual savings industry wide @ \$18.7 million.
- Savings of 725,000 hours in retail store labor/\$22 million dollars annually.
- Reduced product damage.
- Reduced CO<sub>2</sub>e emissions by 44%; more than 115 million kg of CO<sub>2</sub>e since the program's inception.
- Eliminated 50,000 tons of waste annually.



"By offering the whole industry the same terms and cost of packaging, the program has neutralized packaging as a competitive factor and freed up the food producers to focus more on their core business," explained Conny Swahn, Sales and Marketing Manager at Svenska Retursystem.

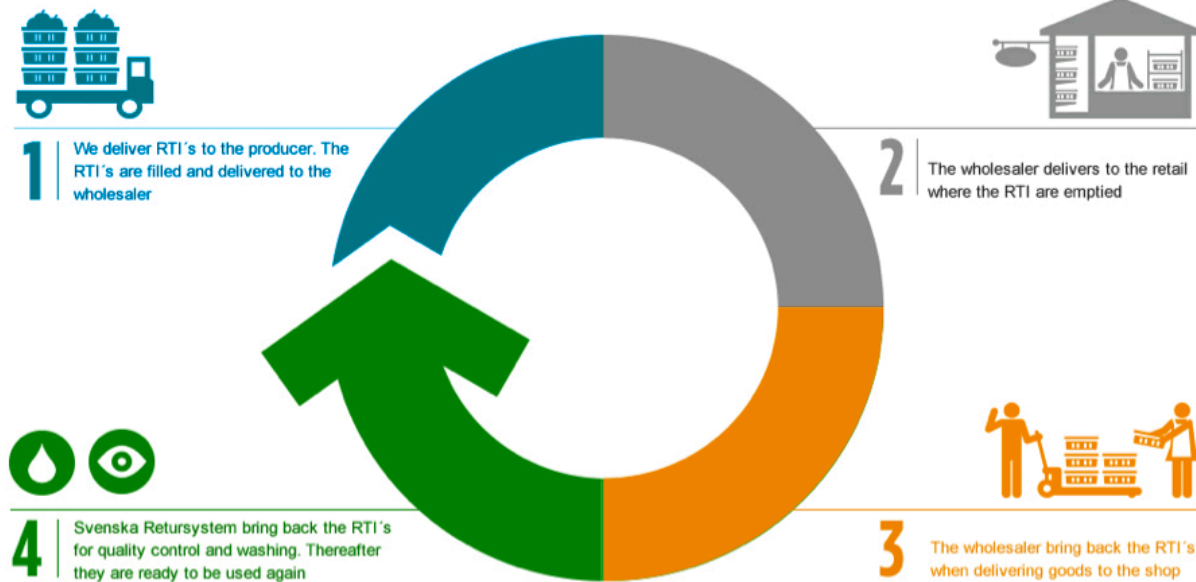
"We see great benefits in using returnable crates," said Petra Albushus, Logistic Director at ICA, the largest retailer in Sweden. "Not only do they simplify and streamline our supply chain all the way from the producer to the stores, they also reduce our environmental impact. Furthermore, waste is reduced as many products are better protected in the crates compared to disposable packaging."

The project was launched in 2001 by the Grocery Manufacturers of Sweden (DLF, Dagligvaruleverantörers Förbund), a non-profit organization for companies that produce and sell goods to the grocery retail and foodservice markets in Sweden; and the trade association for grocery stores (SvDH – Svensk Dagligvaruhandel). The objective was to find resource-efficient methods for transporting, storing, and displaying goods. At the time, the producers of fresh produce, meat, poultry, cheese, and dairy mainly used single-use packaging of various quality

and sizes. This model caused several problems:

- The multiple packaging sizes weren't compatible and thus not easy to pack, resulting in a very low filling degree, especially from the wholesaler to the stores
- The level of goods damaged during transport and handling was high
- Handling waste in the stores was time consuming
- Handling the packaging at the wholesalers distribution centers was time consuming
- The corrugated cartons generated dust, creating an unhealthy work environment
- The variety of sizes of packaging impeded the use of automation
- The vast volumes of waste that were generated were no longer tolerable following the adoption of environmental legislation by the European Union and Sweden

"There were inefficiencies and waste in the distribution chain and the supply chain," said Swahn. "We saw great opportunities and potential savings if the industry could standardize on reusable packaging."



### Standardization key to savings

Svenska Retursystem was established by the two grocery associations to create and operate a common pooling system for the entire Swedish food industry wherein all fresh produce, meat and poultry, and cheese and dairy are delivered in a standardized reusable crate and on a standardized reusable pallet to every grocery retail outlet.

"The use of reusables in the supply chain is increasing rapidly in Europe. However, there was not a common standard and every business area or manufacturer ran a different system," explained Swahn.

The effort received startup funding from LIFE, an EU environmental fund. All major wholesalers and manufacturers were involved in the development of the technology and methodology. Today Svenska Retursystem is a company equally owned by DLF and SDH. It has four washing facilities located across Sweden and employs 135 people.

"We had very determined owners, demanders, and stakeholders who worked together to make this initiative successful," said Swahn. "Once we reached a significant market share, the implementation pace accelerated and the cost savings increased significantly."

Presently, more than 10,000,000 crates and 400,000 pallets are circulating in the system day in and day out. The system consists of six different plastic crates manufactured by Schoeller Allibert, half-size pallets produced by Schoeller Arca Systems and IP Group, and one full-size pallet produced by Shuert Technologies. Svenska Retursystem delivers clean reusables to the food producers who fill them with product and transport them to the wholesaler. The wholesaler then delivers their product packed in the reusable crates to retail outlets. The wholesaler takes empty reusable crates back with them at each delivery. Svenska Retursystem picks up the used crates from the wholesaler. The crates are washed and quality checked after each loop before being placed back into the supply chain. The pallets are equipped with RFID tags allowing full traceability throughout the supply chain.

The standard sizes enable food manufacturers and distributors and Svenska Retursystem to use more automated equipment like conveyors in their processes, adding to the efficiencies and savings in labor. The standardization also makes it possible to leverage new opportunities, like traceability.

Every supplier and retailer pays the same fee for the reusable crates no matter the size of their



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company. Additionally, the cost of delivery is the same and is included in the fee no matter where in Sweden they are located. Companies pay a deposit on each crate they use.

The reusable crates can be used at least 200 times and have a lifetime of 10 to 15 years. The crates and pallets consist of pure materials to enable easy recycling after end of life, creating a closed material circuit.

"The standardization of crates for the entire industry lets everyone achieve greater economies of scale," explained Swahn. "The costs of the system as a whole have been kept at a very low level. The fee that customers pay is up to 25 percent less than the cost of equivalent disposable one way packaging."

The reusable crates also offer better product protection and have reduced damage to goods significantly. One example: an egg supplier reports a 75 percent reduction in broken eggs.

### **Less labor and less waste improve work environment**

The reusable crates and pallets provide more efficient handling and better working conditions for employees. The plastic pallet has the same load capacity as the wooden pallet, but weighs 22 pounds less, making it easier for employees to

pick up and handle. The weight savings also mean less weight is transported in the trucks, adding to fuel efficiency. The crates have ergonomic handles that make them easier to lift and handle, and they won't collapse from wet conditions. The reusable crates go directly on display, saving staff labor. And there is no cardboard to break down and dispose. In a survey of retail stores, staff responded that they were saving 45 minutes a day in labor on average. This represents 725,000 hours and the equivalent of \$22 million across all retail outlets per year.

"The reusables are easier for employees to handle than alternative packaging systems. This means it is easier for us to train people in the skills needed to use the plastic systems, and so it is easier for us to provide employment opportunities," said Sören Fredriksson, head of the Coop's distribution centre for grocery goods in Västerås. Coop is the second largest grocery/retailer in Sweden.

And perhaps everyone in Sweden is breathing easier thanks to the reduction in CO<sub>2</sub>e emissions. A life cycle assessment conducted by the Swedish Institute for Food and Biology found the crates created 44% less CO<sub>2</sub>e emissions compared to corresponding disposable packaging produced of 80% recycled materials. This corresponds to a reduction in emissions of over 115 million kg of CO<sub>2</sub>e since the program's inception.





"Today the system is a natural part of the supply chain within the Swedish grocery business," said Swahn. "It is a model that could be replicated within any densely populated area with a high volume of product to move."

### About Svenska Retursystem

Svenska Retursystem is the winner of the 2014 Reusable Packaging Association Excellence in Reusable Packaging Award for businesses with revenues more than \$25 million. The company simplifies, streamlines and environmentally adapts flows of goods for the Swedish grocery business by operating and developing packaging systems based on reuse instead of single use. Consumer products are delivered in returnable transport items (RTIs) that are reused within a system, thus benefiting the environment. The system is growing rapidly, and Svenska Retursystem has replaced over one billion RTIs since the beginning. [www.retursystem.se/](http://www.retursystem.se/)

### About the RPA Excellence in Reusable Packaging Award

The annual award recognizes companies that have developed, supported, or implemented

measurable and innovative reusable solutions in a business-to-business supply chain. Non-members and members of the RPA are encouraged to enter.

Companies are judged on the quantifiable environmental and economic benefits of their reusable packaging solutions and services. Submissions are reviewed by an independent committee of judges who are not members of the RPA. The award is sponsored by International Contract Molding, LLC, an Otto Company; and supported by the U.S. Environmental Protection Agency, Reusable Packaging Machinery Institute, and StopWaste.Org.

Applications for the award are accepted in the spring. Visit [www.reusables.org](http://www.reusables.org) to learn more.



Svenska Retursystem won the 2014 Reusable Packaging Association *Excellence in Reusable Packaging Award* for businesses with revenues more than \$25 million.