# SAP integrated route planning optimizes traffic between production and distribution centers

EgoKiefer AG, headquartered in Diepoldsau,
Switzerland, is an international manufacturer of
wood, plastic and aluminum windows and doors.
With close to 600 employees, EgoKiefer offers
services ranging from consultation and planning,
to installations, in addition to many other services.
Every year EgoKiefer produces enough windows to
cover an area of around 90 football fields alone.
EgoKiefer's customers are supplied from ten
of their own sales locations as well as through
350 specialized Service Partners throughout
Switzerland.



# EgoKiefer

### **Industry**

Manufacturing
 Construction materia

### **About EgoKiefer**

- Active throughout Europe, market leader in Switzerland for windows and doors made of wood, plastic and aluminum
- Just under 600 employees
- A subsidiary of the swiss building supply group Arbonia
- Founded in 1932

### Solution

- New: ORTEC for SAP TLO (Transport Load Optimizer) for the optimization of internal transport between the production locations in Germany to the distribution centers in Switzerland
- Successfully running since 2014: ORTEC for SAP (O4S) with the modules PPO for pallet optimization, VSO for vehicle optimization and SRO for route optimization

# The Challenge

As part of a restructuring process, a large portion of the production was moved to new, more cost-efficient locations throughout Europe. At the same time, the headquarters for EgoKiefer AG moved from Altstätten to Diepoldsau, which led to a geographical separation between EgoKiefer's administration offices and production facilities.

With this in mind, a reorganization and standardization of the logistics processes was needed to cover a yearly average of around 6,000 transports consisting of roughly 100,000 deliveries, plus around 20,000 "empty rack" pick-ups.

It was clear to the manufacturer that both their business and the requirements from their logistics have been in constant change for some years. An important criteria for the selection of a software provider was having a professional, flexible and reliable partnership to be able to overcome the many challenges ahead.



# The Implementation

EgoKiefer AG had already collected six years of positive experiences using ORTEC's SAP embedded solution, 04S, for optimizing pallets, trucks and routing for their last mile distribution in Switzerland. Now as part of restructuring the production processes they looked into reorganizing the transportation to the distribution centers in Switzerland. These inter-company shipments are now being optimally planned with ORTEC's O4S solution TLO (Transport Load Optimizer). Up until this point the planning was done based on "to be expected quantities" as well as actual Handling Units. Now, since the implementation of TLO at a production location in Germany in June of 2019, only the actual quantities are used as the planning basis. This change will also be implemented at a production location in Slovakia by the middle of 2020.





"Production machinery is more easily moved than process, structures and IT. So much so, that it was of the utmost importance for us to have a flexible and reliable partner like ORTEC at our

Remo Gschwend,

Head of Logistics and Material Management at EgoKiefer AG

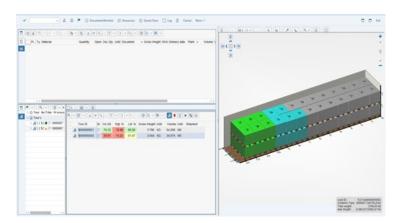
# The Benefits

- Efficient: While considering the complex packing and loading rules for the door and window elements that are susceptible to damage, O4S makes it possible, within SAP, to calculate the optimal utilization and route plan for the available trucks, each with a loading space of 28 square meters.
- Reduction: The daily planning effort needed previously for the shipment organization has been reduced from requiring multiple hours of work to taking only around 60 minutes a day.
- Clear Overview: The O4S Planboard provides a compact display of the vehicle loading through 3D graphics. Because of this, the dispatcher can clearly and immediately see the optimized packing and loading results.
- Customer Tailored: ORTEC specifically tailored the algorithms for the packing and loading optimization of the window and door components as well as made specific changes to the O4S Planboard to meet all requirements requested by EgoKiefer AG.
- Savings: With the implementation of ORTEC for SAP TLO the vehicle utilization was increased by around 10% which was much more than EgoKiefer AG had originally hoped for. This increase in efficiency not only reduced transportation costs but also environmental impact.

# The Conclusion

EgoKiefer AG had clear expectations of the improvements they expected from ORTEC in this project: vehicle load utilization had to be improved by between one and five percent. In the end these expectations were met and exceeded with an increase of ten percent utilization achieved.

An additional positive side effect proved to be the time savings required for distribution planning. Previously, the work needed for the planning took multiple hours, today the distribution planning takes around 60 minutes and is now part of an integrated and seamless process.





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