



Supply Chain Network Design

Case Study: Food Manufacturer

Founded in the 1960s, the company has evolved over the decades into an international food manufacturer with more than 10,000 employees. In Europe, the group has approximately 30 brands and various production sites and sales companies.

Company data

- + **Industry:** Food manufacturer
- + **Employees:** > 10,000 worldwide
- + **Customer since:** 2013

Software in use

- + **Deployed software:** PSIGlobal
- + **Type of optimizations:** Greenfield, Brownfield

The challenge

To move the company forward and strengthen its position on the European market, expansions and corporate acquisitions are part of the standard corporate policy for the food manufacturer. The continuous expansions create complex logistics networks that need to be reviewed from

time to time for optimization potential – also regarding the optimal location of possible additional sites. In the course of such optimization projects, the company became aware of PSIGlobal in 2013 and has since been using the solution for supply chain management design for various calculations.

PSI 

The solution

- + For a planned market expansion into certain regions of Eastern Europe, the distance calculation, extrapolation and location optimization function in PSIGlobal was used to determine which location was optimally suited for opening an additional distribution center. The calculation with PSIGlobal considered the production sites already existing in Eastern Europe, including small warehouses and a distribution warehouse. A two-stage optimization was carried out, covering inbound logistics and outbound logistics. This way, the food manufacturer pursued the goal of permanently reducing transport costs
- + The company has made various calculations in PSIGlobal, also to check the efficiency of the distribution network in the UK. The aim was to find out whether the location of the existing distribution warehouse should be retained or whether it would seem reasonable to relocate it to optimize costs. The efficiency of the existing network was confirmed, with the realization that, depending on volume growth, the opening of a second service provider location is recommended
- + Another project served to optimize the procurement network for supplying the production sites in Europe. The focus was on the transport costs of the entire supply chain – including ship transports to the ports, port handling, truck transport, and storage and production costs. Using the underlying calculation capabilities in PSIGlobal, various
- + Combinations of port and warehouse locations were modeled to find the optimal nodes in the network. The results led to cost and efficiency optimization of more than 10% in the areas of transportation, warehousing and port handling
- + In addition, the food manufacturer uses PSIGlobal to calculate CO2 emissions with the goal of creating transparency on the path to a green supply chain. For this purpose, a methodology based was developed for the quantification of CO2 footprint, which considers the shipments made, the vehicle fleet used, and the type of fuel used

Fact sheet

Users

- + 4

Language

- + German and English

Solution components

- + Data import
- + Analysis/visualization
- + Distance calculation
- + Extrapolation/forecast
- + Production optimization
- + Location optimization
- + Tactical tour planning
- + Table and graphic export

