

Supply Chain Network Design

Robert Bosch GmbH



The technology and service company Robert Bosch uses our strategic analysis and planning system PSIGlobal to optimize existing logistics networks and design new ones. In 2017 alone, the company achieved savings potentials in the double-digit percentage range.

Company data

- + **Industry:** Automotive and vehicle industry
- + **Headquarter:** Gerlingen, Germany
- + **Employees:** 402,000 worldwide
- + **Sales:** 78.1 billion euros (2017)

Software in use

- + **Deployed software:** PSIGlobal
- + **Realized interfaces:** ORACLE DB, XSLX, CSV/TXT

“ Among the tools for supply chain network design, scenario optimization and evaluation with the software we use brings us the greatest benefit. We benefit especially from integrated optimization algorithms as well as from the expandability and flexible design of data interfaces.

Dr. Christian Lippolt
Head of Department Logistics Consulting

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The challenge

The company comprises 15 business units with 60 product groups worldwide, 270 production plants, 800 logistics centers, 20,000 direct suppliers, 250,000 customers and is thus on its way to becoming the leading provider of Internet of Things and mobility solutions. Therefore, goods and products must always be available efficiently at the right time and in the right place in order to inspire customers with their products every day. The company pursues a holistic,

cross-functional TCO approach which takes into account not only logistics but also purchasing, production, labor market developments and new networks for analysis and, if necessary, optimization. The required simulation software must be capable of capturing and visualizing existing process and product data, weighing individual factors against each other and answering questions such as transport costs in relation to site selection in a model approach.

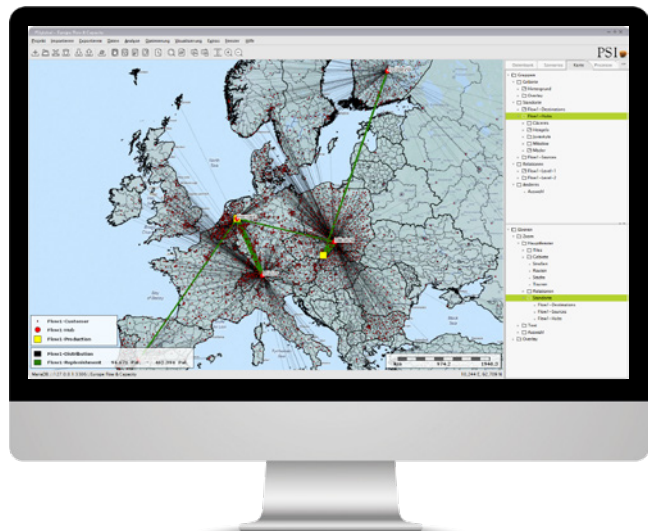
The solution

- + PSIGlobal is used for the analysis and continuous optimization of the operational, tactical and strategic planning and control levels of logistics networks. It enables the determination, preparation and structured evaluation of all relevant key performance indicators (KPI)
- + The different scenarios mapped in the if-then-models show the effects of changes in a wide range of factors on the network. These include strategic decisions, the sustainable design of the network, the choice of location, market factors or the distribution of volumes, capacities and resources. From the results, Bosch can then derive cost structures and optimize them through appropriate changes
- + PSIGlobal demonstrated its benefits at Bosch through a crossstructure network analysis of the 15 business divisions carried out last year based on existing actual data. The result was a wide variety of optimization options. Key elements, cost drivers, key parameters and critical factors for network design could be identified through the software. This resulted in potential savings of 13 percent on customs, inventory and transport costs
- + The automated identification and concerted comparison of key cost drivers, risks and potentials which PSIGlobal independently carries out on the basis of stored definitions, is also used by companies that rely on the comprehensive digitalization of its logistics processes

Fact sheet

Solution components

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



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