4FLOW
Your supply chain solution

Success Story automotive and industrial manufacturing

4flow and Schaeffler optimize intercompany network and reduce transport costs

Customer

Schaeffler
> A leading motion technology company
> 110,000+ employees
> 250 locations in 55 countries

Project scope

Development and implementation of a comprehensive transport network optimization process using 4flow network design software. The scope included baseline analysis, tour structure redesign, simulation of transport scenarios and rollout of optimized logistics operations across two plants. The scalable approach will be applied across Schaeffler's broader intercompany network.

How Schaeffler optimized transport costs using 4flow network design software

Schaeffler Group has been driving forward groundbreaking inventions and developments in the field of motion technology for over 75 years. With innovative technologies, products and services for electric mobility, CO_2-efficient drives, chassis solutions and renewable energies, the company is a reliable partner for making motion more efficient, intelligent, and sustainable – over the entire life cycle. Schaeffler describes its comprehensive range of products and services by means of eight product families: from bearing solutions and all types of linear guidance systems through to repair and monitoring services.

With around 110,000 employees and more than 250 locations in 55 countries, Schaeffler is one of the world's largest family-owned companies and one of Germany's most innovative companies. Tens of thousands of tons of goods are moved annually between its plants, suppliers and warehouses.

Schaeffler manages a highly complex intercompany transport network. These transport flows are essential to the company's core manufacturing operations, which rely on daily deliveries and synchronized material availability to maintain production schedules and service performance.

To maintain excellence in service and efficiency, Schaeffler aimed to strengthen the performance of its transport planning operations. Schaeffler partnered with 4flow to implement software-driven planning and optimization. The initiative enabled Schaeffler to identify and implement key network improvements, ultimately achieving a sustainable reduction in transport costs in the low double-digit percentage range and generating significant savings.

Improving visibility and unlocking optimization potential

To support its growing global footprint and maintain top-tier service standards, Schaeffler

sought to further improve transparency and efficiency in its intercompany transport network. The goal was to complement these improvements with greater agility and responsiveness to volume fluctuations and changing demand patterns. By introducing a standardized framework for evaluating and adjusting transport flows, the company laid the foundation for a more dynamic, scalable and data-driven network planning process.

Schaeffler partnered with 4flow for its software expertise, collaborative approach and ability to deliver results with minimal internal resource requirements.

Milestones in process compliance, automation and visibility within 4 months

Using 4flow network design software, the project followed a structured five-step methodology:

1. **Establish the baseline**
   A mass upload of all existing (as-is) transport tours into 4flow network design software provided comprehensive network visibility. This established a foundation for identifying inefficiencies, understanding utilization rate and enabling financial comparison across various scenarios.
2. **Identify optimization potential**
   Key savings opportunities such as consolidating underutilized tours, improving tour fill rates and centralizing the network through hubs were identified using the specialized analysis functions of the 4flow network design software. The team focused on high-volume suppliers and underutilized tours to prioritize areas with the most optimization potential.
3. **Design new tour structures**
   Tours were restructured step by step. Using the software's optimization engine, the team prioritized main transport routes during the restructuring process. Smaller suppliers were then integrated into the redesigned tour structure in a cost-effective way by optimizing route consolidation and transfer points. Hub transfer scenarios were also modeled, including associated handling costs.
4. **Simulate scenarios**
   Detailed simulations in 4flow network design software enabled evaluation of each scenario's load utilization and financial impact. By previewing expected service levels and cost differences, the team forecasted gains with confidence before implementation.
5. **Execute operational rollout**
   The selected transport designs were rolled out in close collaboration with Schaeffler's logistics service provider (LSP), including adjusting tour frequencies, loading times and routing sequences to match operational needs.

This approach created a repeatable and scalable optimization framework, which the Schaeffler team is now actively reapplying to optimize additional regions of their intercompany network.

Impact in focus regions: From pilot to process

In a pilot region Schaeffler already saw significant impact. Four fragmented transport routes were consolidated into three optimized tours, reducing mileage and trailer handling

complexity. By adjusting trailer exchange points and aligning cut-off times, the team created more flexible routing options without compromising service performance. Specialized handling of long goods was introduced via dedicated transport lanes, enhancing efficiency for non-standard cargo.

In a second region, the same methodology enabled the consolidation of underutilized routes, resulting in fewer total tours and reduced frequency for low-priority destinations. These changes minimized complexity while maintaining a stable supply performance, setting the benchmark for further rollouts.

Across the two regions, Schaeffler optimized several thousands of tons of shipment volume. The business additionally reduced the number of active tours by five, contributing not only to cost savings but also to lower complexity, better asset utilization and reduced CO_2 emissions.

The structured rollout and alignment with Schaeffler's internal stakeholders made way for a smooth transition and full adoption. With planning responsibility retained internally, the Network Operations team now applies the optimization framework independently across further regions.

Enabling strategic growth

The collaboration with 4flow is part of Schaeffler's long-term transport planning strategy. The network optimization process developed with 4flow is applied across additional regions. Thanks to 4flow network design software, transparent KPIs, centralized decision-making and scenario simulations are established as part of each planning cycle at Schaeffler.

Schaeffler continues to expand this approach, transforming complex networks into leaner, more responsive systems. The use of 4flow network design software enabled the team to move one step further from local adjustments to strategic, data-driven optimization across the business.

Results

- Implementation of 4flow network design software and enablement of existing team of network design experts
- Significant cost reduction across intercompany shipments
- Significant reduction in tour count with same service level
- Tens of thousands of tons of optimized transport volume

"Working with 4flow, Schaeffler will be able to further increase its operational efficiency in a holistic and sustainable way. With 4flow network design software, Schaeffler enhances its ability to shape logistics networks in a data-driven and agile process – a key step toward scalable, proactive planning of a future-ready logistics network."

Mehmet Iriz
Head of Network Operations Europe
Schaeffler Group

4FLOW

About 4flow

4flow is a leading provider of supply chain consulting, software and fourth-party logistics (4PL) services. With more than 1400 team members, 4flow is a global partner for its customers at more than 25 locations in Europe, Asia, North America, and South America. 4flow completes more than 300 projects a year in cooperation with customers on five continents, in more than 40 different countries and regions. 4flow is headquartered in Berlin, Germany.

25+

offices in Europe, Asia and the Americas

1400+

team members globally

400+

customers globally

300+

projects annually around the world

4flow | Hallerstrasse 1 | 10587 Berlin | Germany | +49 30 39740-0
4flow.com

4flow on LinkedIn