TNT achieves $260 million in cost savings with AIMMS-based optimization

About TNT
TNT is one of the world’s largest express delivery companies. On a daily basis, TNT delivers close to one million consignments ranging from documents and parcels to palletised freight. The company operates road and air transportation networks in Europe, the Middle East and Africa, Asia-Pacific and the Americas. TNT made €6.7 billion in revenue in 2014.
Challenge

TNT Express delivers over 4.7 million parcels, documents and pieces of freight weekly to more than 200 countries, all while maintaining strict service requirements. Until 2005, TNT Express’ decision-making for its complex logistical operations did not utilize mathematical support. But competitive challenges convinced company leaders that in order to remain relevant and effective, they had to take a more fact-based and analysis-driven approach to decision-making. The worldwide financial crisis of 2008 further amplified their immediate need for targeted and advanced optimization.

Solution

TNT decided to embrace Operations Research as a corporate solution and quickly assembled a team of specialists that included Hein Fleuren, Professor of Operations Research at Tilburg University, and multiple consultants from ORTEC, a long-time AIMMS partner. The team started with basic data analysis compiled from separate commercial, financial and operations systems, and began to analyze local management data. That was a relatively easy job to do in AIMMS. Based on the insights from this initial analysis, they identified and implemented changes that led to an immediate cost reduction of 6.4%. This early success led directly to the development of the TNT Express Global Optimization (GO) Program, which is a two-year training program for managers to learn how to apply the principles of optimization to their daily operations. Following the successful implementation of this program, the team started optimizing TNT’s parcel and freight flows in Europe using AIMMS-based models. End-to-end operational supply chain costs and services are now quickly and easily considered to produce the most efficient distribution network possible.

Results

Beyond TNT’s obvious financial and emissions accomplishments, TNT has succeeded in creating an environment of optimization with the creation of the GO Academy. TNT’s tremendous advances in site location planning, truck routing, fleet management and staff scheduling also led them to win the internationally renowned Franz Edelman Award in 2012.

Results include:
- $260 million in cost savings
- Carbon footprint reduced by 283,000 metric tons
- 200+ managers equipped to perform strategic optimization and apply optimization techniques across TNT’s networks and operations

Contact Us for a Demo

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About AIMMS

The **AIMMS Prescriptive Analytics Platform** helps you evaluate and identify the best options to tackle your most pressing challenges with sophisticated analytics that leverage mathematical modeling and scenarios while pulling from multiple data sources. You can immediately gauge, not just what is likely to happen, but what you should do about it for the best possible outcome. Whether you seek to improve your strategy, planning, operations or transform your entire supply chain, AIMMS software is the ideal combination of being tailored to your unique situation paired with speed to value (ROI). That’s why teams at Shell, Johnson & Johnson, GE and Heineken and many more fire up AIMMS every day.

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