

Case study

Dynamic shift in resource optimization

Quintiq streamlines Green Cargo's locomotive and workforce assignment operations for efficient resource utilization



The customer

Green Cargo is an international rail freight company that operates cargo trains. Its network covers the entirety of Sweden and major cities in Norway, as well as the rest of Europe with the help of partners. The company also maintains locomotives and wagons.

On a daily basis, Green Cargo runs approximately 400 freight trains in Sweden, equivalent to about 10,000 journeys by trucks or a caravan of trucks over 290 kilometers long. The company operates 24 freight trains that travel to and from Europe daily.

Green Cargo prioritizes efficiency for business and sustainability. To this end, it is the only nationwide freight carrier to receive the 'Bra Miljöval' or Good Environmental Choice ecolabel from the Swedish Society for Nature Conservation.

Additionally, Green Cargo is the most punctual rail freight carrier in Sweden, with an on-time performance within the hour of approximately 95 percent.

green cargo Fast facts

Business:	Rail freight
Owners:	The Ministry of Enterprise and Innovation, Swedish State
Date established:	2001
Turnover:	4.2 billion Swedish krona (2016)
Total assets:	5,000 wagons, 390 locomotives
Total staff:	2,000
Partly-owned companies:	DB Schenker Rail Scandinavia A/S
Haulage:	Cooperation with 200 road transport companies
Location:	Sweden and the rest of Europe (via partners)

The challenge

Green Cargo wanted to improve its approach in assigning locomotives, allocating crew and calculating salary compensations. The goal was to better meet the needs of its vast and growing network.

The legacy systems in place were no longer adequate – resulting in insufficient visibility of resource usage and additional manual tasks that increased the risk of suboptimal decisions.

Green Cargo wanted to make its planning processes faster, more efficient and less error-prone while improving resource utilization in order to offer a competitive rail product and support intermodal transport.

The choice

Green Cargo sought a system that could generate insight into planning decisions across its network with various planning horizons.

Green Cargo wanted a system that could synchronize data from different planning teams to generate an integrated plan for locomotive planning, crew planning and salary compensation calculations. And it had to do so while taking international labor rules into account.

Such a system would allow Green Cargo to operate more efficiently. Compliance with regulations and laws as well as delivering a transport product with a clear sustainability mark was important to the company. Additionally, the system had to integrate easily into Green Cargo's existing platforms and enhance workforce scheduling and resource planning.

Quintiq was able to provide what Green Cargo was looking for.

The implementation

Quintiq partner Ab Ovo, a solutions provider in advanced planning and scheduling, rolled out a custom-made solution for Green Cargo named Platå. The solution incorporated base elements of workforce management and was implemented at the company's main office in Sweden.

Green Cargo saw Quintiq and Ab Ovo as partners. The customer was open to suggestions rather than being prescriptive in what they needed.

The Platå solution was implemented on time, on budget and most importantly, it integrated seamlessly into Green Cargo's existing platforms.

The benefits

The solution enabled Green Cargo's planners to increase utilization by allocating the right locomotives to the right trains, assigning appropriate resources to work orders and predicting the potential consequences of different allocation scenarios. It also supported the scheduling of Green Cargo's workforce in accordance with safety rules and labor laws to increase safety, compliance and employee satisfaction.

The planning system fulfilled Green Cargo's business requirements. It was configured to meet the company's unique needs, from organizational objectives to market positioning and sustainable development. It also covered the required planning levels, from tactical to scheduling of equipment and crew.

Platå became one of Green Cargo's central IT applications, connecting and working with various other platforms within their IT landscape.

The future

The successful software rollout and seamless integration with Green Cargo's existing IT infrastructure equate to more opportunity for continued collaboration between the company and Quintiq-Ab Ovo. The ongoing AMA (application maintenance agreement) is an encouraging sign for all parties involved.



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