

CUSTOMER STORY

# Data drives insight at Volvo Group

International truck manufacturer achieves  
three-month payback with Qlik



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“We use Qlik in every functional area of our company. It drives product improvement, which increases customer satisfaction and ultimately that brings cost benefits to the business.”

Scott Motion, IT Service Delivery Lead, Volvo CE.

### Scottish take-over

Following the acquisition by Volvo Construction Equipment (Volvo CE) in 2014, the Motherwell plant became one of 13 global Volvo CE manufacturing locations which support an extensive product range of construction machinery.

The facility in Motherwell produces two brands - the Terex Trucks articulated off-road hauler and the Volvo rigid off-road hauler. These large scale machines are used for hauling materials for extreme mining, quarrying and construction jobs.

### Emphasis on quality

The plant constantly aims to improve customer experience in terms of quality, cost and delivery. Operations Director, Paul Hudson, is a firm believer that data is the key. However, data access was sporadic and there was a heavy reliance on gut feelings and personal experiences across the multi-disciplined teams.

“Data transformation is driving our customer experience. For me, it’s all about how we can improve on-time delivery and how we could hone-in on the real root causes of quality problems to drive effective, corrective action as soon as possible,” says Hudson.

#### Solution Overview

##### Customer Name

Volvo Group

##### Industry

Manufacturing

##### Geography

Motherwell, Scotland

##### Function

IT

##### Business Value Driver

Reimagined Processes, Customer Intelligence

##### Challenges

- Improve customer service in terms of quality, cost and delivery
- Reduce expenditure and streamline internal processes
- Use data to solve production and other operational problems

##### Solution

Volvo plant in Motherwell implemented detailed data analysis using the Qlik Sense business intelligence and visual analytics platform

##### Results

- Automated processes delivered a Qlik payback period of three months
- Detailed data analysis enabled many cost-effective efficiency improvements
- Improved product quality and customer service increased competitiveness

## Self-service analytics

The business sought a new data analytics platform. “We evaluated a number of solutions and, at that time, Qlik Sense set itself apart, predominantly because of its ability for self-service analytics,” says IT Service Delivery Lead, Scott Motion. “With its user-friendly dashboards, Qlik empowers people to create their own visualizations without having to rely on someone in IT.”

Qlik has now been used to create many applications throughout every area of the Motherwell business from technology, customer support and finance to manufacturing and health and safety.

## Instant access to vital data

The business achieved a three-month return on its Qlik investment thanks to the automation of time-consuming manual processes, report generation and administration.

The data for one weekly report that used to take a day to extract is now available instantly and another automated report makes parts shortage figures dynamically available to everyone direct from the shop floor. The people involved in these routine tasks are now free for more creative work.

Qlik apps have also helped to improve quality on the assembly line. Previously the team was finding that there were too many defects per truck when they reached the final check. Although the number of defects had been halved, it had hit a plateau and was costing the business a lot of money due to re-work or additional checks on the trucks before they were shipped.

“When we introduced Qlik Sense, the trend started to go down and very soon we were actually at less than one fault per truck. That’s a 90 percent reduction in failure,” says Motion.

This was achieved by identifying repeat faults and tracking problems down to the lowest level, resulting in bottom-up problem-solving.

“Qlik allows us to tick off issues one by one and that’s been a game changer here at Motherwell,” says Hudson. “Customers also benefit from the insights we’re getting from the data because they’ve got a better, sounder product that works hard for them and makes them money.”

Manufacturing Engineering Manager, Robert Beveridge adds: “Rather than gut feel, conjecture and opinions, we’re now using data to make decisions. We can now measure our production KPIs for how quickly or slowly we respond to issues on the line. We input faults into Qlik and that allows us to identify trends and data patterns.”

## Better understanding of business operations

Health, safety and care for the environment are three core values at Volvo and when Qlik came into play, it prompted a rethink in these areas.

“Once we started using the apps to analyze data coming in from the safety observations, we realized that what we thought were significant risks and areas of concern were not what the team members on the shop floor were concerned about,” says Senior HSE Advisor, Karen Anne Duffy.

“We thought the high-risk activities would be the most significant ones in terms of shop floor focus but we found out that it was the day-to-day, nitty gritty things that were an annoyance. With this in mind, we tailored reports for each area based on data and the insights visualized by Qlik.

“These let staff view what they’ve reported, what the recurring themes are, what we’re doing about it and how we’re actioning their concerns. Qlik has given us a better understanding of the business and, from that, we’re able to make improvements every day that make this a safer, healthier and a better place to work.”

## Solution to many issues

Qlik also enables the company to solve many individual problems. When a faulty fuel pump on one of the trucks was costing a lot of money on warranties, a full root-cause analysis was run on the part and data revealed that it was not a fault with the pump but with the fuel tank itself.

“That would never have been possible if we had not had the Qlik Sense data and insights,” says Motion.

When an electrical issue affected the production line there were many possible causes but, with Qlik, the team drilled down, found the root cause and quickly eliminated it.

“I would recommend Qlik because it’s a very intuitive product. It was very easy for us to get up and running quickly and it’s cross-platform, so you can use it on a number of devices,” concludes Motion. “Data analysis is the future for our business. We’ve already done a lot but we are just scratching the surface. Qlik Sense is providing data that we will be able to use in the future in really good ways.”

Hudson adds: “When we talk about Industry 4.0, we just need to take it to the next level so we must drive continuous improvement which is all about focusing the resource and the time you’ve got. Qlik allows you to do that.”

## The keys to success



**3-month**

payback period  
on cost of Qlik



**90%**

reduction in defects  
per truck

“Using Qlik data analytics means that we produce more reliable products and our team members have ownership of their own destiny in terms of solving problems. It helps us engage the workforce which is a good thing for them but also for our customers.”

Paul Hudson, Operations Director, Volvo Group



### About Qlik

Qlik is on a mission to create a data-literate world, where everyone can use data to solve their most challenging problems. Only Qlik's end-to-end data management and analytics platform brings together all of an organization's data from any source, enabling people at any skill level to use their curiosity to uncover new insights. Companies use Qlik to see more deeply into customer behavior, reinvent business processes, discover new revenue streams, and balance risk and reward.

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