Qlik®

ANALYTICS

Hapag-Lloyd

Smart containers, smarter decisions:
Hapag-Lloyd breaks new ground in data transparency

About Hapag-Lloyd

Hapag-Lloyd is global liner shipping company, founded in 1847 in Hamburg, Germany. It operates a large fleet of container ships, provides logistics services, and is a leading global player in international trade, connecting continents through its extensive service network.

For more than ten years, Hapag-Lloyd has been using Qlik®, and the analytics platform is now driving decisions that are improving operational transparency throughout the organization. Qlik is also the power behind Hapag-Lloyd's Smart Container initiative, delivering valuable real-time and historic information on container locations and their progress, and enabling improved planning, customer service, and efficiency across a complex global operation.

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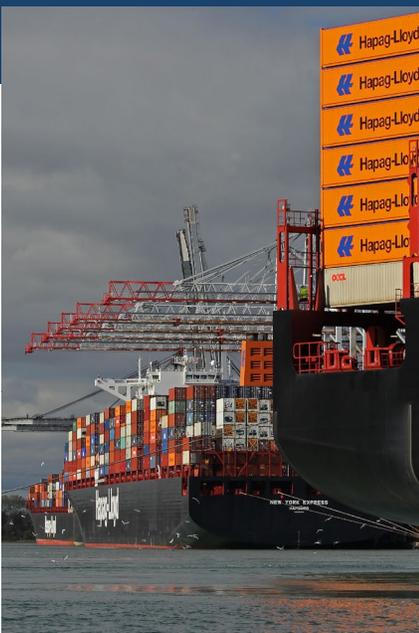
Customer Name
Hapag-Lloyd

Industry
Transportation and Logistics

Geography
Germany, EMEA

Function
Finance, IT, Marketing, Sales, Supply Chain Management

Challenges
- Improve visibility into shipments and their progress
- Make data and processes more transparent and actionable
- Boost operational efficiency and customer service

Solution
Hapag-Lloyd uses Qlik across its organization, including its Smart Container project, to place key data into the hands of end users.

Results
- Unstructured IoT data is now easy to visualize and interpret
- Improved data transparency enables proactive operations
- Strong insights improve key planning and service capabilities

Making the right decisions fast

With 305 vessels, a total transport volume of 12.5 million twenty-foot equivalent units (TEUs), and around 17,400 employees in more than 400 offices in 140 countries, Hapag-Lloyd is a business built on efficiency and expertise.

Success depends on optimizing shipping routes and schedules, ensuring that customers benefit from logistically efficient and sustainable services in a complex, unpredictable, and often highly competitive market.

"Shipping is an ever-moving, fast-changing business. We need to react to keep up with the market, be competitive, and be profitable," says Christian Klinge, Head of Business Intelligence (BI) Development at Hapag-Lloyd. "We need data to make the right decisions and make them fast. Data has become a very important part of Hapag-Lloyd's day-to-day business and an even more important part of our strategy."

Hapag-Lloyd realized that an important part of implementing this strategy was greater visibility into the movements of its two million containers. Specifically, it needed faster and more reliable information on the sections of shipment routes that aren't handled directly by the business.

"A container goes through a lot of different hands on its journey, including customers, transport vendors, and terminals," explains Rebecca Leiss, Business Project Lead Smart Container Analytics at Hapag-Lloyd. "In the past, we relied on all these parties to share information about the container's whereabouts."

It wasn't an ideal way of operating; information could be patchy, slow, or inaccurate. Hapag-Lloyd decided to make a critical change.
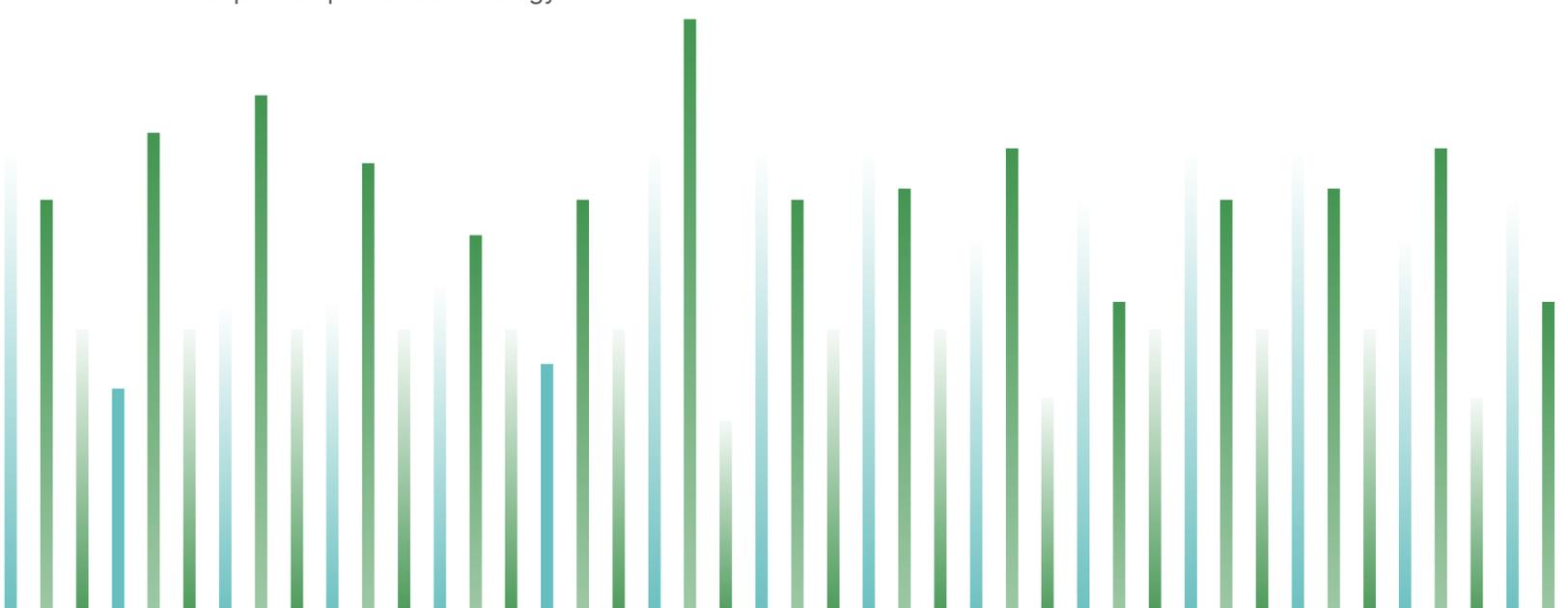
Insights that are accessible to all

In 2022, Hapag-Lloyd made a strategic decision to invest in tracking its entire fleet of containers. The Smart Container project saw IoT devices permanently installed on every container, tracking their locations and other operational metrics such as device health information.

"The IoT data consists of billions of rows, and lots of very different and unstructured data types, that don't make sense to anyone in their raw form," says John Dörnte, BI Developer at Hapag-Lloyd. "We needed to structure it, make it accessible and easy to understand, even to users who aren't experts in that field."

The answer was Qlik Analytics™. The powerful platform now takes the large, complex, and geographically dispersed IoT datasets that Hapag-Lloyd generates and uses intuitive visualizations and user-friendly interfaces to make them both accessible and informative to users across the business.

"The Smart Container project was a jump into cold water, as no other shipping company has anything like it," Klinge says. "But with Qlik as the main front-end data transformation and visualization tool, we knew we could deliver on it."

Leveraging valuable, actionable data

The project is part of a wider Qlik environment, first introduced in 2015, that now delivers insights and visualizations to around 7,000 of Hapag-Lloyd's employees.

Users range from senior leaders to front-end operational staff across all the business' key functions.

"The Smart Container project isn't just dots on a map, although they are very valuable," says Leiss. "Qlik allows anyone to both visualize that data and add extra context to create even more value. For example, we can add shipment or customer data so we can proactively respond to what we're seeing and reach out to the right people as and when needed."

Not only does this allow Hapag-Lloyd to accurately track progress and highlight delays, it also allows retrospective analysis to provide a broader picture of past performance and current operations, and how they can be improved in the future. For example, Leiss estimates that the improved planning provided by the Smart Container project could potentially cut individual inland container transport journeys by up to 50%.

"We can see where we can reduce costs and make our operations smarter and better," she continues. "Qlik helps us make better, more confident decisions, and that all has a positive effect on our customers through improved services, better rates, and, of course, improved sustainability. We have more visibility into what kind of CO_2 emissions are connected to a certain transport or shipment. We can then see where we – or our customers – are better able to optimize these."

From static data to proactive insights

This has led to greater levels of transparency for Hapag-Lloyd's internal users, and its customers. For Dörnte, an additional critical benefit is Qlik's flexibility and functionality for a broad range of end users, even those with little previous experience.

"We're trying to empower people, whether they're experts or not," he adds. "With Qlik, we're moving away from static information and allowing people to really look proactively at what they can do with data and the insights they can derive from it. By putting this into easily understandable dashboards, it can really help optimize our business."

The route ahead for Hapag-Lloyd includes incorporating AI-based Qlik capabilities to add further value and create more opportunities.

"Qlik will continue to play a crucial role in our digital transformation," Klinge concludes. "AI can enable new opportunities, and Qlik has many very valuable AI functions that will have an important impact in the future."

Make game-changing analytics accessible to everyone

Learn more

Qlik

About Qlik

Qlik transforms complex data landscapes into actionable insights, driving strategic business outcomes. Serving over 40,000 global customers, our portfolio leverages advanced, enterprise-grade AI/ML and pervasive data quality. We excel in data integration and governance, offering comprehensive solutions that work with diverse data sources. Intuitive and real-time analytics from Qlik uncover hidden patterns, empowering teams to address complex challenges and seize new opportunities. Our AI/ML tools, both practical and scalable, lead to better decisions, faster. As strategic partners, our platform-agnostic technology and expertise make our customers more competitive.

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