Since its founding in 1990, SMT Shipping has provided reliable bulk and break bulk cargo transportation. After growing from two ships to 60, the company needed to better manage its data to optimize shipping and meet sustainability goals.

**Challenge**

Increasing sustainability efforts require large-scale transporters to have constant access to operational data. The International Maritime Organization (IMO) recently introduced two worldwide regulations for ship operators: the energy efficiency existing ship index (EEXI) and the carbon intensity indicator (CII). By 2023, all commercial ships over a certain size will need to comply with stepwise thresholds to decrease carbon emissions.

As active supporter of the UN’s 2030 Agenda for Sustainable Development, SMT Shipping needed an easier way for all employees to see operational data. Democratizing data insights would help the company make its cargo shipping operations more sustainable.

A challenge unique to shipping is the multiple functions of a cargo ship. Each one acts as a hotel for crew, generates and consumes power, carries massive amounts of goods, and depends on a variety of systems to operate efficiently. As new ships come online, data flowing between systems increases.

According to Marcel Heijnsbroek, chief financial officer at SMT Shipping, “We had all kinds of reporting in the company, like Excel reports, but were losing sight of the granular data that was locked up in different systems.”
To start the data management project, the team at ilionx, a TIBCO Silver partner, created a simplified analytics maturity model to understand the company’s current capabilities and goals. With the results in hand, ilionx chose TIBCO Spotfire analytics and Microsoft Azure as the solutions on which to build a robust shipping data and analytics platform.

According to Bas van Oudenaarde, tech lead at ilionx, “Using Microsoft Azure, we built a staging area where we create a data store. From this data store, we use Spotfire software to help SMT Shipping get the right information to the right place.”

Microsoft’s enterprise knowledge and world-class security, combined with TIBCO’s proven success for more than 10,000 customers, provided a sound and trusted foundation. With Azure’s open and flexible cloud computing platform, SMT Shipping can control its information in the cloud for global access. The Spotfire solution allows 70+ SMT users to access all this data in more than 100 tables, all managed and funneled into interactive dashboards for easy visual analysis.

According to Marcel Heijnsbroek, chief financial officer at SMT Shipping, “Together with ilionx we decided not to simply choose a BI tool but to look for the long run. Clearly, we needed more than just replacing the reporting that we did in Excel. First, we needed robust BI capabilities. But looking further up on the analytics maturity ladder, we foresaw streaming data coming from the vessels and also complex AI modeling coming up.
Comparing several BI tools, we chose TIBCO Spotfire software for its ability to cope with vast amounts of data and provide powerful calculation properties, ease of embedding data functions (which we already use), and especially for its capability to combine streaming data with data at rest. For the future, we want to further explore the AI components that TIBCO can provide that will seamlessly integrate in and with Spotfire analytics.

“With our data and analytics project and dashboards, we’ve been able to generate insights and control. For example, the operational expenses dashboard combines data from four sources that were one big blur. Now we provide high-level information to shareholders, and superintendents can drill down to individual purchase orders. And finally, we understand the variations in our crew costs.”

Spotfire analytics makes it easier than ever for the company to collaborate and share real-time insights through immersive dashboards, which provide fleet operations with speed, energy consumption patterns, and any red flags in carbon emissions. As a result, SMT Shipping can better prepare for future regulations, making the seas a safer and more sustainable operating environment.

Heijnsbroek concludes, “The subject of sustainability and decarbonization are major topics in shipping and in the world. It’s interesting to see that decarbonization is actually combined and interlinked with digitalization. And this will happen much more over the next couple of years, especially in shipping.”