

Opportunity

Stena Bulk AB, a global leader in the tanker shipping industry, faced rising complexity in navigating freight rate volatility and optimizing vessel deployment. Chartering decisions relied heavily on human experience, leading to inconsistent earnings, sub-optimal strategic vessel positioning and idle time across its Medium Range fleet. The company sought a predictive solution capable of integrating market data, weather patterns, and operational inputs to enable accurate, real-time decisions. Cognizant was selected for its expertise in applied AI, maritime analytics, and scalable cloud deployment.

Imagine IT Differently

Cognizant designed and implemented an AI-powered recommendation engine that integrates freight rate forecasting with vessel positioning logic to guide chartering decisions. Leveraging advanced machine learning models (Prophet, XGBoost) and agentic AI, the system delivers actionable deployment insights, adapts to market and geopolitical trends, and visualizes predictions through interactive dashboards. Continuous learning loops refine accuracy based on voyage outcomes. Stena Bulk leadership appreciated the transparency and agility of Cognizant's co-innovation approach, which enabled teams to adopt AI-driven decisions confidently while aligning with business and sustainability goals.

Future Made Possible

The AI-led chartering initiative delivered measurable improvements:

- Achieved 92% accuracy in freight rate forecasting (7, 21, 45, 90 days)
- Reduced vessel idle time and improved route planning
- Increased freight earnings and accelerated decision-making with real-time dashboards
- Enhanced chartering precision through AI-validated recommendations
- Lowered fuel consumption and emissions via optimized vessel positioning
- Established a scalable AI and cloud foundation for future expansion

According to ISG, this case study is an example of how AI adoption can deliver sustainability in a complex industry.

Driving
Business
Innovation
Powered by
AI

Stena Bulk AB

Cognizant