OCIANA™

YOUR PLATFORM TOWARDS A MORE SUSTAINABLE TOMORROW

COLLABORATE ON A COMMON PLATFORM WITH OCIANA'S GREEN DIGITAL SHIPPING CORRIDOR CAPABILITY AND ENVIRONMENTAL PERFORMANCE MANAGEMENT (EPM) TOOLKIT

Industry Overview

All players in the maritime industry are required to make rapid changes in efficiency to meet global decarbonization targets mandated by the International Maritime Organization (IMO). In particular, international shipping vessels are required to demonstrate reductions in their carbon intensity as measured by the Carbon Intensity Indicator (CII) – an indicator of operational efficiency. Additionally, more ports and shipping lines will need to continue to establish Green Shipping Corridors (GSC) to promote operational efficiency and reduce greenhouse gas emissions.

Current State

A major challenge facing the implementation of successful GSCs is obtaining reliable, real-time indicators of their performance and efficiency (i.e., Key Performance Indicators - KPIs). Without these data and insights, it is unclear how to track and difficult to establish whether a particular GSC will meet decarbonization targets. Even with access to such data, it can be challenging to get it into the right hands – i.e. to the various stakeholders who can make use of it to act towards efficiency. For example, port authorities that make up a GSC may want aggregate KPIs for all vessels servicing a particular shipping corridor, whereas a fleet operator may only need to see KPIs pertaining to vessels in their fleet that navigate that corridor. **Thus, being able to share relevant information in meaningful ways across multiple stakeholders is critical to establishing a common picture of GSC and all who are involved in realizing its potential.**

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Benefits of OCIANA™

OCIANA's Green Digital Shipping Corridor connects ports, terminals, pilotages and shipping lines via a common platform. OCIANA's Green Digital Shipping Corridor capability (GDSC) is also designed to leverage data visualization and machine learning to provide real-time monitoring and optimization of shipping corridor performance.

Predictive visibility to enable enhanced logistics and operational efficiencies

Through GSTS's global maritime data platform, OCIANA™, data on vessels and ports that make up the GSC can be ingested and transformed in real time to show trends in efficiency and decarbonization and provide actionable insights to optimize performance.

Digital collaboration across ports, terminals, pilotages and shipping lines to action real time information

OCIANA's Environmental Performance Management (EPM) Toolkit enables monitoring and optimizing maritime environmental performance for vessel operators, fleet managers, terminals and ports. The EPM Toolkit supports the implementation of GDSCs by allowing multiple stakeholders access to timely and reliable data on the performance of their vessels and shipping corridors.

Scenario planning to facilitate compliance management, dynamic route planning and JIT arrival

Using machine learning and simulations, the EPM Toolkit enables stakeholders to quickly identify practical solutions to increasing operational efficiency. These include arriving just in time, navigating at optimal speeds, thereby reducing fuel consumption, minimising time at anchorage and lowering greenhouse gas emissions as well as enabling vessels to visit more efficient ports. **The EPM Toolkit is thus essential for ensuring the success of GDSCs worldwide in the shared mission to support compliance management, decarbonize the maritime industry, support environmental risk reduction as well as promote climate change initiatives and logistics efficiencies.**
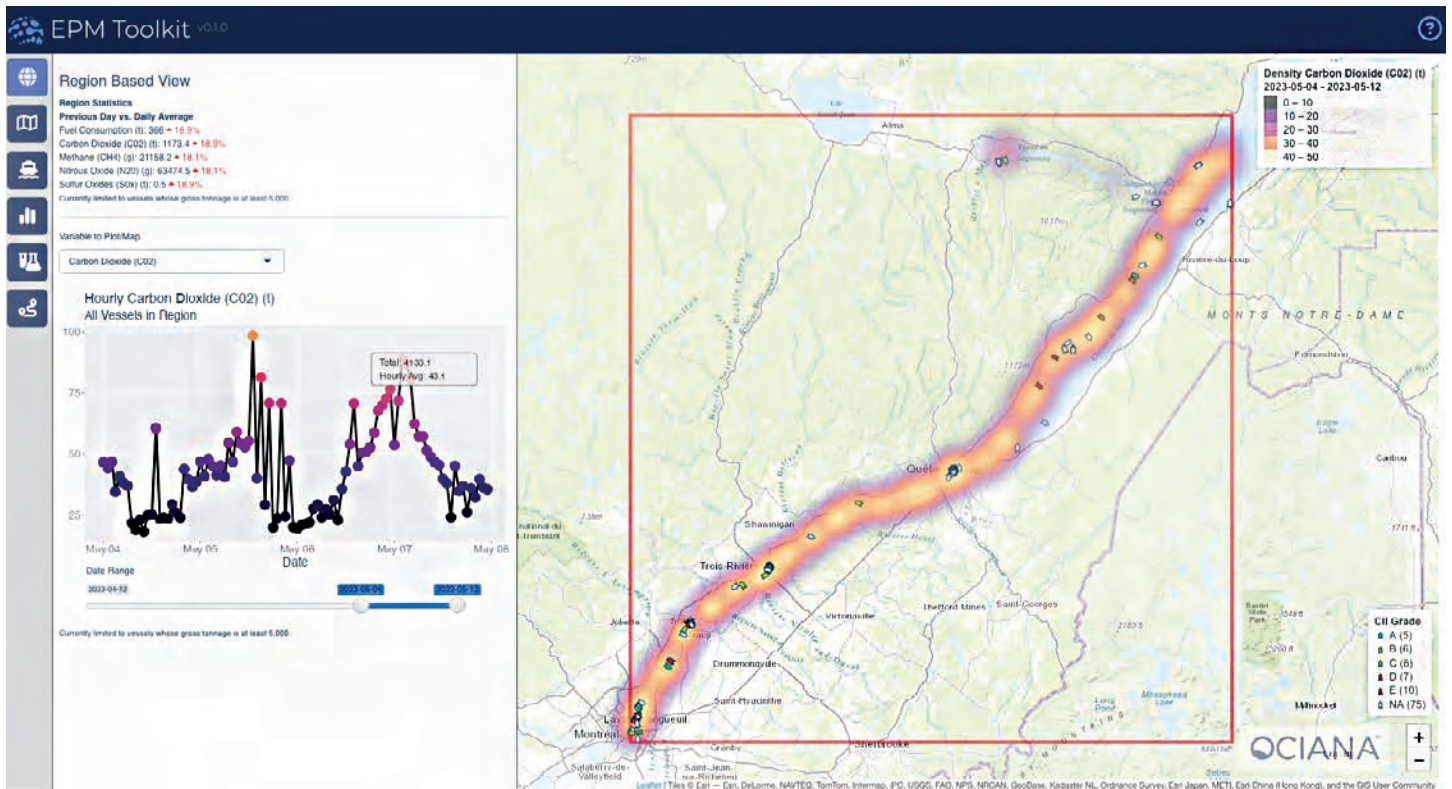
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Figure 1. OCIANA's EPM Toolkit: current and historical emissions and fuel consumption for vessels in a geographic region, such as a port.
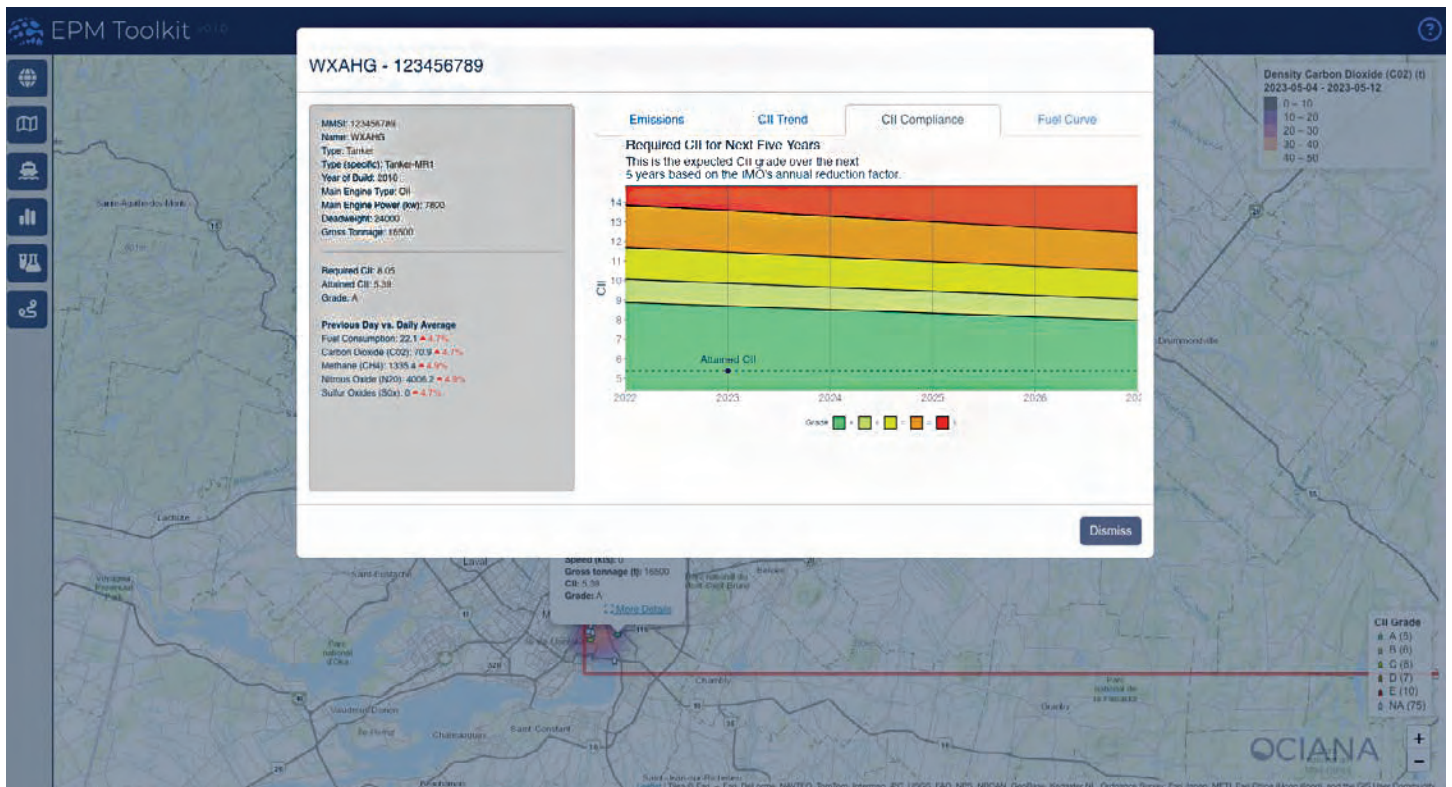

Figure 2. The EPM Toolkit enables vessel operators to determine and forecast CII compliance as well as identify ways to improve CII.
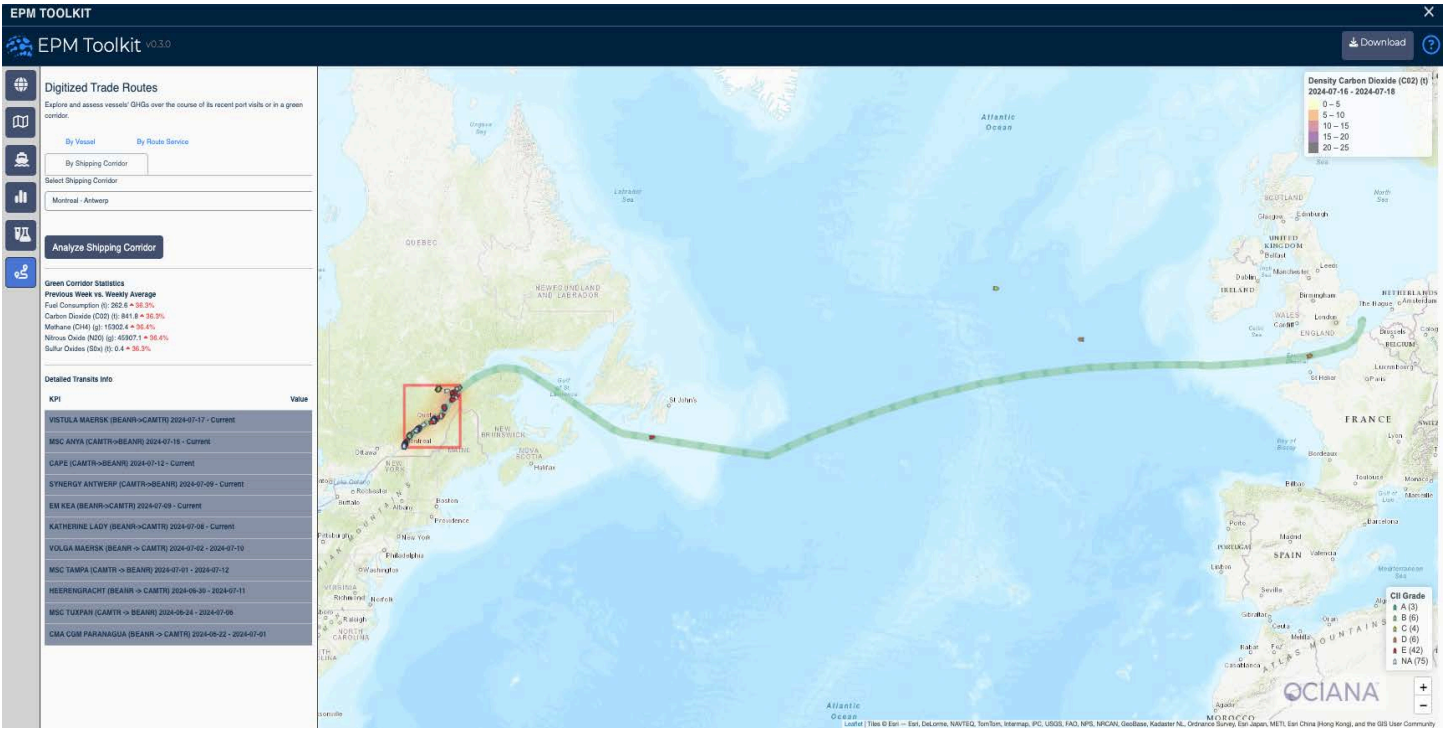
Figure 3. The EPM Toolkit analyses Green Shipping Corridor performance and facilitates identification of vessels that are over-performing thus supporting green incentive programs
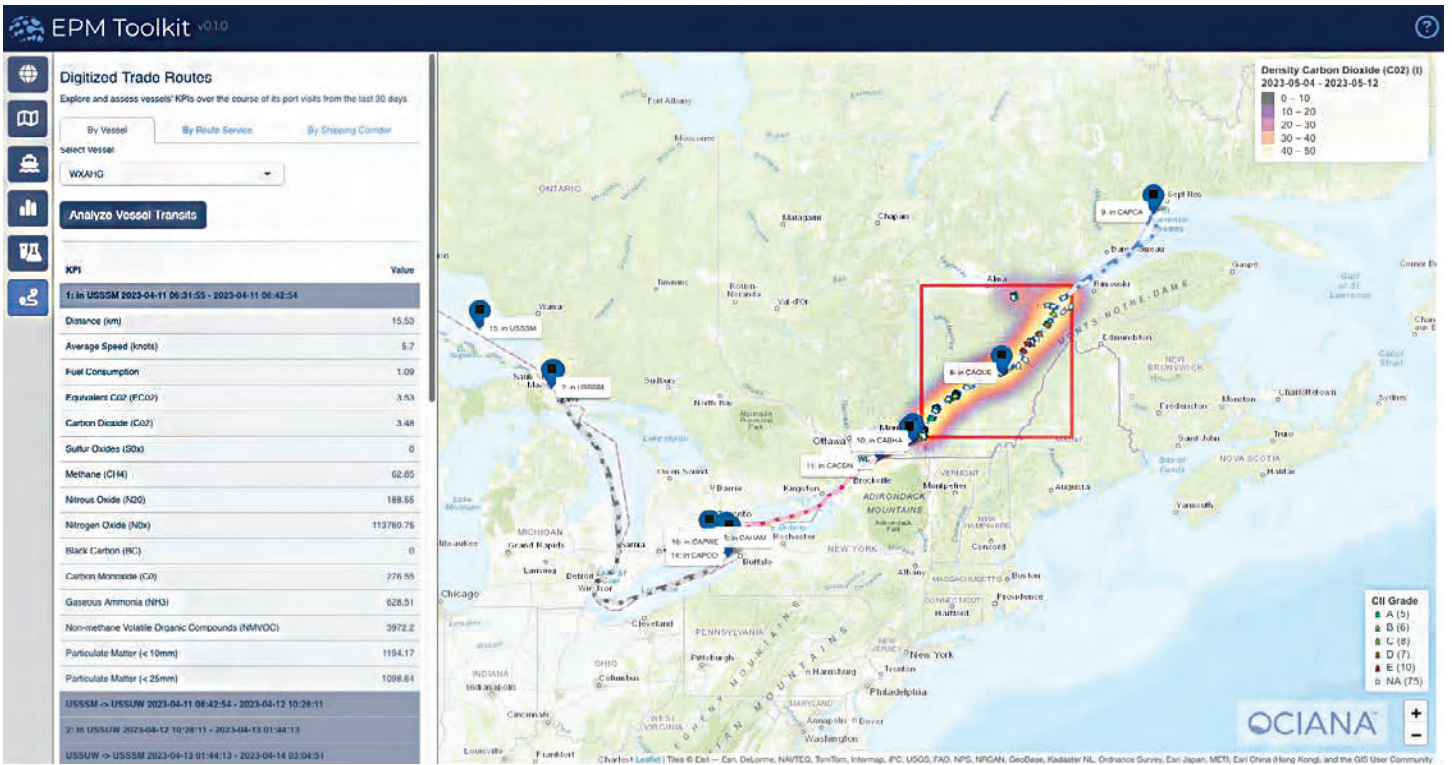

Figure 4. The EPM Toolkit analyses vessel route performance and facilitates identification of trip segments that are underperforming thus providing ports and shipping lines with insights into the efficiency of vessels.
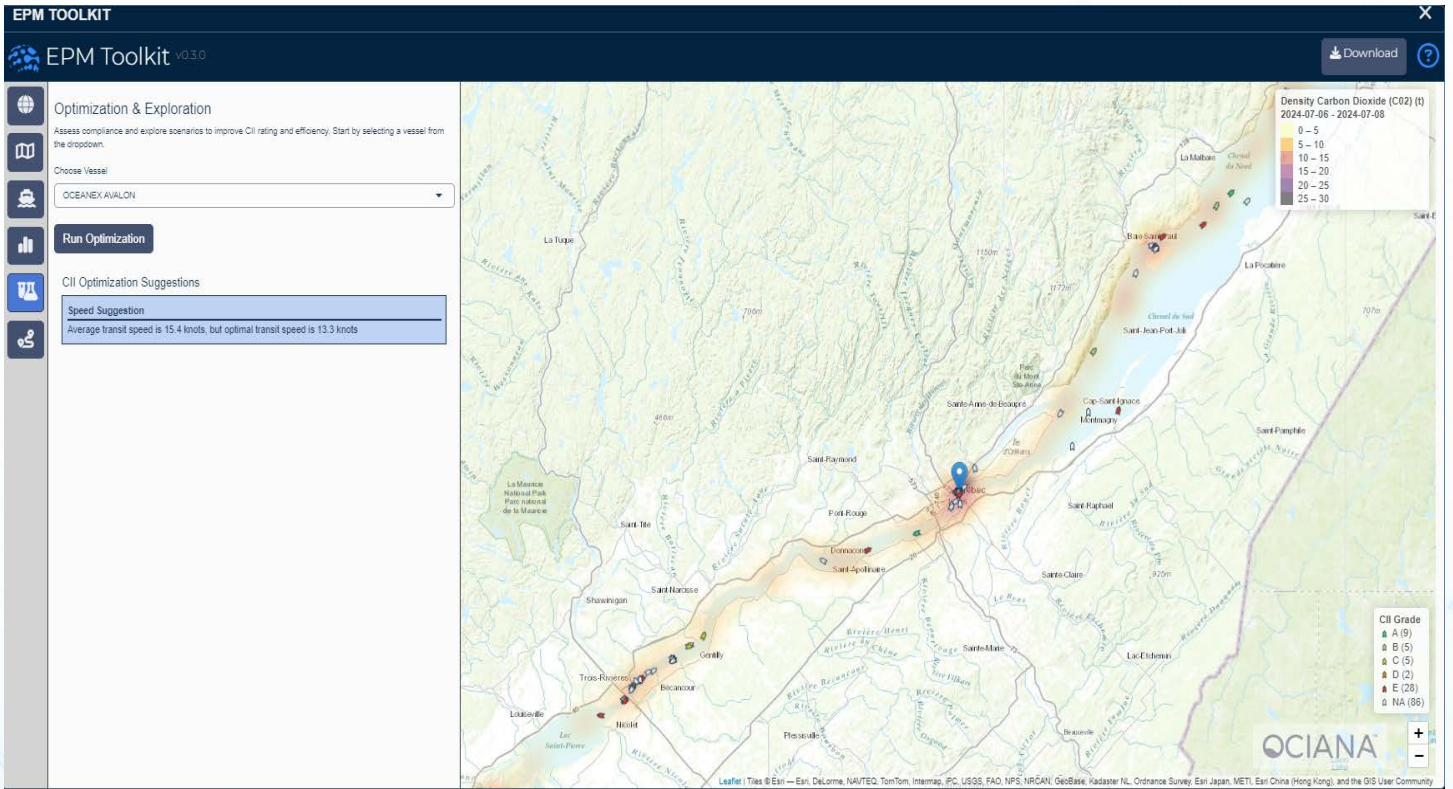
Figure 5. The EPM Toolkit assesses compliance and explores scenarios to improve CII ratings to optimise efficiency.

Contact us to learn more today: sales@gsts.ca