5 KEY MARITIME LOGISTICS TRENDS IN 2019

As the industry leverages the latest technologies for growth, leading IT innovator and solutions provider for the ocean supply chain, CyberLogitec sees five dominant trends that are shaping the way forward.

CyberLogitec

1. MEGA VESSELS ARE HERE TO STAY

With vessel capacities exceeding 20,000 TEU, carriers require deeper harbors, wider berths, larger yard space, and more resources to handle higher cargo volumes.

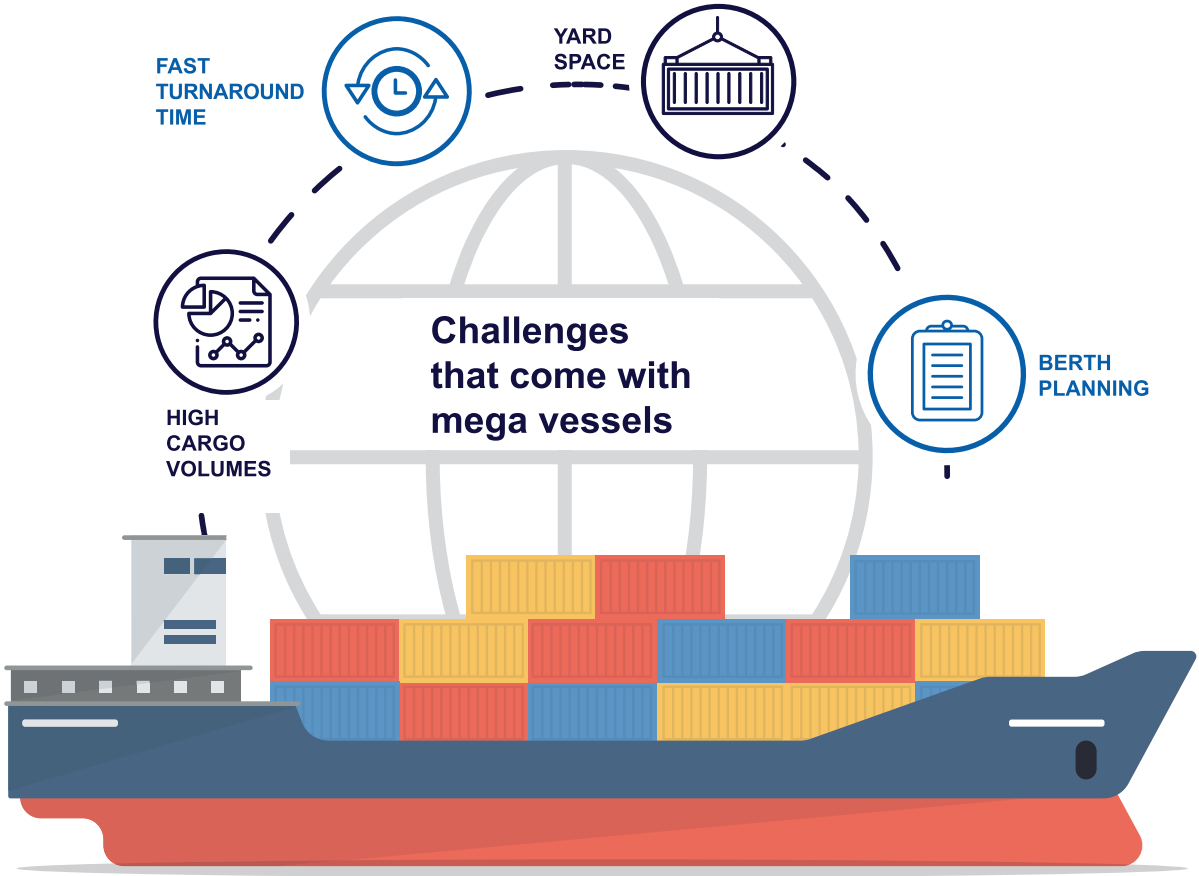
Needless to say, not all ports have the inherent characteristics to take on the massive engineering and operational challenges that come with mega vessels. However, ports with good foresight have been repositioning themselves for other opportunities cascading through, in the form of relatively-smaller big vessels, redirected from routes now taken over by their mega cousins.

For the ports along these routes, staying competitive has meant enhancing capabilities and capacities to meet the new demands of vessels larger than what they have been used to handling. In some cases, ports have been required to perform at twice their original capacity, a feat that calls for “dramatic innovation in the handling systems or operational methods” according to the Handbook of Ocean Container Transport Logistics[1].

Tech-savvy ports and terminals have turned to advanced Terminal Operating Systems (TOS) and more are expected to do so in 2019.

These real-time control systems optimize and integrate the various planning processes of terminals from berth planning to quay crane scheduling, space planning and sequencing of loading and unloading. They help ports and terminals to simplify their supply chain management, minimizing congestion and optimizing the utilization of assets such as cargo handling equipment and manpower. Thereby, they raise overall terminal handling productivity and facilitating faster cargo flow.

Collating the right data from the right source at the right time, TOS solutions are enabling progressive ports and terminals to take a giant leap to new levels of operational performance and competitiveness in this era of mega vessels.



2. CARRIER COLLABORATIONS ARE ON THE RISE

Alliances and mergers have been the order of the day for a while now in the industry. Aside from deploying larger ships, the spate of M&A have consolidated the top tier into a few mega shipping carriers.

According to Alphaliner TOP 100, the top 7 carrier lines today control

75%

of total global container fleets.

To stay afloat, smaller lines and carriers have been intensifying collaborative practices. More than just the commercial sense of collaboration such as joint operations, slot charters and vessel-sharing, carriers are working together more proactively with technology playing an increasingly greater role in the success and sustainability of their collaborations.

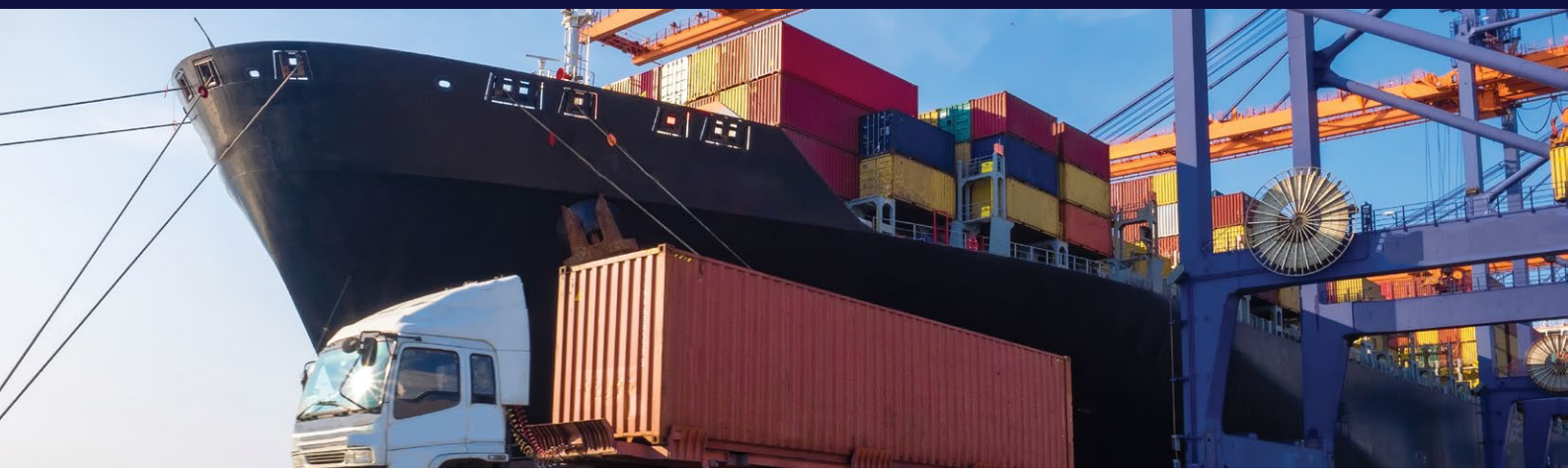
> **"It's not just about how they can share getting cargo from Point A to Point B. There's much more proactive thought going into how these carriers are collaborating"**

Molly Bailey,
Director (International) for Transplace.

Collaborative solutions bring partner carriers of various interests, capabilities and communications systems together on a unified platform. In addition to enhancing communications between carriers, they eliminate redundancies and inaccuracies resulting from manual data input, and streamline business processes by standardizing and automating data exchanges to facilitate co-operation between carriers of various degrees (including slot charter, slot swap, joint operations and alliances).

A platform such as CyberLogitec's CARA, for example, comes with an Automated Slot Settlement feature. By combining space utilization data from bayplan together with space allocation and contract prices in real time, the often-complex and laborious intercarrier billing and settlement process becomes smoother with less disputes and faster settlement.

By taking the complexities out of carriers working together, cutting-edge technologies such as CARA are also paving the way for more innovative ways for carriers to collaborate.



3. TECHNOLOGY RUNS A 'TIGHTER SHIP'

Cost remains the number one concern for every ocean carrier business. In the current global market place where margins remain thin, and capacity growth outstrips demand, carriers are increasingly realizing the power of liner management systems in establishing a lean and competitive edge.

Using advanced liner management systems, carriers are automating key business processes, optimizing shipments and routes, scheduling loading and unloading, managing the yard and communicating effectively with all supply chain stakeholders.

Carriers have the benefit of access to accurate and real-time information. Management gains the advantage of being able to:

- **More proactively manage operations**
- **Minimize delays and disruptions**
- **Improving decision-making and planning**
- **Identify performance gaps**
- **Explore new growth drivers**

CyberLogitec's ALLEGRO has helped users to achieve

71%

process improvement in Contract Management.

Advanced, integrated liner management solutions are designed to optimize resource utilization and cargo yields of carriers. By providing a robust, web-compliant operating environment and a user-friendly interface, carriers' can readily decentralize their processes across their shipping network while integrating them into a single system for better control and improved operational efficiency. Such integrated solutions provide carriers with real-time visibility of their operating costs and cargo contribution margins, thereby ensuring that equipment and assets deployment (or redeployment) are executed with informed awareness on revenue impact.

4. DOING MORE WITH BIG DATA

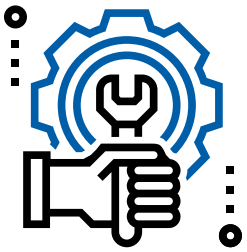
Big data has big potential in vessel operations. Insights gleaned from big data are already empowering terminal operators and agents to "track vessels and make appropriate or even instant decisions about berth and terminal allocation.[2]"

In the hyper complex world of container shipping, the Industrial Internet of Things (IIoT) is enabling the collection of big data on an unprecedented scale and turning them into real-time strategic insights for players throughout the value chain.

Sensors on containers and yard equipment transmit data from many sources to help management gain a real-time comprehension of business as it happens. These insights help managers to improve productivity, optimize operations and take control of issues even before they arise.

CyberLogitec's next generation vessel stowage planning solution, **OPUS Stowage Prime**, for example, automatically generates stowage plans using heuristic algorithms that apply on the vast array of parameters to determine the optimum stowage location for each container, simplifying the decision-making process to ensure improved planning and consistent delivery. The **Eagle Eye** is a real-time terminal monitoring, tracking and control system which consolidates and analyzes multi-dimensional data sets to obtain business insights that not only streamline terminal operations, but also support process automation and security/safety management.

SAVINGS: Predictive Maintenance Technologies



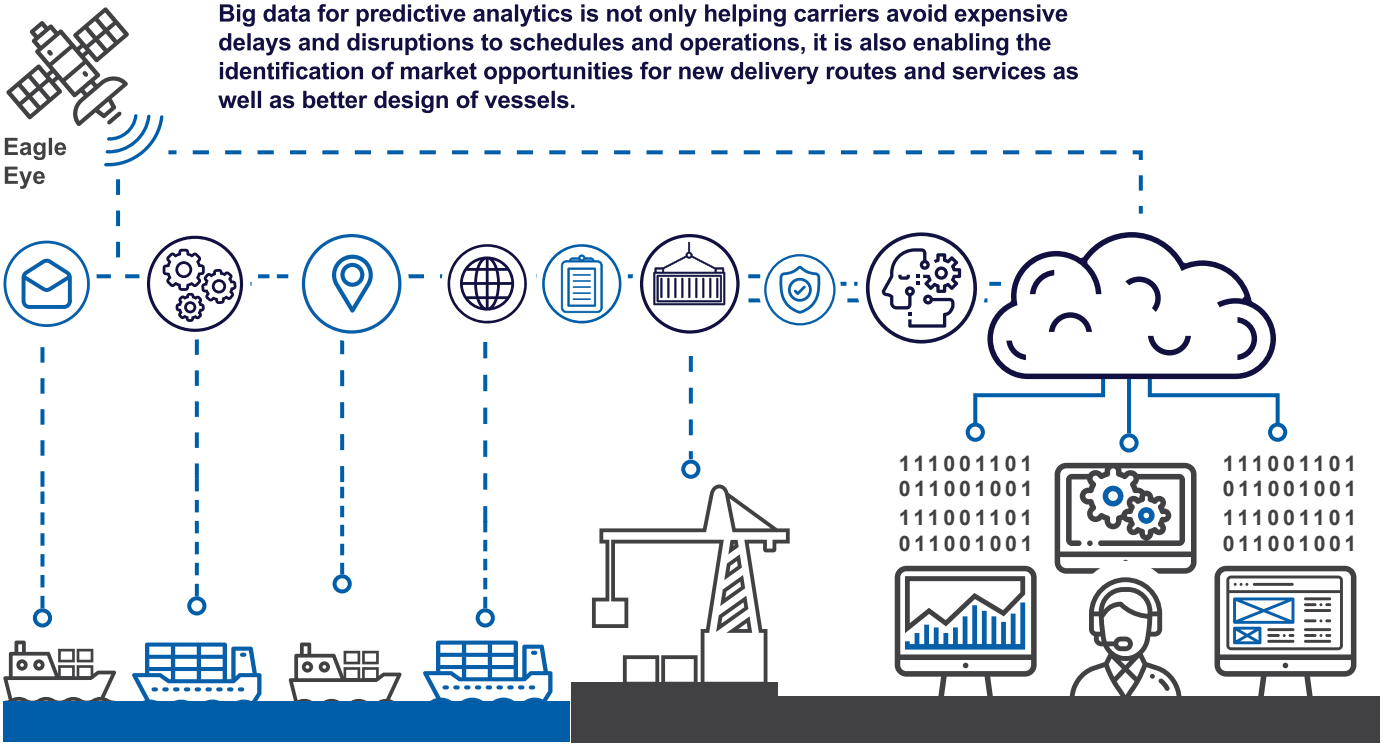
Widespread use can lead companies to:

20% **SAVINGS IN MAINTENANCE COSTS**

50% **LESS UNPLANNED OUTAGES**

Source: McKinsey & Company

Big data for predictive analytics is not only helping carriers avoid expensive delays and disruptions to schedules and operations, it is also enabling the identification of market opportunities for new delivery routes and services as well as better design of vessels.



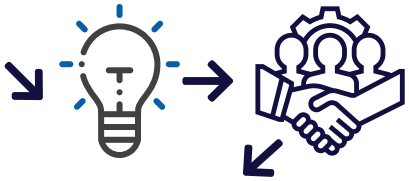
5. GROWING DEMAND FOR TECH-SAVVY TALENTS

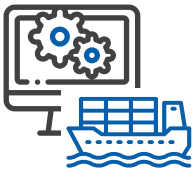
Blockchain, IIoT, Autonomous Vessels and Cyber Crime are commonplace words used in discussions surrounding the future of the maritime logistics industry today. The fact is, technology is fast-shaping a new landscape for the business. And for organizations that are not keeping up with advances, all these words spell one thing – Threats

In readying themselves for the knowledge-based world, progressive players are 'upskilling' by hiring the right talents to get them into and ahead of the digital game. People with knowledge and experience in such areas as predictive analytics and the data-driven supply chain are not easy to find. Therein lies the bigger challenge.

As the need to hire tech-savvy workers increases, the industry's best are moving ahead to either retrain their existing workers to equip them with updated skills, or find ways to make their jobs more attractive to specialists in the new era.

Forward-thinking carriers are taking talent upgrading a strategic step further.





Reimagining their strategies for the long haul, they are teaming up with leading-edge IT solutions vendors who are often specialists in the field from an IT solutioning perspective.

> **"Building a customized Terminal Operating System (TOS) that is secure, robust and fully functional is something that CyberLogitec as an IT leader in the maritime and port logistics sector has already done. Our partners save valuable time and staffing resources by leapfrogging from the solutions we have available as we work with them to meet their needs and goals"**

Jason Hyeon,
Managing Director,
CyberLogitec Global

Partner vendors bring deep industry knowledge, and offer industry partners unique opportunities to explore and innovate through technology. Vendor partners, with their inhouse resources and expert workforce on hand, are often in the best position to offer more value with their services, enabling the organizations to free up valuable resources toward other higher-value tasks.

Advanced communication capabilities and information technology (IT) continue to be a dominant force transforming the ocean logistics industry worldwide. These growth-inducing technologies benefit business, customers, as well as the industry.

TO DISCUSS THE LATEST TECHNOLOGIES FOR YOUR BUSINESS AND TO EXPLORE PARTNERSHIP OPPORTUNITIES, CONTACT CYBERLOGITEC TODAY.

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1. © Springer International Publishing Switzerland 2015 43 C.-Y. Lee, Q. Meng (eds.), Handbook of Ocean Container Transport Logistics, International Series in Operations Research & Management Science 220, DOI 10.1007/978-3-319-11891-8_2, Chapter 2, Page 43

2. Big data in the shipping industry, Zafer Tas, More Than Shipping, 4 April 2018