

[2020 Guide] Upcoming Trends In Shipping Industry



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As we move towards the end of 2020 and situations start to normalize, a lot of things won't remain the same. The shipping industry was one of the worst affected ones, and we can expect from the most innovative trends to surface post-pandemic. As the technology continues to evolve, the shipping industry will also witness new innovations focused on expanding the [shipping management](#), freight carrying capacity, eco-friendliness, greater visibility of freight movement, and advanced security systems.

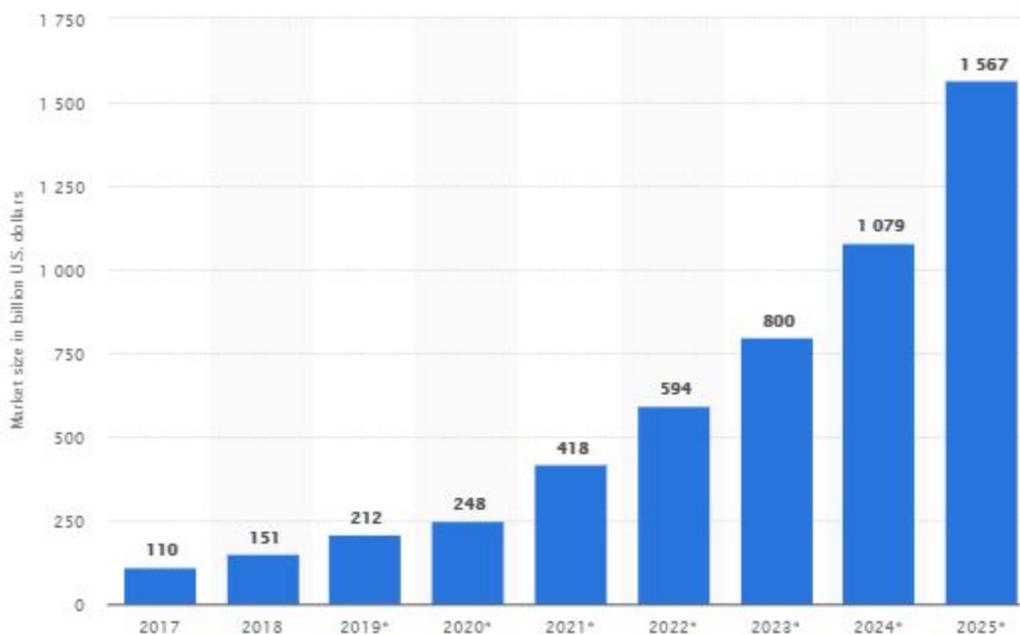
In this article, I will discuss the advances in technology that are most likely to drive the upcoming trends in the shipping industry in 2021 and beyond.

IoT For Smart Containers



[\(Image Credits\)](#)

Internet of Things (IoT) will become one of the major shifts in the equipment purchase policies across the maritime industry. IoT consists of a group of sensors and devices that act together for achieving close cooperation on multiple activities to fulfill a common objective in terms of interacting with their deployment environment. For shippers, this could ease the freight movement and inspection as well as help them with predictive maintenance. The market for IoT devices is expected to touch [\\$1.6 trillion](#) by 2025.



The major beneficiary of IoT in the shipping industry would remain the containers. Smart containers will fast become a reality as we can retrofit the existing containers to improve their utility manifold. The shippers will be able to capture the real-time location of the containers as well as implement geotagging and geo-fencing. For instance, geo-fencing will allow the depot personnel, consignors, consignees, vessel crew, and the port authorities to work in a predictive manner instead of serving the containers on arrival. The documentation processes can be, therefore, expedited with automated data capturing. This will help all the concerned parties in making well-informed decisions despite the limited time available. The sensors will also help to gather monitor the cargo health quality as well as provide transparency over freight handling.

Blockchain For Smart Shipping Contracts

Blockchain is no longer limited to digital currencies as it is slowly sneaking into anything that requires maintaining records. For the shipping industry, it will open new horizons of trade and commerce as the growing concerns regarding responsible sourcing of the products. It will digitize the record-keeping and improve transparency by leaps and bounds. Many businesses like the FMCG sector need to produce the sourcing details for their products, and blockchain-based smart contracts will make international trade faster, secure, and more affordable even for new players.

The compliance is expected to become much simpler, allowing greater movement of goods across markets. The simplified taxation will allow trade and commerce to prosper at a higher rate. Blockchain will also make payments more secure, one of the top concerns for businesses in today's time.

By the end of 2020, [60%](#) of the CIOs will start integrating blockchain with their infrastructure.

Energy Management Tech And Greener Shipping

Fuel consumption is a major cost center for shippers, and saving even a fraction of the wasted energy could result in saving billions every year. Smart fleet management tech and onboard monitoring sensors would prove to be a great asset when used with geo-locating to manage the sailing speeds, routing, and freight carrying limits. The use of alternate fuels is also fast gaining traction as the world moves towards limiting the pollution strategically. Right from hybrid propulsion systems to advanced shipbuilding materials, cutting down emissions will be a multifaceted approach.



[\(Image Credits\)](#)

The use of LNG (Liquified Natural Gas) is expected to gain traction as fuel for commercial shipping. Solar energy is also being probed as an alternative along with hydrogen fuel cells. The greener alternatives to today's oil and diesel-based ships could see greater reception, especially after governments across the globe are pushing for migration to non-conventional energy options. Shippers will be able to reduce the negative effects on maritime ecology by cutting down on conventional fuels.

Big Data Analytics For Reducing Pressure On Global Supply Chain



[\(Image Credits\)](#)

The global merchant fleet has more than [50,000 ships](#), and big data analytics will play an important role in maritime shipping. The data recorded by sensors on the vessels, environment data, and the information various intermediary bodies can be used to serve multiple purposes. Ultimately, this will lower the pressure on the global supply chain. The use of machine learning algorithms to understand freight movement patterns will pave the way for intuitive use of the equipment and personnel. I feel that using Big Data Analytics to service the bi-directional data pipelines between the ships and the commercial bodies will help in reducing the time required for procurement and increase the responsiveness of businesses in fulfilling the global demand.

Bigger Ships With Robotics

The improvements in developing advanced materials and manufacturing processes will allow constructions of gigantic ships. The increased capacity to carry enormous freight loads will stabilize the shipping rates, and they can also help improve the elasticity when used along relatively smaller ships. Robotics could very well be a part of the new fleets as they can perform multiple functions considered dangerous for humans efficiently.

Also, using robots and AGVs (Automated Guided Vehicles) will also help in improving freight handling, cargo monitoring, and speeding up the movement of goods. Their role in the surveillance and responding to threats is also on the cards to tackle the security concerns. The older merchant ships could also undergo retrofitting in order to maximize their utility.

Over To You

Just like offices, the post-pandemic shipping industry will be revamped to meet the evolving requirements of the global supply chains. Transparency and abating emissions will be at the forefront as other trends like building smart containers was already the helm of the industry. Elastic logistics and digitization of shipping management will also help lower the costs- the need of the hour for the global economic recovery. These trends will affect the design of new ships, shipping tech, and the retrofitting operations across the world in 2021 and days to come.

->Useful Resources:

Resource 1: 7 Industry Experts Weigh In On Blockchain and the Fresh Food Supply Chain ([Link](#))

Resource 2: LNG Tankers – Different Types And Dangers Involved ([Link](#))

Resource 3: How Smart Containers Make Container Logistics Smart ([Link](#))

Resource 4: Five future trends in the shipping industry ([Link](#))

Resource 5: PROMOTING RESPONSIBLE SHIP RECYCLING ([Link](#))

->Related Articles:

Article 1: Everything You Need To Know About Order Shipping In 2020 ([Link](#))

Article 2: How to Choose Shipping Carriers in Order Management ([Link](#))

Article 3: Why is calculating Shipping Cost important? ([Link](#))

Article 4: A Guide To Using Shipping Labels For Your Online Store ([Link](#))

Article 5: International Shipping 101: Guidelines, Best Practices and Tips ([Link](#))