

# **Autonomous Ships Market by Autonomy (Fully Autonomous, Remotely Operated, Partially Autonomous), Ship Type (Military, Commercial), Solution, End User, Propulsion and Region (North America, Europe, APAC and Rest of the World) - Forecast to 2030**

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## **Abstracts**

The autonomous ships market is estimated to be USD 3.9 billion in 2022 and is projected to reach USD 8.2 billion by 2030, at a CAGR of 9.6% from 2022 to 2030. Growth of this market can be attributed to the rise in increasing number of autonomous ship development projects, and rise in global seaborne trade, among others.

### **“Control Algorithms for Autonomous Ships”**

Navigation and collision avoidance systems are particularly important in autonomous ships, as these systems allow control algorithms to decide the actions that need to be undertaken in accordance with the information received from different sensors. These actions are required to adhere to maritime rules and regulations. Thus, control algorithms of autonomous ships should be able to accurately interpret the information obtained from different sensors, thereby leading to interpretation challenges for programmers developing control algorithms for these ships. The development of control algorithms for autonomous ships is expected to take place gradually as it is an iterative process, which is subject to extensive testing and simulation. For example, in 2020, ProMare (US) and IBM (US) partnered for advancements in machine learning algorithms for the development of the fully autonomous Mayflower ship.

### **“Connectivity Solutions for Autonomous ships”**

The evolution of communication technology, from Wi-Fi to 5G connectivity, has led to the conceptualization of autonomous ships. These ships allow operators to access live audio as well as HD and 3D videos from onboard recording devices, thereby eliminating the requirement for physical onboard surveying of ships. Advancements in communication technology are expected to help improve decision-making for enhanced ship management. They are also expected to ensure autonomous ships' smooth operations and uninterrupted and improved communication between crew members and onshore stations. For example, Raytheon Anschütz (Germany) has developed a 5G-based connectivity module for passenger ferries in Kiel, Germany.

“Intelligent Awareness System: The largest segment of the autonomous ship Solution market, by Systems”

The intelligent awareness system is designed for operational safety and efficiency. This system is further segmented into alarm management systems, surveillance & safety systems, and navigation systems. Major market leaders are developing intelligent awareness systems. In 2018, Rolls-Royce launched the Intelligent Awareness (IA) system, a part of the ongoing development of autonomous ship projects like the development of fully autonomous cruise ships for Finferries.

“Tankers: The largest segment of the commercial autonomous ships market, by Cargo vessel Type”

Tankers are ships that serve specific operational purposes, such as transporting chemicals and liquid assets in bulk. A rise in demand for chemical tankers by ship merchants is expected due to an increase in the international trade of chemicals and liquid materials. An increase in oil exploration and international trade in liquid natural gas is expected to drive the demand for tankers, which, in turn, is expected to drive demand for automation systems.

“Norway: The largest contributing country in the European autonomous ships market”

Most marine automation system manufacturers and shipbuilders such as Kongsberg, Ulstein, and Vard are based in Norway, which is expected to drive the market for autonomous ships in this country. Norway is estimated to account for the largest share (18.2%) of the overall European autonomous ships market in 2022.

The autonomous ships market in Norway is projected to reach USD 610 million by

2030, at a CAGR of 9.9% between 2022 and 2030.

### Breakdown of primaries

The study contains insights from various industry experts, ranging from component suppliers to Tier 1 companies and OEMs. The break-up of the primaries is as follows:

By Company Type: Tier 1–35%; Tier 2–45%; and Tier 3–20%

By Designation: C Level–35%; Directors–25%; and Others–40%

By Region: North America–25%; Europe–15%; Asia Pacific–45%; Middle East–10%; and Rest of the World –5%

Kongsberg Maritime (Norway), Fugro (Netherlands), Hyundai Heavy Industries (South Korea), BAE Systems (UK), and Rolls-Royce PLC (UK) are the key players in the autonomous ships market.

### Research Coverage

The study covers the autonomous ships market across various segments and subsegments. It aims at estimating the size and growth potential of this market across different segments based on Autonomy, Ship Type, End User, Solution, Propulsion, and region. This study also includes an in-depth competitive analysis of the key players in the market, along with their company profiles, key observations related to their product and business offerings, recent developments undertaken by them, and key market strategies adopted by them.

### Reasons to Buy this Report

This report is expected to help market leaders/new entrants with information on the closest approximations of the revenue numbers for the overall autonomous ships market and its segments. This study is also expected to provide region wise information about the end use, and wherein autonomous ships are used. This report aims at helping the stakeholders understand the competitive landscape of the market, gain insights to improve the position of their businesses and plan suitable go-to-market strategies. This report is also expected to help them understand the pulse of the market and provide them with information on key drivers, restraints, challenges, and opportunities

influencing the growth of the market.

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