

Offshore Auv and Rov Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)

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Report description:

The offshore AUV and ROV market is expected to register a CAGR of 7.11% during the forecast period of 2022-2027, reaching the value of USD 3,262 million by 2027 from USD 2,005 million in 2020. The COVID-19 outbreak in Q1 of 2020 had led to a decline in demand from end-user applications and further delayed financial investment decisions and capital expenditure. Factors such as rising offshore oil and gas production activities, growing offshore wind power industry, and increasing oil and gas decommissioning activities are expected to drive the offshore AUV and ROV market during the forecast period. However, countries planning to increase their focus on climate change and banning offshore exploration activities in the future are expected to restrain the market growth.

Key Highlights

The oil and gas sector is expected to hold the largest share in the offshore AUV and ROV market, owing to the demand for AUV and ROV systems across all phases of the offshore oil and gas life cycle.

The rising deepwater and ultra-deepwater discoveries are expected to open up new avenues for the offshore AUV and ROV market during the forecast period.

North America is expected to witness significant growth, with the majority of the demand coming from countries such as the United States and Mexico.

Offshore AUV & ROV Market Trends

Oil and Gas Segment to Dominate the Market

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The dependence on oil and gas increases as major economies globally still rely heavily on petroleum-based products. The oil and gas industry displays immense influence in international politics and economics.

Global oil production increased from 9.49 million barrels per day (MBoD) in 2015 to 9.49 MBoD in 2019. Oil production declined in 2020 due to a decline in demand for oil from the transportation and other end-user sectors due to the COVID-19 pandemic-related restrictions.

Many of the potential global reserves of hydrocarbons lie beneath the sea, and the hydrocarbon industry has developed techniques suited to conditions found in offshore sites, both to find oil and gas and produce it successfully.

Oil and gas drilling rigs may operate in water depths of two miles. Many of these deepwater wells and pipeline systems rely on unmanned underwater vehicles to help perform installations, inspections, repair, and maintenance.

Monitoring and deployment are often challenging in adverse subsea conditions, creating operational, environmental, and technical challenges. These factors accelerated the development of new technologies in the AUV and ROV market.

Over the past few years, autonomous underwater vehicles (AUVs) and remotely operated vehicles (ROV) have evolved from emerging technology with niche uses to extensive applications in the oil and gas sector.

AUVs and ROVs are used for positioning and guidance for sub-sea infrastructure construction, monitoring, and survey missions. Major factors driving the demand for AUVs and ROVs in the oil and gas industry include flexibility in launch and recovery, depth capability, navigation capabilities, and data logging capabilities.

Artificial intelligence technology has developed substantially in recent years. Companies operating in the AUV and ROV industries have been integrating these technologies into their products to enhance the value generated for end users.

For instance, in March 2022, Kongsberg Gruppen ASA announced the launch of an upgraded version of the Hugin AUV with innovative technologies, including 3D sensing, trajectory planning, and collision avoidance systems.

The COVID-19 pandemic substantially impacted the oil and gas exploration sector investments in 2020. However, as the global oil prices stabilized in 2021, investments in the sector have almost regained their pre-COVID levels, driving the demand for AUVs and ROVs.

For instance, in March 2022, DOF ASA announced that it had signed an agreement with VAALCO Energy Inc. to supply a construction vessel for the transportation and installation of approximately 5,000 meters of pipelines in the Etame field. The construction vessel from VAALCO Energy Inc. is equipped with two XLX-C ROV systems from Forum Energy Technologies Inc. Therefore, owing to the above points, the demand for offshore AUVs and ROVs is expected to grow significantly in the oil and gas sector during the forecast period.

North America Expected to Witness Significant Growth

Due to the high level of industrialization and investments in research and development, North America is expected to be one of the largest markets for offshore AUVs and ROVs during the forecast period. As the United States has invested heavily in the defense sector and the R&D of AUVs and ROVs, other related offshore sectors, such as oil and gas, shipping, and renewable energy, have profited immensely from the technological advancements in the market studied. Due to this, the region is at the forefront of AUV and ROV technology. AUV and ROV manufacturers in the region export their products globally.

The region has one of the most well-developed offshore oil and gas industries globally, with the primary areas of focus being the vast reserves in the Gulf of Mexico and offshore Alaska region. As drilling depths have increased over the years, the volume of technically recoverable reserves has increased significantly, which attracted growing investments.

As the United States invested heavily in expanding its oil and gas production capacity, the Gulf of Mexico has become a global hotspot for AUV and ROV demand. As of 2021, the Gulf of Mexico region is responsible for 97% and 15% of the US offshore and total hydrocarbon production, respectively. The region has one of the highest global densities of offshore rig deployment and consists of other oil and gas infrastructure, such as production and drilling platforms, marine vessels, and pipeline networks. As ROV and AUV technology has become increasingly affordable, oil and gas producers in the United States have been investing in

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ROV and AUV services for obtaining data and carrying out routine maintenance work on subsea assets and surfaces. Despite the higher upfront cost compared to diving crews, ROVs and AUVs need less time to complete the same amount of work, which reduces overall project OPEX.

Due to this, multiple contracts are routinely dealt out by major oil and gas companies for ROVs and AUV services in the Gulf of Mexico. In January 2021, Oceaneering announced that its subsea segment had won multiple contracts totaling USD 225 million. The contracts were issued by international oil and gas operators and marine construction companies. Services in the contract include remotely operated vehicle (ROV) services delivered from floating drilling rigs and multi-service, subsea intervention and construction vessels, ROV tooling, survey, positioning, and autonomous underwater vehicle (AUV) services.

Traditionally, Mexico had a strong hydrocarbon industry. However, the average drilling depths in Mexico's offshore sector have been relatively lower than that of the United States. Due to this, Mexican oil and gas operators have lesser financial incentives to switch from diver assisted to diverless services, such as ROVs and AUVs.

However, as the Mexican government looks to revitalize the hydrocarbon sector and boost domestic hydrocarbon production, the oil and gas industry in the country is expected to see large investments, especially from state oil and gas utility PEMEX. In March 2022, PEP, the E&P wing of the PEMEX, announced that it received approval for the exploration of the Uchukil block in shallow waters with an investment of USD 107-478 million based on the baseline and incremental scenarios. Similarly, in February 2021, Mexico also committed to investing USD 1.2 billion in the development of two new offshore fields. Such large investments in the offshore sector are expected to drive the offshore AUV and ROV market in Mexico during the forecast period.

Therefore, owing to the above points, the North American region is expected to witness significant growth in the AUV and ROV market during the forecast period.

Offshore AUV & ROV Market Competitor Analysis

The offshore AUV and ROV market is moderately fragmented. The key players in the market include DOF Subsea AS, Fugro NV, Subsea 7 SA, Saipem SpA, and Oceaneering International Inc.

Additional Benefits:

The market estimate (ME) sheet in Excel format
3 months of analyst support

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