

Hydrogen Hubs Market by Industry (Automotive, Aviation, Marine), Supply Technique (SMR, Electrolysis), End Use (Liquid Hydrogen, Hydrogen Fuel Cell) & Region (North America, Europe, APAC, MEA, & Latin America) - Global Forecast to 2030

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Abstracts

The hydrogen hubs market is valued at USD 1.8 billion in 2023 and is projected to reach USD 5.9 billion by 2030, at a CAGR of 18.6% from 2023 to 2030. The hydrogen hub market is witnessing substantial growth driven by the emergence of vertically integrated hydrogen infrastructure. These facilities, encompassing production, storage, and distribution, optimize the hydrogen supply chain. Increased spending on hydrogen infrastructure further fuels market expansion, positioning hydrogen hubs as pivotal players in the evolving landscape of clean energy solutions.

Based on industry, the automotive segment will register the highest growth during the forecast period.

Based on industry, the hydrogen hubs market is segmented into automotive, aviation, marine, and others, which includes defense and space. The automotive industry is expected to be a key demand area for hub based hydrogen as the adoption of fuel cells in mobility continues to accelerate. The automotive segment is expected to grow from USD 1.05 billion in 2023 and is projected to reach USD 3.9 billion by 2030, at a CAGR of 20.6% during the forecast period.

Based on supply technique, the electrolysis segment will register the highest growth during the forecast period.

Based on supply technique, the hydrogen hub market is segmented into steam methane

reforming (SMR) and electrolysis segments. Of these segments, electrolysis is expected to have the highest growth from USD 1.1 billion in 2023 to USD 3.7 billion in 2030, registering a CAGR of 18.7%. Steam methane reforming (SMR) and electrolysis stand out as the two primary methods for hydrogen production within hydrogen hubs, particularly in the context of blue and green hydrogen. SMR, commonly associated with blue hydrogen, involves the reaction of natural gas with steam to produce hydrogen and carbon dioxide. Although it is a well-established and cost-effective process, the associated carbon emissions necessitate carbon capture and storage (CCS) for environmental sustainability. On the other hand, electrolysis, linked to green hydrogen, utilizes renewable energy to split water into hydrogen and oxygen. While offering a cleaner alternative, electrolysis faces challenges related to high energy costs and the need for significant renewable energy infrastructure. The choice between these methods reflects the ongoing industry debate regarding trade-offs between cost efficiency and environmental impact in the pursuit of a sustainable hydrogen economy.

Based on end use form, liquid hydrogen and fuel cells are the primary products that hydrogen hubs are expected to produce as more hydrogen hubs are developed.

Based in end-use, hydrogen hubs market are segmented into liquid hydrogen and hydrogen fuel cells, which are the primary products from these hubs. Both of these end products—hydrogen fuel cells and liquid hydrogen – have diverse applications within the clean energy sector. Hydrogen fuel cells play a crucial role in powering various transport modes, including automobiles, buses, and trains, as well as providing backup power for industries. The fuel cells' efficiency and environmental benefits make them a key driver for the adoption of hydrogen as a clean energy source. Simultaneously, the production of liquid hydrogen is integral for efficient storage and transportation, especially for long-distance supply chains and applications in industries such as aerospace. The strategic integration of these end products from regional hydrogen hubs reflects the comprehensive approach to harnessing hydrogen's potential across different sectors, contributing to a more sustainable and integrated energy ecosystem.

Based on regions, the Asia Pacific region is estimated to have the highest growth during the forecast period.

The Asia Pacific region is estimated to account for the largest share of the hydrogen hubs market in 2023. The growth of the region is attributed to the rapid developments in alternative energy and fuel technologies to wean away from fossil fuel based energy consumption. This is enhanced by the development of renewable energy propulsion systems for automobiles, ships and aviation segments, which are expected to use

hydrogen or hydrogen based dual sources as a primary propellant.

The break-up of the profile of primary participants in the H2H market:

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

By Designation: C Level – 35%, Director Level – 25%, and Others – 40%

By Region: North America – 25%, Europe – 15%, Asia Pacific – 45%, Middle East& Africa- 10%, Latin America – 5%

Major companies profiled in the report include ARAMCO (Saudi Arabia), AIRBUS (Netherlands), Linde plc (UK), Shell plc(UK) and Sinopec(China), among others.

Research Coverage:

This market study covers the hydrogen hub market across various segments and subsegments. It aims to estimate this market's size and growth potential across different parts based on size, operational orbits, application, component, end user, and region. This study also includes an in-depth competitive analysis of the key players in the market, their company profiles, key observations related to their product and business offerings, recent developments, and key market strategies they adopted.

Reasons to buy this report:

The report will help the market leaders/new entrants with information on the closest approximations of the revenue numbers for the overall hydrogen hubs market. This report will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and plan suitable go-to-market strategies. The report also helps stakeholders understand the market pulse and provides information on key market drivers, restraints, challenges, and opportunities. The hydrogen hubs market is experiencing substantial growth, primarily driven by the exchange of real-time information. The increasing trend toward international cooperation and joint operations among nations is fostering demand for hydrogen hubs, contributing to regional and global stability. The report provides insights on the following pointers:

Market Drivers: Market Drivers such as increasing public and private

investments in hydrogen and hydrogen fuel cell technologies among other drivers covered in the report.

Market Penetration: Comprehensive information on hydrogen hubs offered by the top players in the market

Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product launches in the hydrogen hubs market

Market Development: Comprehensive information about lucrative markets – the report analyses the hydrogen hubs market across varied regions.

Market Diversification: Exhaustive information about new products, untapped geographies, recent developments, and investments in the hydrogen hubs market

Competitive Assessment: In-depth assessment of market shares, growth strategies, products, and manufacturing capabilities of leading players in the hydrogen hubs market

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12.2.24 HEXAGON COMPOSITES

TABLE 116 HEXAGON COMPOSITES: COMPANY OVERVIEW

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TABLE 117 HEXAGON COMPOSITES: PRODUCTS/SOLUTIONS/SERVICES OFFERED

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*Details on Business overview, Products/Services/Solutions offered, Recent Developments, MNM view might not be captured in case of unlisted companies.

13 APPENDIX

13.1 DISCUSSION GUIDE

13.2 KNOWLEDGESTORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL

13.3 CUSTOMIZATION OPTIONS

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