

Smart Manufacturing Market with COVID-19 Impact by Information Technology, Enabling Technology, Industry (Process and Discrete) and Geography (North America, Europe, Asia Pacific, Rest of World) - Global Forecast to 2027

https://marketpublishers.com/r/S85AD903882EN.html

Date: January 2022

Pages: 320

Price: US\$ 4,950.00 (Single User License)

ID: S85AD903882EN

Abstracts

The global smart manufacturing market was valued at USD 88.7 billion in 2021 and is projected to reach USD 228.2 billion by 2027; it is expected to grow at a CAGR of 18.5% from 2022 to 2027. The major drivers of the smart manufacturing market include the growing adoption of Industry 4.0, rising emphasis on industrial automation in manufacturing processes, increasing government involvement in supporting industrial automation, growing emphasis on regulatory compliances, increasing complexities in the supply chain, and surging demand for software systems that reduce time and cost. The smart manufacturing market has been segmented by information technology, enabling technology, industry, and region.

"Market for digital twins expected to grow at the fastest rate during the forecast period"

The smart manufacturing market by enabling technologies for digital twins is expected to grow at a CAGR of 68.9% from 2022 to 2027, reaching USD 43,614.8 million by 2027, from USD 2,124.7 million in 2021. Digital twins are being increasingly used as a means of connecting information about a physical product and its behavior in the real world with a 3D digital representation, which is commonly employed during engineering and other areas of business. For instance, Dassault Systems (France) introduced the virtual twin concept that enables design and engineering teams to visualize and analyze products or systems virtually and provide insights similar to physical behaviors, including stress and vibration, as well as behaviors associated with software and control systems.



"Automotive industry to hold largest share of Smart manufacturing market in 2027"

The automotive industry dominates the smart manufacturing market with the highest market share and is expected to grow at the rate of 29.1% during the forecast period owing to changing consumer preferences and the inefficiency of traditional processes. Changing consumer preferences, technological advancements, and the introduction of regulations associated with the automotive industry are responsible for the high complexity of automobile products. Automobiles are extremely complex and technologically sophisticated products. Manufacturing them requires advanced technological methods and processes. Technological innovations such as electric- and gas-powered vehicles lead to infrastructural changes in the automotive industry; also, the latest machines and equipment replace the need for human operators for most of the crucial processes in the automotive industry, resulting in the adoption of smart manufacturing technologies.

"Smart manufacturing market in APAC to grow at the highest CAGR"

The major factors driving the growth of the smart manufacturing market in APAC are the rising demand for smart tools due to increasing automation in industries; growing adoption of technologies such as Industry 4.0, smart factory, IoT, and IIoT; and increasing need to optimize productivity and reduce operational and maintenance costs. Government support in various APAC countries to drive industrialization is one of the important factors that will boost the demand for smart manufacturing in the coming years. Various initiatives have been taken by the governments in the region. For instance, China's "Made in China 2025," Japan's "Industrial Value Chain Initiative (IVI)," South Korea's "The Manufacturing Innovation Strategy 3.0 (Strategy 3.0)," and India's "Samarth Udyog Bharat 4.0," are likely to play major roles in industrial advancement and consequently create growth opportunities for the smart manufacturing market.

Breakdown of the profiles of primary participants:

Extensive primary interviews were conducted to determine and verify the market size for several segments and sub segments and information gathered through secondary research.

The break-up of primary interviews is given below:



By Company Type: Tier 1 - 52%, Tier 2 - 31%, and Tier 3 - 17%

By Designation: C-level Executives - 47%, Directors - 31%, and others - 22%

By Region: North America - 36%, Europe - 29%, APAC - 30%, and RoW - 5%

Major players profiled in this report are as follows: Major companies offering smart manufacturing technologies include ABB (Switzerland), Siemens (Germany), Schneider Electric (France), Rockwell Automation (US), Honeywell International Inc. (US), Emerson Electric Co. (US), IBM (US), and General Electric (US).

Research Coverage

In this report, the smart manufacturing market has been segmented based on information technology, enabling technology, industry, and region. The smart manufacturing market based on information technology has been segmented into human-machine interface, plant asset management, manufacturing execution system, and warehouse management system. Based on the enabling technology, the market has been segmented into industrial 3D printing, robots, industrial sensors, AI in manufacturing, machine condition monitoring, industrial machine vision, industrial cybersecurity, digital twins, automated guided vehicles, Artificial Reality & Virtual Reality, and 5G Industrial IoT. Based on the industry, the market has been segregated into process industry: oil & gas, food & beverages, pharmaceuticals, chemicals, energy & power, metals & mining, pulp & paper, and others (cement, aluminium, steel, glass, paper and printing, textile and clothing, alternative energy, rubber, die-cast and foundry, and consumer electronics) and discrete industry: automotive, aerospace & defense, semiconductor & electronics, medical devices, machine manufacturing, and others (packaging, solar panel manufacturing, and consumer packaged goods). The study also forecasts the size of the market in four main regions—North America, Europe, APAC, and RoW.

Key Benefits of Buying the Report:

The report would help market leaders/new entrants in this market in the following ways:

This report segments of the smart manufacturing market comprehensively and provides the closest approximation of the overall market size and subsegments that include information technology, enabling technology, industry, and region.



The report would help stakeholders understand the pulse of the market and provide them with information on key drivers, restraints, challenges, and opportunities pertaining to the smart manufacturing market.

This report would help stakeholders understand their competitors better and gain more insights to enhance their position in the business.

The competitive landscape section includes the competitor ecosystem, as well as growth strategies such as product launches, acquisitions, and expansions carried out by major market players.



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