

Digital Biomanufacturing Market - A Global and Regional Analysis: Analysis and Forecast, 2022-2031

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Abstracts

Market Report Coverage - Digital Biomanufacturing

Market Segmentation

By Technology Type - Process Analytical Technologies, Data Analytics Software, AI and IoMT Solutions, Predictive Analytics and Digital Twin Technologies and Others

By End-User - Biopharmaceutical Companies and Academic and Research Institutes

By Application - Bioprocess Optimization and Process Analytics, Biomanufacturing Process Automation and Control and Flexible Manufacturing

By Region - North America, Europe, Asia-Pacific and Rest-of-the-World

Regional Segmentation

North America - U.S. and Canada

Europe - Germany, U.K., Spain, Italy, France, and Rest-of-Europe

Asia-Pacific - Japan, China, South Korea, India, Australia and New Zealand, and Rest-of-Asia-Pacific

Rest-of-the-World- Latin America and Middle East and Africa

Market Growth Drivers

Rising Automation Process in Various Industries

Rising Focus on Process Efficiency and Flexibility in Manufacturing

Shift Toward Digitalization and Biomanufacturing in the Healthcare Industry

Market Challenges

Lack of Technology Adoption and Awareness Leading to Low Return-of-Investments

Lack of Data Security in Biomanufacturing Settings

Market Opportunities

Increased Demand for Biologics

Key Companies Profiled

Atos SE, Agilent Technologies Inc., Danaher Corporation, Donaldson Company, Inc., Emerson Electric Co., General Electric Company, Honeywell International Inc., SAP SE, Siemens Healthineers AG, Bota Biosciences, Culture Biosciences, e-matica srl, Exponential Genomics, Inc., FabricNano, OVO Biomanufacturing, Symphony Innovation, LLC

How This Report Can Add Value

Assuming that the reader is a developer of digital biomanufacturing technologies, they will be able to do the following:

Understand their position as compared to some of the key players in the

market

Stay updated with novel technology integration, features, and the latest developments in the market

Understand the impact of COVID-19 on the adoption of digital biomanufacturing technologies and the entry barriers as a result of it

Gain insights into which regions to target globally

Gain insights into the end-user perception concerning the adoption of digital biomanufacturing technologies

Identify some of the key players in the market and understand their valuable contribution

Key Questions Answered in the Global Digital Biomanufacturing Market Report

How has COVID-19 impacted the growth of the global digital biomanufacturing market?

What are the key regulations governing the digital biomanufacturing market in key regions?

What technological developments are projected to have the maximum influence on the global digital biomanufacturing market?

Who are the leading players holding significant dominance in the global digital biomanufacturing market?

What are some of the growth opportunities which market players can capitalize on?

What are the drivers and restraints for the global digital biomanufacturing market?

Which region has the highest growth rate in the digital biomanufacturing market?

Which are the fastest growing countries in terms of the global digital biomanufacturing market?

What are the key strategies being adopted by market players in the global digital biomanufacturing market?

Which are the emerging technologies in the global digital biomanufacturing market?

Digital Biomanufacturing Market Industry Overview

The global digital biomanufacturing market is a huge market comprised of various software and platforms that include process analytical technologies, data analytics software, ai and IoMT solutions, predictive analytics and digital twin technologies, and others. If application is involved, we have bioprocess optimization and process analytics, biomanufacturing process automation and control, and flexible manufacturing.

The global digital biomanufacturing market report highlights that the market was valued at \$15,768.9 million in 2021 and is expected to reach \$55,564.9 million by the end of 2031. The market is expected to grow at a CAGR of 13.12% during the forecast period from 2022 to 2031.

Global Digital Biomanufacturing Market Drivers

Smart factories have the potential to improve sustainability by allowing for real-time production monitoring, with automated control systems reducing the number of failed batches and lowering maintenance costs. Thus, biomanufacturing businesses' ability to autonomously and appropriately control bioprocesses in their optimal condition is critical, as this aids in lowering or maintaining production costs and increasing yields while maintaining product quality uniformity. This will help driving the market.

In today's bio-manufacturing firms, digitalization in the form of Big Data and Digital Twin-inspired applications are hot themes. As a result, many companies are allocating staff and equipment to these applications. In order to evaluate the existing situation and projected future difficulties in integrating digitalization principles in biotech production processes, a targeted survey was performed among individuals from the Danish biotech industry.

Global Digital Biomanufacturing Market Challenges

The factors restraining the market growth of digital biomanufacturing market include the lack of technology adoption and awareness leading to low return on investment. ROI calculations allow a business to establish and use measures for project appraisal that can be used consistently across a portfolio and go beyond simple profitability analyses.

Multiple stakeholders, including industry, governments, and healthcare providers, must pay attention to cybersecurity in order to provide safe and effective biopharmaceuticals. Breach of cyberbio security could have a direct impact on patients, ranging from compromising data privacy to production disruptions jeopardizing worldwide pandemic response. In today's economy, when advanced manufacturing technology and digital strategies are becoming the standard, maintaining cybersecurity is a key concern.

Global Digital Biomanufacturing Market Opportunities

The opportunity for growth of the global Digital Biomanufacturing market lies in the opportunity to the increased demand for biologics. It is desirable to develop an alternative manufacturing technique that relies less on human labour and transitioning steps between unit activities require a smaller facility footprint and is more open to scalability, automation, and adaption across diverse drug modalities.

Impact of COVID-19 on the Global Digital Biomanufacturing Market

The COVID-19 pandemic had thrust the global Digital Biomanufacturing market. The impact of the pandemic global Digital Biomanufacturing market has brought in a positive impact to the market. One of the major impacts of COVID-19 on the global digital biomanufacturing was understanding the importance of automation and innovation of new technologies.

Market Segmentation

Global Digital Biomanufacturing Market (by Technology)

The global Digital Biomanufacturing market has been segmented based on the technology type into eight different segments, namely, process analytical technologies, data analytics software, AI and IoMT solutions, predictive analytics and digital twin technologies, and others.

Global Digital Biomanufacturing Market (by End-User)

The global Digital Biomanufacturing market has been segmented based on the end-users into two major segments, namely, biopharmaceutical companies and academic and research institutes.

biopharmaceutical companies account for the major share in the global digital biomanufacturing market.

Global Digital Biomanufacturing Market (by Application)

The global digital biomanufacturing market has been segmented based on product type into two major segments, namely, bioprocess optimization and process analytics, biomanufacturing process automation and control, and flexible manufacturing.

Global Digital Biomanufacturing Market (by Region)

The different regions covered under the global digital biomanufacturing market include North America, Europe, Asia-Pacific and Rest-of-the-World.

North America and Europe are two of the largest markets for digital biomanufacturing market while developing countries are expected to register strong growth in their adoption shortly.

Key Market Players and Competition Synopsis

Some of the key players operating in the market include Atos SE, Agilent Technologies Inc., Danaher Corporation, Donaldson Company, Inc., Emerson Electric Co., General Electric Company, Honeywell International Inc., SAP SE, Siemens Healthineers AG, Biot Biosciences, Culture Biosciences, e-matica srl, Exponential Genomics, Inc., FabricNano, OVO Biomanufacturing, and Symphony Innovation, LLC

In the past few years, the global digital biomanufacturing market has witnessed several strategic and technological developments undertaken by the different market players to attain their respective market shares in this emerging domain. Some of the strategies covered in this segment are funding activities, mergers and acquisitions (M&A), partnerships, alliances, business expansions, regulatory and legal activities, and new offerings. The preferred strategy for companies has been new offerings of products followed by partnerships, alliances, and business expansions.

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