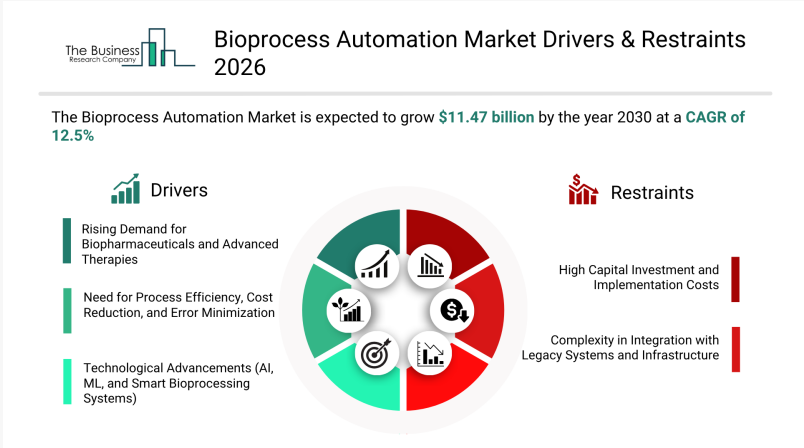
Bioprocess Automation Market Size, Share, Segments and Trend Analysis Report

The The Business Research Company's Bioprocess Automation Market Report 2026 – Market Size, Trends, And Forecast 2026–2035



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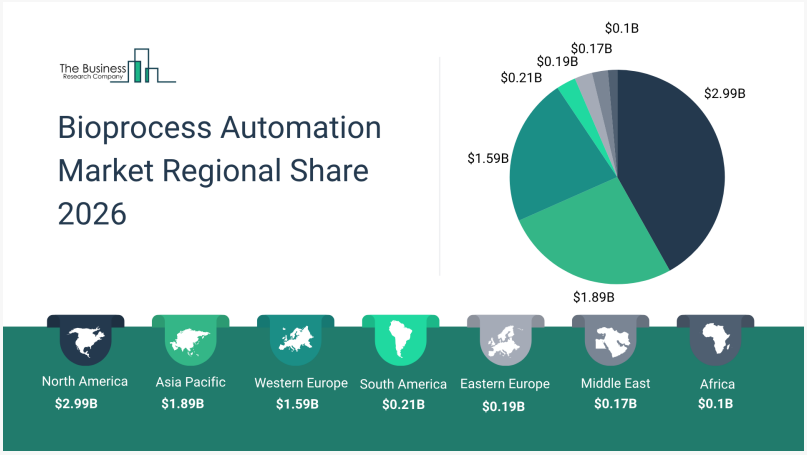

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LONDON, GREATER LONDON, UNITED KINGDOM, April 26, 2026 /EINPresswire.com/ -- Bioprocess Automation Market to Surpass $11 billion in 2030. In comparison, the Medical Laboratory Services market, which is considered as its parent market, is expected to be approximately $237 billion by 2030, with Bioprocess Automation to represent around 5% of the parent market. Within the broader Healthcare Services industry, which is expected to be $11,318 billion by 2030, the Bioprocess Automation market is estimated to account for nearly 0.1% of the total market value.

Which Will Be The Biggest Region In The Bioprocess Automation Market In 2030?
North America will be the largest region in the bioprocess automation market in 2030, valued at $5 billion. The market is expected to grow from $3 billion in 2025 at a compound annual growth rate (CAGR) of 12%. The rapid growth can be attributed to the strong presence of leading biopharmaceutical manufacturers, increasing adoption of advanced automation technologies in biologics production and rising investments in large-scale biomanufacturing facilities. Additionally, the region benefits from a well-established regulatory framework and growing

demand for high-quality, scalable production systems.

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Which Will Be The Largest Country In The Global Bioprocess Automation Market In 2030?
The USA will be the largest country in the bioprocess automation market in 2030, valued at $4 billion. The market is expected to grow from $2 billion in 2025 at a compound annual growth rate (CAGR) of 12%. The rapid growth can be attributed to increasing biologics and cell and gene therapy production, strong R&D investments by biotech companies and rising adoption of digital bioprocessing solutions. Furthermore, the presence of major automation technology providers and contract development and manufacturing organizations (CDMOs) is accelerating market expansion.

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What Will Be The Largest Segment In The Bioprocess Automation Market In 2030?
The bioprocess automation market is segmented by component of process control system into sensors, actuators and controllers. The sensors and controllers markets will be the largest segments of the bioprocess automation market segmented by component of process control system, each accounting for 37% or $4 billion of the total in 2030. These segments will be supported by increasing demand for real-time monitoring of critical process parameters such as pH, temperature and dissolved oxygen, growing need for precise process control to ensure product consistency, rising integration of advanced control systems, and expanding adoption of smart and connected bioprocessing equipment.

The bioprocess automation market is segmented by scale of operation into preclinical operations, clinical operations and commercial operations. The commercial operations market will be the largest segment of the bioprocess automation market segmented by scale of operation, accounting for 64% or $7 billion of the total in 2030. The commercial operations market will be supported by increasing large-scale production of biologics and biosimilars, growing demand for high-throughput manufacturing systems, rising need for cost efficiency in production and expanding global biomanufacturing capacity to meet rising therapeutic demand.

The bioprocess automation market is segmented by mode of operation into batch, fed-batch

and perfusion. The fed-batch market will be the largest segment of the bioprocess automation market segmented by mode of operation, accounting for 48% or $6 billion of the total in 2030. The fed-batch market will be supported by its widespread adoption in biologics production, ability to achieve high cell densities and product yields, flexibility in process control and compatibility with a wide range of biopharmaceutical applications.

The bioprocess automation market is segmented by compatibility with bioprocessing systems into single-use systems, stainless steel and other bioprocessing systems. The single-use systems market will be the largest segment of the bioprocess automation market segmented by compatibility, accounting for 54% or $6 billion of the total in 2030. The single-use systems market will be supported by increasing demand for flexible and scalable manufacturing solutions, reduced risk of cross-contamination, lower cleaning and validation requirements and growing adoption among contract manufacturing organizations and emerging biotech firms.

What Is The Expected CAGR For The Bioprocess Automation Market Leading Up To 2030?
The expected CAGR for the bioprocess automation market leading up to 2030 is 12%.

What Will Be The Growth Driving Factors In The Global Bioprocess Automation Market In The Forecast Period?
The rapid growth of the global bioprocess automation market leading up to 2030 will be driven by the following key factors that are expected to transform biomanufacturing efficiency, scalability and process reliability across pharmaceutical and biotechnology industries worldwide.

Rising Demand For Biopharmaceuticals And Advanced Therapies – The rising demand for biopharmaceuticals and advanced therapies will become a primary driver of growth in the bioprocess automation market by 2030. Increasing production of monoclonal antibodies, vaccines, cell and gene therapies and recombinant proteins requires highly controlled and scalable manufacturing environments. Automation enables consistent product quality, reduces contamination risks and supports complex biologics production workflows. As the global pipeline of biologics and personalized medicines continues to expand, manufacturers are increasingly investing in automated systems to handle higher production volumes and stringent quality requirements. As a result, rising demand for biopharmaceuticals and advanced therapies is anticipated to contribute to a 2.8% annual growth in the market.

Need For Process Efficiency, Cost Reduction, And Error Minimization – The need for process efficiency, cost reduction and error minimization will emerge as a major factor driving the expansion of the bioprocess automation market by 2030. Biomanufacturing processes are highly sensitive, where minor deviations can lead to batch failures and significant financial losses. Automation helps optimize resource utilization, improve reproducibility and minimize human intervention, thereby enhancing overall operational efficiency. With increasing pressure on manufacturers to reduce production costs while maintaining regulatory compliance and high product quality, automated bioprocessing solutions are becoming essential. Consequently, the

need for process efficiency, cost reduction and error minimization is projected to contribute to a 2.5% annual growth in the market.

Technological Advancements (AI, ML, And Smart Bioprocessing Systems) – Technological advancements including artificial intelligence, machine learning and smart bioprocessing systems will play a crucial role in accelerating the growth of the bioprocess automation market by 2030. These technologies enable real-time monitoring, predictive analytics and adaptive process control, significantly improving production outcomes and reducing downtime. Integration of digital twins, advanced sensors and data-driven platforms allows manufacturers to optimize bioprocess parameters and accelerate development timelines. As biopharma companies increasingly adopt digital transformation strategies, smart automation solutions are becoming integral to next-generation biomanufacturing. Therefore, technological advancements are projected to contribute to a 2.0% annual growth in the market.

Access The Detailed Bioprocess Automation Market Report Here
https://www.thebusinessresearchcompany.com/report/bioprocess-automation-global-market-report?utm_source=EINPresswire&utm_medium=Paid&utm_campaign=Apr_PR

What Are The Key Growth Opportunities In The Bioprocess Automation Market in 2030?
The most significant growth opportunities are anticipated in the sensors market, the actuators market and the controllers market. Collectively, these segments are projected to contribute over $5 billion in market value by 2030, driven by increasing demand for real-time monitoring and control of critical bioprocess parameters, growing adoption of automated and closed-loop biomanufacturing systems, rising need for precision and consistency in biologics production and expanding integration of advanced digital and smart manufacturing technologies. This surge reflects the accelerating shift toward data-driven and highly automated bioprocessing environments that enhance process efficiency, ensure product quality and enable scalable, reproducible manufacturing across biopharmaceutical facilities.

The sensors market is projected to grow by $2 billion, the actuators market by $1 billion and the controllers market by $2 billion over the next five years from 2025 to 2030.

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