

The Global Biomanufacturing Market 2024-2035

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Abstracts

The biomanufacturing market is a rapidly growing sector that involves the production of various products using biological systems, such as living cells, enzymes, or other biological components. The market encompasses a wide range of applications, from biopharmaceuticals and industrial enzymes to biofuels and bio-based chemicals. Biomanufacturing processes often rely on renewable feedstocks and generate less waste compared to traditional chemical manufacturing methods. This makes biomanufacturing a more sustainable and environmentally friendly approach to producing various products. Biological systems can produce complex molecules with high specificity and purity, which is particularly important for the production of biopharmaceuticals and other high-value products. Biomanufacturing enables the production of novel and superior products that may be difficult or impossible to obtain through chemical synthesis. Biomanufacturing plays a crucial role in addressing global challenges, such as healthcare, energy security, and environmental sustainability. For example, biopharmaceuticals produced through biomanufacturing processes have revolutionized the treatment of various diseases, while biofuels and bio-based chemicals offer alternatives to fossil-based products. Biomanufacturing encompasses several sub-markets, covered in this report including:

Biopharmaceuticals: production of drugs and vaccines using living cells or their components. It includes the manufacture of monoclonal antibodies, recombinant proteins, cell and gene therapies, and other biologics.

Industrial enzymes: enzymes produced through biomanufacturing processes are used in various industries, such as food and beverage, textiles, detergents, and paper and pulp. These enzymes catalyze specific reactions and improve the efficiency of industrial processes.

Biofuels: biomanufacturing technologies are used to produce sustainable fuels,

such as bioethanol and biodiesel, from renewable feedstocks like corn, sugarcane, or algae.

Bio-based chemicals: production of chemicals, such as platform chemicals, specialty chemicals, and polymers, using biological processes. These chemicals serve as building blocks for various industries, including plastics, pharmaceuticals, and consumer products.

Biomaterials: materials derived from biological sources, such as bioplastics, bio-based composites, and biominerals. These materials find applications in packaging, construction, and medical devices.

Agricultural biologicals: production of biopesticides, biofertilizers, and other biological products used in agriculture to enhance crop productivity and protect against pests and diseases.

Flavors and fragrances: Biomanufacturing processes are used to produce natural flavors, fragrances, and other sensory ingredients for the food, beverage, and cosmetic industries.

Synthetic biology products: production of novel products and materials designed using synthetic biology principles, such as engineered microorganisms, biosynthetic pathways, and genetic circuits.

These sub-markets represent the diverse applications of biomanufacturing and highlight the growing importance of biological processes in various sectors of the economy. As technology advances, new sub-markets may emerge, further expanding the scope of biomanufacturing.

The *Global Biomanufacturing Markets 2024-2035* is a comprehensive market report that explores the rapidly evolving landscape of biomanufacturing technologies and applications. This in-depth analysis covers key sectors such as biopharmaceuticals, industrial enzymes, biofuels, bioplastics, biochemicals, and bio-agritech, providing insights into market trends, growth opportunities, and the competitive landscape. The report offers a detailed overview of biomanufacturing processes, technologies, and host organisms, highlighting the importance of this industry in the global economy. It covers production methods, including microbial fermentation, mammalian cell culture, and plant-based systems, as well as upstream and downstream processing technologies. The report features profiles of over 1,000 companies at the forefront of

biomanufacturing innovation, offering valuable insights into their technologies, products, and strategic initiatives. Companies profiled include Aanika Biosciences, Amyris, BBGI, Biovectra, Bucha Bio, Byogy Renewables, Cascade Biocatalysts, Constructive Bio, Debut Biotechnology, Enginzyme AB, eversyn, Erebagen, Eligo Bioscience, Evolutor, EV Biotech, FabricNano, Ginkgo Bioworks, Hyf?, Invizyne Technologies, LanzaTech, Lygos, Mammoth Biosciences, Novozymes A/S, NTx, Origin Materials, Pow.bio, Protein Evolution, Solugen, Synthego, Taiwan Bio-Manufacturing Corp. (TBMC), Twist Bioscience, Uluu, Van Heron Labs, Verde Bioresins, and ZymoChem.

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