

Japan's Bioeconomy Vision Outline

Bioindustry's Social Contribution to Enhance Adaptation to Changing World
 - Creation of new key industry and provide solutions on global issues-

Background

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| Global Level Issues 2030 Agenda, COP21 Agreement | Policies, Strategies Bioeconomy, Horizon2020, etc | Technological Changes Synthetic Biology, genome editing | National Level Issues Industry reformation, Aging |
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Bioindustry's social contribution in 2030: 40 trillion yen impact by industrial growth with global issue solution

| Health/ medicine | Manufacturing/Environment/Energy | Agri. /Forest/Fishery/Foodstuff |
|---|---|--|
| <p>Key → Healthy longevity achievement by destructive innovation</p> <ul style="list-style-type: none"> • Together with latest biotech, fusion of ICT/IoT, nanotech, robot engineering create a main stream health industry to enable healthy longevity society inclusive of elderly and handicapped. • Become a nation that can provide worldwide solution in health and medical field | <p>Key → Shift to sustainable manufacturing and new industry generation</p> <ul style="list-style-type: none"> • Original and competitive biotechnology and bioproduct enables new industry emergence using sustainable source and innovative production method. • Japan to play a major role in manufacturing, environment and energy segment (COP target achievement) | <p>Key → Industrial farm involvement and food export promotion</p> <ul style="list-style-type: none"> • Industrial farm involvement to create series of new business and employment • Agricultural reformation contributes to working population decrease, global warming and food supply • Branded foodstuff export increase with international recognition of taste and soundness |

Key Technology Development for Bioindustry Promotion: Needs industry, academia government collaboration

Key → **Key technology (i.e. genome editing, etc) needs industry, academia government collaboration: Survey, impact analysis, action planning are to be shared.**

Key technology in respective field: **Health/Medicine:** New drugs, medical devices, treatment, prevention, care technology, information integration. **Manufacturing/Env./Energy:** Breeding, selection, improvement, production technology variety (smart cells, plants, insects). **Agri./Forestry/Fishery/Foodstuff:** New breed production, health benefit, processing, preservation, taste, safety technologies

Actions for Industrial Promotion: Common understanding of the vision and ecosystem installment

Key → **National Vision Sharing on Biotech:** Innovation by biotechnology to generate new business and provide global solution.

Key → **Innovation ecosystem establishment:** System to generates new bioventure and innovation (Industry, academia and government, venture supporters share the roles)

Fair business environment and international presence: Action towards CBD, new market, international pledge

Human resource and communication promotion: Generate talent with future views, entrepreneurship, science communication