

Study on Future and International Competitiveness of Biotechnology

Development in Taiwan

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Abstract

The biotechnology product market is built upon biological resources and biotechnology. At present, the total output of the global biotechnology market doubles every five years, with an annual growth of approximately 25-30%, which is about ten times the world's annual economic growth. Hence, how to capture biological resources, talents, and market strength; optimize the incentive mechanism; increase the power of technological innovation; and implement a bio-economic power strategy to develop Taiwan's bio-economy into a leading emerging industry with large-scale, high technological capacity, fast growth, and revolutionary drive will be important issues. Exploring the present status of development of the global agricultural market, and analyzing biotechnology development in Taiwan, this study investigated the future direction of Taiwan's biotechnology development in terms of industrial biotechnology, energy biotechnology, and molecular farming, and advised the government to focus on biopharmaceuticals, agricultural biotechnology, and special chemical biotechnology, in order to ensure a bright future for the development of the biotechnology industry.

Keyword : Biotechnology Industry, Biotechnology Development, Energy Conversion Efficiency, Biomedicine