

## INNOVATIVE BUSINESS MODELS OF THE CIRCULAR ECONOMY IN FOOD PRODUCTION AND PROCESSING

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### Abstract

The paper explores the possibilities the circular economy provides to the manufacturing and processing of food products. The aim of the research is to identify and prove the effectiveness of the innovative circular economy business models for the food products safety, as well as to determine the tasks and instruments that manufacturers may encounter when adopting to these models.

According to more than 50 examined studies published in international journals as: Business Strategy and the Environment, Environmental Economics, Journal of Hygienic Engineering and Design, Sustainability etc., articles and papers represented on the various web platforms like ResearchGate, Accenture, EIONET Portal, Ellen MacArthur Foundation, as well as reports of international institutions like OECD, Club of Rome, WEF, European Environmental Agency regarding modern food technologies and production models using food waste as raw materials the main principles on how the circular business models should be implemented both in food processing and entire value chain were disclosed. It can be concluded that the use of the majority of innovative circular business models (Circular suppliers, Resources recovery, Product life extension, Sharing platforms, Product as a service) have already demonstrated some positive gains in manufacturing. However, the circular business models' features benefiting the highest production and economic efficiency as well as product safety need clarification due to numerous challenges and barriers leading to a predominance of negative externalities over positive ones. The paper represents the basic conditions to make the introduction of the circular models in transformation economies' food industry more economically effective which include the coordinated action between producers, government agencies, and the society. Innovative circular economy business models involve the creation of a complex multicomponent economy and a network of values. The transformation of food production business models to circular ones requires coordinated action between producers, government agencies, and the society. This includes establishment of an effective dialogue between central and local authorities, national producers and academia; development of new spheres of operations through targeted forms of interregional cooperation; development and implementation of industrial and financial policy instruments to stimulate innovative business models for the introduction of a circular economy in food manufacturing and processing.

Summarizing the foreign experience, the authors identified the circular business models of food industry (resources recovery, platform for food-sharing) which would lead to complex circular transformations bringing mutual benefits to companies and consumers. In addition to short-term financial benefits, food industry companies can attain long-term strategic advantages, which include optimising material flows, entering new markets, expanding the customer service scope or after-sales service, as well as obtaining gains from the services related to the closed-loop process.

**Key words:** Circular economy, Food industry, Business models, Economic Effectiveness.