

DEVELOPMENT OF A BUSINESS MODEL FOR THE EVALUATION OF AN ECO-INDUSTRIAL PARK

Eco-industrial parks (EIP) can offer businesses ready-made and efficient solutions for land, ready-made premises, resource-efficient and reliable engineering network infrastructure, access to skilled workers, educational institutions and related services, that enable entrepreneurs to focus on core business: producing goods that meet national and international quality standards and are in demand in relevant markets, its quality or development, improving the skills of its employees, etc [1].

The development of the EIP aims to integrate industries into society by creating shared economic opportunities, improving ecosystems and innovative ways of doing business responsibly. The advantages of EIP are that they promote resource efficiency and a circular economy, as well as help bridge the gap between cities and industries by making a significant contribution to a sustainable city [2].

It is proposed to identify the problems and needs of the region by building a matrix of SWOT-analysis, which includes the identification of strengths, weaknesses, opportunities and threats to enterprises operating within the eco-industrial park. In addition, PEST-analysis, which provides for the identification of such influencing factors as: political, economic, social and technological.

It is proposed to evaluate the market of environmentally friendly products and goods by substantiating the types of consumer motives for the consumption of environmentally friendly goods, taking into account rational (quality, cost-effectiveness, operational parameters), emotional (unique properties, lifestyle, fear, guilt), moral (preservation of the natural environment, sense of involvement) motives.

An analysis of the EIP economic capabilities is necessary to determine the target business groups based on the current state and forecast prospects for the development of individual entrepreneurs [3]. Development of a business model for the EIP assessment will include:

- study of consumer segments that are relevant for the region and EIP;
- determining the value of participating companies' proposals in the symbiosis of EIP and their benefits;
- identification of key resources that need to be involved to create, maintain, implement, deliver and service within the EIP;
- identification of key activities that can be implemented in the EIP;
- identification of EIP key partners – enterprises that can become members of EIP with the construction of mutually beneficial relations to achieve the success of each individual enterprise and EIP as a whole;
- analysis of products and services sales channels that will be offered on the territory of the EIP taking into account the needs of the region;
- establishing relationships with customers and companies participating in the EIP.

The development plan of the IP will be developed taking into account the peculiarities and analysis, environmental and social requirements, opportunities and benefits for tenant companies in the industrial park and determine the systemic synergy effect of the enterprise in the IP, obtained through interaction and cooperation pooling of resources, activities and management.

Strategic planning will make it possible to assess the effectiveness of the EIP. The investment and innovation project evaluation is proposed to be used for this purpose, which takes into account the reduction of investment resources using symbiosis for the enterprise in the EIP, as well as the possibility of reducing enterprise costs by innovative technologies, when calculating the NPV of the investment project.

Such opportunities will help to reduce the cost and increase the efficiency of investment projects. The last stage will be the search for sources of EIP financing and green investments by presenting to potential investors the developed business model of the IP with the possibility of implementing the proposed development strategy in the existing IP.

References:

1. A Practitioner's Handbook for Eco-Industrial Parks implementing the international EIP Framework. available at: <https://openknowledge.worldbank.org/bitstream/handle/10986/30458/A%20Practitioners%20Handbook%20for%20Eco-Industrial-Parks..pdf?sequence=8&isAllowed=y>
2. Tulchynska, S., Shevchuk, N., Kleshchov, A., Kryshchtopa, I., Zaburmekha, Ye. (2021). The Role of Higher Education Institutions in the Development of EcoIndustrial Parks in Terms of Sustainable Development. *IJCSNS International Journal of Computer Science and Network Security*, Vol. 21 No. 10 pp. 317-323. <https://doi.org/10.22937/IJCSNS.2021.21.10.45>
3. Nataliia Shevchuk, Svitlana Tulchynska, Liudmyla Severyn-Mrachkovska, Olena Pidlisna, Iryna Kryshchtopa (2021) Conceptual Principles of the Transformation of Industrial Parks into Eco-Industrial Ones in the Conditions of Sustainable Development. *IJCSNS International Journal of Computer Science and Network Security*, Vol. 21 No. 12 pp. 349-355, <https://doi.org/10.22937/IJCSNS.2021.21.12.49>