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INNOVATION PARTNERSHIP MECHANISMS: EUROPEAN EXPERIENCE IN THE CONTEXT OF DEVELOPMENT OF UKRAINE'S EUROPEAN INTEGRATION

Abstract

The paper investigates the mechanism of operation of European innovation partnerships, which are a new organizational element aimed at creating market opportunities through increased cooperation of stakeholders in the cross-sectoral, cross-industrial and inter-territorial contexts. This contradicts the traditional approach to supporting innovation through direct state financing. The European experience of innovation partnerships is valuable for Ukraine due to its effectiveness, systemic nature, scale and institutional support. The author's experience of creating a Ukrainian-Moldovan cross-border cluster for wine waste processing is used to conduct a comparative analysis of the institutional framework for the creation and operation of European and Ukrainian innovation partnerships. The obtained results determine directions for development, namely creation of national platforms of innovation partnerships in target areas, integration of platforms at various levels (local, regional, national, cross-border, European), establishment of the institute of innovation brokerage and creation of permanent consulting / brokering services in the innovation sector, involvement of sectoral regional programmes and their resources in creating innovation partner-

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ships, and development and adoption of a national concept and programme of building innovation partnerships.

Key Words:

European experience; innovation partnership; cluster; European experience.

JEL: O32, Q16, O38.

1 figure, 1 table, 10 references.

Problem Statement and Literature Review

The process of innovation involves numerous interactions between stakeholders in the field of innovation and entails various systemic interdependencies that affect the generation and diffusion of innovation in the economy. Absence or lack of cooperation between stakeholders in the field of innovation is caused by a systemic failure, overcoming which requires the introduction of appropriate mechanisms. One of such mechanisms is innovation partnership.

European Innovation Partnerships were created within the framework of the European concept of the Innovation Union. They are seen as a new means of bringing together all stakeholders in cross-sectoral, cross-industrial and inter-territorial contexts to accelerate innovation development, increase the competitiveness of EU economies and create jobs. The European experience of innovation partnership is valuable for Ukraine in terms of its effectiveness, systemic nature, scale and institutional support.

The concept of European innovation partnerships is defined in the regulatory documents of the European Commission (Directorate-General for Research and Innovation, 2015; Directorate-General for Agriculture and Rural Development, 2014). European innovation partnerships (EIP) represent a new approach to the development of innovation in the EU: they focus on streamlining, simplifying and better coordinating all actors in the innovation chain. So far, five Euro-

pean innovation partnerships have been established in the most socially significant areas: active and healthy ageing, water, productivity and sustainable development in agriculture, raw materials, smart cities and communities. The EIP are focused on solving social and environmental problems, creating market opportunities by coordinating the efforts of all stakeholders (innovative entrepreneurs, educational and research institutions, the business sector, innovation intermediaries, financial institutions, government agencies, etc.). Instead of the traditional top-down financing, the EIP aim to trigger joint action in value chains and sectors. The EIP is a mechanism for implementing a broader concept of innovation that goes beyond technological issues, with special emphasis on the role and involvement of innovation demand actors (Directorate-General for Research and Innovation, 2015).

The papers of scientists from different schools published in scientometric databases (e.g., Web of Science, Scopus) actively address methodological issues of assessing the effectiveness of innovation partnerships and identifying external and internal factors that influence the effectiveness of European innovation partnerships (Pakeltiene et al., 2020; Maziliauskas et al., 2018), the impact of innovation partnerships on the development of innovation in the EU (Dobrinsky, 2019), issues of practical application of European innovation partnership mechanisms (Lizana, 2013; Poppe, 2014). Research confirms the effectiveness of the EIP in intensifying innovation and increasing its effectiveness in the EU. The application of the partnership mechanism to regional innovation development has been studied in terms of implementing the concept of smart specialization (Gancarczyk et al., 2021).

However, the study of prospects for the implementation of the European experience of innovation partnership in Ukrainian economic realities remains an urgent scientific and applied task. Based on the author's practical experience in forming a Ukrainian-Moldovan cross-border cluster for wine waste processing (Osypov et al., 2018), used as a prototype for the model of innovation partnership, the article summarizes and develops recommendations aimed at developing innovation partnerships in Ukraine.

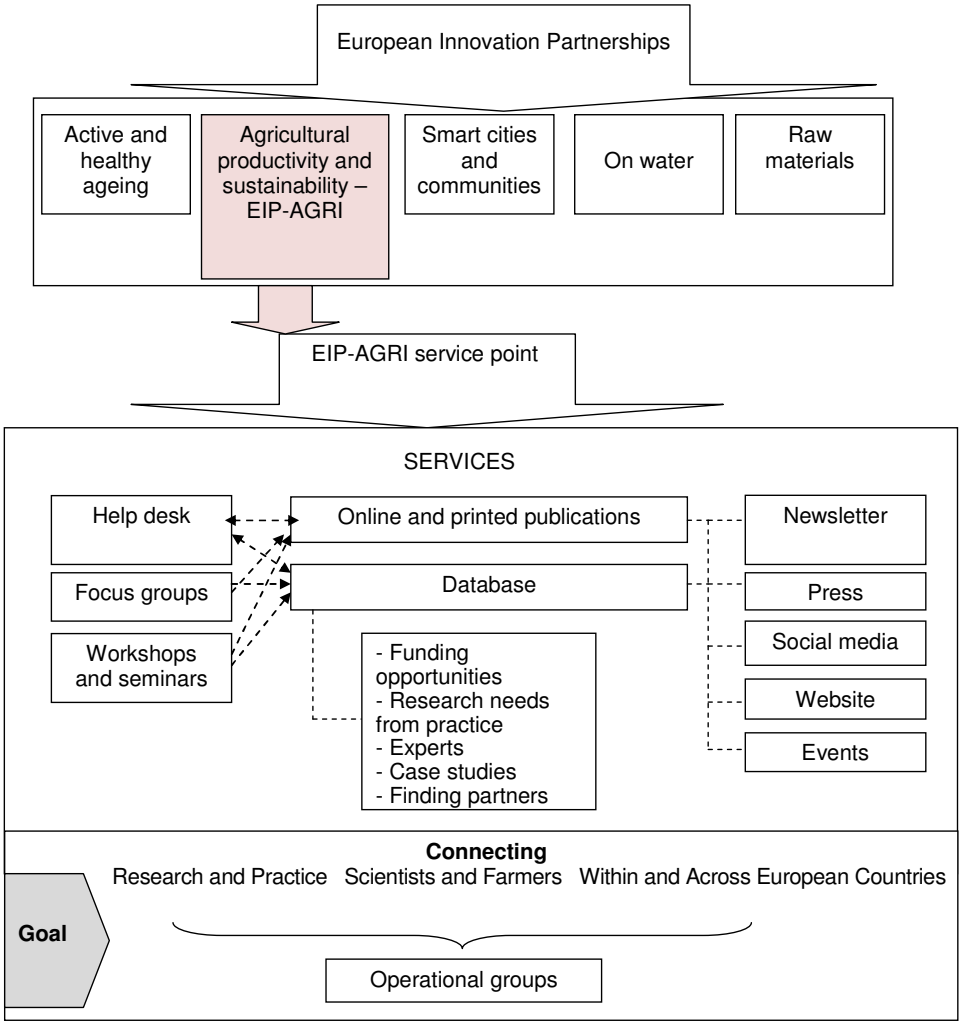
The aim of the article is to develop proposals for the introduction of innovation partnership mechanisms in Ukraine based on European experience.

Research Results

The action mechanism of innovation partnerships is studied on the example of the European Innovation Partnership in Agriculture – EIP-AGRI (Fig. 1).

Figure 1

The system of European innovation partnerships



Sourse: adapted from European Commission. (2014). EIP-AGRI service point: How can we help you? https://ec.europa.eu/eip/agriculture/sites/default/files/eip-agri_brochure_service_point_2014_en_web.pdf

Innovation Support Service Point acts as an intermediary in the EIP-AGRI network, performs brokerage functions in order to establish relationships and cooperation between various stakeholders in the field of innovative development of agriculture.

It is insufficient to merely create databases of farmers, scientists and experts, innovative ideas, and sources of funding. In order for the system to work, a broker is needed. The service point provides services to all stakeholders, informing farmers, researchers and experts, businessmen, consumers and others about financial opportunities, upcoming events organized by EIP-AGRI, and existing operational groups. The service point also performs other functions, such as identifying farmers' problems and directing relevant focus groups, scientists and experts to research them, organizing events, workshops, seminars and conferences, moderating the network's web platform, finding the necessary experts, selecting partners, collecting and disseminating information on the results of EIP-AGRI's work, exchanging knowledge and experience, liaising with other existing networks and initiatives, preparing and disseminating information packets relevant to EIP activities (articles, brochures, newsletters, reports, etc.), creating databases on the web platform, etc. In an innovation partnership, the service point acts as a broker, facilitator and moderator, without which the partnership would not be able to function. The function of networking (network cooperation) is also assigned to the service point. It is also possible to involve existing networks / clusters.

EIP-AGRI offers the following network cooperation tools:

- website as a «meeting place» for stakeholders and partners;
- database of operational groups, including contact information of their members and coordinators;
- online resources: publications, reports and other information by topic, monthly digital newsletter;
- e-forms for various modes of communication: joining the activities of operational groups and innovation projects, disseminating information about the implemented research projects, conducting research on practical demand, searching for a partner, attracting funding;
- social media: Linkedin, Twitter;
- conferences and other offline events.

The EIP-AGRI Service Point is located in Brussels and is of European importance.

Focus groups are flexible, temporary (usually up to 1 year) groups that are part of the EIP networking. They are aimed at studying current issues that arise in agriculture (production, processing, transportation, marketing, etc.). They also

address tasks designated by the European Commission's Directorate-General for Agriculture and Rural Development; these usually concern the development of innovative solutions based on expertise and best practices, which are then implemented by operational groups. Focus groups present the results of their work in the form of final reports, which are in open access on the EIP-AGRI web platform. Focus groups consist of 20 experts from all over Europe with different competencies: 6-12 scientists, 3-6 farmers, 2-4 advisers and 2-4 other actors (e.g., representatives of agribusiness, NGOs). Notably, experts participate in focus groups without any financial compensation other than travel expenses. Anyone who has the relevant professional competencies can join the group of experts by filling out an online application and passing the selection. Focus groups are organized by topic and specialize in various subsectors of agriculture or farming. As of April 2021, there were 43 focus groups in EIP-AGRI. One such group is the EIP-AGRI Focus Group on Precision Farming, which aims to promote and implement digital technologies in agriculture, and teach farmers digital knowledge and skills.

Operational groups are groups formed at the local level with the participation of representatives from different sectors: farmers, scientists, businesses, NGOs, consumers, etc. in order to find innovative solutions to a common problem or test an innovative idea in practice. Operational groups are the main tool of EIP-AGRI in terms of turning innovative ideas into real projects for the industry. Creation of an operational group is initiated by innovative actors. Quantitative and professional composition of an operational group depends on the project, so operational groups differ. The results and knowledge gained by the operational group are disseminated through the EIP-AGRI network in order to scale up the benefits for the EU agriculture. A database of operational groups is available on the EIP-AGRI web platform, which is a unique EU repository for finding partners and highly specialized information on the development and implementation of innovative projects. Establishment and operation of EIP-AGRI operational groups are funded through the European Agricultural Fund for Rural Development. As of July 2021, there were 2,027 operational groups in EIP-AGRI. Some of the groups focus on organic farming, protein crops, livestock, genetic resources, organic soil, etc.

An example of an operational group is the EVI (*Erdbeer Verticilium Impfung*) project. Farmers growing strawberries in the federal state of Brandenburg (Germany) have had serious problems with *Verticilium dahliae*, which infects the soil and causes serious damage to young plants. It can persist in the soil for more than 15 years and damages the crop, leading to economic losses for farmers. There was no practical solution: farmers had to take the risk of losing the crop caused by this disease. This problem was investigated by scientists from the Leibniz Centre for Agricultural Landscape Research (ZALF). There was an innovative broker, who helped combine the efforts of the ZALF research institution, three farmers and a small company specializing in the development of biological compounds, thus playing a key role in the creation of the operational

group on this issue. The group prepared a project application and determined the required amount of funding. The project received 200,000 euros for a period of 2 years from the Landwirtschaftliche Rentenbank and was ultimately successful: two new innovations were invented. One was a biological control agent (BCA) for plant immunization. A practical method has also been developed: immersing the roots of strawberry plants in an aqueous suspension before planting in the fields.

EIP-AGRI is the only European innovation partnership that receives targeted funding for its activities under the sectoral programme – Rural Development Programme. EIP-AGRI is the only European innovation partnership that receives targeted funding for its activities under the sectoral programme – Rural Development Programme. The Horizon Grant Programme also provides financial opportunities to support projects involving farmers, business people, researchers, and consumers.

The key difference between the EIP-AGRI platform and innovative marketplaces is not just the coordination of supply and demand for innovation, but the joint development of innovation, i.e., the development of innovation through cooperation:

- identification of a problem or an innovative idea;
- search for information and partners;
- joining an existing operational group or forming a new one;
- development of a project application;
- attracting funding;
- project implementation;
- practical application of project outcomes;
- dissemination of information on project outcomes.

EIP-Agri's work is based on a bottom-up approach and is driven by demand, thus farmers, together with other actors and stakeholders, are involved in developing practical solutions to a specific problem identified by agribusiness. This is based on an «interactive innovation model», where actors with professional knowledge work together and jointly create innovative solutions. EIP-AGRI is a sectoral ecosystem of pan-European importance described above. The EIP-AGRI Innovation Partnership helps to ensure synergies between existing EU policies, such as the EU's rural development policy and innovation policy.

In Ukraine, there are examples of established innovation partnerships / clusters, but they are rare and there is no national system for forming such partnerships. After all, only the creation of such a system can provide significant results across the country. The differences between European and Ukrainian approaches become apparent through a comparative analysis of the institutional

framework for the creation and operation of European innovation partnerships (using EIP-AGRI as an example) and Ukrainian prototypes of innovation partnerships in cluster form (using the example of Ukrainian-Moldovan cross-border wine waste processing cluster) (Table 1).

Table 1

Comparative analysis of the institutional framework for the creation and operation of European and Ukrainian innovation partnerships

Interaction stages	European Innovation Partnership EIP-AGRI	Ukrainian-Moldovan cross-border cluster for winemaking waste processing	Recommendations for Ukraine
1. Initiative for the creation of an operational group aimed at solving a particular problem	from farmers through a permanent pan-European platform – https://ec.europa.eu/eip/ agriculture	from scientists under a grant application	create national platforms for innovation cooperation in priority areas
2. Establishing a group of interested stakeholders	through the service point and innovation brokers	«manually» through personal contacts of scientists	create an institute of innovation brokers; create permanent consulting / brokerage services in the field of innovation
3. Financing the organizational costs of the operational group	targeted funding through the Rural Development Programme	absent	include the costs of operational groups and the operation of the platform in sectoral regional programmes
4. Project development	joint work of all stakeholders	scientists, representatives of industry public organizations	to train and allow participation of final beneficiaries – farmers – in grant projects to provide them with experience

Interaction stages	European Innovation Partnership EIP-AGRI	Ukrainian-Moldovan cross-border cluster for winemaking waste processing	Recommendations for Ukraine
5. Project financing	targeted funding through the Rural Development Programme; European and national funds; Horizon Europe programme; Interreg programme	European Programme of Eastern Partnership Territorial Cooperation: Moldova-Ukraine	expand sources of funding through: participation in the Horizon Europe programme, national funds, private investors, co-financing by farmers on a cooperative basis, etc.
6. Project implementation	joint efforts	scepticism about the partnership from final beneficiaries due to lack of trust and lack of understanding of the personal benefits of such a partnership	introduce mechanisms aimed at accumulating social capital
7. Sharing the experience	through a permanent platform of European importance – https://ec.europa.eu/eip/agriculture, which offers a database of implemented projects	through the project website – www.clustermdua.com	ensure the post-project operation of the platform; create sectoral platforms of national importance; join the European platforms / networks
8. Institutional framework	the concept of European innovation partnerships is defined in the regulatory documents of the European Commission	Ukrainian legislation on innovation partnerships is specified in the 2030 Strategy for the Development of Innovation, where it is planned to launch pilot projects of innovation partnerships and share the experience among Ukrainian regions	develop and adopt a national concept and programme for the creation of innovation partnerships; include measures for the creation of innovation partnerships in regional sectoral programmes

1. Initiative for the creation of an operational group. Institutionalized creation of innovation partnerships in the EU (in particular the operation of permanent industry platforms and the availability of well-established mechanisms of cooperation) provides opportunities for direct beneficiaries, in this case farmers, to join forces with colleagues, scientists, investors, and the public to solve certain problems or implement innovative ideas. In Ukraine, in the absence of an appropriate system, potential stakeholders do not have the opportunity to turn to a single outlet if it is necessary to solve a practical problem or implement an idea. Such interaction, as a rule, starts due to the enthusiasm of individuals, in this example – scientists.

2. Establishing a group of interested stakeholders. The connecting link in European innovation partnerships is made up of service points that perform consulting and brokerage functions. In Ukraine, innovative brokerage is underdeveloped, so the brokerage function is implemented «manually» through personal contacts, which significantly limits the range of potential stakeholders.

3. Financing the organizational costs of the operational group. The lack of funding for organizational costs, creation and operation of operational groups is a significant limiting factor in the implementation of innovation partnerships in Ukraine.

4. Project development. In Ukraine, unlike the EU, the final beneficiaries are not actively involved in project development due to lack of experience and relevant skills. Involvement of third-party project developers requires additional financial costs.

5. Project financing. Various sources are involved in financing projects developed within the framework of European innovation partnerships, including grants, funds, and bank loans. Assistance in finding sources of financing is usually provided by an innovation broker. In Ukraine, projects aimed at innovation partnerships are funded mainly through European grants, so after the completion of the project further funding (sustainability of the project) falls into question. In most cases, after the end of the grant funding period, the project does not develop further. There is a need for professional support in finding sources of funding for Ukrainian beneficiaries.

6. Project implementation. The idea of innovation partnerships is met with low interest from the final beneficiaries in Ukraine. Part of the reason for this is their lack of involvement in the project development, and the fact that they did not initiate the project. European innovation partnerships are built primarily on demand of the final beneficiaries, so they are interested in both the development and further implementation of projects.

7. Sharing the experience. The promotion of the project outcomes is an important component of European innovation partnerships. This is done by creating a database of successful cases, organizing networking activities, publishing

papers, regular digital newsletters, etc. on the topic. The main principle is consistency. The disadvantage of the Ukrainian experience of creating a project platform – www.clustermdua.com – is that although the website continues to exist after the completion of the project, it is passive and does not fulfil its main function – establishing cooperation between cluster stakeholders. The reason for this is that after the completion of the project, funds from the European Union have dried up and this platform does not have a facilitator to ensure its activity. It would also be expedient to integrate this platform into the pan-European EIP-AGRI platform, thus spreading the gained Ukrainian-Moldovan experience on a pan-European scale and ensuring further development of the cluster.

8. Institutional framework. The EU has formed a regulatory framework for the creation and operation of innovation partnerships, which ensures the systematic nature of this process. In Ukraine, there is no regulatory support for the creation and operation of innovation partnerships. The 2030 Strategy for the Development of Innovation Activities envisages the launch of pilot projects of innovation partnership and dissemination of experience among the regions of Ukraine. As the practice of implementing innovation partnership pilot projects has shown, some projects are unable to provide systemic changes and intensify innovation cooperation, while the lack of regulatory support hinders the continued operation of such pilot projects. Therefore, the primary goal should focus on establishing institutional support for the creation and operation of innovation platforms in Ukraine, in particular a concept of innovation partnerships with national priorities, a national programme with defined funding and appropriate measures in regional sectoral programmes.

Conclusions

The conducted research can be summarized into several key recommendations, directed at enhancing innovative cooperation in Ukraine.

First, an institutional framework for the creation and operation of innovation partnerships in Ukraine should be developed, in particular through development and adoption of a national concept and programme for the creation of innovation partnerships, as well as inclusion of measures for the creation of innovation partnerships in regional sectoral programmes.

Second, sectoral innovation ecosystems should be developed, including thematic digital platforms, permanent consulting and brokerage services; these should be mutually integrated at local, regional, cross-border, national, and international (pan-European) levels.

Third, a pilot project of innovation partnership of national importance should be launched.

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