

## DEVELOPMENT AND RECOVERY OF THE NATIONAL ECONOMY: GLOBAL EXPERIENCE OF USING THE CLUSTER APPROACH IN THE CONDITIONS OF ACCELERATED EUROPEAN INTEGRATION

### РОЗВИТОК ТА ВІДНОВЛЕННЯ НАЦІОНАЛЬНОЇ ЕКОНОМІКИ: СВІТОВИЙ ДОСВІД ВИКОРИСТАННЯ КЛАСТЕРНОГО ПІДХОДУ В УМОВАХ ПРИСКОРЕНОЇ ЄВРОІНТЕГРАЦІЇ

*The article examines the peculiarities of using the cluster approach for the development of the national economy, which is especially relevant when planning the post-war recovery of Ukraine's economy. In particular, it was determined that the main direction of innovative development of the market economy in today's conditions is innovative cluster development. It is substantiated that innovative improvement occupies a prominent place in the development programs of economic associations of most states. It has been proven that innovation clusters are gaining wide popularity in many countries of the world, in regions with different indicators of the level of economic stability. The conditions for creating a regional innovation cluster have been analyzed. As a result of the analysis, it was concluded that the clusters ensure the creation of a modern innovative program of economic development, which is characterized by a high level of competitive advantages in the world market and investment stability. By summarizing literary sources, the thesis that clustering is characterized by territorial and institutional-structural aspects has been substantiated. In addition, it was found that, according to the opinion of the world community, innovative clusters with the cores of high-tech enterprises of priority branches of the regional economy will be the basis and driving force of the innovative development of the region and the country, as well as a way to increase their competitiveness. There are only a few such enterprises in the regions, so it is advisable to combine them into a cluster at the interregional level. The views of the scientists were summarized, as a result of which it was found that the essence of the innovative cluster strategy lies in the development of the information space in today's conditions, which depends on obtaining privileges over competitors and the growth of profit indicators, not so much on the directions of the cluster's functioning— price policy, marketing, advertising, permanent renewal of the nomenclature, new product sales segments, how much due to the integration and attraction of various regional resources. This made it possible to come to the conclusion that in the conditions of the post-war recovery of the economy of Ukraine, the creation and development of innovative clusters in the state should become an integral part of the development program of each region.*

**Key words:** European integration, recovery of the national economy, state regulation of the economy, innovations, cluster, national economy, region, development of the national economy.

*У статті досліджуються особливості використання кластерного підходу для розвитку національної економіки, що є особливо актуальним при плануванні післявоєнного відновлення економіки України. Зокрема, визначено, що головним напрямком інноваційної розбудови ринкової економіки в умовах сьогодення є інноваційно-кластерний розвиток. Обґрунтовано, що інноваційне вдосконалення займає визначне місце в програмах розвитку економічних об'єднань більшості держав. Доведено, що інноваційні кластери набувають широкої популярності у багатьох країнах світу, у регіонах із різними показниками рівня економічної стабільності. Проаналізовано умови для створення регіонального інноваційного кластера. У результаті аналізу зроблено висновок про те, що кластери забезпечують створення сучасної інноваційної програми розвитку економіки, для якої притаманний високий рівень конкурентних переваг на світовому ринку та інвестиційна стабільність. За допомогою узагальнення літературних джерел обґрунтовано тезу про те, що кластерність характеризує територіальний та інституційно-структурний аспекти. Крім того, виявлено, що на думку світової спільноти для інноваційно-кластерного розвитку в якості його суб'єкта будуть виступати інноваційні кластери з ядрами високотехнологічних підприємств пріоритетних галузей регіональної економіки як основа й рушійна сила інноваційного розвитку регіону та країни, а також способу підвищення їх конкурентоспроможності. Таких підприємств у регіонах одилиці, тому їх об'єднання у кластер доцільно здійснювати на міжрегіональному рівні. Узагальнено погляди науковців, у результаті чого з'ясовано, що сутність інноваційної кластерної стратегії полягає у розвитку в умовах сьогодення інформаційного простору, що залежить від отримання привілеїв над конкурентами та зростанням показників прибутку, не стільки від напрямків функціонування кластеру — цінової політики, маркетингу, реклами, перманентного оновлення номенклатури, нових сегментів збуту продукції, скільки за рахунок інтегрування й залучення різноманітних регіональних ресурсів. Це дозволило дійти висновку про те, що в умовах післявоєнного відновлення економіки України створення і розбудова інноваційних кластерів в державі має стати невід'ємною складовою програми розвитку кожного регіону.*

**Ключові слова:** відновлення національної економіки, державне регулювання економіки, євроінтеграція, інновації, кластер, національна економіка, регіон, розвиток національної економіки.

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**Formulation of the problem.** The current century is characterized by the fact that innovative improvement occupies a prominent place in the development programs of economic associations of most states. The introduction of innovations has

two basic components: 1) availability of innovative resources; 2) the effectiveness of the innovation strategy. Such requirements are dictated by the need for clustering of economic growth as the basis of the innovative movement.

Innovation clusters are gaining wide popularity in many countries of the world, in regions with different indicators of the level of economic stability. In particular, there are more than 2,500 innovation clusters in the EU countries, which made it possible to create 39% of jobs and provide 55% of the wage rate. Innovative clusters ensure the creation of a modern innovative program of economic development, which is characterized by a high level of competitive advantages in the world market and investment stability. They are able to support the practical implementation of sustainable development goals for 2015–2030, which were adopted by the UNO General Assembly.

**Analysis of recent research and publications.** The analysis of scientific works [4–7] shows that in recent years two modern directions of economic development, "innovative" and "cluster", have been considered separately at the level of the enterprise, cluster, region, and national economy. Innovation refers more to the technique and technology of production, although it can also take place in the organizational and management sphere: for example, the implementation of value-oriented management or controlling are considered as innovative forms of management. Clustering is characterized by territorial and institutional-structural aspects.

At the same time, the opinions of various scientists are correlated regarding the fact that the content of this term includes not only clusters in the classical sense, but also other derived elements of such formation, for example, technological platforms, technology parks, business incubators. In the absence of any of these adjectives in the practical activity of the enterprise, after some time it will inevitably lead to a crisis situation due to the loss of competitive advantages in the market.

**Formulation of the goals of the article.** The purpose of the article is to study and generalize the world experience of using the cluster approach for the development of the national economy, as well as to theoretically substantiate the possibility of using such an approach for the post-war recovery of the economy of Ukraine.

**Presenting main material.** Paying attention to the process of innovative clustering of the national economy in the conditions of accelerated European integration is explained by the fact that the cluster acts as a tool for increasing its efficiency and competitiveness due to the following advantages: "1) significantly simplifying the access of cluster enterprises to various types of resources and the opportunity to thereby minimize costs for valuable new technologies; 2) reduction of various costs related to the organization of the entrepreneurial process; 3) the possibility of joint use of innovative products, services, management methods; 4) ensuring formal and informal relationships between

cluster participants in order to effectively adapt to the conditions of the external environment; 5) promotion of interregional and intersectoral integration; 6) increasing employment of the population; 7) the possibility of interaction of the cluster with the regional innovation system; 8) increasing the quality of life of the population" [8].

In scientific works [8; 9] the classification of innovations according to the scope of application in the system of regional development mechanisms and, accordingly, the possibilities of use in clustering processes with the established sequence of displaying significance in ensuring innovative progress is given:

1. Management innovations aimed at increasing efficiency and optimization of organizational and communication technologies: organization of network business, automation and computerization of production and the service sector. This means, as a result, the appearance of improved and new products, services as complex innovative technologies and their distribution to all branches of the economic complex, business scales, any organizational forms of entrepreneurship.

2. Scientific and technical innovations act as a system of new skills in the field of economic activity.

3. Information innovations are presented in the form of updating information resources, the latest knowledge.

4. Social innovations aimed at the formation of new opportunities, their adaptation and active use in systemic changes in the spheres of health care, education, sports and culture. Their content is new services, modified and information-intensive, improved old services (rather they should be called basic or classic). Fundamental improvement of working conditions, ergonomics and environmental safety [1–3].

It can be noted that the essence of the innovative cluster strategy lies in the effective development in the current conditions of the information space, which depends on obtaining privileges over competitors and the growth of profit indicators, not so much on the directions of cluster functioning (price policy, marketing, advertising, permanent renewal of the nomenclature, new segments sales of products), how much due to the integration and attraction of various regional resources. This should be the basis for the strategic vision of accelerated European integration of the Ukrainian economy.

The post-war orientation of the national economy towards an innovative model of development should provide for the need to restore and create various innovation clusters focused on inter-regional and inter-branch processes of specialization and cooperation, creation of new technologies, knowledge-intensive industries, management innovations. The domestic scientific and technical potential has all the possibilities

to become a platform for the post-war innovative rise of strategically important branches of the economy and the social sphere. Undoubtedly, during the period of post-war recovery, the economy of Ukraine will face a significant problem of financing innovative activity and recognizing its strategic importance, creating a modern institutional environment, stimulating various forms of innovative progress, and returning scientific personnel to Ukraine. But without understanding the importance of the cluster approach, accelerated European integration of the national economy, in our opinion, is impossible.

The strategic vision of an innovative model of economic development in the period of post-war recovery should focus on the comprehensive development and unity of such processes as: potential opportunities of regions and their unique resources, primarily intellectual and informational and communication; the formed experience of management systems and the innovative culture of industries that have accumulated experience of working in war conditions have determined their market position on the national and world markets; experience and practical management technologies of authorities that have studied and systematized the world experience of innovative clustering.

Such unity is based directly on obtaining new scientific results and introducing them into the production and management system. At the same time, such processes ensure GDP growth mainly due to the production and sale of knowledge-intensive goods and services.

Scientists claim [12–14] that those manufacturers and clusters that rapidly and systematically study and implement innovations will have advantageous positions in entrepreneurial activity. Such a policy gives them the opportunity to conquer new markets for the sale of their own products, to master a wide market space on the basis of marketing and advertising innovations, to lay the foundations of an innovative culture, and during the implementation of innovations to rapidly win a privileged place on the market of new products, which, in turn, will provide manufacturers with significantly higher profits compared to other enterprises.

The world practice of active cluster development confirms the most effective direction of innovative entrepreneurial activity. Ukraine's application for membership in the European Union, the action plan for its implementation outline the issue of creating innovative industrial associations based on clusters as one of the priority directions for the development of the domestic economy. The experience of countries with developed economies, described in scientific studies [10; 11], is convincing: a cluster basis for the formation and management of production and innovation work provides an opportunity to increase the effectiveness of cooperation between state

structures, authorities, enterprises, research centers and educational institutions, and thereby ensures accelerated European Integration.

As the experience of Germany and France shows [1–3], the main role in the clustering of the economic segment is assumed by the state in the form of authorities (from national to local), which has a system of institutional and legal foundations for the implementation of cluster innovations. State structures, ensuring the strategic development of the territory, coordinate the tasks of building certain clusters with the tasks of their socio-economic regions.

Implementation of tasks can be carried out on the basis of the application of a systemic approach, the implementation of which will ensure the satisfaction of the need for the implementation of integration strategies of the economy at various levels. In the system approach to the implementation of network clustering, power structures of all levels are necessarily involved. At the same time, the basic function of the authorities of a certain territory is active participation in the creation of clusters in the region by: determining the resources of the cluster organization of production; support for the development of the cluster concept; direct participation in innovation projects of the cluster; productivity assessment (taking into account the level of profit, feasibility, growth of gross product indicators, increase in population employment, growth of innovative initiatives in the post-war period).

In 2020, the National Program of Cluster Development until 2027 appeared [3]. Typical problems of creation, development and efficiency of clusters and cluster associations are clearly described in the Program in a generalized form. In particular, it states that "despite its long existence, the cluster movement in Ukraine is weakly organized at the national level and grows rather spontaneously. Cluster development is poorly supported by the state – until 2020, we did not have responsible bodies in the central government, relevant national policies or development programs. About 50 cluster initiatives and clusters operate in the country, 22 of them are on the ECCP platform, and in recent years there has been significant activation at the regional level" [3]. However, the war changed everything not only in the lives of individual citizens, but also in the national economy. That is why we have to make appropriate adjustments and resume the development of clusters in the post-war period.

**Conclusions and suggestions.** Thus, it can be stated that:

1. The application of the innovation-cluster development model is aimed at increasing the competitiveness of cluster and other enterprises at the regional, national and international levels, which



is a tool for the post-war recovery of the national economy of Ukraine and its accelerated European Integration.

2. In the conditions of war, uncertainty and unforeseen risks, the formation and development of regional industrial clusters is impossible without taking into account the signs of their innovativeness. The cluster approach as a toolkit of regional management should comprehensively solve the task of implementing the territorial strategy and transition to an innovative development model. Ukraine will have to take this experience into account in order to avoid negative consequences in case of repeated military aggression.

3. The main tasks of innovation-cluster development as a tool of accelerated European integration are: strengthening the competitiveness of the participants of the cluster association and directly of the cluster in general through the development of innovations and the implementation of modern technologies; reduction of cost indicators and increase in productivity of certain science-intensive services, which are based on scientific developments; increasing the level of regional employment through reengineering and outsourcing, which is a tool for the return of scientists to Ukraine after the Victory; increase in revenues to the regional budget due to an increase in added value.

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