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## **IMPROVEMENT OF THE INSTITUTIONAL ENVIRONMENT FOR THE DEVELOPMENT OF CLUSTERS AND INDUSTRIAL PARKS TO INCREASE THE RESILIENCE OF UKRAINE'S ENTREPRENEURIAL SECTOR**

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**Introduction.** *The destructive impact of the war on Ukraine's entrepreneurial sector has heightened the urgency of identifying effective tools to enhance its resilience. Among such tools, clusters and industrial parks hold a prominent position due to their capacity to improve productivity and competitiveness, attract investment, foster innovation, and expand employment opportunities.*

**Problem Statement.** *The effectiveness and scalability of cluster and industrial park operations across regions and sectors are largely determined by the quality of the institutional environment. In Ukraine, economic clustering remains an unregulated process and lacks targeted state support. The fundamental law on industrial parks requires further refinement to prevent legal ambiguities and to clarify provisions concerning state incentives for their development.*

**Purpose.** *To develop proposals for improving the institutional environment for the development of clusters and industrial parks with the aim of enhancing the resilience of Ukraine's entrepreneurial sector.*

**Materials and Methods.** *This research has drawn on the principles of institutional theory and employed general scientific methods such as dialectics, logical generalization, systematization, and comparative analysis. Theoretical contributions from Ukrainian and international scholars on the institutionalization of cluster and industrial park development have also been incorporated.*

**Results.** *Several proposals have been developed to introduce institutional mechanisms for fostering economic clustering in Ukraine. These include the justification for drafting and adopting the Law of Ukraine on the Development and Support of Clusters in Ukraine; substantiating the need to initiate, structure, and define the organizational principles for a national cluster program; and refining the fundamental law on industrial parks by specifying*

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the types and conditions of state subsidies and introducing government guarantees for the stability and predictability of the business environment within industrial parks. The study has also determined the role and significance of clusters in expanding employment opportunities, facilitating the return of Ukrainian migrants, and supporting the reintegration of war veterans into society and the labor market.

**Conclusions.** The practical implementation of the proposed measures will improve the institutional framework for the development of clusters and industrial parks, thereby enhancing their contribution to the recovery and resilience of Ukraine's economy and entrepreneurial sector.

*Keywords:* institutional environment, clusters, industrial parks, entrepreneurial sector, resilience, war, post-war recovery.

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A key determinant in strengthening the resilience of Ukraine's entrepreneurial sector – its capacity to withstand crises, adapt to changing conditions, and self-recover – has been the establishment of modern institutions and organizations that account for the specific features of Ukraine's societal and institutional structures. These institutions have encouraged the development of the knowledge and skills necessary for the recovery and innovation-driven growth of domestic enterprises. This is especially true for small and medium-sized enterprises (SMEs), which currently account for over 80% of employment and two-thirds of the country's added value [1]. Accordingly, SME support has been recognized as a foundation of Ukraine's new economic model in the *Ukraine National Recovery Plan* [2], and as a central reform objective and a mechanism for reconstruction under the *Ukraine Facility Plan* [3]. In this context, instruments of national economic policy aimed at enhancing resilience and fostering the development of the entrepreneurial sector – particularly SMEs – have become increasingly relevant. Among such instruments, clusters and industrial parks occupy a prominent place. These entrepreneurial ecosystems, supported by public authorities at various levels across the globe – from transition economies to resource-rich and developed countries – have been widely used to boost productivity and competitiveness, attract investment, promote innovation, and finance high-growth-potential sectors. These effects frequently extend beyond initial geographic or sectoral boundaries, generating spillover and multiplier effects [4–7].

The institutional environment for the development of entrepreneurial ecosystems – comprising

both institutions and the broader configuration of formal (laws, rules, procedures, regulations) and informal (repeated patterns of behavior, inherited social norms, traditions, and values) rules that shape, regulate, and coordinate individual and collective behavior – has had a significant influence on the economic landscape, both in the present and in the future reconstruction of post-war Ukraine. Inclusive economic institutions [8], along with high-quality public goods and services that ensure the protection of property rights, an impartial judicial system, and equal access to education and career opportunities, have stimulated citizen engagement in economic activity. These institutions have provided the necessary foundation for enterprises and organizations to enhance their resilience and competitiveness, contributing to long-term economic growth.

International studies have addressed the challenges of creating a favorable institutional environment for the development of clusters and industrial parks, including in countries with transition economies. These studies have substantiated the potential of clusters to overcome institutional voids and competitive disadvantages that such voids generate for companies – particularly small and medium-sized enterprises (SMEs) – due to their limited resources. They have also shown that cluster policies in transition economies often overlook the institutional context and the constraints imposed by institutional change. It has been proposed that cluster policy be used as a diagnostic tool to analyze the institutional environment in such countries, identify existing gaps, and subsequently develop targeted cluster development programs to address them [9, 10]. Research [11] has

explored national cluster policies and governance models that have emerged in Japan, Germany, and France. Based on the condition of biotechnology clusters, the volume of venture capital investment, and the extent of linkages between SMEs and universities or research institutions, the authors conclude that Japan has implemented the least favorable national cluster policy. It promotes a top-down approach and is largely characterized by public-sector leadership in state-managed clusters. In contrast, Germany – particularly – and to a lesser extent France, have actively supported bottom-up cluster initiatives by prioritizing private-sector governance in privately led clusters. According to the authors, such a policy and governance model is more conducive to sustainable cluster development. These findings are corroborated by international practice, which shows that government should act as a participant and facilitator, rather than a leader, in the development of cluster initiatives. The most successful cluster initiatives have been those based on public-private partnerships and developed through the continuous engagement of all stakeholders, not solely government actors [6].

In recent years, most studies of industrial parks have examined them through the lens of sustainable development, although some have also addressed institutional aspects. For instance, study [12] highlights the central role of the state – including both national and local authorities – in transforming traditional industrial zones into eco-industrial parks, as illustrated by the case of Vietnam. The state has encouraged these zones to gradually adopt environmentally friendly practices and align their operations with the principles of sustainable development. The importance of reorienting industrial parks toward sustainability is further emphasized in [13], where the authors demonstrate, using the example of the Enugu metropolis in Nigeria, that such transformation fosters competition and incentivizes SMEs operating within industrial parks to engage more actively in innovative activities. In this context, the attractiveness of industrial parks for SMEs

has primarily depended on the availability of government support, particularly in the form of tax incentives, which help reduce operational costs. Research [14] has shown that laws and other regulatory acts are crucial for the transformation of industrial parks – traditionally major energy consumers – into Positive Energy Districts (PEDs): energy-self-sufficient industrial zones capable of producing more energy than they consume, thereby enabling them to use the surplus for other needs or to sell it.

In Ukraine, the theoretical and practical aspects of the formation and development of clusters and industrial parks have been addressed in studies conducted by the Institute for Economics and Forecasting of the National Academy of Sciences (NAS) of Ukraine, the Institute of Industrial Economics of NAS of Ukraine, the M.I. Dolishniy Institute of Regional Research of NAS of Ukraine, the Institute of Market and Economic-Ecological Research of NAS of Ukraine, the Research Centre for Industrial Development Problems of NAS of Ukraine, as well as by individual institutions of higher education, analytical centers, and professional associations. For instance, the monograph [15] has analyzed the institutional foundations of the establishment and functioning of industrial parks, identified the priorities for institutional transformation of the regional entrepreneurial environment, and proposed measures for shaping state policy on the development of regional IT clusters. The need to improve the institutional framework for forming cross-border clusters in order to accelerate European integration processes and support Ukraine's economic recovery has been emphasized in works [16–18]. A generalization of international experience in clustering the industrial sector (using the chemical industry as a case study) and the justification of how this experience can be used to address the urgent challenges of innovation-driven modernization of Ukraine's chemical sector have been presented in studies [19, 20]. At the same time, the destructive impact of war on the Ukrainian economy, its dependence on international aid, the ongoing damage and losses caused by large-scale

missile attacks, the shortage of skilled labor, and the urgent need to enhance the resilience of the entrepreneurial sector have highlighted the necessity of improving the institutional foundations for the development of entrepreneurial systems.

Given the above, the purpose of this study is to develop proposals for improving the institutional environment for the development of clusters and industrial parks in order to enhance the resilience of Ukraine's entrepreneurial sector during the wartime and postwar periods.

### INSTITUTIONALIZATION OF CLUSTER DEVELOPMENT IN UKRAINE

The institutionalization of cluster development in Ukraine is a long-overdue issue. The importance of creating and developing clusters is emphasized in Ukraine's strategic and programmatic documents, including:

The *National Economic Strategy until 2030* [21], in which clusters (industrial, innovation, agricultural, recreational, and others) are considered tools for achieving strategic goals such as "Creating conditions for attracting investment," "Creating attractive employment opportunities for highly qualified professionals and fostering competitive and global IT education," "Ensuring a stimulating and advisory agricultural policy," among others. One of the target indicators for 2030 is the creation of "10 clusters in high-tech industrial segments."

The *State Regional Development Strategy for 2021–2027* [22], which sets the task of developing regional, interregional, national, cross-border, as well as industrial and innovation clusters. These clusters are highlighted as key instruments for achieving Operational Objective 4: "Promoting innovation and increasing the technological level of the regional economy, supporting innovative enterprises and startups," and Operational Objective 5: "Sustainable industrial development."

The *Draft Strategy for the Development of the Innovation Ecosystem in Ukraine* [23], which identifies clusters as an integral part of the innovation ecosystem, particularly important at the business

scaling stage. At the same time, the document notes that communication between clusters and the state has not been institutionalized, and the cluster movement in Ukraine is "significantly weaker than the average level of development in European countries." To create an effective innovation ecosystem with strong stakeholders, the strategy proposes the development of innovation clusters by strengthening their organizational capacity and providing grant support for individual projects, as well as encouraging the establishment of new clusters in priority industries.

Despite the emphasis placed in official government documents on the importance of clusters for the growth of Ukraine's economy, their practical implementation faces significant challenges and remains limited. As a result, the national cluster movement is characterized by spontaneity, instability, a lack of legislative regulation, and insufficient incentives for enterprises to form clusters. Over the past 20 years, approximately 120 cluster organizations have been registered in Ukraine, but no more than 25–30 of them meet the criteria of genuine clusters and have demonstrated their viability [24]. In European practice, the following criteria are typically used to define a business association as a cluster [25]:

- ◆ Clusters are an integral part of the regional economy – cluster participants interact not only with each other but also with other economic actors across different sectors operating in the region;
- ◆ A cluster is based on cooperation among a broad range of economic stakeholders, including large companies, small and medium-sized enterprises from related industries, suppliers, research institutions, universities, and others;
- ◆ Cluster development is supported by cluster policies and relevant European development programs. These programs provide cluster infrastructure and services that enable members to respond more effectively to common challenges;
- ◆ Clusters in high-tech industrial sectors tend to be research- and innovation-oriented. However, their commitment to innovation largely de-

depends on fundamental economic conditions such as the macroeconomic environment, institutional capacity, and the favorability of the business and regulatory climate, as well as on the extent to which these conditions foster innovation within clusters;

- ◆ Clusters are currently evolving to a higher level – internationally – through the formation of cross-border and transnational clusters and the strengthening of research, innovation, and cultural cooperation. This contributes to the enhanced competitiveness of clusters, their members, and the regions in which they are located;
- ◆ National and regional public authorities are expected to implement best practices in cluster regulation by evaluating clusters and their participants and assessing the impact of cluster policies on their development performance.

According to expert assessments [26], the primary obstacle to any unifying processes among enterprises – particularly within the same sector, where firms often view each other as competitors – is a lack of trust. As demonstrated by international experience, it is the state that shall play a key role in mitigating this barrier. Addressing this issue in practice requires comprehensive solutions, including the introduction of institutional mechanisms (such as the development of legal and regulatory frameworks and the establishment of supporting organizations), as well as tax, investment, organizational, and economic measures. At the national level, this can be achieved through the implementation of national cluster development programs, a widely adopted global practice typically financed from the state budget. At the regional level, the establishment of regional cluster programs – co-funded by national and local budgets – can help foster cluster development more effectively [27].

In 2020, an expert group from the Association of Industrial Automation Enterprises of Ukraine developed a draft *National Cluster Development Program through 2027* [28]. This document may serve as a foundation for further refinement to account for new challenges, opportunities, and threats

to Ukraine’s economy arising from the war and its anticipated post-war recovery. The development of such a program should be carried out with the direct involvement of enterprises that need to act not as passive objects of cluster policy but as active agents in policy formulation and decision-making. As the primary stakeholders, they possess in-depth knowledge of the challenges and opportunities within their respective industries and markets and are directly interested in shaping a favorable clustering environment in Ukraine. The program is proposed to include the following sections:

- ◆ the role of clusters in accelerating growth and enhancing the resilience of Ukraine’s entrepreneurial sector;
- ◆ a general overview of the current state of the cluster movement in Ukraine, including the distribution of clusters by region, industry (specialization), and key participants (large enterprises, SMEs, research institutions, universities). To strengthen this section, it is advisable to include cluster mapping at both the national and international levels;
- ◆ identification of common challenges in the formation and development of clusters (cluster associations), as well as an analysis of their strengths, weaknesses, opportunities, and threats in the context of both current and post-war conditions. This includes an assessment of the impact of military conflict on the state of clusters in Ukraine;
- ◆ the program’s goals and objectives. The primary goal is to increase the competitiveness of national economic sectors and business entities – particularly SMEs – by facilitating their integration into advantageous global value chains and strengthening their positions in domestic, European, and global markets. Objectives may include fostering and enhancing cooperation among cluster participants and other regional (or national) economic actors; intensifying research and innovation activities within enterprises; promoting strategic areas of sectoral and technological smart specialization across regions; transforming the industrial

production structure and restructuring the broader economy; developing export potential; and building robust, integrated domestic value chains while integrating Ukrainian clusters into global value chains from more favorable positions;

- ◆ the methods and means for achieving the stated goals and objectives, along with the program implementation timeline;
- ◆ strategic benchmarks and target indicators, which may include: the number of clusters and participating enterprises; the volume of investment in clusters from the state, private sector, international, and donor organizations; the export volume of goods and services generated by clusters; the number of new technologies and innovative products developed within clusters; and the number of international cooperation agreements, including those with European clusters.

For the successful implementation of the Program, detailed action plans with a time horizon of 2–3 years and targeted funding are required. This funding should be protected from potential reductions in the event of an increased state budget deficit. It is worth noting that, within the EU, the level of cluster financing depends on the size of the cluster, its specialization, and development needs, and ranges from several thousand to several million euros per cluster. Given the current wartime conditions and limited public resources, the establishment of a separate institution to oversee cluster development in Ukraine would be impractical. Instead, the responsibilities for fostering a supportive cluster development environment, monitoring progress, and assessing the impact of clusters on sectoral, regional, and national economic performance could be assigned to a dedicated structural unit within the Ministry of Economy of Ukraine. Alternatively, a specialized Department for Cluster Development could be established within the ministry, composed of ministry experts and professionals from other central executive bodies, with the possibility of involving external experts as needed.

### **CLUSTERS AS A TOOL FOR JOB CREATION, RETURN MIGRATION OF UKRAINIANS, AND REINTEGRATION OF WAR VETERANS**

In the context of ongoing military conflict, it is critically important to promote the development of clusters specializing in activities that meet basic human needs, such as safe and healthy food, housing, infrastructure, and healthcare services. Cluster activity not only provides essential goods and services to the population, but also contributes to the structural and innovation-driven transformation of regional economies. This is achieved by increasing the share of high-tech industries and knowledge-intensive services — such as information technology, artificial intelligence, robotics, medicine, and pharmaceuticals (including prosthetics and rehabilitation) — in gross regional product. Such development will help create new jobs, including well-paid ones, and serve as a mechanism for the social and economic integration of migrants and war veterans.

The war and the resulting socio-economic crisis have triggered large-scale migration processes. According to the latest data from the Ministry of Foreign Affairs of Ukraine, cited by the state news agency Ukrinform, as of mid-2023, approximately 8.177 million Ukrainians were residing abroad. Between February and June 2023 alone, the number increased by almost 188,000 people, representing around 20% of Ukraine's pre-war population (as of February 24, 2022) [29]. Of these, about 60% are of working age, meaning Ukraine has effectively lost around 4.91 million workers. This highlights the urgent need to implement measures aimed at facilitating the return of Ukrainian emigrants — without which the country's economic recovery may prove unachievable. Most Ukrainian emigrants are women and children who, after more than two years of war, have already adapted to European education systems and labor markets and now receive European-level salaries. Unless conditions in Ukraine enable family reunification and provide decent living standards, many are unlikely to return. Realistically, family reunifications

will occur abroad unless domestic wages reach at least 70% of the European level. To prevent this outcome, it is imperative to immediately introduce tools to create jobs, boost employment, and steer the economy toward sustainable growth.

Clusters represent one of the key instruments capable of stimulating sectoral development while simultaneously generating demand for labor and providing Ukrainian citizens with access to dignified, well-paying employment. They can also contribute significantly to the rehabilitation and reintegration of war veterans and combatants who, in peacetime, will be seeking employment, stable income, and opportunities for professional advancement. According to Ukraine's Ministry for Veterans Affairs (Minveteraniv), approximately half a million individuals currently hold official combatant status [30]. Government estimates suggest that the total number of war veterans may eventually reach around 4 million people [31], which will significantly impact the labor market in the postwar period. Given the scale of Ukraine's public debt, the relocation of businesses abroad, and the loss of human capital due to war and migration, the state will likely struggle to sustain long-term social support for this population group. At the same time, many veterans are unlikely to accept dependency on welfare. Therefore, effective mechanisms shall be created to help veterans adapt to civilian life by providing specialized assistance in professional training, employment, and entrepreneurship, and by actively involving them in Ukraine's economic recovery. The urgency of these measures is underscored by the results of a February 2023 survey conducted by the Ukrainian Veterans Foundation of the Ministry for Veterans Affairs. According to the findings, 77.5% of veterans believe that the lack of employment will be their biggest challenge after demobilization. Among active military personnel, 33% indicated the need for financial support, 19% for family support; 34.1% foresee a future need for employment assistance, 30.2% for educational support, and 26.3% for business investment. Notably, 65.6% of active-duty respondents expressed a strong desire to start their

own business, while 63.6% of non-active veterans shared the same aspiration [32].

Clusters can play a multifaceted role in supporting veterans' reintegration into civilian life. For example, they can collaborate with social protection authorities and educational institutions to develop specialized vocational training, upskilling, and reskilling programs for veterans. Clusters can also help veterans find employment in sectors aligned with their skills, knowledge, and interests – particularly if returning to their pre-war occupations is not feasible. Moreover, clusters can provide support for self-employment and entrepreneurship, promoting veterans' self-realization and reintegration into both society and the labor market. This support can take the form of the following:

- ◆ providing psychological support and fostering mutual assistance networks among veterans within the cluster community through cooperation with psychologists and social workers, as well as organizing social events such as workshops, artistic initiatives, and sports competitions;
- ◆ ensuring access to educational programs and training aimed at developing entrepreneurial skills;
- ◆ assisting veterans in identifying funding opportunities for their business ideas – including grants, loans, and venture capital – and in building networks with other entrepreneurs and organizations that may serve as partners, clients, or suppliers;
- ◆ offering access to office space, infrastructure, and business incubators for launching and scaling new ventures;
- ◆ delivering consulting services on business planning, strategic development, and enterprise management.

Notably, Ukrainian medical clusters have already united as a specialized group within the Ukrainian Cluster Alliance to support the development of the national healthcare system, promote innovation, and introduce new diagnostic and treatment methods. Their efforts include fostering collaboration both domestically and inter-

nationally. These clusters have proposed a range of key initiatives and projects to be implemented in cooperation with the government, European clusters, and international donor organizations in the coming years. These include: the establishment of innovative rehabilitation centers and a nationwide network of secondary rehabilitation facilities for war-affected individuals; the scaling of new rehabilitation practices and the development of an innovation-driven rehabilitation platform; the creation of a network of training centers for rehabilitation specialists and multidisciplinary rehabilitation teams; the localization of production of 3D-printed titanium medical devices in Ukraine – specifically, high-quality hip and knee joint endoprostheses and other advanced medical-grade products [33].

Clearly, all of these processes require systematization through the development of a national cluster policy and the establishment of unified support mechanisms aligned with European best practices. To ensure effective regulation and support for clusters in Ukraine, it is crucial to develop a fundamental legal framework – namely, a Law of Ukraine *on the Development and Support of Clusters*. This law should establish the legal, organizational, and economic principles for the creation and functioning of clusters within the country and include the following core components:

1. **General provisions**, including definitions, the scope of the law, the fundamental principles for the creation and operation of clusters, and the designation of a competent public authority responsible for the development and implementation of national cluster policy;

2. **Procedures and conditions for cluster formation**, including registration processes and the inclusion of clusters in a unified state register;

3. **Rights and responsibilities of cluster initiators**, as well as the functions of the authorized public authority;

4. **Terms and procedures for state financial support** for cluster participants and investors, such as grant programs, public procurement opportunities, and infrastructure support;

5. **Special regimes to incentivize cluster creation and development**, including tax incentives such as reduced tax rates, tax credits for R&D, innovation activities, and employee training, as well as customs and duty exemptions for equipment and materials that promote technological advancement and enhance the competitiveness of cluster members and regional economies;

6. **Grounds and procedures for cluster dissolution**.

The proposed measures would significantly improve the institutional environment for cluster development in Ukraine, enhance their contribution to the country's economic recovery, and strengthen the resilience of the entrepreneurial sector.

#### PROPOSALS FOR AMENDMENTS TO THE LAW OF UKRAINE ON INDUSTRIAL PARKS

The legal framework for the establishment and operation of industrial parks (IPs) in Ukraine is defined by the Law of Ukraine *on Industrial Parks* [34]. Chapter VIII of the law, titled *State Incentives for Industrial Parks*, outlines measures to promote the development and functioning of industrial parks through financing from the state and local budgets as well as other sources not prohibited by law (Article 34, Clause 1). A range of incentives and benefits are provided from these sources to managing companies, initiators of IPs (business entities), and park participants (Clause 3, Article 34), including:

- ◆ Full or partial compensation of interest rates on loans used for developing infrastructure and/or conducting business activities within the industrial park;
- ◆ Non-repayable grants for the development of industrial park infrastructure and/or the construction of essential engineering and transportation facilities (e.g., roads, communication lines, heat, gas, water, and electricity supply systems, and other utilities);
- ◆ Reimbursement of costs for connecting to and integrating with utility networks;

- ◆ Tax and customs incentives in accordance with current legislation.

These benefits and incentives were introduced in 2021 under the amended Law of Ukraine [35] with the aim of attracting investment into the development of industrial parks. In 2022, the State Budget of Ukraine allocated UAH 10 million for industrial park development. For comparison, during 2016–2019, four infrastructure-related IP projects were financed with a total of UAH 7.2 million [23], or approximately UAH 1.8 million per year – only one-fifth of the funding allocated in 2022. A significant increase is expected in 2024, as a new state incentive program targeting the infrastructure development of IPs is scheduled to take effect, with a planned allocation of UAH 1 billion [36]. As of late May 2024, a government resolution regulating the provision of this financial support is anticipated.

At the same time, certain provisions of the current law require further refinement. In particular, Clause 3 of Article 34 should be revised to clearly define the specific tax and customs incentives available to managing companies, initiators, and participants of industrial parks, as well as the conditions under which these may be granted. As currently formulated, the provision is overly general, creating room for ambiguity and inconsistent interpretation. It is advisable to amend this part of the law to explicitly outline special tax and customs regimes for industrial park participants, which could include the following types of state subsidies:

- ◆ Corporate income tax exemptions for the first five years and a reduced tax rate of 9% for the following five years for business entities operating in high-tech manufacturing sectors, those establishing and developing science parks, business incubators, accelerators, and research laboratories within the industrial park;
- ◆ Exemption from customs duties on advanced technologies and equipment to be used in industrial activities within the industrial park;
- ◆ Exemption or reduced rates for land tax, environmental tax, and property tax for enterprises

that implement eco-innovations, construct green buildings meeting high environmental standards, utilize renewable energy sources, adopt innovative construction methods and materials, restore natural ecosystems, or undertake environmental protection measures;

- ◆ Reduced utility tariffs (electricity, heating, water supply, and natural gas) for participants of newly created industrial parks, those undergoing active expansion and attracting new enterprises and substantial investments (ranging from several million to several hundred million USD depending on region and sector), as well as for energy-intensive industries – particularly heavy industry and electronics manufacturing;
- ◆ Accelerated depreciation of fixed assets for high-tech enterprises and/or businesses creating new jobs, including small enterprises (to avoid discriminatory practices), and for industrial parks located in less economically developed regions, aimed at reducing disparities in regional development.

These incentives may be combined depending on the regional context. More extensive and generous benefits could be offered in regions most affected by military operations, natural disasters, or economic stagnation, with the aim of accelerating their recovery and revitalization.

An especially important form of state support for industrial parks in wartime conditions is the provision of state guarantees to investors concerning the stability and reliability of tax, regulatory, and other business conditions within the industrial park over a period of five years or more. Such guarantees should include the protection of property rights and contractual terms, preservation of tax incentives, restrictions on changes in tax legislation, and other mechanisms that promote economic revitalization, increased income, and improved quality of life. These provisions should be incorporated into Article 35 of the Law of Ukraine *on Industrial Parks*.

In conclusion, mitigating the destructive impact of war on the Ukrainian economy requires strengthening the resilience of the entrepreneur-

rial sector — specifically, the ability of enterprises to withstand crises, adapt to change, and recover from shocks. This is particularly relevant for small and medium-sized enterprises (SMEs), which generate over 80% of employment and contribute two-thirds of Ukraine's added value. Therefore, their support at the national level is both a strategic reform priority and a fundamental tool for the country's reconstruction.

In global practice, clusters and industrial parks are among the most common public policy instruments aimed at fostering resilience and developing the entrepreneurial sector, including SMEs. The effectiveness and positive spillover effects of their operations across other regions and industries largely depend on the quality of the institutional environment — a combination of organizations, as well as formal and informal institutions that shape behavior, regulate activities, and govern interactions. In Ukraine, cluster development remains legally unregulated; the authorities acknowledge its importance but do not support cluster initiatives or encourage enterprises to form clusters. Addressing existing challenges requires the implementation of comprehensive solutions — from improving the legislative framework and establishing support organizations to introducing favorable tax, investment, and other business regimes for enterprises. A basic law is needed to define the legal and organizational-economic foundations for the creation and operation of clusters in Ukraine. Based on international experience, the existence of national and regional cluster programs will be critical for the successful clustering of Ukraine's economy. The financing of cluster programs should be a protected item in the state budget and carried out by creating favorable conditions for attracting foreign capital. Cluster programs should focus on the development of industries that, on the one hand, meet the basic needs of the population (safe and healthy food, housing, medical services, infrastructure), and on the other hand, support high-tech industrial sectors and knowledge-intensive services that are rapidly evolving and forming new global markets (informa-

tion technologies, artificial intelligence, robotics, medicine and pharmaceuticals — especially prosthetics and rehabilitation). This will enable the creation of jobs with high wages as a factor in protecting the population from poverty, encouraging the return of migrants, enabling self-realization, and reintegrating war veterans into society and the labor market.

The issue of creating and developing industrial parks in Ukraine is legally defined, but certain provisions require further refinement. This primarily concerns Article 34 of the Law of Ukraine *on Industrial Parks* regarding state stimulation of the development and operation of industrial parks. Specifically, tax and customs incentives and the conditions for their provision to managing companies, initiators, and participants of industrial parks need clarification. It is proposed to introduce the following types of state subsidies: exemption from corporate income tax for enterprises engaged in high-tech industrial activities; exemption from customs duties on advanced technologies used within industrial parks; exemption or reduction of local tax rates provided that ecological innovations are implemented, environmentally friendly buildings are constructed, etc. Depending on the type of region, these subsidies may vary in volume, duration, and conditions of provision. Of particular importance for investors in wartime conditions is the provision of state guarantees regarding the stability and reliability of business conditions within industrial parks, which may be included in Article 35 of the fundamental law *on Industrial Parks*.

The practical implementation of the above proposals will contribute to increasing resilience, attracting investments, introducing innovations, and improving the productivity and competitiveness of Ukraine's economy and its entrepreneurial sector. Identifying prospects and pathways for the internationalization of clusters and industrial parks as a factor in enhancing their competitiveness, taking into account the challenges of war and the tasks of postwar economic recovery on a qualitatively new basis, is a direction for further research.

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## УДОСКОНАЛЕННЯ ІНСТИТУЦІОНАЛЬНОГО СЕРЕДОВИЩА РОЗВИТКУ КЛАСТЕРІВ ТА ІНДУСТРІАЛЬНИХ ПАРКІВ ДЛЯ ПІДВИЩЕННЯ РЕЗИЛЬЄНТНОСТІ ПІДПРИЄМНИЦЬКОГО СЕКТОРУ УКРАЇНИ

**Вступ.** Деструктивний вплив війни на підприємницький сектор економіки України актуалізує пошук дієвих інструментів підвищення його резильєнтності, серед яких чільне місце посідають кластери та індустріальні парки.

**Проблематика.** Результативність кластерів та індустріальних парків залежить, зокрема, й від якості інституційно-середовища. В Україні кластеризація економіки законодавчо неврегульована та не підтримується державною політикою. Потребує удосконалення й базовий закон про індустріальні парки для уникнення різночитань та конкретизації державного стимулювання їхньої діяльності.

**Мета.** Розробити пропозиції щодо удосконалення інституціонального середовища розвитку кластерів й індустріальних парків для підвищення резильєнтності підприємницького сектору економіки України у воєнний та повоєнний періоди.

**Матеріали й методи.** Дослідження базується на положеннях інституціональної теорії, загальнонаукових методах — діалектики, логічного узагальнення, систематизації та порівняльного аналізу; використано напрацювання українських і зарубіжних учених з проблем інституціоналізації розвитку кластерів та індустріальних парків.

**Результати.** Розроблено комплекс пропозицій щодо запровадження інституціональних механізмів кластеризації української економіки шляхом аргументування доцільності розроблення та визначення основних положень базового Закону України «Про розвиток і підтримку кластерів в Україні»; обґрунтовано необхідність ініціювання, структурування та організаційних засад реалізації національної кластерної програми; запропоновано зміни до базового закону про індустріальні парки. Визначено роль та місце кластерів у розширенні можливості зайнятості, поверненні українських мігрантів та реінтеграції ветеранів війни в суспільство й на ринок праці.

**Висновки.** Практична реалізація наведених пропозицій дозволить підвищити якість інституціонального середовища розвитку кластерів та індустріальних парків, збільшити їхній внесок у відновлення й забезпечення резильєнтності економіки України.

*Ключові слова:* інституціональне середовище, кластери, індустріальні парки, підприємницький сектор, резильєнтність, війна, повоєнне відновлення.