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Policy on the Development of Innovation Clusters in the EU. Conclusions and Tasks for Ukraine

The article demonstrates that since the early 2000s, the EU's cluster policy has transformed into one of the key instruments for achieving the strategic goals of the European Union. It has been established that the creation of clusters was embedded in the Lisbon Strategy and, since 2006, received formal regulatory recognition in the official documents of the European Commission. It has been identified that, thanks to the establishment of a High-Level Advisory Group, the foundations of a general cluster development policy within the EU were formed (which became the basis for the introduction of corresponding national policies), as well as specialized platforms and support mechanisms were launched.

The study establishes that in EU documents clusters are considered a tool for enhancing the socio-economic stability of regions (in particular through the implementation of smart specialization strategies), increasing industrial competitiveness, stimulating innovation in small and medium-sized enterprises, and forming transnational value chains. It is concluded that the EU's cluster policy has a complex, cross-sectoral character, combining not only the instruments of innovation, industrial, and regional policies, but also those of other policy areas.

Based on the analysis of the EU experience, the following proposals are made: to establish a national-level expert group on cluster policy for developing the conceptual foundations of building a cluster ecosystem in Ukraine; to take measures to ensure coordinated actions among central executive authorities regarding the creation, functioning, and support of clusters within the framework of relevant policies; to designate the development of innovation clusters as a priority of state cluster policy (their development directions should correspond to the priority areas of innovation activity defined by Ukrainian legislation); to launch a budget program for providing state aid to such clusters; and to introduce tools to encourage the internationalisation of Ukrainian innovation clusters, in particular by creating cross-border partnerships with European clusters, research institutions, and businesses aimed at solving common problems under current challenges and threats.

Key words: *Cluster policy, Regional policy, Innovation policy, Industrial policy, Smart specialization, Innovation clusters, State aid.*

Introduction. Europe has long been a center of industrial development and plays a leading role in creating technologies and driving technological innovations that are transforming production, consumption, and business practices not only within the region but across the world. In the context of a changing political landscape, new global challenges, and emerging threats, the EU is directing its policy toward the creation and development of clusters not only to ensure regional prosperity, foster innovation, enhance competitiveness, and support industrial growth, but also to pursue wider objectives, such as attaining technological sovereignty and mitigating external reliance. In particular, clusters are seen as a tool to accelerate the development of products and services in critical technology areas such as artificial intelligence, semiconductors, and quantum technologies, which are vital for Europe's economic security and autonomy. Cluster organizations act as a driving force, aiding small and medium-sized enterprises (SMEs) in the adoption, scaling, and commercialization of innovative products, thereby enabling Europe to reduce its dependence on non-European technological ecosystems [1]. For Ukraine, aspiring to become a member of the European Union, the implementation of advanced European practices in the formation and development of clusters has become one of the priority areas of reform. Studying the EU's experience in cluster policy will allow for conclusions about effective mechanisms for developing innovative clusters and forming networks between enterprises, research institutions, and government bodies. This

will contribute to socio-economic stability and economic growth, as well as reduce dependence on external assistance.

Literature review. Scientists have devoted significant attention to studying the role of clusters in addressing socio-economic challenges within the context of territorial development policy [2–4]. Researchers have empirically established a strong correlation between growth (measured by GDP per capita) and regional well-being with the development of clusters at the local level.

A number of studies focus on the geographic concentration of innovative activity in the context of implementing innovation policy. It has been found that knowledge accumulated in a particular region generally spreads more effectively and rapidly among localized cluster participants, with spatial proximity being especially important for the transfer of tacit knowledge [5, 6]. OECD experts have also concluded that collaboration between innovation-oriented companies located in a specific region and a broad range of stakeholders enables them to benefit from geographic closeness [7]. This proximity facilitates and accelerates the flow of tacit knowledge and informal interactions, which are integral to the innovation process.

In several studies, clusters have been analyzed in the context of industrial development policy [8]. It has been shown that clusters promote smarter and more sustainable development by developing new technologies, supporting industry growth, and stimulating the creation of new activities [9]. Several recent studies have evaluated the role of clusters in the transition to a circular economy [10–12]. One study [13] examines the use of clusters as a means of creating a greener, digital, and more sustainable EU industry. It highlights the crucial role of clusters in supporting the transition to green and digital technologies, as well as in strengthening economic resilience and forming sustainable value chains. The effects of innovation clusters in the interaction process between universities, industry, and government have been studied, and forms of collaboration between universities and companies within clusters have been analyzed [14].

Multiple researchers have substantiated the positive outcomes of policy incentive mechanisms related to clusters on regional economies, innovation, and competitiveness [15–18]. Based on the author's literature review, it can be stated that there is substantial evidence that clusters serve as a tool for ensuring balanced regional development, establishing effective cooperation among stakeholders in the innovation system, and forming business partnerships to accelerate the implementation of investment and innovation projecs. The aim of this article is to study the policies and mechanisms for regulating and stimulating cluster development in the EU, as well as to draw conclusions and recommendations for Ukraine.

Results and discussion. The study [19] argues that the origins of cluster policy are closely linked to the implementation of the EU Lisbon Strategy, adopted in 2000 with the goal of making Europe the most competitive and dynamic knowledge-based economy in the world by 2010. This strategy accorded particular emphasis to innovation, the development of SMEs, entrepreneurship, and enhancing regional competitiveness. These aspects are closely connected to the cluster concept. However, the EU leadership's position on clusters was most clearly set out in "Putting knowledge into practice: A broad-based innovation strategy for the EU" (2006), a communication from the European Commission stated that one of the effective ways to strengthen the competitive advantages of European businesses is through the formation of clusters, as this form of cooperation helps bridge the gap between business, research, and resources [20]. The European Commission has stated that systematic collaboration among stakeholders is indispensable for the practical application of knowledge and the acceleration of innovation. Participation in clusters represents a significant competitive advantage for businesses, as clusters help bridge the gap between industry, research, and resources, thereby speeding up the transfer of knowledge to the market. Clusters foster robust competition and cooperation, increase productivity, attract investment, stimulate research, strengthen the industrial base, develop specialized products or services, and serve as centers for skills development. For these reasons, "cluster policy" has become a key component of innovation strategies in Member States, according to the document [20]. The EU leadership believes that for Europe to fully unlock the potential of its clusters, they must reach critical mass and strategic focus through the expansion and strengthening of transnational European cooperation beyond national borders. This requires the creation of European clusters of global significance. In the same year, the Framework Programme for Competitiveness and Innovation (2007–2013) was adopted, calling on the governments of EU Member States to take measures to promote the development of clusters [21]. This laid both the legal and conceptual basis for subsequent initiatives.

To define the objectives, tasks, and mechanisms of cluster policy, a High-Level Advisory Group on Clusters was established under the EuropeINNOVA initiative. This group presented the Cluster Memorandum [22] at the European Conference on Innovation and Clusters, held in Stockholm in January 2008. The memorandum was signed by representatives of approximately 70 national and regional authorities, agencies, and technology platforms. The aim of the memorandum was to establish a shared strategic platform that would cultivate

transnational cooperation between clusters across Europe, support the integration of innovative SMEs into cluster structures, enhance national and regional cluster programmes through the exchange of best practices, and ensure synergy between various policy instruments and funding mechanisms. The signed memorandum laid the foundation for a coordinated European cluster policy and contributed to the development of a targeted strategy for promoting international cluster cooperation – particularly aimed at integrating regional and national clusters within the EU. It also became a starting point for launching concrete support tools for innovation among SMEs.

In 2008, the European Commission adopted the document "Towards world class clusters in the European Union: Implementing the broad based innovation strategy" [23] with the aim of strengthening the innovation potential and competitiveness of the European Union through the development of world class clusters. This document laid the foundation for the creation of a range of mechanisms that facilitated cluster development across Europe. These mechanisms addressed: the development of world class clusters, creating conditions for the formation of strong, internationally competitive clusters within the EU capable of competing on a global scale; the promotion of transnational cooperation between clusters in different countries to achieve critical mass and enhance innovation potential; the improvement of cluster policy effectiveness through coordination of national and regional initiatives and the exchange of best practices; the integration of cluster policy into the broader EU innovation and industrial policy; the establishment of the European Cluster Policy Group as a tool for formulating recommendations, sharing experiences, and supporting Member States in implementing innovative cluster strategies.

By a 2008 Decision of the European Commission, the European Cluster Policy Group was established to develop a strategic approach to cluster policy at the level of the entire European Union [24]. The group was tasked with a number of key objectives: to increase the effectiveness of cluster policy in the EU by making it more coordinated and results-oriented; to lay the groundwork for the development of world-class clusters; to facilitate the joint efforts of national and regional authorities, experts, business communities, and research organizations in the design and implementation of cluster policy; to assess existing support measures for clusters and propose improvements; and to develop practical recommendations for enhancing the EU's competitiveness through clusters.

As part of the implementation of industrial policy in the EU, a document was adopted in 2010 entitled "An Integrated Industrial Policy for the Globalisation Era: Putting Competitiveness and Sustainability at Centre Stage" (the Annexes to this document [25] highlights that clusters and networks enhance industrial competitiveness and innovation by pooling resources and expertise, and by fostering cooperation among businesses, public authorities, and universities). Therefore, it is essential to develop more globally competitive clusters and networks, both in traditional industries and in research- and innovation-driven sectors. By interconnecting local clusters across Europe, it is possible to achieve critical mass for R&D and innovation, skills development, financing, cross-fertilisation of ideas, and entrepreneurial initiatives. However, the many existing cluster initiatives need to be consolidated and streamlined to maximize their impact and efficiency. Also in 2010, the EU leadership adopted a document on regional policy to promote smart growth in Europe. The Annexes to the document laid the foundation for developing smart specialization strategies. It states that this action aims at concentrating resources on the most promising areas of comparative advantage, e.g. on clusters [26].

In 2016, the European Commission released the Guide on Smart Specialisation and Clusters [27], aimed at helping local authorities make more effective use of clusters to promote industrial modernisation and stimulate SME growth. The guide outlines key factors that contribute to the success of clusters and enhance their influence on regional economic development within the framework of Research and Innovation Strategies for Smart Specialisation (RIS3) implementation. It also explains why clusters should be considered a vital instrument for achieving RIS3 objectives [28]. The main argument is that clusters, due to their capacity to foster collaboration among various actors within a region's innovation ecosystem, are powerful tools for boosting industrial competitiveness, driving innovation, and supporting regional development. In the policy recommendations for implementing RIS3 [29], particularly regarding the strengthening of interregional cooperation and the creation of value chains, EU Member States are advised that RIS3 should encourage regions to collaborate on developing international cooperation between clusters at the sectoral level or within common market segments. This would help to strengthen the aforementioned international value chains. Clusters are seen as a connecting link between actors both within and beyond regions, as well as channels of business support for SMEs.

Despite the active promotion of clusters within the framework of regional smart specialisation strategies, EU leadership and experts have continued to pay significant attention to clusters in the context of industrial policy, the development of SMEs, addressing social challenges, and accelerating digital transformation [30]. The European Parliament stresses "that the competitiveness clusters ... are a very useful solution for bringing together relevant stakeholders; ...; asks the Commission to support these

clusters and their cooperation at European level, ensuring the involvement of SMEs, research centres and universities at regional and local level" [31]. In the updated 2021 EU Industrial Strategy [32], clusters and their networks are viewed as tools to support SMEs in addressing disruptions and vulnerabilities, or in diversifying by connecting them to new local and cross-border partners. This mechanism is intended to enhance the resilience of SMEs. Alongside the development of innovation networks, the EU leadership also focuses on strengthening industrial networks [33]. The industrial policy document states that such networks are crucial for enabling the dual transition – in terms of both the green economy and digitalization – as well as for consolidating resources and sharing risks. The European Cluster Collaboration Platform (the EU hub for industry clusters) has validated the organisation of clusters in sectors such as plastics, iron and steel, paper and packaging, mining and quarrying, among other areas of activity.

There is no single document in the EU that defines the policy, strategy, or development programs for clusters. At the same time, as the author's analysis has shown, since the early 2000s, a number of documents have been adopted in the context of implementing various policies, in which clusters are identified as an important tool for achieving policy objectives (Table 1, 2).

Table 1

EU documents in which clusters are mentioned as a policy instrument

Document	Year	Main Objectives / Goals	Role of Clusters
Lisbon Strategy	2000	Make the EU the most competitive and dynamic knowledge-based economy; support innovation, employment, and SME growth	Clusters linked to innovation, SME support, and enhancing regional competitiveness [19]
EC Communication "Putting knowledge into practice"	2006	Turn research and knowledge into economic growth; strengthen the innovation chain and collaboration between research and business	Clusters as a tool to strengthen competitive advantages by integrating business, research, and resources [20]
EC Communication "Towards world class clusters in the EU"	2008	Develop strong and globally competitive clusters; foster excellence, internationalisation, and interregional cooperation	Development of world-class clusters, promotion of transnational cooperation, coordination of cluster policies [23]
Development of Smart Specialisation Strategies (S3)	2010	Focus regional R&I investments on local strengths and advantages; enable entrepreneurial discovery and innovation-driven growth	Clusters as focus areas for concentrating resources and competitive advantages [26]
SME Strategy	2020	Help SMEs lead green and digital transitions; improve access to finance, international markets, and reduce regulatory burden	Clusters provide SMEs access to networks, resources, tech; help scaling and innovation [34]
Updated EU Industrial Strategy	2021	Build a resilient, green, and digital EU industry; support ecosystems (including clusters), strategic autonomy, and innovation	Clusters as tools to support SME resilience, diversification, and twin transition (green & digital) [32; 33]
Digital Decade Strategy	2021	Achieve EU digital sovereignty by 2030; improve digital skills, infrastructure, business and public services	Clusters as ecosystems supporting digital industry transformation, skills, and innovation scaling [35]
EU Innovation Strategy	2021	Accelerate deep tech and disruptive innovation; support the twin (green and digital) transitions and strengthen EU tech leadership	Clusters as drivers of innovation ecosystems and integration into global value chains [36]
European Defence Industrial Strategy	2024	Strengthen the EU defence industrial base; reduce dependencies; foster innovation, joint investment, and capability development	Cluster approach reduces fragmentation, harmonizes standards, strengthens resilience and cooperation in defence sector [37; 38]

Table 2

EU Policy Areas and the Role of Clusters

Policy Area	Role of Clusters
Innovation Policy	Accelerate innovation, foster cooperation between business, research & public sector, support knowledge transfer
Industrial Policy	Enhance competitiveness, support industrial networks, enable green and digital transitions, improve resilience
Regional Policy	Promote regional growth, specialisation, and interregional collaboration through innovation ecosystems
SME Policy	Support SMEs in scaling up, innovation, market access, and diversification
Entrepreneurship Policy	Foster startup ecosystems, innovation hubs, entrepreneurial culture
Internationalisation Policy	Strengthen transnational cooperation, access global value chains, build European/ global-scale clusters
Technology Policy	Link research institutions with industry, accelerate tech development, cross-sector innovation
Digital Policy	Support digital transformation of industry, enable digital resilience of SMEs, innovation in ICT sectors
Green Deal	Pool resources to achieve eco-innovation, energy transition, and sustainable industrial development

Clusters are also mentioned as a strategic tool in multiple other EU policy documents. The EU leadership is also considering the use of the cluster instrument in the context of the implementation of the SME strategy [34]. the document adopted in 2020 states that the Commission will support and interlink SME intermediaries such as clusters, connecting SMEs through international industry clusters. In the implementation process of the strategy, clusters provide SMEs with access to networks, resources, and expertise that help them scale up, innovate, and compete globally. Through clusters, SMEs can better engage with large companies, research institutions, and public authorities, facilitating knowledge exchange and enhancing their capacity to adopt new technologies. The SME strategy emphasizes clusters as important ecosystems that support entrepreneurship, increase competitiveness, and contribute to sustainable economic growth across Europe.

In March 2021, the European Commission adopted the Digital Decade strategy, in which clusters are regarded as a tool for the digital transformation of industry [35]. Clusters act as collaborative ecosystems that bring together businesses, research centers, public authorities, and other stakeholders to facilitate the development and deployment of advanced digital technologies. Clusters support regional and cross-border cooperation, helping to scale up digital innovations, develop digital skills, and build competitive digital industries. By leveraging the potential of clusters, the Digital Decade strategy aims to strengthen Europe's digital sovereignty and ensure that all regions can benefit from digital growth and new opportunities.

In the EU innovation strategy [36], clusters are regarded as a key tool for promoting innovation both across the European Union and within its individual regions. Clusters facilitate collaboration between universities, research institutions, businesses, and public authorities, enabling the creation of innovation ecosystems that drive economic growth at both regional and EU-wide levels. The strategy emphasizes the role of clusters in enhancing competitiveness, facilitating knowledge exchange, and connecting regional innovation hubs with global value chains. Particular attention is given to supporting infrastructure, partnerships, and policy frameworks that enable clusters to grow as a driving force for innovation and economic development throughout Europe.

In 2024, the EU adopted the European Defence Industrial Strategy [37]. Although the term "cluster" is not explicitly mentioned in this document, the cluster approach is implied as a key tool for achieving their strategic objectives. Experts emphasize the need to create technological clusters, each focused on a specific area of defence technologies [38]. These clusters, consisting of complementary European companies and research institutions, strategically located across EU regions, can: reduce fragmentation in the defence industry; harmonize technical requirements and standards; strengthen international and interregional cooperation; ensure equal access to European funding mechanisms. The cluster structure will enable the development of a resilient and scalable production network capable of adapting to crises and military conflicts. Strategic distribution of production capacities across the EU will enhance industrial resilience and help smooth price fluctuations. Thus, the cluster model, integrating R&D, design, and manufacturing capacities, can become the foundation of a modern and sustainable EU defence industrial policy.

At EU level, multi-level support for clusters is implemented through various platforms and policy

frameworks that promote partnerships between cluster organisations and strengthen cooperation both within and outside the EU.

Under the European Cluster Partnerships for Smart Specialisation Investments (ESCP-S3) initiative, launched in October 2018 under the COSME Programme (2014–2020), a mechanism for establishing cluster partnerships was introduced. This initiative has continued under the new Single Market Programme (2021–2027) [39]. Cluster partnerships support regions in implementing RIS3 and strengthen cooperation within the EU Single Market. There are four types of such partnerships: Innovation (Development of new cross-sectoral value chains by leveraging the innovation potential of SMEs); International (Supporting the internationalisation of SMEs beyond the EU (e.g., through export consortia, business missions, etc.); Excellence (Enhancing professional cluster management, promoting strategic interregional cooperation, and enabling peer learning (e.g., through the ClusterXchange programme); Smart Specialisation (Facilitating cluster cooperation aligned with RIS3 and supporting industrial modernisation).

Horizon2020 INNOSUP-1 funds cluster projects aimed at developing cross-sectoral and cross-border value chains involving SMEs and research organisations. aimed at developing new cross-sectoral industrial value chains in Europe. Horizon2020 INNOSUP-1 funds cluster projects aimed at creating cross-sectoral and cross-border value chains with the participation of SMEs and research organizations. Horizon 2020 was structured into "thematic clusters", including: Health, Culture, Creativity and Inclusive Society, Digital, Industry and Space, Climate, Energy and Mobility [40].

The Eurocluster initiative is implemented within the framework of the EU Industrial Strategy and aims to foster cluster partnerships that enhance resilience and accelerate the transition to a green and digital economy. It focuses on various key priorities, including: introducing innovations to strengthen capabilities in critical supply chains and technologies to achieve strategic autonomy; accelerating the shift toward environmentally sustainable and digital production processes; upskilling, reskilling, and attracting talent; expanding SME participation in global value chains; and engaging economic actors – primarily SMEs – operating outside the geographical scope of existing Euroclusters [41].

As part of its efforts to stimulate innovation and enhance competitiveness, the EU leadership has established a framework for state aid to innovation clusters [42]. The official document defines innovation clusters as associations of companies, research organizations, and other economic actors aimed at the joint development of technologies and the exchange of knowledge. The primary goal of such aid is to address market failures related to insufficient coordination and limited interaction among cluster participants, which hinder effective innovation development and dissemination. State support for innovation clusters is divided into two main types. The first is investment aid, which covers costs associated with the creation and modernization of infrastructure, acquisition of equipment and software, and the implementation of new technologies. The second is operating aid, intended to finance ongoing expenses, including the organization of joint activities, marketing, infrastructure management, as well as training and skills development for cluster members. Special attention is given to ensuring the transparency and justification of the aid provided: costs must correspond to market prices or actual expenses, and access to cluster infrastructure may be offered at reduced rates in accordance with EU legislation. The level of state aid varies depending on the economic status of the region, ranging from 50% to 65% of investment costs.

Conclusions. The study has shown that cluster policy in the EU relies on instruments from several policy areas (primarily regional, innovation, and industrial policies) and is embedded in key EU strategies. Cluster development policy in the European Union can be shaped on different foundations, depending on the priorities and goals pursued. When the focus is on the socio-economic development of regions, the key mechanisms are usually implemented within the framework of Smart Specialisation Strategies. These strategies aim to identify and support the competitive advantages of specific territories, fostering growth based on local strengths and potential. If the primary objective is to strengthen and develop industries, the policy is generally pursued in the context of innovation and industrial strategies. In this case, the emphasis is placed on enhancing sectoral competitiveness, promoting advanced technologies, and developing value chains. In practice, these approaches are not implemented in isolation. In most cases, they are complementary, contributing to the formation of innovation ecosystems. Such ecosystems are based on the triple or quadruple helix model, where science, business, and government – and in the case of the quadruple helix, civil society – interact closely. This collaboration amplifies the impact of cluster initiatives and supports sustainable and balanced development.

Taking into account the studied European experience in the development and implementation of policies for the creation and stimulation of cluster development as an instrument for achieving a broad range of strategic goals – and considering the Ukrainian realities and national interests – the following set of objectives can be proposed (which may serve as directions for further research) to improve Ukraine's cluster policy.

1. Establish a National Expert Group on Cluster Policy. The purpose of this group would be to develop a

conceptual framework for building a cluster ecosystem in Ukraine that fosters innovation, competitiveness, and socio-economic resilience – both nationally and regionally – and reduces dependence on imports of innovative goods and services, particularly under martial law and during post-war recovery.

2. Incorporate Coordinated Governance into the Conceptual Framework. The concept for cluster ecosystem development should be based on principles of coordinated public administration. This would include mechanisms for alignment among central executive authorities regarding the establishment and support of clusters, within the framework of relevant sectoral and cross-sectoral policies.

3. Recognize the Development of Innovation Clusters as a Policy Priority. The concept should define the creation and development of innovation clusters (recommended definition as per EU documents [42]) as a strategic priority of Ukraine's cluster policy. These clusters should focus on the development and commercialization of innovative goods and services, contributing to the solution of a wide range of national challenges. Directions for the development of such clusters should align with Ukraine's legislatively defined priority areas for innovation activity.

4. Develop and Launch a Budget Program to Financially Support Innovation Clusters. This program should provide targeted public funding – through the state aid mechanism – for innovation clusters operating in priority sectors of the economy.

5. Implement Mechanisms to Support the Internationalisation of Innovation Clusters. This includes fostering stable cross-border partnerships between Ukrainian clusters and European counterparts (businesses, research institutions, and other stakeholders), with the aim of expanding cluster activities beyond national borders, facilitating the exchange of advanced technologies, increasing global competitiveness, and enhancing export capacities of Ukrainian cluster participants.

The implementation of these tasks requires structured dialogue and consensus-building among key stakeholders – including representatives of business, science, government, and civil society (primarily professional associations).

References

1. EU Clusters Talk: Europe's technological future: Driving innovation for economic security (26 February 2025). *European Cluster Collaboration Platform*. Retrieved from https://www.clustercollaboration.eu/content/eu-clusters-talk-europes-technological-future-driving-innovation-economic sciencebusiness.net+10clustercollaboration.eu+10clustercollaboration.eu+10

2. Enright, M. J. (2003). Regional clusters: What we know and what we should know. *Innovation clusters and interregional competition. Advances in Spatial Science*. J. Bröcker, D. Dohse, & R. Soltwedel (Eds.). (pp. 99–129). Berlin, Heidelberg: Springer. https://doi.org/10.1007/978-3-540-24760-9_6

3. Grashof, N. (2025). Rethinking regional performance: Examining the role of economic growth and industrial clusters in the objective well being of European regions. *Review of Regional Research, 45*. https://doi.org/10.1007/s10037-025-00224-4

4. Jeleskovic, V., & Loeber, S. (2023). How industrial clusters influence the growth of the regional GDP: A new spatial-approach. Papers 2401.10261. *arXiv.* Retrieved from https://arxiv.org/pdf/2401.10261

5. Rocha, H., & Audretsch, D. B. (2022). Entrepreneurial ecosystems, regional clusters, and industrial districts: Historical transformations or rhetorical devices? *Journal of Technology Transfer.* https://doi.org/10.1007/s10961-022-09920-6

6. Franco, M., Esteves, L., & Rodrigues, M. (2020). Clusters as a mechanism of sharing knowledge and innovation: Case study from a network approach. *Global Business Review, 25 (2),* 377–400. https://doi.org/10.1177/0972150920957270

7. OECD. (2001). *Innovative Clusters: Drivers of National Innovative Systems.* Enterprise, Industry and Services. OECD Proceedings. Retrieved from https://www.oecd.org/content/dam/oecd/en/publications/reports/2001/06/innovative-clusters_g1gh247c/9789264193383-en.pdf

8. Frenken, K., Cefis, E., & Stam, E. (2014). Industrial dynamics and clusters: A survey. *Regional Studies, 49 (1),* 10–27. https://doi.org/10.1080/00343404.2014.904505

9. Remotti, L. A. (2021). IoT innovation clusters in Europe and the case for public policy. *Data & Policy, 3,* e25. https://doi.org/10.1017/dap.2021.16

10. Razminienė, K., Vinogradova, I., & Tvaronavičienė, M. (2021). Clusters in transition to circular economy: Evaluation of relation. *Acta Montanistica Slovaca, 26 (3),* 455–465. https://doi.org/10.46544/AMS.v26i3.06

11. Gura, K. S., Nica, E., Kliestik, T., & Puime Guillén, F. (2023). Circular economy in territorial planning strategy: Incorporation in cluster activities and economic zones. *Environmental Technology & Innovation, 32,* 103357. https://doi.org/10.1016/j.eti.2023.103357

12. Baldassarre, B., Schepers, M., Bocken, N., Cuppen, E., Korevaar, G., & Calabretta, G. (2019). Industrial symbiosis: Towards a design process for eco industrial clusters by integrating circular economy and industrial ecology perspectives. *Journal of Cleaner Production, 216,* 446–460. https://doi.org/10.1016/j.jclepro.2019.01.091

13. Clusters Driving the Green and Digital Transition. (2021). Output paper – D4.04b06. *European Cluster Collaboration Platform*. Retrieved from https://www.clustercollaboration.eu/sites/default/files/document-store/Clusters%20driving%20the%20green%20and%20digital%20transitions%20event%20-%20Output%20paper.pdf

14. Mackiewicz, M. (Ed.). (2022). *Clusters as platforms for business-research (B2R)/research-business (R2B) relations*. V4Clusters Report. Retrieved from https://v4clusters.sgh.waw.pl/sites/v4clusters.sgh.waw.pl/files/2022-10/V4%20REPORT%20IVF%20v.2.pdf

15. Vernay, A. L., D'Ippolito, B., & Pinkse, J. (2018). Can the government create a vibrant cluster? Understanding the impact of cluster policy on the development of a cluster. *Entrepreneurship & Regional Development, 30 (7–8),* 901–919. https://doi.org/10.1080/08985626.2018.1501611

16. Lehmann, E. E., & Menter, M. (2018). Public cluster policy and performance. *Journal of Technology Transfer, 43,* 558–592. https://doi.org/10.1007/s10961-017-9626-4

17. Rothgang, M., Dehio, J., & Lageman, B. (2019). Analysing the effects of cluster policy: What can we learn from the German leading edge cluster competition? *Journal of Technology Transfer, 44,* 1673–1697. https://doi.org/10.1007/s10961-017-9616-6

18. Wilson, J., Wise, E., & Smith, M. (2022). Evidencing the benefits of cluster policies: Towards a generalised framework of effects. *Policy Sciences, 55,* 369–391. https://doi.org/10.1007/s11077-022-09460-8

19. Tsagdis, D., & Borrás, S. (2008). *Cluster Policies in Europe: Firms, Institutions, and Governance*. *Cheltenham:* Edward Elgar Publishing Limited. https://doi.org/10.4337/9781781007716

20. Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions. Putting knowledge into practice: A broad based innovation strategy for the EU (COM(2006) 502 final). (2006). *European Commission*. Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52006DC0502

21. Decision No 1639/2006/EC establishing a Competitiveness and Innovation Framework Programme (2007 to 2013). (2006, October 24). European Parliament & Council. *Official Journal of the European Union, 310,* 15–40. Retrieved from https://eur-lex.europa.eu/eli/dec/2006/1639/oj/eng

22. The European Cluster Memorandum. Promoting European Innovation through Clusters: An Agenda for Policy Action. (2008). *Cluster Portal BW*. Retrieved from https://www.clusterportal-bw.de/downloads/publikation/Publikationen/download/dokument/european-cluster-memorandum/

23. Towards world class clusters in the European Union: Implementing the broad-based innovation strategy. (2008). COM(2008) 352 final. Luxembourg: Office for Official Publications of the European Communities. *European Commission*. Retrieved from https://op.europa.eu/en/publication-detail/-/publication/9a71ba5a-07c1-4d93-a07d-36579a2a1a16

24. European Commission. (2008). Commission Decision of 22 October 2008 setting up a European Cluster Policy Group. (2008/824/EC). *Official Journal of the European Union, 288,* 7–11. Retrieved from https://eur-lex.europa.eu/eli/dec/2008/824/oj/eng

25. European Commission. (October 28, 2010). Annexes to COM(2010)614 – Integrated Industrial Policy for the Globalisation Era Putting Competitiveness and Sustainability at Centre Stage. *EU Monitor*. Retrieved from https://www.eumonitor.eu/9353000/1/j4nvirkkkr58fyw_j9vvik7m1c3gyxp/vikqhox234zb

26. European Commission. (October 6, 2010). Annexes to COM(2010)553 – Regional Policy contributing to smart growth in Europe 2020. *EU Monitor*. Retrieved from https://www.eumonitor.eu/9353000/1/j4nvirkkkr58fyw_j9vvik7m1c3gyxp/vikqhop04wco

27. Smart Guide to Cluster Policy. (2016). How to support SME Policy from Structural Funds. Guidebook Series. *European Commission*. Retrieved from https://op.europa.eu/en/publication-detail/-/publication/e1fb9f84-2ba9-11e6-b616-01aa75ed71a1

28. Foray, D., Goddard, J., Goenaga Beldarrain, X., Landabaso, M., McCann, Ph., Morgan, K., & et al. (2012). *Guide to research and innovation strategies for smart specialisation (RIS3)*. European Commission. Luxembourg: Publications Office of the European Union. Retrieved from https://op.europa.eu/en/publication-detail/-/publication/e634b432-a969-4814-9f2b-bbe3042ca86f/language en

29. European Committee of the Regions. (2017). Opinion – Smart Specialisation Strategies (RIS3): Impact for regions and inter regional cooperation (2017/C 272/06). *Official Journal of the European Union, 272,* 25–31. Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52016IR6963

30. European Commission. (2019, October 28). European expert group on clusters meeting: contributing to industrial policy. *Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs*. Retrieved from

https://single-market-economy.ec.europa.eu/news/european-expert-group-clusters-meeting-contributing-industrial-policy-2019-10-28_en

31. European Commission. (2017). European Parliament resolution of 5 July 2017 on building an ambitious EU industrial strategy as a strategic priority for growth, employment and innovation in Europe (2017/2732(RSP)). *Official Journal of the European Union, 334,* 124–127. Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017IP0305

32. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Updating the 2020 New Industrial Strategy: Building a stronger Single Market for Europe's recovery (COM(2021) 350 final). (2021). *European Commission*. Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52021DC0350

33. European Commission. (2021). *Commission Staff Working Document. Annual Single Market Report 2021.* (SWD(2021) 351 final). Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52021SC0351

34. European Commission. (2020). *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. An SME strategy for a sustainable and digital Europe.* (COM(2020) 103 final). Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52020DC0103

35. European Commission. (2021). *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. 2030 Digital Compass: The European way for the Digital Decade.* (COM(2021) 118 final). Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52021DC0118

36. European Commission. (2022). *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. A new European Innovation Agenda.* (SWD(2022) 322 final). Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52022DC0332

37. European Commission. (2024). *Joint Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. A new European Defence Industrial Strategy: Achieving EU readiness through a responsive and resilient European Defence Industry.* (JOIN(2024) 10 final). Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52024JC0010

38. Fuldauer, E. (29 May 2024). Clustering the EDTIB. The reform of juste-retour, compensation and industrial participation. *news.eurodefense.nl.* Retrieved from https://news.eurodefense.nl/2024/05/clustering-edtib.html?utm_source=chatgpt.com thesmartcityjournal.com

39. European Commission. (2022). COSME. Glossary of summaries. *eur-lex.europa.eu.* Retrieved from https://eur-lex.europa.eu/EN/legal-content/glossary/cosme.html

40. European Commission. (2020). Horizon 2020 – INNOSUP 1 cluster facilitated projects for new industrial value chains. Impact report. Luxembourg: Publications Office of the European Union. Retrieved from https://op.europa.eu/en/publication-detail/-/publication/c78ffa46-1a66-11eb-b57e-01aa75ed71a1

41. Euroclusters. *European Cluster Collaboration Platform.* Retrieved March 20, 2025 from https://www.clustercollaboration.eu/euroclusters

42. State aid: Commission adopts revised State aid framework for research, development and innovation. (2022, October 19). Press release. *European Commission.* Retrieved from https://ec.europa.eu/commission/presscorner/detail/en/ip_22_6233

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Політика розвитку інноваційних кластерів у ЄС. Висновки та завдання для України

Стаття показує, що з початку 2000-х років кластерна політика ЕС трансформувалася в один із ключових інструментів досягнення стратегічних цілей ЄС. Встановлено, що створення кластерів було закладене ще в Лісабонській стратегії та з 2006 р. отримало нормативне закріплення в офіційних документах Єврокомісії. Виявлено, що завдяки створенню консультативної групи високого рівня було сформовано засади загальної політики розвитку кластерів у ЄС (вони стали основою для запровадження відповідних національних політик), а також запущено спеціалізовані платформи й механізми їх підтримки.

У роботі встановлено, що в документах ЄС кластери розглядаються як інструмент підвищення соціально-економічної стабільності регіонів (зокрема через реалізацію стратегій розумної спеціалізації), конкурентоспроможності індустрії, стимулювання інновацій малого і середнього бізнесу, формування транснаціональних ланцюгів доданої вартості. Зроблено висновок, що кластерна політика ЄС має комплексний міжсекторальний характер, поєднуючи не лише інструменти інноваційної, промислової та регіональної політики, а й інших політик.

На основі аналізу досвіду ЕС запропоновано: створити експертну групу національного рівня з кластерної політики для формування концептуальних засад розбудови кластерної екосистеми в Україні; вжити заходів для забезпечення узгоджених дій між центральними органами виконавчої влади щодо створення, функціонування та підтримки кластерів у межах відповідних політик; визначити розвиток інноваційних кластерів як пріоритет державної кластерної політики (напрями їх розвитку мають відповідати пріоритетним сферам інноваційної діяльності, визначеним законодавством України) та запустити бюджетну програму з надання їх державної допомоги; запровадити інструменти заохочення інтернаціоналізації українських інноваційних кластерів, зокрема шляхом створення транскордонних партнерств з європейськими кластерами, дослідницькими установами й бізнесом для розв'язання спільних проблем в умовах сучасних викликів і загроз.

Ключові слова: *кластерна політика, регіональна політика, інноваційна політика, промислова політика, розумна спеціалізація, інноваційні кластери, державна допомога.*

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