

BORDERLANDS IN THE NETWORK STRUCTURE ON THE EXAMPLE OF THE EUROREGION BUG

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This text concerns trans-border co-operation The Bug Euroregion and the role of Euroregion in the process of European integration, globalization and development. Euroregional co-operation in Poland has fundamental meaning in integration between West and East Europe. Trans-border co-operation should build bridges to a Europe without frontiers. Co-operation The Bug Euroregion has many network co-operation, but if we want better, effective and durable co-operation we must take up many activities from range culture, education, politics, economy, that Europe to be able breathe both lungs, what said John Paul II.

Key words: social networks, borders, cooperations, flows, ties, nodes.

ПРИКОРДОННІ ТЕРИТОРІЇ В МЕРЕЖЕВІЙ СТРУКТУРІ НА ПРИКЛАДІ ЄВРОРЕГІОНУ БУГ

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Ключові слова: соціальні мережі, кордон, співробітництво, потоки, зв'язки.

ПРИГРАНИЧНЫЕ ТЕРРИТОРИИ В СЕТЕВОЙ СТРУКТУРЕ НА ПРИМЕРЕ ЕВРОРЕГИОНА БУГ

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Статья посвящена трансграничному сотрудничеству Еврорегиона Буг и роли Еврорегиона в процессе европейской интеграции, глобализации и развития. Еврорегиональное сотрудничество в Польше имеет фундаментальное значение для интеграции между Западом и Востоком Европы. Приграничное сотрудничество должно построить мост в Европу без границ. Сотрудничество Еврорегиона Буг происходит по многим сетям, но если мы хотим более качественного, эффективного и долговременного сотрудничества, мы должны работать во многих областях, охватывающих культуру, образование, политику, экономику, чтобы, по словам Иоанна Павла II, Европа могла дышать обоими легкими.

Ключевые слова: социальные сети, границы, сотрудничество, потоки, связи.

Introduction. The need for the application of the theory and methodology of the network to consider euroregional cooperation results from several elementary premises. First of all, euroregions inscribed in the perspective of the border and cross-border cooperation, closely related to European integration, are analyzed through the prism of the concept of dynamic approach to borders¹. Secondly, euroregional co-operation is the result of the Europeanisation process, understood as «(...) emphasis on partnership, (...) implementation of joint projects (...). As part of the Europeanisation of the borderlands, real problems give way to the ideological projects of eurocities, euroschools and euroregions»². Thirdly, euroregions are one of the many dimensions of the transformation of Polish borderlands, about which «(...) resolve the institutional impact of the authorities following the plans and strategies and their inhabitants as part of satisfying their own needs»³. Fourthly, the shift towards cross-border processes and networks is justified by the dynamic development of the network society concept in recent years. «It should also be noted that the network society is (...) a stage in the evolution of social networks that have always been created»⁴. Fifth, due to the dynamic development of the concept of the network society, an important role should be attributed to the analysis of social networks, which provides specific tools and parameters for the analysis of relations and flows in the network structure.

Euroregions in the network structure - towards a new form of integration

The growing processes of globalization and regionalization create a new arrangement of space and the distribution of relations and connections that take place in this system, and moreover take the dominant form. «The world - and especially Europe - has become a multi-level space (suprapunate, state and sub-state) and multi-stakeholder (...) relations»⁵. As a result, participants of international cooperation, including cross-border partnership are local self-government units and various regional and supra-regional structures. Before our eyes, a parallel to the state-run network of relations and links, created by decentralized, public and non-public actors, is taking shape. «We

¹ See. more: E. Opilowska, *Transnational as a research paradigm in studies on the borderland*, [in:] Z. Kurcz (ed.), *Polish borderlands in the process of change, volume III*, Publisher of the University of Wrocław, Wrocław 2014, p. 24.

² Z. Kurcz, *Europeanization and nationalization of borderlands*, [in:] Z. Kurcz (ed.), *Polish borderlands in the process of change, volume III*, Publisher of the University of Wrocław, Wrocław 2014, p. 39.

³ Z. Kurcz, *Polish borderlands in the process of transformation - from invitations to the debate after the report on research*, [in:] Z. Kurcz (ed.), *Polish borderlands in the process of change, volume IV*, University of Wrocław Publishers, Wrocław 2017, p. 7.

⁴ S. Partycki, *Mathematical symptoms of the network society*, [in:] *Social organization in network structures. Experience and development prospects in Central and Eastern Europe*, KUL Publishers, Lublin 2016, p. 12.

⁵ H. Dumala, *Transnational Territorial Networks in Europe*, UMCS Publishers, Lublin 2012, p. 16.

have a specific polyphony in which the state speaks in the international arena with many voices - the central authorities and the authorities of its constituent parts»⁶.

The metaphor of the network has been used in sociology at least since 1954, the moment when the term was used by the British anthropologist John Barnes. For over fifty years it has been an unflagging point of interest, above all sociologists, but also philosophers or psychologists. Edwin Bendyk in his book „Antymatrix. Man in the labyrinth of the network» points out that when describing reality using the network, we can talk about its three basic types:

- social networks - anthropopher;
- biological networks - biosphere;
- technical networks - technosphere»⁷.

In terms clearly outlined in Walter W. Powell's work, the network is defined as a structure «third-order» arrangement in clearly distinguishing qualitative features and properties that require the use of a new set of concepts.⁸ This definition notes that the network is more than just a principle that organizes social life, as Mark Granovetter wanted to. It is a new kind of structure. Walter W. Powell rightly points out that the societies that manage and base their activities on the network create a new reality. I wonder, however, that this approach, or indeed the network is so important that it could be said that it is like a separate, independent entity, and not just the rule? W. Powell rightly notes that the network is a new way to organize network societies, but overestimates its importance by calling it a new type of structure. The network itself is not a structure, rather it provides a basis for shaping a new structure based precisely on the network.

This metaphor is worth referring to the scope of our analysis of inter-communal relations. Currently, we can speak for M.P. Effrat about three types of interpersonal communities. She lists in turn:

- communities as solidarity institutions, for example family, ethnic group, voluntary organization. Members of such groups have a sense of solidarity, common norms, values, behaviors;
- communities as interactions, that is, those that connect people beyond what is necessary;
- communities as institutionally different groups, (...) communities connected through institutions⁹.

The network society is a connection of production, power and experience networks that affect virtual culture that changes the concept of time and space. In the sense of change in the economic sphere, a new type of society is based on the transfer of information in contrast to the capitalist economy. Networked societies produce and they process knowledge and information in contrast to the traditional distribution of goods and services in a material sense. «These are also economic systems that are a key source for development they consider the emphasis on the continuity of technological innovations and putting flexibility above achieving the highest possible efficiency «¹⁰.

Research conducted on social networks raises many doubts about what is to be their subject. One of the key researchers of the B.Wellman network mentions three aspects of network analysis:

- *range*: social networks can vary in rank: size and diversity. This statement is a certainty. From the point of view of research, however, it is worth emphasizing, because it is these components that decide about the processes that occur in social networks. Larger networks are more heterogeneous in the social characteristics of network members and more complex in structure. Small networks are rather homogenous, characteristic of traditional social groups, specific communities associated with a specific territory - with a tendency to sustain existing resources.

- *centrality*: the context associated with centrality allows to determine who is in the central position and who is isolated. Analysis of social networks has developed centrality measures that can be used to identify members of the network who have connections with others to a high degree or with those that would lead to the disintegration of the network in the so-called cut points.

- *roles*: similarities between network members suggest mere presence in the network. Regularity in relation patterns (known as structural equivalence) in the network or in network behaviors allows for the empirical identification of network roles.¹¹

Darin Barney notes that what characterizes a new type of social organization there are also new power functions. «In a society whose most important economic, political and social activities are organized as or mediated by networks, access to these networks creates a significant threshold of exclusion or inclusion, a condition of power or lack thereof, a source of domination and conquest»¹². In addition to the new type of organization, which is based on networks, a new space of societies appears, known as the space of flows. The contemporary organization, however, relies, as was mentioned above, on the flow of: capital, information, technology or organization of interaction. Manuel Castells writes, «the space of flows is a material organization of contemporary social practices that operate through flows»¹³. This type of authority is governed by its own laws. One of them is that access to significant networks is such a minimum of online

⁶ H. Dumala, *Transnational ...op.cit.*, p. 16.

⁷ E. Bendyk, *Antymatrix. Man in the labyrinth of the network*, Wyd.W.A.B., Warszawa 2004, p.37.

⁸ W.W.Powell, *Neither Market nor Hierarchy: Networks forms of organization in reach organizational behavior*, Vol.12, JAI Press, Greenwich 1990, pp.295-336.

⁹ D.Barney, *Society of the network*, Wyd. SIC I, Warsaw 2008, p.181.

¹⁰ M.Castells, *Society ... op.cit.*, Pp. 34-37.

¹¹ L. Garton, C. Haythornthwaite, B. Wellman, *Studying Online Social Networks*, w: S. Jones (ed.), *Doing Internet Research*, Thousand Oaks, 1999, s.83-84.

¹² D.Barney, *Society ...op.cit.* p.41.

¹³ M.Castells, *Society of the Network*, PWN Publishing House, Warsaw 2007, p.412.

gaming, as it is a prerequisite for applying for power in the network. Importantly, the network society model assumes that some networks and nodes can become significant, and thus will have a greater impact force than others. The logic of the network assumes that one of the nodes will initiate flows, while others will respond to these flows and only minimally control them. Networking is therefore inextricably linked to the inclusion or exclusion from the network system.

The key place in the resulting process, based on the above-mentioned processes, is attributable to euroregions entering, on a pan-European level, into trans-national territorial boundaries. In practice, they should be understood as «(...) non-temporal, based on mutual trust, horizontal relations between sub-state territorial units from at least two countries»¹⁴. Euroregions are a response to the construction of a long-awaited cooperation determined by mutual relations, an atmosphere of trust, etc. Similarly to network systems, euroregions play the role of bridges, opening new research fields. «Many borderland researchers emphasize the importance of borders and border regions for the analysis of new configurations of power and identity (...), losing the importance of state-centric, geographical boundaries. and gains the paradigm of social construction of borders and transnational social spaces «¹⁵.

When studying the subject literature, pay attention to the broad application of the term euroregion. «Euroregional terms are used in relation to any cross-border cooperation in the social, economic and cultural sphere between two or more countries and their local authorities»¹⁶. What's more, the Euroregion comes down primarily to areas of permanent action, «(...) it is a working community of cities and municipalities. (...) it is not a separate supranational structure»¹⁷. The elementary principle of functioning of euroregions is partnership. «Respecting the goals and benefits of each party on the basis of an equal partnership is the goal of the euroregional policy»¹⁸.

The border regions covered with euroregions are a system of connected vessels entangling institutions and organizations. The system's task is to equalize opportunities and development potential of borderlands, recognized as peripheral areas. The rich panorama of the euroregions is, on the one hand, a reflection of the bottom-up initiative of local communities, and on the other hand, a component of the multilateral European constellation built by top-down decision-making processes. Euroregional co-operation is an example of modernization of contemporary borderlands, in which, according to Grzegorz Babiński, the presence of subnational and supranational entities, determined by (...) mega-state phenomena and processes, e.t.c.

From the analytical point of view, Europe's dense euroregional network is the subject of numerous interdisciplinary research and scientific and implementation studies. «This real» euroregional explosion «has led the scientific community of various specialties to interest in the complex issues of this process»¹⁹. What is more, on the basis of sociology, interest in the structure and dynamics of euroregions may be an attempt to answer the thesis of Joanna Kurczewska, regarding the crisis of the nation state and the development of multi-agency and multi-level networks of relations. According to the author of the borderland, these are areas where «(...) it is best seen how the Polish state after 1989 increasingly enters into multinational political and economic agreements, (...) organizations (...) trade blocs»²⁰.

Euroregion Bug - Polish-Belarusian-Ukrainian step to the European Union

On the basis of Polish public policy, euroregional cooperation should be seen in terms of one of the elementary activities included in the strategy of neighborhood integration and reduction of the distance separating Poland (and the countries of Central and Eastern Europe) from the European Union. «Euroregional co-operation (...) is a component of widely-considered multilateral cooperation across Europe. At the same time, it is a kind of testing ground where post-communist societies learn the principles of multilateral cooperation and acquire the skills to reconcile individual and group interests (...)»²¹.

As in the case of other euroregions, the openness stemming from a wide range of local communities' contacts is essential for the functioning of the Euroregion. This fact is emphasized by Włodzimierz Malendowski and Mirosław Ratajczak, who wrote that «The development of cooperation in the border areas was strongly influenced by initiatives of local communities. This is a good way to overcome the historical divisions and hostilities that existed between neighboring nations»²².

Euroregional systems redefine the current way of capturing and explaining social relations. Reconfiguring social relations models favors integration and cooperation built on the principle of equal access to resources generated by euroregional networks. «Cooperation between (...) border areas allows us to effectively break pre-existing mutual prejudices and replace them with (...) trust and good social relations (...)»²³.

¹⁴H.Dumała, *op.cit.*, p.17.

¹⁵E. Opiłowska, *Transnational*, *op.cit.*, p.26.

¹⁶W. Malendowski, M. Ratajczak, *Euroregions. Polish step to integration*, ATLA Publishing House 2, Wrocław 2000, p. 9.

¹⁷*Ibidem*, p. 77.

¹⁸*Ibidem*, p. 10.

¹⁹W. Malendowski, M. Szczepaniak, *Role of euroregions in the process of European integration*, [in:] W. Malendowski, M. Szczepaniak (ed.), *Euroregions, bridges to Europe without borders*, Dom Wydawniczy Elipsa, Warsaw 2000, p. 14.

²⁰J. Kurczewska, *Borders i boundice as a task for Polish sociology in new cultural and political contexts*, [in:] J. Mucha, E. Narkiewicz-Niedbałec, M. Zielińska (ed.), *What unites us, what divides us ?*, Publishing House of the University of Zielona Góra, Zielona Góra 2008, p. 275.

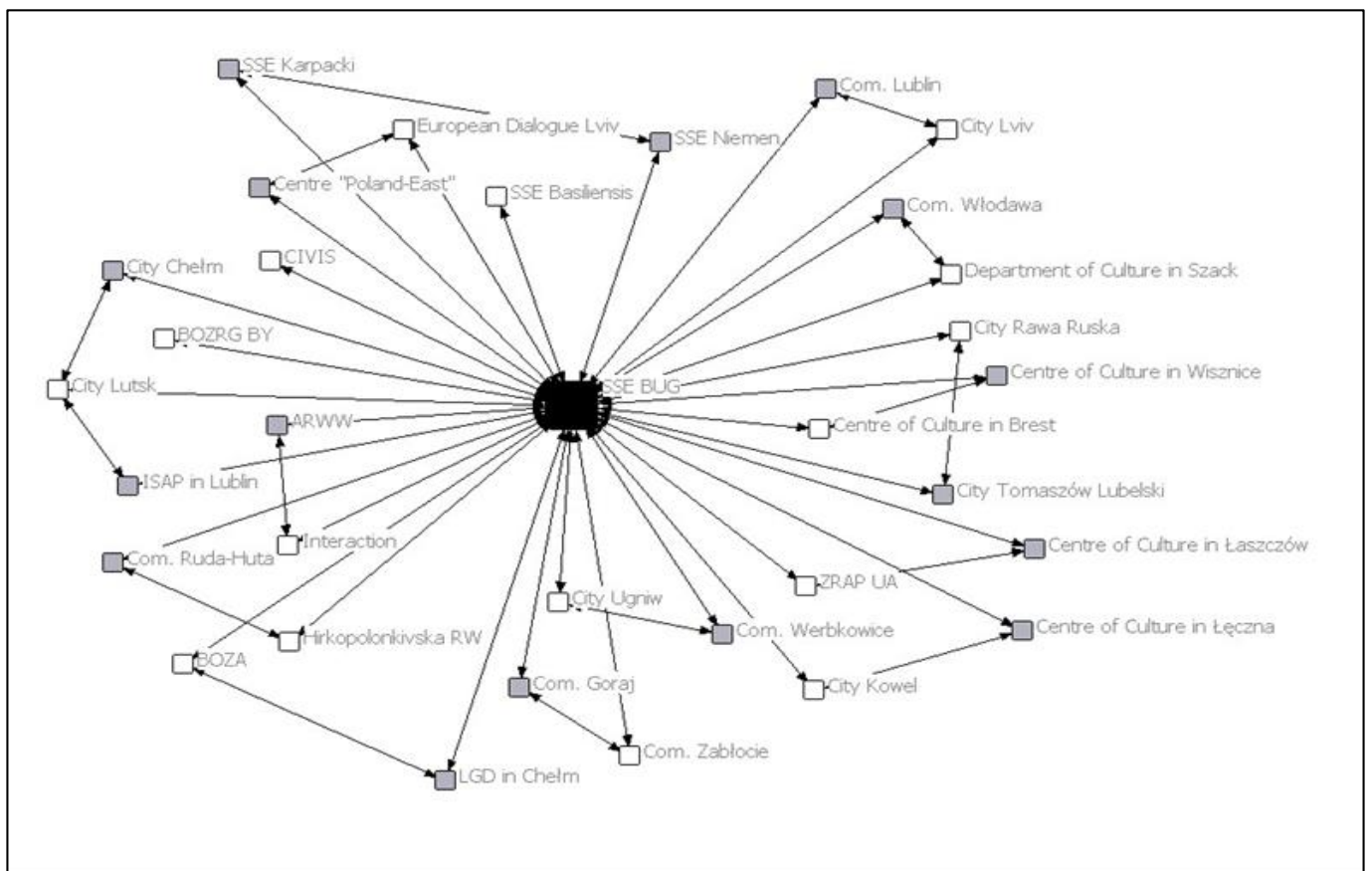
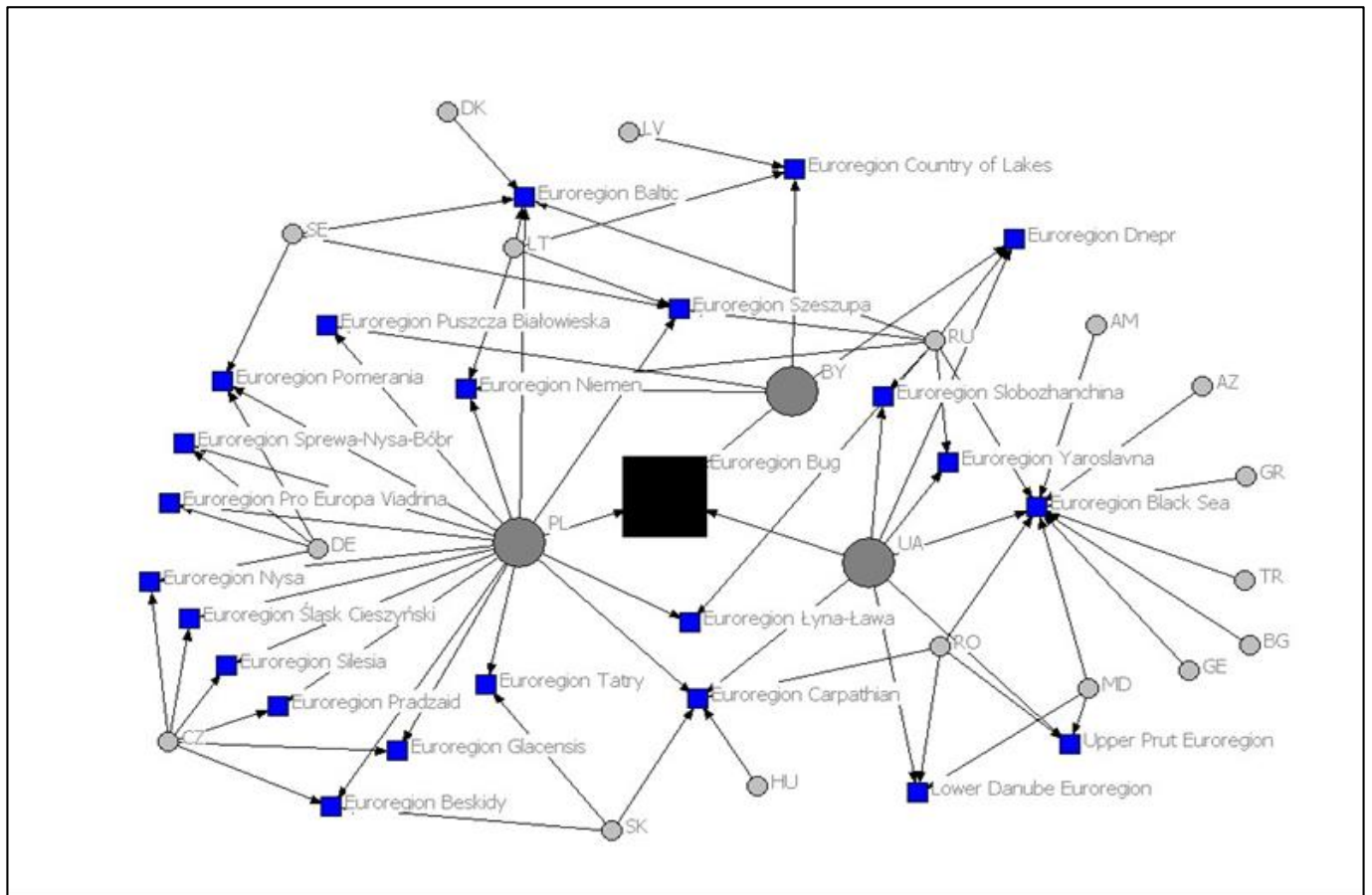
²¹W. Malendowski, M. Szczepaniak, *Role...op.cit.*, p. 11.

²²W. Malendowski, M. Ratajczak, *Euroregion ..op.cit.*,p. 46.

²³R. Suchocka, *Role of euroregions in processes of shaping national and supranational identity*, [in:] W. Malendowski, M. Szczepaniak (ed.), *Euroregions ...*, p. 51.

МІЖНАРОДНА ЕКОНОМІКА

The Transborder Union The Euroregion «Bug» was established in 1995 as a result of a cooperation agreement signed in Lutsk, Ukraine.



The Euroregion includes areas belonging to Poland, Belarus and Ukraine, ie Brest Oblast with headquarters in Brest, Lublin Province with headquarters in Lublin, Volyn region with headquarters in Lutsk and two districts of the Lviv Oblast. In total, the Bug Euroregion covers over 50 counties / regions / districts and over 10 cities with poviats rights. The Euroregion is inhabited by over 4,900,000 people.

Analyzing the networks presented below regarding the functioning of cross-border cooperation, we can note that the Euroregion Bug is a key node within the discussed network of flows. In addition, it can be noted that the nodes of other Euroregions are key in a given network, at the same time acting as a node that mediates in the flow of information, knowledge or other resources. There are clearly visible central nodes that gather entities responsible for a specific type of resources, and peripheral nodes that participate in one or a flow network. partially insulated nodes.

Analyzing the second of the cross-border cooperation networks presented, one can notice the clear centrality of the Euroregion Bug node. The nodes that participate in this exchange network are mainly entities from the sphere of culture or self-government. An interesting trend also seems to be the existence of two-node networks, while there are also entities that have a direct connection to the central node without connecting to the others.

The objective of the Bug Euroregion is to develop cooperation between border areas in the areas of spatial planning, communication, transport and communication, education, health, culture, sport and tourism, protection and improvement of the natural environment, elimination of threats and natural disasters, development of contacts between inhabitants of border areas as well as institutional cooperation, cooperation of economic entities²⁴. Cooperation between countries belonging to the Euroregion Bug has a diverse and wide range. In order to stimulate the development of entrepreneurship, customs and tax incentives were created: the Free Customs Area in Małaszewicze, the Special Economic Zone «Interport» in Kowel, and the Special Economic Zone in Brest, the Bialska Zone of Economic Activity in Biała Podlaska. There are also organized seminars and economic fairs (eg «Forum Inwestorów Pogranicza», «Polish-Belarusian Agri-Food Forum», «Good Neighbors»), where it is possible to establish contacts with companies, get acquainted with the applicable provisions of economic and customs law . An important element promoting entrepreneurship in the territory of the Euroregion is the activity of the Bialskopodlaska Chamber of Commerce and an attempt to seek business partners on the Belarusian side²⁵.

An example of cooperation at the scientific level is the European College of Polish and Ukrainian Universities established in Lublin. The development of cultural, sport and tourist cooperation is based on projects within which the following centers were established: Międzyrzec Podlaski Cooperation Center - Kobryń, Chełm Cooperation Center - Kowel, Chełm Days - Culture without borders (Chełm - Kowel), International Choral Meetings (Chełm - Lutsk), International Festival of Sport for Children and Youth (Zamość - Wołyń), International Folklore Festival Eurofolk Zamosc, Euroregion League Bug in football and basketball, International Chess Tournament, Podlaski Folklore Fair²⁶.

Euroregional structures, included in transnational territorial networks, clearly differ from permanent territorial and administrative boundaries. They assume a specific form and specificity of activities, expressed by the terminology of the language of the network, that is: the centrality and density of the network, the degree of the node, the strength of the relationship, transitivity and closeness of connections. The return to mathematics is an apt solution in the era of computers defined in terms of social machines. «The number and associated arithmetic made by computers is becoming the key to understanding currently various phenomena, starting with the interpretation of the world of matter (...)»²⁷.

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НАПРЯМИ РОЗШИРЕННЯ КИТАЙСЬКО-УКРАЇНСЬКОГО ІНВЕСТИЦІЙНОГО ТА ІННОВАЦІЙНОГО СПІВРОБІТНИЦТВА

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Предмет, мета роботи. Предмет дослідження – стан, тенденції та перспективи китайсько-українського інвестиційного та інноваційного співробітництва. Проаналізовано сучасні тенденції інвестиційного співробітництва між Україною та КНР. Описано зміст ініціативи «Один пояс – Один шлях». Подано оцінку перспектив розширення китайсько-українського інвестиційного співробітництва. Мета роботи – надати науково обґрунтовані пропозиції щодо розширення (зростання обсягів та удосконалення структури) китайсько-українського інвестиційного та інноваційного співробітництва.

Метод або методологія проведення роботи. Використовувалися загальнонаукові та специфічні методи та прийоми наукових досліджень – аналіз, синтез, індукція, дедукція, аналіз і синтез, абстрагування, метод експертного оцінювання, групування, формально-логічний метод.

Результати роботи. Подано узагальнення стану, тенденцій та перспектив китайсько-українського економічного, інвестиційного та інноваційного співробітництва, наведено пропозиції щодо активізації китайсько-українського інвестиційного та інноваційного співробітництва.

Галузь застосування результатів. Отримані результати можуть бути застосовані при формуванні та реалізації державної зовнішньоекономічної політики, удосконалення механізмів реалізації китайсько-українських інфраструктурних проектів, а також для подальшого розвитку відносин між Україною та КНР.