

тия регионов: формирование налоговой базы, новых рабочих мест, единых стандартов качества, расширение специализации хозяйствующих субъектов и формирование инвестиционного климата в регионе.

Таким образом, современное образование можно считать результативным только при условии сочетания фундаментального и практико-ориентированного подхода. Сегодня важно использовать все возможности для расширения взаимовыгодного сотрудничества, что в конечном счете позволит совершенствовать подготовку специалистов и повышать престиж университетского образования.

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UDC 33

THE BORDERS OF POLAND AND BELARUS IN TRANSNATIONAL NETWORKS – IDEAS, MECHANISMS AND CHALLENGES. EXAMPLE OF EUROPEAN PROJECTS

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Abstract. *The characteristic feature of modern societies is the operation based on social networks. Increasing complexity of processes, increasing decentralization of power and reducing the importance of territory make it necessary to clarify the principles on which this cooperation is based. Specific examples should be looked at to clarify these principles. One of them is the changes taking place in international relations. "Today, we are dealing with a specific segmentation (or fragmentation) of actors and activities of international relations, and at the same time with increasingly stronger interdependencies between them. The world is no longer just a world of states but a multilevel social world - international."*¹

¹ H.Dumała, Transnational Territorial Networks in Europe, ed. UMCS, Lublin 2012, p. 15.

Transnational co-operation favors strongly integrated partnerships across national boundaries in a given area. There are fifteen transnational cooperation areas across the EU. Under certain conditions, areas in neighboring third countries may also be part of transnational cooperation areas and use cohesion policy funding. With these partnerships, transnational cooperation projects are able to develop, prepare and implement common solutions to the common challenges and challenges that characterize a large part of a transnational cooperation area. Particular emphasis is placed on the transnational organization of project work and the transnational dimension of expected results. Projects should usually contribute to a long-term concept that is a source of strategic action, in the field of flood protection, maritime policy, intermodal transport corridors, urban and rural networks and inter-related transnational innovation systems.²

The problem of using EU funds in the context of Poland-Belarus cooperation is therefore worth considering through the prism of network transnational cooperation on the example of concrete projects implemented within the financial perspective 2004-2006 and 2007-2013.

The issue of social networks is the subject of theoretical and empirical considerations, providing new opportunities for the application of the term to the next levels of social, economic or cultural life. The metaphor of the network has been used in sociology since at least 1954, when the term was used by the British anthropologist J. Barnes. For more than fifty years it has been a constant point of interest, primarily sociologists, but also philosophers and psychologists. E. Bendyk in his book, *Antimatrix. The man in the labyrinth of networks* "points out that when describing reality through the web we can talk about its three basic types:

- social networks - anthroposfer;
- biological network - biosphere;
- technical network - technosphere.³

In Bendyk's approach, such a clear distinction between network types can only be made for only three basic types. Certainly the network as a principle organizing new social life can have many variations. The social network itself contains different types of networks, types of relationships, which makes it a complex social phenomenon. The complexity of the subject matter is therefore an extremely interesting subject of the analysis undertaken by sociologists and researchers from other fields of science trying to understand the functioning of individuals in society but also of the community itself.

M. Castells points out that societies are organized around processes in which people are engaged, structured by historically determined relationships of production, experience and authority.⁴ The network breaks with the old logic of glorification of material resources and building systems under strict control and supervision.⁵ He states that the network marks key social processes and thus influences the shaping of a new social morphology of our societies.⁶

For the above-mentioned author, the network is a certain organizational structure of contemporary societies. Referring to the Goffman concept, one can even say that it forms the framework of collective life.

Mark Granovetter, in his study of the network, focused on the bonds that arise in social networks, paying special attention and emphasizing the role of weak bonds. The bond strength is defined as a combination of time, emotional attitude, intimacy and the interconnectedness that characterizes the bond.⁷ The key to understanding social reality is knowing the weak bonds that are sustained by the social reality relations.

People from different backgrounds naturally support communication skills, increase their ability to take on different roles, shape empathy, broaden the horizons of thought, increase the range of available reactions, patterns of behavior.⁸

² <http://ec.europa.eu> z dnia 10.09.2017 r.

³ E. Bendyk, *Antimatrix. The man in the labyrinth of networks*, Wyd. W.A.B., Warsaw 2004, p.37.

⁴ M. Castells, *Society of the Network*, Wydawnictwo PWN, Warszawa 2007, p.31.

⁵ J. Brilman, *Modern Concepts and Methods of Management*, PWE, Warsaw 2002, p.426.

⁶ M. Castells, *The Rise of the Society*, *The Information Society: Economy, Society and Culture*, Vol. I, Cambridge, MA; Oxford, UK 2000, p.502.

⁷ M.K. Granovetter, *The strength of Weak Ties*, *American Journal of Sociology*, vol. 78, p.1361.

⁸ M.S. Granovetter: *The strength of the Weak Ties*. "American Journal of Sociology" 1973, No. 78, pp. 1360-1380; M.S. Granovetter: *Getting a job: A study of contacts and careers*. Harvard University Press,

Regularity in relationship patterns (known as structural equivalence) in the network or in network behavior allows empirical identification of network roles.⁹

The notion of "network society" or "network society" is a very rich issue and is the consequence of the reflections of researchers trying to grasp the organization of social life based on social networks. This term, in addition to the reference to social networks, is also a reference to a new type of Internet-based reality, which has created a new way to organize people in virtual communities. Interesting term comes from Manuel Castells, who introduced him to sociology in 1996 in the first volume of the book, "The Age of Information: Economy, Society and Culture," "The Rise of the Network Society." This work is a prelude to further analysis of systemic and economic changes and the concept of network society itself.

In one of the many interviews he explains what social networking is and how it is understood as "the society in which we live just the social structure of the information age, in which everything is important, what has meaning for us, which generates power, money or information, is achieved through the exchange of impulses in the network."¹⁰

Research conducted on social networks raises a lot of doubts about what is to be their subject. One of B. Wellman's key network researchers lists three aspects of network analysis:

- range: social networks may differ in importance: size and diversity. This statement is a certainty. However, from the point of view of research, it is worth emphasizing, since these are the components that determine 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 homogeneous, typical of traditional social groups, specific to specific territory communities - with a tendency to sustain existing resources.

- centrality: The context of centrality determines who is central and who is isolated. Social network analysis has developed a measure of centrality that can be used to identify network members who have a high degree of relationship with others, or those whose departure would result in network disruption in the so-called cut points

- roles: the similarity between network members suggests the presence itself in the network.

Each network consists of specific, repetitive elements. These are nodes, ties, and flows. The analysis of social networks by Wellman and his researchers is a study of the social structure and its effects. Social structure as a social network is a collection of actors (nodes) and a collection of relationships that pairs them together.¹¹ The analysis of the network is then to determine in the visual space the pattern of connections between the elements that are related to each other.¹² Another goal of network analysis in the case of node-node analysis is to determine the dynamics of these connections and to attempt to identify the causes of specific relationships that exist on the network.

In addition to the new type of network-based organization, there is a new area of public activity known as the flow of information. Contemporary organization, based on what was mentioned above, on the flow of capital, information, technology or organization of interaction. Castells writes that "the flow of space is a material organization of temporal social practices that work through flows."¹³

The second layer forms nodes are hubs. Apart from concentrators, there are also nodes that are "locations of strategically important functions that build a sequence of locally grouped actions and organizations around a key network function. The node's location connects the locality to the entire network."¹⁴

Cambridge 1974; M.S. Granovetter: Threshold Models of Collective Behavior. "American Journal of Sociology, 1978, No. 83, p. 1420-1443; W.T. Liu, R.W. Duff: The Strength in Weak Ties. "Public Opinion Quarterly," No. 36, pp. 361-366.

⁹ L.Garton, C.Haythornthwaite, B.Wellman, Studying Online Social Networks, w: S. Jones (ed.), Doing Internet Research, Thousand Oaks, 1999, s.83-84.

¹⁰ C.Barney, Art Gallery No. 24,1 / 00, p.1.

¹¹ J.H.Carrasco, B.Hogan, B.Wellman, E.J.Miller, Collecting social network data to study social activity-travel behaviour: a egocentric approach, Washington DC, 2006, p. 5.

¹² J.H.Turner, Structure of Sociological Theory, Eds. Ed., Warsaw 2004, p. 605.

¹³ M.Castells, Network society, PWN, Warsaw 2010, p.412.

¹⁴ Ibidem, p. 413.

The third layer of flow space is the location in the space of the managing elites around which this network is connected.

In summary, it should be noted that the metaphor of the network serves to describe contemporary organizational forms of individuals from family or community to global networking, and is also well suited to describe transnational cooperation. In traditional societies, organizational principles were mostly material goods or ideologies. Nowadays in societies that organize in a network of relationships, one cannot differently approach social phenomena as to the flexible elements that can adapt their actions to changing conditions. Confirmation this applies both to the unitary level and to the more general social level. Network metaphor a key point of departure for network society is also essential for localization analysis. It allows you to capture elements not taken into account when using other research concepts, showing the variable nature of the endogenous and exogenous factors of the development of modern human collections. Modern networked society can be understood through the use of the social network and its properties for its characteristics. The characterization of concrete examples of cooperation in selected projects will illustrate the existing linkages, but will also show the impact of these links and existing nodes on the behavior of these communities in the network society.

Transnational approach in social sciences

The incorporation of a transnational approach to social sciences is the result of several key processes and changes that can be observed at their theoretical and empirical level. First of all, the fundamental structure of social activities is the network around which social, political, cultural and economic life is organized. We are becoming more and more involved in various types of networking and multi-level relationships and multi-entities. Second, as Steven Vertovec points out, "... we are dealing with with the common interest in the various fields of interest of economic, social and political nature that run across the borders of the states ... and entangle the whole world, uniting people, places and institutions."¹⁵ Thirdly, the ever-increasing spectrum of processes and phenomena of interest in sociology began to go beyond national boundaries, which reduced the current distribution of research problems to a minimum: state boundaries define the plane of theoretical and empirical sociology research; Processes and international phenomena are subjects of interest in the sciences of international relations.¹⁶ Fourthly, over the last dozen or so years there has been a development of the concept of dynamic capture of borders and borderlands as social spaces permanently under reconstruction and deconstruction.¹⁷ Fifth, a common vector of changes taking place at the turn of the 20th and 21st centuries is the decentralization and decomposition of state structures, which results in the decline of the importance of states for the benefit of various international actors. Europe adopts a structure based on transnational territorial networks, defined as "(...) non-consensual, based on mutual trust, horizontal relations of cooperation between subnational territorial units (...) of at least two states."¹⁸

The forces of globalization, regionalization and integration redefine the concepts of processing boundaries and social spaces, including the mechanisms that determine the process. Today, borders, borders and cross-border, like other social systems, develop and change with its characteristic scale and dynamics. The emergence and subsequent development of transnational concepts is a response to the increasing importance of transnational character of borders, states and regions. As a result, there is a dynamic growth of examples of applications of transnational perspectives on social sciences. According to Thomas Faist, "... this perspective is dynamic, evolving, and allows us to understand how different types of boundaries change in time (...) capital reconstruction, changes in geopolitical systems, and the creation of new cultural systems of diversity."¹⁹

¹⁵ S. Vertovec, *Transnationality*, Jagiellonian University Press, Krakow 2012, p.1.

¹⁶ See more: R. Italy, *Sociology of phenomena beyond the borders of the nation state*, M. Gdula, A. Grzymała-Kazłowska, R. Italy (ed.), *New social realities, new sociological theories. Discussions and interpellations*, Scholar Scientific Publishing House, Warsaw 2012, p. 289-305.

¹⁷ See: E. Opiowska, *Transnationality as a paradigm of research in border studies*, [in:] Z. Kurcz (ed.), *Polish borderlands in the process of transformation*, Volume III, Wrocław University Press, Wrocław 2014, p.24.

¹⁸ H.Dumała, *op.cit.*, p.18.

¹⁹ T. Faist, *On Transnational Processing of Borders, Space and Social Mechanisms*, [in:] Krzyżowski, S. Urbańska, *Mosaika*, p.29.

Transnational concepts from the very beginning undergo appropriate modifications, adequate to the processes and phenomena conditioning the functioning of the social reality surrounding us. The rise of the concept of space-thinking as a fluid, mobile, dynamic and networked system is reflected in the literature on the subject of transnational space or social fields. Thomas Faist defines them as "(...) relatively permanent, permanent and dense collections of bonds that go beyond and beyond the borders of independent states. They consist of interconnected bonds and their contents, positions in networks (...), and networks or organizations that cross the borders of at least two national states."²⁰ The dynamically developing transnational perspective tries to answer questions about determinants and mechanisms of change or disappearance, making the subject of their interests redrawing borders and border areas in social spaces.

Mosaic of cross-border connections between Poland and Belarus on the example of transnational territorial networks in Europe

The global challenges of the modern world force social actors (states, regions, institutions) to search for space in transnational spaces, in a globalized world, entangled in a dense network of relationships and connections. The current point of interest in research that is currently focused on liquid categories such as relationships, relationships, flows and dynamics, such as network structures, is changing. "The state, along with its borders, (...) is gradually losing its importance ... because crucial political, economic and socio-cultural decisions are taking place" over "and" across "state borders."²¹ The functioning of individual as well as collective, including institutional social actors, is conditioned by an extensive network of social relationships. Similarly, administrative and territorial boundaries lose their functions and importance in favor of transnational relationships that determine the strength and relevance of the social actors involved in these networks. The consequence of this is the change of centers of power, systems and participants in international relations. Today "(...) the state-centered world evolves towards the world of cross-border connections in which the state is only one of the participants. The central point of this process is (...) the transnationality of the connections and interactions of state and non-state actors."²²

The subject-spatial scope of the presented analysis includes territorial transnational territorial networks spatially located in Poland and Belarus. The subject scope covers the structure of relations and relationships of the aforementioned structures, taking into account their complexity and number. In total, the Polish-Belarusian border is comprised of 32 transnational territorial networks spatially co-operating with territorial subnational entities located in 22 other countries (see Figure 1). The real cross-border cooperation between Poland and Belarus based on European projects implemented in the consecutive financial perspectives 2004-2006 and 2007-2013 was also analyzed. Empirical data was collected using desk research, based on the analysis of existing data included in information brochures and web pages on bilateral projects implemented under INTERREG 2004-2006 and PL-BY-AU 2007-2013 programs. The visualization of transnational relations between Poland and Belarus (Figure 1-3) is based on a tabular overview of territorial networks.²³

The analysis is of an interdisciplinary nature, as evidenced by the authors of the article, in the literature of many sciences, including sociology, political science, statistics, or mathematics. The whole of work is based on a deductive concept in which analysts are gradually moving from general theoretical considerations to analyzing specific networks of cooperation and transnational structures. The theoretical foundation in transnational cooperation research is a network approach in which the term "network" is used as a theoretical concept, real structure, and analytical apparatus. Network analysis was performed using Ucinet and NetDraw. The collected data was imported into a data matrix, called a sociogram. The properties of relationships and relationships are described using numbers, where 0 means "no relationship". 1 means participation in a transnational network or cooperation in one project, 2 – participation in two projects, 3 - cooperation in three

²⁰ Ibidem, p.30.

²¹ Ł. Krzyżowski, S. Urbańska, *Transnational Perspectives in Migration Studies*, [in:] Ł. Krzyżowski, S. Urbańska, *Mosaic of Transnational Space. Theories - methods - phenomena*, Publishing House NOMOS, Krakow 2010, p. 9.

²² T. Łoś-Nowak, *International Relations. Theories - systems - participants*, Wydawnictwo Uniwersytetu Wrocławskiego, Wrocław 2006, p. 154.

²³ Hanna Dumala's book on transnational territorial networks was tabulated. "Transnational Territorial Networks in Europe", UMCS Publishing House, Lublin 2012, pp. 223-227. Authors of the article have updated the contained data, which were then presented in the form of a network.

projects, etc. The reference to the mathematical language, including a specific set of numbers expressing the specific characteristics of the links, allows for a precise descriptive of the processes and phenomena surrounding us. "NumberThe computer-generated arithmetic becomes the key to understanding today's various phenomena, beginning with the interpretation of the world of matter and culture ... ending with." Based on the data contained in the arrays, network visualizations have been developed (Figure 1-5), to show the structure and dynamics of cross-border relations, taking into consideration its most important features (values).

The analysis of the first three structures refers to the borderland share of Poland and Belarus in transnational territorial networks. In total, the two countries' border areas belong to 32 territorial networks (Figure 1). Poland's borders are part of 24 transnational networks, and thus have access to resources in the border areas of fifteen Eastern and Western European countries (Figure 3). Similarly, the borders of Belarus are grouped in 5 transnational networks, of which The 3 networks (Figure 2 - white) are common structures for Poland and Belarus. The participation of the Republic of Belarus in transnational territorial networks enables access to the resources located on the borders of the five neighboring Belarusian states.

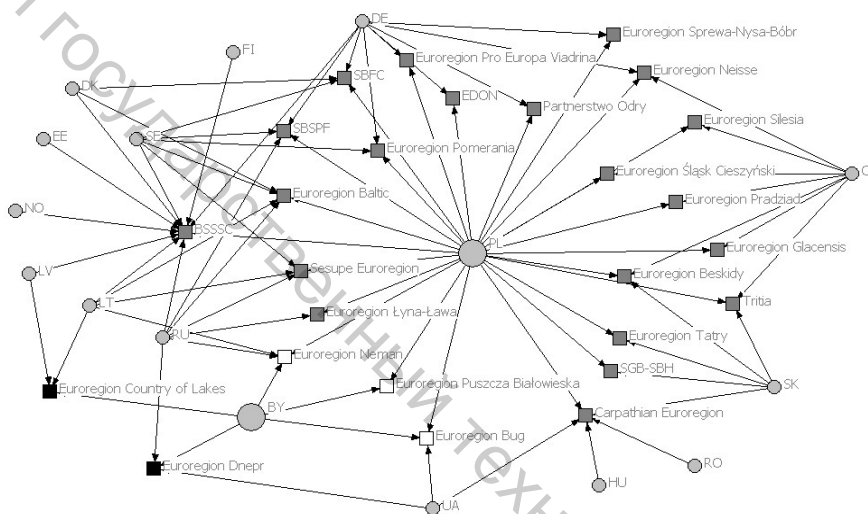


Fig. 1 – The borderland of Poland and Belarus in transnational territorial networks
Source: own elaboration.

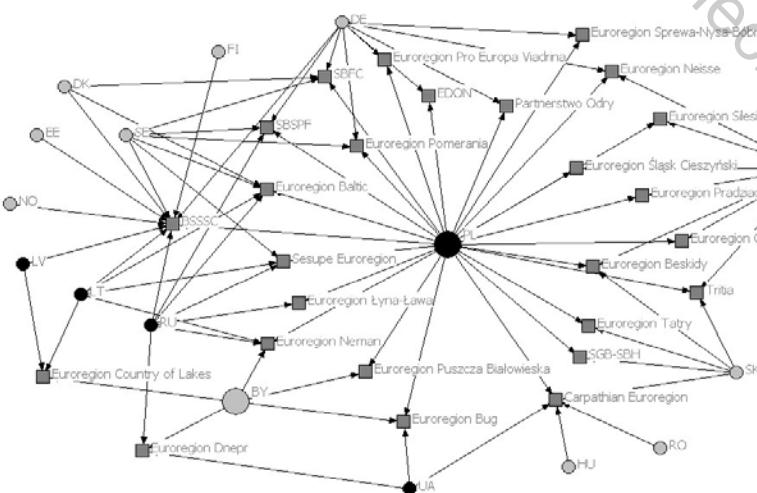


Fig. 2 – Belarusian border cooperation network with other border areas within transnational territorial networks
Source: own elaboration.

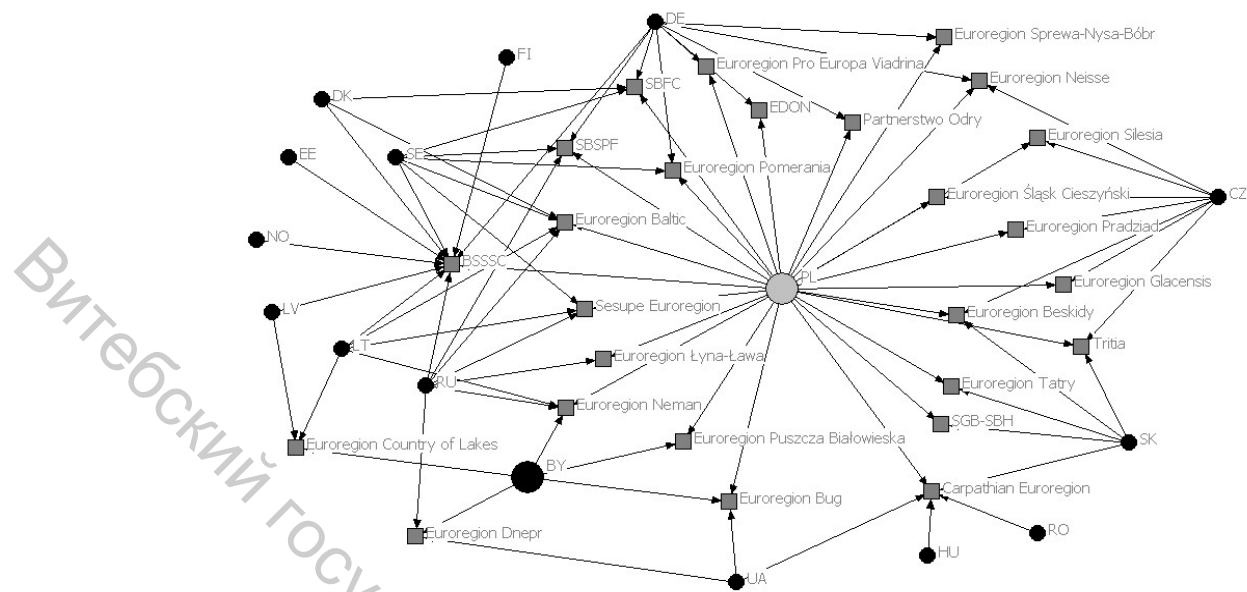


Fig. 3 – Poland's border-frontier cooperation network with other border areas within transnational territorial networks
Source: own elaboration.

The real cross-border cooperation between Poland and Belarus is carried out, inter alia, on the basis of projects financed by European funds, in consecutive successive financial perspectives. In the period 2004-2006, 26 projects were implemented, involving 45 public and non-public entities (see Figure 4). Of which 17 are Belarusian entities (in black) and 8 (white) are Ukrainian institutions. In the mentioned programming period attention should be paid to the actors marked with numbers 1 and 15. These entities are characterized by an intense participation in project initiatives, which can be attributed both to economic development as well as to individual entities. Most structures have closed relationships

This is due to the specificity of the cooperation program, which emphasizes bilateral research projects.

Over the period 2007-2013, 45 bilateral projects were implemented in the field of border crossings, involving over 100 entities, both public and non-public (Figure 5). Less than half, because 42 institutions were located in the territory of Belarus (marked on the black network), 16 entities come from Ukraine. The structure of the network is dominated by several entities that act as brokers, ie intermediaries in relationships and flows, for example nodes designated as: 117, 120, 78, 118, 129 or 123 (Figure 5). These nodes have a privileged position in the network structure, so they have the ability to access large amounts of resources and contacts, compared to others, and have more power, control over flows, behaviors and activities within the network. The position of the broker is crucial to the overall layout of the network, as the "removal" of the broker may cause the network to break up into small pieces, thereby decreasing the importance of both the individual nodes as well as the network structure as a whole.

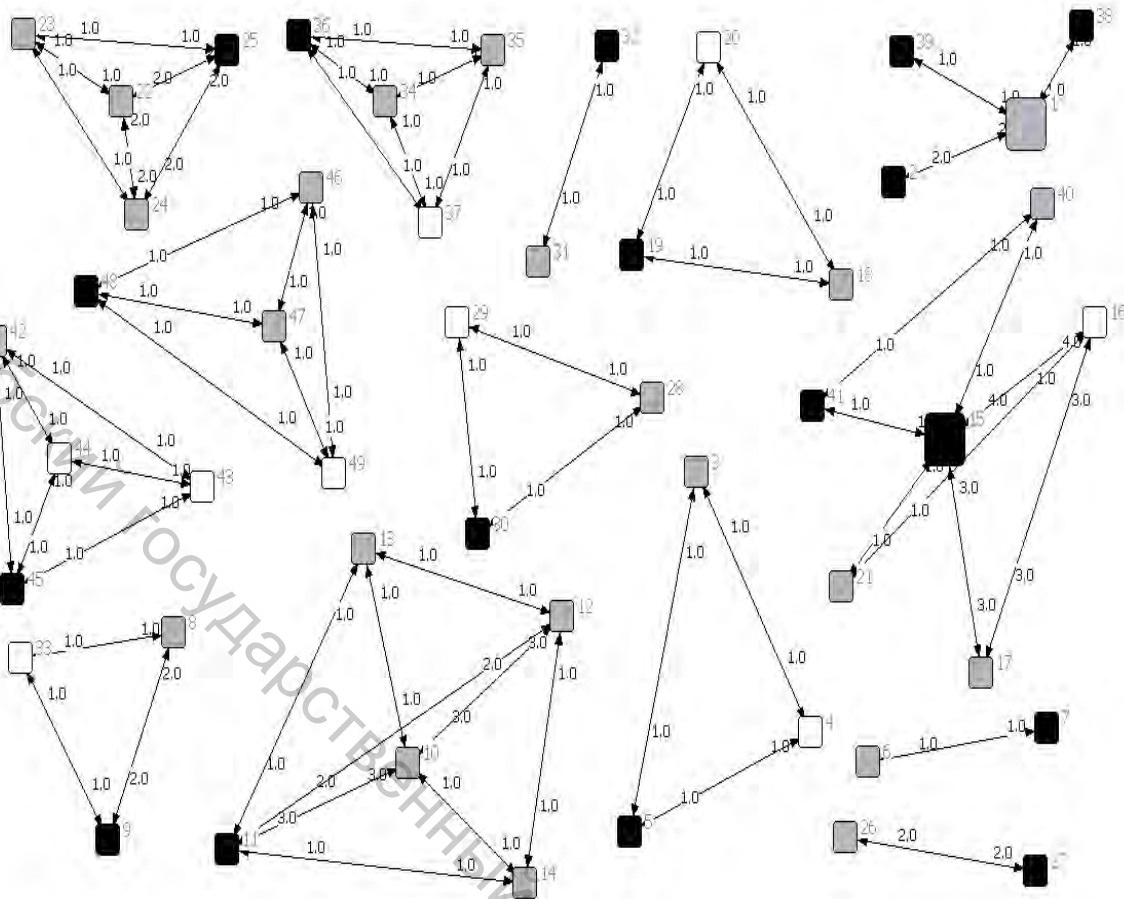


Fig. 4 – Polish-Belarusian Cooperation Network under the INTERREG program 2004-2006, n = number of projects completed
Source: own elaboration.

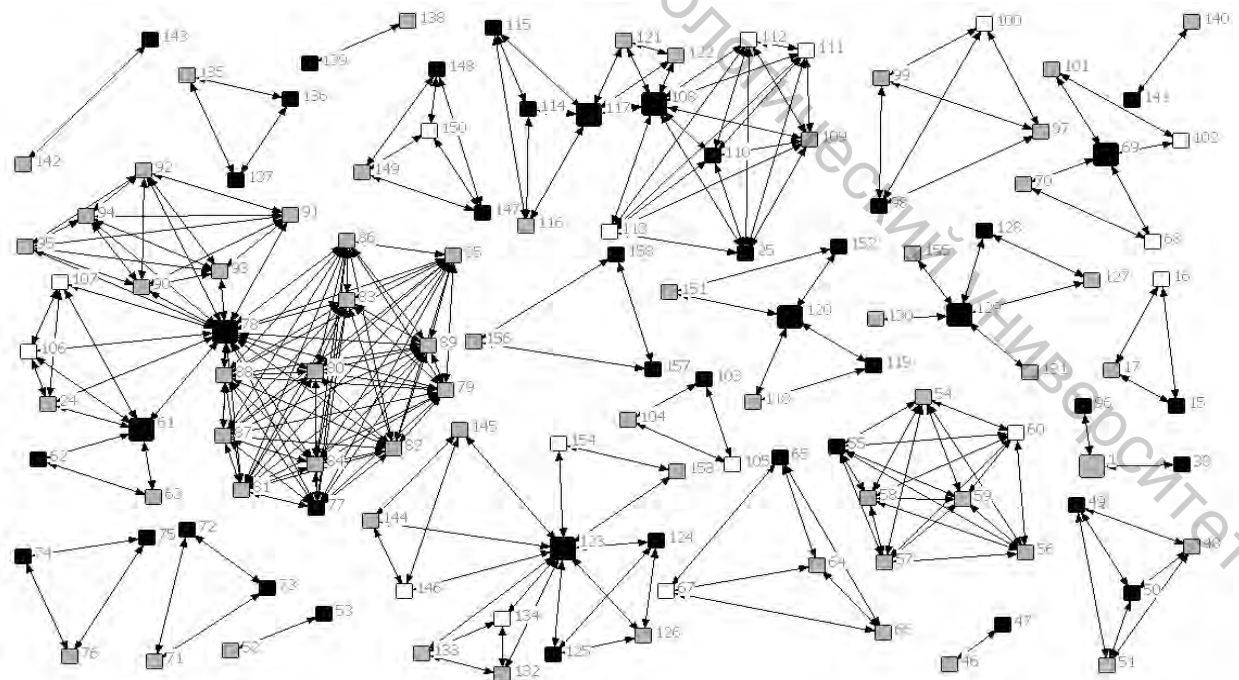


Fig. 5 – Polish-Belarusian Cooperation Network under the CBC 2007-2013 program, n = number of projects completed
Source: own elaboration.

Conclusions

1. The whole process of social processes takes place in a fluid, complex reality. Relationships are based on resources flowing across networks, and the essence of social processes is based on the network structure and depends on the parameters of the network.
2. Cross-border cooperation gained special importance together with the development of network society, when the physical border ceased to pose a barrier for taking actions in the field of culture or economy. It is also very important from the point of view of regions entering into such cooperation. It constitutes a source and a driving power of development of these areas taking care at the same time for their cultural diversity.
3. The borderland between Poland and Belarus is part of 32 transnational territorial networks spatially co-operating with territorial subnational entities located in 22 other countries. Key determines the main parameters of these networks.
4. Relations in the Polish-Belarusian borderlands are based on natural, economic, cultural and social resources.
5. European projects are an important source of strengthening and building transnational social networks.

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