

Svitlana ROMAN
*Fellow of the Institute of World Economy
and International Relations,
Academy of Sciences of Ukraine
(Uzhgorod Division)*

INNOVATIVE CROSS-BORDER COOPERATION AND ITS IMPLEMENTATION IN THE PROCESS OF UKRAINE'S INTEGRATION TO EUROPEAN STRUCTURES

The article describes the conceptual apparatus of CBC. The factors that affect the innovation potential of borderland, the problems and prospects of the innovation capacity of Ukraine's accession process to the European structures.

Keywords: cross-border cooperation, innovative potential, Euroregion, integration.

Background. Modern trends in world economic space require from Ukraine radically new approach to national policy on CBC. This need is related primarily to the fact that the transborder cooperation opens up many opportunities for the economic growth of the country and contributes to solving social and political problems of the Ukrainian society.

In recent years, our country has become a member of many European integration processes, which are caused by the existence on its territory shared borders with countries that are already members of the European Union. At present, the development of these border areas - this is a natural evolution of the productive forces to a qualitatively new level of relations of production, containing an innovation, science, education and other necessary conditions for economic development of the region and the state as a whole.

Increased integration processes in border areas facilitate the movement of innovative resources that are usually directed to place their most effective use. Thus, the resource boundaries are significant factors of innovative socio-economic sphere border region.

Degree of topic research. Study of problems related to dynamics, trends and prospects of CBC cover many Ukrainian and foreign scientists: M. Dolishniy, Y. Makogon, A. Balyan, M.

Voinarenko, foreign - Marshall, R. Popov, M. Porter, B. Rayzberh, E. Rumyantsev, J. Schroeder and others. Despite the large number of studies in the field of cross-border cooperation, we believe that the topic of innovation potential border areas given insufficient attention.

The aim of the article is to study the nature of the innovation potential of cross-border cooperation, identifying its role in the process of Ukraine's integration to European structures.

Results. The experience of foreign countries, who currently growing, indicating that the border areas were not the last factor of economic growth - they often become centers of economic activity and help to integrate the entire economic system of the country to the world economy.

Overall, cross-border cooperation can be defined as a set of actions aimed at developing the social, economic, cultural and other relations between the territorial entities and bodies of executive power of Ukraine and the respective territorial units and local authorities of other countries within the existing national legislation [1]. This definition is also consistent with the concept of cross-border cooperation by the European Framework Convention on Transfrontier Co-operation of territorial communities and authorities [2].

As for Ukraine, its potential for cross-border cooperation is estimated highly enough: land borders with seven countries, four of which EU country. Their total length of more than 5.6 thousand km, including Russia - 1955 km, Moldova - 1202 km, Belarus - 1084 km, Romania - 608 km, Poland - 542 km, Hungary - 135 km, Slovakia - 98 miles [5, p.88].

In turn innovative potential of cross-border cooperation can be described as the potential due to scientific and technical creativity factors. Its essence is the innovations that are embodied in inventions, licenses, patents, industrial development, etc. This concept also integrates all forms of intellectual activity, characterized by the notion of intellectual property.

Also innovative potential can determine the level of scientific and technical field, which is characterized by the number of employees in this area, the volume of spending on research and development and improvement of technical equipment of the areas of R & D output indicators, indicators of effective use of scientific and technological potential.

But the infrastructure of scientific and educational sphere, technical equipment of enterprises characterizes innovative potential only on the outside. The most important is, in our opinion, the performance of innovation, its effectiveness, and provided organizational and economic mechanism, including quality control border regions.

Innovative potential border areas associated with resource environment. Characteristic border areas dynamism creates the preconditions positive developments in the economy of these regions. Dynamism and also has a very innovative potential border, resulting in the transformation of its functional structure and adaptation of innovative resources to changing internal and external conditions [4].

Increased cross-border cooperation, the accumulation of experience, availability of educational and research organizations, large enterprises, attractive living conditions and other factors can lead to the formation of single clusters, the initiation and implementation of joint projects.

Evidence of active cooperation between the EU and Ukraine in the field of innovative technologies is the volume of investments aimed at developing scientific and technological sphere in Ukraine. Only in 2009, the EU allocated to Ukraine more than 12 million euros for the four projects within two years of related financial aid innovation sector in Ukraine. The purpose of these projects is to encourage inventions at the local level, as well as research innovation to their implementation in the manufacturing sector and the subsequent transfer of business. Among the targeted beneficiaries of these funds is the Ministry of Economy of Ukraine, Ministry of Education, Science, Youth and Sports, State Agency for Investments and Innovations, State Committee for Regulatory Policy and Entrepreneurship, as well as medium and small business in Ukraine.

Consider in more detail all the organizations and programs that ensure cooperation between Ukraine and the EU in the field of innovation.

To date, Ukraine has a Ukrainian Scientific-Technological Center (USTC), which supports engineering research and development to help create the conditions for further technological advances in the member states of Ukrainian Scientific-Technological Center.

In addition, Ukraine participates in EUREKA. European Research Coordination Agency - an information network, an initiative of the European countries, which aims to promote research in the field of high

technology innovations are aimed at the European market. Since its inception, the program has become one of the most promising forms of European scientific and technical integration. This scientific and technical program founded on the initiative of French President Francois Miteran and is based on and the Ministerial Conference of the participating 17 July 1985 [9].

Ukraine is an associate member of the program since 1993. That same year, was organized by the National formational other item EUREKA program in Ukraine. Political and scientific coordination and funding by the Ministry of Education, Science, Youth and Sports of Ukraine.

Table 1 shows some figures and results of Ukraine in these programs and EU projects.

Table 1.

The participation of Ukrainian scientists in innovative EU programs [9]

| The program / activity involving the Ukrainian scientists | Period | Funds allocated to Ukraine, euro | Notes |
|--|------------------------|---|--------------------------|
| INTAS, 1221 staff in 849 projects | After 1992 yr | 20 million 500 thousand | 10% of the total funding |
| FP6 | 2002-2006 biennium. | 5 million 682.76 thousand | |
| FP7 (17 projects involving Ukrainian groups) | 2007-2008 biennium. | 2 million 500 thousand | Efficiency - 16% |
| STCU | After 1994 | No data | |
| EUREKA (22 projects) | After 2000 h - for now | 20 million | |

Consequently, the figures given in the table indicate the overall growth of innovation and investment activity in Ukraine.

If we evaluate the question of innovation potential cross-border cooperation in the regional context, namely, Transcarpathian region, then the level of innovation activity demonstrated by the following indicators.

Follow the dynamics of scientific workers - Table 2.

Table 2.**Dynamics in the number of scientific personnel [8]**

| | 1,995 | 2,000 | 2,005 | 2,007 | 2,008 | 2,009 |
|--|-------|-------|-------|-------|-------|-------|
| Employees scientific organizations | 1,509 | 813 | 1,106 | 1,005 | 929 | 928 |
| Number of specialists who perform scientific and technical work | 1,133 | 647 | 661 | 626 | 576 | 576 |
| <i>have a degree</i> | | | | | | |
| Doctor | 20 | 20 | 25 | 31 | 30 | 25 |
| Candidate | 196 | 158 | 135 | 154 | 146 | 148 |
| Employees who perform scientific and technical work in combination | 193 | 386 | 424 | 1,083 | 1,168 | 1,125 |
| <i>have a degree</i> | | | | | | |
| Doctor | 39 | 86 | 82 | 157 | 140 | 129 |
| Candidate | 109 | 169 | 130 | 534 | 574 | 534 |

Thus, the data table shows the reduction of workers and specialists who perform scientific work in general is a negative indicator of reducing innovation in the region, but in turn, we see that this index offset rising number of scientists who are working part-time.

A positive trend with figures on the number of scientific and technical works, made their own organizations - Table 3.

Table 3.**The distribution of scientific and technical works, made their own organizations [8]**

| | 1,995 | 2,000 | 2,005 | 2,007 | 2,008 | 2,009 |
|---|--------|--------|---------|---------|---------|---------|
| Total volume of scientific and technical work | 2673.6 | 4668.1 | 15043.6 | 15207.1 | 20625.7 | 21566.6 |
| <i>Among them</i> | | | | | | |
| basic research | 1158.1 | 2071.9 | 5244.5 | 9072.6 | 9787.9 | 9009.7 |
| applied research | 773L | 1854.2 | 5373.6 | 3221.2 | 5809.1 | 8210.9 |
| research and development | 586.5 | 452.5 | 1612.5 | 2514.3 | 4148.6 | 3467.0 |
| scientific and technical services | 155.9 | 289.5 | 2813.0 | 399.0 | 880.1 | 879.0 |

As we can see the total amount of scientific work has a positive trend of growth, despite the reduction of certain types of indicators on research papers, we can conclude that the Zakarpattia region has sufficient capacity to implement innovative projects.

On the demand for technical development indicates the number of publications in the field of natural sciences and engineering - Table 4.

Table 4.

The volume of scientific and technical works, made their own organizations with branches of science in 2009 [8]

| | Total | Including | | | | |
|---|----------------|----------------|---------------|---------------|--------------------------|-----------------------------------|
| | | Research | Among them | | research and development | scientific and technical services |
| | | | fundamental | Applications | | |
| Total | 21566.6 | 17220.6 | 9009.7 | 8210.9 | 3467.0 | 879.0 |
| science | 10024.3 | 9696.1 | 4420.2 | 5275.9 | - | 328.2 |
| Physics and Mathematics | 4708.4 | 4703.4 | 4140.2 | 563.2 | - | 5.0 |
| biological | 2077.0 | 2077.0 | - | 2077.0 | - | - |
| medical | 1038.9 | 1038.9 | - | 1038.9 | - | - |
| agricultural | 2200.0 | 1876.8 | 280.0 | 1596.8 | - | 323.2 |
| technical | 817.8 | | - | - | 567.8 | 250.0 |
| Humanities | 121.5 | 121.5 | - | 121.5 | - | - |
| public | 610.2 | 610.2 | - | 610.2 | - | - |
| research institutions and universities institutions that have diversified profile | 9992.8 | 6792.8 | 4589.5 | 2203.3 | 2899.2 | 300.8 |

The data show a significant advantage of research in the applied aspect, which in itself is a positive indicator for the implementation of innovative projects in Transcarpathia, because indicators show the prevailing strong scientific-application basis.

Follow the level of innovative activity of industrial enterprises in levels of activity - Table 4.

Table 4**Number of innovation active industrial enterprises by economic activity units. [8]**

| | 2,005 | 2,007 | 2,008 | 2,009 |
|--|--------------|--------------|--------------|--------------|
| Industry | 33 | 28 | 31 | 36 |
| Mining | 1 | 2 | 3 | 2 |
| Manufacturing | 32 | 25 | 28 | 34 |
| with her | | | | |
| Food, beverages and tobacco | 6 | 6 | 5 | 12 |
| light industry | 9 | 3 | 2 | 1 |
| Textile industry; clothes, furs and fur products | 8 | 3 | 2 | - |
| production of leather, leather and other materials | 1 | - | - | 1 |
| wood processing and production of wood products, except furniture | 2 | 3 | 4 | 5 |
| Pulp and paper industry; Publishing | - | - | 2 | 1 |
| coke production and processing | - | - | - | - |
| chemical and petrochemical industry | 3 | 3 | 4 | 3 |
| chemical production | 2 | 2 | - | 2 |
| manufacture of rubber and plastic products | 1 | 1 | 1 | 1 |
| production of other non-metallic mineral products | 2 | - | - | - |
| metallurgy and manufacture of fabricated metal products | 1 | 1 | 1 | 2 |
| engineering | 7 | 8 | 8 | 7 |
| manufacture of machinery and equipment | 2 | 3 | 4 | 4 |
| Manufacture of electrical, electronic and optical equipment | 4 | 5 | 4 | 3 |
| Electricity, gas and water | - | 1 | - | - |

Overall industry Transcarpathia than from 2005 to 2009 shows a positive growth rate of innovation of companies in this industry. The leading position of the food industry, but as seen from the data a good potential in the field of mechanical engineering and electronics.

Thus, if generalized statistics can be noted that despite the range of economic problems in the region, Zakarpattia region has a fairly stable innovation potential. Talking about the active dynamics of innovation is still early, but improvements cannot fail to notice.

There are now more project build three parks. The first plan to implement an investment project of industrial park with elements of logistics "Coast - Carpathians", which provides building utilities and industrial facilities on the Ukrainian-Hungarian border near the village of Dade Beregovo rayon to estimate the cost of this project is estimated at 8 - \$ 10 million . Transcarpathia has received a grant from the Hungarian side for this project.

Generally only in Transcarpathia planned construction of three such parks - Slovak, Hungarian and Romanian borders.

Conclusions. Thus, the innovative potential of cross-border cooperation is primarily determined by the geographical location of the country and presence in her advanced education and scientific and technical base.

Since dynamism is a property of the border area, the priority of our country should be a fruitful cross-border cooperation in the framework of EU programs. Such cooperation will positively impact to development, primarily regional economies, particularly on the economy of the border areas.

Geographical location of the Transcarpathian region, its proximity to the European Union members creates favorable conditions for participation in joint projects. Statistical data for the region indicate sufficient overall scientific and technical and scientific base for the formation of clusters of common cross-border innovation cooperation. One example of this development is the project of three parks in the Slovak, Hungarian and Romanian borders.

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