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**DECENTRALIZATION AND INNOVATIVE ENTREPRENEURIAL  
ECOSYSTEM DEVELOPMENT FOR THE EU – UKRAINE  
CROSS - BORDER COOPERATION**

The experience of EU countries shows that decentralization and innovative strategic partnership are now integral parts of their successful regional development. The implementation of decentralization reforms, the creation and strengthening of relevant institutions at the regional level is predominantly part of this process. As the EU member states pay a great attention to a regional component of innovative development policy for international and cross-border cooperation, it is important for Ukraine to move in this direction and adapt our legislation, institutions and infrastructure with the regional component of national innovative policy.

The great successes of many EU border regions determined by the effective decentralization strategies. Political and economic transformations carried out through regional, transnational and transborder cooperation projects. Most of them had realized in the area of public administration, innovation and entrepreneurship development, supported by EU funds to align the level of regional development of the depressive and advanced regions, and for the local communities' enhancement (The Palgrave Handbook of Decentralisation ... 2017).

Poland is one of the bright samples of such successful countries. It could serve as a model in the implementation of the decentralization reform, establishing a true institutional and financial decentralization for local public interest and local community development (Bilouseac, 2015). Two decentralization waves for last 25 years, studied by Marcin Sakowicz (2017), followed by analysis of current subnational government system, give us the opportunity to find out the key factors of success including public finance and development of civil service. He described main challenges within the local communities like citizens' participation and low level of trust in Polish society. Ukraine faces similar challenges nowadays.

Currently, when Ukraine is in the phase of in-depth decentralization reforms, the border regions of Ukraine have additional opportunities to increase the socio-economic living standard through the through the implementation of international projects of regional development with the financial support from the EU programs of cross-border and territorial cooperation.

However, as our research shows, eleven border regions of Ukraine are still losing these opportunities. Their regional development strategies often do not correspond to the provisions of the national level strategic documents on cross-border cooperation, while some regional strategies do not consider cross-border

cooperation at all. Only L'viv region, based on a well-established system of partnership, cross-border and international networking, creating the information and communication infrastructure for entrepreneurial development of IT cluster (Goshchynska, 2016), realized successful programs and projects, supported by foreign companies and EU funds.

According to expert estimates of the Association of Regional Analytical Centers in the study "*Synergy of Cross-border Cooperation and Regional Development Strategies in Ukraine - A Window of Opportunities for Border Regions*" (2018) presented during the conference "Regional Policy in Ukraine: European Dimension of Cross-Border Cooperation" we can come to such conclusions. Newly created territorial communities are experiencing problems of fundraising, attracting local government, business and educators to cooperate for local initiatives and social entrepreneurship development and for the desire to stay in its native cities, towns and counties. Thus, we have a new wave of migration abroad and depressive economic in the remote from the center regions. As stated in the report, none of the studied regions, with the exception of L'viv, has not specific mechanisms for funding programs and projects of cross-border cooperation.

The main goal of this study is to determine the interaction between decentralization process and the entrepreneurial ecosystem development in bordering and adjoining regions of Ukraine, problems and perspectives of cross border cooperation, as well as enhancement of innovation infrastructure between Ukraine and the EU countries. The research methodology based on the innovative cluster theories' analysis and synthesis, trans-regional convergence empirical studies, as well, as expert evaluation of a business' readiness for strategic partnerships with science and education in the process of cross-border innovative cooperation.

The result of the study is the proposed concept and mechanism of entrepreneurial cross-border ecosystem implementation that would maintain the optimal cross-border cooperation of local entrepreneurs, government, and community. It will provide territorial integrity and partnership of the border regions, realize their own potential, implement regional innovative strategies, and accelerate the processes of international project management and entrepreneurial skills development.

The theoretical, methodological, and practical foundations of cross-border regions development and cross-border cooperation of the EU countries clearly outlined in the European Framework Convention on Trans border Co-operation, the Madrid Convention on the Common Principles of Cross-Border Cooperation and other normative documents (Communication from the Commission to the European Parliament..., 2017).

In Ukraine, there are also scientific schools that work on the creation of theoretical concepts and the implementation of practical programs. According to N. Mikula (2004), cross-border cooperation is, specific sphere of foreign

economic, political, ecological, cultural, educational, and other types of international activities which are carried out at the regional level, and which, covering all the general forms, differ in necessity and possibilities their more active use. These possibilities can be presented through two types of effects: synergetic and convergence effect. M. Dolishniy (2005) marked that «trans-border territories are under influence of such strategic factors, as a so-called frontier potential, perspective of the cross-border cooperation effect (synergetic effect)".

Convergence is the result of regional and cross-border integration processes of Ukraine's economy that accompany the internationalization and globalization of the world economy (Martyniak, 2011). D. Popko and O. Tkachuk (2005) in researches studying regional integration singled out the following effects of convergence: trade effect: reduction of economic distance because of elimination of trade restrictions, development of trade infrastructure and harmonization of quality standards; the effect of the common market: improving production, increasing productivity and price competition; the movement of factors of production: the growth of volumes of attracted foreign direct investment, migration of labor to the European Union.

At the same time, processes of regional economic integration are inevitably reflected in the social sphere. Therefore, we propose to add such social and economic effects as: formation of common consciousness of the trans-border region population, elimination of inter-ethnic conflicts, and improvement of living standards of the population, and the effects of innovation diffusion and region of knowledge development. In such way relying on the Polish innovation regions positive experience new regional innovative strategic partnership theories are developed and tested in Ukrainian reality of innovative clusters (Bakushevych I., Martyniak I., 2010).

As M. Porter determined (1998), cluster is a "group of geographically close linked companies and institutions in certain industry of activity". Cluster development depends on economic environment on the micro level, as well as the economy development on the macro level. According to M. Porter "clusters present the new type of national, regional and local economy picture, and they require the new roles of companies, government and other institutions. Ch. Ketels (2006) classified cluster by the level of economics' development, depend on the founders, reasons and purpose of formation, industry strategies, and sources of financing and other reasons.

The problems of cluster formation first was studied in the works of Ukrainian scholars, such as S. Sokolenko (2001, 2004), M. Voinarenko (2003), and others. Most researchers conclude that its characteristic features are geographical proximity and independence of participants.

The consolidation of the innovative cluster concept in the world practice of business defines the need to reform its own attitude towards micro and small enterprises as a full-fledged business partner. The development of innovative

sectors of the economy takes place in the context of integration forms of clusters' initiatives, in particular, such as subcontracting, franchising, and leasing and venture financing. The analysis of world and domestic experience shows the interest of large business companies in the development of innovative clusters with independent start-ups and small enterprises that would serve specialized production, which are concentrated in the western regions of Ukraine (Bakushevych I., 2015).

The attractiveness of an innovative industrial cluster for entrepreneurs is that they are able to achieve in a competitive environment a high degree of specialization with access to the latest discoveries, knowledge and technologies from universities and research institutes - members of the cluster, which for a particular small company is practically impossible. At the same time, in the cluster many new firms serve specific infrastructure niches at a high professional level. The development of theories and practical experience of regional co-operation in the sphere of innovation activity stimulating introduces a new concept for the scientific school in Ukraine - innovative entrepreneurial ecosystem.

The concept of innovative ecosystem or entrepreneurial ecosystem has gained popularity through publications of books and articles by foreign scholars, such as Bramwell A. et al. (2012), Mercan and Goktas (2011), Stam E. (2016), Spigel (2015, 2016), and Ukrainian scholars, such as Yu. Bazhal et al. (*Innovative entrepreneurship...*, 2015), Fedulova and Marchenko (2015). The term "innovative ecosystem" is mostly used as a set of conditions that ensure the successful establishment and development of enterprises, provided by scientists and researchers, the scientific community, innovation managers, and investors (Kopeikina, 2008). An innovative ecosystem has specific functions such, as exchange and critique of ideas, search for investors, commercialization of innovations or the creation of structures that will implement these innovations, and the purpose - the new type of innovation cooperation (Yakovleva, 2009).

An entrepreneurial ecosystem concept considered as a dynamic structure consisting of interconnected "populations" of organizations (small firms, corporations, universities, public sector organizations, etc.), within which there are processes of cooperation and competition at the same time (*Innovative entrepreneurship, 2015*). Acceleration innovative regional development can only be possible through the decentralization process and formation of a specific innovative entrepreneurial networking environment – ecosystem, supporting social initiatives of local business networking.

Talking about entrepreneurial ecosystem on the regional level Stam and Spigel define it as “combinations of social, political, economic, and cultural elements within a region that support the development and growth of innovative startups and encourage nascent entrepreneurs and other actors to take the risks of starting, funding, and otherwise assisting high-risk ventures” (Stam and Spigel, 2016). According to Fedulova and Marchenko (2015), its determine legal,

economic, organizational, and social conditions of an innovative process and provide innovative activities on an enterprise level, as well as on a level of a region according to the self-organization principles.

The methodological framework of the innovative ecosystem concept consists of: the new economic growth theory, according to which effective exchange of knowledge and technologies between academic institutions and enterprises is determined based on ‘open innovation’ approach; the evolutionary theory, which examines regularities and historical heredity through technological and innovative dynamics; the neo-institutional theory, which analyzes issues related to development and coordination of institutions, interrelations between market and non-market institutions and institutional dynamics.

We propose the innovative entrepreneurial ecosystem model for cross-border cooperation based on the cohesion of two regional ecosystems of Ukraine and EU border regions through the interaction of two levels of key success factors. Such factors, formed by Stam and Spigel (2016) for entrepreneurial ecosystem, include the basic preconditions and system-forming factors.

Four basic precondition factors in our case are:

- the demand for change and innovation in border regions,
- informal and formal institutions ready for cross-border cooperation,
- innovative clustering infrastructure,
- common cultural environment.

Six ecosystem-forming factors are:

- innovative leadership initiatives in local communities,
- business-science- education networks,
- financial support,
- diffusion of knowledge and innovation,
- cross-border support services and intermediaries,
- competent and talented managers.

We may conclude that the innovative ecosystem development in the border regions comprise common factors with clusters, but also it has some peculiarities:

- Decentralization of power, finance and decision making processes responsibilities, balance of interests between amalgamated communities (“hromadas”) in the border regions;
- Open innovation diffusion and informational transparency;
- Identification of strategic goals, ranking of tasks for regional and cross-border innovative partnership;
- Mutual interest and common project management activity;
- Adaptability to the disproportions in legal, economic, social, and cultural system in both sides of the border.

As indicated in the *Communication from the Commission ...* (2017) the “EU has a crucial role to play in supporting all regions and Member States to activate their potential for innovation, competitiveness and sustainable growth. This is at the core of the various initiatives already undertaken, on the regulatory side as well as through the Investment Plan to create a stable pipeline of projects linked to the key EU priorities. Moreover, in recent years the Commission has called on national and regional authorities to develop smart specialisation strategies for research and innovation. The aim was to encourage all European regions to identify their specific competitive advantages, as a basis for prioritizing research and innovation investment under cohesion policy in 2014-2020. Subsequently, the European Parliament, the Council of the European Union and the Committee of the Regions have highlighted the need to further build on this approach to raise the innovation potential of all regions”<sup>1</sup>.

In this document, the Commission takes the smart specialisation approach one-step further and tackle the following main challenges:

- boosting the innovation and competitiveness potential of European regions, as a basis for a sustainable growth model;
- increasing interregional cooperation, which is a key element in globalized economies;
- strengthening the focus on less developed and industrial transition regions; improving and building on joint work across EU policies and programs supporting innovation (*Communication ...*, June 2017, p.1).

While smart specialisation is relevant to all regions, less developed regions require specific attention with regard to human capital, skills development moreover, a more inclusive innovation process. Innovation actors in less developed regions are often not very well connected to the wider research and innovation community and global value chains.

Under its Lagging Regions project, the European Commission and World Bank experts, together with Polish national and local authorities, have been working over the past year on identifying solutions to boost economic development in the low-income regions of Podkarpackie, Lubelskie, and Świętokrzyskie Voivodships in Eastern Poland. Actions include the transfer of knowledge from academia to local business, upgrading the regional environment for businesses, and improving the skills of the local labor force. In this context, smart specialisation strategies are already making a difference by improving the quality of cohesion policy investment in innovation and have thus become an integral part of Europe's approach to innovation and entrepreneurial ecosystem

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<sup>1</sup> Council Conclusions (10 June, 2016) on "A more research and innovation friendly, smart and simple Cohesion Policy and the European Structural and Investment Funds more generally"; European Parliament resolution from January 14<sup>th</sup> 2014, on smart specialisation: networking excellence for a sound Cohesion Policy (2013/2094(INI)); European Parliament resolution of September 13<sup>th</sup> 2016, on Cohesion Policy and Research and Innovation Strategies for Smart Specialisation (RIS3) (2015/2278(INI)); The Committee of the Regions opinion of 22 March 2017 on "Smart Specialisation Strategies (RIS3): impact for regions and inter-regional cooperation".

development. It is also making a difference in the way European regions are designing and implementing their innovation policies and involving businesses. Such approach may be replicated to the Euroregion Carpathians if the priorities of cooperation in cross-border cooperation with the border regions of Ukraine will coincide with the selected regional development strategies within the EU.

When the European integration processes started within the EU, researchers from Austria (Kaufmann A., Tödting F., 2002) indicated that the main problems of supporting innovative firms on the regional level was that direct financial support focuses on R&D, but not on the commercialization of innovation and promoting them on the foreign markets. Most small and medium-sized enterprises practically did not interact with knowledge providers (for example, universities). Thus, in the process of implementation of the Euro integration and cross-border cooperation programs in addition to financial support, it was focus on the processes of information exchange and knowledge dissemination. Centers for knowledge and technology transfer aimed on creating exchange platforms for innovation related to resources and information from outside the regions. In general, high-tech transborder innovative projects were the best way for attracting foreign investors.

Due to the fact that strategic partnership among small and medium-sized enterprises are often informal and based on mutual trust, the “smart specialization areas” of cross-border interaction and support of innovative activities should be formed in the border region. According to EU research, SMEs are less likely to participate in innovation networks than larger firms are, Thus, small and medium-sized enterprises are not fully exploiting the potential of their respective regional innovation systems<sup>2</sup>.

Today the bordering regions in Austria have developed dynamically since borders were opened up. The Cooperation Programs are growing in the Austrian-Slovak trans-border region. Cross-border Cooperation Operational Program between Austria and Slovakia for the period 2007-13 involved providing community support as part of the European Regional Development Fund (ERDF) for specific Austrian and Slovakian regions that lie along their common border. Next, the cooperation program 'Interreg V-A Slovakia - Austria' focusses on smart and sustainable growth in the Austrian-Slovak border region.<sup>3</sup>. First, the program aims at contributing to smart specialization and cross-border research, driven by initiatives in the twin-capital region of Vienna and Bratislava. Secondly, it promotes the sustainable management and protection of natural resources in the natural area along the former "iron curtain" and initiate new, sustainable transport solutions. These main objectives will be

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<sup>2</sup> The Role of the Region for Innovation Activities of SMEs / [Franz Tödting](#), [Alexander Kaufmann](#). - European Urban and Regional Studies, July. - 2001. - 8: 203-215.

<sup>3</sup> Interreg V-A - Slovakia-Austria. Territorial co-operation. Accessed from [http://ec.europa.eu/regional\\_policy/en/atlas/programmes/2014-2020/austria/2014tc16rfeb003](http://ec.europa.eu/regional_policy/en/atlas/programmes/2014-2020/austria/2014tc16rfeb003)

complemented by efforts to strengthen governance and institutional cooperation, which shall lead to a better-integrated border region.

Economic development of the EU countries is planning with the focus on the increasing innovation activity of enterprises, non - government organizations and the population. It helps to integrate both innovation-producing regions and recipient regions to align their innovative positions. To implement the innovation strategy, the European Commission has developed 30 detailed operational plans and proposed a multi-level governance structure to integrate the innovative policies of the region's participants. One of the priorities of regional development is the formation of clusters, the development of e-services.

The some methods attracting investments to innovative business development in boarder regions in European and world practice were investigated by a number of authors (Fedirko 2007, Bachevska 2014, Yefimov 2018). The most effective among them are:

- Creation of the regional public investment funds for the financing of small and medium enterprises (SMEs) (Finland, Belgium);
- Co-financing projects for the innovative SMEs - providing state guarantees to creditors by the state and private capital (Germany);
- Government-created venture capital pools to finance high-tech enterprises (USA);
- State preferences system introduction - for innovative manufacturing enterprises;
- The mechanism of accelerated depreciation, tax holidays, and preferential taxation of funds aimed at innovation, etc.

To assess the entrepreneurial ecosystems prospects on the regional level, it is necessary to find out what preconditions already exist in Ukraine. The important factors for the development of regional entrepreneurial ecosystem in our opinion are:

1. Accessibility of the financial resources;
2. Innovative development, innovative clusters existing and the ability to join them;
3. The ability of local entrepreneurs to communicate with one another, trust each other, create networks.

Having these factors in many border regions of Ukraine is practically not considered. One of the prerequisites for the development of innovative entrepreneurship (whether in the form of clusters or innovative ecosystem) in the region is the presence of an investor.

Among the main financing sources for innovative ecosystem development in Ukraine we can list: venture investors; business angels; contests; business accelerators; crowdfunding; smart money; strategic investors; state subsidies. Considering the military conflict in eastern Ukraine, the last two sources are strongly limited in access.



On the other hand, there is one more powerful source that work in Ukrainian conditions, that is the domestic investor. Due to the emergence of new data on labor migration from Ukraine based on a survey of the State Statistics Service, as well as on the volume of private money transfers to Ukraine from Poland and Russia, the National Bank of Ukraine (NBU) has changed the methodology for calculating the volume of private money transfers to Ukraine. For example, according to the NBU's preliminary estimates, the amount of transfers from Poland to Ukraine by official and unofficial channels amounted to \$ 1.35 billion in 2017. According to the latest estimates by the NBU, this amount more than doubled by \$ 3.123 billion due to the National Bank of Poland. Based on the updated methodology, the annual volumes of private transfers for the last three years increased: in 2015 - by \$ 1.8 billion to \$ 7 billion, in 2016 - by 2.1 billion dollars to 7.5 billion dollars, in 2017 - by \$ 2 billion to \$ 9.3 billion.<sup>4</sup>

Sas and Spyak (2014) indicate that the sectoral structure of venture investments is deformed in Ukraine, and its dominant recipients are the fields of computer technology and financial services. According to the Ukrainian Association of Investment Business, only 1% of investment in venture funds falls on innovative technologies. As a result, we observe the intense growth of virtual IT companies and the creation of IT clusters in the border and adjacent regions of Ukraine (Goshchynska, 2016). For the first time Ukrainian IT companies united in a cluster in 2010 in L'viv, and today such organizations operate in 12 cities of Ukraine. In addition to L'viv, it have Kharkiv, Lutsk, Cherkasy, Odessa, Kiev, Ivano-Frankivsk, Dnipro, Vinnytsia, Mykolayiv, Ternopil and Konotop (Donchenko, 2017).

Today, cluster technologies ensure the development of not only domestic regional markets, but also mainly contribute to strengthening the situation at the interregional, cross-border levels.

A study of the possibilities of internationalization of specialized markets for goods and services in the western regions of Ukraine has identified the prospects for the development of clusters on a trans-regional level (Bakushevych, 2015). For example, the trends on innovation-oriented services in Ternopil region give the chances for an innovative medical and tourist cluster development, which, unlike traditional industrial clusters (consisting of producers of products, their suppliers and intermediaries), invites so-called institutes of knowledge and innovative services (Bakushevych and Martyniak, 2010). These include research centers and universities of medical, technical, and tourist profiles, research centers and other regional institutions, which already closely cooperate with many research centers from Poland and other EU countries. As generators of new knowledge and innovation, they provide a high educational level, attracting many foreign students and scholars to Ternopil

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<sup>4</sup>Source: <https://www.epravda.com.ua/news/2018/03/21/635200/>

region. It makes possible to coordinate efforts and financial resources to create an innovative products and technologies for the further development of the ecosystem in the Ukrainian - Polish border regions. Numerous international conferences, seminars, forums show the positive impact on the development of innovative ecosystem in the region of such a factor as the plurality of knowledge making agents.

The third factor, a communication ability, can be realized through the institutional component of the strategic partnership for the further successful development of cross-border cooperation.

Cross-Border Association the Carpathian Euroregion, as a joint advisory and coordination unit, has been set up to promote border cooperation between the border regions of Hungary, Poland, Slovakia, Romania and Ukraine. *The Carpathian Euroregion Strategy 2020 and Beyond (2015)* was developed with the priority No1 - “Lively, active, competitive economy of the Carpathian Euroregion & attractive investment area”.

In the years 2015-2016, a new project was implemented in L’viv oblast to improve the efficiency of the community consolidation process, to develop local management skills in a condition of decentralization, and to increase the potential of pilot communities. *Cross Border Cooperation Strategy of the Lubelskie Voivodship, Lviv, Volyn and Brest Oblasts for 2014 – 2020 (2014)* is one of the striking results of well-functioning cooperation between the border areas of the Euroregion Bug. It has a functional character and constitutes an attempt to create a coherent set of ideas and propositions for the interested regions of all three states.

The process of creating the strategic partnership are based on five main principles. These are:

- Partnership principle, signifying the joint and equal engagement of Polish, Belarusian and Ukrainian partners;
- Coherence principle of other strategic documents prepared on regional, national and European levels;
- Flexibility principle adjusting to the changing external conditions and endogenous potential, which marks the necessity to monitor the realization of documents and, if so required, to perform updates;
- Principle of thematic concentration selects several areas most important to the functioning of the cross border region and outlines spatial concentration of ecosystem’s key elements, by indicating the cross border areas of strategic intervention, within which the realization of the strategic directions shall be undertaken;
- Data credibility principle as regards the data used in the process of creating the document, coming both from statistical and other sources (*Cross Border Cooperation Strategy, 2014*).

Further development of the cross-border cooperation requires the harmonizing methods of collecting and processing statistical data on both sides of the border.

The system of partnership engaged in its realization includes four basic sectors: public sector (government administration, self-governments), private sector (business entities), social sector (non-governmental organizations), research and development sector (institutes of higher education, research institutes). Each of those has at its disposition different forms and instruments suited for cross - border entrepreneurial ecosystem development. Such forms may be:

- business angels active participation in the cross - border innovative project management;
- formation of cross-border innovative structures (in particular clusters, technological and scientific parks, and innovative business incubators);
- creation of "innovative laboratories" as networking model of virtual business partnership for business- education – science cooperation (Bakushevych, 2015).

One of the most successful projects in Ukraine in the sphere of stimulating innovation ecosystem development with the domestic and foreign investments is the Sikorsky Challenge, which designed to attract creative young people to innovative entrepreneurship. Created in 2012, the innovative ecosystem Sikorsky Challenge is supported by National Technical University "KPI" (Kyiv) and the Science Park "Kyiv Polytechnic". The full technological circle is carried out from new ideas finding and business modeling to attracting investment and creating a new innovative business in this environment. For last four years, it has been possible to increase the number of investors, interested in innovative projects, from two up to eleven in the KPI ecosystem<sup>5</sup>.

In the process of Ukraine's integration into the EU the mechanism for the development of cross border cooperation through the creation of a "smart cross border region", which has been applied in Austria-Slovakia's transboundary regions, may also be an effective for the development of an innovative entrepreneurial ecosystem in the Euroregion Carpathians between Poland and Ukraine.

Border and adjacent territories of Ukraine have similar chances for the regional innovative ecosystems development. However, in the process of decentralization without the proper support by local and foreign governance, relevant strategies for cross border cooperation, without knowledge and skills diffusion from border regions this process is not easy and very slow. The lack of stability and predictability of domestic government policy in the economic and legal spheres greatly complicates the development of innovative entrepreneurship in the region. Our expertise of medical cluster initiatives

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<sup>5</sup> Source: <http://www.sikorskychallenge.com/>

development in L'viv and Ternopil regions shows that most specialists from various sectors of the social - economic sphere (physicians, medical technicians, social workers etc.) often complain of insufficient level of their entrepreneurial skills, lack of communication skills, insufficient knowledge of foreign languages during the search foreign partners and investors.

The processes of decentralization, its influence on the innovative development in border regions between Ukraine and EU countries shows dependence between institutional transformation, innovative and financial infrastructure development. We can see that still exist low level of cross-border cooperation projects' activity supporting innovation.

The border regions for their innovative development require special attention to identify of strategic goals and the programs' implementation in the spheres of investment, knowledge and innovation diffusion.

The proposed concept of the innovative ecosystem as entrepreneurial partnership in the border and adjacent territories of Ukraine consist of main pillars while implementing decentralization reforms. They are: strategic innovation marketing of boarder regions to find out their smart specialization; social networking and scientific cooperation to promote cross-border diffusion of innovative ideas, knowledge, experience; an interactive dialogue between local government, business and science representatives for the entrepreneurial potential enhancement.

The model of regional innovation ecosystems development for cross-border cooperation assumes elements such, as business and local government leadership, networking, finance, talent, knowledge, and supporting services. In our opinion, the key role is the presence of business leaders in newly formed united communities ready to take the initiative, as well as the responsibility to promote their ideas. We propose to involve local universities, with their overseas partner universities, research centers and laboratories together with business associations on the common *virtual platform* for strategic planing of cross border innovative cooperation, to prepare innovative cross-border projects searching of partners, donors and investors. The virtual platform model and mechanism of its implementation has been developed and implemented during the *Innovative Laboratories* project (2015)<sup>6</sup>. The platform allows partner universities from three European countries and three Ukrainian universities to cooperate with each other, solving local problems in innovative business and social entrepreneurship. It also got students and academics to involve in challenges confronting Ukrainian businesses. It can also enable a better designing and further developing the transborder innovation ecosystem.

The main steps of planning mechanism following the cross border innovative ecosystem development are:

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<sup>6</sup> TEMPUS: INNOLAB Project ( 2015), Accessed from <http://www.innolabs.org/>This project has been funded with support from the European Commission.

1. Innovative idea presentation on a virtual platform that can develop Polish and Ukrainian universities, businesspersons, entrepreneurs, state and public service and non-governmental organizations. The concept of the innovative entrepreneurial ideas with the calculation, based on the industry analysis, in which the innovation project is planning to implement, should be available for the perception of other possible start-up counteragents and reflect the benefits that would be interesting to potential local and foreign investors.

2. Cross-border marketing of the future innovation. This means a systematic activity in the development and promotion of products, services and technologies on the cross-border market to meet the demand of newly established local communities in Ukraine ('hromadas') and in Poland ('gminas').

3. Social networking and communication support to promote diffusion of innovative ideas, innovative projects and innovative products. In these matters, the most effective is cooperation with public organizations, profile associations and professional associations, through registration on their sites, visiting open meetings, taking part in the work of committees, and, if possible, personal contact with the founders and members of these organizations. Advertising through social networks is the most affordable way to distribute information for a startup, since it does not require additional investment.

4. Community traditions and business culture cohesion. No less important is the influence of the community's cultural traditions concerning entrepreneurship, moral and actual support of entrepreneurs among the local population, and the formation of a favorable business climate in the region. The best way is organizing an interactive dialogue between domestic and foreign government, business and science representatives to develop a trans-region development strategy.

5. The prospects of strategic partnership, in contrast to the existing short-time strategies for the development of separate territories. Next issue is identification of institutions and a team of talented managers that could implement the developed strategy and lobbying for the interests of the region, rather than individual business groups or political parties.

5. Knowledge. Common efforts need for the partnering educational institutions from Poland, other bordering EU countries and Ukraine to establish a flexible e-learning system for obtaining entrepreneurial knowledge by local community leaders, businessmen, professors and students. The accent should be pointed on specific practical skills for an international and cross border cooperation. The important element is the dialogue between educational institutions and business on what exactly competences are needed for the international entrepreneurship development in the region. Typically, these are language skills, stress tolerance, teamwork skills. After all, many firms today offer their own system of training and re-staffing of personnel. The other way is the dissemination of knowledge and open innovation, the formation of a positive

attitude towards cross border cooperation that will enhance the cluster initiatives development among entrepreneurs in the region.

Regarding the role of other elements in the cross-border entrepreneurial ecosystem development, they must form the region's brand as a supportive environment for business, housing and investments. This means formation of a favorable "investment face of the territory", internal and external branding of the border regions of Ukraine and EU countries.

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