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**GROWTH OF REGIONAL COMPETITIVENESS ON THE INNOVATION BASIS**  
**(in Terms of Prydniprovyia Region)**

**Abstract.** The urgent problems evidence and their implementation on the basis of practical measures as for realization of cluster model of regional development and determination of its key sources of financing.

**Key words:** investment resources, cluster model, competitiveness of region

**Intoduction**

In its development Ukraine rose superior to stage of reconstructive growth and shifted to investment one. Using potential of innovation development is among fundamental factors to be critical for economic growth of Ukraine. Its important falling behind developed countries in social and economic development as well as in scientific and technological one makes transition to innovation type of development necessary condition for maintaining economic and political sovereignty. Exhaustion of factors of extensive economic development results in redoubling attention to search of new factors to speed up economic dynamics being adequate to current development of world economy. Thus, implementation of investment and innovative model of economic growth in Ukraine becomes objective need which alternative is decline of national economy, and death of economic or may be national sovereignty. Hence, today Ukraine faces inevitability of deep correcting economy which idea is not only economic growth. Its innovation nature should become basis for stable economic progress as well as high competitiveness within the world economic area.

The article demonstrates results of studies concerning solving strategic problem of innovative reformation of economy both at national level and at regional one based upon intensive search of theoretical evidence and their implementation on the basis of practical measures as for realization of cluster model of regional development and determination of its key sources of financing.

*1. "National Projects" as the Tool of Innovative Transformation of Economy both at National Level and at Regional One*

Innovations should support dynamics of development of the state and competitiveness of enterprises. The main objective of the state innovative policy is creation of socio-economic, organizational, and legal conditions for effective rebirth, development and use of technological capabilities of the state, for ensuring implementation of modern harmless, safe and sound, energy-saving technologies, resource-recovery technologies, for production and realization of new types of competitive goods. Modernization of Ukrainian economy on the basis of innovative development should be provided with complex implementation of numerous tools of economic policy, mobilization of entrepreneurial potential of the society, and interaction between state, science, and business.

Realization of the state policy aimed at development of necessary economic, institutional, scientific and technological, and social factors of validation of Ukraine as high-technology country, and its joining high-technology world countries should become the fundamental of new strategic course of innovative development. It should be noted that this very objective may become foundation not only for economic strategy but also for political consolidation of the nation.

Within the concept of innovation and investment of development in Ukraine under patronage of the President of Ukraine it is foreseen to implement policy of “national projects” to be the policy of economic breakthrough and faster growth aimed at improvement of business reputation of Ukraine, opening new prospects, and its near Group of Twenty. Legal support of status of “National Projects” is important means to avoid bureaucratic longstops, and to guarantee their fast implementation. For legislative consolidation of “national projects” there is formulated a project “Regulations for National Projects”, and much is done to develop project concept of the Law of Ukraine “On National Projects”.

Key indices which will be achieved thanks to implementation and realization of policy of “National Projects” are:

- USD14bln to 15bln of direct foreign investments will be attracted
- No more than 300,000 new jobs will be created
- GDP will be increased by 4,7-5%
- Annual import expenditures on energy will be USD2bln-2,5bln reduced; GDP energy intensity will decrease by 10-12%
- There will be set favourable investment environment and positive image of the state; there will be approximated prospect of joining G-20.

Being strategic and system “National Project” should be aimed at solving the most acute problems within the society, and developing impulse for economic, social, and regional progress. Today the main functional blocks as well as major process of realization of national projects are defined: project “Open World”(creation of national educational communicative network);

“Affordable Housing”; “Qualitative Water”; “Clean Town” (modern complexes on solid domestic waste processing); “Energy of Nature” (construction of wind power plants, solar power plants, midget power plants), and many other projects.

We believe that successful realization of national projects will be possible if concept of realization of mechanism of regions of Ukraine on innovative basis is developed with the help of cluster approach. Under current market relations economic branch is next to virtual idea. However, authors of the majority of regional strategies and programs of social and economic development still work in accordance with old party and command canons. As for the new approaches they foresee indirect influence on general economic development through creating conditions for private business. Implementation of the cluster model of regional economy development will favour mutually advantageous cooperation between government, business, and scientific institutions.

## ***2 Importance of the Cluster Model, and Foundation of Choice of Key Clusters for Project of Regional Development and for Competitive Growth***

Characterizing cluster as interconnected group of companies and institutions of allied sectors located within one region and engaged in one business line one may state that high competitiveness is one of the principal conditions of their profitable functioning. Clustering companies foresees their close cooperation, alternative of sharing tasks and functions for best possible activities of the branch in region as well as the region progress as a result of cluster's success. Organization of financial services in London, motor industry in Germany, and technology intensive IT cluster in California can be examples of available heavy-producing clusters. In Ukraine positive experience of cluster model of regional development implementation are Lviv Region (tourist cluster) and Donetsk Region (agricultural cluster and metallurgical cluster). Thus, development of tourism was determined as priority for Lviv Region. Such a branch is not available. Smoothly tourism emerges, passes, and runs into many industries. As for tourism, cluster approach to strategy of development of economy of region considers simultaneously abilities of all branches which work for the type of activity. It is both transport, and hotel business, and infrastructure of city economy, and advertising, and many other things.

Thus just cluster development of regions is the condition of innovation- oriented economy, stimulation of process of innovation, modernization, and interaction of key parts. Regional competitiveness is based on efficiency improving owing to promotion of innovations, improvement of business environment, and creation of efficient branch clusters. As the world practices show, improvement of competitiveness of region depends on application of two-component approach:

- Improvement of business environment of operations of business. It will ensure creation of economic and legislative, and institutional platform within which clusters and separate companies compete with each other

- Mobilization of clusters which will give ability to put first things first and to intensify advantages and spheres of business environment; it will help companies to boost production and competitiveness; it will guarantee dialog between government and business.

Thus, it is obvious that the state is quite interested in backing clusters. Among other things it should ensure:

1. Close cooperation between clusters and scientific research institutions, and institutions of higher education
2. Financing technological innovations as well as their implementation
3. Creation of adequate supporting and stimulating regulatory framework.

It is expedient to implement cluster model of regional competitiveness improvement in Ukraine with the help of pilot project implementation within separate the most developed regions among which Prydniprovsky Industrial Region is. Dnipropetrovsk Region ranks second after Kyiv in the Index of Global Competitiveness of 2009-2010 among regions of Ukraine. Economy of Dnipropetrovsk Region has powerful heavy industry thanks to which it makes a great contribution to the country economy. That's why it is industrial iron heart of Ukraine. Dnipropetrovsk Region assures more than 15 per cent of the country GDP. Practically each sixth hryvna in the state budget is earned by enterprises of Dnipropetrovsk Region. 100 per cent of black-iron ores, 82 per cent of iron ores, 75 per cent of pipes and tubes, 57 per cent of ferrous alloys, and 37 per cent of rolled metal products are being produced here.

It goes without saying that it is great responsibility to be the heart of the state. Any alternation in indices of activities impacts on entire Ukraine, and it requires particular grounding the strategy of regional development as important factor of attracting investors, and transfer of innovative technologies. It is required to identify the most upcoming sectors for the region development, to form key clusters, and to be concentrated on attracting investments for them. It will give ability to realize absolutely new strategy of regional economy management. So, the strategy of development of economic growth of region should answer the three principal questions:

- Which areas and sectors have the greatest potential for growth
- Which resources are required to realize the potential
- How it is possible to form the potential into practical power of region, and what is the term to realize stated objectives.

It is important to show businesses which sectors development is attractive for region; where they can find absolute support of the state including financial and credit policy, and where they can best incorporate in the program of the region development.

Grounding selection of the most attractive that is key clusters of regional development project aimed at competitive growth of regional economy should be effected according to specific criteria. Central of them are:

- Level of economical growth potential (volume and dynamics of employment of population, contribution to welfare of a region)
- Fragmentation of cluster, level of small and medium business development, level of competition
- Potential of the project efficiency that is possibility of operative alternations at a regional level within cluster approach to make the project successful with participation and support of representatives of cluster.

Following additional criteria should also be taken into account:

- International competitiveness of cluster
- Geographical depth
- Communications with other clusters within economy of region.

Analysis of conditions and dynamics of economical growth of Prydniprovsky Region show that there are a number of problem zones which may be influenced on within regional development project. Among them are:

- Low level of diversification of economy and domination of heavy industries (e.g. machine-building industry, metallurgical industry, chemical industry)
- declining employment in some key sectors (e.g. agriculture, finance services, aerospace industry, defense industry)
- Poor level of modern science intensive sectors development (e.g. business services, communications, electronics etc.).

That very time Dnipropetrovsk Region has a number of competitive or potentially competitive clusters owing to which hardening and growth of competitiveness of the region is possible (e.g. clusters of agriculture, construction, chemical industry etc.).

Advantages and burning problems of Dnipropetrovsk Region identified help to set medium-term and long-term objectives for government uthorities, business and society, and to draw up the guidance for regional competitiveness growth (Figure 1).

Definition of pilot clusters with significant growth potential is one the first strategically verified steps of Dnipropetrovsk Region progress. It is vitally important to find “engine points of growth” in the region. These are several sectors which on manufacturing chain automatically initialize development in related sectors. This is the point of cluster approach use in development of economy of Dnipropetrovsk Region.

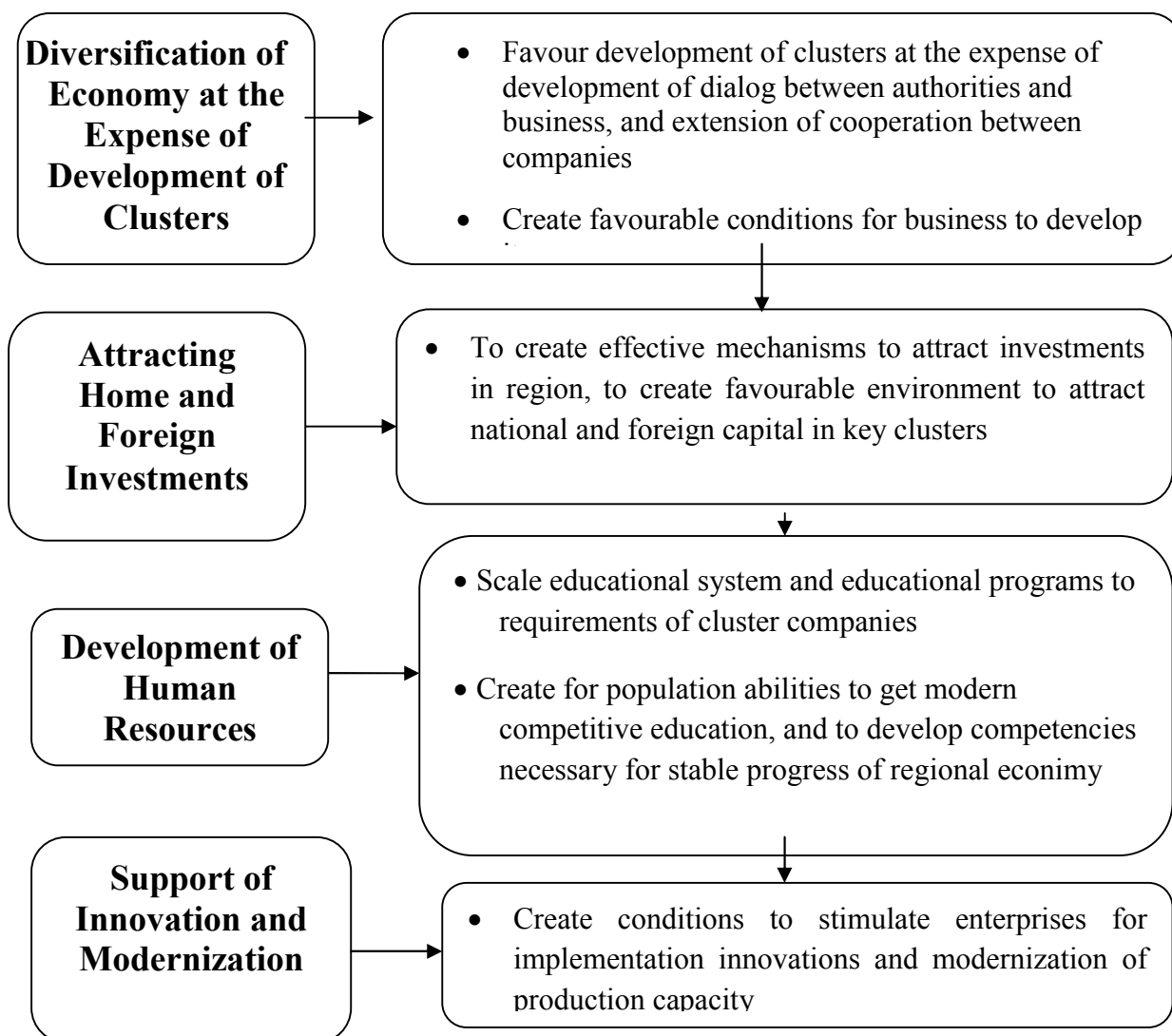


Figure 1. The Key Tendencies of Regional Competitiveness Growth on Cluster Model

However, to talk of real effect and tangible results of the “engine” strategically priority areas at the first stage of cluster approach implementation it is required to select two of them or three. According to selected criteria of key clusters alternative in the region as well as principal directions of regional competitiveness it is expedient to identify six groups of clusters of which two key clusters are separated to realize project of Prydniprovsky<sup>1</sup> Region development:

- the most attractive: agriculture, food industry;
- attractive: construction, engineering, chemical industry;
- less attractive: business services;
- unattractive: metallurgy.

<sup>1</sup> Statystychnyi schorichnyk Dnipropetrovskoi oblasti za 2009 rik – Dnipropetrovsk. Presa Ukrainy. 2009. - 590 s

The introduced clusters have considerable potential of increasing competitiveness of the region. Let us estimate each of them according to the basic selection criteria (Table 1).

Table 1

Grounding of Key Clusters of Prydniprovyia region [1] <sup>1</sup>

Clusters	Key selection criteria					Attractiveness
	Economic potential			Level of cluster fragmentation	Potential of the process efficiency	
	Employment rate in 2008	Dynamics of 2004-2008, %	Contribution into the region welfare			
Agriculture/Food Industry	89,121	-3,1				
Construction	40,845	21,5				
Engineering	47,022	-5,8				
Chemical Industry	30,891	16,9				
Business Services	28,238	16,5				
Metallurgy	118,593	2,7%				

Note : attractive unattractive

Thus, according to the criteria of economic potential (degree and dynamics of population employment) taking into account the specialization of the economy of Prydniprovyia region comparing to Ukraine (specific weight of Dnepropetrovsk Region in general population employment in Ukraine - 9,37%), Russia (specific weight of Dnepropetrovsk Region in general employment in Russia – 1,81%) and countries of Eastern Europe (specific weight of Dnepropetrovsk Region in general employment in Eastern Europe – 6,04%) the most attractive are agriculture, food industry, construction, engineering, chemical industry, and metallurgy. From the point of view of region’s contribution into the welfare such clusters as metallurgy, engineering, construction should be singled out. They contribute the most at the expense of giving the most shares of jobs and relatively high pay.

Clusters have different degree of attractiveness depending on the level of fragmentation and project efficiency. That is why in spite of the fact that today such budget-making branch as mining and metallurgical complex plays main part for Dnipropetrovsk Region, metallurgical cluster is considered to be the most unattractive one in connection with great dependence upon several large

companies with low level of small and middle businesses development. In this situation cluster strategy will turn into the strategy of the largest cluster's companies. Speaking about construction branch it is necessary to note that despite the knock made by economic crisis it is still very important driver in economic structure of Dnipropetrovsk Region. As for agriculture, the importance of this area is ironically conditioned mostly by the fact that Dnipropetrovsk Region is mighty industrial region. It is quite necessary to rebuild the economic structure to minimize its dependence on, for instance, fluctuations of demand for metal production that has been prevailing up to now. Besides agriculture of Dnipropetrovsk Region, the biggest grain producer has great potential.

Consequently, taking into account the correspondence to the determined selection criteria the following two clusters can be named as the most attractive ones: agriculture-food industry and construction, that can be "centers of development" which will give the impulse for innovative rebuilding of the economy of Prydniprovyia Region. Nowadays the situation in the region taken in complex is mostly determined by the work of industrial giants. Here is our strength and weakness at the same time. Any fluctuations of such enterprises lead to the turbulence of the whole cities of the region, and the latest crisis has confirmed it. The situation can be changed by developing small and middle businesses in the region. Here is the greatest potential of the long-term growth.

### ***3. Key sources for funding regional economic development***

Success of implementation and realization of the project of regional economic development and competitiveness increase according to cluster model depends mostly upon the possibilities of its financial provision, effective search for mobilizing domestic funding sources and attracting direct foreign investments. Prydniprovyia Region can use the variety of sources to fund innovative and investment development programs.

The following key funding sources at regional level can be singled out:

- Public financing (provides means for general infrastructure improvement and services quantity in the region; depends upon the funds available at the national level and current state priorities);
- International institutions funding (involves using range of such financial instruments as credits, investments into assets);
- Public and private partnerships (require financial obligations and correspondent experience of the region);
- Direct foreign investments (require proactive role of regional authorities in attracting and constant support of investors).



Let us examine in details direct foreign investments. Potential efficiency from direct foreign investments is rather high provided using strategic cluster approach to regional development. There are several categories of foreign investments that region can attract (Figure 2).

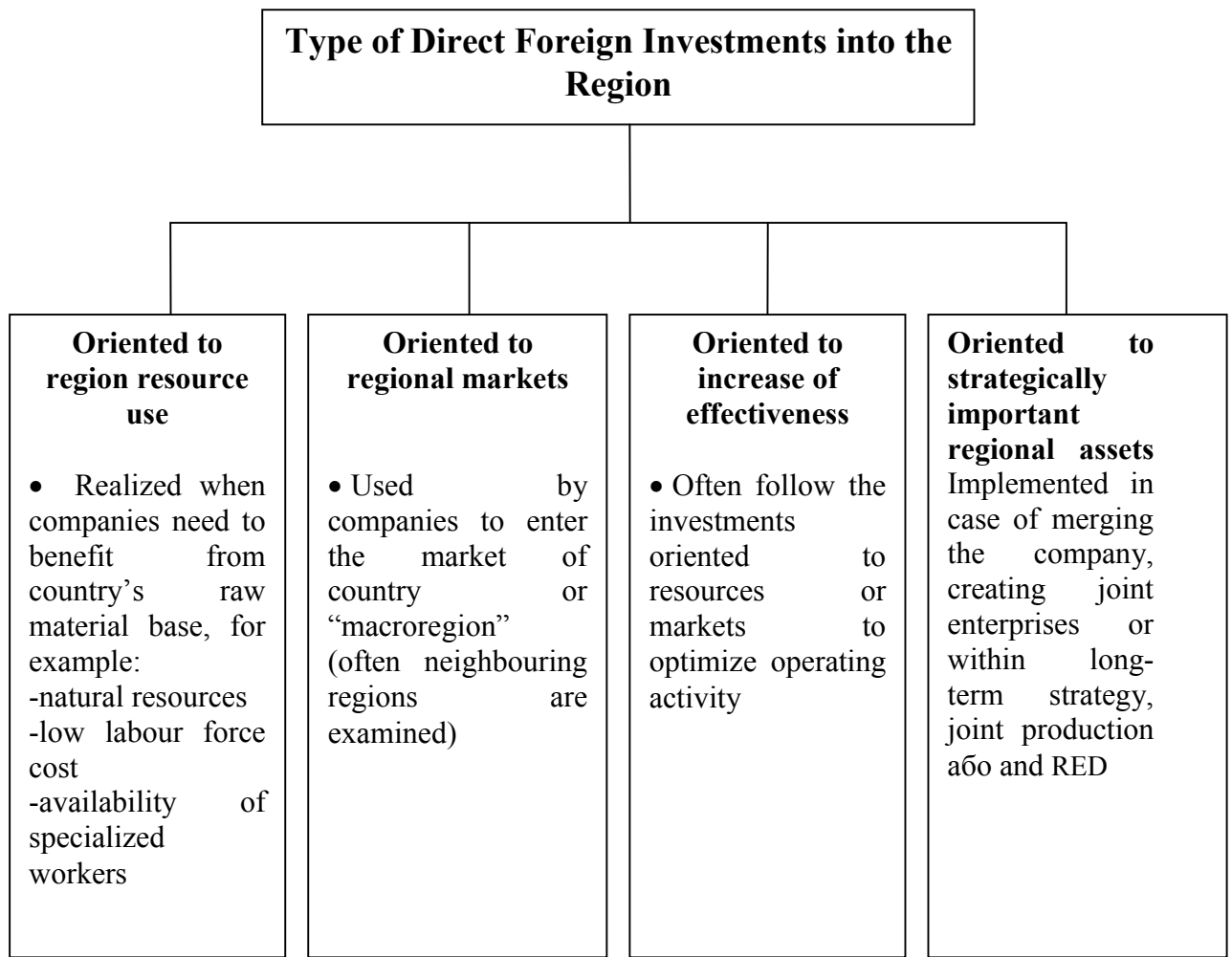


Fig.2 Type of Direct Foreign Investments into the Region

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If regional government bodies want to influence decision of the investors they must create necessary conditions and develop strategy for investment attraction (Table 2).

Such factors influence upon successful investments attraction to Prydniprovyia Region:

- Efficiency of cluster approach: region needs and has to implement the strategy of foreign investments attraction according to the needs of specific key clusters to turn them into the "point of growth"
- Comprehensive approach: proactive approach in attracting target companies to the region is the key to success; it requires implementation of separate systems and processes in investment agencies

- Differentiated brand: the region has to differentiate its investment brand from the competitors depending on the selected investors' segments and clear decision concerning the branch which requires the investments
- Ensuring the practical implementation of arrangements: country's strong investment brand is a very important factor for primary attraction of companies to the region, but investors will not take a decision to enter it without implementation of the arrangements
- Investors' support: providing investors with the necessary system support, for example, in business registration, funding attraction, staff employment etc., is a critically important factor for investment attraction

Table 2

Basic Conditions and Strategies for Direct Foreign Investments Attraction at Regional Level

<b>Conditions of Investment Attraction</b>	<b>Administrative Environment</b>	<b>Strategy for Investment Attraction</b>
<b>Tasks</b>	To create effective mechanism of administrating direct foreign investments aimed at providing transparent process for the investors	To define target benefit from direct foreign investments and target branches of the economy, investments and types of financial stimulation
<b>Basic Activity Directions</b>	1) elimination of inefficient existing mechanisms: -regulation and administrative processes -activities of controlling and other units 2) implementation o the best international practices in the sphere of direct foreign investments	1) finding key regional assets; 2) finding the branches of primary importance; 3) finding necessary type of investors or partners
<b>Key Results</b>	Effective mechanism of administrating direct foreign investments: - Investment agency: • administrating direct foreign investments; • promotion of investment attractiveness of the region. - Creation of free trade and investment zones	Efficient strategy on attracting investors to priority regions: - Financial stimulation and support (tax advantages, grants etc.) - Terms and priorities: • Local workers employment; • Staff training and transfer of skills; • Ensuring proper level of remuneration

General objectives are the basis for the region to select the approach to investment attraction taking into account present difficulties and problems (Table 3).

Table 3

Approaches to Investment Attraction at Regional Level

	<b>"Reactive Approach"</b>	<b>"Proactive Approach"</b>	<b>"Domestic Growth"</b>
<b>objective</b>	To help interested investors find easily contacts of the necessary organizations and assistance in the region	To determine potential target investors and cooperate actively to attract them to the region	Lack of strategy of active search for investors with quick and professional reaction when investors show certain interest
<b>Advantages</b>	-high possibility of agreement conclusion; -relatively short sales cycle; - relatively high staff productivity and investment revenue	-lack of dependence from external companies in attracting the investors; -ensuring substantial monitoring of regional changes; -wider range of possibilities as for forming the structure of regional economy	- inexpensive approach owing to low costs for employment, advertising and financial stimulation; -free resources for investing into assets; -keeping the possibilities to react to potentially profitable agreements
<b>Necessary conditions</b>	-availability of sufficient advantages in business environment of the region to enter the "shortlist" of the investors; -ability to offer competitive package of additional privileges and terms; -experienced and professional staff; -big team on projects sales and several analysts	- experienced sales specialists; -a lot of skilled investment analysts; -established contacts with target companies; -high-quality assets attractive for the investors; -possibility to invest into regional assets to increase their attractiveness for potential investors	-small team on investment project sales and research ; -limited marketing activity and activity on developing regional; -presence of local representatives to hold negotiations with potential investors and giving support

Nevertheless, Prydniprovya Region with its objective to attract direct foreign investments faces general difficulties and problems:

- Lack of coordinated standpoint of regional authorities as for the strategy of attracting direct foreign investments. Lack of consensus often leads to lack of focus, inefficient use of resources and surpluses of possibilities to be offered to the investor
- Lack of clear comprehension and communication of the facts which distinguish the region for investors and differ from the competitors. Most regions are not able to poison themselves efficiently, relying on the standards that are used by other countries-competitors and following them unquestioningly

- Lack of segmentation and clear objectives within the strategy (target segments of the investors). Great amount of regions prefer passive strategy (waiting until the investor gets interested by himself) or active action without connection with target segment of the investors (for example, generalized information delivery), that lead to waste of resources and developing inefficient offers for the investors

Lack of access to powerful investors interested in the region, investors who appreciate unique characteristics of the region. Most part of the regions waste their time attracting non-target investors as they have no idea about the type of investor they need. Thus they decrease efficiency of their work. Having selected the approach to investment attraction at regional level it is necessary to develop the correspondent structure and build effective mechanism to attract the investment to the key clusters:

- attracting target foreign investors as the expense of purposeful positioning of the region as the one which is attractive among the selected branches and clusters;
- assistance to the potential investors in solving all the necessary administrative and legal questions within simple, comprehensive and customer-oriented process;
- constant support of the companies that operate in the region;
- making regional policy corresponding to strategy of direct foreign investment attraction;
- assisting the companies working in the sphere of searching corresponding partners and suppliers to widen their presence in other regions as well;
- creating positive image and brand of the region at global level, goods and services promotion produced in the region;
- interaction with key interested parties aimed at ensuring correspondence the processes and structures to objectives and view of the region.

### **Conclusions**

The approaches selected for Dnepropetrovsk Region are planned to be developed with the help of two mechanisms. The first one is to create the conditions by the authorities where business can develop conveniently and efficiently and provide decisions promoting its growth and regional welfare. The second one is a direct organization of clusters. Most companies working in one direction have the same difficulties. Companies' interaction helps provide cooperative successful solving of the problems in the situations where commercial interests are not crossed but there are certain similar problems.

Short-term effect can be achieved by classic administrative methods but to achieve long-term effect of regional economic growth it is necessary to use the clusters where maximum

development is possible. Thus main branches of Dnipropetrovsk Region are heavy and chemical industry but they have not many enterprises to be involved into. In case of pointwise help to several manufacturing the effect will be low while construction and agriculture are represented by hundreds of companies all over the region each of which can improve its economic situation. This is a key idea and task of new innovative and investment project.

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