

# Methods of regional innovative clusters forming and development programs elaboration

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*The aim of the article is to select programmes for the formation and development of innovative cluster structures. The analysis of the backgrounds of formation of innovative clusters was made in the regions of Ukraine. Two types of programmes were suggested for the implementation of cluster policy at the regional level.*

Key words – innovative clusters, forming, development, regional policy, regional programm.

## I. Introduction

The instrument of the implementation of the control system of the innovative development and increasing enterprises' innovative activity on the basis of the cluster approach is cluster policy. Cluster policy is regarded as an activity of regional and state management agencies to develop principles, objectives and methods for promotion of organizing and cluster development in order to increase the competitiveness of the regional economy.

## II. Backgrounds for forming and development of innovative clusters

The issue of cluster policy forming on a regional level was explored by such scholars as: Christian Ketels, Lawrence Young, Thomas Harris and others. Today the research of efficiency of innovative cluster structures is held by such organizations as the EU Commission, the National Governors Association of the USA and others. The research data transfer accents of study of the sources of macroeconomical growth in the micro (enterprise-level) and mezoconomical (at the enterprises' regional clusters) sphere.

The works of Ukrainian scholars also should be mentioned: S.Sokolenko, O.Vetrova, T.Tsykhan.

The role of the government in cluster forming is also important methodological issue. Porter believes that "... the legislative and executive branches of the government, opposition parties, and also those who are in power, everyone should be involved in the process. Cluster initiatives must be motivated by the desire to achieve results, they should be directed to academic institutions, intellectual centers or governmental agencies which can see the whole process of study"[1].

The international experience shows that in big developed countries, large number of clusters that were active in the last few years, have been put forward by local or regional governments [2, p. 18-19].

According to the theoretical backgrounds of cluster forming and cluster approach, the concept of innovative economic systems' development management on the basis of clusters' organizing, foreign experience of cluster

forming policy and also scientific approach to the process of development and realization of policy. The author suggests a programme as a mechanism of development and forming of innovative clusters at the regional level.

To select a particular program of formation or development of innovative clusters in the region, the author has made the analysis of backgrounds.

The number of indices that analyze the level of localization in the region were calculated: scientists, scientific organizations, specialists of higher qualification, innovatively active enterprises, investments in fixed assets, realization of innovative products, the expenses on scientific and technical work and so on.

According to the analysis results and backgrounds for evaluation of cluster structures in Ukrainian regions (fig. 1) we suggest two types of current policy approaches to develop programme formation and development of innovative clusters, "down-up" and "up-down" (table 1).

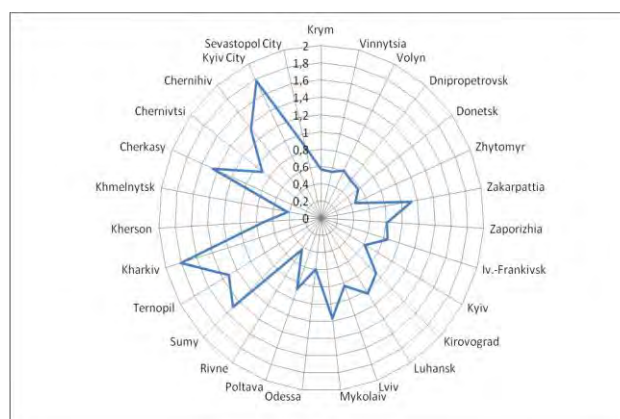


Fig. 1. The integral index of organizational and economic conditions for the formation of innovative cluster structures of regions in 2010

TABLE 1

### INNOVATIVE CLUSTERS PROGRAMS

Region	Approach type to program development
Zakarpattia, Luhansk, Mykolaiv, Sumy, Ternopil, Kharkiv, Cherkasy, Chernihiv regions and Kyiv City	"Down-up" The programme of "self-organizing cluster"
Krym, Vinnytsia, Volyn, Dnipropetrovsk, Donetsk, Zhytomyr, Zaporizhia, Ivano-Frankovsk, Kyiv, Kirovograd, Lviv, Odessa, Poltava, Rivne, Kherson, Khmelnytsk, Chernivtsi regions and Sevastopol City	"Up-down" The programme of "purposeful (centralized) cluster formation"

We suggest the usage of "up-down" approach for the regions with low integral index for forming innovative cluster structures, when forming regional programmes of innovative cluster formation. When using "up-down" approach government (in the process of consultation with cluster potential participants, research organizations) establish regional priorities, formulates stimulating vision

of future development, and form communicative process and selects subjects.

Once regional priorities and the group of subjects are set, the spread of innovations becomes a process that is subordinated to the requirements of the market, with a small degree of government interference. Spontaneous development of clusters, which is suitable for Ukrainian regions with high levels of integral index for forming innovative cluster structures can be implemented using the approach "down-up".

### III. Programmes of formation and development of innovative clusters

The program realization of "purposeful cluster formation" in conditions will require implementation of the following functions:

- To provide balance of interests and contradictions solving;
- Formation of mutual trust between the cluster members;
- Creation and development of common interests of the cluster participants;
- Information exchange and communications creation;
- Cooperation with regional governmental agencies;
- Decision-making.

In the conditions of centralized cluster formation, these functions will be executed by a system of control, formation and cluster functioning in which we suggest the following management structures:

- Regional administration, which will be a governmental representer and will make the monitoring of the cluster;
- Independent coordinator which will perform consulting and elaboration of projects variations of the cluster;
- Strategic management of the cluster that will join the main cluster participants and administration that will form the cluster development strategy.

The main tasks of the Coordination Council of the cluster in terms of its spontaneous formation are:

- Scenarios creation for cluster development and choose the most effective development strategy;
- Development and coordination of basic requirements of enterprises to suppliers and intermediaries;
- Costs reducing by introducing new technologies according to scale affect;
- Improving the efficiency of collective innovation in organizations - participants of the cluster, including the result of joint projecting and horizontal cooperation;

- Formation and providing growth consulting and engineering services, especially for small and medium enterprises on account of subcontracting introduction in ensuring production of primary products of the cluster;

- Expanding the access to information about market needs and product promotion of small business services to the market of large companies;

- Problems solving, related to the use of intellectual property;

- Cooperation with regional authorities and lobbying cluster interests;

Government customers of the regional cluster programmes can be regional administrations. The developers can be research, consulting organizations, universities, entrepreneurship support centers, regional centers for investment and development. Organizational and financial support can be provided by international donor organizations. In case of international organizations involvement in the development and financing of cluster program, it acquires the status of public-private-international program.

### Conclusion

Adoption of the cluster concept in business and governmental circles of Ukraine, makes regional management to develop and implement regional cluster programs of the region.

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