Anna A. Maltseva[1]

SOCIOHUMANISTIC DESIGN OF THE TERRITORIES OF INNOVATIVE DEVELOPMENT IN RUSSIAN FEDERATION

The article presents the results of a comprehensive study of the current state of territories of innovative development in Russian Federation. The author proposes to apply the methodology of sociohumanistic design for their formation which will ensure the fulfillment of all necessary interrelated functions for building the innovative development growth points in all regions.

Keywords: *territory of innovative development; sociohumanistic design; innovations; science city; special economic zone.*

Ганна А. Мальцева

СОЦІО-ГУМАНІТАРНЕ ПРОЕКТУВАННЯ ТЕРИТОРІЙ ІННОВАЦІЙНОГО РОЗВИТКУ В РОСІЙСЬКІЙ ФЕДЕРАЦІЇ

У статті відображено результати комплексного вивчення поточного стану територій інноваційного розвитку в Російській Федерації. Запропоновано для їх створення застосовувати методологію соціально-гуманітарного проектування, що забезпечить виконання всіх необхідних взаємопов'язаних функцій для формування полюсів інноваційного розвитку в регіоні.

Ключові слова: *територія інноваційного розвитку; соціально-гуманітарне проектування; інновації; науко град; особлива економічна зона.*

Рис. 2. Літ. 15.

Анна А. Мальцева

СОЦИО-ГУМАНИТАРНОЕ ПРОЕКТИРОВАНИЕ ТЕРРИТОРИЙ ИННОВАЦИОННОГО РАЗВИТИЯ В РОССИЙСКОЙ ФЕДЕРАЦИИ*

В статье отражены результаты комплексного изучения текущего состояния территорий инновационного развития в Российской Федерации. Для их создания предложено применять методологию социально-гуманитарного проектирования, что обеспечит выполнение всех необходимых взаимосвязанных функций для формирования полюсов инновационного развития в регионе.

Ключевые слова: *территория инновационного развития; социально-гуманитарное проектирование; инновации; наукоград; особая экономическая зона.*

Problem statement. Today's realities caused by stagnation of economic growth in Russian Federation and unstable position in the global socioeconomic space dictates new requirements for territorial organization and searching a new conceptual framework and practical tools for accelerated country's development in the near future. New approaches to territorial organization are actively implemented abroad and reported in scientific publications, i.e., by R. Shearmur (2011).

Gaining advantage under conditions of rapid changes of technological modes can be achieved by paradigms change from the causal approach to teleological approach (target determination). Sociohumanistic design in particular, conceptually created by V.E. Lepsky (2011), can be a basis for the formation of the seventh technological mode. It should be aimed at the solution of "external problems" in relation

[1] Tver State University, Russia.

* Статья выполнена в рамках проекта «Индикаторно-рискологический подход в управлении территориями инновационного развития» по государственному заданию Министерства образования и науки Российской Федерации Тверскому государственному университету.

to all technological modes and includes as a basis the post-nonclassical type of scientific rationality. Management in its context is not a rigid determination of systems but is "a soft form of management" which is creating the conditions for development.

Transforming scientific methodology using contemporary modern approaches to territorial organization for effective management and development it is reasonable to develop a deterministic design of their new forms. Its key feature should be the formation of special milieus promoting innovation and providing mutual influence with positive synergy and self-development of economic entities. Optimistic scenario of such milieus development suggests as the result the formation of a self-organizing system of entities creating an innovative field which affects the environment and provides further socioeconomic development of a region (macroregion).

Initiative to establish integrated territorial structures for perspective development at the macro- and mesolevels in Russian Federation includes the creation of clusters, science cities, special economic zones, zones of territorial development, zones of advanced development.

The variety of such structures is caused by differentiation of their essential characteristics and goals of operations and features formed by favorable environment which is reflected in the forms and subject orientation of government support.

The vector of country's innovative development was marked as a priority in main policy documents at the federal level. It defines the primary need in creating a theoretical basis and practical implementation of integrated territorial structures providing in particular innovative economic development.

Literature review. The term "territory of innovative development" has started to be used in Russian scientific literature since the early 2000s. Retrospective analysis shows no unified approach to its contents.

According to E.A. Lurie et al. (2013) the territory of innovation development is a concept that reflects the general vector of region's development, all activities involved in the processes of innovation and presented in planning, financial and other documents regulating the main fields of territories' development.

The definition given above and the detailed study of the contents characterizes the proposed approach as a regional one, i.e. a territory of innovative development is a region with a well-defined focus on innovation.

V.V. Ivanov (2002) views the territory of innovative development as a territory located within the borders of one or more municipalities which creates and implements competitive knowledge-based products and services for its establishment as a basis for economic activities.

Through the comprehensive analysis of the existing approaches A.G. Shelomentsev, Y.A Tolchenkin and V.B. Yushkov (2005) suggest their own definition of innovative territory as a local socioeconomic system based on scientific and technology complex and aimed at a stable increase of knowledge, development of advanced technology and formation of appropriate conditions for new values and features.

The definitions given above have a significant difference: they consider the territory of innovative development as a structural component of a region in which territorial borders due to high scientific and technical potential, developed cooperative connections and created special economic conditions provide the increment of

knowledge and produce competitive innovation products which are the basis for economic activity of this region.

Thus, for the purposes of this research on the territories of innovative development it seems appropriate to distinguish two approaches to the definition: the wide and the narrow one.

Wider understanding of territories of innovative development is presented in the papers by E.A. Lurie et al. (2013) showing the principal necessity for enhanced growth of some regions' innovative potential formed the basis of the Interdepartmental Program "Development and implementation of the territory of innovative development model by the example of Tomsk region" (www.russez.ru). But at the present stage due to significant socioeconomic transformations, new advances in economic science for practical implementation this approach need to be clarified by a more "narrow" definition.

The concept of growth points by F. Perrow formed the background for effective regional industrial transformations demonstrating the need for the implementation of separate spots of innovation-based growth which can create conditions for the formation of regional territories of innovative development in the long term due to a multiplier effect.

The study conducted by the author based on foreign publications in the database "Web of Science" and works of A.G. Shelomentsev, Y.A. Tolchenkin and V.B. Yushkov (2005) suggests that in the foreign scientific literature there is no wide use of the term "territory of innovative development". Thus, this concept is the basis for empirical studies by Russian researchers mostly.

I.V. Milkina (innclub.info) provides the following classification of the territories of innovative development:

- special economic zones of technical and implementation type;
- technology parks;
- technopolices;
- science cities;
- closed administrative and territorial structures.

In the information forms describing innovative infrastructure facilities of Russian Federation and the methodological materials on their creation of the Ministry of Economic Development of Russian Federation the following types of territories of innovative development are mentioned:

- special economic zones of technical and implementation type at regional level;
- science cities;
- innovative cities.

From the author's perspective, the last classification with addition of federal special economic zones of technical and implementation type reflects the intrinsic characture of territories of innovative development better. The contents of the concepts charactering the main types of territories of innovation development are described below.

In accordance with the Federal Law #116 as of 22.07.2005 "On Special Economic Zones in Russian Federation" special economic zone is the territory of Russian Federation which is determined by the Government of Russian Federation as

the one with special regime of entrepreneurial activities and also special customs procedure as in free customs zones.

These documents reveal the typology which includes industrial production, technical-implementation, tourist-recreation and ports of special economic zones. Thus, technical-implementation special economic zones can be recognized as the territories of innovative development for research purposes.

The Federal Law #70 of 07.04.1999 "Ob the status of science city of Russian Federation" includes the following definition: science city of Russian Federation (www.protvino.ru, biysk22.ru, www.zhukovskiy.ru, www.kolcovo.ru) is a municipality with the status of a city district which has a high scientific and technical potential with a research and production complex. The scientific and industrial complex of a science city is a set of organizations engaged in research, science and technology, innovations, experimental development, testing and training in accordance with national priorities of Russian Federation with regard to science, technology and engineering.

Science city as a territorial entity in contrast to a special economic zone initially has innovative orientation. Notably, the organization of structures takes place exclusively within an urban district and in the presence of scientific and industrial complex, i.e. priority criteria is not so much the potential as the achieved level of territory's development.

Scientific and industrial complex assumes the implementation of all stages of innovative cycle which is a competitive advantage of a science city as a territory of innovative development.

The status of science city as well as the status of special economic zone is approved by the Government of Russian Federation for a certain period and provides regular intergovernmental transfers to support its development. The main advantage of a special economic zone is the availability of special regimes of business support including simplified customs procedures.

In the official documents of the Ministry of Economic Development of Russian Federation innovative cities are also classified as the territories of innovative development, but this term has no clear definition in other normative documents and scientific literature.

The innovative center "Skolkovo" (community.sk.ru) is the largest Russian innovative city project. The Federal Law #244 of 28.09.2010 "On the innovation center "Skolkovo"" defines it as a set of local infrastructure of innovation center "Skolkovo" and the mechanisms of interaction of people involved in the project implementation including the use of its infrastructure. The center has special legal and tax regimes and other forms of public support for innovations. Innovative center "Skolkovo" should be excluded from the number of investigated territories of innovative development because it is still an emerging framework and also considering its the special status.

Thus, based on the content analysis of official documents and scientific literature two approaches to defining the territories of innovative development which complement each other for the purposes of this study are identified. Given the primacy of the interpretation in the narrower terms for the purposes of formalization it seems advisable to create the territories of innovative development based on the functional approach as pointed out by V.E. Lepsky (2010). This allows adequately answer the question: What should be done for the organization of innovative development?

Putting aside a particular situation and the existing forms of innovative territories, a researcher here has a unique opportunity to identify their problem areas on the basis of theoretical analysis.

Research objective is developing the theoretical and methodological grounds for the creation of territories of innovative development using the sociohumanistic design and the functional approach.

Key research findings. There are the basic features of territories of innovative development classified by its significant components (Figure 1).

Significant functions of territories of innovative development

1. Research component

- organization of globally competitive research that can provide the scientific basis for further studies;
- creation of new technological solutions for priority economic activities of the country based on the results of applied research;
- providing qualitative growth of research results on the territory

2. Transfer and implementation component

- creation and maintenance of a system focused on the concentrated inflow of advanced technologies, scientific and technical solutions from internal and external sources;
- organization of the implementation of new technologies and products in the manufacturing sector of the territory;
- complex support for commercialization of the applied research results of certain innovative companies;
- establishment and maintenance of a technological exchange system inside a territory and with external environment with the priority of technological exports over imports;
- creation of conditions for faster development of new products and services;
- providing investment flows for the development of innovative activity of territory's economy

3. Production component

- promotion of material and technical development of manufacturing companies, the inflow of new technologies and high-tech equipment;
- organization and development of efficient import-substituting industries based on advanced technological solutions;
- providing competitiveness of companies within a territory

4. Infrastructure component

- creation of advanced engineering and technical infrastructure for effective uninterrupted functioning of business entities on a territory

5. Component of human capital

- overcoming depopulation, saving demographic and labor resources;
- creating conditions for quality growth of human capital;
- providing targeted inflow of skilled professionals;
- development of interregional and international relations for qualitative development of human capital of a territory, training within the framework of life-long learning

6. Marketing component

- formation and development of efficient market of technologies and intellectual capital in the borders of territory;
- development of marketing channels for sales of innovative products and services of the territory's manufacturing sector;
- providing growth of investment attractiveness of the area, its image and brand in the global economy

7. Social component

- increase of employment and the average wage;
- providing the growth of life quality for the territory's population

Figure 1. **Significant functions of the territories of innovative development,** *created by the author*

These functions could be used as the framework for designing new forms of regional integration structures aimed at innovative development.

Current trends in regional economy and in the theory of spatial organization indicate the increasing integration of innovation and investment vectors of development. Investment attractiveness of areas promotes the inflow of new technologies in local and global aspects for high-tech companies and the creation of related industries, training and retraining of personnel, employment growth.

Thus, when management is efficiently organized then the investment attractiveness of territories can become the driver of innovation development and the structures originally formed for territorial industrial renovation are the potential territories of innovative development in both narrow and wide terms.

Systematic study of the current state of integrated territorial structures demonstrates the dependence of their essential characteristics including the statutory characteristics from the level of economic development and geographical location.

Content analysis of the selected criteria and the competition between the technical and implementation special economic zones demonstrate their territorial distribution in the regions which are recognized leaders of innovative development.

Municipality applying for the status of a science city should have a scientific and industrial complex that meets the approved criteria. Meeting these requirements affirms highly innovative activity of an area with already formed innovative growth points due to the exsisting scientific and technical potential.

Analysis of regulatory frameworks of territories of innovative development in Russian Federation shows that the regulatory status of such a fixed structure in its borders can claim only a region-leader of innovative development in both quantitative and qualitative terms.

Similar trends can be explained by the reduced role of equalization policy in regions' management at the federal level, on the one hand, providing effective guarantee of budget spendings, achieving certain results in solving problems with catching up and advanced innovative development of Russian Federation, on the other hand. There are the sources of more firmly established differentiation between the economic development levels of certain areas.

At the present stage of regional development in Russia there is a tendency to reduce the possibilities of achieving competitiveness relative to those regions which are at the stage of implementing specialized government programs and tools of the federal budget support as to the development of integrated territorial structures receiving additional financing for both objective and subjective reasons. Thus, those regions which in the early to mid 2000s were not included in the number of such areas with federal budget support at the moment are not objectively able to do so because of the widening gap with the leaders.

Analysis of foreign experience in the field of territorial organization shows other priorities in the choice of growth points. They are those regions having problems in economic and social development.

Methodological bases for innovative development of territories with a low level of scientific and technological potential provide probable opportunities for various areas for future innovative growth and investment attractiveness.

So, in 2011 at the federal level the initiative to create zones of territorial development to accelerate socioeconomic development through the creation of favorable conditions for attracting investments into the economy of certain regions was supported. In the official ranking of innovative activity National Association of innovation and development of information technology listed regions which are the outsiders in terms of innovative development in Russian Federation. Despite the federal government proposed these underperforming regions to create the zones of territorial development, these are still currently unavailable.

The predominant role of the geographical principle of initiating formation of the integrated territorial structures is traced in regional policy now. It is evidenced by the currently implemented comprehensive strategy of rapid socioeconomic development of the Far East. Exploration and development of the territories in Siberia and the Far East were caused not only by geographical proximity to developed markets of the Asia-Pacific region but also the need of socioeconomic equalization of regional development within Russian Federation.

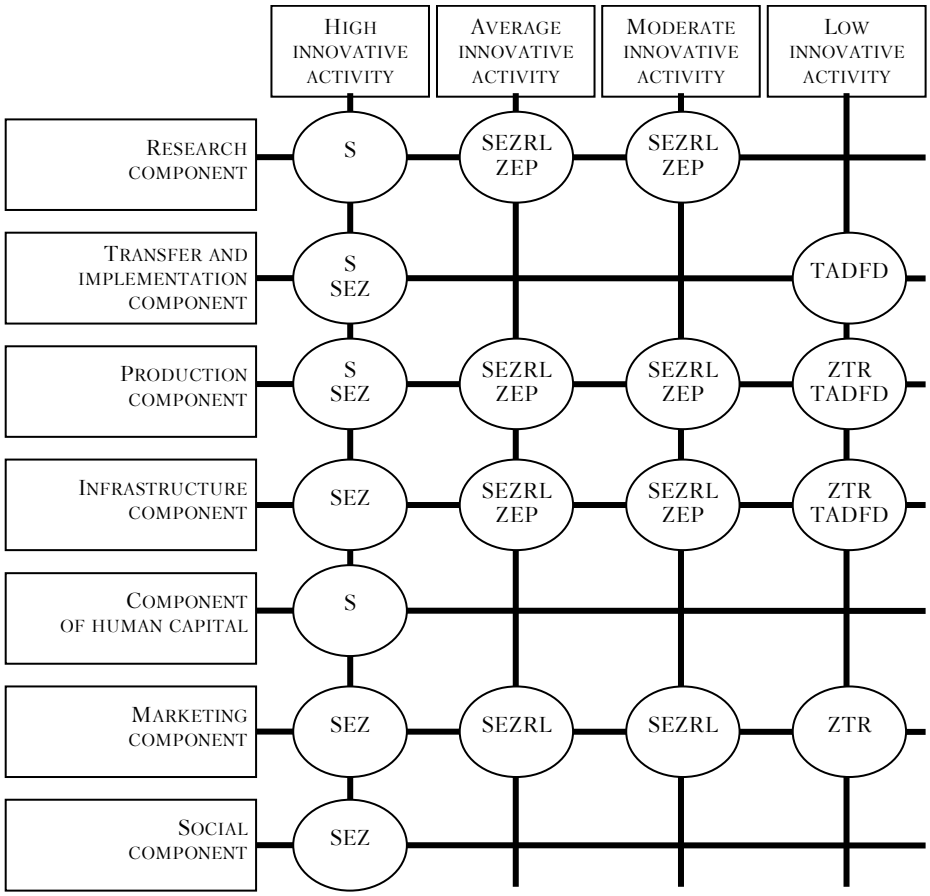
Rigid criteria and requirements for the regions which are ready for the emergence of their own territories of innovative development within their borders have become the main factor in creation of special economic zones at the regional level providing support for the residents at the regional level. First, such structures have been normatively validated and practically implemented in the Lipetsk region (www.russez.ru) which refers to the group of regions with moderate innovative activity according to the typology of National Association of innovation and development of information technology.

Another version of the system to support the economic development of economic subjects at the regional level is to a form the zones of economic preference. Their functioning is similar to those of special economic zones at the regional level at a relatively lower intensity of state support use by residents.

Thus, the format of territories' innovative development at the regional level can be implemented in the regions with different starting scientific and innovative conditions noting the limitations of their features as compared with other federal counterparts, i.e. they also cannot objectively provide an accelerated growth of competitiveness and investment attractiveness of regions.

For the purposes of long-term sociohumanistic design of territories of innovative development using the functional approach their main tasks were identified concerning the creation of normatively validated areas. Figure 2 shows the distributive matrix including the classification of the existing integrated territorial structures by the level of development and the essential characteristics in accordance with the functional components of the territories of innovative development.

Data analysis of the distributive matrix shows insufficient drafting of regulatory frameworks and contents of the existing integrated territorial structures. Thus, in the regions with high innovation activity all the tasks of territories of innovative development can be realized comprehensively only in the case of integrating neighboring territories of a scientific and industrial complex of a science city and a special economic zone. Such experience has the city of Dubna (www.russez.ru, www.naukograd-dubna.ru) and it is now characterized by large-scale socioeconomic impact.



S – science city
SEZ – special economic zone
SEZRL – special economic zone of regional level
ZEP – zone of economic preference
ZTR – zone of territorial development
TADFD – territory of advanced social and economic development

Figure 2. **The distributive matrix of integrated territorial structures,** *created by the author*

In the regions with average, moderate or low innovative activity there are no fully integrated tools for solving the problems of the territories of innovative development identified in the framework of sociohumanistic design.

It should be noted that in the majority of normative regulations on the operation of integrated territorial structures the aspect of the integrating research and production components is not clearly worked out, i.e. there is no intent to solve the problem of "innovation gap". There is a long process of commercialization of some technologies or the absence of implementation as such due to insufficient functioning interaction between science and business communities. The elimination of such negative trends which are the main reasons behind insufficient performance the basic purpose and the key success factor for all territories of innovative development.

Conclusions. Summarizing the results of the study there is insufficient well-conceived and unification of practical approaches to the creation of integrated territorial structures in Russian Federation including those aimed at perspective innovative development. For ensuring the maximum effectiveness of their functioning at the stage of creation it is proposed to apply the tools of sociohumanistic design providing a comprehensive approach to the solution of the problems in territorial organization of national economy.

It is appropriate to change the public regional policy with the purpose of providing additional opportunities for innovative development of regions with average, moderate and low innovative activities level. The analysis of the experience of developed countries and territories demonstrates the need not only to create the system of benefits and preferences for the residents of such territorial structures, for direct transfers of budget support to their management companies, but also an active administrative support for their development, formation of the system of training and mentoring as a main success factor in innovative business.

The complex approach to establishing the territories of innovation development and the detailed study of peculiarities in their functioning and relationships can provide the greatest effect on regional development and the achievement of solution of the ambitious task of innovative development of the country as a whole.

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Стаття надійшла до редакції 20.10.2014.