

Strategic Goals of the Region in the Context of Development of Digital Environment

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Abstract. The purpose of the article is to substantiate and update the strategic development of the region in the face of challenges of digital transformation of all aspects of life. In response, regions have to switch to new models and tools for survival, apply new approaches: institutional, platform, project. One of the vectors of improvement of socio-economic development is the formation of agglomerations. The study of foreign and domestic experience indicates the prevalence of the positive aspects of the agglomeration effect.

The study considers an example of the agglomeration of the city of Obninsk as a science city and center of agglomeration and the associated territories of municipalities. This new education will be based on the further expansion of human, innovation and production and technological potential, the achievement of agglomeration effects and the widespread use of digital technologies. Basic research methods are: a method of analyzing open source documents and statistical data in conjunction with the authors' calculations, monitoring the development processes of the northern territories of the Kaluga region, comparing with international experience the development of agglomerations, specifying the provisions of the legislation and regulatory acts of the Russian Federation in the field of spatial development on the conditions of northern territories of the region.

As a result of the study, a new model of economic growth is being formed, based on a combination of administrative and budgetary management with a project-investment one, which allows to bring various services and life support systems to a new technological level.

1. Introduction

The concept of “periphery and center” in the broader understanding endured historical changes, but the problems do not lose their relevance to this day [1]. According to the UN, the number of citizens by 2050 will double and reach 6.4 billion people. In Russia as a state with a federal structure, the ratio of the center and periphery, on the one hand, the majority of the population lives in cities, on the other hand, migration from the periphery to the center enhances centripetal processes, more and more territories remain uninhabited. In general, such destructive processes as reduction of the population, accumulated technological and market lag of many industrial enterprises, especially on the periphery, degradation of infrastructure, social and human capital in small towns and villages, as well as limited state resources are observed [2]. In this regard, it seems necessary in regional policy to divide the tasks of supporting depressed regions and stimulating donor territories with high socio-economic potential [3]. Therefore, it is advisable to create conditions for organizing cooperation between the cities that are relatively large at the local level (cores) and the territories adjacent to them. Spatial organization on the basis of agglomerations is widespread in the modern urbanized world. In Russian, both theory and

practice, a great deal of attention has recently been paid to the development of urban agglomerations not only at the level of the scientific expert community, but also at the state level. The Presidential Decree “On the Approval of the Basics of State Policy for Regional Development of the Russian Federation for the Period up to 2025”, as well as in the project “Strategies for Spatial Development”, defined urban agglomerations as one of the key elements of the spatial development of the country as a pole of economic growth and human capital reproduction. The list of 16 pilot projects on approbation and improvement of mechanisms for managing the development of agglomerations was approved [4]. Both scientists and the practices of state-municipal government agree that the main form of development of urban agglomerations is inter-communal cooperation.

2. Materials

The history of the creation of the new Kaluga agglomeration is long. The idea of creating the Kaluga agglomeration began to be discussed in the power structures at the turn of 2007-2008. The project to unite Obninsk and neighboring municipalities was not approved by representatives of the Obninsk community. The discussion on the development of the agglomeration started in 2009. According to the authorities, the territory around Obninsk became a place of intersection of multidirectional and complex processes, a clash of interests of various groups of the population, authorities and business. Therefore, the priority task was to find a compromise in the harmonization of interests [5]. In the report on the development of the northern agglomeration of the Kaluga region, it was noted that the agglomeration must become a territory with a high level and quality of life. A feature of Obninsk consists in combining the properties of the city as a center for new technologies and innovations and, at the same time, the territories of crisis phenomena in the field of ecology, migration, public investment, territorial disproportions and interaction between municipalities [6].

In 2013, the administration of the Kaluga region presented the Conception of the development of the northeastern territories of the Kaluga region, where the project for managing the development of agglomeration was presented. The baseline scenario for the development of the north-eastern territories assumed a multi-focus development of the settlements, forming an agglomeration with the center in Obninsk on the basis of agreements with regional administrations in all subjects of common interest. The work on the formation of the Northeastern Territories Development Agency and a marketing agency based on a private-state partnership was initiated [7].

The results of the analysis of official documents showed that the system of resettlement of the north-eastern part of the Kaluga region is positioned as an average second-order agglomeration of the Moscow agglomeration. The agglomeration includes six small towns, which is extremely rare for the Central Federal District. In addition to the cities, the agglomeration includes the rural settlement of Vorsino, where the Industrial Park of Vorsino and the Freight Village Vorsino transport and logistics center are based. The population of the city of Obninsk as a center of agglomeration and the other cities within its structure are comparable, which allows us to consider this group system of settlements as a developed agglomeration without a hypertrophied center.

The demographic situation in Obninsk suggests a great potential for the development of the entire agglomeration. Against the background of the depopulation of the majority of municipal districts of the Kaluga region, the territories constituting the Obninsk agglomeration are characterized by stable population growth (with the exception of the Maloyaroslavetsky district).

One of the most important characteristics of the agglomeration is its affiliation to the territories of innovative development, the basis of which economic activity is the creation and implementation of competitive high-tech products [8].

In modern conditions, the development of Obninsk as a science city and agglomeration center is based on the further expansion of the created innovation and production and technological potential, the achievement of agglomeration effects and the wide use of digital technologies, which confirms the ideology of the Digital Economy Program of the Russian Federation, aimed at creating institutional and infrastructural conditions, removal of existing obstacles and restrictions for the creation and development of high-tech business [9].

With the support of the development institutions of the Kaluga region, the Vorsino industrial park, including a number of high-tech enterprises, is successfully developing on the territory of the agglomeration.

The Kaluga Region Innovation Development Agency proposes to create a model of the digital economy, which will ensure the transparency of management processes and provide tools for jointly solving urgent issues. The model development process is at the initial stage, but experts who are actively using state information systems for this purpose are already working with it [10].

On the territory of the agglomeration, the concepts of "smart city" (in Obninsk), digital logistics and a smart terminal (in Vorsino settlement on the basis of a multimodal logistics center), the Digital Field project on the introduction of digital technologies in the agricultural business will be implemented; a specialized competence center for the development of telemedicine was established on the basis of the Medical Radiological Scientific Center named after A.F. Tsyba [11].

It should be noted that in the formation of the Obninsk agglomeration foreign experience is actively used. On the basis of an agreement between the government of the Kaluga region and the administration of the Metropolis of Montpellier-Mediterranean on strengthening ties and cooperation in the economic, scientific, educational and socio-cultural spheres, active interaction is taking place between the emerging Obninsk agglomeration and the Montpellier (France) real-life agglomeration. Over the past year, cooperation has reached a new level [12].

Relevance (why agglomeration is needed?)

1. The possibility of piloting a program at all levels of local government, working out inter-district and regional interaction;
2. Bottom-up initiative. Readiness of heads of districts and local public for joint implementation of the program;
3. Availability of appropriate infrastructure for the simultaneous implementation of projects in selected areas;
4. Availability of human resources for the implementation of the program;
5. The possibility of prompt replication of decisions within the framework of agglomerations;

Directions of development of agglomerations

- positioning of the agglomeration on the domestic and foreign markets (economic, innovative, recreational, educational, etc.);
- coordinated development of the agglomeration infrastructure: the formation of an integrated transport, information and communication system, modernization of life support systems based on the concept of Smart City
- determination of the agglomeration investment project, the criteria for its selection, description and calculation of agglomeration effects, mechanisms of state support for the implementation of the agglomeration project

3. Methods and approaches

Institutional

- Creation of the architecture of socio-economic relations in the region on the basis of Russian legislation, federal and industry requirements and standards, taking into account regional specifics;
- Formation of regional legislation governing the interaction of participants in the digital economy;
- The formation of the citizens, business and government of a common understanding of the ongoing processes of digital transformation through education and training.

Platform

- The introduction of national digital platforms and end-to-end technologies created in the framework of the Digital Economy programs in the Kaluga region, taking into account and implementing requirements that reflect regional specifics;

- Providing accessible, sustainable, safe and cost-effective services to citizens, businesses and authorities based on digital platforms and end-to-end technologies being introduced;

Project

- Implementation of regional projects, coordinated with the directions and activities of the state program "Digital Economy" and the developed implementation principles;
- Maximum involvement of regional business in the implementation of digital transformation projects in the Kaluga region;
- Project management and coordination of the ongoing digital transformation project in the Kaluga region.

The following directions of the project marathon for the development of the Northern agglomeration of the Kaluga region can be distinguished.

1 Legal framework and design of the management structure of the Northern agglomeration of the Kaluga region. Identification and coordination of interests of all subjects of socio-economic activity in the territory in a comprehensive strategy for its development

2 Search for solutions to the problem of large-scale changes in the area of agglomeration territorial planning. The use of "big data", remote sensing data and geographic information systems, integrated information platforms in managing the development of the Northern agglomeration of the Kaluga region.

3 Identifying the barriers to the development of the Northern agglomeration of the Kaluga region, determined by the long-term development strategies of municipalities, the choice of ways to overcome them. Linking projects of different levels initiated in the territory of the Northern agglomeration of the Kaluga region in order to increase the efficiency of their implementation

4 Opportunities to use successful foreign and domestic solutions for the development of agglomerations (which strategies, practices and models of agglomeration management are used by leading megacities) in relation to the Northern agglomeration of the Kaluga region

5 Development of public spaces of the Northern agglomeration of the Kaluga region. Harmonious linking into a single ensemble of architecture and environment of an innovative technological cluster

6 Use of information technologies to improve the quality of life and business conditions, integration of information systems of municipal authorities, geographically constituent of the Northern agglomeration of the Kaluga region, government agencies and organizations

4. Results

Currently, there is a Strategy for the Socio-Economic Development of the city of Obninsk as a science city of the Russian Federation for 2017-2025, developed on the basis of the requirements of the Federal Law No. 100-FZ of April 20, 2015 "On Amending the Federal Law" On the Status of the Science City of the Russian Federation " And the Federal Law "On Science and State Science and Technology Policy"[13].

A draft Concept for the creation of the Northern agglomeration of the Kaluga region has been developed. The basis of the successful development of the agglomeration is the new model of economic growth (investment, innovation, highly skilled personnel, international cooperation) and the combination of administrative and budgetary management with project and investment, allowing to bring life support systems to a new technological level.

5. Conclusions

1. The northeast cluster of settlements in the Kaluga region is an average second-order agglomeration of the Moscow agglomeration,

2. agglomeration has a large economic, innovative and demographic development potential,

3. the main direction of agglomeration development is the development of a "digital agglomeration project" based on international best practices with the priority development of its innovation sector,

4. the formation of agglomeration will allow to achieve the following goals:

increasing labor mobility;

improving the efficiency of production and services based on functional specialization;

improve the cost-effectiveness of municipal budgets for housing and public utilities, transportation, environmental protection, etc .;

Increasing connectivity and efficiency of use of infrastructure facilities;

□ implementation of major development projects based on the expansion of markets and resources in the scale of the agglomeration;

Promotion of goods and services beyond the agglomeration on the basis of the territory's umbrella brand.

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