

Infrastructure Projects Implementation in the Region by Virtue of Public-Private Partnership

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Abstract— The specificity of the infrastructure projects implementation is predetermined by their priority direction and the possibility of execution in a certain territory. The trend of reduction of budget expenditures on infrastructure sectors over the last five years highlighted the need for the search of extra-budgetary sources for the purpose of stimulating economic development of the regions. Public-private partnerships play a key role in the infrastructure projects implementation as a fundamental tool for attracting private investment and improving the quality of services to the population. The article presents the potential of the implementation of such projects on the example of the Volgograd region, in particular, the rating of the region on the level of public-private partnership, shows the best practices of infrastructure projects through the active development and use of public-private partnership mechanisms. The basis of this analysis was the data of the National Center of public-private partnership. An attempt was made to identify the problems of public-private partnership in the region in the implementation of infrastructure projects and to propose ways to solve them.

Keywords— *infrastructure project, rating, region, state, public-private partnership, investments*

I. INTRODUCTION

The specific of the implementation of infrastructure projects is predetermined by the priority focus on the development of infrastructure in the region and the whole country.

Infrastructure investment is considered to be one of the most effective tools to stimulate economic development, including in the regions.

According to various estimates, to ensure the advanced development of the Russian economy, it is necessary to invest more than 5% of GDP annually in infrastructure development. At the same time, based on the integrated assessment based on the planned indicators of the relevant strategic planning documents, data of international organizations and expert assessments, for the accelerated development of transport, municipal and social infrastructure by 2030, investments in the amount of 93.4 trillion rubles are required. Based on the hypothesis of maintaining the current trend in investment, based on the official website of the state statistics service, the amount of funds that can potentially be invested in

infrastructure development will not exceed 87.6 trillion rubles by 2030

However, the budget deficit of the regions prevents the full infrastructure upgrade of the territories and the development of its priority sectors and spheres. The question of expanding the sources of their financial support is raised, which is possible through the active use of public-private partnership mechanisms (hereinafter – PPP). The legislation treats PPP as follows: public-private partnership, municipal-private partnership (hereinafter – MPP) "the cooperation of the public partner, on the one hand, and the private partner, on the other hand, which is legally formalized for a certain period and based on the resource aggregation, risk sharing, on the basis of the agreement on public-private partnership, the agreement on municipal-private partnership, concluded in accordance with this Federal law in order to attract private investment in the economy, to ensure the availability of goods, works, services and their quality improvement by public and local authorities"[1].

The purpose of the article is to consider the experience of infrastructure projects implementation and to determine the possibility of their further implementation on the basis of the analysis of the region rankings in the context of creating conditions for the development of public-private partnership.

The achievement of this goal has predetermined the solution of the following tasks: 1) to consider the possibility of attracting investments for the infrastructure projects implementation by virtue of public-private partnership; 2) to analyze the level of public-private partnership in the region; 3) to identify the problems of public-private partnership development in the region in the implementation of infrastructure projects and suggest ways of solution.

II. MATERIALS AND METHODS (MODEL)

The information and empirical base of the study was made up of official materials of the official resource on public-private partnership "Platform for support of infrastructure projects "Rosinfra"[2], created within the framework of information cooperation of the National Center of public-private partnership and the Ministry of economic development of Russia, analytical data of the National Center of public-private partnership [3-8].; review developments of researchers published in the periodical press and on the Internet.

The following authors study the characteristics and nature of infrastructure projects: T.A. Golovina, S.S. Eletskaya, S.A. Izmailkova, M.S. Popov, L.D. Sanginov, I.A. Tronina, I.L. Faustova, etc. [9,10,11,12]. The works of A.A. Alayev, O.I. Gulakova, S.V. Kozlova, E.M. Malyutin, I.T. Petrova dedicated to the questions of the need and effectiveness of infrastructure projects implementation [13, 14]. The modern experience of infrastructure projects implementation, in particular on the basis of mechanisms of public-private partnership, is presented in the publications of modern scientists: A.V. Belyuchenko, K.L. Shevelkina, A.A. Rementsov [15,16,17,18].

This study is based on the study and synthesis of theoretical and factual materials on the relationship between the state (regions) and the private sector in the implementation of infrastructure projects. The research methodology is presented by comparative analysis, synthesis, tabular and graphical methods of data processing and presentation.

III. RESULTS AND DISCUSSION

Full functioning and development of infrastructure is becoming a necessary condition for sustainable growth of the region's economy. This determines the need for modernization of existing infrastructure facilities and the construction of new ones, which is possible through the implementation of infrastructure projects.

Infrastructure project shall mean a set of interrelated and consistent actions, as a result of which, given the constraints of time and finances, as well as the requirements for the quality of the results, the goals are achieved (creation, modernization or expansion of infrastructure facilities). The objects of infrastructure projects are transport, social, municipal cultural and tourist spheres, sports, etc.

The current sectoral and territorial strategic planning documents (state programs, Federal target programs) provide for the total cost of the infrastructure creation and upgrade in the amount of 2 990.8 billion rubles. (see Fig. 1).

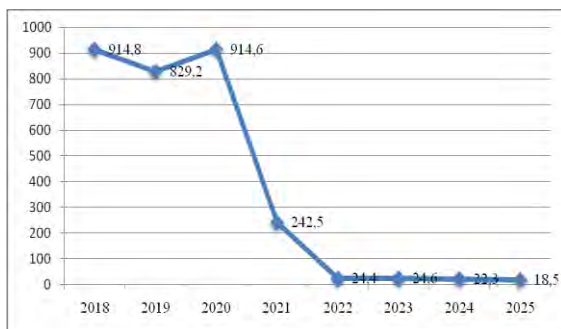


Fig. 1. Dynamics of the planned budget expenditures for the implementation of infrastructure development measures in the state programs and Federal target programs of the Russian Federation from year to year, billion rubles [6].

In July 2018, the State Duma adopted amendments to the Budget Code on the establishment of a Development fund (for 6 years), which will become a source of funding for infrastructure projects on the part of the state. The creation of the Development Fund as part of the budget will expand the

list of financed objects. The funds of this Fund will be spent on the state order and on projects within the framework of public-private partnership. The Fund can significantly increase the number of medium and large PPP projects in the regions, but much depends on how complex and transparent the procedure for obtaining funds will be

The reduction and lack of budget funding for infrastructure development has not had a negative impact on the implementation of infrastructure projects. Their number with the use of PPPs instruments increases. Since 2014, about 550 PPP projects have been launched, providing an annual inflow of private investment of 250 billion rubles

Therefore, the optimality of infrastructure projects implementation in the format of public-private partnership is a justified question at this stage of development of the Russian economy.

Thus, to assess the potential of attracting investments for the implementation of such projects, an analysis was carried out and the level of development of public-private partnership in the region was determined. The information for this study was the systematic data of the National Center of public-private partnership.

The intensity of development of public-private partnership in the Russian regions is estimated by the method of assessing the factors affecting the development of PPP mechanisms in determining the level of potential of the region, developed by the Center of development of public-private partnership.

Estimation of complex factor "The level of development of public-private partnership in the constituents of the Russian Federation" has been done with the following formula:

$$R_j = \alpha \times L_j + \beta \times N_j + \gamma \times E_j \quad (1),$$

- j – numerical order of the constituent of the Russian Federation;

- α, β, γ – the values that determine the importance of the constituent factors, given that $\alpha = 0,03, \beta = 0,03, \gamma = 0,04$;

- L_j – factor score «Development of the institutional environment of the constituent of the Russian Federation in the field of public-private partnership»;

- N_j – factor score «Regulatory and legal support of public-private partnership»;

- E_j – factor score «Experience in implementing public-private partnership projects»

The classification of constituents of the Russian Federation is carried out in the following categories: leading regions (indicator 60%–75 %); regions with high potential (indicator 45%–60%); regions with average potential (indicator 35%–45%); regions with low potential (indicator 25%–35%); regions with very low potential (indicator 0%–25 %).

The rating of regional development in terms of PPP development for 2013-2015 was determined by a group of factors: the development of the institutional environment in the field of PPP, the experience of public-private partnership projects, the investment attractiveness of the region. Since

2015, in determining the value of the indicator "The level of development of public-private partnership in the constituent of the Russian Federation" was set up a separate component - legal support of the PPP sphere. The rating results for the Volgograd region are presented in Table 1.

TABLE I. RESULTS OF INDICATORS OF THE LEVEL OF DEVELOPMENT OF PUBLIC-PRIVATE PARTNERSHIP IN THE VOLGOGRAD REGION [3,4,5,6,7,8]

	2013	2014	2015	2016	2017
Indicator of the level of development of public-private partnership, %	40,5	31,3	33,9	42,0	50,3
Change of indicator		-9,2	2,6	8,1	8,3
Rating position	30	48	19	37	34
Change of rating position	-	-18	21	-18	3

The impact assessment of the factors determined the Volgograd region in 2013 as the region with an average potential for PPP-based project implementation (indicator 35-45%). As a rule, this segment is characterized by the creation of coordinated conditions for the development of PPP mechanisms, and the projects are at the pre-investment stage (in particular, the project "Construction of the Western bypass of Volgograd").

In 2014, the region worsened its position in the ranking, dropping by 18 points (from 48th to 30th). Conditions for attracting private investors continue to be created, but the level of investment attractiveness of the region is still low.

With the development of concession legislation, the procedure for preparation and conclusion of concessions has been improved. It became possible to extend the concession provider's payment to all objects, which later found reflection in a number of socially significant projects of the Volgograd region. Due to these circumstances, in 2015 there was an increase in the rating of the region (it improved its position, rising from 48th to 19th place). [8]

The first example of financing a concession project in the wastewater disposal industry through the bond issue and the largest municipal PPP project in Russia in 2015, with a total investment of more than 58 billion rubles was the project "Reconstruction and modernization of water supply and sanitation in Volgograd". [4]

2 Volgograd projects for 2017 entered the top 10 concession projects (in terms of total investment) with the participation of institutional investors. Concession agreement on the communal infrastructure systems - MUP "Gorvodokanal" of Volgograd is a project of modernization of the centralized system of cold water supply and sanitation, renovation of municipal communal infrastructure, improving the quality and reliability of resources supply on the basis of the concession model. The project implementation period is 30 years, the total investment is 58 000 000 thousand rubles. The project is recognized as a best practice and one of the best in Europe; its practice is recorded in the collection of the best ones in the housing sector in Russia and is being implemented

in the Kamchatka territory, Ulyanovsk region, Republic of Buryatia and Udmurt Republic[19].

The second project is a Concession agreement in respect of the heat supply system in the city of Volgograd (scope of implementation is the communal energy). The project implementation period is 30 years, the total investment is 29 600 000 thousand rubles.

Recognizing the economic efficiency of the transfer of municipal infrastructure to the concession, the practice of concluding PPP projects in the region extends to the sphere of improvement – the construction of embankments, public spaces, and parks [6]. So, on June 6, 2017, a concession agreement was signed between the administration of the city of Volgograd and LLC "Park" on the creation of "the Central Park of culture and rest" (CPKiO) in Volgograd. During the implementation of a significant infrastructure project in the form of a concession on the site of an abandoned park, a unique recreational facility will appear which will serve as an impetus for the development of the tourist infrastructure of Volgograd and the strengthening of the economic potential of the region as a whole. The revival of the Park will lead to the creation of new jobs and provide orders for small and medium-sized businesses in the region, will contribute to the increase of tax payments to the budget.

The amount of investment aimed at upgrading the park area will be about 330 million rubles. Agreement duration period is 39 years.

The main factor in the attractiveness of such a project is the possibility of its implementation entirely at the expense of extra-budgetary sources and the use of a commercial model of return on investment.

In the all-Russian rating for 2017, the Volgograd region improved its position by three points and took the 34th place out of 85. [20]. In the Southern Federal district the region has become one of the leaders. 13 projects were sent from the region to participate in the federal competition, including concession agreements on the improvement of the Central Park of culture and recreation, the reconstruction of the sanatorium complex on lake Elton, the opening of a diagnostic laboratory and others. The development of PPP in the region is facilitated by the systematic work on restoring order in all areas, creating conditions for attracting investors, which has been conducted since 2014. During this time, the number of projects implemented within the framework of public-private partnership has increased from two to thirteen [21] In 2018, a concession agreement on the outdoor lighting facilities of Volgograd was made

According to the national center of PPP, the regional project "The creation of a sports complex and adult education center in the Volgograd region" is at the stage of execution of an agreement. The volume of private investment is 40 000 thousand rubles. The regional project "The construction and reconstruction of highway M-21 Volgograd - Kamensk-Shakhtinsky to the border with Ukraine (to Dnipropetrovsk, Kishinev)" is in the top 20 of the largest infrastructure projects planned for implementation at the expense of the budget, including out-of-state programs. Reconstruction of highway

A-260 Volgograd - Kamensk-Shakhtinsky to the border with Ukraine, km 11+000 - km 24+500, the Volgograd region. Budgetary financing will be 5 706,58 million rubles [6]

IV. CONCLUSION

PPP should be a key factor in reforming the system of public administration, a new concept of relations between the state and business.

The analysis and assessment of the level of public-private partnership development in the reviewed region confirmed the growing potential of attracting investments for the infrastructure projects implementation.

The study of the institutional environment and PPP regulatory framework in the region let us identify the components that contribute to the creation of such conditions in the region. These include: the presence of specialists with relevant qualifications in the field of PPP, the presence of a specialized regional information resource in the field of PPP on the Internet or a section on the official website of the region, the authority (authorized body) or the investment portal of the constituent of the Russian Federation, the availability of open access list of objects for which it is planned to conclude PPP agreements, concession agreements.

It is advisable to continue the expansion of tax benefits and other measures to support private partners, since the basis of this component based on the results of the analysis is currently present in the region ИПОЕКТ and, in our opinion, serves as one of the tools to increase the investment attractiveness of the territory.

Thus, the results of the rating on the one hand simplify the procedure for a private investor to choose a region for the implementation of the PPP project, on the other hand – stimulate regional administrations to improve the institutional environment in the field of PPP and to accumulate experience in the implementation of PPP projects.

In the continuation of the second point the components that are present in the region and are in need of modernization of their activities and purpose should be highlighted. This is the presence of an authorized body in the field of PPP, including concession agreements and a specialized structure responsible for supporting PPP projects.

A significant drawback that determines the level of PPP development in the region, and therefore the process of attracting investments, is the lack of an interagency body responsible for reviewing the initiated PPP projects and developing policies in the field of PPP. Therefore, this brings up the question of the need for its creation in the region for the successful PPP projects implementation, which will increase the level of socio-economic development.

The potential of attracting investments for infrastructure projects implementation is not limited to the proposed areas. The results do not claim to the comprehensive disclosure of all aspects of the problems of increasing the investment attractiveness of the regions.

Recommendations can become the basis for creating conditions for PPP development in the prism of infrastructure projects implementation.

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