

Public-Private Partnership in IT in Russia

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Abstract—The article considers topical issues of implementation of public-private partnership projects in information technologies (IT) sector in the Russian Federation. Public-private partnership in modern socio-economic conditions is a form of interaction between state institutions and business in IT. A significant increase in society's demand for IT services, high level service requirements and large-scale digitalization of production and management processes make it necessary to develop existing investment models for the implementation of projects in the field of IT. The authors note that in IT there is a lack of contracts concluded on the basis of public-private partnership due to the low level of penetration of IT into various spheres. Attracting private business resources makes it relevant and expedient to implement and develop public-private partnership mechanisms in IT. The article highlights the peculiarities of public-private partnership organization in IT, as well as its advantages for society and the state. In the article it is emphasized that the public-private partnership models will be in high demand by public legal entities and the market in the near future. Problems are highlighted and formulated; the main risks arising during the implementation of projects are described. The article shows and justifies that raising private capital in the modernization of the IT infrastructure in Russia, supported by guarantees from the state, can not only provide access to large-scale projects in IT to private business, but also launch a mechanism of the IT market growth as a whole.

Keywords—public-private partnership, IT, information technologies, investment models, digitalization

I. INTRODUCTION

Currently, the Russian Federation is in an active stage of digital economy development, which entails an additional burden on budgets at all levels. At the same time, digital

transformation provides new opportunities for business development in the field of IT services development in the digital infrastructure. The basic mechanism for attracting extra-budgetary funding for the implementation of the national program «Digital economy» is public-private partnership.

IT projects have been given full opportunities for implementation using public-private partnership mechanisms relatively recently. In June 2018, the Federal law entered into force which expanded the list of objects of concession and other public-private partnership agreements [1]. Now the objects of such agreements can be computer programs, databases, information systems, Internet sites, or technologically related IT objects and property. The case is about structuring fundamentally other public-private partnership projects, in which the creation of IT systems and objects of information infrastructure objects is not an element of the project, but the main task. At the same time, the IT object becomes not a part of the property that is part of another public-private partnership object, but an independent object, which significantly changes the approaches to the development and implementation of public-private partnership projects in IT in the Russian Federation and its regions.

It should be noted that concession agreements and public-private partnership agreements for IT facilities have been concluded before. However, due to the fact that IT facilities could not be independent objects of such agreements, in practice this led to the conclusion of agreements for the construction, reconstruction and operation of the real estate object to which the IT facilities were «attached». When implementing such agreements, the risk of invalidating them has always remained, since the main purpose of the agreements is precisely to create the necessary IT object. The

new law helped eliminate this risk by finally recognizing IT objects as independent objects of agreements.

In these conditions, there is an objective demand from the regions of the Russian Federation for clarification of business models that can be implemented with its application, as well as for risk assessments of new types of projects. At the same time, it is important to understand how the needs and niches that the market sees coincide with the needs and vision of the regions.

The purpose of this study is to indicate the feasibility of forming and implementing projects in IT based on the use of mechanisms of private-state partnership.

II. METHODS

Scientific materials on the research topic, periodical literature, as well as data from rating and analytical agencies served as sources of information for this article. Theoretical and methodological foundations of studying the theory of public-private partnership in the literature are presented by the system of views of foreign scholars: P. Bouf, F. Johansson, B. Karlof, J. Keynes, R. Coase, G. Menkiew, M. Mott, M. Porter, L. Prusak, etc. The mechanism for implementing public-private partnership projects is being actively explored in Russia and in foreign countries. Various aspects of this problem are reflected in the works of such Russian authors as A.A. Alpatov, G.A. Borshevsky, V.G. Varnavsky, A.G. Zeldner, N.A. Ignatyuk, V.N. Ivanov, V.A. Kabashkin, V.Yu. Katasonov, V.V. Maksimov and others. Among foreign researchers the following should be noted: E. Atkinson, J. Delmon, E.R. Yescomb, V. Cattari, V.V. Knaus, M.K. Lewis, F. Marin, W. Smith, G. Tulloch, E. Farquharson, et al.

III. RESULTS AND DISCUSSION

Currently, a large market for projects in IT and communications is emerging in Russian regions, and it can be structured with extra budgetary funding. The total amount of required funding exceeds 2.1 trillion rubles, of which about 1 trillion rubles should be spent by the Federal budget in 2018-2024 [2]. Over the past five years, 500 new concession agreements worth 280 billion rubles have been signed annually in the Russian Federation [3]. The largest number of agreements is at the municipal level, and most of the funding is provided from the Federal and regional budgets. In 2019, the volume of investment obligations under concession agreements amounted to 1.7 trillion rubles [4]. Figure 1 shows the ratio of project financing and the ratio of their number at administrative levels.

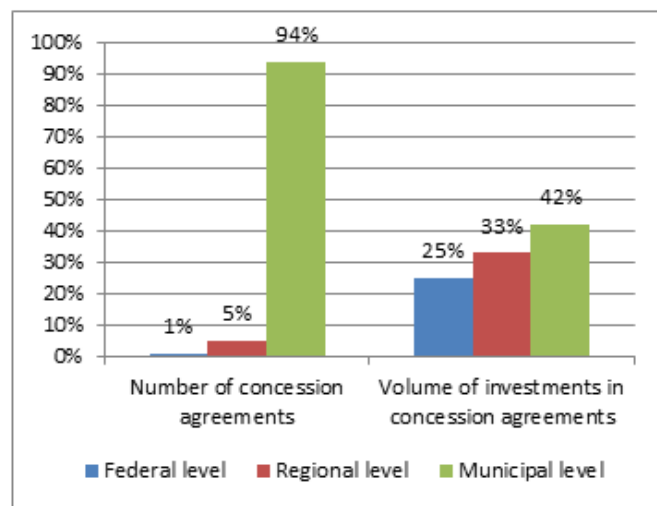


Fig. 1. Distribution of the number of concession agreements and volume of investment in concession agreements

Nevertheless, most concession agreements are covered by extrabudgetary funds [4]. On the one hand, such financing allows private businesses to receive funds on acceptable terms, while on the other hand, the state invests in infrastructure improvement and development projects, social projects, healthcare projects, and education projects and encourages the process of investing in the development of the economy.

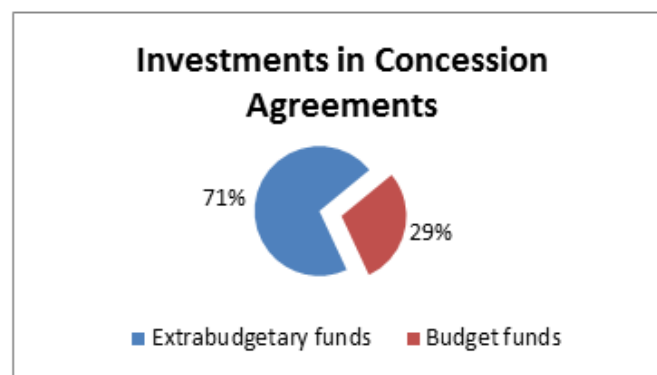


Fig. 2. Investments in concession agreements by source of financing

As noted above, in 2019, the volume of investment obligations under concession agreements amounted to 1.7 trillion. rub. The selection of investors for concession agreements was mainly carried out as part of a public initiative, on the basis of a competition.

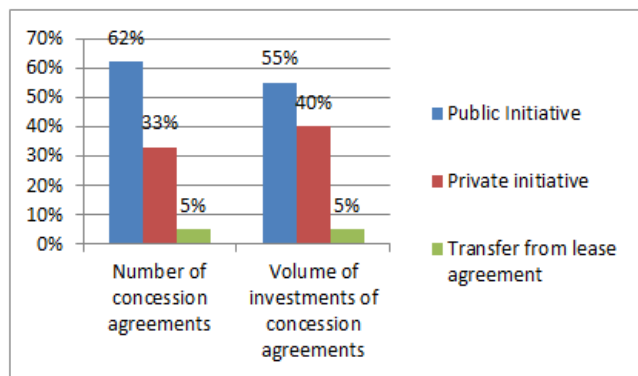


Fig. 3. Distribution of the number and volume of financing of concession agreements

Such large-scale financing of public-private partnership projects in IT poses a number of problems for Russian regions, the solution of which largely determines the effectiveness of the implementation of the national program «Digital economy».

First of all, it is necessary to evaluate the plans of the regions for the implementation of public-private partnership projects and concession projects in IT for the coming years. The analysis of legislative and institutional constraints on the implementation of such projects shows the necessity to create an understandable methodology and step-by-step algorithms for the preparation and implementation of concession and public-private partnership projects in IT in the regions of Russia. An adequate assessment of the readiness of regions to consider investment initiatives in IT and form a favorable institutional environment will allow developing a methodology for preparing a rating of the investment attractiveness of regions for the implementation of public-private partnerships and concession projects in IT sector.

According to Microsoft's engineering research, the most popular are the developments of the IT industry in the field of mobile development, cloud technologies, big data and their processing [4]. Moreover, according to Standish Group [5], the most successful projects in this area are those with a staff cost of less than \$ 1 million. The Law [3] identifies the following areas as the subject of a contract: information technology objects, technical facilities, and a data processing center. As a rule, the cost of projects in these areas is within the limits of the cost indicated in the studies of Standish Group. In this regard, we can conclude that IT projects can be quite promising from the point of view of using budget funds in such forms of cooperation between business and the state. The largest number of agreements in 2019 was concluded in the education and healthcare sectors [6].

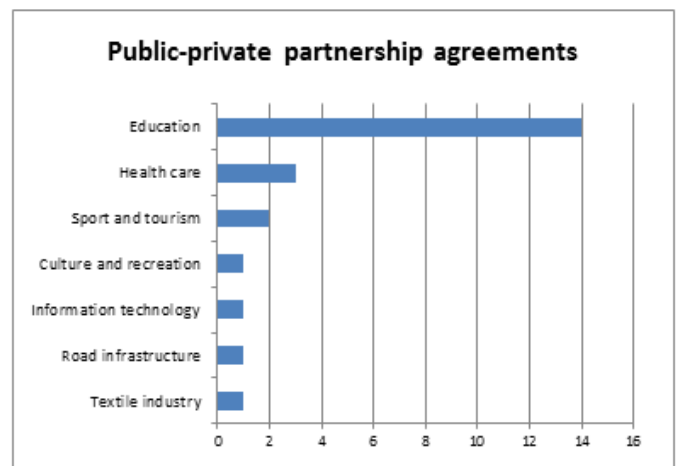


Fig. 4. Distribution of the number of public-private partnership agreements by industry in the Russian Federation

IT projects can be distinguished not only in a «pure form», but also as a platform or tool for the implementation of projects of other sectors of the economy, as well as a promising direction for the development of public-private partnerships. Moreover, implementation of IT projects in spheres significant for the state in the form of public-private partnership allows to fulfil provisions of the Information Security Doctrine of the Russian Federation [7]. Information security is addressed here as the condition of protection from the impact of internal and external information threats, which, in particular, include information-technical influence of foreign countries on information infrastructure, the insufficient level of development of information technologies, and their use for the production of products and services, improving quality, optimizing business processes, low level of implementation of domestically developed products and services and insufficient level of staff training in the sphere of information security. These threats can be confronted within the framework of public-private partnership through optimization of business processes based on the use of IT to meet the requirements of information security and improving information support for business.

In the regions of the Russian Federation, the main areas in which IT investment projects are implemented are transport (creation of road arrangement systems, toll parking management systems, photo and video recording systems for traffic violations, etc.). IT investment projects are also widely conducted in the areas of security, housing and utilities [8]. Currently the key player acting as an investor in the concluded IT investment agreements is PJSC Rostelecom. Statistics on the number of investment projects in IT and the volume of investment per year demonstrates that the largest number of agreements in this area was concluded in 2015, but the largest amount of investment fell in 2014. This is due to the fact that it was in 2014 that the largest IT concession agreement was concluded – the creation of a toll collection system for vehicles weighing more than 12 tons («PLATON»). It, as well as the volume of investment in this sphere, will increase many times.

In the regions of Russia, the opportunity for development and realization of projects on the principles of partnership between the state and business with minimal budget expenditures can be very much in demand for the creation of «Smart Cities», the development of innovative medical technologies, import substitution products. Digitalization is based on the digital processing of documents. Financing projects and import substitution developments through public-private partnerships is the mechanism that can accelerate the arrival of advanced technologies in the regions, especially with a low IT budget.

Almost all state and regional systems whose criteria for ensuring information security allow this can switch to the public-private partnership model. The question always arises about the quality of data that is available in the system or in the potential of existing authorities in a particular system.

In most cases, the end users of facilities created under concession and public-private partnership agreements are the people, therefore, such projects attract considerable attention from control and supervisory bodies, NGOs, political opponents of the current government. In this regard, information support issues are an extremely important part of the preparation and implementation of such projects.

The successful implementation of a public-private partnership and/or concession project in IT and communications is directly dependent on a comprehensive risk assessment associated with the project. The most common tool for assessing and allocating risks of infrastructure projects is a risk matrix, which includes key risks, either by stages of implementation of projects, or by the nature of emerging risks (legal, technical, financial) [9]. In practice, most financial risks are assumed by a private partner.

IV. SUMMARY

With the adoption of Federal Law 173-FZ and the inclusion of objects of concession agreements and objects of public-private partnership agreements for IT objects, relations resulting from the emergence, distribution and use of IT objects, including the disposal of rights to the results of intellectual activity as part of IT objects, received more detailed legal regulation. Unlike classic public-private partnership projects, where real estate objects are created, public-private partnership projects in IT and communications have a huge potential for commercialization. These projects can go from being exclusively «cost-intensive» when the obligations to return the investor's funds fall entirely on the budgets of the budgetary system of the Russian Federation, to being partially or fully recouped from extrabudgetary sources.

The implementation of IT projects within the framework of public-private partnership is promising for both private businesses and the state. IT projects can be implemented as independent units and as a tool for «servicing» the sectors of the national economy in the implementation of public-private partnership projects, as well as the formation of a «digital basis» for the transformation of modern economic processes. In this situation, private business gets the opportunity to implement its ideas with the involvement of state funds on acceptable terms. The state, in turn, gets the opportunity to

develop areas where commercial entities are almost not represented due to low profitability or lack of profitability, using information technologies within the framework of the Information Security Doctrine of the Russian Federation.

V. CONCLUSION

To develop public-private partnership in IT in Russia, it is necessary to solve the following tasks: to finalize the regulatory framework governing public-private partnership projects in the IT sector, to develop schemes for monitoring projects implemented under public-private partnership, as well as a mechanism for public offering (within the public-private partnership) projects to investors.

VI. CONFIRMATION

The development of the digital economy in the Russian Federation will provide fundamentally new opportunities for the development of IT services sector and digital transformation of all sectors of the economy. At the same time, public-private partnership can become one of the effective mechanisms for attracting private business funds for the implementation of the national program «Digital economy». Fundamentally new approaches to the development and implementation of public-private partnership projects in IT sphere in the Russian Federation and its regions provide the opportunity to consider an independent information technologies object of public-private partnership projects. At the same time, new business models are being formed for the Russian regions, taking into account their economic potential and adequate assessment of the risks of implementing such projects.

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