Technological and Innovative Development of the Megapolis Using the Implementation of Government Support Measures of Small and Medium-Sized Business

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Abstract. These days big cities are developing faster than ever, influencing the development of the whole country. There are more and more new technologies and innovations that can make people's lives more comfortable and better. However, these technologies and innovations do not appear by themselves. Small and medium-sized business make a great contribution to the development of cities, including in the field of high technologies and innovations. Important aspects of public-private partnership, the problems faced by small and medium-sized businesses, as well as modern measures to support small and medium-sized businesses are studied in this article on the example of the city of Moscow.

Methods of Research

The investigation included the following stages:

1. Review of the main challenges in city governance.
2. The features of state-private partnership eco-system are carried out.
3. Description of possible advances of state-private partnership is given.
4. Conclusions.

Introduction

Modern megacities around the world are striving to introduce high technologies and innovations into their lives. In the 21st century, those cities that are able to create innovations and effectively apply them to different areas occupy leading positions on the world stage. And, it means that they will become the legislators of development trends, will determine the main directions of the evolution of the urban economy. Each developed and developing state and its cities is faced with one of the most important questions: how to be among the leaders in the conditions of modern technological progress, given the limited resources, unique internal problems of each city, political, social and economic realities? The solution of the task, most often, requires an individual approach, both at the state and at the municipal levels.

Cities are historically one of the most active consumers of new technologies, because organizing a comfortable life for a large population has always been difficult. Cities are growing, residents and their preferences, needs are changing, the demand for a comfortable urban environment is
increasing. Therefore, now the main tasks of the cities are to provide people with a higher level of comfort for living, working, studying and tourism in the city. Housing, security, transportation, education, medicine, etc.—areas in which innovation is truly relevant. And each area of a city’s life, its level of development depends both on government support and on the involvement of business in its activities, including small and medium-sized businesses (hereinafter - SMBs). The state and the executive authorities of each city are in dire need of the active participation of business structures in finding solutions to the problems of urban development and the country as a whole. Executive authorities in cities offer innovations, laws, develop city development strategies and provide various resources to business representatives, while the business itself implements the proposed programs, implements its ideas, develops and applies innovative and high-tech solutions in the city.

State-Private Partnership as a Driver of Development

To solve the problem of assessing the relationship between the state and SMBs, we consider an ecosystem model that describes the current state of state-private partnership, shown in Figure 1.

![Figure 1. Ecosystem of government and business interaction in the implementation of a SPP project.](image)

To illustrate the dynamics of development of SMBs in Russia, Figure 2 below shows the increase in the share of small and medium-sized businesses in the country's GDP from 2009 to 2025. The diagram shows the ratio of shares of large businesses and SMBs in Russia's GDP. It is important to note here that, in addition to data from previous years, the situation that is planned for the next 6 years is predicted. The forecast was made on the basis of the goal set by the Ministry of Economic Development of the Russian Federation to achieve a 32.5% share of SMBs in the country's GDP. It is not certain to say whether it will be possible to achieve the desired figure for this period, but the implementation of effective programs for the development and support of small and medium-sized businesses should lead to the desired result. An important aspect here is the level of interaction between the executive authorities of Russia and small and medium-sized businesses. It is public-private partnership that can become a serious base for technological and innovative development of the country and cities through the support of SMBs. Further, this aspect will be studied in more detail.
In Russia, the SPP is carried out mainly in the following forms:

1. The sign of contracts between state or municipal authorities and commercial organizations on the implementation of projects.

2. Applying of state funding sources to support the implementation of large projects in strategic directions of the city development.

3. Creation of corporations with a mixed state and private capital for the development of priority sectors of the economy.

4. Cooperation of the state and business in the development of the social sphere on the basis of the implementation of projects by commercial organizations and individual entrepreneurs in priority sectors for the state and society, at their own expense and on their own initiative.

Moreover, there are other forms of public-private partnership: this is the interaction of state and business in the framework of special economic zones (hereinafter - the SEZ), as well as the combination of public and private capital through the creation of various innovation clusters. The goal of the SEZ is to develop the innovation ecosystem of the city by attracting and locating Russian and foreign high-tech enterprises on the territory of such zones and providing them with the most favorable conditions for the implementation of projects. Enterprises and individual entrepreneurs using services in the SEZ operate in the field of microelectronics, optics and electronic equipment; medical technology and equipment; information and communication technology; development of modern materials and nanotechnology; high-tech production. Now in Russia, in particular in Moscow, this is a very popular form. The city provides resources and a specialized platform for the implementation of regional business projects. In Moscow, an example of such an approach is the Technopolis "Moscow". 56 resident companies are registered in this SEZ. A large investments in the amount of 18.49 billion rubles are attracted already. It is planned that the volume of planned investments by residents will be 40 billion rubles by the 2025. That means that, over 6 years, this figure will increase by 45%, which reflects the long-term development of innovative projects in this SEZ. For residents of Technopolis, the city offers a prepared site, developed infrastructure, free technical services and facilities, as well as resolved issues with logistics, customs clearance, provides benefits and preferences that allow these enterprises to be much more efficient and reach break-even point faster in their starting cycle.

Combining state and private capital through the creation of various innovative and high-tech clusters is also an effective form of SPP. On the territory of Russia there are such clusters in various directions [1]. In the field of high technologies and innovations: Biotechnological Innovative Cluster Pushchino, Innovative and Technological Cluster "Yuzhnoe Sozvezdie" in the Rostov-on-Don region, Innovative Cluster "Zelenograd", Innovative Cluster of Nanotechnologies of the Republic of Tatarstan, Innovative Cluster of Mechanical Engineering and Metalworking of the Lipetsk region "Dolina Mashinostroeniya "and others.
Possible Solutions for Advancing the State-Private Partnership in Russia

State-private partnership is included in the economic policy of Russia, both at Federal and regional levels. Currently, it is actively developing in the country. This is confirmed by the annual increase in the number of infrastructure projects involving private organizations' capital.

According to the Center for the development of state-private partnership at the beginning of 2018 2446 infrastructure projects in the Russian Federation passed the stage of decision-making, including 17 projects at the Federal level, 238 projects at the regional level and 2191 project at the municipal level.

The leader of the rating by the level of development of SPP in Russia in 2018 is its Capital. According to the investment portal of the city of Moscow, in the period from 2013 to 2018 the volume of contracts signed in Moscow on SPP projects is about 700 billion rubles. The state-private partnership in Moscow is implemented in the fields of transport, medicine, education and restoration of cultural heritage, innovations and high technologies are implemented in the development of "Smart city" program.

Innovative projects are a priority of the state bodies of city of Moscow. In other words, Moscow needs the program of innovative development of the city. The Capital will depend on private organizations that will conduct certain research work, the results of which will form a comprehensive innovative program that will be implemented in the city. In the framework of this research work private organizations will:

1. Form a system of reference points of innovative development,
2. Assess current technological and innovative profile of the Capital;
3. List the activities for the development of sustainable and efficient innovation ecosystem of the city of Moscow;
4. Consider trends in the global technological and innovative development of modern cities,
5. Check availability of the city competencies, market potential, priority directions of economic development and technology innovation, opportunities and constraints of their implementation.

Next, we need to consider the examples (methods) of interaction of public authorities and business in the field of innovative projects for the development of the modern metropolis, which work now.

1. The centers of development of industrial technology in Moscow. Thanks to the work of such centers, the small and medium-sized industrial enterprises of Moscow have the opportunity to conduct certification to confirm compliance with the requirements and standards imposed on large companies and state corporations to their suppliers. In the centers of development of technologies of production are the production enterprise of Moscow on rendering of services in testing of product samples and materials, as well as in voluntary and obligatory certification of products and services, processes and quality management systems.

2. The program "Open queries of Moscow". The program allows high-tech companies to propose and test innovative solutions in the urban environment for the current needs of the capital's infrastructure. Requesters are the Executive Bodies of the city of Moscow, subordinate organizations and state corporations. This program is available for any Russian or foreign company which can offer an innovative solution to the open query ready for pilot testing and potential implementation in an urban economy.

3. Session of the Moscow manufacturers. This is a unique opportunity for the company to talk about their innovative products and get feedback directly from representatives of potential government customers. This service is relevant for small and medium enterprises, which are owners of the products as well as large enterprises, offering unique developments. Session give the opportunity for high-tech manufacturing companies to talk about their products directly to potential customers and also get feedback from them. Having received a positive opinion from potential customers on the session producers to representatives of Executive authorities, leading companies receive further support in the promotion of products by attracting these companies to the specialized development activities demand for innovative products, ongoing innovation Agency of Moscow for
a wider range of customers, including large private businesses, subsidiaries and affiliated companies with state participation, foreign organizations interested in the Russian innovative products.

4. Navigator innovation infrastructure iMoscow. This portal is a unique information service resource platform which contains more than 20,000 objects of innovation infrastructure of the capital, as well as information about their capabilities for technology entrepreneurs, innovative organizations and anyone interested in innovation. iMoscow users can find objects of interest on an interactive map, to rent space in industrial parks and co-working centres in Moscow, to take advantage of technological services to find business partners, learn about opportunities in the sphere of support of innovative business [2].

5. The Department of Entrepreneurship and Innovation Development of the City of Moscow keeps a register of legal entities and individual entrepreneurs exporting and (or) importing high-tech and innovative products, scientific equipment and research objects. Legal entities and individual entrepreneurs included in this register can carry out customs clearance at the scientific and innovative customs post (hereinafter referred to as NITP) and use a closed-type temporary storage warehouse for imported goods during customs procedures. The advantages of using the NITP include: reducing the time of customs procedures, since this post only works with organizations of the specified profile; the possibility of electronic declaration of goods; ensuring the remote release of goods.

All these services are aimed at effective interaction of SMEs and the Government of Moscow in the face of the executive authorities, so that business representatives have as many opportunities for development in the city as a result, Moscow as a whole becomes more attractive and comfortable for residents and tourists. Thus, Moscow, as a metropolis, is becoming very competitive in the arena of cities around the world.

Conclusion

In conclusion, it is necessary to highlight such important indicators in the system of SPP in the field of high technologies and innovations, as the costs of ongoing programs and projects, as well as their profitability. In the specific case considered, on the example of the capital of Russia, many of the programs of the Moscow Government to support small and medium-sized businesses are carried out thanks to the allocation of funds from the city budget. The costs are really high, since the Government of the capital allocates entire sites and premises for the most effective development of SMBs, the results of which are being introduced into the infrastructure of Moscow. In addition, the newest and most expensive technologies and equipment are provided for the use of the business, while specialized state institutions provide advice and other services for small and medium-sized enterprises. Many services are provided free of charge. However, it is not necessary to take the invested resources and funds for the development of SMBs only as expenses. In fact, these are long-term investments in the development of the city, which, 5-10 years after the implementation of specific SPP-based projects, are returned to the city budget with revenues many times higher than the costs. Innovative and high-tech results, products and services created by small and medium-sized businesses are sold abroad, domestically and provided to the population, which allows businesses to grow further. Moreover, modern high-quality innovations and technologies attract foreign investment, increase the level of development of the city, and as a result, the whole country. SPP in Russia is developing not only at the level of the capital, but also in other cities. However, Moscow is currently the most striking example in this area. It is still very difficult to accurately predict how implemented and planned programs and projects will be effective within the framework of a state-private partnership in the long term (10-15 years). But the results of the already implemented programs and projects indicate that the development of SMBs based on SPP is indeed a promising direction not only for Moscow, but also for Russia as a whole, although the state-private partnership in the country requires many more improvements and changes. Therefore, this topic remains relevant and important at the present time.
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