

# THE PUBLIC-PRIVATE PARTNERSHIP STRATEGY IN THE CONTEXT OF INNOVATIVE DEVELOPMENT OF ECONOMY IN BELARUS

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## Abstract

*The analysis of innovation activity in the Republic of Belarus is conducted in the article. The authors of the article develop theoretical and methodological foundations for public-private partnerships (PPPs) in the innovation sector, incl. the PPP concept, features of PPPs, PPP relationship model in the innovation sector, as well as PPP types and models. The directions for PPP's strategy formulation to ensure innovative development of Belarusian economy are provided. The research methods include the analysis and synthesis, comparison values and the expert method.*

**Keywords:** *public-private partnership, innovation, innovative development, innovation activity, innovation projects, competitiveness*

## Introduction

In the context of development of “new economy”, traditional approaches to management of innovative activity, which is focused on building material benefits and accumulation of material assets, do not comply with current changes (globalization, increased competition, development of network structures). They should be complemented with a new approach based on promoting partnerships in science and education.

The essential precondition for high-quality economic growth that is based on innovation is constructive interaction between business and government structures. The nature of these relations is manifested in the PPP institution. Active formation of the ideology of the partnership between business and the state, legislation and projects in this area began in the first half of the 90s of the 20<sup>th</sup> century, by the end of which there were more than 3000 officially registered active PPP projects in the world. According to

*Going Global*, the world leaders in the development of such partnerships are UK, Australia and the Scandinavian countries (CBI, 2007). In many OECD countries the PPP projects account for a growing share of state budget for science and technology.

The significance of PPPs in addressing the challenges of innovation development of economy is recognized in Belarus at the state level. This is reflected in policy documents – the Directive of the President of the Republic of Belarus No. 4 “On the Development of Entrepreneurial Initiative and Stimulation of Business Activity in the Republic of Belarus”, the State Program for Innovative Development of Belarus for 2011–2015, and the Program of Socio-economic Development of the Republic of Belarus for 2011–2015. However, currently the PPP strategy is absent in the Republic of Belarus. Future PPP relations in the sphere of innovation and mechanisms for practical realization are not defined in the draft law of the Republic of Belarus “On Public-Private Partnership”.

Theoretical foundations of PPPs are developed in the writings by foreign authors (including CIS), e.g. K. Bovis, S. O. Bochkov, V. G. Varnavskiy, J. Hamilton, M. A. Deryabina, Dzhieng Feng, D. Zanoga, N. Cooper, G. P. Kurapov, K. Kliffton, N. Cruz, N. M. Kolganov, S. N. Larin, I. N. Markov, V. N. Noskov, L. S. Plakitkina, B. P. Simonov, A. Smith etc. The methodology of relations of PPPs are investigated by N. N. Bondar, E. P. Borushko, A. S. Golovachev, E. A. Daderkina, E. B. Dorina, A. Zaborovsky, I. V. Novikova, P. G. Nikitenko, S. V. Lanevsky, I. N. Melnikova, S. I. Mazol, V. M. Krasovsky, O. Temnitskaya, etc. However, the development of institutional mechanisms of PPPs in innovation with regard to the specifics of the innovation cycle and features of the Belarusian model of economic development could not be reasonably traced in previous studies.

The purpose of this article is to justify the PPP strategy in innovative development of the Belarusian economy, considering relevance and insufficient degree of elaboration of PPP mechanisms in the sphere of innovation. To achieve this objective, there is the need to:

- carry out the analysis of innovation activity in the Republic of Belarus;
- develop the theoretical and methodological foundations of PPPs in the sphere of innovation;
- offer the direction for the development of the PPP strategy in the innovative development of economy of the Republic of Belarus.

## The Analysis of Innovative Activity in the Republic of Belarus

Belarus has worsened its position by 5 places, ranking the 93<sup>rd</sup> in 2011/12 and the 98<sup>th</sup> in 2013/14 (see Table 1) in the competitiveness rankings of the *Global Competitiveness Index* (GCI) for 2010–2013 by the World Economic Forum and SIC Mises AC “Strategy.

Table 1

## World Countries by the Global Competitiveness Index (GCI)

Country	Place in the Global Competitiveness Index GCI *			Place in the GCI Sub-indexes								
	2011/12	2012/13	2013/2014	Basic Requirements			Efficiency Enhancers			Innovation Factors		
				2011/12	2012/13	2013/2014	2011/12	2012/13	2013/2014	2011/12	2012/13	2013/2014
Switzerland	1	1	1	3	2	3	2	5	5	1	1	1
Singapore	2	2	2	1	1	1	1	1	2	11	11	13
Finland	4	3	3	5	4	7	10	9	9	4	3	2
Germany	6	6	4	11	11	9	13	10	8	5	4	4
USA	5	7	5	36	33	36	3	2	1	6	7	6
Sweden	3	4	6	4	6	8	7	8	7	2	5	5
Hong Kong	11	9	7	2	3	2	4	3	3	25	22	19
Holland	7	5	8	7	10	10	8	7	11	9	6	7
Japan	9	10	9	28	29	28	11	11	10	3	2	3
Britain	10	8	10	21	24	24	5	4	4	12	9	10
China	26	29	29	30	31	31	26	30	31	31	34	34
Estonia	33	34	32	27	26	26	36	31	30	37	33	35
Poland	41	41	42	56	61	59	30	28	32	57	61	65
Czech Republic	38	39	46	45	44	55	29	34	37	32	32	36
Lithuania	44	45	48	49	49	43	48	46	47	50	47	44
Kazakhstan	72	51	50	62	47	48	76	56	53	114	104	87
Latvia	64	55	52	66	54	40	54	48	41	64	68	68
Russia	66	67	64	63	53	47	55	54	51	97	108	99
Georgia	88	77	72	86	64	57	89	87	86	117	120	122
Slovakia	69	71	78	60	62	67	54	51	56	64	74	77
Ukraine	82	73	84	98	79	91	74	65	71	93	79	95
Greece	90	96	91	80	98	88	65	69	67	81	85	81
<b>Belarus *</b>	<b>93</b>	<b>92</b>	<b>98</b>	<b>95</b>	<b>112</b>	<b>117</b>	<b>91</b>	<b>94</b>	<b>99</b>	<b>96</b>	<b>90</b>	<b>104</b>

\* Index of 148 countries in 2013–2014; 2012–2013 – 144 countries; 2011–2012 – 142 countries.

\* across Belarus an assessment of the Research Centre of Mises AC “Strategy”.

Source: Romanchuk, 2011, *Global Competitiveness Report*. World Economic Forum, 2014.

The calculation of the Global Competitiveness Index rankings is conducted in the following key indicators: basic requirements (institutions, infrastructure, macroeconomic stability, health, and primary education); efficiency enhancers (higher education, the efficiency of product markets and labour market, financial market sophistication, technological readiness, market size); innovation factors (business experience, innovation).

Economic growth in Belarus has not yet become innovative.

The innovation factors rank 104<sup>th</sup> in 2013/14 out of 148 countries (see Table 1) in the assessment of global competitiveness of Belarus.

The analysis of the factors constraining innovative development is carried out based on the expert method by the National Statistical Committee of the Republic of Belarus (12479 heads of the industrial enterprises participated in the poll). The heads of the Belarusian enterprises have identified the following factors constraining the development of innovative activity (from a list of factors as the main or decisive) [Science and innovation activity in the Republic of Belarus, 2013: 101]:

- lack of own money (739 answers);
- lack of financial support from the state (531 answers);
- lack of opportunities for cooperation with other organizations (229 answers);
- high cost of innovation (681 answers).

The analysis of innovative activity shows that the expected indicators, which are determined by the State Program of Innovative Development of the Republic of Belarus for 2011–2015, were not executed by the end of 2014.

The main problems include:

- The funding of scientific research in Belarus does not meet the needs of international competition; there is very low research intensity.
- Low efficiency of innovation, as evidenced by the low value of the share of new products in total production.
- Lack of own money; lack of financial support from the state is identified as factors hindering the development.
- Low level of innovation.
- Partnerships for innovation are yet not developed in Belarus.

Thus, the analysis showed the imperfection of the innovation system in the Republic of Belarus. It confirms the relevance of the development of increased innovation through the development of PPP relations.

## The PPPs Concept in Innovation

The term ‘public-private partnership’ (PPP) emerged in the early 90s of the 20<sup>th</sup> century and is associated mainly with the "British Model" PPPs. D. Major government

announced the “Private Finance Initiative” (PFI), which was a modernized concept for management of state-owned property in 1992.

According to authors of scientific researches in the field of PPPs (Varnavskiy, 2014: 67–74, Regional Training Materials on PPP, 2012, Makarov, 2013: 18–29, Firsova, 2013: 25–30, Bovis, 2013:1–35, Cruz, 2013: 292–307), PPP is understood as the institutional and organizational alliance between the state and business (enterprise structures). It is directed towards the attainment of common economic targets, solving of current social and economic tasks, the implementation of national and international, large-scale and local projects for the society in a wide range of fields of activity, incl. the development of strategically important industries and financing of innovative scientific development.

By analysing the existing definitions, we can conclude that the PPP is considered as legally admissible for a fixed term mutually beneficial cooperation bodies (organizations) of the government and a business entity for objects that are under direct control of the state, as well as services implemented by the state. This cooperation involves pooling of resources and sharing the risks between the partners. It is carried out to ensure the most effective implementation of the projects having important state and public value. The range of relationship between business and the state has expanded, and is being used widely in the sphere of science and innovation.

Formation and development of PPP gains special relevance under modern conditions of globalization of economy and internationalization of production. The PPP with the foreign capital provides more opportunities for Belarus to be integrated into the world economy and to acquire the necessary experience and advanced technologies. Interaction between the state and multinational companies in the global context is an important precondition for maintaining and enhancing the competitiveness of domestic production.

The PPP relationships create preconditions for innovation activity of business entities by virtue of their specific features. As a result of PPPs, the increased innovation activity occurs at all stages of the innovation process: education, research and development, investment, innovation transfer. Knowledge sharing, idea generation, R&D are the factors of innovation activity. The key problem of science – new development, mission of the state – the creation of frame conditions, a business problem – commercialization of development within PPP in the sphere of innovation.

Use of PPP mechanisms gives the opportunity to implement innovative projects, unattractive for traditional forms of private financing in the shortest possible time. The PPPs increase the project efficiency. The conditions are created for reducing the burden on the budget by attracting private funds and transcriptions of the cost of users (commercialization services), by attracting the best managerial personnel, equipment and technology, improving the quality of end users. The review and synthesis of theoretical researches (Varnavskiy, 2014: 67–74, the State Program of Innovative

Development of the Republic of Belarus for 2011–2015, 2014; Kolganov, 2013:145–151; Larin, 2008:312; Lenchuk, 2014:19–46; Melnikova, 2012: 61–62; Nikitenko, 2011; Firsova, 2013: 25–30) allowed for defining PPP's theoretical and methodological foundations in innovation, taking into account the institutional environment of the Republic of Belarus.

*In the sphere of innovations, PPP* is a set of organizational legal relations and actions of the state and private business directed towards achieving the objectives of innovative development at macro, regional and micro-level by means of implementation of projects and programs.

*Innovative program* is a complex of innovative projects and actions based on resources, performers and terms of implementation, providing the effective solution of development tasks and distribution of essentially new types of products (technologies).

*Innovative project* is the project containing technical and economic, legal and organizational justification of final innovation, e.g. a comprehensive action plan aimed at creating or changing a particular system through the transformation of innovations and providing for its implementation. Certain conditions (time, funding, equipment, methods of organization, etc.) are the attributes of the innovative project.

Pooling of resources and potentials of two economic entities takes place in such a relationship system. The ownership, financing, provision of services (education, consulting, etc.), guarantees (e.g. banks for the credits of the private sector), tax and other privileges may be contributions of the public sector. Finance, property, management, professional experience and the ability to innovate are the contributions of the private sector.

Signs of PPP are as follows:

- 1) The parties to the partnership represent the public and private sector.
- 2) The relationship of the parties is recorded in official documents (contracts, contracts, agreements on partnership, etc.).
- 3) The relationship between the parties is a partnership that is equitable in nature.
- 4) The parties have common goals and certain state interest.
- 5) Realization of partnerships takes place in competitive environment (which involves competition among business entities applying for the state support).
- 6) A clear definition of goals and roles, the division of authority and responsibility, accountability, strategic management.
- 7) The parties combine their contributions to achieve common goals.
- 8) The parties share the costs and risks, use the obtained results.

The private partner and state partner can initiate the PPP project. The state partner initiates projects of national value, e.g. a project on the creation of a petrochemical

cluster, a project on the creation of the international research consortium and a project on the creation of science and Technology Park.

The PPP relationship can be implemented in various fields: transport, utilities, energy, telecommunications, health, education, culture, tourism and sport, social services, innovation.

Specificity of innovation affects the PPP types and models in the field of innovation. The innovation process involves high risks and big initial costs in various stages of the innovation process, such as education, research and development, investment, innovation transfer, production, distribution and service of innovative products.

There are specific PPP types in the sphere of innovation.

*Type PPP in innovation* is a combination of organizational and legal relations and actions of the state and private business to achieve the common goals of innovation policy of the Republic of Belarus, which are fundamental for building an innovative economy in the country. The PPP types in the sphere of innovation are formed at stages of an innovative cycle and include: partnership in education, cooperation in R&D, cooperation in investment activity, cooperation in technology transfer, cooperation in production of innovative products.

*The PPP model in innovation* is the specific PPP project that results from lawful and transparent procedure for selection of corresponding PPP participants from private business to solve specific problems in the sphere of innovation. It is directed towards solving of private problems related to innovation policy of the Republic of Belarus.

There are several models within each type, for example, the PPP type – *cooperation in technology transfer* can include the following models (projects): a project on the creation of the innovation and technology centre, a project on the creation of regional venture fund with the state participation, the project on the creation of a high technology innovative product, etc.

In stages of innovative process (education, R&D, investment activity, innovation transfer) knowledge is the source of innovation in the development of a product and production technology, management, marketing techniques, advertising, etc. The partnership in education is realized in the following directions: participation of the government's regional bodies in development of educational programs in local universities; the organization of the training seminars, conferences on management issues, marketing, law, and logistics for the business entities of a particular region.

Joint research (engineers, public research organizations and business organizations); joint product development; improvement of product design; improvement of production methods; joint development of high technology products are the directions for cooperation in scientific research and development. *Cooperation in investment activity* is joint funding of innovative projects by business entities and public and regional government authorities, attraction of foreign capital by regional state

authorities for the establishment of companies with foreign investment, the creation of venture funds. *Cooperation in technology transfer* is the creation of technology transfer centres, free economic zones, technology parks, business incubators, joint and franchise organizations.

Thus, activation of innovation resulting from PPPs takes place at all stages of the innovation process. Knowledge sharing, idea generation, joint financing of R&D are factors of innovation activity. PPP doesn't mean simple addition of resources. Each party has its own goals, specific problems, and thereby different motivations.

## Main Directions of the Public-Private Partnership Strategy in Belarus

The national strategy for development of PPP in Belarus as part of the state innovation strategy is necessary for successful use of PPPs in the innovative development of economy of the Republic of Belarus.

The main directions of the PPPs strategy in innovation are:

- the development and continuous improvement of scientific and innovative policy;
- the integration of public and private property under the relevant innovative projects on the principles of profitability and repayment;
- the promotion, advancement and dissemination of knowledge about PPPs;
- the creation of a legislative base of scientific and innovative activity, taking into account strategic objectives, priorities and policy in this sphere;
- the producing of PPP development programs in specific sectors of economy;
- carrying out actions to build trust between partners and foster cultural development through cooperation between state and private partners;
- the development of forms and methods of interaction between the government, public and private research and innovation institutions;
- improvement of tax and customs policy, including tax and customs privileges;
- assistance and partnership in formation of scientific and innovative infrastructure (technological centres, science and technology parks, centres for collective use of equipment, industry technology transfer centres, etc.);
- international cooperation (for example, the creation of innovative joint corporations);
- state funding, development of venture funds, business angel networks, start-up schools;
- state support for SMEs in innovation;
- establishment of PPP's institutional environment in the country: the financial and economic institutions providing investment and guaranteeing private



investment, independent organizations, which carrying out examination of projects and consulting, management companies, associations, unions, foundations, etc.;

- training of specialists in the field of PPP and investment managers;
- definition of financial relations between public authorities, public and private research and innovation organizations.

The combination of these measures should contribute to the accelerated development of a competitive innovation system in the Republic of Belarus, and thereby, to accelerated modernization of economy at national level. Solving of these problems will certainly require creative, entrepreneurial approach from both the state and business, not only in manufacturing, but also in the management and organization of investment planning.

The interaction between the government and businesses in the implementation of major investment projects in the sphere of innovation requires a variety of *necessary conditions*.

They are as follows:

- the existence of strategic priorities, which are accurately formulated by the state and designation of possible ways of their achievement by means of individual local projects;
- establishing the rules for interaction between the state and private business in the implementation of joint projects;
- development of concrete proposals for the division of investment, the risks and benefits of each development.

The proposed stages of PPP formation in Belarus are as follows:

- 1) defining and expression of initiatives (government and private partner);
- 2) two parties for the implementation of the put-forward initiative;
- 3) dialogue (coordination of essential conditions) of the state and the private sector about the future of the PPP project;
- 4) fixing agreements between the state and private business;
- 5) implementation of the commitments under PPP;
- 6) analysis of the results of PPP;
- 7) development of new (more perfect) PPP models;
- 8) and again development of initiatives.

*The draft agreement on PPPs in innovation* can include the following provisions:

- subject and object of the agreement;
- purpose of the agreement;
- validity period of the agreement;
- volume, contents and types of work and (or) services;
- timing of work and (or) services;

- the order of creation (construction, reconstruction) and / or operation of the facility agreement;
- powers, rights and duties of parties to the agreement;
- financial terms of the agreement, including the terms of payment between the parties;
- distribution of risks;
- guarantees provided for the parties to the agreement;
- set of the rights which are transferred by the state partner to the private partner;
- resources of the state partner, which are transferred by each state partner to the private partner; an order to transfer these resources;
- ownership of the object agreement and intangible assets related to the agreement (licenses, permits and other documents), the distribution of shares of public and private partners in the ownership of the specified object, the conditions and time of such rights;
- procedure for the return of state resources as the result of ownership agreement necessary to sustain the provision of services at the time of expiration, or in case of early termination of the agreement;
- environmental, historical, cultural and security requirements;
- insurance conditions in connection with performance of the agreement.

## Conclusions

It is necessary to formulate and approve the PPP strategy and mechanisms for its realization to ensure innovative development of Belarus. It is advisable to accelerate the adoption of the law “On the Public-Private Partnerships” of the Republic of Belarus and the development of methodological support for PPP projects.

The theoretical and methodological foundations for using a new resource for innovative economic development, which are developed and presented in this article – the PPPs of business, government and education will allow achieving synergetic effect from cooperation. The increase in innovation activity occurs at all stages of the innovation process: education, R&D, investment, innovation transfer. Knowledge sharing, idea generation, joint funding of R&D are the factors of innovation activity.

The proposed directions for development of PPP strategy in Belarus will be interesting for both businesses, business associations, government, as well as regional government.

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