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Development of State and Small-Business Partnership in a Region's Innovation Sector

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Abstract. The strategic goals of innovation development of the Russian Federation and problems of development of small and medium businesses require the study of the mechanisms of successful cooperation between the state and small businesses, including public-private partnership (PPP). The article considers promising mechanisms for innovative development of the Russian economy in the framework of PPP, with the participation of small businesses. The hypothesis is presented by the thesis that small business has a high innovation potential and exceptional opportunities for its implementation in PPP projects. This thesis is confirmed by the analysis and synthesis of a number of scientific theories. The purpose of the study is to clarify the nature and areas of partnership between the state and small business in innovation and development of proposals to improve their cooperation according to the PPP principles. The methodological basis of the study includes the systematic approach, methods of structural, concept, functional and statistical analysis, the method of expert evaluations. The paper discloses the essence of public-private partnership as a mechanism for attracting private capital to investment processes on mutually beneficial terms for solving socially important issues; identifies the tools and forms of PPP used for economic innovative development. The key mechanisms of economic innovative development based on the principles of public-private partnership, include: program government investments; creation and maintenance of development institutions; formation and development of innovative territorial clusters; building and development of an innovative high-tech business development infrastructure. Using the experience of the Samara Oblast and the aerospace cluster the authors review the mechanisms for the implementation of PPP in innovation sector and the model for involving small businesses in investment projects. They also define organizational and economic conditions and prerequisites for an effective partnership between the state and small businesses in innovation sector, present far-reaching ways of active participation of small businesses in the PPP projects. The authors present recommendations for improving the interaction between small business and the state in innovation sector and involvement of small businesses in the implementation of innovation and significant investment projects. It seems that the developed proposals can be used in the activities of the Samara Oblast authorities and ensure sustainable economic growth and innovative development of the region on the basis of PPP mechanism.

Key words: public-private partnership, small innovation business, cluster, innovation infrastructure.

In current economic conditions only modernization and innovative development can provide long-term growth of the Russian economy. During 2010–2015, Russia managed to improve its position in major innovation rating Global Innovation Index (GII) by 16 points. However, according to the National Report on Innovations in Russia (2015), domestic economy is still characterized by a small share of innovative enterprises (11%), and a small share in the world export of high-tech products (0.4%). The share of Russian

innovative products in the total output (8–9%) is almost twice less than that of the leading countries (15%), and has not demonstrated an upward trend for three years.

In efficient and competitive economies, more than a half of the working-age population work in small businesses producing 50–65% of GDP. About 80% of small businesses are innovative. 25% of the total economically active population are employed in small business[1] which generates about 20% of Russia's GDP; only 5–6% of small businesses may be considered innovative. Despite a significant amount of state support funds allocated in recent years, the role of small business in the economy has not been increasing. It is obvious that at such low level of development it is impossible for Russia to make an innovative breakthrough.

The interests of the state and business in the sphere of innovation almost fully coincide since their joint efforts are aimed at improving priority economic sectors, increasing the share of Russian goods on world markets of high-tech and science-intensive products, and balanced development of territories. In this regard, the successful solution of problems of Russia's innovative development is associated with the optimization of interaction between government and business in the form of public-private partnership (PPP). This viewpoint is based on the understanding that the implementation of innovation policy is impossible without the integrated functioning and interaction of public and private sectors at all stages of the innovation process.

Interaction between the state and small business in the sphere of innovation is at the beginning of its development; however, it has high potential and a number of specific features. PPP tendencies and development features in the innovation sphere are described in scientific works of Yu. S. Yemelyanov, A. G. Zeldner, I. I. Smotritskaya, O. V. Zlyvko, S. N. Sil'vestrov, I. N. Rykova, I. V. Kosyakova and others. They pay special attention to the impact of PPP on the development of entrepreneurship in Russia amid realization of strategic objectives of innovative economic upgrade.

Comprehensive analysis of principles and mechanisms of PPP development in Russian innovation and science and technology, as well as foreign and Russian experience of interaction between government and business in the innovation process are presented in the publications of D. E. Morkovkina, M.

[1] Hereinafter, small business refers to businesses classified as small business units according to Federal Law no. 209-FZ "On the development of small and medium business in the Russian Federation", dated July 24th, 2007.

A. Bespalova, O. V. Grigorenko, L. M. Igolkina, E. V. Kozlova. The experience of cooperation of academic institutions and business in the innovation sector based on the principles of PPP is studied in the works of E. O. Dmitrieva, M. S. Guseva, I. A. Kholodilin, S. M. Nikitenko, T. Ksenofontova.

The authors highly appreciate the contribution of these scientists in the issue under study and note that the ways of using PPP techniques in innovation with the participation of small businesses are underdeveloped in theory and practice. According to the authors, One of the obstacles for systematic introduction of PPP mechanisms for the implementation of specific goals and tasks of innovative development of the country and individual regions is the uncertain nature and unstated areas of partner cooperation, lack of efficient mechanisms of involvement small businesses in innovative projects.

The purpose for this study is to clarify the nature and spheres of partnership between the state and small business in the innovation sector and develop a set of proposals for improving their interaction according to the PPP pronciples.

The study of approaches of foreign authors such as D. B. Audretsch, M. Bult-Spirng, M. J. Enright, Y. Entezari and Europe sources on PPP helps conclude that the term "public-private partnership" refers to almost any form of cooperation between the state and business. Russian researchers such as O. V. Ivanov, V. A. Kabashkin, P. V. Savranskii and V. Yu. Solov'ev define public-private partnership as a formal institutional and organizational alliance between public and private sectors in order to ensure the production of public goods or products which arte traditionally manufactured by the public sector. Federal Law of the Russian Federation No. 224-FZ "On public-private partnership, municipal-private partnership in the Russian Federation", dated July 13, 2015 establishes the following definition of PPP: "Legally regulated for a certain period of time cooperation of a public partner on the one side and a private partner on the other side based on pooling of resources and risk-sharing, carried out on the basis of PPP agreements concluded in accordance with the present Federal Law for the purpose of attracting private investment, as well as provision by public authorities and bodies of local self-government of availability of goods, works and services and improvement of their quality".

The common feature is the provision stating that PPP is not a simple combination of its participants' techniques and resources, but a special mechanism of relations between the public and private sector. In Russian innovation

sector the partnership of the state and small business goes beyond a "formalized institutional and organizational alliance between the public and private sectors", including various forms of cooperation and interaction.

Analysis of Russian and foreign literature sources and the study of practices of Russian regions help classify the main mechanisms of innovative economic development based on the use of PPP, which are the following:

– software public investment as a tool for implementing innovation policy (PPP concept);

– creation and maintenance of activity of development institutions (PPP projects);

– formation and development of innovation territorial clusters (PPP projects);

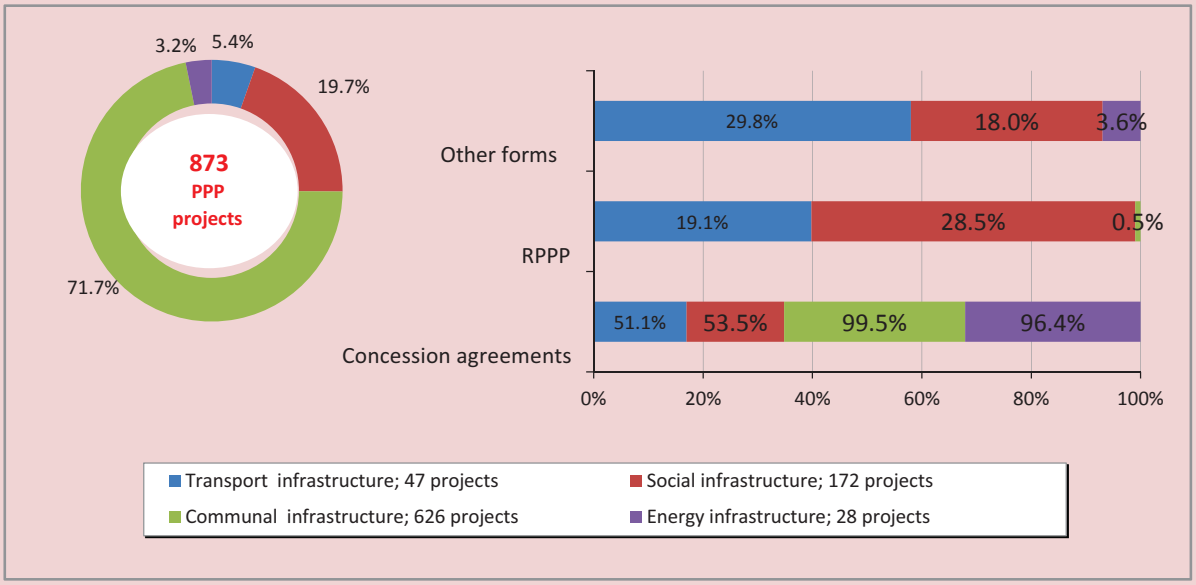
– creation and support of innovation infrastructure development of high-tech business (special economic zones, technoparks, business-incubators, technopolises) (PPP-projects).

In this diversity of mechanisms it is necessary to distinguish between PPP-projects and partnership as a concept of interaction between government and businesses (PPP-concepts) taking into account the existing legal and regulatory framework. In Russian subjects, PPP in the innovation sector is often identified with the forms of state support for entrepreneurship rather than with partnership, which is not entirely correct. Following this logic, the authors do not categorize direct financial and non-financial support of participants of innovations, including small and medium businesses, as forms and manifestations of PPP in the innovation sector.

Russia has accumulated some experience of PPP. According to data of PPP Development Center, the country's unified PPP information system has more than 1 300 registered projects which are to be implemented (an agreement has been made), 15 of which are federal, 191 projects are regional, more than 1 100 projects are municipal. In 2015, 873 projects have been successfully implemented (for comparison: in 2013 – there were only 86 projects). The majority of the projects (87.7%) are being implemented in the form of concessions in accordance with Federal law no. 115-FZ "On concession agreements", dated of 21st, July 2005 (*Fig. 1*).

The peculiarity and, at the same time, the problem of financing Russian PPP projects is the predominance of state investment over private. In particular, the ratio of the amount of private infrastructure investment of PPP projects to Russia's nominal GDP is about 1%. For comparison: in India – 9.5%, in Brazil –

Figure 1. Structure of implemented PPP projects by form and infrastructure sector, 2015*



* Compiled by the authors. Available at: http://pppcenter.ru/assets/docs/raytingREG2016_B5_Block_04-04-2016.pdf

18.9%. Mostly large business takes part in the implementation of PPP-projects due to lack of developed mechanisms of attracting small and medium business units (SMBU) to the participation in PPP-projects. However; small business plays a special role in innovation economic development. According to D. Birch, American researcher and the first winner of the International award for research in entrepreneurship and small business, new growth drivers are small and medium businesses. When studying the influence of dynamic and fast-growth companies on macroeconomic performance, it was D. Burch who defined them as "gazelle companies", the name which later became wide-spread. According to estimates of D. Birch, "gazelle companies", accounting for only 4% of the total number of companies, created approximately 70% of new jobs which appeared in the USA in 1988–1992[2].

American Professor A. Cooper in the mid 1960s also stressed that small businesses become the carriers of growth in modern economic conditions. This, in his opinion, is due to three factors:

[2] Birch D.L. *Job Creation in America*. New York: Free Press, 1987; Birch D.L. *The Job Generation Process*. Cambridge, MA: MIT Program on Neighborhood and Regional Change, 1979; Birch D.L. Who Creates Jobs? *Public Interest*, 1989.

personnel qualifications, attitude of technical experts to the financial aspects of business activities, communication and coordination[3].

D. Audretsch and Z. Acs called small businesses "agents of change", claiming that they come to the market to undertake innovation activity, and produce a new product. These very scientists first noted that some industries create the most favorable conditions for innovation of small business, and some industries – for large business[4].

W. Baumol drew attention to the complementarity of innovation activity of small and large companies[5]. The scientist claimed that small businesses make a real breakthrough and large businesses make an additional contribution associated with the capacity-building and increased speed of diffusion of innovation, brings in big business. Therefore, state innovation policy should be aimed at balanced development of both small and large business. Such development can be based on the principle of "triple helix".

The Triple Helix model proposed and described by G. Etzkowitz for the innovation university of knowledge society[6]. In this model, there are three equal institutional spheres – university (science), business and the state, which do not only perform their traditional missions, but also begin to play new roles, performing the functions of other institutional spheres. That is where institutional spheres partially overlap, people meet, new ideas are generated, innovations are created and commercialized. The researchers' conclusions about innovation entrepreneurship are confirmed by economic calculations in the works by A. Díaz-Chao, Sainz-J. González, J. Torrent-Sellens, H.-S. Ryu, J.-N. Lee, S. Hong, T. Li, L. Oxley.

The role of small business in the Russian economy in general and its innovation development is still insignificant, productivity in SMBU of Russia accounts for 0.9 million rubles per person (in the EU states this value is fixed at 2.2 million rubles, in the USA – 3.4 million rubles). The authors consider regional features of small business using the example of the Samara Oblast which is ranked first in the Volga Federal District by number of small businesses. As of

[3] Cooper A.C. Small Companies can Pioneer New Products. *Harvard Business Review,* 1966, vol. 44(5), pp. 162-179.

[4] Audretsch D.B. New Firm Survival and the Technological Regime. *Review of Economic and Statistics,* 1991, volume 73(3), pp. 441–450; Acs Z. J., Audretsch D.B. Innovation in Large and Small Firms: An Empirical Analysis. *American Economic Review,* 1988, volume 78(4), pp. 678–690.

[5] Baumol W.J. *The Free-Market Innovation Machine: Analyzing the Growth Miracle of Capitalism*. Princeton, NJ: Princeton University Press, 2002.

[6] Etzkowitz G. *Triple Helix Model*. Available at: http://innov.etu.ru/

Table 1. Indicators of small business and innovation development of the Samara Oblast in 2010–2015 (including micro-enterprises)*

Indicators	2010	2011	2012	2013	2014	2015**
Number of small businesses, thousand units	41.9	47.8	52.0	53.3	46.9	47.6
Average number of employees of small businesses excluding external part-timers, thousand people*	295.8	251.5	291.4	279.7	279.6	270.5
Share of employed in small business, %	19.6	16.7	19.3	18.6	18.6	18.0
Small business turnover, billion rubles*	443.1	396.1	549.5	615.3	600.1	583.5
Share of small business production in the output of products and services of the region's enterprises, %	29.5	21.8	27.1	27.9	25.2	22.2
Turnover per 1 small business employee, million rubles	1.96	1.57	1.89	2.2	2.15	2.93
Turnover per 1 small business, million rubles	10.58	8.29	10.57	11.54	12.8	16.67

*Compiled by the authors using data from: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/publications/catalog/doc_1139841601359, http://www.gks.ru/bgd/regl/b15_14p/Main.htm, http://samarastat.gks.ru/wps/wcm/connect/rosstat_ts/samarastat/
**In the authors' evaluation based on http://economy.samregion.ru/activity/predprinim/itogi/razvitie-malogo-i-srednego-predprinimatelstva-samarskoy-oblasti-v-2015-godu/

2015, 47.6 thousand of small businesses were registered in this region (*Tab. 1*).

About 18% of the total number of the employed in the region's economy are involved in small business. As of July 01, 2016, the structure of small enterprises consists by 42.4% of organizations engaged in wholesale and retail trade, repairs of different equipment and personal appliances, by 15.2% of enterprises of the industrial sector, by 12.4% of construction companies, by 5.5% of agricultural enterprises, and by 24.5% of firms which provide various services.

In recent years there is a trend of a steady decline in the number of small enterprises (from 53.3 thousand units in 2013 to 47.6 thousand in 2015) and in the share of production of small business in the output of products and services of the region's enterprises (27.9% in 2013, 22.2% – in 2015). The region is significantly behind the district's leaders (the Nizhny Novgorod Oblast and the Republic of Tatarstan) by average number of workers employed in small business and turnover of small enterprises in the region.

These circumstances suggest that the use of potential of small enterprises in economic activities is inefficient. Achieving long-term economic growth of the region is impossible without mechanisms and techniques which increase the efficiency of state participation in the support of small business which is a driver of innovation. In this respect the Samara Oblast has unique experience in PPP realization.

Table 2. TOP-list of Russian leaders by level of PPP development and changes in their positions in the ranking during 2014–2016*

RF constituent entity	Value and position by year		
	2015–2016	2014–2015	2014
Moscow	60.2% (1 place)	63.8% (3 place)	52.3 (10 place)
Saint-Petersburg	59.9% (2 place)	69.2% (1 place)	73.9% (1 place)
Samara Oblast	**59.6% (3 place)**	**59.6% (7 place)**	**54.3% (8 place)**
Novosibirsk Oblast	57.4% (4 place)	61.9% (4 place)	65.5% (3 place)
Nizhny Novgorod Oblast	53.6% (5 place)	61.5% (5 place)	62.3% (5 place)
Sverdlovsk Oblast	49.7% (6 place)	59.6% (8 place)	63.9% (4 place)
Leningrad Oblast	48.4% (7 place)	60.2% (6 place)	55% (7 place)
Moscow Oblast	47.9% (8 place)	56.6% (9place)	38.0% (34 place)
Ulyanovsk Oblast	44.6% (9 place)	52.5% (12 place)	17.7% (72 place)
Republic of Tatarstan	43.0% (10 place)	66.7% (2 place)	70.6% (2 place)
Voronezh Oblast	33.4% (20 place)	54.4% (10 place)	60.4% (6 place)
Yaroslavl Oblast	21.2% (44 place)	49.3% (16 place)	52.7% (9 place)

* Compiled by the authors based on data from: http://pppcenter.ru/assets/docs/raytingREG2016_B5_Block_04-04-2016.pdf, http://pppcenter.ru/assets/files/raytingREG-Block_26-03-2015_new_edition.pdf

According to experts of the PPP Development Center (statistics are recorded since 2014), the region has managed to achieve impressive results. In 2015–2016, the level of PPP development amounted to 59.6% (at the national average – 24.4%). This is the third position on the country's ranking list (*Tab. 2*).

Due to the fact that the technique of calculating the PPP rating in 2016 changed significantly compared to 2014–2015, experts recommend not to compare the current figures directly with the figures of the previous period, but to correlate actual results with the target values. The actual value of PPP development indicator in the Samara Oblast during 2015–2016 exceeded the projected value by 11.1%, which is the best result in the group of regions leading in PPP development. The leading positions of the Samara Oblast are explained by the accumulated successful experience in structuring and implementation of PPP projects (2nd position after Saint Petersburg in the PPP ranking by factor "projects' implementation"), as well as by the developed institutional environment (9th position by factor "institutional environment"). However, expert estimates of the region's investment attractiveness are ambiguous. According to the Expert RA rating, in 2011–2015 the Samara Oblast remained in the group with medium investment potential and moderate investment risk (group 2B). The

Table 3. Dynamics of indicators of the Samara Oblast in the rating: integral index and certain aspects, 2014–2015

Rating	2014	2015	Dynamics evaluation
Integral rating	4	3	▲
- regulatory environment	D	E	▼
- business institutions	D	B	▲
- infrastructure and resources	E	C	▲
- support of small business	A	B	▼
Source: http://investinregions.ru/rating/			

oblast's positions in investment potential in the same period steadily declined – from the 8th position in 2011 to the 12th in 2015, investment risks were raised. At the same time, the Samara Oblast improved its position among Russian regions by amount of investments in fixed capital (from the 18th to 11th position respectively), the Volga Federal District – from the 4th to the 3rd position[7].

According to the National Rating of Investment Climate (made since 2014), in 2015, the Samara Oblast improved its positions and entered the group of regions with medium quality of business conditions. The areas such as "regulatory environment" (assigned "E" rating), "infrastructure and resources" (assigned "C" rating) are characterized by extremely low positions. **High level of administrative barriers** and **state regulation of business development** in the region significantly inhibit the growth of entrepreneurial activity *(Tab. 3)*.

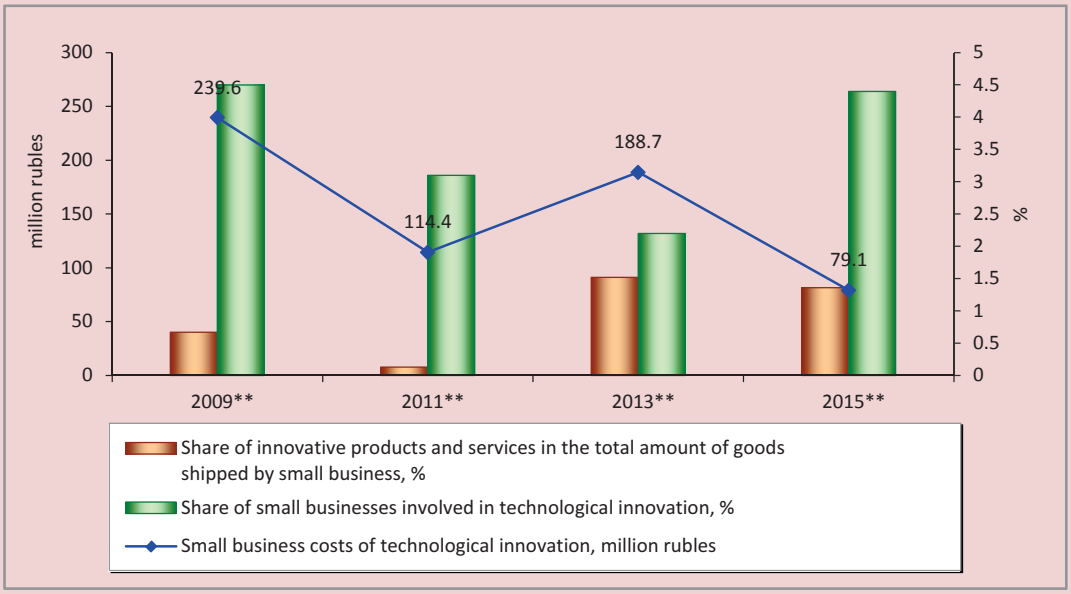
The Samara Oblast ranked 25th among all Russian regions in the ranking of innovation development made by the Higher School of Economics, the oblast was included in the list of regions steadily losing their positions by particular ranking indicators. The share of innovative goods, works and services in the total output of goods, works and services produced in the region is 2.5 times higher than the national average; however, it is gradually declining (in 2014 – 21,1%, in 2013 – 22.9%). According to the statistical compilation of the Higher School of Economics "Indicators of innovation activity", the proportion of organizations engaged in innovation reduced and amounted to 6.3–5.8% in 2012–2014.

The indicators characterizing small business innovation activity in the Samara Oblast in accordance with the periodicity are shown in *Figure 2*.

The number contracts with small businesses for the supply of goods, execution of works and delivering services for state and municipal needs has

[7] *Samara Oblast Investment Ratings*. Available at: http://economy.samregion.ru/activity/investicii/invest_reiting/investitsionye-reytingi/

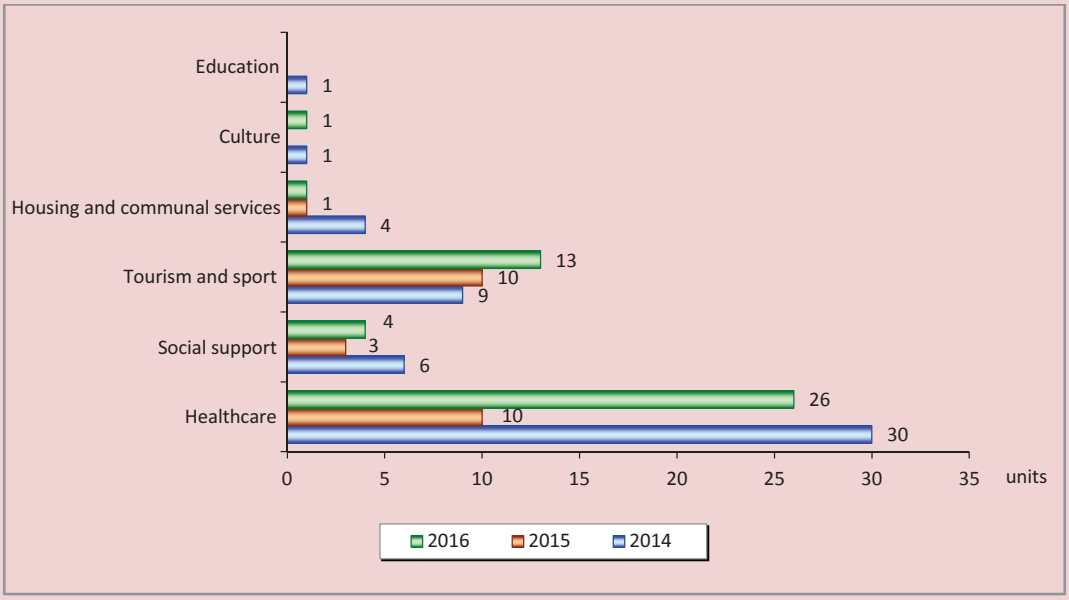
Figure 2. Dynamics of indicators of small business innovation development in the Samara Oblast in 2009–2015**



* The period of statistical observation is defined by Form no, 2-MP innovation "Data on technological innovations of small businesses" – once in every two years.

** Compiled by the authors according to: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/science_and_innovations/science/#

Figure 3. Structure of PPP projects in the Samara Oblast by industry of the created infrastructure in 2014–2016*



*Compiled by the authors based on data from: http://economy.samregion.ru/activity/GCHP/analit_gchp/statistika-gchp-na-01-07-2016/

increased more than twice (according to government statistics – from 3,210 to 6,766 contracts per year).

The marked trends suggest the need for deep study of mechanisms for successful cooperation between the state and small business in the innovation sector, including on a PPP basis.

According to the Ministry of Economic Development, Investments and Trade of the Samara Oblast (the region's competent body on PPP), the PPP market includes 52 investment projects. Statistics on PPP projects has been recorded since 2014 (represented in *Figure 3*).

There are 15 investment projects at the stage of implementation. They are projects of the social sector: 10 projects signed a concession agreement; 2 projects have lease contracts with investment commitments; 3 projects have long-term investment agreement-memoranda (quasi-PPP). It is important to note that as of April 01, 2016, total private investments in projects of state and municipal private partnership amounted to 11.8 billion rubles. The PPP projects were fully financed by extra-budgetary sources; this distinguishes the Samara Oblast from other Russian regions.

Creation and ensuring of innovation infrastructure is one of the key areas of application of PPP as a tool for stimulating innovation in the Samara Oblast. Innovation infrastructure is organized from the point of view of ideology of meeting the needs of business and replacing the missing elements of the innovation process. The state does not guide of lead, but creates the most favorable conditions. Institutions of innovation activity development in the Samara Oblast constitute a regional innovation ecosystem. In December 2014, at the forum Innovation Ecosystem (in Sochi) the innovation system of the Samara Oblast was recognized as one of the best regional practices in systematic innovation process.

The region set up the necessary PPP institutions in the innovation sector. As for financing of innovation activities of specific business units and their projects, there are non-profits such as Innovation Fund of the Samara Oblast, Fund for Promotion of Venture Investments in Small Business in science and technology in the Samara Oblast, Fund for Seed Investment, national competent authority Agency for Investment Promotion of the Samara Oblast, Fund for Long-Term Direct Investment of the Samara Oblast. Technological and organizational support for SMBU innovation is provided by Zhiguli Valley technopark acting in the sphere of high technologies; business incubators; Regional Center for Innovation, Government Autonomous Agency of the Samara Oblast Centre for Innovation Development and

Cluster Initiatives, Regional Centre for Entrepreneurship Development of the Samara Oblast Foundation, etc.

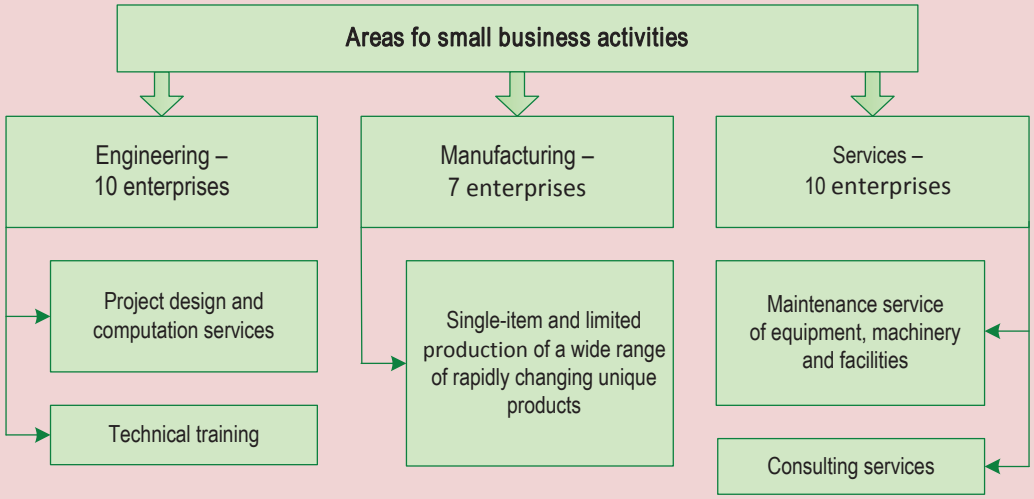
Active interaction between the state and business in the innovation sector is also carried out in the framework of implementation of the "Complex investment project for the development of innovation territorial aerospace cluster of the Samara Oblast for 2012–2021" and the state program "Development of innovation territorial aerospace cluster of the Samara Oblast" for 2015–2018".

Aerospace cluster (ASC) of the Samara Oblast currently brings together 63 members, including 10 academic and research institutions and 27 small businesses (2015). SMSPs include 10 engineering, 7 production and 10 service enterprises *(Fig. 4)*.

Among 27 small ASC businesses 10 of them conduct research in natural sciences and engineering. The founders of these enterprises were private individuals (6 enterprises), major manufacturing companies (2 enterprises), state educational (scientific) institutions together with private individuals and non-profit organizations (2 enterprises).

All in all, state higher educational (scientific) institutions created 5 small innovation enterprises included in the Samara aerospace cluster, including 2 enterprises engaged in scientific research and development in natural science and engineering, 1 enterprise for aluminum

Figure 4. Areas of activity of small enterprises of aerospace cluster of the Samara Oblast*



* Compiled by the authors http://docs.cntd.ru/document/464008199

alloys manufacturing, 1 enterprise for production of electrical distribution and regulation equipment and 1 enterprise for production of soldering, welding and cutting equipment, machinery for surface thermal treatment and spraying.

Thus, small ASC business of the Samara Oblast is presented by:

– small businesses partly performing the functions of other cluster members, freeing them from non-core activities and thereby reducing costs

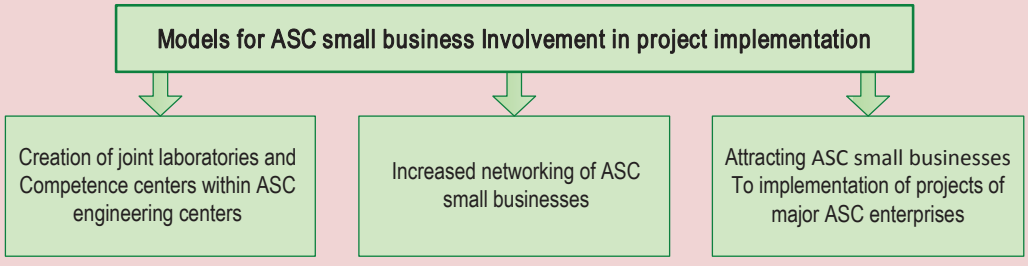
– small innovation companies (SIC) established by large industrial or scientific cluster members for addressing specific project objectives and providing the elaboration of a specific innovative idea (product).

Attracting small businesses to the implementation of cluster initiatives in the Samara Oblast is carried out on the basis of project-oriented approach *(Fig. 5)*.

During 2012–2015 the number of ASC small enterprises increased almost 4 times (from 7 to 27), their revenue increased by 28.7%, export revenue – by 13.6%. According to content analysis, out of 27 small businesses included in the number of cluster members in 2015 only 15 (including 1124 participations in tender projects, 678 tenders won, 656 contracts) of them had experience in public procurement and contracts.

The Samara ASC is the leading one in the project of pilot innovation regional clusters of Russia's economic development by amount of investment from the federal budget (2012–2015 – 6838.26 million rubles). The amount of extra-budgetary investment for the same period amounted to 10017.65 million rubles, i.e. it exceeded public investment by 1.5 times. Private investment of the cluster's small enterprises amounted to 11.5 million rubles.

Figure 5. Models for involving small enterprises in the implementation of cluster projects*



* Compiled by the authors on the basis of: http://docs.cntd.ru/document/464008199

Thus, the condition for effective PPP implementation in the innovation sector of the Samara Oblast is the participation of three equal institutional spheres: science, business and the state.

The Strategy for improving the competitiveness of the Samara Oblast up to 2030 considers **innovation system development** the key area.

This means:

– development of academic research and its focus on priority scientific areas;

– formation of a unified regional system of innovation commercialization;

– stimulation of companies' innovation activity;

– reformation of mechanisms of regional innovation system management;

– assistance in the implementation of innovation projects aimed at creating priority markets for the Samara Oblast in the framework of implementation of the National technology initiative.

The Samara Oblast is one of 10 pilot regions selected by the Agency for Strategic Initiatives and the Russia's Venture Company for implementation of the regional model of the National technology initiative. It is planned that by 2025 the region will have become a center for industrial innovation with new promising knowledge-intensive industries and a formed engineering area of specialization. This will support the technological readiness of small and medium business units to the increasing demands of existing motor-car construction and aerospace clusters, as well as the developing innovation cluster of medical and pharmaceutical technologies.

An important strategic area of PPP development in the Samara Oblast is support for small and medium businesses, primarily through the PPP mechanism. This region is less concentrated on maintaining its leading role in business partnership and more focused on creating conditions for increasing private investment and involving small businesses in innovation capital-intensive projects.

Active participation of small business in PPP in the innovation sector, in the authors' opinion, will contribute to the implementation of the following activities:

1. Development of models of financing of innovation activity, including by using modern financial techniques and mechanisms of involving extra-budget investment in high-technology economic sector and by co-financing part of the applied research.

The strengthening of direct government financial support for small business should be implemented on the basis of selection of enterprises (projects) according to the criteria of a venture company. The state

should focus its efforts on the development of venture capital financing, for example, through collective forms of investment (investment partnership), convertible loans, crowd funding, attracting angel investors.

2. Creation and development of innovation, scientific and educational infrastructure of national and regional innovation systems. The authors believe that state support should be directed not only to small companies with high potential of innovation-driven growth, but also on investment in knowledge and competences: educational infrastructure, technology transfer centers, promotion of brands, provision of subsidies and subventions for the formation of patent protection, etc.

3. Creating conditions for reproduction and functioning of small innovation enterprises in science, technology and manufacturing.

3.1. Improving the effectiveness of public support for small innovative enterprises (SIE):

– development of legal base for SIE activity, which should be based on the formation of a separate legal document governing the establishment, operation and closure of activities of small enterprises engaged in creation and implementation of research results, as well as the procedure and mechanism for providing state support;

– liberalization of tax legislation and taxation: granting the right of applying a simplified tax system without a annual turnover threshold, tax and payment exemption for the period of tax holidays, maximum VAT and income tax rate reduction, tax exemption for all operations related to receiving a right of patent and equipment ownership and realizing intangible assets;

– access (probably free) to technology, patents and developments;

– assessment of effectiveness of the state of cluster programs and programs for development of small innovation business on the basis of quantitative indicators characterizing the efficiency of SIE activity and indicators of small business satisfaction with the activity of development institutions and infrastructure organizations.

3.2. Stimulating demand for innovative products, i.e. implementation of a system of measures for effective cooperation between all parties concerned at all stages of the innovative product life cycle from identifying and detailing customers' needs for innovative solutions to organizing and conducting public procurement procedures, including:

– through the creation by the state of the system of economic incentives for large business entities aimed at their use in manufacturing of innovative products, materials, components, services, etc.;

– access of SIE to government contracts, especially state procurement of high-tech products, as well as creating conditions for successful tendering;

– development of the practice of applying registers of industrial products, technologies and services within procurement activities, as well as regional registers of intellectual capital.

3.3. Creating favorable conditions for SIE participation in public procurement:

– establishment of the minimum fixed amount of tender security, as well as contract execution for participation in tenders and competitions;

– creation of public procurement preferences tool by using the registry of innovative products, technologies and services (or the criteria for classification of products, technologies and services in innovation), which is mandatory for public procurement.

It seems that proposals for involving small business in the implementation of innovation-driven investment projects of the Samara Oblast will ensure the achievement of strategic goals of innovation development, as well as objectives of small and medium business development on the basis of PPP mechanism.

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