

GCPMED 2018
**International Scientific Conference "Global Challenges and
Prospects of the Modern Economic Development"**

**DEVELOPMENT OF DIRECT FINANCIAL SUPPORT FOR
INNOVATION PROJECTS IN RUSSIA**

O.Y. Ermolovskaya (a)*

*Corresponding author

(a) Financial University under the Government of Russian Federation, 49 Leningradsky Prospekt, 125993,
Moscow, Russia, ermoy@mail.ru

Abstract

Currently, in Russia, at the state level of government, certain measures have been taken to ensure a favorable innovation climate and stimulate the development and introduction of new technologies. At the same time, in the Russian reality, the state innovation policy is a set of measures aimed at solving narrow problems of innovative development, and not a comprehensive (holistic) program (system) of measures. The efforts undertaken by the state are not enough to change the trends in the development and use of innovations. At the same time, it can be said that the basic legislation allowing to implement high-tech projects in Russia exists. Now we can talk about the great interpenetration of various industries and the formation of successful intersectoral technologies. The most promising areas are areas at the crossroads of information technology and medicine - digital technologies in healthcare, personal medicine, and neurotechnology. Biotechnologies, especially those related to genomics and biopharmaceutics, as well as industrial biotechnologies, have a great future - biofuels, biotechnologies in the food and chemical industries. Industrial and service robotics will continue to develop. Great prospects for technology "smart home", "smart transport". In general, the sphere of innovation is now moving in the direction of digitizing data, the accumulation of big data and their further processing with the help of "artificial intelligence".

© 2019 Published by Future Academy www.FutureAcademy.org.UK

Keywords: Innovations, government support, financial incentives, incentive programs.



1. Introduction

There are two basic forms of state support for innovative projects: financial (direct) and tax incentives, incentives (indirect). This is due primarily to the fact that both of these groups of mechanisms have different advantages and disadvantages in the formation, as well as in the implementation of the state innovation policy.

If we look at the situation in Russia, we can see significant progress in the application of new mechanisms that help develop the state innovation policy (Ermolovskaya, Telegina, & Golovetsky, 2018). But one cannot ignore the fact that a program that has all the necessary experimental and initiative features does not fully possess the key necessary attribute in the form of a reasoned independent assessment of the results already achieved, while introducing new measures and mechanisms poorly takes into account previous experience and early introduced stimulating factors.

Direct financial support for innovative projects is often manifested in the framework of federal targeted programs, but there are also various schemes for subsidizing companies' expenses. As for federal targeted programs, global expansion began in 2005–2007 (Kupriyanovskiy, Sinyagov, & Dobrynin, 2016). From year to year, the total number of participants in these programs increases with a geometric progression.

2. Problem Statement

If we talk about subsidizing the costs of companies in the field of innovation, then at the moment there are a number of mechanisms that are applied, as a rule, to individual industries. Most of these mechanisms are focused on reimbursement of part of the cost of paying interest on loans that were raised for the implementation of innovative projects (Kozlov, 2014) As an example, it is worthwhile to consider the subsidy mechanism, formed back in 2005, aimed at paying interest on loans for the development of exports of products with a high degree of processing. As part of the subsidy, the recipients of support are hundreds of small and medium-sized enterprises, and the total amount of subsidies is 8-10 billion rubles.

It is worth paying attention to another state mechanism that was launched in 2010 - this is financial support for innovative universities, the purpose of which is to restructure existing industries through the introduction of new technologies (Maslennikov et al., 2017). The key feature of this mechanism is that the state subsidizes the costs of enterprises and companies for the ongoing scientific development. At the moment, about 200 joint projects, totally valued at 5-7 billion rubles, have become objects of subsidy.

A wide range of financing instruments exists in Russia. Consider the measures to finance innovative projects, as well as their goals in the implementation of:

- Capitalization of regional guarantee funds.
- Grants and subsidies for the creation of innovative enterprises.
- Preferential investment loans.
- Subsidizing part of the interest rate on loans attracted by small enterprises for investment projects.
- Subsidizing the costs associated with the patenting of inventions, utility models, industrial designs by state registration of the results of intellectual activity.

- Subsidizing the costs associated with conducting a technology audit (assessment of the existing technological level of enterprises, quality management systems, systems for designing and developing new products in comparison with competitors).
- Subsidies to small innovative enterprises-issuers for reimbursement of expenses associated with obtaining the admission of their securities to trading on the stock exchange.
- Subsidies to existing small innovative enterprises.

3. Research Questions

One of the key tools to directly stimulate innovation is the above-mentioned federal targeted programs.

Federal target programs are implemented on a small scale and, unfortunately, are not systematically implemented (Shevchenko & Galyukova, 2017)

Among the shortcomings of the federal targeted programs are:

- Goals and objectives are formulated in general terms;
- There are no clearly defined performance indicators and target indicators;
- Problems solved during program implementation are not clearly defined;
- Insufficiently developed program activities;
- The volume of resource provision is not aligned with regulatory requirements;
- There are no lists of specific investment projects with an indication of the sources and amounts of their financing by year;
- There are no events or sections reflecting the features of the management of program implementation;
- The subprogrammes as a whole are developed with violations of the current Procedure for the development and implementation of federal targeted programs;
- The procedures for approving and adjusting regional programs in the Ministry of Economic Development are cumbersome and are accompanied by a record number of mandatory approvals.

There is a tendency to preserve the annual growth of funding from budgetary funds in general under the section “Fundamental research and promotion of scientific and technological progress”; the share of these allocations in federal budget expenditures in 2016 was only 2.19% (Kirsanova, 2016), which is much less than the amount of science funding in developed countries. Thus, the share of scientific expenses in the total amount of the state budget is 6–7% in the USA, 4–5% in France, Germany, Great Britain and Italy, 3–3.5% in Japan (Schwab, 2017).

There are other methods of financial support for innovation in Russia, such as venture capital funds and grants.

As for state funding, the main assets are the Russian Foundation for Basic Research (RFBR), the Russian Fund for Technological Development (RFTR), the Foundation for Assistance to the Development of Small-Scale Enterprises in the Scientific and Technical Sphere (Assistance Fund) (Kozlov, 2014).

High performance is shown by monitoring the activities of enterprises and the form of public investment, but there is a significant fact - the scale of the activities of the funds is small.

State support programs for venture capital, which are focused on supporting companies, are based on the current stage of the company's life cycle. Programs are sent to different companies: from beginners to mature companies. In this case, venture capital can be used to finance the start, expansion or restructuring of a company. In addition, this tool can also be used to finance large production lines, debt reduction, as well as “takeover” or management by buyout by external or internal managers (Rehm & West, 2016). Collectively, venture capital is an alternative source of financing with a higher level of risk and low liquidity, unlike other forms of financing (Singer, 2016).

New companies mainly need to subsidize, so the most important and urgent is the financing of the early stage. According to practice, the most effective types of early-stage venture programs are public direct investments, benefits provided to investors in small and medium-sized enterprises at early stages of development, providing equity capital for venture funds investing in these companies, supporting some expenses of early-stage funds, for example, examination costs or current expenses. This helps to increase the return on portfolio investment. Programs with debt financing and loan guarantees can be very useful for start-up companies, although they do not quite fit them because the capital of such companies is organic and there are difficulties in servicing debts (Schueffel, 2016).

Unfortunately, even today the venture industry is poorly developed in our country. According to the current stage of development in Russia, there are officially about 40 venture funds, which mainly have foreign capital, and total assets are about 4 billion dollars. According to statistics, about 40% of the funds are ready to invest in companies that are at the stage of expanding production, and only 11% are at the stage of development of the company.

4. Purpose of the Study

Development of the main factors contributing to the support of innovative projects at various stages of their implementation. "Open Innovations" is a federal platform for dialogue between the state, development institutions, representatives of large and medium-sized businesses, and small enterprises. The participants are provided with a unique opportunity to discuss priorities and problems of the innovation industry and to work out possible approaches to its further development. For novice businesses, participation in Open Innovations provides an opportunity to present their innovative solutions to a wide audience, find investors among both Russian and foreign corporations, new personnel for the project (Bondarik, 2017).

Thanks to the systematic work on building a single innovative ecological system, which in recent years has been conducted by the state, Russia has formed a system of state support for innovative business at various stages of its development, from the inception of the idea to the output of the finished product to foreign markets. However, the innovation business still needs not only financial support, but also legal, consulting, and infrastructure support.

5. Research Methods

Structural analysis of the process of support at the state level of innovation projects in Russia. The main activity of the fund is financial support for young innovators and small high-tech businesses through

the allocation of grants. The fund finances both scientific developments and the subsequent commercialization of developments. We support innovative business at the earliest stages, when there is a high probability that the project will not “fly up”, and too high risks deter private investors. As a result, an “innovative field” is created in which other development institutions, venture funds and businessmen can invest in the future (Dobrynin, 2016).

So far, unfortunately, the introduction of innovations is not a priority for both large and small businesses. The proportion of organizations implementing technological innovations in relation to the total number of companies in Russia is no more than 10%. The share of expenses for technological innovations in the total volume of goods shipped, works performed or services rendered hardly exceeds 3.5 percent. But without innovative development it is impossible to build a modern successful economy. Therefore, on the part of the state and private business, it is necessary to implement measures aimed both at stimulating the demand for innovative products and at stimulating the supply of innovative developments (Annema et al., 2015).

The experience of the fund shows that it is the small business that is the “conductor” of innovation. Unlike medium and large, it is more mobile and flexible in terms of adaptation and implementation of innovative solutions. In both Europe and the USA, small business is the main provider of innovation for large business (Kengelbach, 2013).

But at the same time it is precisely small innovative enterprises that most urgently need various types of support, both from the state and from private business (Tichy, 2001). This support is especially needed at the initial, most risky stages of the project development. The Foundation is engaged in supporting small businesses in various areas: information technologies, medical projects, projects in the field of new materials, instruments and hardware systems, biotechnologies.

On the other hand, support tools are also needed for fast-growing large technology companies. Now the Ministry of Economic Development of Russia has launched the project “National Champions”, within which additional measures of state support for leading companies are being worked out for launching and securing them in global markets. The Foundation acts as an expert here, helping to select promising companies (Kirsanova, 2016).

The fund's programs are aimed at supporting small innovative businesses, high-tech projects, youth initiatives and cooperation with international partners.

At the beginning of the conditional hierarchy of the foundation's programs is the program “UMNIK”. Collection of applications for it is constantly. It aims to support the projects of young scientists aged 18 to 30 years.

Winners of the program receive funding in the amount of up to 500 thousand rubles for two years. Such a period and such an amount gives the inventor the opportunity to try his hand at science and understand the prospects of his development. On average, the program maintains about 1,500 winners annually.

The next program - “Start” - is aimed at supporting scientific research at an early stage. Financing of projects is designed for 2 stages: at the first stage, the company receives 2 million rubles, at the second stage - 3 million rubles. Every year, this program supports about 500 start-up projects.

In 2018, the program "Business Start" was launched. It selects projects of companies that have completed the Start program, and finances the commercialization of their development. Grants under this program are issued in the amount of up to 5 million rubles.

Then comes the program "Development". It is aimed at financing enterprises that already produce high-tech products, but are seeking to diversify their production or reduce costs. Funding for this program is up to 15 million rubles.

The main priority of the Internationalization program is the promotion of international cooperation of Russian and foreign companies, as well as support for projects to develop non-raw materials. In the framework of "Internationalization", the Foundation holds the contest "International Programs", which is aimed at supporting Russian organizations participating in the implementation of innovative projects in the framework of bilateral and multilateral international cooperation programs. By the way, this year we announced for the first time the collection of applications for the program of cooperation with the BRICS countries, the Russian-Spanish and Russian-Armenian programs.

The Commercialization program provides for the provision of grants for expenses related to the implementation of innovative projects, with the exception of research and development expenses. The program has already been four stages of competitive selection. According to the results of the selection, more than 2,200 applications from 73 constituent entities of the Russian Federation were submitted, more than 550 projects were supported. At the end of 2015, enterprises supported by the Fund earlier increased their annual revenue by an average of more than 20 percent. With the advent of the Commercialization program, small enterprises of the manufacturing industry began to show an active interest, which led to an increase in the share of companies from such regions as the Republic of Tatarstan, the Novosibirsk and Sverdlovsk regions in the overall structure of financing by the Fund.

6. Findings

These programs are the main ones that are implemented on an ongoing basis, annually modernizing them and launching new contests. In 2017, the "Support" program for social projects was launched, as well as a number of competitions for youth innovation creativity centers. In September this year, the Fund received an additional 2 billion rubles to support projects under the National Technology Initiative. Now we are submitting applications for the "Development-STI" competition, in addition, within the "UMNIK" program, we conduct separate selections for the approved road maps of the STI markets AutoNet, AeroNet, MariNet, NeuroNet.

Russia has a good fundamental scientific base for the development of new products and technologies, but the process of commercialization of developments now causes the greatest difficulties. In order to stimulate the introduction of innovations into production, a tighter work is needed between higher education institutions, corporations, large companies and the expert community. For successful commercialization, Russia often lacks not so much financial opportunities as the availability of competences to promote projects and experience in bringing a new high-tech product to the market. One of the tools to solve this problem is the development of acceleration movement and the association of accelerators that can help companies build up a network of useful contacts and provide an opportunity to

work on their projects with leading market experts, as well as work out more detailed channels for attracting customers.

It is argued that innovative projects face a number of problems: methodological, organizational, informational, marketing and investment. At the same time, innovation can potentially bring profits that are difficult to achieve in normal production. It should be borne in mind that innovation belongs to projects with increased risk, so it stands out in a special category of management, which has its own characteristics.

7. Conclusion

Now we can talk about the great interpenetration of various industries and the formation of successful intersectoral technologies. The most promising areas are areas at the crossroads of information technology and medicine - digital technologies in healthcare, personal medicine, and neurotechnology. Biotechnologies, especially those related to genomics and biopharmaceutics, as well as industrial biotechnologies, have a great future - biofuels, biotechnologies in the food and chemical industries. Industrial and service robotics will continue to develop. Great prospects for technology "smart home", "smart transport".

In general, the sphere of innovation is now moving in the direction of digitizing data, the accumulation of big data and their further processing with the help of "artificial intelligence".

References

- Annema, A. Bansal, R., & West, A. (2015). Global M&A: Fewer deals, better quality. *McKinsey on Finance*, 53(3), 20-23.
- Bondarik, V.N. (2017). Nekotoryye informatsionno-tekhnologicheskiye aspekty tsifrovoy ekonomiki. *Mikroekonomika*, 4, 67-71. [in Rus.].
- Dobrynin, A.P. (2016). Tsifrovaya ekonomika - razlichnyye puti k effektivnomu primeneniyu tekhnologiy (BIM, PLM, CAD, IOT, Smart City, BIG DATA i drugiye). *International Journal of Open Information Technologies*, 4(1), 4-11. [in Rus.].
- Ermolovskaya, O.Y., Telegina, Z.A., & Golovetsky, N.Y. (2018). Economic incentives of creation of high productive jobs as a basis for providing global-oriented development of the economy of modern Russia. *Quality Access to Success*, 19(S2), 43-47.
- Kengelbach, J. (2013). How successful M&A deals split the synergies. *Boston Consulting Group*, 5, 18-19.
- Kirsanova, E.V. (2016). Overview of the activities of small and medium-sized enterprises in a crisis external environment. *Management in Russia and Abroad*, 2, 141-142. [in Rus.].
- Kozlov, K.K. (2014). Innovative activity of Russian firms. *Economic Journal of the Higher School of Economic*, 8(4), 399-420. [in Rus.].
- Kupriyanovskiy, V.P., Sinyagov, S.A., & Dobrynin, A.P. (2016). BIM-tsifrovaya ekonomika. Kak dostigli uspekha? Prakticheskiy podkhod k teoreticheskoy kontseptsii. *International Journal of Open Information Technologies*, 4(6), 9-20. [in Rus.].
- Maslennikov, V.V., Fedotova, M.A., & Sorokin, A.N. (2017). New financial technologies are changing our world. *Journal of Finance: Theory and Practice*, 2(98), 6-11. [in Rus.].
- Rehm, W., & West, A. (2016). Managing the market's reaction to M&A deals. *McKinsey on Finance*, 58(2), 18-21.
- Schueffel, P. (2016). Taming the beast: A scientific definition of Fintech. *Journal of Innovation Management*, 4(4), 32-54.
- Schwab, K. (2017). *The fourth industrial revolution*. New York, NY: The Crown Publishing Group.

- Shevchenko, I.V., & Galyukova, Z.A. (2017). Puti sovershenstvovaniya metodov otsenki investitsionnoy privlekatel'nosti regionov Rossii. *Ekonomika i Predprinimatel'stvo*, 2-2(79-2), 312-317. [in Rus.].
- Singer, S. (2016). How can strategy be better embedded in strategic transactions? *EY Global Capital Confidence Barometer*, 4, 13-15.
- Tichy, G. (2001). What We Do Know about Success and Failure of Mergers? *Journal of Industry, Competition and Trade*, 1(4), 347-394.