

# Development of the Russian innovation ecosystem – in search of optimal decisions



**EVGENY KUZNETSOV**

Director of Strategic Communications Department, Russian Venture Company

The subject of Russian economic modernization and putting the economy on an innovation footing has not only recently caused much discussion in Russia and abroad, but is being vigorously implemented. In fact, there are two different processes that are developing in parallel and interacting with each other, and they do not always run in a coordinated and efficient way, producing endless argument about innovative development management.

The first tendency that Russia, like all other large economies, is facing is a fundamental adjustment in global industry, trade, economic relations between the leading countries, and changes in the leading states' roles in the emerging post-industrial econ-

omy. Russia is struggling to keep up with this global process as it is losing its scientific and research potential accumulated as far back as in Soviet period, on the one hand, and is falling into the role of a country supplying natural resources and low-technology products, on the other. The other process defining the scope of modernization and innovation activities in Russia is its internal search for the most efficient balance between old and new economy sectors at the regional and municipal level, and support for those social groups (technological entrepreneurs primarily) who are willing to apply their efforts to new opportunities brought about by new ways of supporting innovation development, such as venture capital financing and the optimisation of the R&D activities of corporations.

One of the main development problems in Russia is the inconsistency of these two processes, since the global overview shows that Russia has a significant disbalance at the level of interaction between all the key parties in innovation, and currently these problems are proving difficult to resolve. One of the most obvious problems is the resistance of the Russian economy to use the highly qualified, well-trained and creative personnel in the field of science and research who are still being produced by the Russian educational system. Though this is a widely known issue, there seems to be no un-

derstanding at the institutional level of how to apply the creative potential of young Russian graduates without fundamental economic reconstruction.

This reconstruction requires such tremendous resources, not only financial ones, but also political, because it is related to risks and periods of eventual instability at the level of specific regions as well as in the whole country. Another serious problem is the gap between the institutional development processes and the economic ones. In particular, the general weakness of the institutions such as legal culture, the legal basis for high-tech application, precedents, etc., make the Russian jurisdiction less competitive compared to the jurisdictions of other countries. This results in a "flight of business" and a "flight of capital". The solution to these problems is not directly connected with the development of processes specific to innovative activities. It is due to the fact that at the state and corporate levels the innovative management mechanisms are confronted by a quite different class of mechanisms which are efficient only when initial issues are resolved. The situation in Russia is that it is necessary to resolve fundamental problems first—and this is happening, but probably not fast enough.

Quite a lot has been done lately to address the first fundamental issue—for example, the creation of new legal forms to support activities of innova-



tive companies and venture funds. This involves setting up new types of company such as limited partnerships, commercial partnerships, etc. Quite a lot has been done to upgrade general legislation. The state is putting a lot of effort into modernising the university system, the system of interaction between educational and the industrial complex in specific regions (the so-called "cluster development program"), development of their interaction at the industrial level (a program of technological platform development), and preparing a special class of players to facilitate scientific, research and industrial community operations (such as engineering centres), etc.

Broadly speaking, the task of venture fund system implementation may be considered solved, since Russia is the fourth-largest market in Europe and has the fastest growth rate. The program of implementation of regional structures to support technological development (technology parks, etc.) is quite well advanced. Thus, a lot of effort has been made to ensure a general balance of institutions providing

modern economic operations. However, it is too early to talk about some accomplished positive changes since the work is still in progress.

The second type of efforts made by the government to encourage innovation development includes creation of the specific innovation environment and culture necessary to move the economy to a new level. These activities were first structured and described in Russia Development Strategy 2020, as well as within the Institutes for development and in regional, territorial and other programs. This work is primarily oriented towards creating and supporting specific activities and institutions which are typical of innovation-driven economies, especially for such catching-up development economics as Singapore, Finland, etc.

This model is based on the support for specific operations like technological entrepreneurship and the creation of special institutions to facilitate these operations, like venture funds, technology parks, incubators, technology transfer systems. On the one hand, we see significant progress being made in

this field, as evidenced by a rapid increase in numbers of events and innovation ecosystem players. In particular, this is due to the active support rendered by Russian Venture Company (RVC), in particular, and other development institutions, a national system of start-up competitions, a national technology parks and incubators network, and various educational programs. There are thousands of start-ups offering sound technological ideas and skilled teams in Russia. According to the 2012-2013 results, the number of transactions involving high-tech companies is 150 to 200 or more. We are looking at publicly available data, even though most transactions are private and are not subject to disclosure. Thus, taking into account existing growth rates, we can say that the intensity of investment activity in the field of high-tech entrepreneurship continues growing towards the level of such leaders as Israel and Great Britain.

The major problem in innovative network development in Russia is that its biggest part is now developing in those technological industrial segments that were not covered by the Soviet and post-Soviet regulatory systems, especially in the field of IT and the Internet (IT segment). These are the fields making the most impressive progress, thanks to the absence of old infrastructure that would hinder the development. But still, any attempts to transfer innovative development tools from IT to other industries face a range of fundamental system problems. For example, at this date, in the field of biotechnology there are mainly funds created from the capital contributed by RVC (4 funds), ROS-NANO, and other state development institutions. Private investment in this field is much weaker than in IT. In the

industrial technology sector the largest proportion of investment funds are of mixed state and private origin. The main reason for the gap between industrial technology and biotechnology in terms of innovative development is the fact that the large Russian corporations which matured and emerged during the Soviet and post-Soviet period do not have embedded within them innovative approaches to product management and promotion.

Lately much effort has been devoted to resolving the issue of low demand for innovation from large Russian businesses. In particular, the Russian Ministry of Economic Development and RVC created the R&D Directors Club, bringing the companies with state ownership together to work on innovative development plans and innovative development tools in general. To some degree this mechanism has started to bring positive results. For example, 12 project teams participated in the educational program on establishment of corporate venture capital funds implemented by RVC, and they have come quite close to solving the task of corporate venture capital fund creation. Nevertheless Russian industry mostly remains resistant to modern innovation management methods and tends to substitute innovation by technological modernization, often implemented by purchasing global solutions without making fundamental adjustments to meet their specific needs. Moreover, Russian companies have not yet developed sufficient skills and tools to procure technology through M&A transactions. They prefer not to purchase businesses, but technological solutions, which is quite a slow way to improve and upgrade a company's business, both at its core and at its production facilities.

Nevertheless, a pool of leaders has emerged in Russia lately. Mainly these are IT companies, such as Yandex, Kaspersky and Parallels, that are competent in creating modern high-tech global businesses and possess purchasing skills to acquire new businesses and start-ups in the open market, which helps them to develop their main products based on solutions produced by high-tech entrepreneurs.

The pace of change in Russia for the past decade has been quite high. On the one hand, the government provided quite a comprehensive model of Institutions for development, the so-called "innovation elevator". This model covers almost all technological cycles, starting from pre-seed and seed investments at the beginning and investments into large high-tech companies. Currently, significant efforts are being made to develop and include educational and scientific organizations into this scheme by means of management system modernization and targeted assistance. All Institutions for development show quite consistent development rates in terms of number of supported companies and the efficiency of their programs aimed at development of technological ecosystems and a high-tech entrepreneurship environment. On the other hand, the private market has also responded to these trends and the inflow of private investment is currently the reason for the rapid growth in available venture fund capital. In terms of the number of funds and amount of available capital, Russia has been showing very rapid growth. Thanks to support for institutions for development, more sophisticated venture investment tools are being created, for example, seed funds, funds en-

gaged in highly complicated high-tech industries, etc.

The key challenge that the Russian economy is facing now is to create global products and bring them to the global market. This is one of the most obvious market gaps, and there are only a few government support tools to fill it. This is the most interesting area in which the Russian government, Institutions for development and private capital can cooperate with international business, large and medium-sized companies and investors. The main objectives include joint technological developments, improved purchasing technique and technology transfer, and building up civilized relationships between large-scale international businesses with Russian high-tech engineering centres. The process of investing in technological companies shows that, in spite of the fact that Russian start-ups are not very attractive at the international level, the amounts invested and the interest in Russian high-tech products are growing.

So, we can predict that companies starting to interact with Russian start-ups and investors in the future will be able to boost their business development by being the first to acquire access to the most efficient Russian technology and companies. A lot of cooperation opportunities have already been created – cluster programs, technology platforms, joint investment into Russian start-ups through joint state and private venture funds (RVC funds), and joint R&D centres (Skolkovo). Thus, a window of opportunity is open for large and medium-sized European and Russian companies to use the potential of Russian high-tech engineering resources for their own business development. ■