

INNOVATIVE EXPORTS PROMOTION IN RUSSIA: ROLE OF INTELLECTUAL PROPERTY RIGHTS PROTECTION

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Diversification of innovation-based foreign economic relations has become significant with global economic transition to the sixth technological mode. At the current stage, expansion of export of high-technology products (goods, services, technologies) is a key element to socio-economic development and a factor of international competitiveness of the state.

Following globalization trends, world's leading powers have been involved in rapid development of national foreign economic complexes on the high-technology basis, focusing on science-intensive export promotion, as well as security and protection for intellectual property (IP) as backbone element of an innovative economy.

However, there is visible dissonance between declared goals for the development of Russia's innovative potential and actual situation with stimulation of high-technology exports, as well as the use of instruments required to achieve the set goals.

The practice over the past few years shows that the existing export support mechanism in Russia, including innovative products, is far from perfect. Problems begin with inefficient support of inventions, develop into difficulties as heavily bureaucratic and costly patenting procedures and commercialization of results of intellectual activity, and run into immaturity of property rights public institutions, including intellectual property, large scale of piracy¹, rule skepticism, etc.

The situation has been aggravated by the issues relating to security and protection of Russian intellectual property in other countries – production and distribution of counterfeit products in the field of copyright and associated rights, counterfeit in industrial property (including military-industrial complex), thereby causing annual multibillion losses for and stagnation of innovative development in Russia in general, technological inferiority².

1 For example, according to the 2013 Special 301 Report, in 2013 Russia remains on the Priority Watch List due to continued "inadequate and ineffective protection for IP" of foreign right-holders, which may impose economic sanctions to a rogue country. 2013 Special 301 Report, Acting United States Trade Representative Demetrios Marantis, Office of the United States Trade Representative, May, 1, 2013, 50 p., <http://www.ustr.gov>

2 For example, according to the Russian Authors' Society and the Russian Union of Right-holders, domestic intellectual right-holders lose more than Rb 1bn annually from piracy in social networks. According to the Business Software Alliance, потери Russian right-holders are expected to lose \$835m from distribution of infringing software and database in 2013. Competitive Advantage:

Practically, a combination of the aforementioned issues suggests to Russian innovative companies that there is no demand for intellectual potential both within the country and *de facto* in other countries, because it is impossible to create, register and export a patented and protected IP item. As a result, the number of commercialized intellectual property items in Russia is insignificant against other countries, as little as 22,600 for all types of results of intellectual activity (IDs)³.

However, it is very important for the country to expand export of innovative products (goods, services, technologies). First, this process has already been creating modern and competitive segments of the Russian economy and becoming an accelerator of its new development trend. Second, with limited domestic demand for high-technology products, their export is a real option to support for expanded reproduction of the innovative sector in the country. However, it can't be achieved unless adequate public support to innovative exports is in place.

In general, the aforementioned systemic issues of security and protection of IP items have an adverse effect on the development of Russian high-technology export, where a critical situation has been developing. At the current stage, high-technology products account for less than 5% of the structure of exports in Russia against 27% in the United States, 29% in China⁴. Russia has been accounting for 0.3–0.4%⁵ or less of the

The Economic Impact of Properly Licensed Software, DC, May 2013, 20 p.

3 Most of IDs account for crude oil and natural gas production and provision of services in these areas (971 IP items); food production (368); production of coke, oil products and nuclear materials (514); metallurgical production (1061); production of machinery and equipment (2086); shipbuilding, aircraft and spacecraft building, and production of other means of transport (1161); in education, R&D (7403). Rospatent's (Russian Agency for Patents and Trademarks) Report "On the Use of Intellectual Deliverables by Type of Economic Activity in 2012", <http://www.rupto.ru>

4 Database UN Comtrade's official website: <http://www.comtrade.un.org>

5 For example, the share of domestic manufacturers accounts for 0.1% of the world biotechnology market, whereas these pro-

global market of science-intensive products over the last decade, which fails to meet the goals of the national innovative development¹.

Patent statistics of the World Intellectual Property Organization (WIPO) make it possible to analyze the situation with the national economy in the international market of innovative products, as well as the effectiveness of the available scientific potential, including high-technology exports.

According to the WIPO, 194,400 patent applications were submitted worldwide under the procedure of Patent Cooperation Treaty (PCT) in 2012. The foregoing figure increased 6.6% against the previous year. The biggest number, 51207 (a growth of 4.4%), of applications for registration of intellectual property rights was submitted from the United States, 43660 (+12.3%) from Japan, 18855 (0%) from Germany, 18627 (+13.6%) from China and 11848 (+13.4%) from South Korea. In the context of industries, the biggest number of applications was submitted for inventions in electronic industry (15293), digital communications (12616), computer-aided technologies and medical technologies (12391 and 11368 respectively) and pharmaceuticals industry (7792).

In general, the number of patent applications reduced by 4% to a total of 956 in the Russian Federation in 2012, and the gap between world's leading technological powers keeps widening. According to the country rating, the figure is less than in Belgium (1231) and Israel (1377). For instance, Fujifilm (Japan) alone submitted 891 applications in 2012².

Analysis of the situation in the past five years shows that as little as 15–20% of federally financed R&Ds have ended up with protectable IP results. Moreover, there is a steady trend with the number of applications for trademark registration exceeding 1.8–2.1 times the number of applications for patents, except for software and database registration with 15–20% of annual growth in the number of applications.

The issue is more complicated with regard to protection of Russian intellectual property holders in other countries: acquisition of a foreign patent is a labor-consuming and costly procedure, which also involves

highly-skilled professionals³. Systemic public support of patenting in other countries is critical under the circumstances.

The Strategy for Innovative Development in Russia for a period until 2020⁴ sets the objective to support to patenting in other countries, providing for the creation of a system of support to export activities of Russian high-technology companies (by simplifying customs procedures, developing trade and political diplomacy, removing restrictions on access to external markets, etc.).

According to a currently developed draft Strategy for the Intellectual Property Development, its main goal is to ensure systemic changes aimed at creating a competitive knowledge and high-technology economy. The result is that Russian Federation's position in the markets of high-technology products and intellectual services is to be enhanced to 5–10% in 5–7 and more sectors by 2020.

A draft document on the establishment of a Foundation for Patent Protection of Russian Rights Holders Abroad⁵ is another initiative of the Russian Government. The budget of the Foundation is supposed to be Rb 300m, while the program for protection of intellectual property rights of Russian innovative companies abroad will be implemented for a period of 10 years. According to experts, implementation of the program is expected to facilitate registration of more than 10,000 Russian patents, with a potential economic effect being expected to amount to Rb 300bn or less. Public support will be focused on subsidizing rights holders' costs on translation of documents into a foreign language, adaptation and selection of inventions by novelty criterion, as well as support for registration of applications.

At the same time, many countries have long been systemically developing and applying special programs of support and protection, patenting and licensing of high-technology products in external markets. For example, in Germany, the United States, China, Canada

ducts are not manufactured at all in some segments. The Draft Roadmap on "The Development of Biotechnologies and Gene Technology" by the Ministry of Economic Development and Trade of Russia, <http://www.economy.gov.ru>

1 Exports of high-technology products should be enhanced by 15–20% annually to reach \$ 60–100bn (1% of the world market) by 2020. The concept of long-term socio-economic development of the Russian Federation until 2020, pp.90–92. Official website of the Ministry of Economic Development and Trade of Russia <http://www.economy.gov.ru>

2 WIPO Economics & Statistics Series, 2013 PCT Yearly Review, The International Patent System, Geneva, 2013, 100 p.

3 The cost of patent attorney services is comparable with similar costs of services of a professional attorney, \$450 per hour. The cost of an invention patent in Russia through a patent attorney begins with 60,000 against \$7,000 to \$10,000 in other countries, for each country. In Germany, for instance, the cost of such services ranges between 5,000 and 7,000 euro. Given sophistication of an invented technology as well as attorney's (specializing in patent law) fees, one should expect patenting costs in the United States to range between \$7,000 and \$10,000. It takes 18 to 30 months on average for a patent to be executed and issued. According to Wise Advice consulting company, <http://www.wiseadvice.ru>

4 Approved by the Russian Government Executive Order dated December 8, 2011, No. 2227-r.

5 Shorthand notes of a meeting of the Presidential Council for Economic Modernization and Innovative Development. December 24, 2012. The official website of the President of the Russian Federation <http://www.kremlin.ru>

United States	The U.S.-Russia Bilateral Presidential Commission	- Developing innovation centers and regional innovation clusters - Developing a commercialization chain - Enhancing legal frameworks for innovations
Austria	The working group for the development of business relations in the field of infrastructural technologies, innovations and production	Cooperation in the field of transport, energy, information and communication technologies, healthcare
The Netherlands	Russian-Dutch Joint Commission for Economic Cooperation (innovation working group)	The working group is focused on the following aspects: - biotechnologies and biomedicine - Information technologies (IT)
France	Russian-French Economic, Financial, Industrial and Commercial Council	Basic scope of cooperation: - energy efficiency and renewable power generation - Information technologies (IT)
Italy	Russian-Italian Council for Economic, Industrial and Monetary and Financial Cooperation	Basic scope of cooperation: - Aviation industry - Customs control
BRICS	Project platforms	Pilot Project Platform
OECD	Participation in OECD working bodies	- Committee for industrial production, innovations and entrepreneurship - Committee for scientific and technological policy and its working groups
APEC	Political partnership in the field of science, technologies and innovations	New format: Innovation technology dialogues (ITD)

Source: The Presentation "On the Implementation of Measures as part of the Strategy for Innovative Development of the Russian Federation until 2020" by the Ministry of Economic Development and Trade of Russia.

Fig. 1. Existing formats of intergovernmental cooperation in the field of innovations

and Norway, the state subsidizes national high-technology companies so that can pay for procedures for patenting of intellectual property items abroad, as well as implements sectoral strategies for support of exports in innovative sectors.

Since Russia has no high-technology exports institutes, innovative products have been promoted mostly through a traditional set of tools which are generally ineffective in the modern context. It is referred to various forms of international cooperation both at the governmental and business levels: intergovernmental commissions, working groups on cooperation in the areas of science, technology and modernization, activity of Russia's trade representatives in other countries, including support to foreign economic projects and implementation of business missions, work of bilateral business councils, etc. (see Fig. 1 for details).

In general, given the measures which have been taken to date, it may be concluded that at the federal level they clearly understand the significance of systemic problems in the field of intellectual property, including procedures for patenting, commercialization, as well as promotion of innovative products in other countries. However, no actual results have been achieved in this field to date. Adequate security and protection and promotion of export of copyright items

to other countries may have a significant effect on economic development of the country.

As a rule, however, innovative products are only referred to as industrial property items in Russia, thereby ignoring a second important component of results of intellectual activity – copyright¹. At the same time, copyright commercialization outcomes have constantly been gaining in importance over the last few years, e.g. in the US economy: 11% of GDP, 8% of employment, and the share of national exports is comparable with export of machinery and equipment and agricultural products collectively².

Based on the results of a survey conducted by the WIPO, copyright made the following contribution to the Russian economy by key indicator in 2012: turnover – 8.66%, employment – 7.3%, GDP – 6.06%, foreign

1 In accordance with Article 1225, Part IV, the Civil Code of the Russian Federation, the following results of intellectual activity and means of individualization are subject to protection. Copyright – works of science, literature and art; computer software, databases; associated rights – performances, phonograms, broadcasting or diffusion of radio- or television transmissions via cable; industrial property – inventions; utility models, industrial designs, selection attainments, topographies of integrated circuits, secrets of production (know-how), trade names, trademarks and service marks, appellations of origin, commercial names.

2 Copyright Industries in the US Economy, 2011 Report, by Stephen I. Siwek, prepared for the Intellectual Property Alliance, Economists Incorporated, DC, pp.11–12.

Table 1

PRINCIPAL INDICATORS OF IT DEVELOPMENT FORECAST, BILLIONS OF RUBLES

	2011 report	2020		2030		2020 to 2011, %		2030 to 2011, %	
		1 option	2 option	1 option	2 option	1 option	2 option	1 option	2 option
IT market size,	648,6	1748,4	2082,9	4102,6	5640,4	164,1	195,3	269,6	374,8
including:									
hardware market	332,5	770	862,3	1440,9	1753,1	134,4	150,5	175,8	213,9
software market	132,1	462,1	582,5	1375	2073,3	223,6	281,3	467	719,9
services market	184,1	516,3	638,1	1286,6	1814	178,7	221,1	312,5	451,9

Source: Forecast of long-term socio-economic development of the country for a period until 2030.

trade – 7.21%¹. In addition, realization of copyright items is connected with the development of many essential industries, namely mineral extraction industry, food production, production of electric power, gas and water, construction industry.

Software and databases which together with hardware (equipment) and respective services constitute a part of the advancing IT market in Russia, are one of the copyright items which have rapidly been developing in global economic relations.

Annual growth rates in IT goods and services produced and provided by Russian companies have been more than 15% over the recent seven years. Under a conservative scenario of economic development, the Russian IT market is expected to grow in size by 2.7 times against 2011 and reach Rb 4,1 trillion by 2030, whereas under an innovative scenario, it would grow 3.7 times to Rb 5,6 trillion (see *Table 1* for details).

In 2012, Russian IT companies' export volumes reached \$4,4bn, of which software accounted for \$1,6bn and services for more than \$2,4bn. In addition, domestically manufactured products accounted for around 0.6% of the global IT market. Export of Russian IT products is planned to increase up to \$5,7bn in 2015 and \$9bn by 2018²

Reduction of the share of hardware in the total IT market structure in Russia and transition to the creation of software and services markets is going to be the main trend during this period.

However, the most successful innovative industry in the country has been facing persistent problems: most of the added value has been creating through outsourcing or contracts executed under offshore jurisdictions. It should therefore be acknowledged that more than 95% of intellectual property created in the Russian IT industry have been registered outside the scope of the Russia's jurisdiction.

1 WIPO studies on the economic contribution of the copyright industries "Copyright+Creativity = Jobs and Economic Growth", WIPO, Geneva, 2012, 39 p.

2 "The Development of Information Technology Industry" road map approved by the Russian Government Order dated July 20, 2013, No. 1268-r (official website of the Ministry for Communications of Russia <http://www.minsvyaz.ru>)

Anti-piracy campaign is a reserve for the development of this industry. A survey conducted by Business Software Alliance and INSEAD (the Business School for the World) led to a conclusion that if the Russian software market grew by 1% through sales of licensed software, Russia's GDP would grow by \$1,1bn³.

Therefore, these surveys are a good illustration of having a direct economic effect (including export potential enhancement) of systemic public measures aimed at securing and protecting just a single type of intellectual property items – copyright. Furthermore, modern Russia does have cases concerning competitive national software whose intellectual property protection and promotion to external markets may become an accelerator of socio-economic development.

For example, Kaspersky Laboratory, a successful international company which provides the leading antivirus and spyware software in the internet security marketplace and has production offices in 12 countries and annual earnings of more than \$600m, of which 70% are accounted for by developed countries' markets. Some other Russian developers of professional software and PC games (ABBY, IBS, 1C, etc.) show a comparable scale of foreign economic activity.

In view of the above said, it may therefore be concluded that adequate security and protection of Russian intellectual property rights holders both within the country and abroad is an underestimated factor which can really promote innovative exports, become a driver of economic growth. It refers to both traditional industrial property items and rapidly growing IT market as software and associated products.

Given complexity of the issues relating to support of innovative exports and protection of intellectual property rights, as well as existing systemic problems

3 In general, production would grow worldwide if the software market grew by 1% through legal software \$73bn against \$20bn through pirate software. Competitive Advantage: The Economic Impact of Properly Licensed Software, DC, May 2013, 20 p.

and constraints in this field, it would be reasonable to identify and selectively promote export of most internationally competitive domestic high-technology products (both in the field of copyright and industrial property) at the current stage.

However, no real economic effect of accelerated export activity of high-technology economic agents

(including enhanced competitiveness of domestic products, creation of more highly-skilled jobs, transition to an economy based on innovative type of development) can be achieved unless systemic reforms are conducted in the field under the question. ●